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NATURALLY CONNECTED

Why and how the environment is vital in challenging times











Albatross conservation



National Association for Environmental Education (UK)

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This edition is focused on our responses to the coronavirus pandemic, and how we are benefiting from connections with built and natural environments. As the science behind these viruses is still being investigated, we have not attempted to cover that aspect in these pages.

NAEE

4	Editorials	Henricus Peters & Elsa Lee
4	Lockdown reflections Members' observations	NAEE Executive members
10	Profile Book Reviews Coordinator	Emily Munn
10	Obituary Anne Kenrick MBE	Nina Hatch
11	Hugh Kenrick Days Studying Biomes	Birgitta Varga
11	Volunteer Award Martineau Gardens	Juliette Green
12	Young writer Mapping the wild side of London	Kabir Kaul

Environmental Education in the LIK

Env	ronmental Education in the UK		
13	Climate change education Teach the Future	I. Cammish, P. Kirwan & R. Musson	•
16	Nature connections Impacts on children's wellbeing	R. Sheldrake & M. Reiss	
17	Nature connections Young people and nature	Orlando Rutter	
18	Nature connections Schools on Reserves, RSPB	Mary Scott	
19	Nature connections Bringing science to life	Jenny Tse-Leon	
20	Outdoor learning & P4C P4C outdoors	Gina Parker (Mullarkey)	
21	Outdoor learning & P4C Philosopher's Backpack	Jane Yates	
22	Public engagement EE for a mainstream audience	Trewin Restorick	
Woi	rld Environmental Education		

International schools Eco Film Awards	Council of British International Schools
Wildlife conservation The Life of a Wildlife Vet	Kate Church
Bird conservation Working to save the albatross	Nina da Rocha
Nature internships A walk on the wild side	Paul Lawrence
Transition in learning Local food markets	Yaz Brien
	Wildlife conservation The Life of a Wildlife Vet Bird conservation Working to save the albatross Nature internships A walk on the wild side

Reviews

30	Book reviews	Gabrielle Back & Henricus Peters
32	Webwatch Focus on lockdown	Henricus Peters
33	Final Thought	Henricus Peters
34	References	

Cover photo Main picture: an activity for World Environment Day, Juliette Green. Smaller pictures: lockdown nature diary, Sue Shanks; student leader gardening, Hammersmith Academy; Light-mantled albatross, Albatross Task Force. All photos within articles by the author, unless otherwise stated.

Environmental Education is the termly journal of the NAEE. Views expressed in the articles of this journal are those of the authors and do not necessarily represent those of NAEE.

EDITORIALS



I write this sitting in Australia but I was supposed to be in New Zealand – coronavirus lockdown meant that they were closing the borders and we had to make a decision. A hard decision, as I had to walk away from two part-time jobs and begin again. A hard decision, as I'm a New Zealander who loves the outdoors and nature, and nature is very close even in the capital, Wellington. The good news is, as I learned during my two weeks of self-quarantine here in Queensland, nature is on my doorstep – and in my amazing backyard. The bees, butterflies, birds, the burnt orange sunsets, they are all here for the offering and were able to keep me sane in these anxiety-producing times.

Interestingly, it's been noted (see Final Thought on p.33) that Nature has had the chance to 'be', to 'shine', more than usual during this pandemic. Could this become 'the new norm' as human activities return?

This edition is very much about recognising the vital importance of the natural world in our lives, which is arguably a very strong element of the whole 'why we need environmental education' discussion. Nature is such an important contributor to our mental wellbeing; of course, first and foremost, Nature produces the air we breathe, the food we eat and the (hopefully) clean water we drink. From our Young Writer Kabir (p.12), to the Wildlife Trust report on the importance of nature to children's wellbeing (p.16), to our Members' reflections (p.4-9), this edition of Environmental Education is about our own connections with nature. Thank you for supporting environmental education; we hope you enjoy this very personal edition.

Henricus Peters, Editor

In this edition of our journal it would be remiss of us not to pay heed to the global pandemic situation. We would like to pay tribute to the very many hardworking people in hospitals, care homes, supermarkets, schools and elsewhere, for whom this period has been anything but slowed down, and we thank them for their hard work for us, both now and in the past and future. We would like to pay our respects to all those people who have lost their lives to this virus, and we share our condolences for those who are suffering the hardship of loss of loved ones around the world.

For me, what this virus has illuminated is the interconnectedness of our lives and the wider living world. This is something that I have always been acutely aware of, but that awareness has new meaning for me now. The fact that this virus has paid no respect to socioeconomic privilege and yet the severity of its impacts has varied widely and often unpredictably, has given us an insight into how differently the world is experienced. So we are connected by risk, but this does not make us equally vulnerable.

As environmental educators, this has been a salutary warning about the importance of keeping that differently experienced interconnectedness at the forefront of our minds, and to seek ways to make it educational, for the benefit of the living world.

Whilst recognising that this period has been extremely difficult for many people, we hope you will enjoy this issue and take inspiration from the positive ways in which some of our writers have managed this period of a slowed-down life.

Elsa Lee, Publications Coordinator

LOCKDOWN REFLECTIONS NAEE MEMBERS' OBSERVATIONS



Backyard environmental education: together in lockdown?

Elsa Lee

In preparing this issue of our journal we focused on what we might do to counter the extremely challenging and often devastating consequences of this global pandemic. In the UK and elsewhere, environmental organisations and others have been encouraging connecting with our local places and the notion of nature connections has become a part of common parlance. I recently heard a BBC Radio 1 DJ rattle off a list of names of common garden birds and then point out how odd it is that he can now do this!

In this vein, we asked some of our members to write about how they have used their outdoor spaces to stay well – mentally and physically – in this period of lockdown. The accounts here are inspirational, showing how the slow down in the pace of our lives opens up time to explore our local spaces in deep and meaningful ways. Members who are already very committed to engaging with their local outdoor spaces have become immersed in small familiar spaces in new and inventive ways. Others of our members have provided some useful tips that will be useful as lockdown slowly lifts; but these are also ideas that can be used into the future and we hope you will continue to find ways to do this important work of connecting locally as the pace of many lives picks up again for those of us who are not shielding.



Engaging with local outdoor spaces during lockdown. Image: E. Lee

Through all of this we have been acutely aware of the incontrovertible fact that many of us are writing from privileged positions of houses with gardens. ONS data¹ shows that 1 in 8 people in this country do not have private access to a garden, balcony or private shared outdoor space. And what is more, if you are black you are four times more likely to be in this position (ONS provide survey data for these stats from Natural England).

We acknowledge this inequity. While some of the resources included here can be used in any living situation we express our regret that not everyone is able to enjoy their locality equitably. Whilst our journal does focus on the environmental and ecological aspects of sustainability, we are always conscious of the fact that we need to do more to raise the profile of the economic and social aspects of our work too.

It is worth noting here that the distribution of access to parks and public outdoor spaces is far more equitable and democratising, and you can use this link to find an outdoor space near you: tinyurl.com/y6urnqb5.

As we emerge from lockdown, these places will become more and more important and now is the time for us to think about how we can encourage the responsible use of them that allows everyone to benefit joyfully; perhaps using the suggestions provided by Emily Munn in her article (p.9), or by joining a local park association as suggested by Alona Sheridan (p.8). Or perhaps you will be inspired to write your own haiku (like William Scott, p.8) to capture the complexities of the 'humanimal' situation in which we find ourselves?

Education remains key, as always. I encourage you, as environmental educators to reflect on how we can educate both individuals and corporations to support the development of a relationship with our surroundings that is good for us and good for Earth; and to do so in such a way that acknowledges the socioeconomic disparities that exist, as well as their intersections with racial and cultural differences.

Learning to know your waders (and other birds)

Professor Justin Dillon, NAEE President

Last September, I moved out of a flat in central Exeter and into a two-storey apartment in Topsham, about four miles away. My new place overlooks the Exe estuary, a Site of Special Scientific Interest and a Ramsar site.



Redstarts on the Exe estuary. Image: Justin Dillon

Since lockdown began, which for me was March 13, I have seen almost 30 species of bird ranging from Black

Swans (an import from Australia) to woodpigeons. As the months have passed by, the numbers of some species have risen and fallen. Frequent visitors to the small bay outside my window include Little Egrets which were rare when I was a boy and only started breeding in the UK in 1996.



Little Egret. Image: Justin Dillon

Increasingly common these last few weeks have been Shelducks – there's a pair that visits on a daily basis – and the Common Terns are becoming more common. Today's new visitors were Ringed Plovers.

My knowledge of wading birds has increased substantially; I can now tell a Redstart from a Black-tailed Godwit by their calls, let alone their appearance. Curlews are common and they, too, can be distinguished by the noise they make. The largest wading bird in the UK, Curlews were hunted for many years and up until 1942 you could buy curlew pie! I think my favourite are the Oystercatchers, although I've only seen three at any one time.





A Curlew (left) and a pair of Shelducks (right). Images: Justin Dillon

I started off using the Field Studies Council's *Guide to Winter Coastal birds*² but I also use the Collins *Complete Guide to British Birds*³ and the RSPB website⁴. I use a Nikon D90 with a Sigma 150-500mm lens to record life on the estuary.

I post photos on Facebook on an almost daily basis and my professional naturalist friends are always able to identify anything that I'm not sure of. This contact with nature and with other nature-loving friends has contributed to my wellbeing these last ten weeks. I also feel that I am learning something new about birds every day.

Keeping busy during lockdown Juliette Green, NAEE Executive

One of my roles in my 'portfolio career' (as a teacher friend once put it) is to work one-to-one with children who are in Local Authority care, supporting them with maths and English. So, when lockdown came along, most of these children remained in school, being classed as vulnerable. This meant that I could continue to go into school, where I worked (socially-distanced, of course) with these vulnerable pupils – as well as children of key workers – within school. Other pupils I taught at home via Zoom lessons, with the occasional WhatsApp garden pond dipping session thrown in for good measure!

The warm weather that we experienced during the first month-or-so of lockdown, coupled with the fact that we were largely 'off timetable' meant that we could spend one afternoon a week learning in 'The Coppice'. This is part of a local woodland, adjacent to the school, which is fenced off so that it can be accessed safely and securely. I was able to share my outdoor learning knowledge and ideas with a range of teachers and pupils, particularly those in upper key stage 2, who don't normally spend time in this part of the school grounds.

Our activities included environmental art, den building, scavenger hunts, minibeast hunting, and making Morse code messages from sticks and stones for VE Day.



A bee created by a group of children using natural materials. Image: Juliette Green

Another of my roles is part-time Environmental Education Teacher at Martineau Gardens in Birmingham. All school visits and family activities obviously had to be cancelled, so I took to social media. Over the first few

weeks, I did a Facebook Live pond dip and minibeast hunt, a pre-recorded tree walk and got 'suited up' to go and film the beehives with our volunteer beekeeper.

For Environment Day on Friday 5th June, I recorded a set of short videos to match this year's theme: 'Time for Nature' (see the image on the cover of this journal). Here I looked for aspects of nature to match the 12 numbers on the clock, and encouraged families to do the same. You can visit facebook.com/martineaugardens to view these videos and take part in future events.

I was also approached by a local film-maker to record a set of four 'Lockdown Safari' films, commissioned by Birmingham City Council. Each film involved me setting a challenge (e.g. see how many minibeasts you can find, create a piece of nature art), which was then carried out by family teams and the films were posted on the Healthy Brum YouTube channel: tinyurl.com/ybf4rn79.

My lockdown life has been anything but slower-paced!



News from the North David Fellows, NAEE Executive

Except that this contribution comes from Northland. New Zealand and not my usual Cumbrian base.

Our March return flight was cancelled overnight when Singapore was one of the earliest nations to close their airport down, even to transit passengers. We booked a different route back but then the British mathematical predictions came out on the numbers who would succumb to the Covid 19, and, within a few days, we saw in the local newspaper a picture of my beloved Roose Primary School along with one of my successor as headteacher. On the Friday she had been rushed into hospital. A similar front page the next day announced her death, along with news that several friends we knew had also died. Our plans changed!

Strangely, the eight weeks and all the events seem more like a lifetime of new and unexpected events. New Zealand moved rapidly through four levels of increased security so that in little more than a week our government had us in 'lockdown' with only essential workers allowed out. As my wife Janet and I are both past our mid-seventies we were regarded as especially vulnerable, even though we still feel fit and able to enjoy life. However, like most of the country, we wished to stay that way. Meanwhile, we enjoyed the enforced leisure time to catch up on reading and house maintenance and most of all short walks within our locality on such quiet roads in clean exhaust-free air.

It was almost like being back at school as pupils with the Prime Minister Jacinda Arden as our 'well respected headteacher' whom we wouldn't want, or dare, to disobey. Daily assembly was at 1pm, when most of the nation tuned in on radio, TV or iPhone to hear how we were doing. This was led by our Prime Minister and Dr Ashley Bloomfield, our medical advisor who would usually reward us with good reports on the decreasing numbers of new Covid cases, numbers in hospitals and numbers recovering until now. With the good standards of behaviour our 'Team of Five Million' has been rewarded with a gradual opening of lockdown. It's at level two and possibly zero when this is read and our good

behaviour is being recognised worldwide. As I write, there have been no new cases for a week, no one in hospital and a recovery rate of over 97%. Unfortunately we should soon be going back to Cumbria.

Some years ago I used a strapline to describe our fascinating county of Cumbria on our EE membership newsletters as 'Varied, Valuable and Vulnerable'. It's still true and relevant as, with one of the highest death rates in the country, it now applies to the general population. We will be staying on here until our extended visa runs out.

Both of us were born during World War Two, fortunately, too young to appreciate the horrors and worries it caused. The imposed restrictions and ongoing concerns for our families and friends give us an insight into the pressures our parents had suffered.

We have both enjoyed being in and exploring environments, their histories, geographies and the impacts they made on their inhabitants, both human and natural. It may be due to our naturally inquisitive natures. Also we saw teaching as a stable and interesting job with holidays long enough for us continue sharing our pleasures with our pupils. It was some time before we heard of this approach being identified as 'environmental education'.



