

NATURE|MATTERS

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o12



Contents

REGULARS

- o3 Foreword/contact
- o4 Newsdesk

FEATURES

- o12 **COVER FEATURE:** WHERE HAVE ALL OUR LITTLE OWLS GONE?
- o16 Are we there yet?
- o17 Greener DIY products
- o18 The secret life of the Badger
- o19 Tailpiece: Borneo's Ninja slugs
- o19 In the next issue

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Cover photograph:
Little Owl © Paul Riddle



Contact NM

The idea of Nature Matters is to provide snippets of information with pointers to more information on line for those of who who want to know more. NM does contain many longer articles in order not to give readers information overload. Where possible, I include signposts to more detail that you can access if the topic interests you.

Suggestions, comments and contributions are always welcome.

If you wish to submit an article or comment on the contents of the current or previous issues, please get in touch.

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Foreword

Welcome to issue 20 of Nature Matters.

This issue has the usual mix of news items, press releases and more detailed articles on wildlife and 'green' issues, many with links to more detail on the web.

NM's website has received several updates and a total makeover is also in the pipeline, so watch this space!

The cover story in this issue is an article about a Little Owl research project being carried out by Reading University PhD student, Emily Joachim.

Thanks to Emily and to Paul Riddle for his excellent photographs of Little Owls.

I hope you enjoy reading this issue and, as always, welcome your comments and suggestions.

MIKE ARMITAGE
EDITOR

NewsDesk

Telling porkies: The big fat lie about doubling food production

In the UK and globally the future direction of food and farming is being driven almost entirely by two frequently quoted statistics. Experts such as the UN Secretary General, the UK Government's Chief Scientist, the current Secretary of State for the Environment, Hilary Benn MP, the Conservative Party, the National Farmers' Union and Monsanto, are all saying that we need to increase food production 50% by 2030 or that it needs to double by 2050.

A new investigation from the Soil Association reveals that the widely used statistics are based on a 'big fat lie'.

more information

<http://www.soilassociation.org/LinkClick.aspx?fileticket=qbavgJQP Y%2fc%3d&tabid=313>

Badger Cull June update

The Badger Trust have been granted leave to appeal against the judgment handed down by Mr. Justice Lloyd Jones in the Judicial Review against the Welsh Assembly Government (WAG). After initially announcing that they would continue their work towards the cull, WAG have now suspended work pending the court case which is due to be heard in late June.

more information

http://www.welshwildlife.org/BadgerNews_en.link#badgerupdatejune

New organic cotton buying group planned

Simon Ferrigno, Freelance Organic Cotton Consultant, is shortly to launch an on-line 'buying pool' which will allow buyers of organic products to group orders to meet minimum order volumes. This will not only mean lower prices for buyers, but an increase in demand for manufacturers and traders.

The 'buying pool' will be grouped according to different standards, one of which will be GOTS (Global Organic Standards). In order to understand future needs, Simon has created questionnaires for those potentially interested in this service.

more information

Interested parties can contact Simon directly at:
simon@sustainableorganicfarmsystems.co.uk

Nissan to build electric car in UK

Nissan is to build the Leaf, the world's first battery-electric mass production car, at its Tyne and Wear factory. The 26-year-old UK plant won the contract over a number of rivals, including Nissan's Portuguese factory, and Sunderland is one of three plants around the world that will produce the battery-powered car. The others are in Oppama, Japan and by Smyrna, Tennessee, USA.

The Leaf, which stands for Leading, Environmentally Friendly, Affordable, Family Car, a five-seat family hatchback, has a range of about 100 miles and a top speed of 90mph.

The Scarlet Hotel: is it the greenest hotel in UK?

Tucked down a residential road in Mawgan Porth, the Scarlet doesn't announce itself with the pizzazz and fanfare you would expect of Cornwall's much anticipated new "luxury eco-hotel".

That's all part of the plan, of course. Curved wooden walls and the sea-thrift-planted roof camouflage it against the cliff, but step into reception and the Scarlet lays its five-star hand very much on the table - floor-to-ceiling windows display a breathtaking view of the beach below. Tasteful and playful art with a Cornish coastal theme brings to life open spaces. Furniture is retro 50s with a Scandinavian feel. Ergonomic and sleek, it's like walking into an art gallery.

