CIEEM Awards 2021

CIEEM

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President's Introduction

The essayist, lecturer, abolitionist and poet, Ralph Waldo Emerson (1803-1882), a champion of Nature, in a poem on success, possibly written next to his "pond", wrote:

To leave the world a little better,
Whether by a healthy child,
A garden patch
Or a redeemed social condition;
To have played and laughed with enthusiasm
And sung with exultation;
To know that even one life has breathed easier
Because you have lived
This is to have succeeded

Today we will be treated to accounts of individuals and projects which have, by any definition, succeeded, whether they achieved the award for which they have been shortlisted or, because there can only be so many prizes, don't make it to the podium. As Waldo identifies, the efforts of all our nominees will have achieved that "a little better" in an impressive variety of situations: achievements at the patch level and bettering the well-being of the local community; gains at a landscape scale and warding off threats to biodiversity and ecological stability; and, so importantly, influencing those we work with and for, demonstrating that extra dimension to our work: showing off and celebrating our successes.

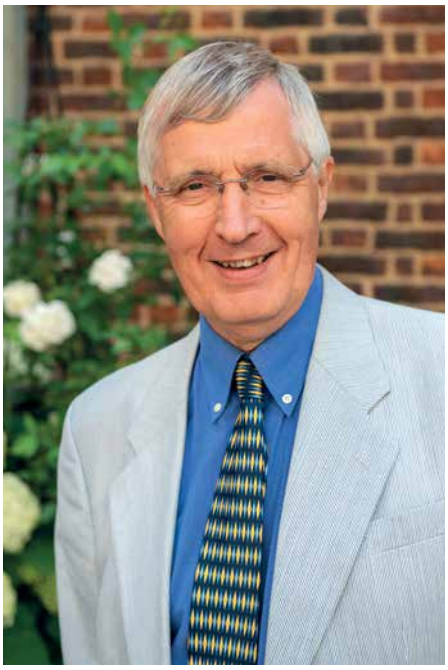
Our celebration today marks the achievements of a number of environmental managers and ecologists who were central to the success. To them, very well done and congratulations, but before there's any resting on laurels*, there are at least two additional demands on your time and effort.

First off, take the time to check that you have thanked all those who supported your efforts on the way to the Merchant Taylors' Hall. Not just the colleagues who supported your fieldwork, but those who provided the financial management of your grant, helped procure equipment and have kept your office, workshop or lab in good shape. Explain about your project, your award and let them share your success and appreciate the importance of the work that you all do. And not just the senior bods in your client's company but those other staff who have oiled the wheels, gone the extra mile. You might even feel the need to make a short presentation to those who were a somewhat hidden part of the success.

Task two picks up on singing with exultation. It's time to think of how you can spread the word of what you have achieved as a demonstration of what we as ecologists and environmental managers do. It's important that as many people as possible know that our work is earth moving and ground-breaking, often literally. Opportunities include adding the good news to your e-mail signature, composing a "press release" package (text and photos) for your PR team or to send to local media, writing up your project as an article in periodicals such as Conservation Land Management and British Wildlife, or journals such as Conservation Evidence (well suited to some of these awards), presentations at CIEEM conferences (www.cieem.net) and to local groups, for example natural history societies, wildlife trusts and CIEEM's Geographic Sections and Special Interest Groups, and, as CIEEM has recognised the excellence of your work, why not submit to other awards, for example the Green Apple and BIG Biodiversity Challenge?

So far, my remarks have been aimed at those who have been shortlisted and are rightly aspiring to CIEEM's awards. The last few words are for the rest of us. Firstly, thank you for supporting today and celebrating the excellence within our professions, but returning to what constitutes success, William Arthur Ward (1921-1994), an American motivational writer and poet, wrote:

Success, like happiness, is more than a destination -
it is a venture; more than an achievement - it is an attitude.
The greatest failure is the failure to try.
Alter your attitude and you will change your life



Professor Max Wade CEcol CEnv FCIEEM

Time to get in on the act for CIEEM's Awards 2022 – you know where the website is!

Enjoy today's celebrations!

Professor Max Wade CEcol CEnv FCIEEM

CIEEM President

** Laurus nobilis (Sweet Bay) as opposed to Prunus laurocerasus (Cherry Laurel) – for more details explore the myth of Apollo's love for the nymph Daphne.*

Brief Summary of Awards

CIEEM Medal

The CIEEM Medal is the Chartered Institute's highest accolade and is awarded annually. Recipients of the Medal must have made an outstanding and/or life-long contribution, in relation to ecology and environmental management. The Medal is open to both CIEEM members and non-members.

In Practice Award

This award recognises the invaluable contribution to knowledge sharing that authors of feature articles in our members' bulletin, *In Practice*, make. The judges will be looking for the most influential and thought-provoking article of the year. All feature articles published in *In Practice* in 2020 were considered for this award, irrespective of whether the article was written by a CIEEM member or non-member.

NGO Impact Award

This award recognises the achievement of NGOs in delivering a specified initiative, including campaigns and projects, that has had a major impact in benefitting nature and society. The initiatives can be local, national or international, site-based or species-based, campaigning or awareness raising. It can involve, for example, effective local engagement, influencing local or national policy, mobilising public support or utilising innovative communication methods. The key criteria is that it has made a difference to society and nature. For the purposes of this award, an NGO is defined as any organisation that is non-governmental, not-for-profit and pursues aims that are of benefit to society and nature. NGOs of any size and who are based anywhere in the world are eligible for this award. There is no requirement for there to have been any CIEEM member involvement in the initiative for it to be eligible.

Action 2030 Award

Following announcement of our own commitment to achieving net-zero carbon emissions by 2030 (Action 2030), we introduced this new award which seeks to recognise individuals or organisations who have had or are having the most impact in raising awareness, engaging others and/or leading action in relation to the climate emergency and/or the biodiversity crisis.

The award is for an individual or initiative that can demonstrate impact. This may have been by influencing others through raising awareness of the issues and the need for action. Or it could have been an initiative that purposely addresses the issues and makes a difference. These can be at a local, national or international scale. The judges were particularly keen to recognise individuals or initiatives that highlight the inter-relationship between the climate emergency and biodiversity crisis.

Planning Authority of the Year

This award celebrates planning authorities who are proactively championing biodiversity through the planning process. Criteria for the award include the ambition and delivery of plans, policies and strategies, sound decision-making in relation to development and biodiversity-related support and development of staff involved in the planning process. Outreach activities are also considered, to take account of the ways in which planning authorities promote the importance of biodiversity heritage to local people.

Promising Professional Award

This individual award recognises the exceptional achievements of a CIEEM member (Associate or Qualifying) during the early stages of their career. The winner will have demonstrated above-average competence and a strong commitment to their professional development. This can be demonstrated through their achievements, knowledge, skills, leadership, passion and commitment, and inspiration for others in the field of ecology and environmental management.

Best Practice Awards

These flagship project-based awards recognise high standards of professionalism and ecological and environmental management practice by CIEEM members. There are seven separate award categories:

1. Large-Scale Practical Nature Conservation
2. Small-Scale Practical Nature Conservation (no shortlisted entries in 2021)
3. Large-Scale Project Mitigation, Compensation and Enhancement
4. Small-Scale Project Mitigation, Compensation and Enhancement
5. Innovation
6. Knowledge Sharing
7. Stakeholder Engagement

Projects must display high standards of professionalism including a sound evidence base to inform and support the project's aims and objectives; a well-conceived plan, staff schedule and budget, with appropriate risk assessment; and that the project has achieved (or is achieving) its objectives.

Member of the Year

This award recognises the consistently high commitment and achievement of a CIEEM member in their work to protect and enhance nature, support and help others in the profession and/or contribute to the success of CIEEM. All membership grades are eligible.

Postgraduate Student Project Award

The Postgraduate Student Project Award recognises achievement in planning, undertaking and reporting a postgraduate project/dissertation in a relevant aspect of ecology or environmental management. It is awarded to one Masters degree project/ dissertation undertaken in the 2019/20 academic year, or equivalent if a different academic year system is used. The Postgraduate Student Project Award is open to CIEEM Student members, those who have upgraded to Qualifying level but were Student members whilst undertaking the submitted project as well as students on a CIEEM-accredited degree programme.

Consultancy of the Year Award

This award recognises successful consultancies delivering high quality ecological services whilst being an exemplar employer and advocate for the profession. There are three award categories for different sized consultancies; over two thirds of each company's ecologists and environmental managers must be members of CIEEM. Criteria include delivery of high quality practical outcomes that benefit business and the economy; evidence of shared learning and good practice; commitment to undertaking CPD and/or supporting the professional development of staff; and promotion of the profession.

Professor Sir Ian Boyd DSC FRSB FRSE

Outstanding Champion of Scientific Excellence and Evidence-based Decision-making

Professor Sir Ian Boyd is regarded as an outstanding biological and environmental scientist, and potentially one of the top environmental scientists of his generation.

His scientific research work, which covers marine mammals, seabirds, polar research and the impacts of policy on environmental impacts, is considered outstanding. Perhaps his most significant discovery has been the functional relationship between the performance of marine predators and the state of their food supply, first published in the *Journal of Animal Ecology* in 2001. Working in the krill-based ecosystems of the Southern Ocean, he demonstrated that, where there was a surplus of marine production, this could be exploited by fisheries before there were wider effects on marine ecosystems. Sir Ian also showed that this relationship was general for most marine ecosystems and that, to be sustainable, fisheries needed to leave at least one-third of the biomass in the ocean for other predators. This led to new ways of managing fisheries, benefitting both marine conservation and the economic interests of the fishing industry.

Professor Sir Ian Boyd is extremely highly regarded for his work as former Director of the NERC Sea Mammal Research Unit at St Andrews University, where he enhanced their reputation for sound science, before going on to establish the Scottish Oceans Institute, now the lead scientific centre for multidisciplinary oceans research in Scotland, and the multi-disciplinary/inter-organisational Marine Alliance for Science and Technology for Scotland (MAST), the leading UK research consortium on ocean science and management.

From 2012 to 2019 he was DEFRA Chief Scientific Adviser, providing carefully-researched and well-argued scientific advice on many issues, including high profile and controversial issues such as bovine TB and badger culling, tree disease and the use of Novichok in the Salisbury poisonings. He has also played a leading role in advising on the impacts of climate change on food production, flooding, waste reduction and pesticide use.

Since retiring as Defra Chief Scientific Adviser in 2019, he has proved to be a major figure in influencing thinking and action on environmental management. He has set out a new, evidence-based agenda for dealing with two major issues which confront society now and in the future: transformation of land use away from traditional livestock farming and patterns of human consumption dependent on environmental resources. To this, he has added a strong and thoughtful voice on dealing with pandemics as a member of the UK Government's SAGE and of the Royal Society of Edinburgh's Post-COVID-19 Futures Commission. He is co-chair, with Scotland's First Minister, of the new Environment Council established by the First Minister. He speaks without fear or favour, clearly articulating his arguments in an exemplary manner as an environmental scientist with feet firmly on the ground in what needs to be done in policy and practice by government and societal actors to adjust our use of and impact on environmental resources.

Professor Sir Ian Boyd has championed scientific excellence throughout his career, and specifically that policy should be evidence-led. He is widely regarded as an exemplar of good practice within the profession of ecology and environmental management and is undoubtedly well-deserving of the 2021 CIEEM Medal.

Winner

Allison Potts, David Hayward and Debbie Tann

Solent Nutrients: an opportunity to build back better?

Published December 2020

In November 2018, the European Court of Justice ruled on a case known as Dutch Nitrogen (European Court of Justice 2018). This judgement has implications for European protected sites in unfavourable condition or where environmental benchmarks are exceeded or close to exceedance. The judgement concludes that, where a European protected site is in unfavourable conservation status, the ability to permit activities which would give rise to additional pollution is 'necessarily limited' and would need careful justification to ensure that it is compatible with the Habitats Directive. It suggests that there would be 'limited' circumstances in which such plans or projects could be permitted.

Nutrients, including nitrogen and phosphorus, from agricultural and residential sources are damaging coastal sites, designated for habitats and bird species, in the Solent between the Isle of Wight and Hampshire on England's south coast. The elevated level of nutrients accelerates the growth of algae, smothering habitats and altering species composition. There are also impacts on seagrass and saltmarsh habitats, such as physical smothering by algae and/or high nutrient levels destabilising saltmarsh root systems.

Natural England advised the 15 affected Local Planning Authorities that residential development is likely to have a significant effect on the European protected sites in the area and pointed out that, if development came forward with mitigation that counterbalanced its nutrient contribution, then the authorities could be certain that no adverse effect would occur and could grant planning permission.

To allow calculations and delivery of Nutrient Neutrality, Natural England created and refined a methodology to calculate nitrogen budgets for development, enabling the identification of counterbalancing mitigation measures to achieve neutrality. This article outlines the methodology and case studies of its implementation is areas across the region.

Authors also note that, while Nutrient Neutrality is key to enabling development to proceed without harm to the European sites, in general it will not recover them to favourable condition. The new Environmental Land Management Schemes are highlighted as potential vehicles to deliver improvements at the scale needed to do so, but also the possible need for additional regulation of nutrient sources.

