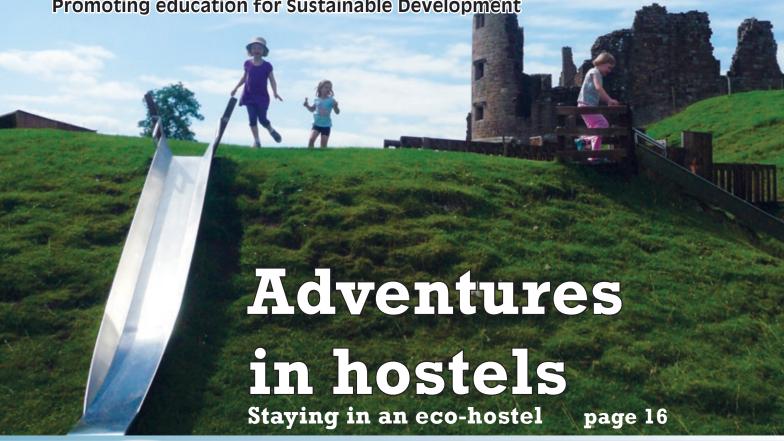
vironment ICation

The journal of the National Association for Environmental Education (UK) **Promoting education for Sustainable Development**







Experience Science Page 18



National Association for Environmental Education (UK)

NAEE UK has, for over fifty years, provided support for educators and education professionals to supply and deliver all aspects of environmental education across all levels of the curriculum.

NAEE (UK) is a voluntary organisation, with no state funding, run by experienced teachers from a wide variety of educational institutions. We use funds raised from subscriptions and donations to promote the teaching of environmental education across the curriculum as well as education for sustainable development.

Membership

Membership is open to those directly involved in environmental education or those with a related interest.

There are different categories of membership.

Student:	Free
Student:	riee
Individual:	£20
School or other organisation:	£30
University:	£40
Overseas membership is available and paymen should be made in GBP <i>only</i> .	t
Europe: Elsewhere:	£40 £50

Notice of Special General Meeting

11th February 2012

Contact the NAEE office for details: info@naee.org.uk 01922 631200





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	APPLICATION FOR MEMBERSHIP
I wish to join NAEE (UK)	
Name:	
Address:	
	Post Code:
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Telephone:	E-mail:
I enclose a cheque for £	Membership Category (see above):
Send to:	
•	NATIONAL ASSOCIATION FOR ENVIRONMENTAL EDUCATION (UK)
	lverhampton, Walsall Campus, Gorway Road, Walsall, West Midlands, WS1 3BD 22 631200 e-mail: info@naee.org.uk Website: www.naee.org.uk

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Environmental Education is the termly journal of the National Association for Environmental Education (UK). Issued free to members.

For membership details see opposite page or visit our website **www.naee.org.uk**

Articles

We welcome articles and items from members and readers. Books, DVDs and other materials for review should be sent direct to:

National Association for Environmental Education (UK), University of Wolverhampton, Walsall Campus, Gorway Road, Walsall, WS1 3BD. Tel/Fax: 01922 631200,

e-mail: info@naee.org.uk

Please ensure you have permission to use any photographs and send them as separate jpeg files.

The opinions expressed in the articles of this journal are those of the authors and do not necessarily represent those of the NAEE.

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Members invited to contribute

The editor welcomes articles and reviews by members who are willing to share their experiences and ideas with colleagues. These may occasionally be reprinted either on their own or with other articles in NAEE publications. Please contact editor@naeeuk.plus.com with your submission.

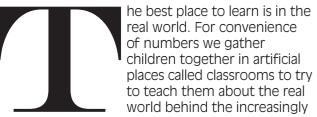
100 issues of Environmental Education

The executive would love to hear from our members about the ways in which they can contribute to our special 100th issue, out in September 2012. Please contact the office on the details above.

Cover photos: Enjoying facilities on the eco-bus; John Sargeant gives his voice to a talking bench for the National Trust; Magma Science Centre

Looking for the best interactive learning platform?...it's all around us!

Mick Waters, NAEE Vice President



high, safeguarding fences. Teachers should take every opportunity to school their pupils outside and then bring them back to the classroom to develop their understandings by meeting people who can bring alive the same principles, texts and other resource, and ICT to extend the learning close at hand by visiting places, times and characters not immediately accessible.

The chance to leave the classroom is not an additional extra, a treat, or a special activity. It is a natural form of learning.

A teacher using the outdoors for learning might say: "Today our learning will be at the river bank, the shore, the market, the church, the park, the forest, the factory, the town hall, the station, the mosque or the farm. It is first hand learning, carefully structured, and we want to look again at what we take for granted. We want to look deeper, get new perspectives and study from different angles. It is called learning by degrees and it will be important at university.

"You are knowledge gatherers. As the knowledge accumulates we shall need to help others to make sense of it so we will be busy making charts and plans and websites and diagrams. Our classroom will be busy as we make models, annotate and display photographs, write summaries, produce graphs and pictures. We might have to remove some of the published literacy and numeracy wall charts that we have stopped looking at any more. It is our classroom and we need to use it to communicate the knowledge that we are gathering."

Most children are fascinated about how things work, why things are like they are and why some things differ from the pattern that they have learned to expect. That is why they respond so well when teachers offer them the sort of opportunity that is described in the previous paragraphs. Teachers need the nerve to let children explore the environment, make sense of it and articulate what they think, it is not about right answers all the time. It can be about appreciation, conjecture, hypothesis, testing, and proving. It can be about recording, showing, illustrating and referencing. It is about gradually refining perception, enjoying finding out new things and building a confidence in the growing understanding of the world.

The environmental studies world is often associated with 'nature' and that is no bad thing. If every classroom had a nature table with a knowledgeable adult able to make the table come alive and speak, many children would be better informed and more in tune with their world than they often are today.

The study of creatures in their habitat, the life cycles, habits, food patterns and care for their voung carries endless fascination for children. Minibeasts still promote wonder. Plants and trees offer a wealth of opportunity for classification, close observation, life cycle processes and care. Mini and maxi environments still transfix children. They love the ants' nest and the solar system. The microscope and the telescope offer equal fascination if only they can get out of the cupboard, into the hands and up to the eyes of children. Even the pencil holds sway when there is something to tell people about.

The sense of creating environments is a big one. If children build a water garden, plant bulbs, grow crystals or look after animals, their sense of purpose grows and with it that responsibility and stewardship that will ultimately make the planet a

e are moving to a knowledge based national curriculum. There is nothing wrong with that as long as we consider how we build the knowledge and what we do with it. The environmental understanders have to get their voice heard though; we need to welcome the intent and show how the curriculum can come alive with life. Of course, the national curriculum is but a part of the whole school curriculum but we know that schools have to focus on their accountabilities. What could be more accountable than the future of the planet?

Children can achieve knowledge or have it thrust upon them: which would you want? They can see it as limited and spoon fed or universal and available. Surely we want children to be accumulators of knowledge rather than consumers? It is obvious really. As a way of supporting learning, the environment is the best yet interactive learning

Mick Waters is Professor of Education, Wolverhampton University and joins NAEE as a new Vice President

Challenging? Yes. **Exciting? Definitely!**



Dear Colleagues.

At the recent Annual General Meeting of NAEE, it was reported that the Association continues its state of transition with several changes already enacted and others in the pipeline. With some more detail presented in our Annual Report (pages, we can summarise as follows:

- We have had a small roll over of Executive roles to ensure continuity but also fresh perspective. We are looking for Representatives to strengthen our links in Wales and another for Scotland.
- We thank all our supporters for their active involvement in these challenging times. Special appreciation goes to Tom West, our Coordinator, and Liz Harris, office volunteer, for their hard work and unstinting loyality. Also many thanks to Katie Scanlan, who has been a very supportive Co-Chair over the last two years, strengthening crucial links with key partner groups. She has stepped sideways to now become our new Secretary.
- New Co-Chair Gabrielle Back has won a Green Leader award (see our new 'NAEE Bulletin').
- Our website is still being re-designed, the process taking longer than we had hoped. The re-launched site will, we firmly believe, be a much-improved information portal.
- Our online presence on twitter and facebook grows daily.
- We are making strengthening connections with partners both through the above networks and face to face: Gabrielle Back, Co-Chair, met with Australian educator Linda Bradburn and David Fellows, our Treasurer and New Zealand Rep. is to present a paper to the Kiwi conference
- A number of Executive Committee have or are about to be published: Juliette Green has a book about Learning Outside the Classroom and Gabrielle Back and Henricus Peters have publications to be released next year.
- We have funds for retaining our status quo but require additional donations and access to grant funds if we are to develop in areas of more providing more information resources and education outreach which are planned.

As always, members, supporters and readers who may be able to assist or have useful ideas regarding any of the above, are encouraged to get in touch.

The final word from our new President, William Scott: "NAEE is the network for connecting education and the environment. Your continued support is crucial, so NAEE can continue the vital work that needs to be done."