Does the Scarlet live up to its aim to be "luxurious without costing the planet"? It certainly takes its pledge seriously. With measures such as grey- and rain-water harvesting, a biomass boiler, innovative insulation and ventilation and a commitment to using recyclable materials, its CO2 output is currently calculated as "73% less than that of a notional traditional building of the same size, design and geometry".

more information

scarlet hotel
tredragon road, mawgan porth, cornwall, tr8 4dq
stay@scarlethotel.co.uk
<http://www.scarlethotel.co.uk/>

Weather Forecast

We have been experiencing something of a scorcher of a spring and early summer, which many of us welcome. But this heatwave was predicted by a company from Cardiff, Positive Weather Solutions [<http://www.positiveweathersolutions.co.uk/>]. During last winter, known for its prolonged periods of sub-zero conditions, they suggested that this would be the hottest summer on record, hotter even than 1976, currently the hottest summer on record.

Measures agreed to protect rainforest

Last week in Oslo, Heads of State and Government, ministers and other representatives from some fifty countries concluded an agreement on reducing greenhouse gas emissions from deforestation. Around \$4.5 billion has been pledged for the period 2010-2012 to support measures to reduce deforestation and forest degradation in developing countries.

His Royal Highness The Prince of Wales gave a keynote speech following an introduction by the co-chairs of the meeting, Prime Minister of Norway, Jens Stoltenberg and President of Indonesia, Susilo Bambang Yudhoyono. Both co-chairs were kind enough to recognise that the Prince's work had made a significant contribution to the successful outcome of the REDD+ finance programme. Particular reference was made by them and other Heads of State to the meeting His Royal Highness hosted at St James Palace in April 2009 and the work of the PRP in bringing the forest agenda to the attention of world leaders.

The global forest partnership that was established in Oslo marks the start of closer global cooperation on reducing deforestation and forest degradation in developing countries. The partnership will support and contribute to the UNFCCC process. It will also promote transparency around the financing of existing and new international

initiatives to reduce deforestation and degradation of tropical forests.

Partners to the agreement have expressed their willingness to scale-up financing substantially after 2012 provided that sufficient emission reductions are achieved. Agreement has been reached on important principles including; support for capacity building and performance-based payments tailored to individual national circumstance, full transparency and improved coordination of funded activities and the involvement of representatives of relevant stakeholders, including indigenous peoples and the private sector. The partnership programme will be led by two co-chairs; one from a rainforest nation and one from a donor country, and in the first instance this will be respectively PNG and Japan, followed by Brazil and France. The World Bank and U.N. will act as secretariat.

more information

www.rainforestsos.org/

Welsh Low Carbon Revolution

Wales has the potential to produce nearly twice the amount of electricity it currently uses, through wholly renewable sources by 2025.

This was the message from Environment Minister, Jane Davidson who was speaking at the launch of the Welsh Assembly Government's new Energy Policy Statement, A Low Carbon Revolution.

The strategy sets out the Assembly Government's ambitions to accelerate the transition to a low carbon energy economy in Wales and provides the detail of how this will be achieved.

It sets out a three tiered approach which focuses on maximising energy savings and efficiency, moving to resilient low carbon electricity production via secure indigenous renewable forms of energy such as marine, wind, water and biomass, and ensuring that the transition to low carbon energy maximises opportunities for practical green jobs and skills.

The Minister launched the Energy Policy Statement at a visit to Solutia, a chemical manufacturing company based in Newport, who have invested in leading edge

renewable technology to help them meet their business needs.

Whilst at Solutia the Minister also officially opened two wind turbines which have recently been constructed on site to provide up to one third of Solutia's electricity needs.

Speaking about the Energy Policy Statement, the Minister said:

"I believe that Wales should be at the forefront of the transition to a low carbon energy as part of the global fight against climate change. Energy - how we generate it and use it - is the key to meeting this challenge.

"The Energy Statement details how Wales has the potential to produce twice the amount of electricity it currently uses from renewable sources by 2025 - with about 40% coming from Marine, a third from wind and the rest from sustainable bio-mass power or smaller projects using wind, solar, hydro or indigenous biomass.

"The potential is truly inspiring and I am confident that our Low Carbon Revolution will provide the right framework to realise this potential. Wales once led the way in carbon-based energy. Our goal now is to do the same for low carbon energy."