Highly Commended

David West

Nitrogen Neutrality Within the Solent Region – An Ecologist's View

Published December 2020

In this article, David West discussed the effect that the requirement for Nutrient Neutrality from residential development in the Solent region has had on project planning from a consultant's perspective, as well as potential mitigation options and next steps. Nutrient Neutrality is now a key consideration in Appropriate Assessment (AA) of plans and projects within the region and so David highlights the importance of an ecologist's role in leading Nutrient Neutrality and concluding the AA.

The primary methods of delivering Neutrality used so far in the region are outlined in this article, with removal of land from agricultural use being the most common. An example is given of the effect this may have on nutrient inputs: "the conversion of one hectare of arable land previously under cereal crops (which has a leachate value of 31.2 kg TN/ha/yr) to woodland, results in a reduction of 26.2 kg TN/yr." Challenges with these methods are also detailed, notably, cost of productive land acquisition and the need to consider wider land-use objectives.

Finally, David notes the benefits to both biodiversity, and in improving collaboration between professionals from a variety of sectors, afforded by Nutrient Neutrality. It is recognised that the requirements are likely to spread to other parks of the UK where similar issues are being identified, and so it is important to learn lessons from the Solent.

Highly Commended

Diana Pound

Seize the moment – New Approaches for Fresh Momentum

Published September 2020

In recent years, awareness and willingness to act on climate change and biodiversity loss has grown from a relatively small group to global calls from society for change. The young generation, business leaders, religious leaders and arts leaders have called on Governments to take bold action to address these issues.

This article focuses on the ongoing and interlinked climate emergency and biodiversity crisis, our role as individuals, breaking down barriers, and building momentum. Diana gives members of the environmental sector, who face tackling these crises every day, suggestions for maintaining optimism and inspiring action. Research on taking a constructive, positive and appreciative approach is presenting, showing its effectiveness over a negative, problem-solving approach.

Diana also promotes a collaborative, systems-thinking approach to look for interventions that will catalyse transformative change, including the social parts of systems, such as the 12 principles of the UN Ecosystem Approach (Convention on Biological Diversity n.d.). A true co-production approach to addressing the climate emergency and biodiversity crisis is also needed and outlined in the article. This allows everyone to share power and responsibility for delivering approaches, opening up new information and ideas.

Winner

The Red List for British Mammals

The Mammal Society

In 2020, the Mammal Society published the first Red List for British Mammals, which highlights species most at risk of national extinction according to IUCN categories. The Mammal Society collated all of the available information on the population of each British mammal, assessed their status and current threats and applied internationally accepted criteria in a rigorous manner never previously carried out for Britain's mammal fauna. The Mammal Society also included assessments for non-native (naturalised) species since these species are such a large part of Britain's mammal fauna and their status may reflect wider changes in the countryside of importance in wider land use or conservation planning.

The Red List showed that 11 of the 47 mammals native to Britain are classified as being at imminent risk of extinction. A further 5 species were classified as "near threatened" — meaning that there is a realistic possibility of them becoming threatened with extinction in the near future, and 4 were "data deficient", meaning that their conservation status is unknown owing to a lack of information. Among those species listed as being at risk of extinction in Britain are the water vole, hedgehog, hazel dormouse, wildcat and the Grey long-eared bat.

Crucially, the Red List for Great Britain has received authorisation on behalf of the International Union for the Conservation of Nature (IUCN) at a regional level. There have been previous studies of mammal status in Britain, and attempts to assess mammal population sizes, but this is the first time British domestic mammals have been put on the same footing as major international conservation programmes, allowing direct comparisons to highlight the risks faced by resident species.

Separate reports were also provided for England, Scotland and Wales. While there is currently no mechanism for these to be formally approved, it was considered important to have information available at the country level to support conservation action in devolved administrations. Reports were developed for each country's Statutory Nature Conservation Organisation, and the Joint Nature Conservation Committee, ensuring joined-up action across the UK.

The Red List project also engaged members of the public and local wildlife groups through the Mammal Society's free Mammal Mapper app. which contributed to the research.

The report has already led to further research and conservation action, including a species action plan for water voles in Wales, a collaborative project to monitor the status of mountain hare in Scotland and a review of how to fill evidence gaps for bats to enable the more strategic planning of development.


© Harry Martin

Highly Commended

The UK Habitat Classification

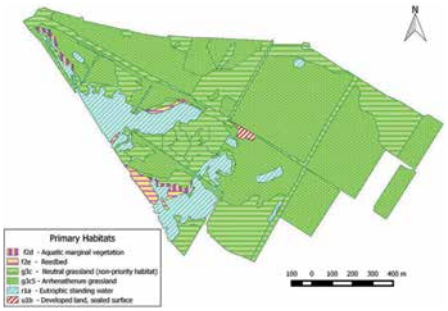
UKHab Ltd

Peter Carey | Bob Edmonds | Bill Butcher | Jo Treweek | Lisa Norton

UKHab (www.ukhab.org) was developed to raise the quality of habitat data collection and improve precision of habitat change monitoring. It is a free-to-use comprehensive classification system for terrestrial, freshwater and coastal habitats in the UK. Launched in 2018, it is the foundation of many biodiversity conservation initiatives and is well used by ecologists and environmental practitioners. The UKHab also includes mapping protocols, survey and monitoring guidance, field key and GIS data management guidance.

The development and launch of the UK Habitat Classification was an entirely self-funded project, initiated in 2014. During development, the UKHab Working Group (Peter Carey, Bill Butcher, Lisa Norton, Bob Edmonds and Jo Treweek) worked closely with professional ecologists and habitat specialists to ensure that UKHab was tested prior to launch and to provide on-going support and engagement with users through training, conferences and webinars. The design of the system was made to ensure that it can integrate with habitat data from all major systems in the UK and is compatible with all major habitat classifications: i.e. Phase 1, NVC and EUNIS.

UKHab Ltd regards professional training as critical to raise standards of habitat survey across the profession, particularly in response to new policies such as Biodiversity Net Gain, and has implemented a programme of expert training to build capacity and skills in survey and monitoring in the private, public and third sectors.



Highly Commended

BatChat Podcast

Bat Conservation Trust

The BatChat Podcast aims to increase the profile of bat conservation projects being run all over the country, including by many volunteers and voluntary organisations, and showcase the work of bat groups to listeners not familiar with these dedicated groups undertaking valuable survey work. By giving researchers, practicing ecologists and volunteers a platform, the podcast enables them to showcase and disseminate their results and findings in a new, engaging format away from traditional magazines and journals that may not be as accessible to new audiences.

BatChat is the first UK ecology-related podcast to record out in the field while the work being described is taking place, giving audiences a unique experience of what it is like being out in the field of ecology. Listeners are also encouraged to add their own images and take themselves out into the field.

At the time of nomination, the podcast had 21 episodes and over 17,000 downloads from 78 countries on all continents. Since Series 1, BatChat has consistently been in the top 10% of podcasts on its host platform, based on its episode download rates. This broad reach is not only helping to educate and increase public support for bat conservation work, but also inspires early career and more experienced ecologists to do the same and set up their own projects.

Winner

Global Climate Change - Strengthening Understanding of the Economic Impacts of Climate Change

Dialogue Matters working with Grantham Institute, Oxford University and BEIS

Recognising the urgent need to improve understanding of the potential economic impacts of climate change and links with biodiversity decline, the Department for Business, Energy and Industrial Strategy (BEIS) commissioned Dialogue Matters, the Grantham Institute and Oxford University to bring together global experts on the physical, social and economic impacts of climate change for the first time.

Experts were gathered for an intense five-day online workshop (transitioned from in-person in response to the COVID-19 pandemic), that sought to strengthen understanding of the economic impacts of climate change, discuss effective communication and key messages for citizens and policy makers, explore opportunities for funding cross-disciplinary work, and form a new supra-disciplinary international community of global experts. The 57 participants were from different disciplines, countries, perspectives, and time zones and included people from the insurance industry, senior officials, global experts, and young leading research pioneers.

In bringing these influential people together and sharing evidence of the physical, ecological, and social impacts of climate change to inform economic impacts, this workshop's impact extends far beyond the immediate discussions. The new knowledge gained will be incorporated into scenarios that are being developed by the global financial sector, including the G20 Financial Stability Board and the central banks that are members of the Network for Greening the Financial System, to assess how climate change might affect the stability of the global financial system. It will also inform ongoing international analyses ahead of the COP15 United Nations summit on biological diversity, global reviews of the risks of climate change such as the Sixth Assessment Report by the Intergovernmental Panel on Climate Change, and national level decision-making as the discussion was captured in a 154-page report of recommendations for BEIS.

New collaborations and research is already underway from the connections made at the workshop, and initiatives are already working directly with policy makers to streamline and speed up the adoption of new evidence and information into policy. It is also hoped that evidence that the potential economic impacts of climate change will be larger and quicker than is currently appreciated by many decision-makers, will persuade governments to submit more ambitious pledges for climate action ahead of the COP26 United Nations climate change summit, which is due to take place in Glasgow in November 2021.

Highly Commended

Thames Water's company commitment on Biodiversity Net Gain

Thames Water

Thames Water (TW) has committed to achieving a 5% increase in biodiversity value across 253 of their self-designated Sites of Biodiversity Interest by 2025, becoming the first Water Company in the UK to commit to this level of Biodiversity Net Gain (BNG). The sites are situated across 18 counties from Gloucestershire to Kent, and TW is working strategically with catchment partnership groups and Nature Recovery Networks to ensure these works have a positive impact at the national level.

TW has been described as a progressive and forward thinking organisation with respect to BNG having begun collating a biodiversity unit baseline of their 253 Sites of Biodiversity Interest prior to the draft Environment Bill being published. Thames Water also implemented a mandatory BNG commitment in April 2020 to ensure that every engineering project that is removing biodiversity habitat on a permanent basis, demonstrates a 10% BNG on the original baseline, regardless of whether it is permitted development works or through planning permission.

As part of this commitment, TW are also enhancing new techniques and experimental methods such as 'pocket re-wilding', which will explore how land and space can be utilised to promote the use of small landholdings for biodiversity enhancement, and Miyawaki tree planting methods. TW will also be sharing their experiences and knowledge gained from these schemes to encourage others to implement successful approaches.

Commended

Joshua Styles MCIEEM

As Project Coordinator of the North-West Rare Plant Initiative, Joshua has led direct action against the biodiversity crisis, having recently undertaken his 45th reintroduction since 2017 which includes plants such as Great Sundew (Endangered), Lesser Bladderwort (Vulnerable) and Green-winged Orchid (Vulnerable). Lesser Bladderwort for example, had been extinct across South Lancashire for over 150 years. In liaison with Lancashire Wildlife Trust and Natural England, Joshua orchestrated its return to the Vice County in late 2018. Monitoring has shown the plant is thriving having gone from 60 original plants, to now over 200,000 individuals estimated for the mosses.

Joshua takes an active role in promoting understanding of the climate crisis and biodiversity crisis having been featured across a number of news channels, including BBC and Channel 4 to raise awareness of the importance of peatlands in addressing the climate emergency and highlight peatland destruction across Berrier End, Cumbria and beyond. Joshua also speaks on podcasts and at the international re-peat online conference earlier this year.

Joshua also seeks to train others in their work to support biodiversity, through establishing British Botany Training: an online training platform for ecologists, students and conservation practitioners, looking to make botanical training more accessible to all.

Winner

Telford & Wrekin Council

Through a bespoke 'Green Guarantee' land management commitment, and the Local Wildlife Site and Local Nature Reserve (LNR) declaration process, Telford and Wrekin Council (TWC) has committed to protect over 1000 hectares of locally important green space in its ownership. Between 2016 and 2020, six LNRs have been fully declared, with a further four undergoing the final stages of legal declaration at the time of nomination. The final LNR within the council's current commitment was due for approval in March 2021 and the council is on track to complete its current LNR pipeline ten years early!

There has been an ongoing rise in the provision of LNR for every 1000 residents, from 0.74 ha for every 1,000 residents in 1993 to 3.12 ha currently. This demonstrates a consistent long-term approach by the LPA to nature conservation, biodiversity, and people and wildlife.

The Council's ecology team is embedded within both planning and planning policy teams, ensuring their involvement across the whole decision-making process. TWC is committed to ensuring a landscape scale approach is applied to decision making. In 2020, the Council launched their bespoke, locally-led Great Crested Newt district level licencing scheme. The Council scheme is unique in being the first scheme to fully administer both the licencing process and habitat delivery. The team have worked with Natural England to build in elements to the licence that are currently only delivered in the borough, including the requirement for developers to undertake onsite reasonable avoidance measures, and the channelling of a proportion of developer contributions into the management of the boroughs most important newt populations.

TWC is dedicated to the professional development of its staff with recent training focussing on upskilling the ecology team in preparation for mandatory biodiversity net-gain. TWC also runs a successful placement scheme with Harper Adams University that provides dedicated in-house training, ensuring students leave with a sound understanding of the planning system, legislation and policy relating to the natural environment.