Gabrielle Back

Henricus Peters

twitter.com/NAEE UK

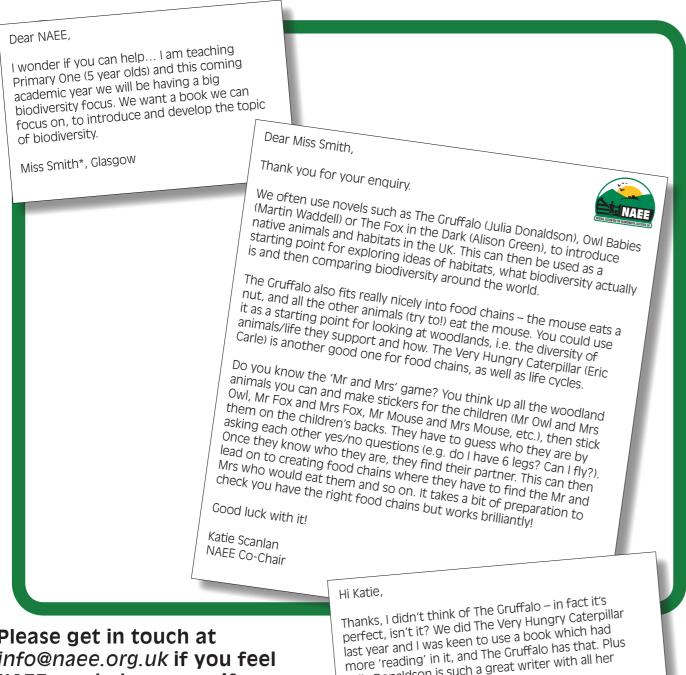
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info@naee.org.uk naee.org.uk

Joint Chairpersons

A Question of Biodiversity? The Gruffalo to the rescue!

NAEE receives requests for information and advice. Juliette Green, our website manager, gives a recent example of how NAEE helps



Julia Donaldson is such a great writer with all her

Excellent - thanks so very much for your help. I may

rhymes and everything.

well be in touch again!

Miss Smith

The 'Mr and Mrs' game sounds fab.

Please get in touch at info@naee.org.uk if you feel NAEE can help you, or if you would like to share your expertise and resources with other teachers and environmental educators.

*Names have been changed for privacy

The bulletin

A snapshot of what's happening at the Association Compiled by *Henricus Peters*



NAEE Annual Report: A summary from the Annual General Meeting in October

Co-Chairs' Reports

Katie was thanked for her great work as co-Chair alongside Henricus Peters who is currently teaching in China. Amongst other things she has made strong links with Nafso. Henricus continues as co-Chair. Special thanks go to Tom West our coordinator and Liz our Birmingham office volunteer.

NAEE Executive Committee

The following positions were confirmed: President: Prof William Scott; Co-Chairs: Gabrielle Back (Secondary Rep, SEEd, Health & Safety), Henricus Peters (Primary Rep, Editorial); Vice Chair: Nina Hatch; Secretary: Katie Scanlan; Treasurer: David Fellows (Northwest Rep); Committee: Martin Ashley (Higher Education), Norman Farmer (former chair), Sue Fenoughty (Editorial) Juliette Green (Website), Heatha Gregory, Alona Sheridan (London), Harriet Menter, Lindsay Richmond (West Midlands)

Subcommittees: Funding: David Fellows, Gabrielle Back, Alona Sheridan. Online Media & Communications: Philip Sainty (Communications Officer), Juliette Green (Website), Henricus Peters (Managing Editor), Katie Scanlan (Secretary). Editorial: Philip Sainty, Alona Sheridan, Henricus Peters.

To contact any members, please email info@naee.org.uk or tel: 01922 631200.

Treasurer's Report

Financial outgoings will be less in the coming year since printing costs will be drastically reduced to the production of the journal in an electronic format (there will be one print publication a year). It was highlighted that this, as stated previously, this new format will increase our circulation and therefore stimulate membership. The search for sources of donations for activities as our outreach and printed publications, is ongoing and members help is requested.

Secretary/Editor's Report

Philip Sainty was thanked for his work in his several capacities over the year, especially on the new website. Katie Scanlan agreed to become Secretary, to allow Philip to focus solely on Communications with the assistance of the new Subcommittee. The re-launch of the website has been delayed and the Executive is working towards setting up the new site with assistance from a member or university as matter of priority. Members with web design knowledge are invited to contact the office. Executive Committee are looking for links from current and potential partner organizations. Please contact the office.

Media

The work undertaken by Henricus Peters to establish NAEE on facebook and Twitter was noted. Over 200 'likes' on Facebook is a substantial and promising figure and a number of new members are finding out about NAEE this way.

Vice Presidents

NAEE has undertaken a review of these roles as part of its strategic plan, strengthening our crucial connections with universities

Conferences and Meetings

David Fellows is attending a conference in New Zealand as a visiting lecturer in April-May 2012. Gabrielle Back met with Linda Bradburn, Australian environmental educator—see report in this edition.





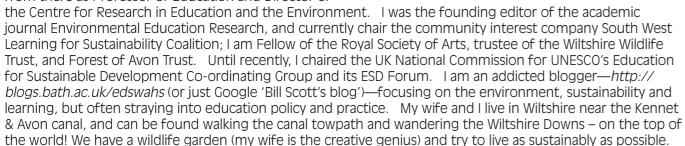


Your new President: Profile of Bill Scott

Following many years of sterling service by David Bellamy who is now our first Distinguished Life Member, we recently had the pleasure of welcoming as our new NAEE President, Professor Bill Scott. So members could get to know Prof Scott, NAEE asked him some questions...

Please introduce yourself

I started my professional life as a science teacher in secondary schools in Uganda and Hull before joining the University of Bath in 1978. I have recently retired from there as Professor of Education and Director of



What are your personal experiences of 'environmental 'education' and what attracted you to the field?

I have a very vague memory of nature walks at primary school, although I suspect that these were more about exercise than anything else. My childhood and adolescence was spent in the countryside, and so there might have been some 'significant life experiences', along the way that triggered an interest in 'the environment'. After my secondary schooling, first degree, and PhD (all of which were very un-environmental) my decision to become a teacher was influenced by listening to a Leeds academic, William Walsh, talking about Wordsworth and the Romantics, and their nature-inspired influence on education. This was a significant experience, leading to my interest in environmental issues and my subsequent teaching, and my research at Bath.

Why, in your view, is 'environmental education' important?

The argument that education programmes should focus on the relationship between the quality of the natural environment and humanity's socio-economic development has a long history across a wide range of cultures, and is based on three interlinked propositions. The first two are: [i] humans are increasingly living on the Earth in ways that are over-taxing the biosphere's ability to support life in terms of the goods and services it provides; and [ii] the growing inequalities between people across the world in terms of access to resources and achieving well-being are both an affront to human dignity and a source of international and intercultural instability. Such issues are grounded in physical reality, in biological systems, and in thermodynamics (there will be real limits, ultimately, on what humans are able to do in terms of exploiting natural resources), and also in an ethically-grounded, social justice argument which sees a duty of care and responsibility towards all humanity. Both are future-focused in the sense that what we do or don't do now will inevitably influence the abilities of future generations everywhere to live fulfilling lives. These arguments can be brought together by acknowledging that a different way of socio-economic development is now needed: one that will enable everyone to live well, and within the Earth's ability to support us – now and in the future. For some, this is captured by the idea of sustainable development, with its on-going ethical commitment to the well-being of all humanity and the biosphere, whilst others are not so readily convinced, seeing it as a 'green'-tinged extension of business as usual. Proposition [iii] is that education, viewed broadly, is a critical social strategy if the first two sets of issues are to be successfully addressed.

Having said all this, it will be pretty obvious that I think that environmental education is important. However, it may be less clear that I can be critical of much that passes for environmental education, particularly in schools. I see the need, not so much to add to what schools do at the margins, but to change what they do at the core: to change their values, purpose and practice. Viewed in these more stringent terms, I think that much of environmental education across the globe, and the decades, has been a self-indulgent failure. All the more need, I would argue, to keep trying, but with a better focus.

What, as you see it, are the differences between 'environmental education' and 'education for sustainable development?

That has been on my mind recently, and Paul Vare and I have just completed a chapter for an Environmental Education Reader on this topic. The argument that education programmes should help (young) people to have a critical understanding of the relationship between the environment quality and human development was as integral to the idea of environmental education as it now is for ESD, although this has not always been emphasised, or even understood. In tracing the development of arguments, ideas and emphases within both environmental education and ESD in relation to both international policy and institutional practice, Paul and I argue that it does not matter whether it is EE, ESD, or any of the many other 'adjectival educations' that is being pursued. What is important is that institutions and teachers contribute to people's learning about the issues that really matter to all our futures, and how well they are doing this, both individually and in collaboration.

In other words, it's important to be the (environmental) educator you want to be, and to be good at what you're interested in, but you should not pretend that you can cover all the issues by yourself. In 1983, the distinguished American environmental educator, John F Disinger wrote:

"... though EE is ideally interdisciplinary – an eclectic assemblage of interacting disciplines – its practitioners typically approach it as if it were multidisciplinary – an eclectic assemblage of discrete disciplines. Because EE's practitioners typically are grounded in no more than one of the multiplicity of disciplines involved, logic leads them to approach EE through the intellectual filters of their own disciplines. Thus, practitioners in EE typically continue to talk past one another, rather than with one another".

It seems to Paul and to me that this talking past each other continues today, even within ESD with its seductive appeal to an integrating holism. As such, an effort of will is now needed if practitioners are to play to their strengths (and to learners' needs) through working with others, and overcome the considerable barriers that favour intellectual and practical isolation, and the limited learning opportunities that inevitably result. This is not to underplay the value of teaching through subjects or disciplines that help learners to develop specialised tools with which to explore and understand their world, but it should go some way to eliminate the waste inherent in such teaching where little reference is made one to the other. Thus it is that it is perfectly fine to be an environmental educator (once more), but not in the same narrow and self-satisfied way as before. The lion's lying down with the lamb may be some people's vision of harmony, but mine is where geography, science (and other) teachers begin to talk with each other, and plan, with students and their learning in mind.

What are your main areas of research and what draws you towards these?

My research has focused on the role of learning in sustainable development, on the contributions that education (viewed broadly) can make to this, and on the problems of researching the effectiveness of such activities. I have a particular interest in the idea, and the practice, of sustainable schools, and have published extensively about these. I think that schools, colleges and universities ought to take sustainability seriously through what they teach and how they operate as institutions, but not to the extent of disempowering students by telling them what to think, how to live their lives, or what values to hold.

What attracted to you NAEE?