Peter Davies, Commissioner for Wales for the Sustainable Development Commission (SDC) said:

"We urgently need to ensure a secure, affordable, low carbon energy supply. Wales is well placed to use the opportunity of renewable energy to renew the economy. I welcome this statement as it gives a clear message of the way ahead for businesses, the public sector and communities so that through investment, this potential can be turned into reality.

"I am particularly pleased that the statement tackles the two key energy themes identified by our Low Carbon Wales report: retrofitting the existing housing stock to vastly improve energy efficiency and the commitment to low carbon energy generation. This is an important part of building a stronger economy, with great potential for jobs."

South Wales gears up for M4 hydrogen corridor

A “hydrogen highway” is set to be established in South Wales after the area was named as the UK’s sixth Low Carbon Economic Area (LCEA). Energy Minister Lord Hunt highlighted how the LCEA will build on the expertise in South Wales to develop hydrogen on a commercial basis.

Drivers on the M4 in Wales will be able to refuel with hydrogen fuel - or recharge if electric - as part of the first phase to extend the low carbon refuelling corridor along the motorway. It will create the UK’s longest hydrogen highway with strategically placed fuel filling and recharging points.

Ieuan Wyn Jones, Welsh minister for the Economy and Transport, said the award would position Wales as a leading centre for driving for hydrogen technology and provide a competitive

advantage for attracting new investment and research and development.

“It will place Wales at the forefront of future developments in the hydrogen technology supply chain, ensuring it is in pole position to benefit from the anticipated transition from fossil fuel through electric powered vehicles to renewable fuel, including hydrogen, for transportation,” he said.

Ian Williamson, vice-chair of the UK Hydrogen Association (UKHA), said he was pleased the government was recognising the benefits hydrogen technology could have and the UK’s expertise in the area.

“It is excellent news that the UK and Welsh Assembly Governments are making these funds available and recognising that hydrogen is a

commercially viable low carbon transport fuel today,” he said.

“Investment in hydrogen transport infrastructure is an absolute necessity if the UK is to meet its carbon reduction goals and there is a real opportunity for the UK to become a world leader in this technology.”

COMMENT

The irony is that hydrogen is a clean fuel in use (it only produces water when burned) but currently hydrogen is only being produced from fossil fuels. This will, proponents claim, change over time to green sources.

New Index Highlights Most Overpopulated Countries

According to a new league table ranking countries by their degree of overpopulation, Singapore is the world's most overpopulated state, followed by Israel and Kuwait. The UK is 17th in the table.

The Overpopulation Index, published by the Optimum Population Trust to mark World Population Day, July 11, is thought to be the first international "league table" to rank countries according to the sustainability of their populations – the extent to which they are living within their environmental means.

It examines data for over 130 individual countries and concludes that 77 of them are overpopulated – they are consuming more resources than they are producing and are dependent on other countries, and ultimately the Earth as a whole, to make good the difference.

Middle Eastern and European countries dominate the index, with nine and eight respectively among the 20 most overpopulated. China and India, despite being bywords for overpopulation, rank lower, at 29th and 33rd respectively. The world as a whole, meanwhile, is overpopulated by two billion – the difference between its actual population and the number it can support sustainably, given current lifestyles and technologies.

The calculations have been made possible by advances in the methodology of ecological footprinting, which measures the area of biologically productive land and water required to produce the resources and absorb the waste of a given population or activity and expresses this in global hectares - hectares with world-average biological productivity.

The index uses data contained in the latest Ecological Footprint Atlas, produced last year by the Global Footprint Network and based on figures for 2006. Data were available for over 130 states. The atlas assesses the ecological footprint and biocapacity (renewable biological productivity) of a country on a per capita basis. The index measures the proportion of a country's average per capita footprint not supplied from its own biocapacity to determine how dependent it is on external sources.*

A UK citizen, for example, has an average ecological footprint of 6.12 global hectares but because of the size of the population, their "share" of national biocapacity is only 1.58 global hectares. This gives the UK a self-sufficiency rating of 25.8 per cent – the proportion of its footprint it derives from its own resources – and a corresponding dependency rating of 74.2 per cent. If it had to rely on its own biocapacity, the UK could therefore sustain only a quarter of its population – around 15 million – and, at current consumption levels, is "overpopulated" by more than 45 million.