In 2018/2019 the Council helped the Telford Green Space Partnership restructure its constitution allowing the organisation to deliver a 'bottom up' approach - empowering local groups to work more closely together and better share knowledge, skills and capacity. Following which, in 2020, the Partnership successfully secured nearly £8000 from the Councils 'Capacity Building' fund to deliver a series of training days for members ranging from species survey skills, practical land management skills and how to write and engage with the production of site management plans. TWC also launched 'My Wild Telford' aiming to encourage residents to promote, share and celebrate the green spaces in the borough, and support during the pandemic.

Postgraduate Student Project Award

Highly Commended

Michael McCaskill ACIEEM

Investigating the distribution and use of above-ground badger (*Meles meles*) nests in Central Scotland

Although the Eurasian badger are known for their occupation of underground setts, it is not unheard of for badgers to make use of nests above ground. However, there is limited research as to how these above ground nests function within a badger territory and which behaviours and life stages they may support for badger social groups. This project aimed to investigate the use of above ground nests within a badger territory, taking into consideration when and how they are used by the badger group, as well as identifying where nests are located and where they may be likely to be found in relation to other territory features.

Michael developed the idea for this project through consultation with the Scottish Badgers charity and Scottish Wildlife Trust. Analyses included both existing and novel data from two reserves in central Scotland, with methods adapted in response to the COVID-19 pandemic. Results show that nests were located significantly closer to habitat boundaries than main sett locations, satellite sett locations and latrines. The study also found that the probability of a badger using a nest was significantly higher at night, with nests supporting behaviours such as mating and social interactions. Territorial behaviours in nests were found to significantly decrease the further nests occurred from habitat edges. This study provides a novel understanding of above-ground badger nests and their function within badger territories, which may have implications for current badger legislation and best-practice guidelines.

Commended

Katarzyna Majewska

How might seaweed assemblages in the British Isles recover from pollution damage – what makes a realistic baseline?

International studies have shown that seaweed communities can recover from severe pollution following water quality improvement. The purpose of the thesis was to determine the trends in changes of various measures, which are distinctive for the recovering algal assemblages, and compare them with the fluctuations at sites, which are expected to be unaffected. Additionally, fluctuations superimposed by rapid anthropogenic climate change worldwide were considered.

Katarzyna successfully collated survey results dated from 1886 to 2019. In order to avoid false conclusions, all species lists were standardised to modern taxonomic nomenclature. To assess the change in seaweed communities across these periods, the following tools were applied: full species list, colour groups proportions, ecological status groups, functional groups ratio.

Katarzyna recognised distinct differences between temporal changes at affected and unaffected shores. The recovery was found to be indicated by the increase in species richness along with the rise in the number of *Rhodophyta* and *Phaeophyta* and a decrease in the proportion of *Chlorophyta* species. Areas which were not directly polluted were characterised by constant values of the above measures and consistent presence of the representatives of all functional groups.

Promising Professional Award

Winner

Kimberley Doneo (was Bowman)

Mott MacDonald

Kimberley is a Qualifying member of CIEEM and Ornithologist at Mott MacDonald. Due to her detailed knowledge and skills, she achieves quality work beyond her grade and is now the lead ornithologist in the north-west of England. Kim has produced and undertaken comprehensive bird monitoring and baseline surveying methodologies for large schemes, such as Crosby Flood and Coastal Erosion Risk Management Scheme and designed artificial winter shorebird roosts for the Humber estuary.

An example of a project led by Kim is the Tetney Lock Outfall in which she oversaw, assessed and mitigated all adverse ecological impacts at Tetney Lock, Grimsby. She also responded to emergency works and successfully translocated a wren's nest as opposed to destruction, designed a nest box to replicate the mould of the original nest site, monitored the behaviour of the bird and moved the box over 20m away (across a number of days) to a safe area.

Kim has also been a volunteer surveyor for the British Trust for Ornithology for 5 years, undertaking ringing surveys on sea birds and passerines, contributing to the Nest Record Scheme, undertaking hen harrier surveys, other raptor and owl surveys and fostering. Kim put extensive time into the Isle of Man 2017-2018 seabird census, being one of two people spending 1000 hours at sea logging more than 10,000 sea birds. She also co-authored the resultant report which was important in highlighting declines of local seabird colonies and providing evidence for marine reserve requirements.

A strength of Kim's is promoting understanding and awareness of ornithological and wider ecological issues. In her role as ornithologist and her various ECoW roles she has interacted with a wide range of specialists, including local government, engineering colleagues, construction workers and project managers. She regularly gives tool box talks to site teams and has trained new members of staff in best practice techniques.

Kim is often called on by clients when things 'go wrong' due to her quick thinking and ability to calmly identify solutions, and is known to find efficient methods of achieving goals. Kim is persuasive with site and project managers –always looking at ways to increase or balance the nesting opportunities available for birds, particularly where works might create a temporary and (or) permanent loss to a species.

Highly Commended

Maico Geert Weites

UK Centre for Ecology and Hydrology formerly Arcadis Consulting (UK) Ltd

Maico is a Qualifying member of CIEEM and Graduate Ecologist at Arcadis Consulting. Maico has particularly strong skills in invertebrate identification and botany, and validates records for the Dutch National Databank Flora & Fauna, having been involved in wildlife recording since his teenage years. Maico has led on Phase 1, NVC, bird and reptile surveys, demonstrating skills that far exceed his grade.

The many hours Maico spends on recording wildlife, identifying specimens and verifying records have led to the discovery of several species new such as a Peacock Fly *Callopistromyia annulipes* new to Slovenia. He has made a significant improvement on the knowledge of biodiversity in his local area and has logged over 130,000 wildlife records.

Being described as an approachable and confident communicator, Maico is keen to teach colleagues about plant and animal identification when conducting surveys with staff both junior and senior to him and has helped organise several plant identification sessions at the office. He has also assisted with Preliminary Ecological Appraisals and has received very positive feedback from clients.

Highly Commended

Joseph D'Souza

Arcadis Consulting (UK) Ltd

Joseph is a Qualifying member of CIEEM who has played a central role in a variety of ecological projects as a Graduate Ecologist at Arcadis Consulting. Joseph has a particular passion for ornithology and tackling plastic pollution, and has embraced leadership, client relations and project management responsibilities.

Joe is the lead ecologist on a 19 hectare solar farm project undertaking a range of surveys, monitoring environmental changes and an internationally important over-wintering bird roost in proximity to the site. Joe has also held the major role of bidding, coordinating, undertaking and issuing over 100 desk study reports for National Grid refurbishment works. Within this role, Joe has embraced the responsibility of being a main client contact as well as coordinating the delivery from his colleagues to ensure client deadlines are met.

Joe actively engages with experienced colleagues to improve his ornithological skills and seeks to address personal and team knowledge gaps by arranging internal botany and dormice training sessions as well as informal "zoom chats" on plant identification.

Highly Commended

Mariko Whyte

Darwin Ecology

Mariko is a Qualifying member of CIEEM and Ecologist at Darwin Ecology. Mariko's specialist fields include bats, botany and invertebrates and she has worked on a suite of bat-related projects from design to implementation, protected species surveys, and ecological management planning. She also holds a Level 2 class licence for handling bats. Mariko is particularly skilled in implementing suitable mitigation strategies on site (including supervising roof strips in close coordination with roofing teams) and designing compensation measures independently with limited guidance required from senior members of staff.

Prior to her current role, Mariko worked as a Conservation Officer with Alderney Wildlife Trust, where she provided ecology support and baseline data to inform the Alderney Environmental Strategy and Land User Plan, gaining experience of how raw baseline data is used to inform guidance and landscape scale planning. Whilst working for Darwin Ecology, Mariko has progressed quickly due to her clear ability to project manage efficiently and pragmatically and her on-going CPD.

Joint Winner

Paola Reason CEcol CEnv FCIEEM

Paola has been a practising ecologist for 30 years, beginning as a Research Assistant at Bristol University, and then co-founding an independent NGO working on fruit bats in the Comoros. She is now a Director at RSK Biocensus and is recognised nationally as a bat expert, having a seat on Natural England's bat expert panel.

Paola has trained and coached many individuals towards their bat licence, through formal training, field visits, workshops, shadowing and examination. She has a prominent role in training staff in technical skills, project management, consultancy, health and safety, and environmental management. Paola contributed significantly to CIEEM's initial competency matrix and subsequently revised job descriptions (in Arcadis first and now RSK Biocensus) to better reflect CIEEM's Competency Framework, and to promote the Institute and profession. She has also set up Technical Excellence Groups to share knowledge, make available discipline-specific libraries of published and grey literature, provide webinars, and support discussion forums.

Paola was a member of the CIEEM group developing guidance in relation to ecological assessment where survey work has been affected by COVID-19 restrictions. She took a prominent role in developing the guidance, leading on bats, but also driving the completion of the document to a challenging timescale.

Paola has contributed to all editions of the Bat Conservation Trust's Bat Survey Guidelines and she remains on the Technical Review Board for current revisions. She also joined the steering group for the current revisions of the Bat Mitigation Guidelines and has recently become involved in the development of Earned Recognition, Natural England's flagship policy for licensing reform, as the interface between the Earned Recognition Steering Group and the Bat Expert Panel.

A passion for bats has also extended into research, with the publication of three papers on lesser horseshoe bat ecology in peer-reviewed journals, and co-authoring many others, including a Species Action Plan for Livingstone's Fruit Bat *Pteropus livingstonii* published by the IUCN.

Joint Winner

David Whitehorne CEnv MCIEEM

David is a Senior Associate Director (Ecology) at Jacobs and has over 30 years' experience in a range of sectors. Major achievements across David's career include production of a strategy report to inform the RSPB land purchase policy for habitat creation for the bittern in southern England, leading on re-introducing grazing onto the Malvern Hills SSSI to help restore nationally important acid grassland and sitting as chairman of the Commons Steering Group for the Herefordshire Biodiversity Action Plan. David was also Lead Ecologist for the Steart Coastal Management Project which was Highly Commended by the CIEEM Best Practice Award Stakeholder Engagement in 2015.

One of David's most ecologically challenging roles has been Phase One Ecology Lead on HS2 in which he led on preparatory works for creation and development of a network of ecologically important sites and techniques to protect and enhance biodiversity. While at HS2, David led an innovation task to develop a new method statement template for HS2 organisational licences. The new template has resulted in significant time, cost and risk reductions and has been well received by Natural England and will now be used on all Phases of HS2. David has also contributed to published research, best practice and training as a result of his work, raising the professional standards.

Following up on a keen interest and desire to build ecologist's skills and training in-line with professional practice and to encourage more young people into the profession, David was a member of the CIEEM Training Education and Career Development Committee for 6 years. David also garnered support for the CIEEM Accredited Ecological Clerk of Works scheme which seeks to deliver an assurance of quality for contractors and provide CIEEM members with a competence assessed qualification, raising professional standards. He also contributed to CIEEM's Guidelines for Ecological Impact Assessment in The UK and Ireland. Terrestrial, Freshwater, Coastal and Marine (2018).

David continues to mentor ecologists to Chartered status and beyond, applying his extensive experience in ecology and environmental management and own Chartered Environmentalist status since 2005. David regularly champions the overall wellbeing of the ecological profession, recognising the pressures of the industry whilst seeking to ensure its objectives in a healthy supportive atmosphere. Leading by example, David actively pushes back on unfair or compromising deliverables or practice.

Commended

Mark Lang CEcol CEnv MCIEEM

Mark is an expert in botany and ornithology. He has planned and carried out bird survey work for numerous development projects including wind farms, Highways infrastructure projects and nuclear new builds, in addition to leading on botanical surveys and implementing surveys and mitigation for a range of other protected species. For over 20 years, Mark has carried out breeding bird surveys, riverine breeding bird surveys and wetland bird surveys as a volunteer for the BTO. He has also been active in a steering group bringing together a range of consultants, professional bodies (including CIEEM) and NGOs, to publish on-line, updatable Bird Survey Guidelines in 2021.

Mark is a volunteer assessor on behalf of CIEEM for both Chartered Environmentalist and Chartered Ecologist status, assessing the suitability of potential applicants. He is also part of CIEEM's Chartership Registration Authority committee and has previously sat on the Professional Affairs Committee. Mark has contributed to improving standards throughout his career, implementing training for fellow staff and recorders, and teaching at Urchfont Manor adult education college.

Locally, Mark has become an active volunteer with the friend's group of the Stroud Cemetery Local Nature Reserve, where he undertakes practical conservation work, leads educational dawn chorus bird walks and established a butterfly recording transect for the cemetery which has confirmed the continued survival of the locally scarce small blue and dingy skipper.

Mark continues to support CIEEM through his work on membership, chartership and policy advice, and in training the next generation of ecologists.

Winner

Lancashire Peatlands Initiative

Lancashire Wildlife Trust

The Lancashire Peatlands Initiative has delivered pioneering and nationally significant habitat restoration across over 200 hectares of degraded lowland raised bog spanning the past three decades. Active restoration activity has taken place at numerous sites including at Winmarleigh Moss SSSI, Astley Moss SSSI SAC, Little Woolden Moss and Caddishead Moss LWS.