I cannot remember when I first joined NAEE, but I served on its Executive Committee many years ago. I thought that what NAEE did then was important—nay, vital—and I think the same today. I admire the Association's tenacity, its determination to survive as the world changes around it, so that it can continue to provide an important service to teachers and educators. Although Rachel Carson's specific focus was the indiscriminate use of chemical pesticides, she did quietly herald the link between education and sustainability when, quoting the French writer and biologist Jean Rostand: The obligation to endure gives us the right to know. Quite so. I am honoured to be NAEE's new President.

The Association is 'the' network that focuses most effectively on 'education and the environment', and is now developing new web links and facilities. Your continued support as members is crucial to ensure that NAEE can strengthen its voice for the vital work that still needs to be done.

For more about Prof. Scott, read his blog at http://blogs.bath.ac.uk/edswahs He can also be contacted via info@naee.org.uk

Co-Chair Receives Award

Gabrielle Back, who has just become co-chair of the Association, was recognised by Sustainability West

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Profile: National Trust

Midlands as a Green Leader. The Award was for her professional and personal commitment to creating a sustainable future in the region through influencing and inspiring change. 'S.W.M.' is a sustainability championing body designated by government to promote sustainability in the WestMidlands. She has also been selected to receive another Green Apple Award for the 'Positive Action Eco' surgeries, endorsed and offered by NAEE. The Award will be presented in the House of Commons in November.

Visitor from Australia drops in on NAEE

As part of a whistle-stop tour of a few countries, Aussie educator paid a visit to our Vice Chair Gabrielle in September.

Linda Bradburn is the Environmental Educator from Melton Shire Council on the outskirts of Melbourne. Linda coordinated the program that enabled Melton Shire to win the Victorian Keep Australia Beautiful Award in 2010 for the most Sustainable City in Victoria. Linda is responsible for education in schools and the community including supporting the twelve or so active community groups (called Friends or Landcare groups) in Melton Shire (www. melton.vic.gov.au/Page/Page.asp?Page_Id=55&h=1&p=1). Melton is one of the fastest growing areas of Victoria. Outside of work Linda is on the committee of the



Indigenous Flora and Fauna Association (www.iffa.org.au) and is secretary of the Swan Bay Environment Association based at Queenscliff (http://home.vicnet.net.au/~sbea/). Since coming to Australia Linda has developed a great interest in whale watching and seahorses. Linda was born in Wolverhampton and emigrated to Australia in 1979. On a visit back to the UK, Linda will be meeting with the NAEE and also staff at Wolverhampton University, and Transition Town Wolverhampton.

It was a pleasure to meet Linda Bradburn in England on a working holiday. From Melton in Victoria, Australia, she was particularly interested in NAEE and our work in promoting Environmental Education for Sustainable Development. We spent an afternoon discussing our mission and aims. She thought very highly of Positive Action, NAEE's recent publication which she thought was excellent and took away for reference. We also discussed some of the many Eco projects that are taking place in Melton as well as the Australian national conference to which NAEE has been invited. We shared specific examples of environmental good practice exemplified through numerous case studies in our areas.

NOTICES

Free Book Offer

Oceans Under Threat is a handbook written by Philip Neal, one of the founding members of NAEE. Some copies of this book were recently discovered by Philip's wife, Rita: she mentioned this to a friend whose daughter is a Geography Teacher, only to find out that the book is still being used all the time in school today. Mrs Neal and NAEE would like to see these books go to good use. NAEE will post a copy of 'Oceans Under Threat' to any Birmingham members free of charge – but with the request the receiving member can also recruit another member for NAEE.



Please contact us at info@naee.org.uk to register your interest.

Get involved!

We are also looking for NAEE members willing to become representatives in Scotland and Wales, to help create links with current and potential partner organisations there. And we would love to hear from our members about the ways in which they may want to contribute to our special 100th issue of Environmental Education, which will be out in September 2012 For details, please contact Tom West, Coordinator, at info@naee.org.uk or tel: 01922 631200.

Growing younger

visitors

The National Trust's Time Well Spent campaign helps to boost visitor numbers as one in four British people visit in the last year alone

Caroline Addy Press Officer The National Trust

he National Trust's 2010 Time Well Spent campaign has resulted in a record visit season—up 16 per cent compared to the previous year—and the campaign is set for even bigger things in 2011.

The Time Well Spent creative platform worked across PR, digital marketing and above the line advertising to help people rediscover the simple pleasures in life—from clean, fresh air to the sounds and sights of the great outdoors.

To support the campaign, the National Trust created significant moments in time during 2010 that have helped shift the perception of the organisation amongst a younger audience—creating on and offline conversation about the National Trust that has since increased undertwenty-six-year-old visitors by 9 per cent.

The campaign kicked off mid-March with research revealing the rise of the "daycation" and death of the two-week holiday, positioning National Trust sites as simple pleasures and the perfect mental refreshment pit-stop. This was closely followed by the launch of the above the line advertising campaign 'Time To' in tube stations, national newspapers, radio and digital formats which vividly brings to life the beauty of different National Trust places.

The Trust also unveiled eight benches voiced by celebrities including national treasure Stephen Fry, comedian Miranda Hart and John Sergeant. These first-ever talking benches are inspired by each of the celebrities and capture areas of natural beauty with their own personal audio odes and anecdotes.

The bespoke benches, which will sit across England, Northern Ireland and Wales, give listeners a five-minute audio commentary or personal story that brings the surroundings to life—so that visitors



can listen to the country's best-known voices as if they were sat next to them.

2010 Time Well Spent Highlights

- In March National Trust opened its doors for a free Bonus Time weekend supported by PR activity—giving away over 1,000 jars of fresh air to stressed-out city workers to launch the promotion. The charity recorded over 200,000 visits over the two-day period and many properties reported their highest weekend footfall ever.
- Following the success of Bonus Time, the National Trust teamed up with Brit pop legend Jarvis Cocker to record and produce National Trust: The Album (Music To Think To). The 33-minute long recording took the listener on an audio journey around the National Trust from the sounds of lapping waves against the shores of Brownsea Island in Dorset to birdsong at Belton House in Lincolnshire and the sounds of gardeners at work at Powis Castle in Powvs. The soundtrack was available as a free download from the National Trust website, physical CDs were given away across the UK as well at BBC Radio 1's Big Weekend and Glastonbury—taking the National Trust experience directly to the younger target audience.

www.nationaltrust.org.uk

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Case Study: Community Eco Bus

Case Study: Community Eco Bus

A mobile environment

Sandwell school children will benefit from a pioneering educational programme as a new mobile classroom aims to drive home environmental responsibility

Sofia (Constantinou) Antoniou Campaigns Manager *Serco Ltd*

n a major initiative to promote environmental awareness among local children, Sandwell Council and Serco have joined forces with Tipton Litterwatch to launch a new mobile classroom which will be visiting all Sandwell schools over the next year. Unveiled for the first time at the Sandwell Community Show, the new double-decker Eco Bus project has been funded and managed by Serco as part of its comprehensive programme to manage and improve the Council's waste management service.

The refurbished and refitted Eco Bus aims to provide a fun, interactive and informative classroom where youngsters can learn more about environmental responsibilities and the importance of reducing, reusing and recycling waste from the home. The interior features worktops made from recycled Coke bottles, and the enthusiastic support of local school children has contributed directly to the interior decoration which includes the winning designs from a special competition that attracted more than 2,500 entries.

The intensive programme of school visits starts on 13 September with a visit to King George V Primary School in West Bromwich, and all primary schools within the borough will be visited during the next 12 months. Each visit will include a series of activities, workshops and games for all young visitors with themes based on recycling, litter picking, planting, composting and understanding renewable resources.

"In every respect this is an inspirational project."



says Cllr Derek Rowley, cabinet member for neighbourhood services. "We believe this to be the first time that a purpose-designed mobile classroom has been introduced to take important environmental messages into the heart of every local school. Educating youngsters - and, of course, the adults of tomorrow - about the importance of personal responsibilities for the environment is critical if we are to achieve our targets for minimising landfill waste and ensure sustainability underpins future community developments. The initiative has been very enthusiastically received by all of our local primary schools and I'm particularly pleased that so many local businesses have also been keen to support the project."

ccording to Jason Holtom, Serco's Contract Manager for Sandwell, the Eco Bus is the culmination of a great deal of planning and preparation. "The support and encouragement we've had from Tipton Litterwatch has been tremendous. This is a pioneering and exciting venture and I have no doubt it will not only prove to be popular with youngsters but will also set new standards for reaching out and ensuring the values of the next generation are founded on environmental responsibility and awareness."

Tipton Litterwatch has played an important partnership role in developing the Eco Bus concept



and the local charity's Project Manager, Lindsay Richmond, says that everyone has a responsibility to care for the environment where they live. "The Eco Bus is a great way to hammer the message home to younger members of our community as it will provide a fun, interactive and dynamic place to learn. We're thrilled about the programme as it helps to fulfill many of the charity's objectives and initial feedback from schools, parents and the children themselves has been hugely encouraging."

Serco was appointed by Sandwell Council at the end of last year to provide refuse collection, recycling, and street cleaning services, and deliver waste processing and disposal, including the construction of a new waste transfer station. As well as providing cost efficiencies, the service improvements being made by Serco will help the Council meet its ambitious waste improvement targets—at least 60% of all waste recycled or composted, 35% of waste is turned into renewable energy and less than 5% sent to landfill by 2020.

"Our improvement plans are a balance of

immediate priorities and longer-term objectives, and education is an important part of the process." adds Serco's Contract Manager, "Aside from the direct educational benefits, the distinctive livery of the Eco Bus will provide a very visible and distinctive reminder to everyone in the area about the importance of effective recycling and waste reduction. The anti litter message will also be a key focus of the work programme and we are hoping to build upon the positive work Sandwell Council have been doing around this. And, once the programme of school visits is well underway, we are also looking to extend the schedule to cover any other interested groups and organisations around Sandwell, as well as further developing the capabilities and performance of the bus itself."