The population of Africa as a whole, while not exceeding its biocapacity share, has both higher levels of fertility and poverty than any other continent. OPT chair Roger Martin described this as "a stark illustration of the unfortunate trade-offs between growing populations and sustainable livelihoods which we are currently seeing".

He said: "Some people may argue that in a world of international trade, national self-sufficiency doesn't matter. We think that's a very short-sighted view. You don't have to be a little Englander or an eco-survivalist to conclude that in an era of growing shortages - food, energy, water - being so dependent on the outside world puts us in a very vulnerable position. With the rest of the world, including many countries much poorer than the UK, supplying three-quarters of our overall needs, it's also morally questionable."

“ ‘Overpopulation’ is a much used and abused word, but we believe the index helps to anchor it firmly in the realm of sustainability – of people living within the limits of the place they inhabit. I think the index also clarifies what we really mean by sustainability and how important human numbers are to the concept.”

“To reduce our impact on the planet, we need to think about both numbers of consumers and how much they consume, and the UK is doing exceptionally badly on both fronts. Had we published this calculation last year, my understanding is that the UK would have been in 19th position. In terms of numbers - and therefore in terms of sustainability - we are still moving in the wrong direction, both in the table and in reality. It's about time we woke up to the fact that the UK has a real population problem.”

Mr. Martin added: “There is a long history of estimating how many people the world can support, some of it extremely fanciful. Ecological footprinting has developed rapidly in recent years and is now beginning to produce probably the best data we have ever had. The index uses this data to provide a compelling picture of not only where we are but where we need to be. And where we need to be, both globally and nationally, is clearly supporting significantly fewer people than we are.”

Countries Living Within Their Biocapacity (2006 Figures)

Somalia (105.2%), Cambodia (105.5%), Africa (106.3%), Panama (107.1%), Senegal (109.4%), Gambia (109.4%), Botswana (110.1%), Lithuania (110.2%), Venezuela- Bolivarian Republic of (113.7%), Niger (114.2%), Kyrgyzstan (118.1%), Ecuador (121.2%), Sudan (126.4%), Sierra Leone (129.4%), Chile (132.1%), Lao People's Democratic Republic (132.9%), Mali (136.8%), Estonia (140.1%), Russian Federation (142.5%), Nicaragua (145.3%), Norway (145.4%), Latvia (157.3%), New Zealand (159.0%), Myanmar (160.7%), Côte d'Ivoire (174.8%), Cameroon (185.1%), Solomon Islands (185.3%), Chad (192.3%), Guinea (200.6%), Mauritania (203.0%), Colombia (206.5%), Papua New Guinea (219.1%), Oceania (220.9%), Latin America and the Caribbean (222.8%), Liberia (224.8%), Eritrea (225.9%), Peru (226.9%), Argentina (234.9%), Finland (235.7%), Zambia (244.6%), Madagascar (270.9%), Namibia (290.4%), Canada (296.6%), Paraguay (321.8%), Guinea-Bissau (335.4%), Angola (355.1%), Congo- Democratic Republic of (361.6%), Central African Republic (585.7%), Bolivia (803.9%), Congo (1372.7%)

more information

www.optimumpopulation.org/overpopulationindex.pdf

www.footprintnetwork.org/atlas

Organic market set to return to growth

Sales of organic products in the UK fell by 12.9% in 2009 to £1.84 billion, according to the Organic Market Report published today by the Soil Association. Yet despite the toughest economic climate for 20 years, the report also indicates clear signs of increasing confidence amongst consumers. Based on evidence from the early months of this year, the Soil Association predicts a modest market expansion of between 2% to 5% in 2010.

The most comprehensive study of UK organic trade, the Organic Market Report shows that in line with other retail sectors, shoppers spent less on organic food in the recession. In addition, leading retailers reduced organic ranges and shelf space. The three biggest categories of organic food – dairy, fruit and vegetables, and fresh meat – saw supermarket sales fall by 6.5%, 14.8% and 22.7% respectively. In contrast, organic milk bucked the trend in dairy sales growing by 1%, with 2009 being the best year for organic milk sales on record, and organic baby food sales, resilient throughout 2009, grew by 20.8% passing the £100m mark.

Organically managed land area in the UK increased to 743,516 ha in January 2009 – up 9% on the previous year – and now represents 4.3% of UK farmland.