Discovering new species during lockdown. Image: David Fellows

Garden nature: five minute finds Sue Shanks, NAEE Treasurer

If there's one thing that the Covid-19 lockdown has given us it is more peace and quiet and, not able to stray very far, perhaps an opportunity to engage with nature in our own gardens or nearby parks.

The local environment centre in Wolverhampton where I normally work is, like most places temporarily closed, but from the start of lockdown the Centre staff were keen to maintain links to, and support for, their various user groups and try and encourage people to connect even more with nature.

One way this has been done is to regularly post a short 'Nature Fix' feature on the website, directing people to search out the latest observations and information about the local environment or try out a nature-based activity.

With simple support like this, the restricted lifestyle of lockdown provides an opportunity for people to engage with wildlife, particularly local wildlife, and become more interested and knowledgeable.

One idea shared at the end of March was the suggestion that children and families could make a daily excursion into the garden and, in just a few minutes find something that could be examined and drawn as a simple sketch in order to create a nature diary. To kick off this process, I shared a couple of examples of what might be done but having become intrigued by the idea I have since then undertaken a daily drawing to produce my own lockdown nature calendar.



Lockdown nature calendar. Image: Sue Shanks

I've found the process to be absorbing, rewarding and informative – and learnt much along the way. Who knows it takes so long for tadpoles to grow their legs? Or that two fat woodpigeons will persistently try to squeeze in the bird bath together. Or how warily robins approach their nest full of fledglings.

So now, at the time of writing this article, I am 50 days in and counting..... but I have 50-plus small reminders of the unfolding natural world in my garden.

At the end of this process I hope to try and produce a composite artwork to remind myself, and perhaps share with others, that nature and wildlife are constants in our lives if only we could take the time to notice, value and encourage the natural world, wherever we are.

I think that close examination of nature – learning names, habits and activity of wildlife species – is imperative if we are to forge a future where wildlife and the environment are regarded as the essential components of sustainable living that they truly are. It's not enough just to pay lip service to the idea of a green strategy for living. We need more people to identify, know and understand the natural world if we are to make appropriately considered decisions about the way we live in the future.

Experiences of lockdown have revealed the innate desire of the population to connect and engage with green spaces and the natural world for exercise, mental health and wellbeing. The irresistible lure of our parks, coastlines, beauty spots and countryside has been demonstrated on every possible occasion when lockdown has (or even has not!) allowed.

The value of learning outdoors – lessons in school grounds, forest school programmes – championed by some for many years, are now being promoted as important ways for schools and children to emerge from lockdown.

On the strength of the evidence across many areas of the Covid-19 experience, is now the opportunity to ensure that through dynamic environmental education we build a wave of awakening and understanding of the intrinsic nature of the way we must live in the future?

Sue Shanks is NAEE's Treasurer and a Freelance Consultant. She works as an Environmental Worker at Wildside Activity Centre⁵ and is also a Trustee of the Kingswood Trust⁶.

Together in lockdown: me and my garden Sue Fenoughty, NAEE Executive

Lockdown has meant I haven't ventured more than a few yards from my garden in the last two months. I no longer have a car, so can't drive off for a walk in the local park, and rely on my weekly supermarket shopping delivery for food and other essential items. Fortunately, however, I've spent much more time in my garden, enjoying the lovely weather we've been having, with more time to observe the resident and visiting wildlife.

This month, May, has been designated as 'No Mow May' by wildlife organisations, and we are encouraged to observe the benefits to wildlife of longer grass. Already I have lots of Daisies and little blue Dog Violets have appeared for the first time, as well as Buttercups.

I enjoy watching the bees flit from flower to flower, and I've noticed an increase in butterflies, especially the

Speckled Wood variety. The weather has been so dry, I'm constantly filling up the bird bath with water from the water butt, and wondering how long this water supply will last until the rain comes. The water level on the pond has dropped slightly and is covered with duckweed which I scoop off each day so the sunlight can penetrate the pond depths ... normally there would be tadpoles swimming round, getting ready to emerge later next month as froglets, but this year there are none – the first time this has happened for many years.



Dog Violet blooming in a lawn. Image: Juliette Green

Raising environmental awareness in a local park

Alona Sheridan, NAEE Executive

In urban areas, public parks and green spaces are essential for people to relax, socialise, exercise and discover wildlife on their doorstep. In London and across the country, Friends of Parks groups work with local councils and engage with park users in caring for and improving their open spaces. This article looks at how a South London park Friends group used Facebook to increase awareness of its natural environment during the pandemic lockdown in April and May 2020.

The Friends of Mayow Park (FOMP) is a volunteer-led group which started in 1993. It is my local group. Our public environmental engagement activities over the years have highlighted environmental treasures of the park including bat walks, bird walks, guided tree walks. In the past decade our role expanded as we created a wildlife friendly herb and soft fruit area where people can forage as they walk past, a fruiting hedgerow for birds and a community orchard, which we maintain.

Since creating our orchard in February 2012 we now use it for regular events as well as volunteer training workdays in orchard care.



Some of the trees in Mayow Park's orchard. Image: A. Sheridan

Facebook

Facebook is not for everyone. But for us, our Facebook group⁷ with over 1000 members has grown into a valuable forum for discussing park-related topics. Anyone can start a post or comment and the moderators keep a watchful eye on these online discussions.

Our plans for this year's events (2020) were cancelled when the pandemic lockdown happened, as staying at home and social distancing were key messages. At the same time the weather became temptingly hot and people wanted to visit the park while obeying the new rules.

Our Facebook group became positively busy as people shared their environmental observations of the park. A pair of Great Spotted Woodpeckers built a nest in an oak tree beside the public path; the parents seemed unfazed that their activities were being observed and captured in photos. These were featured on our Facebook group. Other wildlife posts followed.

Our newly finished tree map was also posted on Facebook. It featured some of the park trees and generated excited comments from members about their favourites.



Map showing Mayow Park's trees and birds.

We worried that our orchard trees were showing stress due to drought and we urgently needed volunteers to 'adopt' individual trees to water once a week. A plea for help was posted on our Facebook group and willing volunteers came forward.

Despite the challenges of lockdown, our Facebook group proved to be a positive forum for park users to discuss and share information on the non-human environment of our local park.

Wildlife haiku

People hide away

Held hostage by a virus

Butterflies blossom

William Scott, NAEE Chair of Trustees



Speckled Wood on hawthorn. Image: Juliette Green

Ideas to connect with and enjoy the natural environment

Emily Munn, Book Review Coordinator

For many of us, time in lockdown has given us the chance to spend more time in natural environments. Hopefully this has led to really being curious; appreciating and thinking about our place in the world around us. Let's remember that we don't all have good access to gardens or parks so here are a few ideas of simple activities to connect and enjoy the natural environment wherever you are.

Notice what's around you

From your window or on a walk, pay close attention to what you notice. What is beautiful? What is changing? How may clouds are in the sky? How many different shapes can you see? From where is the wind blowing?



Buttercups growing on a roadside verge. Image: Juliette Green

Experience all your senses

For many of us, our sight is the dominant sense we use to understand and experience the world. Let's try using our other senses: one by one, tune in to the smells, taste, feels and sounds around you. Perhaps even take a barefoot walk. What do you notice? Do you experience anything new?

Find a rainbow or an alphabet

In an online games evening with friends, we were given the task of finding 26 items in our home, each beginning with a different letter of the alphabet. Can you do this with natural items? Real items or in your mind. Create a nature alphabet or collect colours of the rainbow from your outdoor or indoor space.

Stand like a tree

Inside or out, stand like a tree: imagine your roots reaching into the earth and arms and hands up to the sky. How would it feel to be a tree? What would you like? What wouldn't you?

Go small & close up

What is the smallest thing you can see? What is farthest away? You might study the peel of an apple or repetitions of a broccoli stem in your fridge. You might study the bark of a nearby tree or an ant walking on your window sill.

Explore somewhere new

Assuming you can be outside, walk somewhere new. Find a new green space or if you can't, take yourself on a wild magical



Patterned bark of a willow tree. Image: Juliette Green

tour of a bountiful and beautiful outdoor journey in your mind. Perhaps you've never walked all of the footpaths nearby? Highlight the pattern of your name on a map then walk the route, noticing all of the natural and built environment as you go. Describe it to friends of family when you return.

Send a message to a friend

I once sent a letter to friends volunteering on a children's camp. It included only questions connected to the environment of their campsite. Think about where you are (or where you'd like to be) and what you experience to inspire some fabulous nature-based questions.

Summer Solstice

In the UK we are coming to the middle of the year and the height of the sun in our sky. This is a wonderful time to reflect, using natural signposts to what you have 'grown' and 'developed' in and around you and what hasn't. Think about how you can share your natural talents with others and celebrate the height of summer.

Sit spot

Find a quiet, safe and comfy place. It can be your sofa, lying on the floor, on the garden grass or in a woodland glade. Be still. Use some of the activities and questions above to just be for a few minutes to let thoughts, emotions, feelings, senses and your environment come into your mind and go again. Do not worry, or judge or analyse. Just notice what comes up and give thanks for this wonderful world.

Many of the above are inspired by various brilliant organisations who are currently offering free online access to resources, ideas and activities. There are so many organisations that could be mentioned. Please do share your favourites with friends and family or post them on our Facebook page.

The Garden Classroom ⁸ TCG are based in Islington, London (the borough with the least amount of green space per head anywhere else in the country after the City of London). The impact of coronavirus on communities that don't have gardens or balconies is huge. They have been designing and sharing some wonderful nature connection ideas and activities through their Instagram account to encourage nature connection in those less able to access it.

The Wildlife Trust 30 Days Wild ⁹ Free resources to encourage random acts of wildness throughout June and beyond. Visit their website for lots of ideas to inspire you to stay wild for your health, wellbeing and for the planet.

Sawpit Woods CIC ¹⁰ A new social enterprise based in Sussex have been sharing a Plant of the Day throughout lockdown. Check out their to Instagram account to learn about some new plants, folklore and herbal uses.

Creative Star & Thinking Child free outdoor learning resources ¹¹ Sue Dixon via Juliet Robertson have published some wonderful free online outdoor learning resources. Sue's aim is to help support children to face the challenges of the future through becoming critical thinkers and lifelong learners.

Learning Through Landscapes ¹² LTL helps children and young people to connect with nature, become more active, learn outdoors and have fun. They have produced a series of very popular webinars on various aspects of outdoor learning, play, school grounds and more. Take a look at their social media for videos and fabulous free resources for parents and teachers.

PROFILE EMILY MUNN





Why did you join NAEE?

Melissa Glackin, NAEE Fellow and someone who's been a wonderful mentor, got in touch to let me know that NAEE were looking for a Book Review Coordinator. I spoke with Bill Scott about the role and here I am. It has been a brilliant way to be connected with

people, events and discussions in environmental education, as well as help a cause that I feel very passionately about. Thanks Melissa!

Tell us about your background.

I have been working in Environmental Education in London for the last 9 years. Before that I worked in the world of wind farm development and sustainable travel after spending 4 years in Scotland studying Earth Science. I have been fortunate to work with some brilliant organisations across London including Urbanwise¹³ and Wide Horizons (sadly now closed) and I now work with a national charity the Country Trust¹⁴ in Kent and Sussex, coordinating farm visits for schools likely to be able to access the countryside.

Who are your role models in the field of education?

Teachers, educators, researchers and activists who are working to bring engagement of sustainability and environment into the forefront and core of education. We face a huge challenge of how to engage more people with their place in the natural world, particularly with growing urban populations and potential lack of access to greenspace. The complex crossover of planning, public space, education, play, housing transport etc.

fascinates me and demonstrates how much we need a joined up approach to solutions for today's world.

Who are your role models in the environmental field?

An aunt used to produce Natural History television programmes in the 1970s and '80s. Her passions, as well as spending time camping with Forest School Camps, inspired me as a child. Today, those who are using their knowledge, passion and position of influence to inform others and push the boundaries – whether through activism, creative projects, journalism or teaching – are those who inspire me.

What does NAEE do well?

I love the wide perspective of material and people that contribute to NAEE through research, resources, comment and web content. There's always something new to connect to and learn on their website.

Last thought?

I often wonder how we can best remind ourselves that we are part of nature and not separate to it. To better know our place in the world and be able to care for it, we need to connect – with each other, what's around us and be thankful for moments of joy that paying close attention can bring.

Emily Munn is a freelance environmental educator currently working with Urbanwise.London and The Country Trust. She has worked in various settings across London, delivering Forest School and urban based local learning educational experiences to a diverse range of groups. Emily is a fellow of LEEF and currently the Book Review Coordinator for NAEE.

OBITUARY ANNE KENRICK MBE





Mrs Anne Kenrick MBE (1923 – 2020). Image: John Kenrick

It is with sadness that we record the passing of Mrs Anne Kenrick who has been a Vice President of NAEE since 2012. In that year, and in memory of her late husband Hugh, she donated his entire charitable trust fund to benefit the work of NAEE. The Hugh Kenrick bursary scheme continues to enable teachers to get school classes outside of their immediate environment to visit specific West Midlands environmental education centres. Nearly 6,000 children have, so far, benefitted from these funds. Bursaries are

awarded to applicants who show that their visits will link to both the school curriculum and the development of wider environmental awareness across the school.

During the Second World War, Anne (affectionally known in NAEE circles as Mrs K) received horticultural training and then became Head Gardener at Winchester College before working for a London-based firm of landscape architects. With her considerable horticultural knowledge, she was (among other things): a Council member of the RHS and a judge for RHS Flower Shows; the first Chair of Castle Bromwich Hall Gardens Trust (a restored 17th

Century garden); and she established the school room at Birmingham Botanical Gardens (one of their classrooms is now called the Kenrick Room).

It was at Castle Bromwich Hall Gardens that Anne met NAEE's Sue Fenoughty, who was the Advisory Teacher for Environmental Education in Birmingham. Their friendship lasted nearly 30 years and Sue has explained that the inspiration for the Hugh Kenrick Scheme has roots much earlier in Anne's experiences. NAEE will always be grateful for Sue for introducing Mrs K to the work of our Association.