Other local business that have already provided support for the EcoBus include, Vital Earth and The Helping Hand Company.

More information—

www.sandwell.gov.uk/ecobus



HEDGEHOG STREET

CITY OF WILDLIFE

Laura Bower Conservation Officer People's Trust for Endangered Species

edgehogs have declined by a quarter in the UK over the last decade. One reason for this is habitat loss and fragmentation. In response to this alarming news, this summer the People's Trust for Endangered Species and the British Hedgehog Preservation Society joined forces and launched an exciting new project, Hedgehog Street. The campaign is aimed at making gardens and community green spaces all over the country a haven for hedgehogs and the beauty of it is that everyone can get involved in one way or another.

Through Hedgehog Street we are asking volunteer Hedgehog Champions to rally support from their friends and neighbours and work together to create ideal hedgehog habitat throughout their street, school or communal grounds. Gardens have become too tidy in recent years, paved over for parking or enclosed within impenetrable fences and walls. Hedgehogs have large home ranges and travel up to one mile each night within suburban habitat in their quest for food and to find mates but these physical barriers restrict their movement and sustainable populations cannot survive in isolated areas, no matter how ideal the habitat is. These areas need to be linked up and this can be done by planting



hedges instead of constructing fences or walls, providing areas of long grass and vegetation for shelter or simply by making small holes in walls or fences. Hedgehog Street will also improve the quality and availability of urban and suburban habitat by creating nesting, feeding and hibernating areas within gardens.



A pack of resources is provided to each Hedgehog Champion to help them involve and inspire their friends and neighbours. The pack contains fact sheets, practical action cards, posters and flyers and there is information on our dedicated, interactive *Hedgehog Street* website offering further advice. Keen volunteers are able to post feedback and photographs of their progress on the website which will in turn encourage other communities and schools to take part.

e already have over 13,000 Hedgehog Champions who have signed up across the UK to improve their area for hedgehogs. Many have persuaded their neighbours to stop using slug pellets, several people have made their gardens more accessible by making a hole in their fence or digging a small hole underneath, and a few people have made their own hedgehog homes.

This project lends itself perfectly to school grounds and gardens, and activities are suitable for a range of ages. If you do not have access to a school garden then perhaps the school could become a hub for the local area, encouraging staff and parents to make changes in their home gardens and report back on their progress.

To compliment Hedgehog Street we also have lots of hedgehog-related online educational resources, aimed at key stages 1 to 4, covering

science units such as habitats. life cycles and keeping warm. The worksheets and leaders notes are designed to fit into lessons and are all curriculum-linked. To download all these resources for free, simply visit www.ptes.org/education and register.

Get involved —

If you would like to become a Hedgehog Champion in your school the best way is to visit www.hedgehogstreet.org and register for your Hedgehog Street pack.



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Langdon Beck

An eco-friendly flagship

David Fellows

Hon. Treasurer *NAEE*

his summer, with our granddaughter Lily reaching the great old age of six, we decided to introduce her to hostelling, a relatively cheap way of exploring the world that we still enjoy. There was an added incentive of a special cheap holiday offer on family rooms. (The Youth Hostels Association is now more aware of the Travelodge marketing approach.)1

Lily has a fascination with castles and we knew that there were several "genuine looking" castles² en-route, built when the far north of England was plagued by Scottish raiders. She also enjoys exploring just as her parents and grandparents do. We'd booked with some trepidation as Langdon Beck is the highest hostel in England—in Upper Tees-dale, the centre of windswept North Pennines³—and just over the border from our home county of Cumbria. Luck was with us! Unusually, by the standards of recent summers, we had a fine warm weekend. We could hardly have chosen better. The hostel joint manager, Jodie, was very welcoming. Our room had what might best be described as "a view to die for" westward out over the open fells. There were two other families staying and lots of games in the combined lounge and dining room, a real home from home. Her only mild complaint was that she was not allowed on the top bunk until she reaches the even older age of seven.

An added bonus for us was that we had at last stumbled on an "eco shrine", hence this article.⁴ The original hostel built in 1938 burnt down in 1958 and was re-built and opened in 1965. However it was redeveloped in the 1990s along with Lockton in the North Yorkshire Moors National Park as an Eco Hostel thanks largely to the enthusiasm of the manager at the time, Ewan Boyd.⁵ Using a 2.5kilowatt wind turbine, solar hot water heaters



and recycling 50% of all waste he was able to reduce the carbon dioxide emissions by 75%. We liked the positive educational approach of "do rather than say" from the moment we parked the car⁶ at bottom of the drive right next to the reed beds with their slight odour as they recycled our human waste.

All the boards at key sites such as the wind turbine, the rainwater butts and the organic garden were giving information and ideas not instructions. They were not telling you, even politely, but simply explaining how their actions were helping the environment. It was the same in the reception area with a rank of neat clearly labelled and colourful and sufficiently large containers for re-cycling virtually everything. (We have found this is in contrast to many hostels and schools where efforts for recycling are hindered by local authorities classifying them as commercial premises and charging them for removal of all waste including anything recyclable.) In the toilets and washrooms there were lots of little circular notices imparting facts that most of us would not even have considered....Food for thought!

n our teens and twenties youth hostels were the only form of accommodation we could afford for our escapes from the city. With the advent of the many other budget accommodation providers the YHA has to work harder to define its role for the future. Rural hostels like Langdon Beck point the way. With the World's population increasingly living in big cities the need to know, understand and enjoy the countryside becomes even more essential. Our association exists to promote education about and through the environment for its future. Through enjoyable experiences in the natural world the next generation will come to love and wish to conserve and improve it. The YHA's mission chimes closely with ours. It is; "To inspire all, especially young people, to broaden their horizons, gaining knowledge and independence through new experiences of adventure and discovery". Well done Langdon Beck.7

Notes—

- 1. The offer was for a family room for 3 to 6 people for £29 but was not well published. They hope to have a more friendly pro-active web site up soon. The YHA name has a long and honourable history but also negative connotations linked with past austerities. The words Youth and hostel also affect public perceptions. In Sweden hostels are known as Vandrarhem i.e. wanderers homes. I like it.
- 2. English Heritage offer free admission to all school children They also offer adult members free admission for up to six children. All three castles at Brough, Brougham and Barnard Castle we visited were managed by EH. Lily wanted to know why people lived in castles. The many fortified buildings in the Northern border counties were subject to border raiding parties and arguments over land ownership; and so we embark on a journey of understanding the key behind world conflicts, the fight to control land and its resources. A conflict as old as humanity itself and growing again as the world population grows and resources are being used at an ever increasing rate.
- 3. The North Pennines is the second largest Area of Outstanding Natural Beauty (AONB) in England and in 2003 it became the UK's first European Geopark. Parts of this peaceful and apparently unspoilt landscape have a rich mining history, especially for lead. Twenty

minutes north from Langdon Beck in upper Weardale is Killhope Wheel, Durham Co. Council's magnificent mine, works and interpretive centre. It was the best place we could take our pupils from South Cumbria to learn about their own area's rich mining history, especially of the hard lives that miners and their families experienced. Details at www.durham.gov.uk/killhope and in an excellent easy to read "Lead Mining Landscapes", ISBN 0-902178-20-2, £9.95, Durham County Council.

- 4. Lily featured in the article "Scoot to School" last year when I was so pleased to find they had a special storage rack for scooters as well as bikes and that the school and its grounds were full of eco friendly activities.
- **5.** Ewan now works as a consultant in Teesdale for SETH, an organisation supporting 33 village halls in reducing their energy consumption. Details on teesenvironmental@btinternet.com
- and at regular intervals all along the upper Tees valley road. All are clearly visible and display up to date timetables. That's the problem! They show that there is a public service bus only on Wednesdays, so there was no opportunity to do a linear walk down the valley using the bus in one or other direction, apart from on Wednesdays!

The hostel has 34 beds, just enough to cater for most school groups, and a full catering service. There were plenty of games and a room for table tennis and no television! YHA now operates "sole use booking", meaning that a group can have the hostel to themselves. Financially it's a good idea but it isn't popular with long distance walkers as the hostel is also on the Pennine Way. Details are on www.yha.org.uk.



 Case Study: Hands On Science Case Study: Hands On Science

A visit to the Magna Science Centre

Norman Farmer
NAEE Executive

hen the M1 motorway was first extended north past Sheffield and on towards Leeds drivers and passengers going over the Tinsley viaduct at night (junction34) would have seen the glow of steel works and manufactories in Sheffield to the left and those in Rotherham to the right. By the mid nineteen eighties the warm glow had become

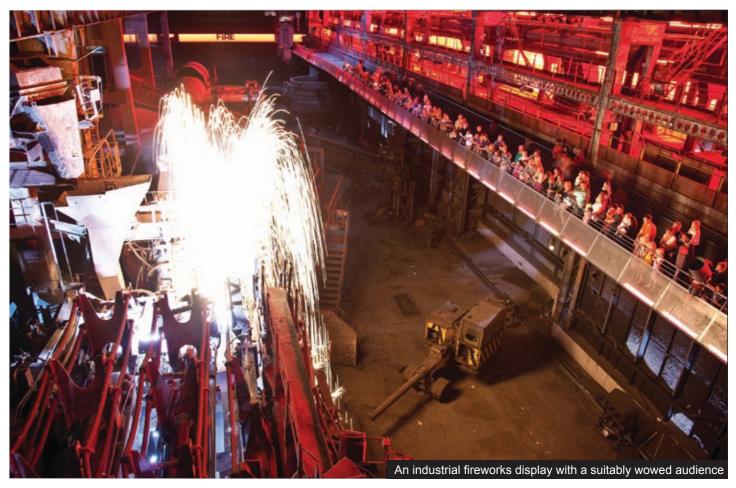
steel works and manufactories in Sheffield to the left and those in Rotherham to the right. By the mid nineteen eighties the warm glow had become no more than afterglow and daylight revealed a waste land of industrial dereliction. Cold winds and rain penetrated blackened roof torn buildings where once furnaces sparked and men sweated. Today the view from the motorway is transformed and in the direction of Sheffield can be seen the green domed roofs of the Meadowhall Shopping Centre: a modern emporium for the shoppers of the region which is good for clothes but poor on ironmongery. In the direction of Rotherham is the Magna Science Centre occupying the vast buildings of the Templeborough Steel works where formerly electric-arc furnaces produced tonnes of quality steel. To the left and right of the motorway we see two solutions to the problem of regenerating old industrial sites. On the one side profit orientated commerce displays many of its wares from countries where labour is plentiful and wages low and on the other side is an altruistic venture following on the tradition of museums as the universities of the people.