Further key findings in the report include:

- Over 60% of the UK's biggest organic brands are planning for growth in the coming year;
- Sales of organic food are still three times higher than in 1999 and over 50% higher than five years ago;
- Tesco organic fresh produce sales are already growing. Tesco predict overall organic sales will increase by 1% in 2010 while Waitrose anticipates organic sales growth of 3-5%;
- Organic box schemes fell by -9.8% while supermarket sales of organic fell by -12.2% and the independent sector by -17.7%;
- Organic health and beauty products continued to grow rapidly with sales increasing by a third to £36m;
- Sales of bread and other bakery items were one of the

worst hit categories (-39.8%);

- The number of households buying some organic food fell only slightly in 2009 (from 88.9% to 88.3%);
- Organic products continue to attract shoppers from across the social spectrum, with groups that include manual and casual workers, pensioners, students and people on benefits accounting for 33% of the spend.

Peter Melchett, Soil Association policy director, said:

“It has been a tough year for the organic market, but we have seen businesses that are most committed to communicating the many, real benefits of organic food and farming to the public perform best.

“Confidence is now returning, and with the growing recognition of the need for environmentally sustainable production systems that are less reliant on fossil fuels, we are confident that the organic market, having weathered the recession, will return to growth.

“The question we should really be asking is not ‘can we afford organic food?’ but ‘can policy makers afford to carry on playing down the potential of organic farming’s contribution to food security and tackling climate change?’ In the meantime, we need to rekindle the kind of consumer demand that will ultimately be impossible for policy makers and retailers, to ignore.”

more information

Clio Turton
Soil Association
0117 914 2448 / 07795 562 556
Soil Association, South Plaza, Marlborough Street, Bristol BS1 3NX
cturton@soilassociation.org

Download the Organic Market Report online
<http://www.soilassociation.org/Businesses/Marketinformation/tabid/116/Default.aspx>

Where *have* all our **Little Owls** gone?

Emily Joachim is passionate about Little Owls. She has even featured on BBC TV's The One Show. Happily, in spite of being incredibly busy, she has agreed to write a piece about her research project especially for Nature Matters.

Words: **Emily Joachim**
Photographs: **Paul Riddle**





CLOSE MONITORING
Emily checking a Little Owl nest.

The Little Owl in Britain

The Little Owl (*Athene noctua*) is Britain's smallest owl, but what it lacks in size, it makes up for with its incredibly charismatic personality. The Little Owl's stocky silhouette can be seen from a distance as this charming species sunbathes on fence posts during warm sunny afternoons. The main body colour of the Little Owl is dark chocolate brown with a pale cream mottled plumage. This species bright yellow eye colour combined with its prominent white eyebrow gives the Little Owl a wonderful frowning expression.

In Britain, the Little Owl inhabits lowland pastoral and arable farmland. It is a generalist species, feeding on varying amounts of invertebrates, small mammals and birds throughout the year. It regularly chooses to breed in pollarded trees, established hedgerows,

copses, orchards and edges of woodlands. It is not uncommon to find Little Owls nesting in villages, farm buildings, parks, rabbit warrens, sand dunes and holes in stone piles; however, they are most commonly found breeding in mature oak, ash, willow and fruit trees.

The Little Owl is a monogamous species, with the breeding season beginning with the male staring to defend territories in January, but it is not until March that courtship begins. They breed relatively late in the year with the peak egg laying taking place during April. This cavity nesting species lays its eggs on the floor of the nest cavity, sometimes with a small scrape.

The eggs, typically between 3 and 4, are laid on consecutive days and incubation begins by the female after the last egg is laid. Incubation lasts between 29 and 31 days and the young begin branching at 3 weeks of age. Prey availability, nest predation, human intervention, infertility,

nest abandonment, faulty nest structures and extreme weather can all affect breeding success.

The Little Owl has not always been a resident in the British Isles. It was successfully introduced by Mr Meade-Waldo in Kent during 1874, with the first pair breeding in 1879. This was followed by a second successful introduction by Lord Lilford in Northamptonshire during the late 1880's.

From these two central introduction sites, the Little Owl rapidly dispersed throughout England and Wales with only a few pairs breeding in Scotland. This species is evident in some fossil records in Britain, but it has only ever been recorded as a rare visitor. Because of this the Little Owl has been classified as an 'introduced breeder' by the BOU.

A Vanishing Goddess?