Instead of presents for her 90th birthday, Anne asked friends and relatives to buy gardening materials, which NAEE distributed to schools. Thanks to the help of her son John, she was able to read letters from children and reports from teachers after their Kenrick-funded visits.

In 2015 Mrs Kenrick wrote for our journal that:

"It is vitally important that we pass onto the next generations the responsibility to preserve and protect our environment and use the Earth's natural resources in a sustainable manner."

Nina Hatch

This is an abridged version of an entry on the NAEE website blog: naee.org.uk/remembering-anne-kenrick

10

HUGH KENRICK DAYS

Studying Biomes Birgitta Varga



As all Spring and Summer Term Hugh Kenrick Days visits were cancelled due to Covid-19, here is a report of a visit from January 2020.

Balsall Common Primary School visit to Birmingham Botanical Gardens

32 pupils were carefully selected from our four Year 4 classes to act as 'Habitat & ECO' Ambassadors. The cohort had started to learn about different habitats and the attending pupils had an engaging appetite towards extending their knowledge further to also include the impacts that tropical rainforests have on our lives, even though they are on the other side of the world.

James, our Botanical Gardens teacher, took us on a rainforest journey, teaching us all about tribes, animals and plants. The children had the opportunity to engage with hands-on activities such as: handling and smelling different nuts and seeds; holding bamboo sticks and learning that these can grow up to 2m within 48hrs; holding cotton bolls and learning that cotton grows on a branch which requires lots of water that is becoming a shortage; and carefully handling various small animals (snake, tenrec, chameleon). Alongside this, they learnt the hard facts about why many animals become extinct and that this is caused by humans.



Learning about rainforest plants and animals. Image: Birgitta Varga

We learnt that 10% of our oxygen comes from rainforest trees. We all had to breathe in 10 times, which the children found fascinating as the 10th breath would be oxygen supplied by the rainforest.

The hard facts about deforestation created an "oh no!" among the pupils; it was an eye opener. From this, they

informed their peers, and as a cohort, beautiful work developed, specifically their 'Letters to the Loggers'. Additional feedback from the pupils included quotes such as: "stop people from chopping down trees" and "plant more trees to help the environment".

The pupils learnt that there are different layers in a rainforest, with different animals living in these layers, and that by chopping down a tree, many species will become extinct. They had to guess why they think a plant growing at ground level might develop big leaves — they know that it captures more sun but learnt that it also produces more oxygen. Also, they were taught about climate and why plants have certain shapes and forms to hold on to water, or direct it towards the roots.

We did a Rainforest Challenge, where the pupils had to become scientists finding clues hidden in the Tropical biome, e.g. rubber comes from a stem, cinnamon is a bark and that there are 'host' plants.

We also visited the Desert biome and did plant comparisons with the Tropical biome.



School library display about the rainforest. Image: B. Varga

Back at school, pupils carried out the following activities:

- Colour code a World Biome map, and biomes and countries in South America (geography/English)
- Sort rainforest history into correct chronological order (history/numeracy)
- Understand the different layers of the rainforest plus using correct terminology (English/topic)
- Create deforestation posters and write letters against deforestation (English/art/values)
- Classroom and library displays (DT/English/art)
- Become an active litter picker in school and in the community (British values)

Martineau Gardens receives prestigious volunteer award

Juliette Green

Birmingham charity (and Hugh Kenrick Days venue) Martineau Gardens has been honoured with the Queen's Award for Voluntary Service¹⁵, the highest award a voluntary group can receive in the UK.

Established in 1997 as a volunteer-led organisation, Martineau Gardens became a registered charity in 2001 with a volunteer board of trustees. The organisation now supports volunteers on the Therapeutic Horticulture programme to look after the 2.5 acre community garden.

Volunteers have a variety of roles, including welcoming visitors, gardening and helping out with open days and events. Martineau Gardens has been





described by visitors as 'an oasis of calm in the bustling city' and as 'Birmingham's hidden gem' – all thanks to the dedication of the wonderful volunteers.

More information: tinyurl.com/y8u7gpaw

YOUNG WRITER

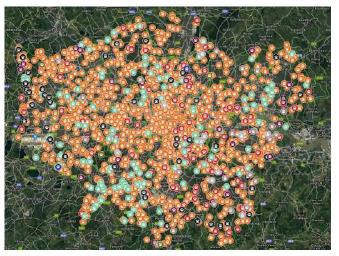


Mapping the wild side of London: my journey so far Kabir Kaul



I'm a young conservationist, passionate about how we can protect wildlife on our doorstep, especially in the capital. This led me to create *Nature Reserves of London*, an interactive map that aims to educate and inform people about the vast area of green

and blue space that can be found in the capital, giving an entirely new perspective to the city. I would like to inform Londoners that there is so much woodland, wetland and parkland near them, waiting to be discovered.



Kabir's interactive map: Nature Reserves of London. Image: K. Kaul

When I had just become familiar with the wildlife on my doorstep in Eastcote, North London in 2016, I thought there would be a map of some kind of the nature reserves in the capital. But there was not, and this must have not just caused confusion for me, but for the hundreds of other wildlife enthusiasts in the same situation. In fact, there were online maps, but only of those run by certain organisations. It seemed nobody was looking at the bigger picture of the capital as a whole. Besides, people who did not have an interest in nature at all viewed London as a congested, concrete conurbation of tall buildings, devoid of wildlife. This needed to change.

I soon found an app to start the map on, Google My Maps, which was very easy to use. However, being new to wildlife in the capital at the time, I only plotted the nature reserves which I had the knowledge of. In addition to this, I had learned about only a few types of designated wildlife sites. I plotted these sites onto the basic map, and in 2017 released it as *Nature Reserves of London – 1st Edition*. This predecessor to the current map was only in existence for six months, as nobody used it (though people claim that they used this map, but I do not believe them!). Something was missing: there had to be more designated land among the green and blue patchwork of London. I abandoned the project, deeming it pointless.

It was only after making connections a few years later that I remembered the map at all. As I became more excited about wildlife on my doorstep, I would visit the local RSPB group to learn more. It was here I would meet other birders, and sometimes find opportunities to meet like-minded young people. When I finally attended a young naturalists' camp in Norfolk, I noticed many people had done projects to make their community more biodiverse, such as encouraging wildlife gardening, and building nestboxes. These exciting initiatives inspired me to look back to the map: with more motivation and knowledge, I continued with the project.

After contacting GiGL, the environmental records centre for London, I had information on various other designations for green spaces: the most common type was a Site of Importance for Nature Conservation (SINC), which appears orange on the map. The other designations on the map include National Nature Reserve, and Special Area of Conservation, allocated by the EU. After eighteen months, in February 2019, *Nature Reserves of London – 2nd Edition* was complete.

Surprisingly, the map became quite popular. I did not expect this reception: people who did not have an interest in wildlife were discovering sites on their doorstep! Some of the sites which have surprised me a lot include New Cross Gate Cutting, a thriving railside nature reserve in Lewisham; and the Barbican Wildlife Garden, a community-run SINC in the ancient City of London, with frogs and kestrels. Every site has its own story, which everyone, Londoners or not, can discover for themselves.

Recently, I have added a few walking routes, to encourage more discovery between sites. It is very exciting that London is the world's first National Park City, and since its declaration, I have spread awareness about London's biodiversity through writing in publications, and giving talks about the map.



Sites of Interest for Nature Conservation (SINCs) were the most common greenspaces (shown orange on the map). Image: K. Kaul

Currently, I am working with individuals and organisations to generate ideas for an app, which will unlock many more opportunities for everyone to explore designated sites in the capital. Only through noticing the wild-life on our doorstep, will we have the passion to protect it. So when you visit the capital next, think of it differently: get outside, and get exploring around the Wild Side of London!

Kabir Kaul is a 15-year-old conservationist and wildlife writer, and is a passionate advocate for London's biodiversity.

More information: Twitter @Kaulofthewilduk

Watch Kabir's brilliant lockdown garden wildlife video here: tinyurl.com/ybwd7gxh

Environmental Education Volume 124

UK CLIMATE CHANGE EDUCATION

Teach the Future: Students campaigning for curriculum change

Isobel Cammish, Patrick Kirwan & Rachel Musson

Recent studies have shown that only 4% of pupils surveyed think they know a lot about climate change and the environment, 68% of students want to know more, but 75% of teachers feel that they have not received adequate training on the subject 16. That is why we have created *Teach the Future*, a youth-led campaign organised jointly by UK Student Climate Network (UKSCN) and Students Organising for Sustainability (SOS-UK), and supported by many organisations such as Greenpeace, RSPB, Friends of the Earth, the University & College Union and the Green Schools Project.

We call on the government to reflect the climate and ecological crises in the English school curriculum so that we can change the course of history. Our six Policy Asks include an independent review of how the education system is preparing young people for the future, an English Climate Emergency Education Act, a Youth Climate Endowment Fund, and net-zero schools and colleges.

We take inspiration from many schools that are ahead on this. In this article you can read about two amazing examples, a primary near Manchester and a secondary in West London, as well as messages of support for *Teach the Future* from an experienced examiner and innovative school resource provider ThoughtBox.

"As a retired Head teacher in secondary schools, I am wholly behind young people having a proper introduction during their school time to the important issue of climate change and its consequences for society."

— Dr Peter Sainsbury

"Being a Child Psychiatrist I fully support your campaign. We need to start telling the truth." – Kirsten Shukla

"As a new grandparent, the spirit, intelligence and commitment displayed by young people is an inspiration and a source of some optimism to me." – Alan Leslie Hughes 17

Isobel Cammish

Case Study 1: Canon Burrows Primary School

One school near Manchester – Canon Burrows CofE Primary, in Ashton-under-Lyne – is not waiting for the government to catch up with the dangers of the climate crisis. All the school's environmental work – which they have been carrying out for 30 years – is incorporated into the classroom and through co-curricular activities. Lessons, trips to recycling plants, birdwatching, gardening, eco clubs and reading books such as *Greta and the Giants*, all teach their students how and why to fight for their planet. The actions of the school, led by school eco-coordinator Andy Clark, have also extended into their community: they plant trees, grow flowers, raise money for environmental charities through Green Fairs and run stalls promoting zero-carbon.

At this school, teaching students about the climate crisis is shown to have many benefits. Past pupils are better at combatting the effects of the climate crisis and have gone on to careers in the green sector, for example at



Children from Canon Burrows Primary School regularly tidy the local areas both within and beyond the school grounds.

Image: Canon Burrows CofE Primary School

Natural England, as educators and as a green councillor. The students are more likely to make environmentally friendly decisions and to hold governments and corporations accountable for their actions. One ex-pupil used her climate education at Cannon Burrows to start a long but successful campaign for the local authority to only use free-range eggs in schools and is now continuing to be a forceful agent of change at university.

For Andy Clark, he sees it as imperative that the students are taught now about the climate crisis: "They are our future. If we do not teach them today, there will be no tomorrow for them." The facts of the climate crisis are real, and it is the younger generations who will need to deal with its effects in the future. They are the ones who can make a difference in the future, so need to be given the right tools to do it.

Despite the admirable work that the school is doing, with climate education not taught as the students progress into secondary school, many have little other teaching about the causes and devastating effects of the climate crisis. Unfortunately, teaching young people about the biggest issue of our time is still too controversial to be put on the broader curriculum beyond geography (not compulsory) and science (optional beyond GCSE), needing passionate educators and supportive schools to run it themselves. Andy Clark, and all of Cannon Burrows School's environmental students and educators, hope that the current science on the climate will be so difficult to ignore that this will have to change.

This case study was researched and written by **Isobel Cammish**, a 15-year-old member of both the *Teach the Future* team and UK Student Climate Network (UKSCN).

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Isobel interviewed **Andy Clark**, Eco-coordinator at Canon Burrows CofE Primary School, member of Manchester Environmental Education Network, workshop and seminar leader.

Contact: Andy.Clark@canonburrows.co.uk

More information: canonburrows.co.uk

Case Study 2: Environmental Leadership Development Programme, Hammersmith Academy

We started a school garden in Hammersmith Academy four years ago to promote mental health, teach students about horticulture and food growing, and encourage students to appreciate and protect their environment. Soon after we rolled out a daily whole-school tutor time horticulture programme. Each week a new tutor group visits the garden and are paired with garden activity leaders aged 12-18. The leaders teach their groups to construct planters out of wooden pallets, look after our school chickens, grow and harvest produce for the local foodbank, construct living fences and lots more. In an evaluation of the students' garden experience, learning, relaxation and sense of community, all scored 8-9 out of 10. George, aged 18, reported that the garden:

"Provides a comparatively secluded area where one can take a break from the chaos [...] It can also promote gardening itself, something that most in the school are unlikely to encounter in their day-to-day life. I enjoy the sense of accomplishment from seeing something that I have planted grow over the year and end up on someone's dinner plate who needs it much more than me".



Student leader teaching in the greenhouse. Image: Hammersmith Academy

In 2019 we launched SSAT's student leadership accredited (SLA) qualification to empower the student leaders to take full responsibility for the tutor time horticulture programme. The effects were immediate. The students became more responsible, better organised, better at communicating and more invested in themselves and the programme, as confirmed by 16-year-old Nazifa:

"It has helped me to be more confident when speaking as I often have to talk to students and give them instructions on what to do. Also, I think it has improved my time management skills as I have to get certain tasks done in a small space of time."

The student activity leaders make a highly positive, tangible contribution to school life. They are highly supportive of each other as a team and go to great lengths to ensure the wellbeing of the students taking part. In the words of one participant:

"I like it a lot. I feel as though it's a fun and convenient way to help contribute to the school in some fashion. It's also good for stress-relief, particularly during the spring when the plants start to come up."



Watering during tutor time. Image: Hammersmith Academy

We are an inner-city school, with limited space. Most of the students in our school come from disadvantaged backgrounds. Nearly half of our students live in apartments without access to outdoor space. Our garden provides our young people with opportunities to experience nature and thereby build their confidence. We would encourage all schools to invest in nature, such as a school garden. It will enrich the life of your school, staff and students.