Alongside taking a lead on practical conservation of habitats, LWT has also been a key player in the Greater Manchester wetlands partnership, advising on restoration at Risley Moss, and taking a lead in the restoration of Amberswood peat moss.

Declines in habitat quality are seen throughout historical literature for all sites stretching back to the mid-1800s, with extinctions of nationally important taxa across these sites including Great Sundew, Bog-rosemary, *Sphagnum obtusum, S. pulchrum, S. riparium*, and the Large Heath butterfly. Extensive restoration of these sites has resulted in Winmarleigh and Astley Mosses being classified by Natural England as being in recovering condition, with restoration and recolonisation by plants typical of healthy M18 mire communities being openly cited as the overriding reason for its recovering condition status.

Rewetting works across hundreds of hectares of degraded raised bog has improved the condition of these sites to such an extent that species extinct since 1850-1860 are now being reintroduced with incredible success, including the Large Heath butterfly, Great and Oblong-leaved Sundew, Lesser Bladderwort and nationally scarce *Sphagnum pulchrum*.

Since the beginning of reintroductions in 2018, there has been a 500% increase in White Beak-sedge on the Manchester Mosses. Lesser Bladderwort, a red-list vulnerable plant, had become extinct across most of its former English range and was found to be extinct on the Manchester Mosses by 1860. It was now restricted to a single small site on the Cheshire-Lancashire plain. This plant was reintroduced (by the North West Rare Plants Initiative) to Astley Moss in 2018 in the form of 60 plants and has spread to other parts of the reserve since; the most recent population estimate for this reintroduction estimates over 200,000 individuals.

These reintroductions have gained widespread media attention within national and local news networks; in 2020 alone, reintroductions have been documented by BBC North-West, BBC Breakfast, ITV Granada Reports and Channel 4 news.

The tireless work of the Trust over the decades with Natural England and other partners has scarcely been recognised but has ultimately halted the decline in nationally important species and sites and has resulted in an expansion of functional active raised bog, allowing for the reintroductions of nationally important plants and animals to many sites.

Highly Commended

Tetney Blow Wells SSSI Restoration

Anglian Water

Tetney Blow Wells in Lincolnshire is used for drinking water borehole abstraction from the chalk aquifer. Publicly accessible, the site hosts characteristic artesian upwellings, or 'blow wells', and was previously used as a water cress farm up until 1962. As such, it is important for its geology, amenity and local history interest, as well as for its value for nature.

The site is designated as a Site of Special Scientific Interest (SSSI) for its open water and swamp habitats, with additional interest provided by wet woodland and neutral grassland habitats. Until 2011, in line with management guidance from Natural England, the wet woodland habitats at the site were managed on a minimum-intervention basis. As a result the woodland became a dominant feature of the site leading to shading and excessive water uptake drying the wetland features.

In 2011 Anglian Water embarked on a six-year wetland restoration project removing 1.95 hectares of woodland habitat and creating new pond habitats, thus re-wetting the site and maintaining the mosaic of wetland habitats that generate the site's nature value. A management plan sets out the continuing management and monitoring required to maintain its condition.

Ongoing monitoring has demonstrated some key biodiversity successes as a result of the restoration project:

- Bat survey and monitoring work in 2011-2012 and 2017-2019 has demonstrated successful uptake of bat boxes installed in 2012 and has identified a breeding colony of Nathusius' pipistrelle, the fifth known in the UK at the time.
- Water Violet *Hottonia palustris* is present within 'blow well 4' and approximately 20 flowering spikes were present in 2011 compared to survey work in 2019 where over 250 flowering spikes were counted.
- Marsh Harriers were recorded breeding at the site for the first time in 2017 and have continued to do each year since.

Winner

Llwyn Celyn Restoration Project

Wildwood Ecology and The Landmark Trust

This project involved full restoration of a Grade I listed building (regarded by Cadw as one of the finest medieval hall houses in Wales) and associated agricultural buildings including a Grade II Listed stone barn (Beast House), stone Threshing Barn and Cow Shed, a smaller stone Drying Shed and a series of modern agricultural sheds. The site was originally surveyed by Wildwood Ecology in 2013 with seven species of bat identified as being present, including lesser horseshoe, brown long-eared and Natterer's.

Planning permission was achieved in March 2016 for extensive repairs and renovations across the Llwyn Celyn site to restore the main house to a habitable condition, to be used as holiday accommodation by The Landmark Trust; restoration of the Beast House, with creation of public information area and viewing mezzanine; restoration and conversion of the Threshing Barn into bunk-house style accommodation and facilities; repair to the Cowshed, to house heating equipment for the site and an outdoor store; repairs to the drying shed; and demolition of the Dutch barn, tin shed, and pole barn.

A bat mitigation licence was applied for in late 2016, with amendments approved in early 2017. Preliminary site mobilisation and ground works commenced, and all extensive works were finally completed in 2019, ready to receive guests in September of that same year.

Bat mitigation and compensation measures were completed by August 2017 and monitoring of replacement roosts and habitat enhancement continued (ongoing to 2021). Ecological measures included detailed input to the design of replacement roosts, materials and phasing of work programme including contingency measures. A high level of expertise and pragmatism was required working with buildings of such national heritage significance. The site required in-situ retention of crevices for bats within the Threshing Barn, Cow Shed and Beast House; new roost creation within the Beast House, Cow Shed and Main Farmhouse.

Monitoring has confirmed the success of the project showing an increase in known lesser horseshoe bats within the dilapidated farmhouse from 11 in 2014 to 66 in the Cider House in Autumn 2019.

The on-site habitats prior to the completion of works in 2019 comprised improved/amenity grassland, or hard standing/buildings. The buildings themselves were in a perilous condition, although they supported seven species of bat and nesting birds, including swallow and house sparrow. The number of lesser horseshoes has increased from a satellite roost of 11 known lesser horseshoe (2013) to a maternity colony of 66 (2019); brown long-eared have increased from 4 to 14 within the same period. Swallows and house sparrow continue to be present across the site, with no net loss.

In addition to the creation and availability of features for bats and nesting birds, the site's biodiversity benefits from the provision of new boundary hedgerows, an onsite traditional orchard and enhanced grassland has also been over-sown with a wildflower seed mix. Approximately 100m of new boundary double-row hedgerow has been planted on the site, planted with locally native and locally sourced specimens (hazel, blackthorn, hawthorn, laurel, holly, spindle, guelder rose). This includes the provision of a small linking section of hedgerow from the lesser horseshoe roost entrance to the boundary edge (10m) as well as the Cow Shed to the wider landscape.

The total cost for all works was over £4 million with the total cost for ecological mitigation, compensation and enhancement (including bat and habitat monitoring and management costs) being approximately £87,000. In terms of its ecological legacy, Llwyn Celyn has provided the opportunity for exemplar bat roosts to be designed, tested and lessons learnt for implementation at other sites. Bats will continue to benefit as the site matures.

Highly Commended

Howdon Satellite Rail Depot (Ecological Mitigation Strategy)

Nexus, Atkins, Conops Entomology and EcoNorth

Nexus acquired planning consent in 2018 to construct a new satellite rail depot at Howdon. Baseline ecological studies carried out in 2017 consistently recorded dingy skipper butterfly utilising open mosaic habitats that have established across the former landfill site.

The Ecological Impact Assessment predicted that the new satellite rail depot would retain approximately 0.4 hectares of the total short perennial grassland used by dingy skipper. Through the detailed design phase the amount of short perennial grassland that could be retained increased to approximately 0.7 hectares. The unavoidable loss of dingy skipper habitat to the satellite rail depot was reduced from approximately 0.8 to 0.5 hectares.

Ground investigations detected asbestos in soil samples from the site, including areas used by dingy skipper. Consequently no translocation of existing vegetation from within the development was possible to facilitate habitat creation through traditional means. Land to the west of the development site was subsequently identified as a suitable receptor site.

Atkins prepared an Ecological Mitigation Strategy (EMS) in 2019 which included the design for new open mosaic habitats to create oviposition sites by encouraging high proportions of prostrate forms of bird's foot trefoil to grow out over bare ground, where low-lying leaves can be used by egg-laying dingy skipper. This was achieved with 50% bare ground and 50% vegetation cover using a bespoke open mosaic seed mix with a low percentage grass component, with supplementary plug planting also carried out.

In addition, a series of four butterfly bunds were created to provide specific south-facing slopes. The butterfly bund and boundary features were subsequently dressed with a bespoke flowering perennial seed mix, with supplementary plug planting also carried out to provide immediate roosting and sheltering habitat for dingy skipper.

Ongoing cyclical management of newly created, retained and enhanced habitat areas will replicate natural processes to prevent succession of habitats that will maintain dingy skipper populations; as well as pollinators and other important invertebrate species.

Highly Commended

Balsall Common Sewage Treatment Works (Badger Pass)

Severn Trent Water

In August 2020, reports were received that cracks in a service road to a sewage treatment works were worsening and in areas the concrete had started to sink. A 20-hole historic 'main' badger sett was discovered adjacent to the road, inside the works boundary. The badgers had extended their sett and were tunnelling under the road, underneath the security fence and out into the adjacent fields to forage, returning through the tunnel, back under the service road and into their sett. Action was urgently needed as articulated lorries regularly used the road, posing a large health and safety risk to the drivers and the badgers.

Moving the road was discussed, but there was insufficient space within the works to provide the width of road required. Creating an artificial sett within the sewage work boundary was deemed impractical due to the lack of available space, and an off-site sett was unacceptable as the site was inside the extended badger cull zone, and therefore safety for the badgers could not be guaranteed. Additionally, the sett had likely been at the works for over 25 years and had historic importance.

The third option was to provide in-situ mitigation. The team came up with the idea of installing an underground badger pass, in the form of a concrete pipe which connected to the existing main sett, ran underneath the road, under the security fence and exited out into the adjacent foraging grounds. The team also dug a slip-trench either side of the service road along its entire length and installed a 2m deep below-ground chain link fence. This below- ground fence prevented the clan from digging under the road again creating further problems.

Over-ground badger passes were installed at four locations within the site by using 2 lengths of poly-pipe back to back, connected to either side of the security fence. A hole was cut through the back of each connected pipe and chain link fence. This allowed badgers and other small mammals (polecats were recorded on the camera trap footage) to travel down the pipe, turn through the hole and travel out through the poly-pipe on the other side of the fence.

All work was completed under a Natural England mitigation licence and current camera footage suggests the tunnels are in use by the clan and other mammals.

Winner

Sudbrook Paper Mill Site

Arcadis, Harrow Estates and Redrow Homes

Sudbrook Village is located on the banks of the Severn Estuary, Monmouthshire. It was built for railway workers in the 19th Century and supported a paper mill which closed in 2006. Arcadis have delivered ecological services in relation to this site since 2006 – first as Cresswell Associates and then Hyder Consulting before becoming part of Arcadis. In 2011, Harrow Estates took control of the 100-acre site, which included 34 acres of previously developed land, former plantation woodland, agricultural land and a Scheduled Ancient Monument. Only part of the area of previously developed land is allocated in the local plan with the rest to remain undeveloped. The development was for over 200 homes set within a sensitive landscape.

Ecological constraints included the Severn Estuary of international importance for wintering birds and salt marsh habitats, a county wildlife site, a lesser horseshoe bat roost, a residing population of slow-worms and the presence of buildings with asbestos added to the challenges.

Obtaining planning permission for the site took more than a decade. During this time ground investigation works were required to identify contamination. Areas needed to be cleared of vegetation to facilitate these works and the demolition. It was not cost effective to install a reptile-proof barrier around the site due to the dominance of hardstanding. A strategic approach to reptile mitigation was adopted with reptile-proof fence installed only next to the disused railway line. Elsewhere, strips of unsuitable reptile habitat were created to discourage ingress. Rubble piles were surrounded by open concrete/tarmac to reduce the likelihood of colonisation. Artificial refuges were installed, and reptiles moved in advance of phased habitat manipulation. Once clear of reptiles the site ecologists undertook destructive searches and the ground was made unsuitable for reptiles. Linking the receptor to the hedgerow network and other suitable reptile habitat enabled the translocated population to mix with extant populations. Material generated by site clearance was used for reptile hibernacula in the receptor site. By creating the reptile habitat next to mature hedgerow there were ready made safe places of shelter and hibernation features available as soon as the area was fenced.

The papermill buildings supported brown long-eared bat night roosts and a day roost with small numbers of non-breeding pipistrelle, brown long-eared and lesser horseshoe bats. In 2014 a purpose-built bat house was designed by Arcadis and constructed (a separate planning permission was obtained). In 2016 the building with the bat roost was demolished under licence for reasons of health and safety (asbestos and deterioration of the fabric of the building). Arcadis has been undertaking ecological monitoring since 2016 as a condition of the planning permission and has monitored the bat house over the years with the final (5th) year of monitoring scheduled for 2021.