There is growing concern that the British Little Owl population



is in steady decline. It's range has decreased by 11% between 1970 and 1990, with a 16% reduction in their breeding population (data from British Trust of Ornithology (BTO) Bird Atlas, BBS). Early results from the 2007 – 2011 Bird Atlas suggest that the Little Owl's range has further decreased since the 1988 – 1991 Atlas.

Little Owl distribution has become patchy; with some areas of Britain still supporting a good numbers of individuals and others with reported widespread losses. This trend has been mirrored in the European Little Owl population, which has suffered a steep decline since the 1950s and has subsequently been classified as a Species of European Conservation Concern (SPEC) category 3, with an unfavourable European conservation status, that is declining (BirdLife International). Their decline has been concurrently linked with agricultural intensification and

changes in land-use.

Today, the British Little Owl population is estimated at between 5,800 and 11,600 breeding pairs (BTO). Despite the Little Owls recent decline, this species is not listed as a Species of Conservation Concern, because it is not a truly native species, having 'introduced breeder' status.

Trust backed Research

The Hawk and Owl Trust and the World Owl Trust have teamed up with the University of Reading, Aspira Fund and the Biotechnology and Biological Sciences Research Council (BBSRC) to fund research into the decline of the Little Owl in Britain.

Postgraduate research student Emily Joachim began her PhD in 2008 and she has been looking

at various aspects of the Little Owls ecology including juvenile dispersal and survival.

Emily is concerned that the number of juveniles surviving their post-fledging period is too low. The loss of suitable habitat means that Little Owls are finding it increasingly difficult to find territories that provide sufficient prey availability and accessibility, roosting and nesting sites with limited predation pressure. As a result, too few juveniles are surviving their first six months and going on to breed the following spring.

Radio-tagging has been used to look at the time of fledging, post-fledging dispersal, juvenile survival and the causes of mortality of 28 juvenile Little Owls. Radio-tags were fitted to 17 juveniles in 2008 and 11 juveniles during 2009. These owlets were radio-tracked until they were recorded as dead, lost

“ It is not uncommon to find Little Owls nesting in villages, farm buildings, parks ... and holes in stone piles.



or the radio-tag battery had exhausted. Of the 28 juveniles, 13 were predated within the vicinity of their natal habitat when the owlets were between 1 and 4 months of age. A further 3 juveniles were thought to have perished as their tag signal was lost shortly after the radio-tags were fitted when the young were 5 weeks old.

Even so, it is not all bad news for the young owls. 12 of them were tracked until they were between 5 and 7 months old. Five took their flight of independence during August and September, dispersing between 2km and 3km from their natal site.

This research has highlighted the need for nest sites to be within a patchwork of habitats. This includes hedgerows, dense vegetation and a network of branches, offering shelter for the young whilst branching. Without these habitat features, the juveniles fall to the ground and they have nowhere to hide from predators. Juvenile Little Owls start branching between 3 and 4 weeks and this is when they are most vulnerable.

Research updates can be found on the Hawk and Owl Trust and World Owl Trust websites.

Photograph of barn:
Mike Armitage

How you can help

The BTO receives around 70 Little Owl nest records per annum and most of these records are from two long-term nestbox projects in Wiltshire and Lincolnshire. But they really need to expand this data set in order to learn more about the breeding biology of the Little Owl across Britain. Information on becoming a nest recorder can be found at www.bto.org/survey/nest_records.

You can submit your Little Owl sightings via BirdTrack, which is an online bird recording scheme that it is easy to use (www.bto.org/birdtrack). You could also include the Little Owl as part of your Breeding Bird Surveys (www.bto.org/bbs).

Emily Z K Joachim

Thanks

My thanks to Emily for her article and also to Paul Riddle for allowing me to use the Little Owl photographs on the cover and accompanying this article. You can see more of Paul's photography at: <http://owlsaboutthatthen.blogspot.com/>

You can contact Emily Joáchim via the Hawk and Owl Trust's website www.hawkandowl.org, the World Owl Trust's website www.owls.org or her email address: emilyjoachim@hotmail.co.uk

“Are we there yet?” a wildlife charity’s answer to family car outings

if you are looking for ways to solve the perennial problem of bored children on long car journeys, then look no further.