Weeding in the flower garden. Image: Patrick Kirwan

Patrick Kirwan teaches science and is Horticulture and Community Outreach Coordinator at Hammersmith Academy. He also manages a community garden which focuses on partnership work with primary and secondary schools.

Contact: pkirwan@hammersmithacademy.org

More information: hammersmithacademy.org (school website); tinyurl.com/y7oypnc4 (SSAT student leadership accreditation)

A letter in support of Teach the Future from an examiner

Greetings and respect to all student members and supporters of *Teach the Future*. I have been Principal and Chief Examiner for GCSE and A Level Geography for the last 30 years and so I have set hundreds of exam papers and assessed tens of thousands of student answers. During that time I have often felt inspired by the answers that I have been privileged to mark.

For most of my examining career I have been responsible for setting Decision Making or Issue Evaluation Exercises (DMEs or IEEs). The issues have covered a wide range of aspects of geography, often related to climate and the environment, and linking different aspects of human, physical and environmental geography. Recent IEEs have been focused on fracking, flood preparation and management, and migration of climate refugees from The Sahel. A large majority of candidates' answers have shown a deep involvement with the issues. Students have shown a commitment to studying and researching the facts and then using their understanding and judgement to look for ways of resolving the issues in a way that will bring maximum benefits in both the short term and long term; for the local area, the region and the wider world; for people and for the environment.

So, my advice to anyone drawing up a new curriculum is:

- · Present students with the information they need to understand issues
- Teach them how to analyse information and to understand how, why and by whom that information has been presented
- Don't preach to them and don't patronise them
- Encourage them to take control of their future
- · And, most of all, trust them!

Best wishes,

An examiner, teacher of 25 years, writer of textbooks, lecturer and teacher trainer

Message in support of *Teach the Future* from school resource provider ThoughtBox

Whilst millions of young people are growing up concerned about the climate crisis, many are struggling to know where to go to learn more about what is happening around them. Meanwhile teachers are being offered minimal guidance through which to respond. The asks of *Teach the Future* highlight the clear need for a significant (and urgent) focus on climate education in our schools.

To best support schools moving forward, we need to expand our approach to climate education, going beyond the mere sharing of facts to equipping young people with tools to allow them to feel empowered and emotionally resilient. Equally important in this process is support and training for educators within our schools. The teaching of climate change should not fall upon the shoulders of one department or teacher and, given the complexity of the issues, teachers cannot be

expected to 'have all the answers'. Instead, we need to work across schools with a holistic, discussion-based curriculum, working to empower teachers in facilitating challenging conversations about climate change.

.....

Rachel Musson is Founding Director of ThoughtBox Education, a social enterprise supporting schools with global learning programmes, including a free Changing Climates curriculum for schools.

Contact: rachel@thoughtboxeducation.com

More information: thoughtboxeducation.com (website); tinyurl.com/ybdxauez (climate-crisis curriculum)



Contact: hello@teachthefuture.uk

More information: teachthefuture.uk (main website with link to Crowdfunder); teachthefuture.uk/asks (information on campaign asks); teachthefuture.uk/mp (template for letter to your MP).



UK NATURE CONNECTIONS

The impact of nature on children's wellbeing Richard Sheldrake & Michael J Reiss

Engaging with nature has been found to be associated with various benefits, including benefits for physical health and self-reported wellbeing (e.g. Rogerson, Barton, Bragg, & Pretty, 2017¹⁸). However, most of the research to date has been undertaken with adults and much less is known about the benefits to children. Here we report on a project funded by The Wildlife Trusts in which we undertook research to investigate what children felt they got from participating in outdoor activities.

Our research approach

We studied children who took part in outdoor activities with their local Wildlife Trust. Some of these activities lasted less than a day; at the other extreme, some took place over the course of several weeks. The outdoor activities involved children learning about nature while in nature, such as identifying plants and trees and considering the needs of different wildlife habitats.



An example of a Forest School. Image: Richard Sheldrake

In all, 451 children (mostly 8-9 years of age) in 12 areas across England took part by completing surveys before and after they participated in their activities. The research outcomes focused on: children's self-reported health and wellbeing measured through questionnaire items such as "My health is good" and "I generally feel happy"; children's connection to nature measured through items such as "Being outdoors makes me happy" and "Humans are part of the natural world"; and children's pro-environmental values measured through items such as "People should protect plants and animals" and "People should care for the environment".

Our analysis was able to take account of the fact that children who undertook different activities sometimes had different characteristics (such as their age and gender) and also different levels of prior engagement with nature-related aspects of life and different initial levels of wellbeing, nature connection and pro-environmental values.

Our findings

The analysis revealed overall increases after undertaking the activities for the children's personal wellbeing and health, nature connection and pro-environmental values. Encouragingly, children with the lowest initial

levels of wellbeing, nature connection and proenvironmental values were found to show the greatest increases. Boys and girls had similar changes.

These findings were affirmed through the children's reflections on their experiences, expressed through the questionnaire that they completed after undertaking the activities. The majority of children reported positive experiences and believed that they gained benefits. These included: "I enjoyed it" (where 94% of children expressed agreement or strong agreement); "It showed me that people should care for the environment" (90%); "It showed me that people should protect plants and animals" (89%); "I enjoy being outdoors more" (83%); "It made me feel calm and relaxed" (81%); "It made me feel refreshed and revitalised" (79%); and "I would like to spend more time in nature in the future" (78%).

The majority of the children indicated that they gained various educational benefits. These included: "I learned something new about the natural world" (where 90% of children expressed agreement or strong agreement); "I learned something new that might help my school work" (79%); "I think I will be better at my school work" (77%); and "I think I will enjoy my school work more" (73%). The majority of the children also believed that they gained wider personal benefits via the activity that they undertook, including: "It showed me that I can do new things if I try" (84%) and "I now feel more confident in myself" (79%), together with wider social benefits including: "I get on better with my teachers" (81%), "I get on better with other people in my class" (79%); and "It helped me feel part of my school" (76%).

Implications

Overall, the findings indicate that experiences in and of nature can help support children's wellbeing and aspects of their connections to nature.

Benefits to health or wellbeing from nature may arise in various ways. It has been proposed that nature may help to facilitate recovery from stress and from fatigue. Concurrently, wellbeing is thought to follow from achieving underlying needs, such as for autonomy, competence and also relating, connecting and belonging with others. Autonomy involves someone being able to follow their intrinsic motivations towards doing activities that are personally enjoyable and rewarding. People can also undertake activities in order to help realise their self-identity and/or to help express their identity to others, in order to become who they want to be in life. Someone's wellbeing may link with their nature connection, given that nature connection encompasses an intrinsic motivation towards enjoying and engaging with nature (through expressions such as "Being outdoors in nature makes me feel peaceful" and "When I feel sad. I like to go outside and enjoy nature"), together with a perceived responsibility and sympathy towards nature.

Supporting children's wellbeing, and benefits to wellbeing arising from nature, are likely to be helped by the following:

Further opportunities for children to engage with nature. Children's accessibility to nature can be limited by their location and by various other barriers. For some children, visiting nature through their school may provide opportunities that they would not otherwise be able to have. For children at school, learning about nature while learning within nature can help cover aspects of the National Curriculum while providing enjoyable and beneficial experiences.

- Support to foster children's motivations to engage
 with nature. Children will likely want to engage with
 nature if they think that they will enjoy it and/or if they
 are interested in doing so. Positive early experiences
 and support may be important. Explaining that nature
 can be beneficial to health and wellbeing offers an
 initial extrinsic motivation for someone to engage with
 nature, which can develop into intrinsic motivation
 when engaging with nature is found to be enjoyable
 and has increasing internalised personal meaning.
- Support to foster links between children's personal identities and nature. Supporting children's varied interests, and also recognising and supporting the diverse ways in which someone can be a 'nature person', are important. Some children may prefer outdoor activities and adventure, for example, while others may prefer learning about plants and animals.
- Support to increase accessibility. Wider socio-cultural norms, stereotypes and/or expectations may facilitate or constrain people's motivations and/or developing personal identities. Recognising the diverse ways in which people can engage with nature, and the diverse people who do so, may help ensure that more children can see that nature is accessible for 'people like me'.

This research was undertaken between spring 2017 and spring 2019 by Dr Richard Sheldrake, Ruth Amos and Professor Michael J. Reiss. Data were obtained from twelve of the 37 Wildlife Trusts in England. A full report is available here: tinyurl.com/ybc9k4tb.

Richard Sheldrake is a Research Associate at UCL Institute of Education and Michael J Reiss is Professor of Science Education at UCL Institute of Education.

Contact: r.sheldrake@ucl.ac.uk

Dartmoor National Park: Connecting young people to nature Orlando Rutter

The activities described here are paused until the lock-down period is over but Dartmoor National Park have posted links to their Learning in Lockdown activities which you can access here: tinyurl.com/yckt3tx3.

National Parks are a great place for learning and most people would not be surprised to learn that most of the UK's 15 national parks have a well-developed formal education offer that helps students to:

- understand processes that formed iconic landscapes
- explore what features of natural and cultural heritage make national parks special
- undertake fieldwork with pupils to understand the role that National Park Authorities play in promoting opportunities for visitors while protecting the rich resource they have come to enjoy.



Young Rangers dry stone walling in Dartmoor National Park. Image: Orlando Rutter

What may be less well known are some of the 'informal learning' offers that some national parks provide.

On Dartmoor we use a 'progression route' for young people to help them understand what makes Dartmoor special and to support their learning outside the classroom and outside the formal school context.

This engagement journey starts with children and their families with a family learning club catering for families with 5–12 year olds. We provide twelve experiential education activities a year that explore Dartmoor's special qualities. Costs are deliberately low to ensure equality of access. Typically activities include an element of learning alongside a craft or making activity – something to take home to reinforce learning and engagement with Dartmoor is an important part of the process. In addition, Ranger Ralph Club members receive four newsletters each year.

Recognising that once children reach the age of 12 there could be a loss of this engagement and connection, in 2015 we ran a pilot programme for young people now too old to be Ranger Ralph Club members using a Junior Rangers model as a template for our programme of activities.

In this pilot programme the Junior Rangers, aged 13–16, worked to achieve not one but three different awards: the Dartmoor National Park Authority Junior Ranger Award¹⁹, the John Muir Explorer 8 day award²⁰ and the Europarc Junior Ranger Certificate²¹. More recently we worked with another local education provider to pilot the 'National Outdoor Learning Award'²² which helps participants reflect on their behaviours to help them develop and understanding of resilience and self-esteem. This award has now been adopted by the Institute of Outdoor Learning (IOL).

As part of the initial programme Junior Rangers undertook a range of practical conservation tasks, such as clearing invasive vegetation, footpath maintenance and litter picking. This was combined with valuable outdoor learning experiences linked to the environment, as well as outdoor activities such as rock climbing and cycling. Through these experiences they have gained a greater understanding of Dartmoor and the natural environment.

As one newly qualified Junior Ranger put it: "It was really good to do some real work and not be treated like a little kid".

The success of the original pilot has led to further cohorts of Junior Rangers in each of the subsequent years. Previous Junior Rangers are invited to re-join for a further year to act as mentors for the new intake. This way of working not only increases connection to Dartmoor but has real benefits for the young participants who recognise that they grow in confidence and self-esteem. Gaining nationally recognised awards is a way of ensuring that this informal learning offer is valued and contributes to participants' portfolios of achievement.

Our next 'progression route' was to develop a Youth Rangers programme for young people aged 16-plus. We piloted this in 2019 and took the new cohort of young people through a range of progressively challenging and stimulating experiences including providing a two day certificated stone walling course. We also asked these young people to find additional volunteering opportunities outside our programme of events to make up a total of 20 days activity which meant they were eligible to receive to John Muir Conserver Award. We already have a number of apprenticeships and this Youth Ranger programme is starting to provide continuity for engaging young people from 5 – 25!

At the heart of our work we aim to provide direct experience that is relevant and applicable beyond the immediate event. To achieve this we use the environment, setting, context provided by Dartmoor's landscape, wildlife and cultural heritage to provide intensive, absorbing, high quality and continuously innovative engaging activities. Importantly, our experiences are authentic – not 'Disneyfication' or the commodification described by Loynes (1998)²³. Activities are designed to allow equal participation and each child to achieve. Our ultimate aim is to build meaningful relationships: with the environment, with each other and with self (self-confidence and self-esteem). We work with relatively small numbers and small scale means we may not 'touch' so many – but the depth of relationship and intensity of experience can prove transformative.

We also consciously use the 'Ranger' title both as a noun and as habitus (Bourdieu, referenced by Beames and Telford in Pike and Beames 2013²⁴) or ontology. Young people respond well to the practical and skills based learning in contrast to the more academic studies they may engage in at school. One mother describes the process for her highly academic achieving children as "recalibrating in the outdoors".

In evaluations that we conduct at the end of each year's programme we find that individuals express a level of change or level of learning that Sterling (2010)²⁵ would consider to be third order change or third order learning – 'transformative'; which is also expressed as 'seeing things differently'. This is in contrast to first order change: 'doing things better' or second order change 'doing better things'. Sterling's paper argues that if we are to make a difference in terms of education for sustainable development we need to move beyond first and second order change and learning. He argues that only by creating conditions for a paradigm shift – a change in perspective - can people start to think, behave and act differently... and more sustainably.

Dartmoor National Park Authority's Junior Ranger Programme was used as a case study in Defra's 8 *Point Plan for England's National Parks* (March 2016)²⁶ as an example of 'connecting young people with nature'.

Orlando Rutter, Head of Outreach & Understanding, has worked for Dartmoor National Park Authority for 17 years. He has an MSc in Applied Environmental Science from Wye College and is a Leading Practitioner of the Institute for Outdoor Learning.

More information: dartmoor.gov.uk

Schools on Reserves Mary Scott

The aim of the Schools on Reserves project is to reconnect children to nature. We enable students to explore the natural world with exciting hands-on activities providing unique and memorable learning experiences.