All features of the bat house that are accessible for inspection have been used by small numbers of roosting bats including horseshoe bats as a day and night roost in summer and winter as soon as the house was constructed. In summer 2020 a maternity roost comprising 15 adult lesser horseshoe bats, three with pups, was confirmed and it is hoped that they will continue to use the house in future years providing a real boost to the local population.

Winner

Warblington Farm Nature Reserve and Havant Borough Council's Mitigation Plan for Nutrient Neutral Development

Havant Borough Council

The implications of a European Court of Justice ruling in relation to the Habitats Directive (in what is now widely known as the Dutch Case) have been very significant in terms of requirements for nitrate-neutral development and have led Natural England to review their planning advice in the Solent area, which has a coastline of international conservation importance. In the interim all relevant development was halted.

Havant Borough Council was very quick to recognise the risk that, without a timely strategic solution, less sustainable greenfield developments could secure planning permission, undermining the Local Plan ambitions. In order to enable sustainable development – and make it possible for it to be lawfully permitted – there was a need to secure nutrient neutrality through immediate implementation of a strategic mitigation scheme.

At the heart of the Council's innovative solution is a change of land use from agriculture to nature reserve to counterbalance the additional nutrients that new housing will generate, but with carefully layered additional multiple environmental benefits.

Original research, modelling and monitoring was used to the inform the nature reserve design, including an Integrated Water Management Study for south Hampshire, and an assessment of nutrient neutral development in the catchment of the local wastewater treatment works, alongside a formal review of the proposed approach. The scale, location and design of the nature reserve was supported by data but crucially looked to deliver in a way that also delivered multiple benefits for people and nature.

In August 2020, the Council took over the management of a 60-hectare agricultural site situated on the coast of Warblington. It decommissioned the site from intensive agricultural use in order to have a positive impact on nutrient levels along the coastline, which forms part of the internationally important sites currently suffering from eutrophication as a result of excess nitrogen inputs. It has converted

the site into a nature reserve, providing a haven for animals and plants and with stewardship of the site funded purely by developer contributions.

All relevant future developments in the area are required to calculate their specific nutrient budget, using a novel neutrality methodology developed by Natural England. They then pay an agreed contribution towards the offsite mitigation offered, counterbalancing the additional nitrate loads they produce. Just under half of the available mitigation has been used or reserved, demonstrating the appetite for the scheme in the development industry.

Havant Borough Council worked closely with Natural England's Thames Solent team and used funding from the Solent Local Enterprise Partnership (LEP) to develop and manage this innovative scheme. To date, the project benefits have included:

- Providing additional protected areas of direct benefit to the numerous endangered bird species reliant on this specific coastline.
- Enabling sustainable development and providing a range of environmental benefits at no ongoing cost to residents.
- Providing an effective mitigation solution in perpetuity to the provision of nutrient-neutral housing.
- Protecting a world class coastline, fulfilling the Council's responsibility as a steward of several European-level nature conservation designations.

Moving forward, the Council is seeking to bring forward further phases of the scheme swiftly. This will ensure that nature based solutions at this site can continue to mitigate the impact from new housing and secure further environmental enhancements.

Highly Commended

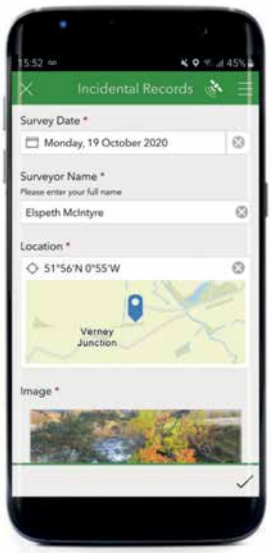
East West Rail 2 (EWR2)

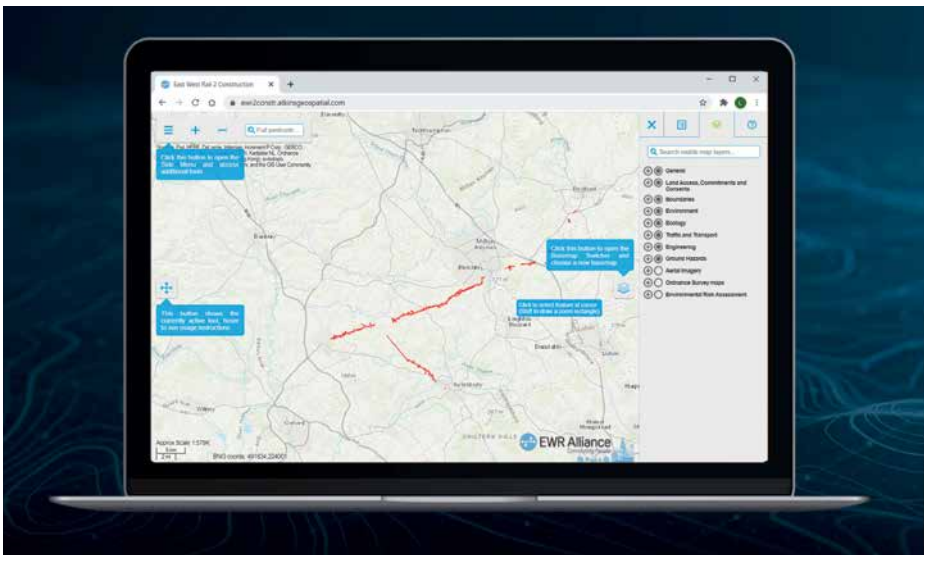
East West Rail Alliance

East West Rail (EWR) is creating a new direct rail link between Oxford and Cambridge to join key regional centres. The second phase of EWR (EWR2) is between Bicester and Bletchley. EWR2 is being delivered by the East West Rail Alliance, consisting of Atkins, Laing O'Rourke, Network Rail and VolkerRail.

The project involves the reinstatement and upgrading of old railway lines, ultimately allowing new train services to run. To date the partners have pioneered several digital innovative technological approaches involving close collaboration between ecologists and GIS professionals, including:

- Development of a new Incidental Records Process, enabling new ecological constraints to be found, recorded, shared and considered in the construction planning process on the project web map within a matter of minutes and without the risk of communication issues with the client and construction personnel.
- Development of customised web maps specifically to support complex European Protected Species mitigation licence applications for great crested newt and bats. These assisted Natural England in their review of these complex licence applications and were invaluable for communicating the nature of the impacts of the scheme and therefore assessing whether the proposed mitigation was appropriate.
- Automated spatial information calculations for the mitigation licences. The underpinning Method Statements required detailed spatial information about the habitats impacted and those created, restored, reinstated and enhanced. Such calculations can be complex for projects of this scale but the GIS team and the ecology team collaborated to display all data sources on the web map and agree parameters for various habitats. A repeatable, automated calculation workflow was created with Safe Software's FME package, allowing habitat calculations to be re-run with different mitigation strategies or when data was updated. The output was a spreadsheet that could be easily manipulated to allow everyone to understand, both at a metapopulation and scheme-wide level, the impacts and compensation packages.





Commended

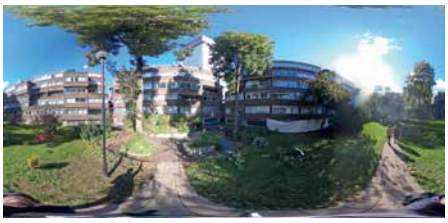
Machine Learning: 360˚ imaging

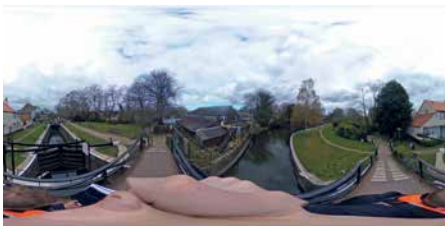
Environment Agency, Grow2Know and Arcadis

The use of 360˚ camera technology to deliver virtual site visits and consultations in which clients, consultants, members of the public and technical specialists could communicate and share ideas has, during a year of social distancing and virtual meetings, been an invaluable and innovative tool used on a number of projects.

At one site, Ham Oil Mills, Wey Weirs, approval was required from the local authority for enabling works which would impact upon two trees. One Arcadis employee attended the site and used a 360 camera, Ricoh Theta, to collect high-quality 360˚ images and a walkthrough video. A virtual tour was created using a platform called 'HoloBuilder'. The video enabled users to pause the walkthrough and examine areas of the site in more detail. Measuring tapes were positioned so individuals could virtually look at clearance distances and plan excavator movements.

This technology was also utilised for a project with Grow2Know, a Community Interest Company started by members of the community surrounding Grenfell Tower. It is an inspiring scheme that aims to spread positivity and inclusion through gardening, particularly throughout the BAME community who are under-represented in nature appreciation and gardening schemes. Arcadis are advising the group on green infrastructure, biodiversity, health and safety and architectural design. As part of their support, Arcadis used 360 imagery to create a virtual tour of a communal space on the estate that is to be renovated as a community garden. A linked questionnaire enabled community members to comment on proposals and share their own ideas as part of the consultative approach to the project.





Commended

Using Immersive Technology to Maximise Communication of Ecological Design

AECOM

Since 2018 AECOM has trialled and significantly advanced the use of Visualisation, Auralisation and Virtual Reality (Immersive Technology) on ecological projects for a wide client base, to communicate ecological design to a range of stakeholders. Easy-to-understand formats enabled stakeholders, clients and the public to experience a project's aesthetic and wellbeing benefits, and understand enhancements to biodiversity and ecosystem services in a way which is easily understood.

The technologies have now been used on a number of projects and have become a widely-used part of the Ecology team's approach across the UK and Ireland. Uses include:

- 360-degree compatible mobile devices and Virtual Reality (VR) headsets enabled users to experience and instinctively feel the benefits that nature could provide through the creation of a community roof top garden of pollinator plants and insect hotels, green roofs and green walls for a London apartment block.
- An artist's impression of how a green footbridge would connect landscape and habitats, together with a fly-through animation, highlighted how ecological enhancements at biodiversity offsetting sites in and around Derby would look across the landscape in relation to the road network.
- Several 360-degree videos, which incorporated soundscapes, were captured at a number of potential rewilding sites in the Scottish Highlands. As part of the trial, a 360-degree video location was replicated using VR development software to illustrate how the rewilded sites would look in 100 years' time.

This use of innovative technologies has enabled AECOM to vastly improve communication of biodiversity, ecosystem services, and their ecology work to clients, stakeholders and the public.

Winner

Ecosystems Knowledge Network

Ecosystems Knowledge Network

The Ecosystems Knowledge Network (EKN) has developed into a trusted independent hub for knowledge exchange on the theme of connecting environmental stewardship with wellbeing and prosperity. The Network, which is free and open to all, has a membership of 2,500 professionals and volunteers. This includes representation from over 400 local environmental initiatives. It brings people together from across many different professions and sectors, from ecology to economics and health to housing.

Since EKN won this award in 2016, it has gone on to deliver several pioneering events that have advanced environmental restoration in the UK. This included the Natural Capital Finance & Investment Conferences in 2018, 2019 and 2020 and the Accelerating Woodland Creation and Management Conference in 2020. These show EKN's unique capacity to prompt knowledge sharing on topics that no one professional group or sector can address on its own.

As a knowledge sharing network, EKN's key assets are the expertise and innovation within its membership that illustrate its vision in practice. Everyone is encouraged to contribute and to share. During 2020, for example, EKN invited two of the 25 Year Environment Plan Pioneers to share their learning with the membership via webinars. A total of 320 people joined these two events and four out of five respondents in post- webinar surveys said that they expected to apply what they had learned in their day-to-day work.

EKN has no core funding and operates with two part time staff. In the context of this level of resourcing, the Network is highly successful in communicating its findings. There are over 2,500 unique visits to EKN's website each month. In each of the last three calendar years, between 1,100 and 1,500 unique individuals have joined EKN's webinars.

The growing policy ambitions for environmental restoration throughout the UK serve to underline the importance of EKN's work as an independent knowledge sharing platform. Its impact, especially given the lack of core support, is significant and it effectively bridges many sectoral, professional and geographical boundaries.

EKN performs an important outreach role in engaging professionals who have a big part to play in responding to evidence found in the UK National Ecosystem Assessment and the recent Dasgupta Review. The EKN website is a go to point of reference for many stakeholders to find evidence on the latest thinking regarding the actions required to address the intertwined climate emergency and biodiversity crisis.

A key part of EKN's value is the fact it works across professions, sectors and interest groups. Through its diverse membership, it harnesses insight within the 'environment sector' and beyond to encourage interchange of knowledge with people from many professions that need to work together effectively for the benefit of nature and society.

Ecosystems Knowledge Network

Highly Commended

The Plastics Project

Mott MacDonald Ltd

Mott MacDonald's Plastics Project has been promoting the reduction of plastics to lessen the impact on waterways and oceans for a number of years. The company established a Plastics Working Group in 2018, reporting to the Executive Board and reaching 16,000 staff globally. In addition to reducing the company's own plastic footprint, one of the key objectives of this Working Group is to educate staff, clients and communities by sharing environmental knowledge, best practice and tools. In addition, the company actively supports the research and investigation of potential solutions to the waste already in our environment, including specific projects in collaboration with the Environment Agency, the University of East Anglia, Anglian Water and local communities.