The Magna Science Centre is one of a handful of national lottery millennium projects that have survived in its original form (Perhaps the most regrettable failure being the closure of the Earth Centre near Doncaster). The vast

site and the enormous building have been imaginatively designed to illustrate some of most fundamental aspects of our environment. Within the cavernous space where electric arc furnaces once belched smoke and spilled steel are four 'pavilions' representing Earth, Air, Water and Fire. Between these pavilions is a remaining electric-arc furnace in-situ and at frequent intervals there is a pyrotechnic display demonstrating the operation of the now defunct machine.

In the bowels of the building you can ferret about in the EARTH pavilion and work the controls of a JCB as a quarryman would. Alternatively you can barrow, load and power a conveyor belt with simulated rocks and watch your young charges use up their unbounded energy as they race about pushing barrows and loading rocks. While close to the roof space is the AIR pavilion shaped like an airship where you can feel the force of the wind or tootle with the air horns to make melodious tunes or farts and watch a tornado being created. The WATER pavilion always reverberates with activity as young children don their aprons and shoot water at targets, make waves, operate canal locks and consider the water cycle. The FIRE pavilion's





most spectacular exhibit is a fire tornado while the older pupils can investigate the contraction and expansion of metals and the forging of steel. Outside there are two 'play' areas, Sci-tek being best for dry weather and Aqua-tek is always wet. Schools can also book a 'Kitchen Sink' science session which is ever popular, entertaining and educational. For those in the wider locality the 'Kitchen Sink' will visit you. Situated in the lower Don Valley, and almost in sight of the M1, access is easy and there are acres of parking space. For the more environmentally committed Magna is on one of the Sustrans routes and those cycling from the North Sea to the Irish Sea can call in and break their iourney. You can also walk from either city centre following the canal or take the five weirs walk along the river Don from Sheffield town centre.

or many environmentalists Magna, like many other attractions, is not an obvious place to visit. As 'thou shalt not' environmentalists, 'good citizen' environmentalists, and 'greening the planet' environmentalists we should pause for a moment and consider the underlying reasons why we act as we do. Magna through its four pavilions demonstrates our connection with some of the most fundamental forces and materials that support us on this planet. Air, water, and earth circulate with heat energy from the sun and plants

and animals rely on these essentials for their very existence. Environmental educationalists using facilities such as Magna have a number of options on how to approach a visit depending on their objectives and the age of their pupils or students. Just as we use the natural environment we can use Magna. First we must capitalise on learning in a new environment where the natural curiosity drives everybody to investigate every activity in a pavilion and reasonably expect that different students will imbibe different learning from these experiences. Second we can focus down after an initial burst of enthusiasm on what interests and what inspires, remembering communication and recording can be verbal, written, mathematical, visual, artistic, and poetical. We must remind ourselves all the time that talk and discussion are essential for learning and often precede action. Third we may want to be drawing out wider inferences or conclusions from our visit either in the centre itself or back at base. Too often environmental education is a list of do's and don'ts, goodies and badies, eco propaganda or high-jacked green advertising by commercial companies and what appears to be green is a doubtful grey. So exposure to some of the fundamental aspects of our planet may well be the 'back to basics' we can all embrace in a genuine environmental education.

www.visitmagna.co.uk

Case Study: Field Studies

Asia Focus: Pakistan

It's not easy being green?

Becca FlinthamField Teacher

n these times of recession, the last thing any of us needed was more bad news. So it was heartening to read a report commissioned by The Co-Operative, which offers not just a glimmer but a beacon of hope to those of us who work in environmental education.

Based on the views of 1,027 children aged between 7 and 14 polled during August 2011, the report reveals that 82% of children rated learning about green issues as important. 66% said they wanted to learn more about wildlife and nature and 47% stated that they want to learn more about where their food comes from. (To put this into context, other subjects fell well behind with art scoring 37%, IT 36% and science 35%.)

Those of us who work in environmental education, particularly in the field, may not find these results surprising. We have seen first-hand the impact that our work can have on young people. As a field teacher, one day I may be teaching families from a local authority children's centre, the next a Year 7 group studying rivers. The common denominator is the outdoor element: getting the children out of the classroom and into the environment, handling minibeasts and plants and water and the soil.

It is not unusual – and I would suspect many other environmental education practitioners will say the same – to have children in a group who have never gone pond dipping or had an encounter with the farm animals their food comes from. Much hand wringing occurs these days about the low levels of children's physical activity and long hours spent interacting with computers. Reports such as Natural England's 2009 survey present worrying statistics relating to the diminishing contact between children and nature: only 10% of children now regularly play in woodlands and the countryside, as compared to 40% of children 30 years ago.

Despite such trends I remain optimistic about the future. This is because when I teach, what I observe is that even one day spent immersing students in the natural world is enough to switch on a connection to the environment which can continue into later life. No matter how jaded or fatigued we educators may become (and working in education certainly requires stamina), I am lucky



enough still to observe those 'magic moments': when you see a child light up with excitement as she discovers a ladybird; when a teenager lets go of his street cred to don waders and stand midriver kick-sampling freshwater invertebrates, apathy falling away as he starts to enjoy himself.

We are lucky in environmental education that for many of us our workplace is our main attraction. We have to prepare lesson plans, operate within a constantly changing curriculum, achieve learning outcomes and be assessed in our teaching - but we have the living world to offer students as our teaching aid. And besides that our message, that of caring for wildlife and the environment, are those very 'green issues' that, apparently, 82% of children want to learn more about. So I'd encourage all environmental educators to keep that in mind, next time you think it's not easy being green.

References—

- The Co-Operative Group (2011)
 Children teaching grown-ups a lesson or two about green issues [online], 20/09/11.

 Available from: www.co-operative. coop/corporate/Press/Press-releases/Headline-news/Children-teaching-grown-ups-a-lesson-or-two-about-green-issues/[accessed 29th September 2011]
- Natural England (2009)
 Childhood and Nature: a survey
 on changing relationships with
 nature across generations Warboys,
 Cambridgeshire: England Marketing

Weather study programme comes up sunny

Project by the Nature club of Pakistan

Muhammad Raza Khan

Nature Club of Pakistan



*ature Club of Pakistan is actively working to provide opportunities to youth through their educational institutions to explore nature. It has developed programmes based upon

observations, data collection, and investigations. We invite students to investigate and analyze data using scientific approaches.

This year we imported two weather stations from Taiwan and designed a programme for students entitled "Weather study programme". In this programme students were asked to collect weather data from the weather station at their school campuses, record it, analyze it and draw conclusions on the relationship between weather elements and the environment.

This was the first programme of its kind offered to students in Pakistan. To obtain useful results on weather conditions and environmental elements across the country, four different school campuses were chosen, located in different landscape and climatic zones. Spring was chosen for this study

as it is a time of great fluctuations in weather elements, making this interesting.

The Nature Club of Pakistan is grateful to the teachers who made this programme a success.

The four schools were in the following towns:

Karachi is the biggest city in Pakistan in terms of population, industry, trade and the biggest seaport. Its climate represents the weather of coastal belt of Pakistan.

Chakwal is a town located in the arid zone of Punjab. This geologically interesting area produces oil and minerals. Its climate is unique compared to other parts of the country.

Faisalabad is in central Punjab. Its agriculture is totally dependent on its specialised canal irrigation system. Its climate is that of the plains.

Lahore, in north-eastern Punjab, is the second biggest city of Pakistan, a centre of education and culture

Outcomes of the research carried out by students in the four climate zones:

All students gathered data during school time.

In Karachi six groups of students recorded weather conditions with the first group starting on 28th February and the final group finishing on 15th April 2011. Variations in their data and conclusions reflected the weather during the months they recorded. Data showed increased humidity and high temperatures in April.

The Faisalabad students collected data between 21st & 28th March 2011, the Chakwal students between 4th & 8th April 2011 and the Lahore students between 18th & 22nd April.

The students who participated gained experience of collecting and analysing data to do with their regional climate and then drawing conclusions. They worked together, recorded information and produced graphs.

Asia Focus: China Asia Focus: China

Go Green!

Students undertake 'Ecology Action' in Shanghai

Henricus Peters and **Daniel D'Andrea** *YCIS Environment Committee*

The History

The Ecology Action Group at Yew Chung International School (YCIS), Shanghai, is part of the After School Activity (ASA) programme which also includes the likes of sports, Chinese culture and hobbies clubs, all of which run weekly during school terms (China academic year) from 3.30pm–4.30pm, at two campuses – Century Park and Regency Park. YCIS is one of many international schools in the city specifically catering for a large and growing expatriate population; YCIS focuses on a strong school-wide bilingual programme with both Chinese and Western input.