Outdoor learning is delivered by our partnership of the RSPB and Natural England at the Avalon Marshes near Glastonbury. Our nature reserves in the Somerset Levels teem with wildlife with increasing numbers of booming bitterns, egrets, ducks, otters, water voles, eels, amphibians and the largest wintering roost of starlings in the UK. Schools on Reserves gets children out onto nature reserves to connect them to nature, enriching their experience of the environment and challenging them to give nature a home.



Canada Geese on the marshes at sunset. Image: RPSB



Young birdwatchers at one of the hides. Image: RSPB

Students spend a day in one of the iconic landscapes of Somerset, with views of Glastonbury Tor and ancient trackways beneath their feet. Visits are booked all year round, with winter visits includes an option to stay on to watch the starlings roost. All the educational programmes support the English National Curriculum with a particular focus on the science curriculum.

"The children loved it – wanted to bring their families back. It was a wonderful experience..." (teacher)

"I liked seeing all the pond insects........ hope I get to go to the Avalon Marshes again!"; "... I found out lots and I loved the slow worms" (pupils)

Contact: Mary Scott, Avalon Marshes Learning Officer, RSPB Ham Wall ham.wall@rspb.org.uk

More information: rspb.org.uk/schoolvisits

Bringing Science in Schools to Life Jenny Tse-Leon

Common Frogs are found across the UK from urban to rural environments. However, despite this, an alarming number of children have never seen one themselves.



Common Frog. Image: M. Branson © Froglife

Froglife, want to change this and provide all school children with the opportunity to see frogs up close through their Tadpoles in the Classroom and Leapfrog Schools projects. Froglife is a wildlife conservation charity with a focus on the protection of the UK's amphibians and reptiles and the habitats they rely on.

Tadpoles in the Classroom is a series of curriculumlinked educational workshops delivered in the Spring, bringing frogspawn into the classroom and enabling children (and adults) to get a first-hand experience of its metamorphosis into tadpoles and then froglets.

As well as giving children this magical experience, the project enables them to learn about life cycles, food chains, habitats, conservation, reproduction, environmental issues and even death in an interactive, hands on way.

Quotes from teachers who took part in the project:

"This project is everything the curriculum of excellence envisages, I made further links with reading and literacy lessons in class but it is endless what could be completed if this was a term class focus"

"It was very well led...The children have said it's been their favourite activity this term."



Frog life cycle. Image: L. Smith © Froglife

Tadpoles in the Classroom is a 6-12 week programme (depending on how long it takes for the froglets to develop) that gives children the opportunity to have an up close view of the frog life cycle from frogspawn to froglet. Froglife provides all the equipment and guidance needed for keeping tadpoles in a classroom and will deliver sessions to pupils to teach them about lifecycles, metamorphosis, habitats, biodiversity, ecosystems and much more (these are adapted to suit the age of the group). The sessions start with going out to collect frogspawn from a local pond (ideally with the children) and bringing it back to the classroom. During this session we explore the pond area and do some pond dipping to find out what other animals are living there. At the end of the project the froglets are released back to where they were found (again with the children if possible). This enables children to make the connection with the natural world where the frogs came from.



Children setting up a tadpole tank. Image: L. Smith © Froglife

To provide a long term connection to the nature within a school's grounds, Froglife also offers a project called Leapfrog Schools, which supports schools to create or restore a wildlife area complete with pond and dipping platform. Schools can either commission this work directly or Froglife can support them to apply for funding if required. This project is designed to meet the needs and interests of the school so no two projects are the same but many include common features.

Ponds are an incredible place to learn about nature and the wildlife that we share the world with. At Froglife, we believe that every school should have access to a pond and a wild area in or near their school grounds.

So many schools have an old wildlife area that has been locked away in a hidden corner of the school grounds with a derelict pond, often surrounded by hard paving and not much else. Froglife have supported numerous schools to transform these areas into accessible and inspiring spaces which can be easily used by teachers to deliver outdoor lessons and children to explore and discover wildlife from minibeasts to 'dragons' (if you've ever seen a male great crested newt you'll know what we're talking about).

Jenny Tse-Leon is the Education & Strategy Manager for Froglife, and is an Honorary Lecturer at The University of Brighton. Her expertise is in engaging people, especially those from disadvantaged backgrounds, with nature conservation

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UK OUTDOOR LEARNING & P4C

Philosophy for Children (P4C) 'in', 'through', 'about' and 'using' the outdoors Gina Parker (Mullarkey)

There are lots of studies into the effectiveness of P4C, including evidence to show that it boosts results in reading, writing and maths but, for me, the real benefit is teaching pupils to think for themselves and articulate those thoughts clearly. At the same time, research has consistently shown that there is huge value in getting children to spend time and to learn outdoors.

Bringing these two complementary approaches together is a great way to really develop the skills we seek to foster in both, and can take learning to a deeper, more reflective, level. There is a huge variety of ways in which these two extremely beneficial areas of learning can come together for the greatest impact. Working with a huge range of schools and partners, I have done P4C with children on beaches, in woodlands, in quarries, and on farms. I have run P4C sessions in beautiful and extensive school grounds, on tarmac playgrounds, and even in the snow. P4C in the outdoors can take so many forms, with my favourite concepts to explore being 'change', 'beauty' and 'value'.



Looking for beauty from another perspective (in the sky). Image: Gina Parker (Mullarkey)



Imposing change. Image: Gina Parker (Mullarkey)

Children can be supported to develop philosophical questions and explore concepts in greater depth through specially-designed outdoor sessions or activities, and/or in addition to traditional outdoor learning activities. Take the old favourite of building a den. The den itself can be used as a stimulus for philosophical thinking, with students invited to consider the difference between a den and a home. This could lead to an enquiry focusing on 'What makes a home?' A nice end to the session could be labelling the shelter, with the linked

concepts or qualities it provides. The shelter can also link with Global Learning through a 'would you rather' activity: would you rather live in your shelter or a home? Even through these simple activities, students are practising oracy skills such as justification and reasoning.

Other activities include collecting items from the environment and ordering them from most to least beautiful to explore the concept of beauty, or sorting things that do or don't 'belong' in an environment. What does it mean to belong?



Collecting items from the environment. Image: Gina Parker (Mullarkey)

I particularly enjoy sessions that are led by the group where they develop a stimulus for enquiry. Here is a lovely example – what questions does this make you ask, I wonder?



Collecting items on the beach. Image: Gina Parker (Mullarkey)

For me, seeing the reactions of children and hearing their feedback says it all. There is no better measure than seeing the smiles and enjoyment of learning on pupils' faces and hearing feedback such as "I feel less stressed" from a Year 4 pupil.

Gina Parker (Mullarkey) has been running P4C courses across the UK for over 20 years.

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More information: littlechatters.co.uk

20

Philosopher's Backpack: an ethical tool for ethical thinking

Jane Yates

As someone with a lifetime of working in the outdoors, it seemed natural to keep my P4C resources in a backpack. I'm certainly not the first person to consider a backpack as a metaphor for educational purposes, but a few years ago I was fortunate to gain a grant from the GLP (Global Learning Programme)'s Innovation Fund for an action research project to reflect on this. The metaphor behind the Philosopher's Backpack is simple. It's a metaphor for the notion that P4C or practical life philosophy (as opposed to academic philosophy) can be facilitated anywhere in the world, inside or outside the classroom, by anyone.

It's more than a backpack, of course. In my research, I set out with a hunch that the objects inside the Philosopher's Backpack could serve as a visual memory aid for teachers for questioning. When teachers are trained in P4C, they learn about Socratic questioning, which is important when facilitating dialogue in P4C to help students examine and test out their ideas – co-constructing knowledge as a shared community. However, many teachers find it hard to remember the range of Socratic questions when they first start, so my hope was the questions visually linked to the 'kit' metaphors would help with this. My research proved this to be the case.



Metaphors for Socratic Questions. Image: Jane Yates

As well as helping to develop better Socratic questioning skills, I found that the backpack 'kit' was useful as a review and evaluation tool. As part of the P4C process, students are encouraged to reflect on how they are progressing with caring, collaborative, critical and creative thinking as an individual or class – we call this the 4Cs of P4C. It helped students to think about their thinking. I call these #metaphors4metacognition.



The Philosopher's Backpack. Image: Jane Yates

Recently I've been collaborating with Dirtbags Climbing in Kendal on a bespoke Philosopher's Backpack. This business recycles and reuses outdoor equipment from

climbers and outdoor centres, repurposing it into beautiful products such as climbing chalk bags. This fits well with the UN's Sustainable Development Goal 17 for Responsible Consumption and Production. When I'm running P4C training or workshops, I now have an ethical dimension to my Philosopher's Backpack, which is a great talking point.

I'm firmly of the belief the outdoor environment offers a rich stimulus and location for people to examine their thinking about the things that really matter. So, if you're ever walking in the Lake District, as I regularly do, look out for my Philosopher's Backpack and join me for some practical life philosophy!



The Philosopher's Backpack is made from discarded outdoor equipment. Image: Jane Yates

After leading her school to become the first SAPERE Gold P4C school in the North, **Jane Yates** now spends most of her time running P4C training and supporting schools nationally and internationally.

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Gina Parker (Mullarkey) and **Jane Yates** are registered trainers for SAPERE P4C, the UK's national charity supporting Philosophy for Children.

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More information: sapere.org.uk

What is Philosophy for Children?

"Philosophy for Children, or P4C, is an approach to teaching and learning, in which children take part in philosophical enquiry. It enhances thinking and communication skills, boosts confidence and self-esteem, and improves behaviour and academic attainment.

"In P4C, a stimulus, such as a story, video clip or image, is shared with a group of children. The children are encouraged by a trained facilitator, such as a teacher, to come up with the kind of big, engaging philosophical questions about the stimulus which are at the heart of P4C."

sapere.org.uk

Philosophy for Children,

UK PUBLIC ENGAGEMENT

Taking environmental education to a mainstream audience

Trewin Restorick

The most littered item in the UK is the cigarette butt with young men the main culprits for dropping them. How can you change this behaviour? The simple but effective solution devised by Hubbub – a UK charity – is the voting cigarette bin. We started by asking people to vote using their cigarette butts on who is the best footballer of the year: Ronaldo or Messi. The results were an instant 30% drop in littering.

The bins have been used effectively around the world with a wide variety of questions such as 'Is Donald Trump's hair real?' They show how a simple nudge technique can persuade people to act.

Over the past six years Hubbub has been testing this and other approaches to take environmental education to a mainstream. Here are the five things we have learned:

1. Stories are incredibly powerful

We wanted to show students the impact that plastic pollution has on our waterways and demonstrate that plastic can be recycled into some amazing products. Our Plastic Fishing trips take children 'fishing' on UK rivers to collect littered plastics. This plastic is then transformed into recycled boats which run more fishing trips. The first-hand experience of seeing the plastics in the water whilst sitting on a boat made from recycled plastic is a powerful educational tool.

2. Messages are strongest when they combine social, financial and environmental benefit

We have created a network of Community Fridges that take healthy, perishable food from retailers and make it freely available to the local community. The Community Fridges cut food waste, bring people together and help people with limited income eat healthily.

3. As well as educating people you need to make it easy for them to act

We have increasingly realised that you need to make infrastructure changes alongside environmental messaging if you want to embed change across the population. In the City of Leeds, we tripled High Street recycling rates by introducing 189 new recycling points – including recycling reward machines – alongside an extensive education programme.



'Hubbub Leeds by Example' recycling bin. Image: Trewin Restorick



Recycling installation, Leeds. Image: Trewin Restorick

4. Financial drivers are important

Hubbub has partnered with Starbucks to introduce a voluntary 5p charge on disposable paper cups. The impact was an instant doubling in the up-take of reusable cups. The 5p charge is donated to Hubbub and has been used to promote reusable cups and boost recycling collections for coffee cups.

5. Topicality is important

Some of Hubbub's most successful campaigns have linked to topical national events. Our Pumpkin Rescue at Halloween encouraged people to reduce food waste by eating their pumpkins and our Gift a Bundle campaign at Mother's Day redistributed outgrown baby clothing to local mums.



'Hubbub Pumpkin Rescue' activity, London. Image: Trewin Restorick

Overall we have learned that using proven behaviour change techniques, alongside creative and high quality design can successfully engage and educate a mainstream audience about the importance of taking environmental action.

Trewin Restorick is Founder and CEO of the award-winning charity Hubbub UK which transforms the way environmental messages are communicated by bringing people and organisations together as a force for good.

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World International Schools

Eco Film Awards Council of British International Schools

The Council of British International Schools (COBIS) is the premier global association for international British schools overseas, representing 270 schools in 80 countries. As a student-centred organisation, they run a broad programme of events and competitions designed to engage, challenge, and inspire the students who attend their schools.

With the support of NAEE, COBIS introduced a new environmental themed competition to their student programme this year – the Eco Film Awards. COBIS students were invited to produce a short film showcasing a project they had carried out to improve the sustainability of their school. The competition aimed to develop students' environmental awareness and empower them to take responsibility for their local environment. Students from key stages 1 to 5 could enter, encouraging students of all ages to play their part in the fight against climate change.

An impressive 33 schools from 23 countries engaged with the competition. Through the medium of film, students showcased their schools' journeys towards sustainability by demonstrating their innovative and creative approaches to tackling environmental challenges. The competition entries featured a wide range of themes, from single-use plastic and recycling, to eutrophication and sustainable business models.

The competition winners were selected by a panel of judges from NAEE. The judges noted the high quality of entries and commented that "it was a privilege to be able to see something of the operations of so many schools from across the globe, and to listen to the passionate and knowledgeable young people who featured in front of and behind the lens".

The winners and runners-up were identified from schools in Africa, the Americas, Asia, and Europe, with DSB International School (India) and International School of Bucharest (Romania) claiming first place in their age group categories. DSB International School developed projects to combat paper, water and food waste; their film perfectly demonstrated the positive impact that simple, measured changes can make. International School of Bucharest's 'Plant a Friend' project highlighted the potential tensions that may occur between economic development and protecting the natural world. It was the students' enthusiasm, ingenuity, and determination to make a difference in their school that stood out most in the winning films.

