



ISSN 1759-8036

ISSUE 38 JULY 2018

NEWS FROM THE LINNEAN SOCIETY OF LONDON - A FORUM FOR NATURAL HISTORY

KIPEPEOButterfly Conservation in Kenya



LEFT:
The Kipepeo
workshop
© Courtesy John
Cooper

he Kipepeo Project, situated in the village of Kipepeo near the coastal town of Malindi in Kenya, involves communities who live on the margins of the Arabuko-Sokoke Forest.

Local people rear butterflies of certain species, using eggs from females that have been collected in the forest. The Kipepeo Project then packs these as pupae and sends them to butterfly houses in Europe and North America. This arrangement not only assists local people to earn an income but also provides an incentive for them to protect the Arabuko-Sokoke Forest and its various endemic and endangered species of fauna and flora.

A workshop on the 'Health and Welfare of Invertebrates', particularly butterflies, was held at Kipepeo in February 2018 and was organised under the auspices of the National Museums of Kenya (NMK) and was run under the direction of staff of Kipepeo and Mombasa Butterfly House (MBH). This intensive training day was primarily intended for the staff of Kipepeo and the Mombasa Butterfly House but it also attracted others who work with invertebrates, or have an interest in their care in captivity and their conservation in the wild. These included two Kenyan registered veterinary surgeons involved in the licensing of animals and animal products.

Lectures were delivered in a mixture of English and Swahili: 'Introduction to invertebrates' (Laban Njoroge), 'Legal and ethical aspects of keeping invertebrates in captivity' (Margaret E Cooper), 'Invertebrate health' (John E Cooper), and a description of the work of Kipepeo and the Mombasa Butterfly House (Hussein Aden). The last of these was combined with an opportunity for the farmers/ breeders to discuss their work and problems they encounter with respect to butterfly health.

Participants looked at live butterflies and viewed enclosures under the guidance of Hussein Aden and other Kipepeo staff and with input from Ian Gordon and Mike Clifton. Laban Njoroge and John Cooper demonstrated the gross examination of different stages of Lepidoptera and taught methods of dissection and investigation including the taking of samples from butterflies for microscopy. Portable field equipment was used to illustrate how such procedures do not initially depend on sophisticated laboratory facilities.

It was almost certainly the first time in Kenya that such a workshop, discussing the health of butterflies and linking this with welfare, conservation and sustainable use, had taken place. Discussions are underway as to how what was achieved in February can be developed, not only to benefit the work of Kipepeo and the Mombasa Butterfly House but with a view to contributing to the scope of Kenyan entomology and the promotion of the country's ecosystem health. One proposal is to organise a more in-depth, scientific, training session on invertebrate health and diseases in Nairobi, probably in the Entomology Section of the National Museums of Kenya. Read the full blog at: https://www.haiths.com/haiths-pro/kipepeoworkshop-kenya-february-2018-short-report/

John Cooper and Margaret Cooper FLS Wildlife Health Services (UK) ngagi2@gmail.com



LINNEAN SOCIETY FIELD TRIP:

10-12 August, Isle of Cumbrae



The Linnean Society is hosting a three-day marine-themed field trip in August in association with the Field Studies Council, on the Isle of Cumbrae, Millport analysing the local ecology.

Staying at the Field Studies Council's centre in Millport, Fellows will study the fauna and flora of Kames Bay, one of two SSSI's on the island, conducting transects from the strandline right down to the low tide line. This site is of special interest as it is fed by freshwater seepage from the surrounding land, and we will look at the important

implications for the site's intertidal zone and animals.

Other activities include trip aboard the research vessel R.V. Actinia around the coastal waters of the island to undertake surface plankton sampling to collect zoo and phytoplankton, a guided tour of the Robertson Museum and Aquarium (onsite) and to visit Ballochmartin, the second SSSI on the island to look at the wide variety of coastal birds. Places are limited—to book visit: www.linnean.org/fieldtrip2018

FSC Millport on the Isle of Cumbrae

© Field Studies

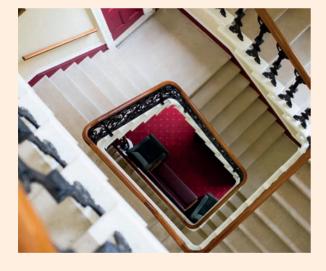
BELOW RIGHT: © Isabelle Charmantier

ANNUAL CONTRIBUTION RATES

Just a reminder to Fellows that Annual Contribution Rates for those in lower income countries have increased. For your reference:

- Low income will remain at \$20
- Middle income has increased from £20 to £25
- Upper income has increased from £20 to £35

Electronic access to the Society's three world-class journals is £20.