This summer, the People’s Trust for Endangered Species (PTES) is calling on motorists, particularly families travelling together, to record sightings of any mammals, alive or dead, that they spot from their vehicle. The annual UK-wide survey, Mammals on Roads, tracks mammals seen during the course of car journeys of 20 miles, helping to build up a clearer picture of the state of our wildlife populations.

Since 2001, volunteers have surveyed around three-quarters of a million kilometres of road along the length and breadth of Britain, recording mammals they have seen on road trips during July, August and September. Continuous monitoring of wildlife is vital to help conservation charity PTES understand the issues facing individual species and inform decisions about how best to take action to help them. Each year, the survey builds a more complete picture of both the abundance and distribution of the UK’s wild mammal populations, enabling long-term analysis of trends which may otherwise be overlooked.

The use of innovative technology means that participants can take part in the survey online, recording their route and sightings via interactive maps. PTES Surveys Officer Dave Wembridge explains: “In addition to the traditional paper and pencil method of surveying, this survey is open to anyone with internet access. By using the latest applications in technology such as GPS and LiveMaps, we have simplified data capture and can provide immediate feedback. As well as recording sightings, volunteers record information about their journey, such as the start and end points. This allows the routes and sightings to be mapped, and counts of each species to be expressed as the number of sightings per distance travelled, so that the results can be compared between years and a long-term picture built up.”

Around one million mammals are killed on UK roads each year, so it is a sad fact that many of the mammals recorded will fall into this category. However, the extent of roadkill spotted for each species is related to the number of those mammals in the wild, so it is important that roadkill is monitored too as it also provides an indication of how our wildlife populations are faring.

Mammals on Roads is carried out under the umbrella of the Tracking Mammals Partnership – a collaborative initiative involving 25 organisations which together aim to improve the quality, quantity and dissemination of information on the status of mammals in the UK.

Top mammals spotted on Britain’s roads

1. Rabbit (*Oryctolagus cuniculus*) – 50.3%
2. Hedgehog (*Erinaceus europaeus*) – 15.5%
3. Squirrel (*Sciurus*) – 7.3%
4. Badger (*Meles meles*) – 4.9%
5. Fox (*Vulpes vulpes*) – 4.3%

more information

Visit www.ptes.org/surveys

mor@ptes.org

or call 020 7498 4533 to request a survey pack



Greener DIY products

Every year in the UK more than £14 billion is spent on materials for home improvement. By re-using materials and buying greener DIY products, we can reduce our impact on the environment. Materials that are eco-friendly don't have to cost the earth.

If you are looking for a decorating product that is environmentally conscious then Down to earth is the perfect choice. The components of the range are manufactured using either sustainable sources or recycled materials and have been produced to ensure that all parts are biodegradable or recyclable.

Harris brushes are leading the way in the DIY market, with the launch of their innovative eco-friendly range – Down to earth

Harris Brushes are the first to bring to market an eco-friendly range of decorating products. The pioneering Down to earth range will change the face of the DIY market and offers us a green alternative that is competitively priced and doesn't compromise quality. The components of the Down to earth range are manufactured using either sustainable sources or recycled materials and have been produced

to ensure that all parts are biodegradable or recyclable.

As the importance of sustainability increases, and landfills are no longer a long-term option for waste disposal we need to look at reducing the amount of waste we produce. The most eco-friendly solution would be to reuse products for their life span, however research shows that not all brushes are kept. Keen to address this issue the team at Harris Brushes developed and launched the new Down to earth range.

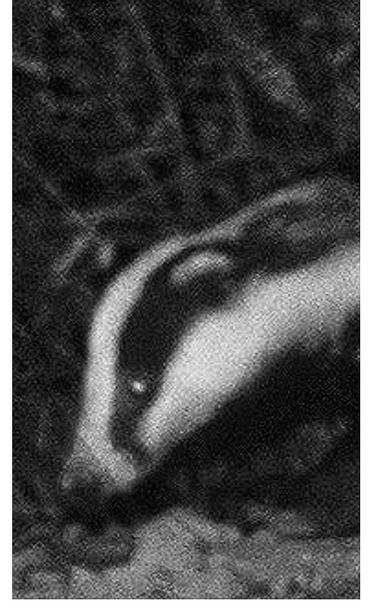
Down to earth is manufactured using the best materials and processes available to date. As technology advances Harris Brushes will continue to look at ways in which they can improve their eco-friendly range to make it even more environmentally friendly.