Ecology Action began with older Primary (Years 5 and 6) at Century Park as a Maths-focused ASA by Daniel D'Andrea, who brought his unique interest in practical environmental action from his experiences both in the United States and Denmark, and combined these with the curriculum – adding a fun hands-on twist to keep the students engaged. The formula was so successful, the group has not only been running as an ASA ever since, but is now seen representing the voice of the environment on both campuses, including connecting with the likes of the Student Council. Mr 'D' now regularly presents at year level and school assemblies and, with his new assistant Henricus Peters (NAEE Co-Chair), is looking to engage with vounger levels at Regency Park campus by launching an ASA there.

What is Ecology Action

Ecology Action is open to any and all students but the mainstay of children coming from Year 5 and 6 (10 and 11 years), with one or two secondary attending occasionally. The primary teachers coordinating the group, one of which is the author, is likely the reason for lack of secondary student interest; as the secondary division grows, this is hoped to change. Important to note that the Year 5 and 6 students who attend are 'green' stalwarts, with some of them coming back for two years!

As there is only one hour of ASA contact time
– a short period to accomplish a growing list of
projects – setting up and making arrangements are
generally done outside of the Monday meetings,
and mainly by the Lead Organiser Daniel D'Andrea
who is provided with some release time for



preparation. – as many group facets, such as recycling, have implications for the whole school.

Many Projects

Ecology Action aims to undertake a wide range of activities so the student members have the opportunity to experience a good selection of ways to reduce their own and—by consequence—their school community's ecological footprint.

Recycling: This is one of the cornerstone activities undertaken by Ecology Action on behalf of YCIS at Century Park. It requires the EA students to visit each and every classroom to check and empty a blue recycling container, putting the material into a larger one which is then transferred downstairs into large bins. Paper is the main item taken from the classrooms, with plastic bottles coming from the playground bins. The material needs to be checked once more, ensuring no plastic bags, for example, are included by mistake, and bottles have been emptied of water and squashed. Recycling, done properly, can take up to half an hour, a reasonable proportion of a weekly group meeting, so it must sit alongside and fitted in with many other projects. It does, however, take priority at key times of the school term, when classroom bins become full. The collected paper and bottles are sold to a local 'ayi' (man on a bike) with the money collected used to fund the school's contribution towards the Million Trees Project of Roots and Shoots (website). As part of the sorting process, EA students will use samples of the recycling to show at one of Mr D's 'Go Green'

assemblies – especially focussing on the types of materials that should 'not' be included!

Wormeries: Ecology Action has for the past two years instructed students on how to undertake worm mini-farms in large plastic storage boxes, as a very hands-on way to show cycles in nature and how we can apply them to our own benefit, to enrich soil. Apart from both teachers and students gaining practical experience in the actual mechanics of how the farms work, the project has also provided students who might otherwise know only the 'theory' – to get their hands 'dirty', but in a very positive way!

Gardening:

Having a garden is another very practical method for children to see for themselves exactly how natural systems work, as well as being able to enjoy the fruits of their own harvest. It has also, interestingly, been one of the hardest projects Ecology Action has undertaken due to the range of school authorisations that need to be completed, in order for 'things to happen'. As with many sites in China, the school site is on ground consisting of very questionable materials – a collection of 'fill' - and certainly 'not' the ideal basis for a garden. As a consequence, it has taken many, many bags of imported (from the shops) compost and soil to create a base good enough for anything to grow. This is after the 'fill' was removed: thereafter, a bamboo fence has been constructed to contain the garden – which took two teachers (plus help from their spouse) two Saturdays to complete! Was it worth it? We certainly hope so – only time and some more effort will tell, when the new Ecology Action students come to plant their respective vegetables, later in the new school year.

About Roots & Shoots International

In 1991, world-renowned primatologist Dr Jane Goodall started the Roots & Shoots to educate young people about environmental issues and humanitarian values with a special focus on group interaction.

Roots and Shoots unites those who hold certain values in common: love for animals, care for the community, and devotion to protecting the environment. The programme originated in Tanzania with only 16 students; now Roots & Shoots has expanded to 100 countries with a global network of 8,000 groups. In China, there are Roots & Shoots offices in Shanghai, Beijing, Nanchang, and Chengdu.

Its mission is: To foster respect and compassion for all living things, to promote understanding of all cultures and beliefs, and to inspire each individual to take action to make the world a better place for animals, the environment, and the human community. We believe that change is already taking place!



The Shanghai experience

The Shanghai branch of Roots and Shoots was founded as a volunteer organization in November, 1999. Five years later, in November, 2004, it was granted a Non-Profit Organization status by the Shanghai City Government.

The number of schools with active Roots & Shoots groups in Shanghai has increased from three in 1999 to 200 in 2010. The Jane Goodall Institute Shanghai office has grown to include ten full-time staff members to accommodate and support this increase in school groups. We provide encouragement, training, project management training, networking, environmental materials, speakers, and a website to help the students achieve success in their project work. The R&S office coordinates major citywide projects every year, to promote environmental education and action for the whole city of Shanghai. In addition, the Shanghai office is supporting an outreach effort for four neighbouring provinces. This involves assisting new R&S groups in these areas, and giving them the same level and quality of support that the groups in Shanghai receive. Websites: www.jgi-shanghai.org; www.rootsandshoots.org.

Roots & Shoots has become NAEE's first partner in China. The after school programme run by Henricus Peters, NAEE Co-Chair, is affiliated to Roots & Shoots Shanghai (see main article). For details contact *Henricus.peters@gmail.com*.

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Asia Focus: China Case Study: Earth Science



Other projects include using a solar dish, comparing plant growth based on different regimes and requirements, for example sand, clay and soil with and without water.

Busy meeting and events

At weekly meetings, students are encouraged to bring and discuss a newspaper article to talk about, ask questions and generally hold open no-holds-barred discussions about environmental issues. Although the two teachers mostly begin these discussions, it is the students themselves who will extend them, often leading to some very long and semi-technical debates! The level and degree of interest and awareness is fascinating, and a great and vital opportunity for students, grappling with misconceptions, to have information and ideas clarified and put into their correct context. Those who say that young people today do not care, should come along and listen...

In addition to these weekly meetings,

Ecology Action students have delivered recycling presentations at assemblies, raised money by selling items for Roots & Shoots (see box on previous page) including for the Million Trees Project, helped to run a stall at Global Child Day and had the opportunity to meet Dr Jane Goodall as part of a schools festival in Shanghai last year.

Links—

www.ycis-sh.com/en/enrichmentprogrammes/character-formation www.rootsandshoots.org

Henricus Peters, NAEE Co-Chair, is a teacher at YCIS Regency Park and a member of YCIS Environment Committee; Daniel D'Andrea began Ecology Action, teaches at Century Park campus and is Chair of YCIS Environment Committee.

Henricus blogs at:

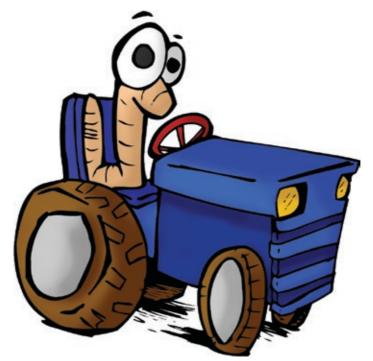
Environmentaleducationuk.wordpress.com

The soil beneath our feet

A free web resource enabling young people to learn about soils

Dr Stephen Hallett, Dr Ian Baillie and **Brian Kerr** soil-net.com

oil is one of the three most important natural resources on this planet, alongside air and water. Without soil, it would not be possible to feed the world's population, or support the wonderful variety of animal and plant life in the countryside and our gardens. Importantly, soils are the foundations of our houses, roads and the built infrastructure. Soils also have some lesser-known functions, such as cleaning our drinking water supply, regulating the flow of water through our landscapes, processing much waste and preserving archaeological remains, enabling us to trace how our ancestors lived hundreds of years ago.



This paper presents an update for Soil-Net. com, a project sponsored by the UK Government's Department for Environment, Food and Rural affairs, as a collaboration between Cranfield University's National Soil Resources Institute and Norwich University College of the Arts, who produced the excellent animation and graphics on the site. In the five years since the launch of Soil-Net, the site has received nearly 400,000 online visitors, and has served up nearly 2 million web pages. The online guizzes presented on Soil-Net have been undertaken some 8,400 times. It is clear from the statistics gathered, correlated with UK school holidays, that the predominant use of Soil-Net must be in the classroom. This is a tremendous outcome for the project, aimed squarely as it was on Key Stages One to Four, and on students, teachers and guardians. Statistics also reveal, however, that Soil-Net remains popular in many other countries as a source of soils information and teaching resources. Since its launch, Soil-Net has been accessed in some 206 territories worldwide with the top nine, excepting the UK, comprising USA, Canada, India, Australia, Philippines, Ireland, Germany, France and Spain.

Soils are so important in our lives, yet often the general public remain unaware of the role that soils play in sustaining life on earth. As to why this might be, firstly, unlike in the countryside where soils are open, exposed and visible, many urban soils are covered and so sealed off from interaction with the atmosphere, remaining unseen. Furthermore, whereas some groups, including farmers and gardeners, have always respected the soil and recognised its importance, most townspeople may have little contact with soils, seeing them only in patches. They can be unaware of the soils beneath their feet, streets and buildings and the benefits they serve. To such people, soil may just be 'dirt' or 'mud', something that dirties

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Case Study: Earth Science Case Study: Earth Science

children's clothes, and this continues to dominate that view of soil.

In fact, despite our modest land area and limited range of cool, temperate climates, there are astonishingly over 1,800 British soils types, each having a diversity of profiles. Geologically, Britain has a wide range of rock types which in turn have generated a diversity of soil parent materials, ranging from porous sands to impermeable clays and from acid to alkaline. Over the past two million years Britain's climate has fluctuated between Arctic Ice Ages and warm temperate conditions, increasing soil variety. Surface materials were moved and sorted by ice, wind and water, resulting in many mixtures and combinations of soil parent materials from different rock types.