UNLOCKING ARCHIVES FOR SCIENTISTS

On 12 June, Deputy Collections Manager/ Librarian Isabelle Charmantier and Digital Assets Manager Andrea Deneau attended a workshop hosted by The Royal Society. The workshop, entitled 'Unlocking the archives for scientists', examined how we can engage and encourage scientists to use scientific archives for long trend studies. Many institutions were brought together to discuss how archival material is being turned into useable data. The workshop morning was split into four presentation topics, covered by institutions including Royal Botanic Gardens, Kew, the Natural History Museum, London, University of Oxford, University of Reading, University of Cambridge, University of Lincoln, Imperial College, The London School of Hygiene & Tropical Medicine, and the Linnean Society. Later, a round-table discussion looked at standards used by archives and digital projects, and how institutions can encourage collaborations between archives and scientists.



It was beneficial to see what kinds of new technologies these institutions are using to unlock their archives, along with some terrific insights into the use of crowdsourcing. Interestingly, one major point of discussion was how to get universities to encourage students of science to use archives as sources of data, as history of science courses are not widely taken by science students, particularly in the UK. The Society's participation in workshops like these is always a good way to gauge how well we are working with our own collections, and how best to expand our network with both the scientific and historical communities.

RED, RED WINE CHANGES TO WINE RECEPTIONS

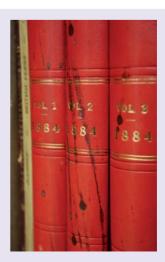
Council and the Collections Committee both met earlier in 2018, and after much discussion the decision was made to remove red wine from the selection of beverages at meetings. This decision is being implemented in order to protect the library and collections from damage, and follows the same protocols found in many other institutions.

Past incidents with red wine have left some older publications damaged; Edward James Ravenscroft's *Pinetum Britannicum* (1884) is one title that sadly has been left stained. The low pH of red wine has a corrosive effect on many materials which then allows

the colour to penetrate, making removal and further conservation extremely difficult.

Red wine will be removed from the beverage selection as of September 2018; alternatives are currently being discussed and sourced.

The Society is very grateful for the support of the Fellowship in the protection of their library.



LEFT:
Damage to the spines of
Ravenscroft's *Pinetum Britannicum* (1884)
© The Linnean Society
of London

BIOMEDIA MELTDOWN FINALISTS

CELEBRATING SCIENCE AND ART IN SCHOOLS

"What a night! From evolution to extinction, bees to butterflies—this night of fantastic masterpieces will leave you speechless!"

Prutha, student from Wembley High Technology College

Earlier this year on 22 March, the Linnean Society welcomed the fantastic finalists of the BioMedia Meltdown competition to a celebration evening at Burlington House. We opened the doors to the finalists, their families and teachers, with over 135 people attending this celebration of creativity and science!

The challenge was to create a piece of creative media that communicated a topic linked to ecosystems or evolution. The finalists' artwork was displayed throughout the building, giving everyone an opportunity to see the talent, skills and achievement of the entrants, aged 11–14, from North West London.



During the evening children and adults alike were kept busy with interactive hands-on creative activities run by creative science professionals. They saw the 3D printer in

action, had an opportunity to present a short science documentary, wrote tweets, made natural history-based badges and created a stop-motion animation. The evening ended with a presentation of the prizes in each category.

The winner for the unique independent entry was a rap about Evolution by Oyiyechuku Okolo from Newman Catholic College. Oyiyechuku, who wrote the music and lyrics, hopes "that it might inspire children of all ages to create a similar song relating to science and the important discoveries that have been made".



In the workshop categories Julia Peluso, Ana Maxwell and Carina Jose from Sacred Heart School won for their Street Art piece showing the importance of pollinators. Maryam Hamza and Naomi Okoyefrom Kingsbury High School won for their stunning infographic on Coral Reefs. View images of some of the artwork at www. linnean.org/biomedia.

A new incarnation of BioMedia Meltdown will be back from September 2018, and we are on the lookout for biologists who would like their research to be featured in a free educational resource which will be sent to schools as part of the project. If you are

interested please get in touch with elisa@linnean. org.