The paintbrush and roller handles are manufactured from 65% cornstarch, which is quite simply starch derived from corn. Corn is a natural, renewable and sustainable raw material that addresses the

amount of hazardous substances created or caused during the production process. In normal landfill conditions the handles will biodegrade over a significantly shorter period than Polypropylene; this leads to a reduction in landfill mass.

The paintbrush head is made from a mix of high performance synthetic filaments and natural bristles, formulated to be 30% biodegradable without comprising the high quality and smooth finish you would expect from a Harris brush. The roller tray is manufactured from 100% recycled plastic and the roller sleeve is produced using recycled soft drinks bottles. All of the packaging used in the range is produced from recycled or biodegradable materials and is printed using environmentally friendly print processes and inks.

To find out more, visit:
www.harrisbrushes.com/downtoearth
or contact
jim.darke@darkejones.co.uk

PHOTO/ARTWORK
Mike Armitage

The Secret Life of the **Badger**

by Mike Armitage

The sun was already setting as I tramped across the fields in the direction of the local badger sett. As quietly as I could manage, I climbed into the hide and, noticing the long grass obscuring many of the holes, I settled down for an evening's watching.

Colour was beginning to drain from the scene, as the light began to dim when a small, sleek badger emerged cautiously, carefully testing the breeze in every direction. It was clearly a sow. She may have cubs below ground and that will make her even more cautious than usual. She quickly looked around, paused to listen, then proceeded to scratch vigorously for several minutes. She stopped suddenly, looked around again and returned underground.

Smoky, black clouds shrouded a watery moon, now high in the sky and all was quiet for a while. Then I noticed a fox approaching from the direction of the wood. But as he neared the sett, he must have thought better of his plan, doing an about-turn and returning to the

wood. I was not quite sure of the reason for this, but he may have sensed that the badgers were emerging.

Barely twenty minutes later the sleek sow re-emerged from another hole to my left and this time she ambled off down the farm track to feed in the lush pasture beyond. I could hear her snufflings and occasional loud snorts as she moved slowly out of earshot.

Noises beyond the blackthorn hedge suddenly brought my attention back to the sett. I peered into the darkness and made out a large boar badger who was busy scraping earth from deep below ground onto a growing spoil heap. He sneezed and shook himself vigorously between bouts of digging as if to emphasise the dirtiness and dustiness of his work.

At another hole to my right another badger - a young boar - had now emerged. But he did not move off immediately. He moved out into the field and began to shuffle backwards towards

the hole, pausing now and then to listen for sounds of danger. This activity always strikes me as a noisy and rather comical business. He was raking the grass together and carrying clumps of it below ground to use as fresh bedding. He did this several times before he tired of the exercise and moved off hurriedly towards the woods. I pictured him digging up roots and bulbs on his way, or searching out and crunching snails, shells and all, or simply sucking up hapless earthworms, the badger's staple diet, as they came to the surface.

By now, the sett was quiet. So, I climbed down from the hide and made my way home across the dewy, moonlit fields, pleased with what I had glimpsed of the secret nocturnal world of this amazing animal.

TAIL:PIECE

'Ninja slug' discovered under Borneo protection plan

Conservationists hail success of three-year plan that has resulted in the discovery of 123 new species in the biodiverse rainforest of the 'Heart of Borneo'.

A long-tailed slug, dubbed "ninja slug", was discovered on leaves in high-altitude forests, where the creature likes to wrap its long tail around its body while it rests. The slug is part of an unusual invertebrate family that uses chalky "love darts" in courtship. The tiny harpoons pierce and inject hormone into mates, and may increase the chances of reproduction.

more information

<http://www.guardian.co.uk/environment>

In the next issue

Access

The current buzzword in the countryside is "access" coastal access, waterways and upland access; that's ever increasing access and use of the countryside for we humans, of course. But, hang on a minute ... shouldn't we spare a thought for the wildlife whose peace is being invaded?

In the next issue, Nature Matters will explore the issues and the problems and look at how the wildlife is faring in this Brave New World.

Tiger, tiger, burning bright

Also, the tiger has a precarious toe-hold on the planet. Nature Matters looks at the situation in India, what progress has been made and what the future holds for this big cat.

How organic farming is making a comeback in rural India

How a crisis in rural farming in India resulted in a big U-turn in farming methods with some really remarkable successes.