Place	School	Entry
Winner	DSB International School, India	Not a Drop to Waste The Paper Cut Project The Food Waste Awareness Project
	Start-Rite Schools, Nigeria	From Waste to Waste Bins
Runners-up	The Edron Academy, Mexico	Eco Film
Highly Commended	Haileybury Astana, Kazakhstan	Plastic IS Fantastic
/au Stron T E	Action of the Management States	Anna Control of the C
59 B	School	Entry
Place	School International School of Bucharest, Romania	Entry Plant a Friend
Place	International School of	To the second second
Key Stage 3-5 Place Winner Runners-up	International School of Bucharest, Romania	Plant a Friend

The results of the Eco Film Awards. Image: COBIS website

The 2020 Eco Film Awards highlighted young people's commitment to protecting the environment; students from around the world demonstrated that small actions can have a profound impact. Through engaging with the Eco Film Awards, COBIS students became part of the global conversation about climate change and sustainability. It is hoped that the projects undertaken for this competition will encourage others to promote more sustainable practices in their own school setting.

To watch this year's Eco Film Award entries, visit cobis.org.uk/ecofilm.

Start-Rite Schools, Nigeria (KS1-2 runner-up)



A screenshot from Start-Rite Schools' eco film: From Waste to Waste Bins. tinyurl.com/yb8rrs3o

Our project focused on sustainable living and how we can achieve this in our daily lives. There are many ways of living sustainably but we decided to concentrate on recycling at our school.

Our plan was to make recycling bins out of plastic. The recycling bins were for paper and plastic as it is important to separate waste into different categories. We collected lots and lots of bottles and glued them together to make bins. We collected some bottles from school and brought some from home. Everyone had an important part to play.

The bins had three layers: the foundation, the middle and the top. After the bottles were glued together, we made a cover for one recycling bin and left the other exposed. We then took them outside to spray paint. We wore our lab coats, goggles and facemasks to be safe. Finally, we lined the interior with large black polythene bags, and pasted a sign on one bin saying "paper" and on the other bin "plastic".

Start-Rite has run many events on sustainability, but for me, this project was the best way of practising sustainable living. Whilst it may just be one school doing it now, the whole world could do it 'tomorrow' and the non-recycling world of today will become history. By carrying out recycling ourselves, we hope to improve our local environment and encourage the next generation to recycle in the future.

My hope is that this project will have a lasting impact on the school and encourage students to live more sustainable lives.

Written by a student from Start-Rite Schools

International School of Bucharest (KS3-4 winners)



The opening screen of International School of Bucharest's eco film: Plant a Friend. tinyurl.com/y8r9kdzy

The International School of Bucharest offered these quotes from participants in the competition:

"Planting billions of trees across the world is one of the biggest and cheapest ways of taking CO₂ out of the atmosphere to tackle the climate crisis. ISB students are aware of this fact and as part of the Eco School Programme, they added a few more trees in the ISB garden. Being challenged by the COBIS Eco Filmmaking Competition, ISB Drama Club made a short film about it to prove that our community's efforts are valuable for the environment." — Cristina Trifan, Drama Teacher

"The playscript written by myself was based on a real event happening in the park next to our school, where many trees are being cut down for a waterpark. ISB hosted multiple eco campaigns, in which students engaged with professionals to plant, recycle and reduce their carbon footprint outside of school. The message sent encouraged people to not only plant trees, but make their lifestyles more eco friendly. I'm proud to be the winner of the Cobis Competition, together with my colleagues. Also, special thanks to Mrs Cristina, as this movie wouldn't have been produced without her help." — Pupil, Class 8S

"The aim of our project was to show people the effect of deforestation. We did this by planting new trees and doing a short movie explaining the situation. The filming experience brought me a lot of new knowledge."

— Pupil, Class 8I

"Even if we are just one school among millions, it's important to remember that everyone can make a difference. Students were able to understand that deforestation plays a major part in this global crisis so it became crucial for us to encourage replantation while raising awareness." — Pupil, Class 9S

"This project raised my awareness of the environment thinking why the trees are being cut down and dust flying everywhere. So we decided to plant trees in our school's yard like the film title "Plant A Friend". This way we don't only get a better environment, but also a friendship." – Pupil, Class 8S

"Through the video we wanted to inform other teenagers about environmental problems that are happening every day but we just don't realize. I had a really fun experience filming the eco video, getting informed about environmental problems that were happening right under my nose. "— Pupil, Class 8S

"We made a video about our school becoming more eco friendly. The video helped understand that any small gesture can help the planet." – Pupil, Class 7I

Jerudong International School, Brunei (KS3-4 runner-up)

'Challenge Yourself', 'Respect Others' and 'Inspire Change' are core values promoted here at Jerudong International School (JIS), a community of over 2000 students and staff on a 120 acre campus in Brunei Darussalam. The size of our school certainly presents challenges for sustainability, however, this also provides us with a huge range of opportunities for taking action.

We are following the Global Eco-Schools Programme which offers us helpful guidance, with their 12 themes as stepping stones to link our actions with the United Nations' Sustainable Development Goals. To help organise ourselves, we have a central Eco-JIS steering committee who liaise with Eco-Representatives from each of our senior school's sixteen Houses, to spread awareness and encourage students across all year groups to get involved in activities.

This year, the team came up with a new awards system to help maintain interest, whilst at the same time monitoring progress and celebrating success. The idea behind the initiative is for the Houses, all of which are named after birds found on our home island of Borneo, to move up levels from the Forest Floor to the Emergent Layer. Movement is based on a number of criteria ranging from supporting recycling to setting up green businesses. Students are also encouraged to take part in wider community events such as beach clean ups and tree planting. Since all Houses can reach the top level, students are happy to share ideas and support each other, fostering a spirit of collaboration rather than competition, and develop an appreciation that we are all in this together.



The Canopy Initiative awards system. Image: JIS

For the COBIS Eco Film Awards, our first video was made by members of our Eco-JIS steering committee, who created the Canopy Initiative. This was followed up with a second video, put together by students from Hawk and Osprey Houses to showcase their House Green Business, which involves making honey from stingless honey bees. The Hawksprey students have been working on this project for over a year and now have three hives in our Outdoor Discovery Centre, a semi-forested area located within our school grounds which forms an excellent place for experimentation into sustainable practices.

Here at JIS, we embrace the holistic nature of Education for Sustainable Development, which encourages students to apply their ideas and understanding in a cross curricular manner, whilst developing valuable teamwork and leadership skills. Taking small steps together is certainly having an impact, empowering our students to inspire change and help shape a more sustainable future.

World Wildlife Conservation

The Life of a Wildlife Vet Kate Church

You can't plan when an animal will be caught in a snare or when poachers have come into a protected area and killed a rhino. Neither can you plan when an animal that you have been looking for decides to show up in an accessible area that provides a good darting opportunity. The life of a wildlife vet is often unpredictable. They're on call 24/7.



Monitoring the heart-rate of a Cheetah. Image: African Wildlife Vets

Due to human impact on wildlife such as limited habitat, fenced areas, snaring, poaching, livestock farming and continued land-use change, wildlife now needs to be closely monitored and managed to ensure the long term survival of each species. An important aspect of this type of conservation is wildlife veterinary care. African Wildlife Vets has been established to assist with funding of conservation operations in KwaZulu-Natal Province, South Africa due to the continuous decline in state funding and the escalation of veterinary costs. They assist with the conservation of threatened species by providing veterinary services through the funding of vets, veterinary equipment, pharmaceuticals and other operational costs.

African Wildlife Vets is a newly established non-profit organisation based in the Zululand and Maputaland regions of KwaZulu-Natal, South Africa. It's a conservation based organisation that provides veterinary support to wildlife conservation organisations in particular Ezemvelo KwaZulu-Natal Wildlife (EKZNW). African Wildlife Vets was founded by Kate Church, Dr Pete Goodman and Dr Dave Cooper (EKZNW vet) who saw the need for extra wildlife veterinary support in protected areas.

Wildlife vet Dr Rowan Leeming, an employee of EKZNW, describes the difference between a domestic/pet vet and a wildlife vet:

"A wildlife vet is different from a domestic vet in many ways, not just by the different patients we treat. Where a domestic vet would be focused on specific patients and their owners' needs all the time, wildlife vets almost take a holistic approach to veterinary involvement in conservation. In addition to treating wildlife species for specific conditions, diseases and injuries as needed, we focus on conservation exercises that help preserve wildlife. For example:

 translocations of different wildlife species to bring in new genes or removing animals to reintroduce into new population areas

- dehorning of Rhinos to decrease the risk of poaching
- collaring of priority species to better monitor them
- Contraception to manage breeding

All of these activities are part of an inclusive management style, and are decided upon in the species best interest for a conservation area. Therefore the main task of a wildlife veterinarian is to ensure ethical animal welfare for all wildlife species in designated conservation areas."

With the recent increase of poaching and the onslaught that rhino are facing, the focus of wildlife veterinary has shifted towards rhino intervention and poaching intervention which involves dehorning operations, relocations of rhino from threatened areas and post-mortems of rhino. The vets assist investigating officers with forensic examinations. Dr Dave Cooper tells us that the effects of poaching are more than the death of the animals:

"We also have to deal with the collateral damage which includes the wounded rhino and the young animals that are orphaned during these events."



African Wildlife Vets provided essential pharmaceuticals and equipment for performing rhino operations and forensic examinations.

Image: African Wildlife Vets

What qualifications do I need to be a wildlife vet?

Dr Leeming shares with us how he became a wildlife vet and the qualifications needed to be one:

"I have my Bachelors of Veterinary Biology which was a prerequisite for my Bachelors of Veterinary Science achieved from Onderstepoort, the Faculty of Veterinary Science at the University of Pretoria.

"You don't need any additional qualifications to become a wildlife vet, just a keen interest and passion for the work involved.

"Although you don't need any further qualifications, a lot of vets study further (masters, PhD, etc.) to ensure their career in wildlife work. I myself landed up in wildlife due to a series of fortunate events. In 2015 they initiated the first ever 'compulsory community service' for veterinarians graduating at the end of 2015 and beginning in 2016. Knowing I was interested in working with wildlife someday, I applied to the only wildlife based position on the list provided by the government, along with many others from my class interested in wildlife. Fortunately, I was lucky enough to be granted the opportunity to spend my community service year doing wildlife veterinary work under the mentorship of the very experienced and esteemed wildlife vet, Dr Dave Cooper."

These wildlife vets have a true passion for conservation and they are dedicated to ensuring the wellbeing and survival of wildlife species, including endangered and threatened animals. They experience many heart-felt situations where they have been able to successfully save animals from snares, poaching wounds and other human-wildlife conflict situations. They have assisted with many relocations, ensuring genetic exchange takes place in smaller protected areas and therefore assist with the prolonged existence of species such as African wild dogs, lions, cheetah and rhino. Dr Leeming describes some of the most gratifying parts of his job:

"The things I find most satisfying in my job, is that by working for a conservation organisation, you really feel like you are making a difference when you partake in big capture operations or translocations. Being a key role player and working with a great team gives you a lot of confidence, and must be seen as a privilege and never taken for granted.

"Other than that, the absolute diversity and fascinating lifestyles of my patients keeps my job very interesting. I also can't complain about getting to work outside either!"

Alongside the rewarding and gratifying experiences unfortunately come depressing situations too. Dr Leeming shared with us the most challenging part of his job:

"A lot of challenges will come your way, 'speed bumps' as many people would call them, and as many people would tell you, you have to ride with them or you will crash. These speed bumps can come in many forms, like a patient dying on you from complications. Although there was nothing you could've done to avoid it from happening, you have to live with it, and no matter how hard you try to believe

responsible. You have to somehow learn to live with these feelings and truly back yourself when you go back and ask yourself if there was anything more you could have done to avoid that happening. You have to trust yourself that you will always do your best for the wellbeing of that animal in your hands. Focus on doing what's right and you will always outdo the wrongs.

"Another very challenging part of this job is dealing with people against conservation and wildlife. Ignorance and greed can be toxic human characteristics and poaching is the main result. I have had to deal with horrors beyond my imagination of animals poached (mainly rhino, but also snaring in lion, wild dog, cheetah etc.) for their 'precious' body parts. Inhumane and sinister things happen to animals when people believe in strange, superstitious things, and dealing with its results has been the most challenging thing yet in my career."



EKZNW, with the assistance of African Wildlife Vets. works hard to ensure the survival and protection of wildlife. Veterinary care is a very important aspect of conservation. Image: African Wildlife Vets

World Bird Conservation

Working to save the magnificent albatross Nina da Rocha

Albatrosses are stunning and majestic long-lived seabirds that spend much of their lives soaring over the ocean in search of their next meal. Inevitably, this lifestyle brings them into contact with fishing vessels, around which they forage for bait or discarded fish; sadly for many, this becomes their last meal.



Black-browed Albatross flying near a trawler. Image: Albatross Task Force.

Trawler vessels discard fish heads and guts as they process their catch. This attracts albatrosses, which can smell this free meal from 20 km away, bringing them

dangerously close to the trawler cables towing the net through the water. As they engage in a feeding frenzy behind a vessel, they can be fatally struck by these cables and break their wings or be dragged under by them.

Albatrosses also scavenge on baited hooks set by longline vessels in many parts of the world. The bait is used to attract larger fish species, but as it takes some time to sink to its fishing depth, scavenging albatrosses can attack the baits, get caught on the hooks and, ultimately, drown. It is estimated that over 100,000 albatrosses die this way each year.

Every life lost cuts short a potential 60 year lifespan. What's more, raising a single chick every year or two years, means that albatrosses simply can't breed fast enough to replace the numbers of individuals lost in fisheries. 15 of the 22 albatross species are now threatened with extinction.



A Wandering Albatross chick on a nest. Image: Albatross Task Force

While solutions to prevent seabird mortality were developed by scientists and fisheries managers in the Southern Ocean in the 1980s, this information remained unknown to fishing crews across the globe for many years. To address this, the RSPB and BirdLife International launched the Albatross Task Force (ATF) – an international team of seabird experts tasked with bridging the gap between science and the fishing industry to reduce bycatch and improve the conservation status of threatened seabirds.