Elisa Jones, BioMedia Meltdown Project Officer elisa@linnean.org LEFT:

BMM Project Officer Elisa Jones presents Himakshi Patel (Convent of Jesus and Mary Language College) with the award for most entries © All images © The Linnean Society of London

BELOW LEFT:

Students took part in an impromptu scientific interview activity

BELOW RIGHT:

Oyiyechuku Okolo with his mum after winning first place in the unique entry category for his evolution rap

A PLATFORM FOR SUCCESS

Postgraduate Poster Competition at De Montfort University



of the lecture in highlighting the various struggles and successes of a lifetime in academia.

organised their Postgraduate Poster Competition at De Montfort University (DMU), Leicester. A host of learned bodies and institutions co-sponsored the event (including DMU, the University of Leicester, the Wellcome Trust, the Linnean Society of London, and the Royal Society of Biology), which brought together dozens of postgraduate students from the UK's East Midlands and further afield.

On 21 May 2018, the Royal Society East Midlands Branch

Professor Nigel Wright, DMU Pro Vice-Chancellor for Research and Innovation, described his interest in such public engagement events, and his support for these multidisciplinary symposia. Keynote speaker Professor Geoff Parker, Emeritus Professor at the University of Liverpool, spoke to the assembled postgraduates and academics about his life in research. Students commented on their appreciation

Postgraduate students were tasked with presenting a poster accessible to a layman audience. Winning a £100 first prize, sponsored by the Linnean Society of London, was Arif Surani from Nottingham Trent University, with a poster entitled 'Protein expression regulation through TSS selection: AGAP2 as a case study'. Second prize, and winner of £50 sponsored by the Linnean Society of London, was Robert Davis, also from Nottingham Trent University, with his poster 'The status of large carnivores in a human impacted miombo woodland'. Two additional prizes from the Royal Society of Biology for Highly Commended posters were awarded to Benita Percival (DMU) and Boris Berkhout (University of Leicester).

First place competition winner Arif Surani (right) talks about his poster



PERMACULTURE Designing a regenerative future

ABOVE:

Fig. 1. Chikukwa Project (Zimbabwe): 'Before' in 1991–bare hillsides and soil erosion © Terry Leahy

BELOW:

Fig. 2. Chikukwa Project (Zimbabwe): 'After' in 2005–houses nestling among orchards, bunds with vetiver grass in the cropping fields, and extensive woodlots © Terry Leahy Permaculture is a portmanteau word (derived from permanent agriculture, or permanent culture) which describes a design system modelled on the functioning of natural ecosystems. It is guided by three core ethics—Earth Care, People Care and Fair Shares. The first of these is fundamental, since without a thriving planet, ultimately we have nothing; the soil, water and air must be viewed as sacrosanct, and need to be protected and regenerated. The second ethic embraces an integrated philosophy of living, in which the large human population exerts a profound impact on this planet, and if we flourish as part of a regenerative, rather than a degenerative design, the Earth will become abundant with us. Estimates of the maximum maintainable population vary, however.

Labelled "Fair Shares", the third ethic emphasises that each of us should take no more than what we need, but expressed alternatively as "Share the Surplus", it means that any surpluses are returned to the system overall to support the other two ethics. The useful recycling of waste back into the system is in accord with the third ethic, since there is no 'waste' in nature, and the notion of a 'circular economy' is based on this.



Two of the cornerstone permaculture design principles are that "each element performs many functions" and "each important function is supported by many elements". Accordingly, every element is chosen and placed within the design so to serve as many functions as possible (probably at least three). The design is 'resilient' if critical functions are supported in a number of different ways, and continues to operate should any one element of the system fail.

Chikukwa Project

When land has become badly degraded, especially in developing countries, it is often considered too expensive to recover using engineering/technological approaches and is accordingly 'written off. The Chikukwa project in Zimbabwe is an edifying example of how a thoroughly degraded landscape, with severely eroded soil, can be brought back to verdancy using low tech methods-and with very little money, but a good design—as can be seen from the 'before' and 'after' photographs (Figs. 1 and 2). This is not a 'quick-fix' strategy, and has taken over two decades to achieve; it has, however, created a sustainable landscape. The Chikukwa clan consists of 7,000 members who live in six villages situated along a 15 km stretch of hills and valleys. From Fig. 2 it would be easy to think that they have simply continued to live a centuries-old life according to their traditions: in fact, the Chikukwa project began in 1991 when the water supply that had provided for around 50 households in the village of Chitekete suddenly dried up. Attempts to dig for water were thwarted by further rains which caused the stream to become silted up again. At this time, the area was being increasingly deforested, and the loss of vegetation from the formerly lush mountainsides exacerbated soil erosion which further compounded the water problem. Erosion had impacted badly on the fertility of the land, which was steadily becoming desert. The lack of normal groundwater recharge as a result of deforestation had caused the springs to dry up, and when new water sources were tapped, they became blocked by silt from erosion. The drying up of the springs also had a spiritual dimension, since traditional beliefs demand that the water spirits who live in them should be cared for, by maintaining the health of the springs. In permaculture terminology, Chikukwa is well described as an edge, in terms of ecology, culture and language, and the edge effect has undoubtedly yielded a rich and active vibrancy in all respects. Every family has access to running water, taken from mountain springs; communal land in the valley is used to grow wheat and maize flower, providing bread and maize meal. Along the mountainsides are fruit trees that are accessed by all. Nonetheless, this is a remote way of life; the majority live in mud huts and provide for themselves and their families by subsistence farming.