The company organised and chaired Marine Plastics conferences in 2017 and 2018, with over 70 delegates in 2018. In order to support engagement with communities, staff devised and delivered two projects in Dublin, Ireland, installing Seabins to capture rubbish in harbours by raising over £10,000, with support of staff, the Howth local community and Ireland's largest recycling company. The launch of this project was promoted across 60 media platforms and included more than 30 interviews on TV, radio, social media and print both locally and internationally. Monitoring undertaken by staff revealed just one Seabin captured over 16 tonnes of plastic waste in under a year.

Commended

My Wild City – Engaging People with Urban Nature

My Wild City Partnership

My Wild City (MWC) is a four-year collaboration between The Wildlife Trust for Lancashire, Manchester and North Merseyside and Manchester City Council which was launched at the beginning of 2019. Funded by the Esmeé Fairbairn Foundation, MWC aims to reconnect people with urban wildlife and inspire citizens to help transform Manchester into a biodiversity-rich city which can be enjoyed by people and wildlife for generations to come.

The first phase of the Project (2019/20) was all about knowledge-exchange, raising awareness, building alliances and starting the conversation around urban nature. This involved significant and extensive stakeholder engagement and consultation, developing partnerships, piloting activity with communities and strategically setting out the ambitions, target areas and key aspects of work for MWC over the subsequent three years of the project.

There have been a number of key pieces of work underpinning this first phase: two short films were produced looking at urban nature from differing personal perspectives and citizen surveys (and subsequent reports) gathered people's thoughts on urban nature both pre- and post-COVID. Work did not stop during lockdown and a Virtual Festival of Nature in June 2020 recorded almost 90,000 online interactions. My Wild Garden packs were delivered to over 1000 households whilst, working with the Manchester Museum and partners, the MWC team helped to ensure that Manchester had the highest number of active participants across the North West during lockdown as part of the Global City Nature Challenge.

Winner

Havant Thicket Reservoir

Portsmouth Water, Atkins, Create 51, Agilia

Portsmouth Water, in collaboration with Southern Water, is planning to create a new reservoir in Hampshire, securing reliable drinking water for the water-stressed South East. The scheme also aims to maximise community and environmental benefits from the new reservoir.

Portsmouth Water strongly believe that a collaborative approach with stakeholders and the community will be crucial to delivering the scheme's potential. As a result, extensive engagement has been carried out since 2004 when a Havant Thicket Stakeholder Group was established - bringing together a range of local stakeholders, environmental organisations, planning authorities and regulators, to review, challenge and inform the reservoir design.

A 'Wetland' sub-group comprised recognised local experts including Hampshire & IOW Wildlife Trust, the Local Planning Authority ecologist, and Natural England and Environment Agency specialists. An Outline Plan was informed by public consultation (2008). The scheme was then considered and approved through the Water Resources Management Plan (WRMP) process. When the project was revived in 2019, a dedicated consultation team was formed, including the Portsmouth Water delivery team, Create 51 engagement specialists, Atkins design team and Agilia project managers.

To inform preparing the outline planning application, preparations for comprehensive public consultation in May 2020 were well underway when the COVID-19 pandemic emerged. With 'face-to-face' engagement suddenly impossible, the team had to quickly adapt and deliver a fully remote, mainly digital consultation. This was achieved by:

- Spreading the word: working hard to raise awareness with a postcard drop to 50,000 households; promoting the consultation in local media, promotion through partner websites/newsletters (local council; community organisations; parish councils) and direct emails to an extensive stakeholder database and reservoir newsletter list.
- Creating a suite of flexible print and digital materials: including: 24-page consultation brochure; 3D visualisation film; and video podcasts, interviewing different project team experts;

- Developing interactive, virtual exhibition: housing all materials and capturing feedback through a questionnaire, comments and ideas boxes and an interactive map;
- Answering questions using technology: through a series of public, stakeholder and staff webinars, presenting our proposals and answering questions via a live Q&A; and taking questions through social media and telephone;
- Creating different ways to feedback: through the microsite and social media profiles, but also using a physical feedback form with a freepost return envelope, posted to 1,250 neighbours.

In total, there were 301 feedback forms plus 277 responses from other channels. The microsite received over 4,000 visits, 124 people attended public webinars, and 32 attended the stakeholder session.

The feedback informed final design decisions as the planning application was prepared, including access road route and features to mitigate landscape impacts. Feedback was summarised and responded to in a 'You said, we're doing' report. A Design and Access Statement was also submitted with the application, charting design evolution, informed by stakeholder engagement.

Winner

Wildwood Ecology Limited

Wildwood Ecology's vision is 'to protect the natural environment, restore biodiversity loss, and address the climate emergency, so that future generations may prosper'. To help achieve this vision the company operates within a set of core values, namely:

- Do well by doing good
- Collaboration over competition
- Make work enjoyable
- Commit 100% to customer service

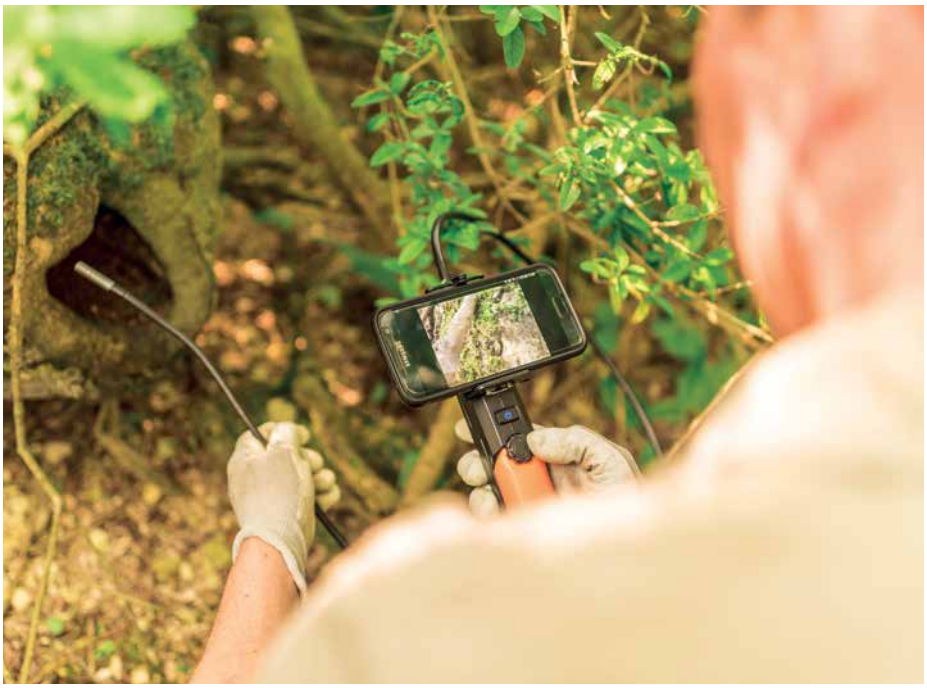
From this foundation, Wildwood Ecology's team of 9 ecologists provides expertise in a wide range of survey and consultancy services across a range of projects. Despite national lockdowns in England and Wales, the Wildwood team successfully managed to complete 257 projects and gave 3,300 hours to help their clients between March and September 2020. The team is proud to maintain a 100% success rate in obtaining protected species licences for their clients over this period. Their work emphasises the delivery of high-quality services and advice, including for exemplar projects including The Landmark Trust's Llwyn Celyn farmhouse, Abergavenny.

Wildowood Ecology provides regular opportunities for staff to develop their knowledge and understanding and learn both technical and transferable skills, which are reviewed quarterly. Training is aligned with the CIEEM Competency Framework and the company offers all staff one paid day per month to volunteer with organisations that reflect the ethos of the company. This enables them to learn new skills, impart and receive knowledge and contribute to the wider society they live in.

The team also provides training and knowledge sharing for its clients, including CPD for architects, planning consultants, local authorities, and government agencies. Managing Director, Richard Dodd has been a guest lecturer at the Royal Agricultural University in Cirencester since 2017, delivering their Ecological Consultancy module to final year students. Richard is also a mentor under the CIEEM mentoring scheme.

Richard has also established and supported bat groups across Wales, written articles on wildlife conservation for Natur Cymru magazine and contributed to the first edition of the Bat Survey Guidelines. He has presented at the UK National Bat Conference and regional conferences (Wales and South West England) and is a trainer for the Bat Conservation Trust. Principal Ecologist, Alex Pollard, collects valuable environmental long-term datasets for use within the Organisms and Environment Group research at Cardiff University. She also supervises PhD, Masters and undergraduate students in climate change, bird and bat research.

During 2020 the company launched its Ecology Training Academy, providing on-line courses for both aspiring and practising ecologists.



Highly Commended

Ecology by Design

Ecology by Design's team of eight ecologists delivers biodiversity net gain within developments by working closely with clients to understand their needs and implement cost-effective strategies which ensure the benefits to people and wildlife are maximised. Exemplar projects include producing a 25 year habitat management and monitoring plan for a Local Wildlife Site impacted by a tower block development, secured through a S106 agreement and delivering significant biodiversity net gain and restoring a sizeable area of MG5 grassland.

The team actively shares their knowledge and expertise and support others to do their bit for biodiversity. In 2020 they delivered CPD activities which focussed on current topics of relevance such as the forthcoming Environment Bill, delivering biodiversity net gain, using metrics and district licensing to various companies.

Team members have also published media, articles and opinion pieces through many different avenues such as:

- An article about Team Dynamics on the CIEEM blog
- An interview with Positive News responding to Boris Johnson's 'newt counting' comment
- An interactive quiz about bats on their website shared on social media
- An article on Building Leaders giving insights into team management

A programme of annual and quarterly staff reviews to discuss personal objectives supports individual professional development. Each year the company runs an internal winter CPD training programme covering specialist issues and/or emerging topics such as invasive species, district licensing, bat data analysis and consultancy skills training to maintain standards and gain new skills. In addition, almost all surveys are conducted as a pair for training and knowledge sharing purposes. Externally the company works with Reading University to provide a six-month internship to at least one student a year.

Consultancy of the Year – Medium

Winner

JBA Consulting

JBA Consulting is a multi-disciplinary consultancy employing 35 ecologists/ environmental managers. The company aim to deliver high quality, sustainable projects that deliver multiple benefits for the environment, people and the economy.

An example of such projects is the Sands of Life (for Natural Resources Wales). This LIFE project involves the monitoring of habitats and species as part of a major dune restoration scheme across Wales. JBA established a botanical baseline at eight dune sites before restoration works were conducted using a series of nested plots, in both intervention areas and control sites, within which all vascular plants, bryophytes, lichens and algae were recorded. In addition, other species including Sand Lizard and Great Crested Newt were also surveyed to ensure interventions could be moved away from sensitive locations. Detailed invertebrate baseline surveys were also undertaken using a JBA-devised methodology of using pitfall traps situated in linear arrangements across slacks; active, timed searches on areas of open sand; and structured sweep-net surveys. The outcomes of the surveys have been used to identify targeted interventions to improve biodiversity on a site-by-site basis.

Growing Goss is a project whereby the team produced an ecological restoration plan for Goss Moor, an area of unenclosed upland in an area of flat relief in the headwaters of the River Fal in Cornwall. Mining has had a dramatic impact on the hydrology, ecology and landscape present today. Abandonment of the extractive industries over recent years has led to the development of a series of ecologically interesting wetland habitats that are now designated as a SAC, SSSI and NNR. Natural England had funding from the European Regional Development Fund (ERDF) to enhance the resilience and capability of Goss Moor to deliver important ecosystem services for Cornwall's communities, including enhanced biodiversity, clean water, flood-prevention, carbon storage alongside education and health and wellbeing opportunities. The restoration plan looks to re-naturalise the headwaters of the River Fal where historic artificial drains and canalised channels have damaged wetland habitats. The scheme will restore hydrological conditions and improve the condition of SAC and SSSI features.

The difficult conditions of 2020 provided new challenges for the team in the way it shares knowledge and good practice. The company moved its training provision online allowing staff to deliver a number of courses, including bespoke training on fluvial geomorphology and river restoration, working with natural processes, conservation and biodiversity (to NRW) and Biodiversity Net Gain (to the Environment Agency). The team ecologists have links with numerous academic institutions which facilitates knowledge sharing and promoting awareness of the profession.

JBA has a strong commitment to supporting the professional development of all staff. In 2020 company-wide training was provided on the UK Habitat Classification survey method, with staff also attending courses on HRA, Biodiversity Net Gain and the Defra Metric 2.0. In addition to the generous training budget, JBA also provides support for staff to attend lunchtime training sessions at work. JBA ecologists have run a very successful programme of internal lunchtime talks, delivered by specialists within JBA. Over 2020, improving standards in botanical survey has been a key theme, with numerous sessions provided by in-house expert botanists on identifying difficult species/groups and recording of Annex I habitats.