Simple, inexpensive tools and activities known as bycatch mitigation measures have been shown to be highly effective in preventing unintentional seabird deaths in trawl and longline fisheries worldwide. Bird-scaring lines are lines with colourful streamers that can be towed behind fishing vessels to scare birds away from baited hooks or trawl cables. Fishing at night can also significantly reduce bycatch, since most seabird species don't actively forage in the dark. Furthermore, adding weights to longlines makes baited hooks sink faster which reduces the window of opportunity for foraging seabirds to attack the baits and get caught on the hooks.



Albatross Task Force instructor Nahuel Chavez and fishers constructing bird scaring lines. Image: Albatross Task Force

By working both on board vessels, showing fishing crews simple ways to stop killing seabirds, and with government to implement regulations, the ATF has demonstrated that things can drastically change for the better. South Africa has been a shining example of how this is can work, with an astounding 99% reduction in albatross deaths since the Task Force started working there in 2006!

"Magnificent albatrosses are still falling victim to bycatch, but, thanks to the dedication of Albatross Task Force teams at key locations, there's hope on the horizon," reports Bycatch Programme Manager Rory Crawford.

Regulations requiring the use of seabird-friendly fishing practices are now in place in the fleets the ATF engages with in Namibia, South Africa, Brazil, Chile and Argentina. These countries have been chosen as a focus for the Task Force, due to the high overlap between their fisheries and foraging albatrosses – which travel great distances in search of their next meal.

The ATF works with fisheries schools in several countries, teaching soon-to-be fishers about the use of these mitigation measures and their benefits. While the Task Force deliver as much training as they can to crew onboard vessels, this is time-intensive and limits the reach of our message. We are therefore informing aspiring fishers about seabird bycatch mitigation at fisheries schools before they head out for a working life at sea, presenting a vital opportunity to get the conservation message across to the people that will be interacting with albatrosses on a daily basis for years to come.

We also teach them how to handle and release live seabirds that may come aboard. In addition, we train national fisheries observers and inspectors with the knowledge necessary to ensure fishing vessels are protecting albatrosses at sea – so that there is not only support for albatross conservation from the industry grassroots, but also from those tasked with making sure vessels use the seabird-saving measures required by national regulations. The ambition of this training is to deliver bycatch reductions across entire fishing fleets – not just individual vessels – and prevent thousands of needless deaths each year.

Teaching the next generation of fishers and decision makers about seabird conservation is also vital to ensuring that bycatch levels remain low in the future. In Argentina, approximately one third of the 2,000 school-children that have participated in educational outreach activities delivered by the ATF have family members that work in the fishing industry. Some already know about seabirds, others do not. But undoubtedly, only a few know that it is within their reach to play a role in saving these amazing birds from extinction!



Education outreach officer Mikaela Vouilloz at a school in Argentina. Image: Albatross Task Force

"My favourite moment is taking out a life-sized albatross toy from my bag, whilst the children have their eyes closed. When they open their eyes there is always a few seconds of silence. And then an explosion of questions: Are they really that big? How far do they fly? How long can they live?" describes Education Outreach Officer Mikaela Vouilloz.

Schools from different parts of the world have been united in their love for albatrosses through the work of ATF. Modern day technology has, for example, allowed Sunnyside Primary school in Scotland to learn about albatrosses and tango from their new-found friends at Nueva Pompeya School in Mar del Plata, Argentina.

The Task Force is also using its presence on social media to increase the awareness of these extraordinary birds and the threats that they face through #AlbatrossStories. Throughout 2019 and 2020 this social media outreach campaign has given audiences across the UK, Brazil, Japan and Taiwan the opportunity to follow the lives of four albatross species on Bird Island, South Georgia, as they have found their lifelong partners, laid their eggs and raised their chicks. Schools across the world have had the opportunity to get involved in #AlbatrossStories by participating in naming competitions and submitting albatross-inspired art-work. Want to join in on the fun? All you have to do is search for #AlbatrossStories and follow us on social media.

Nina da Rocha is the Albatross Task Force Project Officer at the Royal Society for the Protection of Birds (BirdLife partner in the UK).

Contact: nina.darocha@rspb.org.uk

More information: rspb.org/albatrosstaskforce

World Nature Internships

CapeNature WIL internships: a walk on the wild side

Paul Lawrence

Do you remember your first job? Aneesa du Plessis won't forget hers in a hurry!

She was accepted by CapeNature into the Workplace Integrated Learning (WIL) internship programme for 2016 and she spent that entire year at the De Hoop Nature Reserve helping out with a range of tasks includ-



CapeNature WIL Intern Aneesa du Plessis (middle).

ing resource management, general administration and maintenance, conservation compliance and conservation communication.

We caught up with Aneesa recently and asked her to tell us more about her experience of the WIL programme.

What is the WIL programme?

The primary objective of the programme is to expose the student to the field of nature conservation and to provide the chance of gaining valuable experience in this field. Students are able to experience the nature conservation industry at first hand.

The basic principle of WIL is that personal growth and professional development are best achieved by an educational method that combines classroom learning with practical experience.

What were your expectations coming into the WIL programme?

I expected to grow as an individual in terms of my career and personal life. This definitely happened. There was a slight concern as to whether I would be given the respect of being knowledgeable in conservation (because I was just a student at the time) and lacked practical experience. This was completely the opposite. I was able to add value to meetings and overall work matters.

Generally, I learnt and got to experience way more than I ever thought possible. The reason for this is that when you're still a student you don't get that exposure to be able to know all the different pathways you can branch off into with conservation.

As it was my first time moving away from home and living alone, I initially thought it might be a bit difficult to adjust. This changed the moment I got to De Hoop Nature Reserve.

Why was that?

I remember my first morning at the reserve. I was drinking coffee in my garden, enjoying the view when my manager drove past. He took that as a good sign that I would be okay when it came to enjoying the year and being alone.

I got to develop and gain many skills, both soft and hard. I found a passion when doing this. Not only did it improve my public speaking ability, it gave me more confidence. The mentorship I received from CapeNature was incredible. The support from my manager, supervisor and other CapeNature colleagues made it possible for my WIL year to be a success.

You mentioned before about the practical experience that you picked up. Can you give an example?

There were many skills learnt that can be seen as small to some, but when you really think about it, it is important in the bigger picture. For example, learning how to distinguish between male and female Bontebok – people take it for granted that you can always see the genitals. This is not true. Sometimes the animals are far away. Sometimes they are in an awkward position. Sometimes they are in large groups. How do you tell what the sex is then? We were taught how to distinguish that. This is the difference between theoretical and practical experience.

Having completed the WIL programme, what would you say were the biggest benefits of the internship?

Networking was a huge benefit for me. I now know many professionals within the conservation sector as a result of my experiences in my WIL year. It also means that many of them now know who I am, which is quite important in a field if you want to make a name for yourself.

But the biggest benefit is definitely gaining practical experience. I had many opportunities to sit in on meetings and be trained at the same time. I was exposed to other career paths in conservation that I hadn't thought of before. I got to physically see and deal with problems as opposed to just reading about it or seeing it on the news. I really had the opportunity to develop myself as an individual. I'm completely different now than when I was in WIL, in terms of experience, knowledge, and the confidence that comes with that.

With the benefit of that experience, what advice do you have for other students who may be considering a career in conservation?

Conservation is as much to do with people as it is with fauna and flora. Therefore, it is crucial that conservationists develop their communication skills in order to better communicate with local communities. After all, a great deal of conservation is about getting the message across to the general public who in most cases, have little to no environmental background or knowledge.

It's very important to get hands-on experience in conservation. Even if you end up in the planning or logistical operation, you should ideally have practical knowledge and experience because it's very different than just saying the guys on the ground must do xyz – no! There are things you learn from being hands on that you won't learn in the classroom.

Things don't fall into your lap – you have to work hard to achieve what you want. Be proactive. Internships like WIL are invaluable in grooming individuals for the real world. Students need to remember that there's more than just the theoretical knowledge that they've been taught in university or college. Having practical experience gives you the upper hand when you're a new graduate looking for a job. If you have an opportunity to apply for a WIL internship be sure to go for it!

CapeNature offers a 12-month residential WIL internship in the conservation sector to a limited number of students who have successfully completed the theoretical portion of the National Qualification in Nature Conservation. The successful interns are mentored by experienced, competent and professional CapeNature staff for the duration of the internship.

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More information: capenature.co.za

World Transition in Learning

A local food market as a learning ecology for co-creating sustainability Yaz Brien

This contribution comes from the T-Learning Network, one of three Transformative Knowledge Networks funded for a period of 3 years by the International Science Council (ISC). The T-Learning transformative knowledge network actively embraces a commitment to the commons and the common good, to decolonisation, the good life, ecological economics, real sustainability and seeks to bring environmental and social justice into being. Learning has been identified as an important driver of change towards sustainability. The case studies seek to obtain a better understanding of the type of transformative, transgressive learning (t-learning) that could potentially enable such change.

This contribution zooms in on LekkerNassuh (LN) as a 'learning ecology' in which multiple actors and stakeholders, through a range of interactions and often blended forms of learning, stumble towards values-based forms of sustainability that tend to go against the push towards normalized unsustainability. LN represents one of the 9 case studies within the T-Learning Network²⁷ and represents a niche within the city of The Hague, The Netherlands and in the region, one that co-exists and crossfertilizes with many other localized 'off-the-grid' community initiatives around food, water, energy, climate, social inclusion and the greening of urban spaces. As such, LN is part of a wider transition movement.

LekkerNassuh, Local Food The Hague

LN started when citizens decided to take over an abandoned space, an old gym, without permission of its owner, The City of The Hague, to create an indoor market mainly for locally grown vegetables. Eventually the initiative became more formalized with the establishment of the foundation 'Local Food The Hague' which acts as the umbrella for the various activities that are evolving. Currently, Local Food the Hague hosts six initiatives in the Gym: 'LekkerNassuh' (translated as 'Good Munching'), a weekly vegetable market where members pick up a basket with fresh local organic produce; 'The Community Kitchen', providing a weekly dinner after the market; 'The Conscious Kitchen', an initiative that raises awareness about food waste by collecting leftover food from the city market and preparing a weekly meal open for everyone (on a donation basis); 'Timebank cc', a community currency to share skills, services and knowledge using 'time' as the currency instead of money; '7MRP' a young theatre group focusing on strengthening society by working on themes such as belonging, cohesion, understanding and tolerance; and 'Music in Transition', a social experiment combining performances, workshops, music and food. Increasingly the various initiatives within the Gym are collaborating and co-creating events together.

Participants represent the worlds of (urban) farmers, food preparation, nutrition, food banks, living room restaurants, food artists, etc. Sustainability transitions require the involvement of multiple actors representing different societal spheres. They also require space for experimentation under 'realistic' economic conditions: local businesses and workers do require some kind of compensation. Nevertheless, the initiative can be considered 'not-for-profit' as capital accumulation is not the aim; generated income is used to sustain the whole, and surplus is invested in the organisation and its purpose.

The foundation has three main lines of interests and (transformative) learning, which it considers critical for systems change:

- transforming food systems towards sustainable food systems (which you could see as the main overarching purpose);
- 2. circular economy and new concepts of value creation;
- new ways of organising (experimenting with participatory leadership, expressive change, holacracy, sociocracy, among others).



Lekkernassuh: weekly local food market. Image: T-Learning Network

City Lab - joint learning from experiments

Effectively the Gym has evolved into what nowadays is called a StadsLab (CityLab) as an arena for experimentation where different models and tools for interaction and collaboration are used to create healthy and localised food systems and 'the next economy' is being developed. One planned experiment is to involve a local vocational school in the renovation of the gym. Other experiments include: a cooperative food store to be run out of the Gym; organising cooking workshops in the Gym but also in different locations in the community; collective purchasing from local farming combined with the local fresh markets and creating sales nodes in local environmental education centres and city farms (The Hague historically has had city farms or children's farms as they were originally called in most neighbourhoods); collaboration with local organic farmers where the farmers host urban dwellers to show them how they work but also to allow them to be in a quiet place where they can experience the 'value and values of the land'; community (film) evenings with food and community-oriented films, speakers and dialogues; and opening up floor space to other local groups that share similar values, but work in different contexts or on different issues (such as window farming course, permaculture/nature farming groups, health and wellbeing).

Future directions and questions

The foundation is gathering momentum and gaining interest, but is also looking for continuity, expansion and a healthy form of consolidation without becoming too structured and formalised. Key questions for the foundation are: How can continuity be created in creating discontinuities (here breaking away from unsustainable food patterns, systems and economies) without being co-opted by forces that tend to bring things back to normal and business-as-usual? How to make this location an 'open' space which invites people to take initiative, to collaborate in communities, not limited by the issue of money, i.e. how to create an environment and organisation that ignites the 'inner spark' of community members and keeps that alive in the long run? How to 'hold' this space in a sustainable manner?

BOOK REVIEWS



Beasts at Bedtime Liam Heneghan



Beasts at Bedtime is a very interesting, imaginative and almost magical book, that illustrates the themed wealth of children's stories. It recognises that many of the great stories for children feature animals and it is written for all those who imagine that children also see themselves as magnificent creatures.

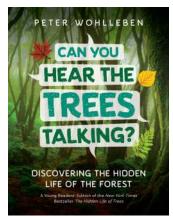
There is a great deal of environmental information in many of the publications that children love reading, and this beautifully written short-chaptered book is designed to reveal just how ecologically sophisticated children's stories can be, and how it can help parents, teachers etc. to develop their child's environmental understanding. The stimulating stories profiled in this book inspire, inform and teach lessons about life, so if you at all care about the future of our planet, it is well worth a read.

The author does not try to teach the do's and don't's of reading children's literature, but he simply points out the importance of raising awareness of environmental themes and issues.

The book is a one-off, it is highly relevant, extremely enjoyable to read, and I thoroughly recommend it.

Beasts at Bedtime: Revealing the Environmental Wisdom in Children's Literature. Liam Heneghan (2018). Chicago: J Wiley & Son Ltd/ University of Chicago Press. Hardback pp358. ISBN 978-0226431383. £20.50.