There is increasing appreciation of the need to manage our natural environment and ensure that it is preserved for future generations – in our lifetimes at least soil is a non-renewable resource and so needs protection in law as well as a widespread understanding. The European Union is likely to bring into law a European Soil Framework Directive, place soils rightfully much higher on the



Soil is an amazing resource

- Did you know that a teaspoonful of good garden soil contains more organisms than there are people in the whole world—over 6 billion organisms in just one teaspoon!
- Did you know that soils represent one
 of the largest stores of world carbon,
 with two times as much carbon as is in
 the air and three times as much as is in
 vegetation? Soils are now recognised for
 their major influence on climate change.
- Did you know that we are losing millions of hectares of our precious topsoils each year, through erosion and desertification, leading to widespread land degradation at a time when the world population is increasing faster than at any time before?

political agenda: soil is becoming a major element in planning for our future. Increasingly, soils are finding their way into the National Curriculum for England and Wales.

he Soil-Net website is targeted for primary and secondary school children, their teachers and parents. The resulting website, www.soilnet. com, is a comprehensive educational resource, aimed at Key Stages 1 to 4 (ages 5-16), and concerns soils, their functions, and the challenging future.

The Introductory Section covers themes including 'What is soil?', 'Why does soil matter', 'Soil under the microscope' and 'Recognising types of soil'. There is a section dealing with the Global Cycles covering the role played by soil in the oxygen, nitrogen, carbon, nutrient and water cycles. There is a substantial section on Soil Functions, which deals with all the uses made of soils and emphasises how important soils are in achieving these functions to support life on earth. Other sections include: Soils on Earth; Threats to Soil and Future concerns.

Soil-Net.com also contains numerous case studies, features on school gardens, indoor and outdoor soil experiments, interactive soil maps, 3D soil walks and a host of other classroom-trialled teacher support materials including some 2,700 high quality environmental photographs for use in class. Each page on the Soil-Net website allows users to leave comments and feedback. These comments have proved useful to aid maintenance of the site and planning new features. A selection of the comments received to date include:

"I think your website is fantastic!! I have been looking for soil pictures etc for ages, and this website has heaps, as well as lots of activities and a broad range of information - well done!!!"

"This is a wonderful site. Excellent background knowledge for teachers and I love and use the resources. Thank you"

"A fabulous website which really helped me to explain soil to my Year 3 class, I will definitely be using next year. Thank you!" "Please make something like this for every lesson/topic"

"It is absolutely wonderful that you have this material so incredibly organized and available for educators and students for free! I love the activities and reading pdf downloadables and found them INCREDIBLY helpful. I like the easy to understand language used in the 'Topic' sections of the download"

"At last, a really great website on soils. You have done a first rate job here. Feel free to take it to A Level cation exchange and difficult soil processes!!"

The last comment perhaps highlights the opportunity to create new Soil-Net materials for older students. Readers are encouraged to visit the website, to discover and learn of the many functions of soils. This free-to-use website is a great new resource to support the teaching of soils and related environmental issues.

The authors would like to pay tribute to the late Professor Peter Bullock, who was a driving force and major contributor to the initiation and development of Soil-Net.com.

Dr Stephen Hallett is Principal Research Fellow in the National Soil Resources Institute (NSRI), Bullock Building, Cranfield University, Cranfield, Bedfordshire, MK43 OAL, UK. E-mail: s.hallett@cranfield.ac.uk Dr Ian Baillie and Brian Kerr are Visiting Research Fellows in NSRI.

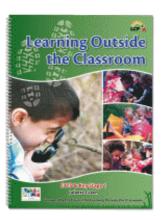


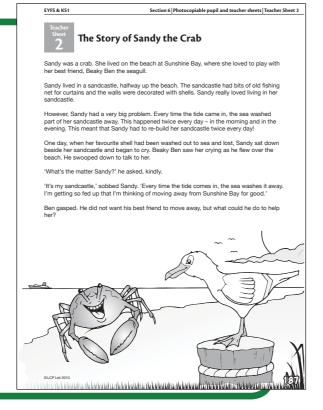
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NAEE Executive member Juliette Green, of NAEE, has written two books about learning outside the classroom, which focus specifically on work that can be carried out in the school grounds and local area. The two books (for Early Years Foundation Studies (EYFS)/Key Stage1 (KS1) and Key Stage 2 (KS2) contain case studies, suggestions for projects and thematic activities.

KS1—Sandy the Crab story opening:

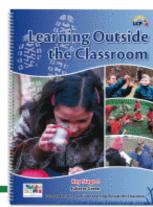
This story is included in the EYFS/KS1 book as a starting point for an outdoor project about the seaside. As part of the project, the children investigated ways to make Sandy the Crab's sandcastle as strong as possible (using wet and dry sand, trying different shapes and sizes of bucket and adding shells to strengthen the sandcastle).



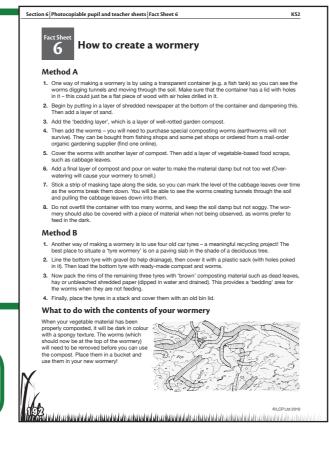


KS2—Wormery fact sheet

This fact sheet is included in the Key Stage 2 book to help teachers create a wormery with their pupils. The language used means that older or more able children would be able to follow the instructions themselves.



These books can be purchased from LCP Ltd via their website www.lcp.co.uk, which also shows video interviews with the author.



Other 'biodiversity' books for primary-aged children:

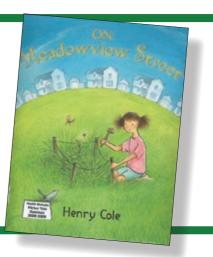
The Lonely Tree by Nicholas Halliday

This lovely (and at times, moving) book deals with the real issue of biodiversity – difference! In the story, a solitary young conifer grows in a deciduous wood and is befriended by an ancient oak tree. The story follows the first year of the conifer's life, including what happens during the long, cold winter when all the oak trees shed their leaves and 'go to sleep'. Children can also look for the animals and insects hidden in the illustrations, to see the diversity of life in a native British woodland.



On Meadowview Street by Henry Cole

In this story, a girl finds a solitary wildflower in her lawn and transforms the garden into a wildflower meadow. A great book to introduce the diversity of a meadow and also to show children how they can create their own wildlife habitats at home (or in school!).

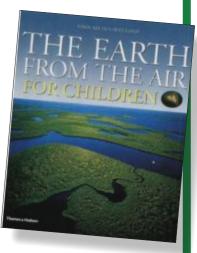


The Earth from the Air for Children by Yann Arthus-Bertrand

A beautiful book which shows the incredible diversity of life around the world, and can be used to stimulate discussion. Yann's amazing aerial photographs are accompanied by information (written in child-friendly language) about the people, plants, animals and activities shown. He also includes information about habitat loss and threats to animal populations (e.g. the scarlet ibis being hunted almost to extinction for their red feathers). Each page has a world map to show the location of the photograph.

Togu and the Trees of Life (part of the Tunza Environmental Series for Children sponsored by the United Nations Environment Programme)

This story is set in the rainforest and teaches children about the causes and effects of deforestation. However, it also teaches them a lot about the vast diversity of these ecosystems, with pictures of many of the plants and animals, and even some species (such as the Clouded leopard and Slow loris) helping to tell the story. A useful book to teach about biodiversity in another part of the world.



Obituary: Philip Neal MBE Obituary: Philip Neal MBE

Remembering Philip

It is with deep regret that the executive and members of The National Association for Environmental Education learned of the death of its founding general secretary Philip Neal MBE

Norman Farmer

Former NAEE chair and executive member 1975-2011

hilip Neal M.A. (Ed), B.Sc, MBE. founder member, long serving and dedicated general secretary of the National Association for Environmental Education will be remembered by all who knew him with affection and admiration. He will be recognised for his determination to strive within the mainstream of education to equip pupils with the environmental understanding required in a modern world. Philip Neal geography teacher and Head Teacher of Perry Common Comprehensive School, Birmingham, took under his wing the struggling Rural Studies Association which transformed first into the National Rural and Environmental Studies Association and in 1970 became The National Association for Environmental Education (NAEE). From that time NAEE expanded its focus and influence within the liberalising educational milieu of the late 1960's and 1970's. A committed and enthusiastic group of local authority education advisors and educationists gathered around Philip as general secretary and quietly kick started the NAEE into a lively organisation with its influence reaching into those education authorities not frightened of innovation and experiment. With Philip at the helm NAEE became a truly national organisation drawing strong support from counties such, as Hertfordshire, Buckinghamshire, Cumbria, Devon, Cornwall, Kent and Durham, and the great industrial cities including Birmingham, Sheffield and Newcastle. Wales, Northern Ireland and Scotland came into the fold a few years later. Philip had the happy knack of recruiting and enabling a disparate group of educationists to serve on the executive

of NAEE. For almost thirty years a succession of older and younger men and women greatly contributed to the development of environmental education across the UK. Many of the 'youngsters', as Philip occasionally referred to them, became very successful in the world of education, promoted as headteachers, education inspectors, advisory teachers , lecturers and professors.