In 2020, numerous staff contributed in voluntary capacities including as Vice Country recorder for Lincolnshire (Brypophytes), Joint Vice County recorder for County Cork (Vascular Plants), sitting on the East Riding Local Wildlife Sites Partnership, bird ringing at sites across South Yorkshire, undertaking Sphagnum and bryophyte surveys on Thorne Moors, undertaking bat surveys for South Yorkshire Bat Group and being the Records Officer for Devon Bat Group.

Despite the difficulties of 2020, over the 2019-2020 period the JBA Trust supported provision of 3,145 hours of staff time supporting charitable activities of the JBA Trust, including: research, training and education. The Trust contributed to 4 school careers events and supported 7 STEM events in schools.

Highly Commended

BSG Ecology

BSG Ecology employs 36 ecologists and environmental managers working across a wide range of projects. For example the company was initially engaged to resolve complex Great Crested Newt (GCN) licensing issues during the build out of the Ullswater Heights Holiday Park, Cumbria, and subsequently helped design and implement habitat management and monitoring works. The operational site, which contains over one hundred luxury lodges and a glamping village, is of considerable importance to the local economy, having created numerous jobs and sustained local businesses, and provides a hub for local tourism. Monitoring has shown the project has demonstrably delivered benefits to one of Cumbria's largest GCN populations alongside the creation of a range of high-quality semi-natural habitats. As a result of BSG's work, the operators now view the biodiversity value of their site as an asset, and something to be celebrated. This is reflected in their website material, on-site interpretation, and in the fact that their Operations Manager recently achieved his GCN survey licence allowing practical decision-making on site when newts are found.

Despite the challenges of 2020 there has been a healthy programme of activities that have involved sharing learning and good practice. This included workshops on biodiversity (net) gain provided at the invitation of West of England Combined Authority, real estate companies, housebuilders, land managers and a university, collaboration with Arup to deliver cross-company on-the-job training to junior staff during commercial work, helping compensate for lost training opportunities due to COVID-19, input to a research study / CPD session for the Quod planning team through leading a topic-led (biodiversity) discussion on the Planning White Paper and continued active support and input to CIEEM's Strategic Policy Panel and Environmental Net Gain Task Group, and to Natural England's bat expert panel.

Staff development has not been ignored with time and budget set aside for a member of staff to develop a bespoke motion-activated camera designed to capture bats entering and leaving roosts, internal training for new starters on wildlife legislation, in the theory and application of Biodiversity (Net) Gain, and for all junior staff, in the application of GIS. Despite the COVID-19 restrictions socially distanced on-the-job training was provided for staff in freshwater invertebrate sampling, assessing brownfield site potential for invertebrates, and aspects of terrestrial invertebrate survey.

BSG actively promotes the profession, producing an updated version of the article 'What we look for in an Early Career Ecologist' for the September version of *In Practice* and sponsoring a Reading University Masters Student work placement during the 2021 survey season. Guest lectures included events for Oxford University and the University of Derby.

Consultancy of the Year – Large

Winner

Jacobs

Jacobs is a global multi-disciplinary company of 55,000 employees. The company recognises that the environment influences all social and economic decisions related to development and aims to delivers integrated sustainability solutions throughout its work.

The UK and Ireland Ecology team works as part of integrated teams on large infrastructure projects influencing design decisions to benefit nature. They also provide advisory roles with public sector clients such as Highways England and the Environment Agency, providing an opportunity to influence policy and planning for biodiversity. In 2020 the team supported projects in western Europe, the Middle East and Asia Pacific regions.

The team believes that many of their most successful projects are where they can successfully align benefits for nature and community. Examples include a river restoration or flood risk management master plan that not only seeks to create habitat but also makes provisions for amenity use, or the design of highways schemes that ensure that community greenspaces are not only protected but connected within the design.

The ecology team is very proactive in knowledge sharing and promotion of best practice both within Jacobs and externally. Ecologists are incentivised to knowledge share with the CIEEM membership, and in 2020 Jacobs had three articles accepted to *In Practice* across a number of topics. Presentation and attendance at national and international conferences is strongly encouraged and individuals are supported to develop papers and presentations (14 papers in 2020). Furthermore our staff support CIEEM geographic and special interest groups at all levels and on the editorial board for *In Practice*.

Internally the Global Solutions and Technology (S&T) Initiative is creating new Communities of Practice (CoPs). These connect subject matter experts with the wider global ecology team and enable knowledge dissemination and mentoring, across different lines of business and national teams. The Biology and Ecology CoP (650 members globally) encompasses 19 Specialist Knowledge groups, of which 12 are UK-led, and have been expanded this year to Ecological Clerk of Works, Biodiversity Net Gain, river hydrodynamics and Habitat Regulations Assessment. Global S&T presentations are open to all, held at times that are accessible to different time zones and recorded for subsequent access.

Jacobs' commitment to staff development is evidenced by its performance management tool: "E3: Engage. Excel. Elevate". Continuous feedback and coaching are fundamental to the E3 program, enabling employees to fully develop their careers, while at the same time aligning with business priorities. It expands upon a formal appraisal system to increase career conversations between managers and employees throughout the year, to celebrate successes, and motivate employees by supporting their career aspirations. Jacobs also provides a structured Graduate training programme.

Jacobs established its Chartership Academy in 2018 to support ecologists in career development by supporting and mentoring individuals to attain competencies and through the application process to become chartered. In 2020 eight staff gained chartership (six through CIEEM, two RSB). Jacobs has integrated CIEEM competencies within the GDP, guiding ecologists through the membership grades to Chartered Status.

All Jacobs disciplines are involved with promoting STEM careers and a number of the ecology team are Jacobs STEM ambassadors. Jacobs ecologists are also encouraged to develop links with local universities, or reach back into their own academic journeys to promote the profession. This may be through career journey talks, recruitment events and guest lectures. In 2020 the team were able to continue this programme through online sessions.

Highly Commended

Atkins

The Atkins ecology team has continued to work very effectively despite the pandemic, including successfully delivering predicted biodiversity net gain (BNG) on projects and teaching numerous developers about the concept. Atkins also managed to continue its research into and implementation of novel survey techniques and technology, especially around the use of drones for surveys and using conservation detection dogs for both water vole and hazel dormouse surveys.

There has been a particular emphasis on the use of technology on East West Rail 2 (EWR2) this year which has provided opportunities to pioneer a number of innovative technological approaches, including:

- Creation of a web map to store and display project information and multi-disciplinary constraints.
- Development of a new, Incidental Records Process, enabling ecological constraints to be recorded, shared and considered within minutes.
- Development of web maps to support complex European Protected Species mitigation licence applications.

The development of a new digital tool designed to revolutionise EIA has provided the opportunity to also digitise ecology survey co- ordination, tracking and assurance process.

In 2020, Atkins has continued to use and improve its own internal competency framework to ensure the competencies of the internal staff and the external supply chain. The company is actively involved in the CIEEM Raising Standards Working Group and the Atkins competency framework criteria has been used as the foundation to produce future national standards that will be developed by this group.

The ecology team is also involved in other working groups and actively contributes to the CIEEM Environmental Net Gain Task Group, Mineral Products Association Biodiversity and Nature Conservation Working Group, CIEEM Good Working Practices for Health and Wellbeing, BNG British Standard Working Group and over ten other working/steering groups.

Team members published over ten industry articles in 2020, including two articles in CIEEM's *In Practice*. They also helped create the Natural Capital Principles for the Water Industry. Members of the team presented at seven external training webinars, workshops, and conferences in 2020, including presentations for CIEEM and the British Ecological Society.

The annual Atkins Ecology Technical Conference went online in 2020, which included a selection of training workshops for staff. In addition, the team started a new podcast series – Ecology Gets Chatting, where team members informally discuss topical and interesting subjects.

Unsurprisingly, perhaps, this year there has been even more emphasis on wellbeing and mental health. Atkins has its own dedicated Wellbeing Champions and Mental Health First Aiders and this year's annual Health, Safety and Environment week focused on mental wellbeing. Atkins also provides support through a variety of Equality, Diversity and Inclusion (ED&I) staff networks. Each individual in the team has a dedicated ED&I objective for the year ahead, as part of the company's commitment to building a more inclusive culture.

Highly Commended

RSK Biocensus

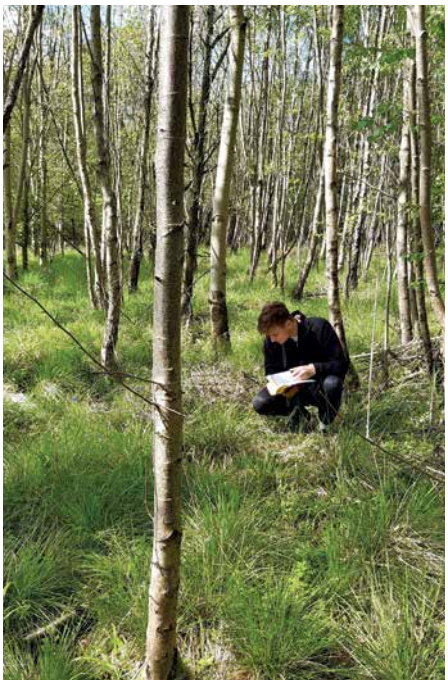
The RSK Biocensus business model, combining 80 permanent staff with nearly 700 subcontractors and a wealth of experience and expertise, means that the company is well-placed to help deliver the green infrastructure projects the country needs to the highest standards and with the greatest environmental benefits. But their aim is not just to facilitate sustainable development with minimal environmental impact but to use their expertise, passion, and role as advisors to government, big businesses and major landowners, to effect real change in the landscape.

In 2020 the company established two major new business streams aimed at reversing biodiversity loss and climate change, demonstrating the commitment to nature recovery, to improving people's connection with nature and to ensuring that local economies see the benefits that can accrue from habitat restoration. Farmers struggling post-Brexit with the new subsidy landscape have the opportunity, through biodiversity- and carbon-offsetting provided by RSK Wilding, to earn a new income by using their land for the benefit of biodiversity and climate change adaptation whilst also providing other benefits, such as flood mitigation, water quality improvement and public enjoyment of nature. Similarly, corporations eager to 'do their bit' to address the climate and biodiversity crisis can use the company's Nature Positive services to properly understand the impacts of their activities and supply chains and instigate changes that will make a substantive difference.

The company has a strong science background, investing in research, and sharing knowledge within the team, the ecology community, with stakeholders and interested non-specialist parties. This includes

- Contributing to CIEEM Position Statements
- Sitting on Technical Review Boards (*Bat Survey Guidelines*), Advisory/Steering Groups (*Bat Mitigation Project; Bird Survey Guidelines*)
- Co-authoring national guidelines (*Bat Mitigation* and *Bird Survey Guidelines*)
- Developing international guidance (*Wind Energy Developments* and *EU Nature Legislation*)
- Holding monthly 'First Thursday Club' webinars: legislation, policy and best practice relating to the natural environment, and how it affects business
- Training through CIEEM (HRA) and to clients (wildlife law for SPEN, Ecology/ Net Gain for National Grid)
- Writing *In Practice* articles and articles for other industry journals.

Line Managers receive bespoke training to ensure a fair and consistent approach to management and staff are encouraged to 'craft' a career based upon three key elements: what they enjoy; what they have an aptitude for; and what the company requires as a business. A series of fortnightly Winter Webinars (aimed at skills/knowledge applicable to all), First Thursday talks on specific business streams (aquatics, Wilding, etc.) and targeted training for smaller groups developing specific skills (e.g. on specific EPS, GIS skills, etc.) help to ensure all staff get the development opportunities they need. All staff are well-supported to progress through their CIEEM membership grade and chartership applications, with promotions directly aligned with CIEEM grades and competencies.



Commended

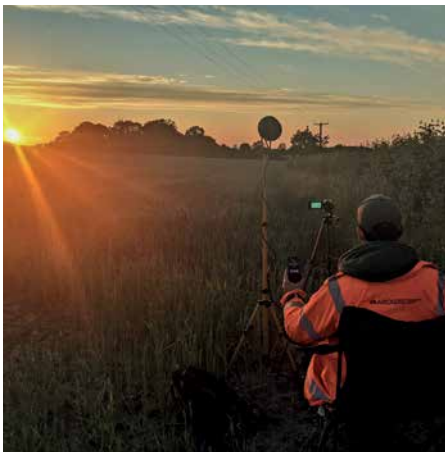
Arcadis

During 2020, Arcadis has again demonstrated its commitment to delivering outcomes benefitting biodiversity, business and local communities, all whilst adapting working approaches to the challenges posed by the COVID-19 pandemic. Major projects included:

- Work on the Lower Thames Crossing (LTC) will provide nationally recognized economic benefits whilst also delivering seven green bridges (up to 85m wide and featuring woodland belts) for wildlife connectivity and high-quality NMU access. A particular feature of this project was the 3D visualisations that have benefitted public consultations during the COVID-19 pandemic.
- Delivering a suite of species-specific breeding bird surveys (including hen harrier, merlin, peregrine and golden plover) for the A66 Trans-Pennine Upgrade.
- Using the latest guidance (NE EPS Licensing Policies) taking an alternative approach to licensing creating a saving of over £500,000 on the A523 Poynton Relief Road by reducing GCN capture effort, saving time and providing greater terrestrial habitat provision.