Can You Hear the Trees Talking? Peter Wohlleben



This beautifully presented, colourful publication transported me back to a time in my childhood when I played in the woods amongst the towering trees and collected conkers and acorns, such a magical time was had in those days.

Peter Wohlleben provides us with his extensive knowledge and story telling in such an accessible way which young readers will enjoy. Laced with quizzes, magnificent photographs and hands-on activities, the book entices participation and learning. It is an outstanding introduction to the world of trees, it inspires curiosity and makes an excellent classroom resource full of information.

Peter informs us that trees have parents and that tree grandparents have wrinkles; also there is such a thing as a forest internet.

The mysteries and magic of the forest are shared in a way that children will understand and love. Trees are awesome: they grow together in the forest and can do amazing things. They make us feel happier and more relaxed and they make our planet a more pleasant and healthier place to live. They provide a home for animals in the forest and a tree hug speaks volumes.

I thoroughly enjoyed reading this book and highly recommend it.

Can You Hear the Trees Talking? Discovering the Hidden Life of the Forest. Peter Wohlleben (2018). Canada: Greystone Books. Hardback pp84. ISBN 978-1771-64454-1. £14.99.

Both reviewed by Gabrielle Back

Animals in Emergencies: Learning from the Christchurch Earthquakes Annie Potts & Donelle Gadenne



"Just imagine being sound asleep in a warm bed when suddenly it's filled with sandy cold water. This water is so thick, you cannot move or get out of your home. You are stuck up to your neck in wet sand. It is pitch black and the ground is shaking. Most of the animals taken care of after the Christchurch earthquakes went through this experience."

So writes Janetta Stead, who rescued countless hedgehogs following the 2011 Christchurch earthquakes.

There have been a number of books written about the physical earthquakes – and the impacts on humans and of course property – but not, to my knowledge, animals and how they coped or did not. What's especially interesting here is the interactions between humans and animals which makes it all the more personal and emotional. Property damage is terrible, people – and animals – in distress, is psychologically not good. The authors bring out the positives of the stories, and they are mostly positive, so there's very little need for tears.

Of all of the mess and perhaps obvious negative consequences of any quake, the fact that it brought people and animals including men's {sic} best friends together, has to be a good thing, or 'one positive result'.

Christchurch's animals' earthquakes stories demonstrate how intimately traumatic experiences can connect humans and animals. The quakes also showed how well groups and agencies cooperated – quite well in fact. With the setting being a destructive and transformational one, here are numerous instances of people stepping up and helping out with desperate and life threatening scenarios – rescuing pets, domestic livestock, even some urban wildlife.

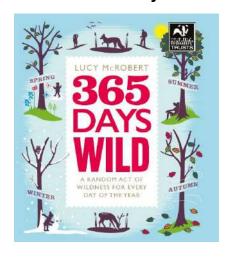
The book is well structured – the accounts of agencies and volunteers connected to the rescue and shelter charities are in the first part of the book; tales of individual animals dominate the second part. Lessons learned during the earthquakes are found throughout.

As I write this in Coronavirus lockdown, there are some obvious similarities – in the quakes as in the time of Coronavirus, we have found good things out of the bad, or different. Animals in Earthquakes has brought us and animals a bit closer together, and that is good. My prayer or wish is that we keep learning from each other. A very good human / animal book.

Animals in Emergencies: Learning from the Christchurch Earthquakes. Annie Potts & Donelle Gadenne (2016). New Zealand: Canterbury University Press. Paperback pp288. ISBN 978-1-927145-50-0

Reviewed by Henricus Peters

Interview with Lucy McRobert, author of 365 Days Wild



What or who inspired you to write this book?

I used to work for an organisation called The Wildlife Trusts – a UK-wide charity. As part of my role there, I set up a campaign called 30 Days Wild, which encourages people to do something wild every day for 30 days throughout June. Last year, 100,000 people took part! It's arguably the most influential environmental campaign in the UK at the moment. It seemed a shame to limit the campaign to just 30 days though, and inspired by some of our hardcore followers, I decided to come up a yearlong version to encourage people to stay connected to nature all year round, no matter what the season. It's all built around the idea of 'Random Acts of Wildness' – any little action that you can take to enjoy, learn about or help nature on your doorstep. There are 365 of them in total and they're all accessible things that anyone can do.

What were the challenges of writing this book?

The biggest challenge in writing this book was keeping track of what I'd already written — I ended up writing about one Random Act of Wildness three times over the course of six months! I was pregnant when I wrote it so it was a good excuse to sit in the sunshine typing away, but even so 85,000 words in seven months is still pretty hardcore. And it was roasting hot that summer. It was difficult to keep coming up with new and original content and then to put it into some kind of cohesive order at the end. There were lots of spreadsheets on the go as I tried to match up different Random Acts of Wildness to different seasons and find photographs for them all. Luckily my editors at William Collins were really supportive and came up with an eye-catching and user-friendly design, that really brought the book together.

How did you choose what to include?

Choosing what to include was the easy bit – pretty much everything! The first 200 Random Acts came very easily, but the last 165 were more of a struggle. Luckily, I didn't write the book chronologically, so it's not too obvious which ones I struggled with. The only caveat was that they had to be down-to-earth, accessible and easy to do I didn't want anything preachy that would put people off. I've had loads of people say that this is their favourite thing about the book; you're never lectured or made to feel guilty. We can all do more for nature in our lives but I don't believe in telling people off. I'd much rather empower them. Each chapter (in seasonal order) starts with the easy stuff and then gets progressively more complicated as you get more involved, but that said the book is designed so that you can pick and choose your favourite Random Acts of Wildness. It's not prescriptive at all.

What is your favourite wildlife species, and why?

Hard to say. It changes with every season. I think my favourite bird is the European swift; they arrive back in the UK every May and they come screaming and tearing through the skies, like little scythes. You can't miss them and I get worried if they're late. I've even got them tattooed on my back!

What is your 'top tip'?

My top tip is the first Random Act of Wildness in the book – get a nature diary! Write down what action you've taken for nature every day and how it's made you feel; write down where you've been, what you saw, how you felt, what else was going on in your life. Note the seasons. Making little doodles or sketches. Make it beautiful and elaborate as part of a paper diary or simply keep a note on your phone or on a calendar. In a years' time when you look back, you'll have all these little memories and emotions to enjoy and relive.

What lead you to be a (nature) writer?

I've always wanted to be a writer. When I was little, I wrote stories and loved English lessons and read so many books. I always had a secret ambition to write a book by the time I was 30. I blogged in my twenties and was picked up by a talent agency; with their support I managed to turn an ethereal idea into reality, and I still can't believe how quickly it all happened. I only really got into nature writing at university, when I took a couple of modules in environmental history. To learn the history of nature alongside the history of people, and how the two shaped each other, set me on the path. I can't wait to get writing again!

Interviewed by Henricus Peters

More information: 365dayswild.com.

WEBWATCH



Focus on lockdown **Henricus Peters**

Groups that have great lockdown resources, including activity ideas and virtual tours

'Lockdown Activities for Kids' from Plantlife UK: tinyurl.com/y9b8skpr

Natural History Museum, London: nhm.ac.uk/visit/virtual-museum.html

National Museum of Natural History, USA: naturalhistory.si.edu/visit/virtual-tour

Kids of the Wild: tinyurl.com/y7h2wevp

Science Hub from ASE UK: tinyurl.com/yd2r9pz2

Kew Gardens Education:

kew.org/learning/learning-at-home

Creative Care Invitations, Cambridge Curiosity and Imagination: tinyurl.com/y96qlfa9

Garden nature: plants

The Woodland Trust has Nature Detectives resources for children: woodlandtrust.org.uk

Tree Council: treecouncil.org.uk

Botanic Gardens Conservation International includes global plant and tree search engines: bgci.org

Plant Life UK have information about wildflowers: plantlife.org.uk

Garden nature: invertebrates

Buglife has guides on beetles, bees, butterflies, moths, and dragonflies: buglife.org.uk/bugs/bug-directory

The Royal Entomological Society runs National Insect Week each June (see below) and specialist groups: royensoc.co.uk

National Insect Week (22-28 June): This year the organisers, aware of our restrictions, asked people using the hashtags #EntoAtHome #NIW2020. Download the garden entomology booklet or check out the many activity suggestions for primary, secondary and adults, including poetry and 'build your own dung beetle': nationalinsectweek.co.uk

Butterfly Conservation deals with everything about butterflies and moths: butterfly-conservation.org

British Arachnological Society are the experts on spiders: britishspiders.org.uk

Garden nature: birds

RSPB has resources about birds and other aspects of nature: rspb.org.uk

The British Trust for Ornithology (BTO) has information about birds and their importance: bto.org

Birdlife International: birdlife.org

Garden nature: mammals

Badger Trust: badgertrust.org.uk/badgers

Bat Conservation Trust: bats.org.uk

People's Trust for Endangered Species have campaigns to help species such as dormice: ptes.org.uk

Garden nature: amphibians and reptiles

Amphibian and Reptile Conservation: arc-trust.org

Amphibian Survival Alliance: amphibians.org

Froglife: froglife.org

Herpetofauna guide to the reptiles and amphibians

found in the UK: herpetofauna.co.uk

Coastal/marine habitats and species

The Marine Conservation Society website has facts sheets about sea life (common, threatened and endangered) and beach clean-ups: mcsuk.org

The Marine Biological Association website has lots of information including images: mba.ac.uk

British Divers Marine Life Rescue: bdmlr.org.uk

MARINELife: marine-life.org.uk

Seals in the River Thames: tinyurl.com/yb8gv7e9

ORCA: orcaweb.org.uk

SeaWatch foundation: seawatchfoundation.org.uk Whale & Dolphin Conservation (WDC): whales.org

Hebridean Whale and Dolphin Trust: hwdt.org

Magazines

National Geographic magazine has lots of articles and images. Children's resources: natgeokids.com Adults' resources: nationalgeographic.com

The World Conservation Union has articles about key conservation issues: iucn.org

Countryfile magazine's website is a good place to check rural resources: countryfile.com

BBC wildlife magazine - great website sits alongside a great nature mag: discoverwildlife.com

Wildlife charities

The Wildlife Watch website (the junior section of the Wildlife Trusts) includes ID guides and has information about membership: wildlifewatch.org.uk

British ecological society: britishecologicalsociety.org

Survevs

BioBlitz (early January): bnhc.org.uk/bioblitz

Big Garden Birdwatch & Big Schools Birdwatch (January): tinyurl.com/yd8ph4kg

Big Butterfly Count (July – August): bigbutterflycount.org

The Mammal Society's surveys: mammal.org.uk

Readers are invited to send any favourite websites to Henricus Peters via info@naee.org.uk.

For all NAEE news, blogs, journal back issues, a dedicated members' page and environmental education ideas and activities, visit naee.org.uk.

Follow us on social media:



twitter.com/naee uk



FINAL THOUGHT



[From Guardian article (22.4.20): 'Pandemic side-effects offer glimpse of alternative future on Earth Day 2020'28]

The skies are clearing of pollution, wildlife is returning to newly clear waters, a host of flights have been scrapped and crude oil is so worthless that the industry would have to pay you to take it off their hands – a few months ago, environmentalists could only dream of such a scenario as the 50th anniversary of Earth Day hove into view.

These would perhaps be the sort of outcomes seen had stringent environmental policies been put in place in the wake of the first Earth Day in 1970...

'But this disorientingly green new reality is causing little cheer given the cause is the coronavirus pandemic that has ravaged much of the world.

"It's the worst possible way to experience environment improvement and it has also shown us the size of the task," said Michael Gerrard, an environmental law expert at Columbia University.'

We at NAEE are hopeful that, with people working 'with nature', we can again renew and step forward into a more sustainable future. Thank you for reading Environmental Education, continuing to become aware, and taking positive actions.

Nature is screaming Are we listening?

Pandemic warning that we, yes humanity, needs to 'stay safe, stay at home' 'Stay positive' all around us the world is on fire

In Australia, Bushfires wreck havoc Native koalas now critical

In the UK, New rail plans mean trees are cleared Birds and badgers are persecuted

In Africa, Elephants are targets for poachers Lions hunted for sport

In Asia, Creatures can face cruelty with no consequences

Nature is screaming Are we listening

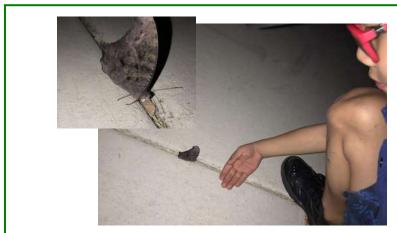
In the oceans
Pollution is overwhelming
Turtles are eating plastic

Nature
Amazing sunsets
All the life makes Planet Earth home
The oxygen we breathe
The water that is life
The foods we eat
Nature equals life

We are at a critical point
We must start talking
We must act to sustain, rather than see
Nature just as 'material provider'
We must change the way we do things
We must become partners, live and work
with Nature

Nature is screaming We must listen, act Now It's not too late

A personal poem by Henricus Peters



My son interacts with a moth near our home during lockdown. Image: Henricus Peters

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34

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- 3. Collins Complete Guide to British Birds (ISBN: 9780007236862)
- 4. RSPB website rspb.org.uk
- 5. Wildside Activity Centre, Wolverhampton wildsideac.co.uk
- 6. Kingswood Trust discover-kingswood.org.uk
- 7. Friends of Mayow Park facebook.com/mayowpark
- 8. The Garden Classroom thegardenclassroom.org.uk
- 9. 30 Days Wild wildlifetrusts.org
- 10. Sawpit Woods CIC sawpitwoods.co.uk Twitter @sawpitwoods
- 11. 'The Thinking Child' free outdoor numeracy and literacy resources, Creative Star Learning tinyurl.com/y83drhj9
- 12. Learning Through Landscapes Itl.org.uk; facebook.com/LtLNews
- 13. Urbanwise urbanwise.london
- 14. The Country Trust countrytrust.org.uk
- 15. The Queen's Award for Voluntary Service gov.uk/queens-award-for-voluntary-service
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