From humble beginnings with little or no public face NAEE with the drive and persistence of Philip, supported by the executive, expanded its membership with annual residential conferences, termly journals, and thriving local associations within the more progressive local education authorities. The early days of NAEE's existence preceded mobile phones, the internet and social networking so great value was put upon face to face meetings. Philip arranged executive meetings across the midlands first at Perry Common School, then in the potting shed of the Matineau Environmental Garden until finally establishing a headquarters at Woverhampton University

A series of cheaply produced but very useful, practical guides and publications were edited by Philip being free to members and sold to the public. At a later date Philip became an editor for a publishing company of a series of books for young people on current environmental issues (Considering Conservation, Dryad Press, 1980). Reading them again, after so many years, the issues raised in those publications are common place environmental concerns today. Over the years he was author and co-author of numerous publications, many of which have stood the test of time.

Philip was tireless in promoting NAEE at first from his school at Perry Barr, Birmingham and after his retirement as headteacher from NAEE headquarters at Wolverhampton University. He was not afraid to extol the virtues of NAEE whatever the size or importance of the organisation he had

inveigled himself into. Recognising the need for environmental organisations to cooperate and where possible work in unison he was a founder member and staunch supporter of the Council for Environmental Education He established the credentials of NAEE amongst politicians and within government, particularly with the Rev. Lord Sandford a junior education and environment minister in the Heath and Thatcher governments. Up until the change of government and political party Philip managed to convince the Department of the environment that NAEE was an organisation worth supporting with a modest grant which funded administration costs. The withdrawal of that grant and Philips increasing age signalled to him it was time to pass on the baton to the next generation and he retired to rural Shropshire.

Philip was no eccentric environmentalist. He was a suited, tie wearing head teacher with standards to match. (As one young member of the executive found out when he was spotted by Philip eating fish and chips at the rear of a key talk at the annual conference!) Beneath that surface resided a complex character working hard to influence and change from within a political and education establishment that tried to ignore the need for a genuine environmental education. He could be forthright in argument at executive meetings when members were not being practical or pragmatic, but he held no malice and would give way when persuaded which direction was the right one to take. Those of us who joined the executive in the early to mid 1970's, when some of the founders of NAEE such as Sean Carson were reaching the end of their tenure, soon grew to respect his tenacity and hard work. For a large part of his working life and for most of his active retirement Philip unstintingly devoted long hours of his time, expertise and experience to the work of NAEE Those of us who served on the executive gave as much support as we could but without Philip NAEE may well have foundered during one of its many crisis, financial and otherwise.

The award of an MBE was richly deserved by a man who took for granted that service should be freely given over and above the daily grind. We sincerely hope that in this time of austerity somehow and somewhere the light that Philip helped to flame shines in many places and the future of both NAEE and environmental education will once again begin to thrive.

Sue Fenoughty, NAEE Executive, Editor of 'Environmental Education' 2004-2008 writes,

I first met Philip about 20 years ago at the Martineau Environmental Studies Centre in Birmingham, where BAEE (the Birmingham branch of NAEE) used to hold its meetings after school for local teacher members. At the time, Philip was Editor of the NAEE journal, 'Environmental Education' and he would sometimes drop in at the

Centre loaded with boxes of journals straight from the printers. The BAEE committee would pack the journals into addressed envelopes, together with any inserts, ready to post to members all over the UK. Although Philip had retired to Shropshire to live, he continued using a Birmingham firm of printers, who understood the 'cut and paste' techniques he developed for the journal's layout. In the summer time, Philip's journeys to the printers sometimes happily coincided with an opportunity to watch cricket at Warwickshire's ground in Edgbaston!

Then, in 1999 NAEE lost its core funding from the government and a general meeting was called to discuss the organisation's future. In order to survive, a new executive was formed who agreed to carry on the work of NAEE on a voluntary basis. Philip continued as Editor of the journal and I took over the News & Views section which previously had been compiled by the NAEE office. Philip was a highly skilled editor/reporter – his knowledge of environmental education combined with a network of influential contacts across the country meant the journals were full of stimulating articles, often featuring a particular region. Philip carried on as Editor until just ten years ago: the spring of 2001 was his last journal, which had sponsorship from the University of Bath.

Nick Jones. World Heritage Trails, formerly of the Council for Environmental Education writes:

Philip Neal was a leading light of the National Association for Environmental Education (NAEE) which consisted of associations of teachers, heads and advisers for most of the local authorities in England. He was secretary of NAEE and edited its journal for many years and published the 'Handbook of Environmental Education' with Jov Palmer in 1994. NAEE evolved from the National Rural Studies Association (hence the logo of a wooden gate) but Philip's vision was far wider. He wanted environmental education to embrace all environments and once suggested that the National Association of Urban Studies, of which I was chair, and NAEE should merge. NAEE was one of the founder member organisations of the Council for Environmental Education. Philip represented NAEE on the council and chaired CEE's schools and tertiary committee and later became a vice-president. When I joined CEE in 1997 I was secretary to the schools' group and Philip treated me to a long lunch at the Feathers in Ludlow where he briefed me on all things EE including the main players and the games being played, in my naivety I didn't believe everything he told me at the time. Philip was a liberal educator, first and foremost, he was passionate about the role of environmental education in helping young people to address local and global issues.

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Kids in the Wild Garden

Elizabeth McCorquodale

ISBN 978-1907317200 Black Dog Publishing 96pp, £9.95

I enjoy teaching my pupils about wildlife so I read this book with great interest. You can really feel the enthusiasm of the author through the

The pages are clearly laid out, with a mix of photos, information using smaller size font (perhaps for adults?), larger font bite-size information and cartoon-style diagrams to explain things such as a wildlife garden and frog lifecycle. There are jokes; projects for children; clear photos. A glossary at the end helps to explain words such as 'arthropod' or 'seed dispersal'.

The enthusiastic style of this book makes you want to get out into the wildlife garden. It talks about what is good for wildlife and what is bad, explains why to avoid chemicals and advocates peat-free compost. There is information on plants, water-saving in the garden, weeds.

As I am an enthusiastic composter, I was pleased that the list of what goes into a compost heap includes 'green' waste and also 'brown' (paper, card, leaves and small twigs) plus information on the invertebrates that live in the heap. Throughout the book there is plenty more factual information on invertebrates.

How to make invertebrate homes, bird boxes, feeders, a pond, are just some of the projects included. When I started reading it was not clear to me whether this book is aimed at children or adults and whether the audience is North American or British. However, as I continued reading I realised it is aimed at all these groups. For example, for the North American audience, the book includes animals such as racoons. I would have preferred a brief explanation in the introduction about this. Photos came without captions, but were linked to specific text most of the time; however I would have appreciated captions attached to photos where the text was more general.

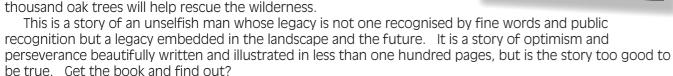
I enjoyed reading this book and will be using it with my pupils.

Alona Sheridan, NAEE executive



Jean Giono Translated by Barbara Bray. Illustrated by Harry Brockway ISBN 978-1860461170 The Harvill Press 46pp, £6.99

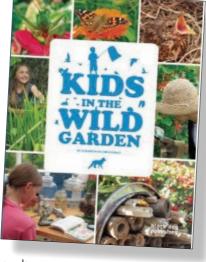
It was only recently I came across this captivating story of a shepherd who spent all his leisure time collecting acorns and other tree seeds. A wilderness is turned into a forest and a dying countryside is brought back to life. Our lowly shepherd does not know or care who owns the land and like nature itself does not expect all its prolific bounty to survive. If planting twenty thousand acorns only ten thousand survive, ten thousand oak trees will help rescue the wilderness.



Written for adults the story could be retold to all ages and secondary pupils could find much to discover and discuss within the text.

Norman Farmer. NAEE executive





Website Reviews **International Year of the Bat 2011** Compiled by Henricus Peters, NAEE Co-Chair

Year of the Bat

www.vearofthebat.org



The official website for the year for these amazing creatures.

http://bats4kids.org

Sets out to answer 9 key questions, including 'echolocation', 'myths' and 'Why do bats help humans'. For example: A single brown bat can eat up to 600 mosquitoes in an hour.

www.bats.org.uk/pages/batsforkids.html

This UK charity site has some very good resources for kids and teachers and parents including 'Fun batty things to do' with masks, hat, finger puppet and kite; quizzes. A membership magazine is available for paid subscribers.

www.batcon.org

Bat Conservation International is a US-based group to protect bats and their habitats worldwide. Information about education, conservation efforts, articles, projects, places in Texas to see bats, and "BatCam". Their Bat Cave www.batcon.org/index. php/all-about-bats/kidz-cave.html has an excellent video about echolocation used with permission of www.knowledgeadventure.com.

http://kids.nationalgeographic.com/kids

National Geographic's excellent site for young people; search for 'bats' produces numerous informative videos.

Other Resources

Arkive www.arkive.org



Amazing web portal backed by the likes of IUCN, WWF, Natural History Museum London and Royal Botanic Gardens London. Add 'bats' into the search engine and you are treated to videos and fact sheets galore.

www.un.org/en/events/iyof2011

The Year of Forests is focused on high-level groups and governments, but with charities and resources like www.desforetsetdeshommes.org/ en/presentation with spokespersons including Yann Arthus-Bertrand

www.sprep.org/Biodiversity/PYoD/index.asp

Pacific Year of the Dugong. This is a regional campaign aimed at increasing protection of dugongs and their habitats by raising awareness, improving knowledge and fostering to save Dugongs partnerships for conservation of dugongs and their habitats.

Send your favourite links to

Henricus.peters@gmail.com

and my blog at

Environmentaleducationuk.wordpress.com

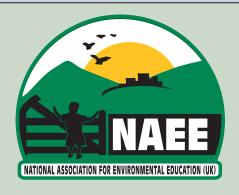
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National Association for Environmental Education (UK)

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Notice of Special General Meeting

11th February 2012

Contact the NAEE office for details: info@naee.org.uk 01922 631200





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NAEE is an educational charity, managed by teachers, for teachers of environmental education everywhere... This journal is free to all NAEE members