The internal (CIEEM-aligned) competency framework identifies staff' capabilities and personal development goals, linked to a resourcing planner to match staff with their preferred roles. In addition internal CPD learning objectives are supported by a training budget and varied internal/ external training, which in 2020 included:

- an annual event for the national team covering BNG, winter plant ID, Phase 1 habitats, bat roosts and analysis, water vole and otter training and wintering bird ID.
- two members of staff took part in Women in Arcadis Confident Communication.
- Webinars/Workshops covering Nature Based Solutions, European bats, using R, virtual botany sessions, MS Word and Excel tips.



Commended

WSP

WSP Ecology has risen to the challenges presented by COVID-19 and the team have continued to apply their expertise and to innovate to deliver high quality outcomes. Project examples demonstrating the delivery of high-quality practical outcomes that benefit nature, people and economy include:

- Enabling Works Contract Phase 1 of HS2: WSP led the design of >80 environmental mitigation sites, which will deliver significant benefits for people and the environment. These sites will provide c.65ha of habitat, supporting a range of notable species and improving landscape connectivity.
- West Midlands Combined Authority (WMCA) Five-Year Plan: WSP provided natural capital expertise to the WMCA as part of a comprehensive five-year plan on actions required to meet their net zero target. This involved an assessment of the carbon offsetting potential of high, medium and low ambition scenarios for increasing tree cover in urban and rural areas.
- HS2 Phase 2b - Use of Remote Sensing to Identify Habitats: WSP used advances in remote sensing to enable efficiencies on traditional habitat surveys. Algorithms and remote sensing data provided automatic pre- classification of the entire route, which enabled Phase 1 Habitat surveyors to attend site with pre-populated maps.

Knowledge-sharing is undertaken globally within WSP and externally with the wider ecology and business community, stakeholders, and clients. Lead experts and Technical Working Groups (TWGs) regularly provide informal sessions and structured training to business and industry. The TWGs responded to the introduction of homeworking by providing interactive, thematic training and awareness building and wellbeing sessions spread over week-long periods: WSP Bat Week, Invertebrate Week and Tree Week were well received voluntary knowledge-sharing events during 2020.

WSP ecologists also presented at more than 18 external seminars/conferences in 2020, sharing learning and good practice.

Award Sponsors

McParland Finn Ltd

VIP SPONSOR

CIEEM Insurance Services is administered by MFL Insurance Group Ltd.

We have worked alongside CIEEM for a number of years and have had the privilege of being the preferred providers of insurance solutions to CIEEM Members since 1997. During this time, we have created a suite of products to cater to the demands and needs of Members.

The availability of these bespoke solutions enables CIEEM Members to benefit from a wide scope of insurance protection that may not be readily available to them on an individual basis.

In view of the uncertain times we now live in, this event remains a focal point to demonstrate, to the public, the Innovation and Excellence shown by the Members in their work and its importance to all of us. Long may that continue!

We continue to gladly contribute to the sponsorship of the Awards Event and look forward to working with CIEEM and its Members now and in the future.

Greenspace Ecological Solutions

SILVER SPONSOR

At Greenspace Ecological Solutions (GES) we take great pride in the application of bespoke mitigation and enjoy bouncing ideas off the varying disciplines within a project team. With this element of consultancy often raising the greatest and most interesting challenges, we wanted to show our support for the hard work and dedication that is put into thoughtful mitigation across the industry.

It's with great pleasure that we are sponsoring the CIEEM Best Practice: Large Scale Mitigation Award for another year and we look forward to learning more about the outstanding work shortlisted across the awards.

As the industry evolves, we feel that celebrating and sharing knowledge and achievements is vital, with the CIEEM Awards offering a unique opportunity to inspire others, be part of a community and helps to show the (often unseen) efforts involved with schemes, research conducted by CIEEM members.

The GES team keenly await the awards ceremony and would like to wish all those that have the honour of being shortlisted the best of luck.

nhbs

wildlife | ecology | conservation

SILVER SPONSOR

NHBS is a small, but rapidly growing business that combines commerciality with a genuine passion for the environment. Our purpose is to support those who are passionate about wildlife, and those who work to understand, protect, and conserve the natural environment. We sell the largest range of wildlife books and equipment in the world, publish two magazines: British Wildlife and Conservation Land Management, and manufacture bespoke equipment, working with experts in the field when developing new products. At NHBS we understand the important role that ecologists play and work to supply professional ecologists with a comprehensive range of expert equipment and books. Our wildlife equipment team are happy to provide expert advice and can recommend and demonstrate the best products for your project.

NHBS are proud to partner with CIEEM and support the work they do to represent and support ecologists and environmental managers. Like CIEEM, we believe that by working together we can make a difference, leading to a world rich in biodiversity, for the benefit of us all. To help celebrate the success of projects, businesses and individuals who have made significant contributions to protecting the natural environment, we are proud to sponsor the 'Best Practice Practical Nature Conservation award for 2021.'

For further information on NHBS and how we support professional ecologists, please visit www.nhbs.com.

RSK biocensus

EXPERTS IN ECOLOGY

SILVER SPONSOR

RSK Biocensus is the specialist ecology consultancy within the RSK Environment Group and a CIEEM registered practice. With 70 technical staff and a network of more than 800 specialist suppliers, RSK Biocensus has unrivalled coverage of the UK. Indeed, if you are based in mainland Britain, you are likely to be no further than 20 miles from a Biocensus ecologist. We can provide a full range of ecological surveys and assessments in terrestrial, freshwater and marine habitats, whether you need one specialist for one day or a fifty-person survey team for the entire summer. There's more to RSK Biocensus than just 'boots on the ground'. We have more CIEEM fellows than any other consultancy, and we pride ourselves on the outstanding reputation of our ecology expert witnesses, several of whom are members of government-expert panels. There's nothing we love more than solving complex problems and delivering benefits to our clients and nature. Accordingly, we have recently started a subsidiary company, RSK Wilding, which seeks to turn the aspirations of bigger, better and more joined-up protected places into reality through offsetting, net gain and rewilding. We are a learning organisation; our staff are encouraged to develop their careers through training and experience using our competency framework to progress to chartered ecologists. Visit www.rskbiocensus.co.uk for more information.

ARCADIS

SILVER SPONSOR

Arcadis are one of the leading global design and consultancy firms for natural and built assets. We are more than 28,000 people, in over 70 countries, dedicated to improving quality of life.

More than ever we appreciate the dynamic needs of our people, clients, and collaborators and we appreciate the enormous contribution that CIEEM and their members have made by creating, inspiring and sharing knowledge for and within the ecological community.

Diversity and flexibility drive innovation and innovation is vital to thrive in such a dynamic political, legislative, physical and social environment and to work towards achieving our to sustainability goals. This means diversity in people, perspectives and the environment and flexibility in our thoughts and processes for design, implementation and management. We embrace this at Arcadis and more than ever we need to draw on the support of our communities, to deliver our vision of improving quality of life. CIEEM represents one such community, a community that is driving change and innovation within our profession and for the benefits of society at large. A community that continues to collaborate but acknowledges that it needs to reach a wider and more diverse audience to accelerate the vision of our profession. We are very proud to be sponsoring this innovation award, we are excited by the potential for inspiration, implementation and legacy that the ecology profession can deliver.

Wildcare
Nationwide Ecology Supplies

SILVER SPONSOR

We are delighted to be supporting the CIEEM 2021 Awards in not only one, but two inspirational categories. This prestigious event embodies our values and mission here at Wildcare – to support ecologists and wildlife enthusiasts so they in turn can support our environment and natural ecosystems. We're always growing and evolving, and support of these landmark events allows us to continue to work within the community of industry leaders and connects us with ecologists.

Our chosen sponsored categories were selected carefully. We firstly selected the Member of the Year Award as we feel this strongly ties with our value to support the community. This award is dedicated to those who selflessly go the extra mile, often unnoticed. We are extremely proud to celebrate this valuable partnership.

The Promising Professional Award is all about encouraging and supporting junior ecologists who are taking the first steps in their ecology career. At Wildcare, our products and services support students and education too, not just wildlife enthusiasts and established professionals. Therefore, this award is something we strongly endorse and encourage.

It is a privilege for us to have a longstanding partnership with CIEEM and support the wonderful work they do in inspiring youth, supporting professionals and raising awareness of the natural world and challenges it faces. Its very mission is selfless – to promote the highest standards and practices for the benefit of nature and society. Therefore, we are honoured to support the charity in these awards and wish every success to the nominees and participants.

temple

BRONZE SPONSOR

The Ecology Consultancy was established in 1999. John Newton its founder started his career as an ecologist working for an NGO and he and many other employees have gained valuable knowledge and perspective from their experience of either working or volunteering with NGOs. We are therefore, once again are proud to support the CIEEM awards as the sponsor for the CIEEM NGO Impact Award.

We believe that Britain's diverse range of NGOs are essential to the ecological wellbeing of town and countryside through their work to campaign for and deliver real change for biodiversity. The work of NGOs and consultancies is often complementary and by working together we can deliver more ecologically relevant and sustainable developments.

The Ecology Consultancy has recently joined Temple Group and Arbeco to become a single trading entity to be known as Temple (www.templegroup.co.uk), and can now offer a wider range of services from ecology and arboriculture; noise, vibration and air quality monitoring; planning and sustainability advice and social engagement. We are always keen to find ways to engage with local community groups, such as volunteering on local projects and delivering presentations and workshops to stakeholder groups.

In addition, The Southwood Foundation, a registered charity set up by Temple founder Mark Southwood, is currently trialling an Environmental Expert Volunteer Hub with Sussex Wildlife Trust to help deliver expertise to community environment projects. They would be keen to hear from expert volunteers or community projects requiring expert support interested in getting involved.

greenhouse
Design | Print | Signage | Display

BRONZE SPONSOR

Greenhouse Graphics is a multi-award-winning graphics and print company, Greenhouse is recognised as one of the UK's leading sustainable print centres and partners with some of the UK's leading environmental organisations for a wide range of graphic communications projects including design, print, signage and exhibition graphics. Greenhouse was established in 1993 with the aim to provide a greener choice in print. Now in its 28th year, Greenhouse services clients from multi-national organisations to sole traders and from a global to a local reach.

Our pioneering carbon calculator has, over the years, provided clients with an informed choice for the lowest impact print production and a calculation of their carbon used. In addition, we offer carbon balancing, via the World Land Trust, through the protection of tropical rainforests under the imminent threat of deforestation or degradation.

From concept to complete job delivery, examples of our work include brand design, development, management, and adherence; design and production of brochures, annual reports, books, magazines, interpretation boards, exhibition design, internal and external signage.

We'd be delighted to hear from you to discuss your project. Please call Emma on 01256 880770, or visit www.greenhousegraphics.co.uk.

Judges

We are very grateful to the following members who volunteered their time to judge the awards:

Best Practice
Dr David Parker CEcol CEnv FCIEEM
Dr Sue Lawley CEnv MCIEEM
Andrew May FCIEEM
Mike Willis CEcol FCIEEM
Nick Coppin MCIEEM
Dr Ben Aston CEnv MCIEEM

Postgraduate Student Award
Claire Wansbury CEcol CEnv FCIEEM
Dr. Eirene Williams CEnv FCIEEM (rtd)
Dr. Alan Feest CEcol MCIEEM
Kate Prior CEcol CEnv MCIEEM
Dr. Colin Bonnington MCIEEM
Dr. Debbie Bartlett FCIEEM

Consultancy of the Year
Prof. Rob Marrs CEcol FCIEEM
Dr. John Jackson MCIEEM (rtd)
James Adler MCIEEM
Dr. Richard Jefferson FCIEEM (rtd)
Gemma Wren MCIEEM

Action 2030
Tanith Cook CEcol MCIEEM
Prof. Roger Crofts FCIEEM
Sally Cowley CEnv MCIEEM
Liz Seal CEnv MCIEEM
Kat Stanhope CEnv FCIEEM

Member of the Year
Daniel Gotts CEnv MCIEEM
Sarah Price MCIEEM
Dr. Aidan Marsh CEcol CEnv MCIEEM
Kathy Dale CEcol FCIEEM
Jeremy Truscott MCIEEM

Planning Authority of the Year
Dr. Lynsey Robinson CEnv MCIEEM
Sarah Jane Chimbwandira CEnv MCIEEM
Hannah Bilston CEcol MCIEEM
Richard Arnold CEnv MCIEEM
Dr. Martina Girvan CEcol MCIEEM

Promising Professional
Dr Maggie Hill MCIEEM
Kathryn Edwards CEcol MCIEEM
Robert Raynor MCIEEM
Dr Chris Smillie MCIEEM
Gary Grant CEnv FCIEEM

NGO Impact
Liz Anderson CEnv MCIEEM
Sarah Cane-Ritchie CEnv MCIEEM
Ann Skinner CEcol CEnv FCIEEM(rtd)
Bruce Shortland MCIEEM
Chiara Magliozzi MCIEEM

CIEEM
Chartered Institute of Ecology and Environmental Management

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