RISC roof garden

A fine example of what can be grown in unused urban space is the RISC Roof Garden (Fig. 3), which grows on top of the Reading International Solidarity Centre (RISC). RISC is a Development RIGHT:

Fig. 4. Holistic Managed Grazing: a herd of Nguni cattle within a grassland landscape

© Wikimedia Commons/Justinjerez

BELOW: Fig. 3. RISC Roof Garden: trees growing

© Karen Blakeman

of soil

on a roof, in just 30 cm

Education Centre located in the middle of Reading (the largest town in the U.K.), and is used as an educational resource for sustainable development. Occupying an area of 200 m², the garden is composed of dense plantings (including trees) of over 180 species of edible and medicinal plants, and is fed by rainwater and composted waste from the centre. Remarkably, all of this is growing in just 30 cm of soil, and the whole project demonstrates what can be achieved by applying urban permaculture to 'waste'-both the building itself. which had fallen into disuse, and its accompanying roof-space. It is important to apply permaculture in urban environments, since more than half of the global population lives in towns and cities, which must become places of food production. In addition to the greater preservation of the soil quality than is the case on industrialised farms, food that is grown and sourced locally has less of an environmental impact with regard to transportation. It has been estimated that just 30% of the global urban area would be required to produce all the vegetables consumed by urban dwellers. While there are impressive energy-efficient designs for buildings, e.g. passivhaus, it is not a practical proposition to simply raze our existing towns and cities to the ground and build-up again from scratch. Rather, we need to work within the framework that we have, i.e. the urban environment. Thus, it is necessary to incorporate permaculture designs within the existing urban infrastructure, which minimise waste by cycling resources, so to retain them within the 'system' as long as possible (in the manner of how water and nutrients are cycled in a natural system, such as a forest). In addition to growing food in urban space, such actions as draught-proofing and thermally insulating existing building stock, and living/working on a more local scale, would serve well to cut overall energy use.

Holistic Planned Grazing

The practice of "Holistic Planned Grazing" was inaugurated as a means to combat desertification, and involves moving single herds



containing thousands of cattle or sheep around on grassland, in an effort to mimic the behaviour of grazing animals in the wild, where they move in large groups (to protect themselves against predators), and graze one patch intensively, before moving on elsewhere. In this way, the grassland has time to recover completely, before it is grazed again, which benefits both the soil and the wildlife, and the animals' manure is more evenly distributed, while their hooves incorporate more organic matter into the soil. The growth of longer grass provides better ground cover and a more extensive root mat, so that rainfall is better infiltrated into the soil, which leads to decreased flooding, less drought and the recharge of depleted groundwater systems (aquifers). This approach is of particular benefit for restoring grasslands (Fig. 4) in semi-arid or arid climates ("brittle environments") and contrasts with the more conventional approach of removing animals from the land.

Christopher J. Rhodes cjrhodes@fresh-lands.com Fresh-lands Environmental Actions









Further Reading.

Rhodes, C. J. 2017. 'The Imperative for Regenerative Agriculture.' *Science Progress* 100: 80–129.

Rhodes, C. J. 2015. 'Permaculture: Regenerative—Not Merely Sustainable.' *Science Progress* 98: 403 –412.

Rhodes, C. J. 2014. 'Soil Erosion, Climate Change and Global Food Security: Challenges and Strategies.' *Science Progress* 97: 97–153.

Rhodes, C. J. 2012. 'Feeding and Healing the World: Through Regenerative Agriculture and Permaculture.' *Science Progress* 95: 345–446.

LIVING ONLINE

COLLECTIONS ENGAGEMENT IN THE INFORMATION AGE



"We used to build collections from objects. Now we make collections of information, too."
Suzanne Keene, Digital Collections: Museums and the Information Age

Historically, collections have incorporated the physical: specimens, artefacts, manuscripts, art work. More recently, a different, virtual and often multimedia component has also become a part of these collections. The Linnean Society (like many other historical institutions) has made its specimen collection and some of its printed works and manuscripts available online for over a decade: c. 233,660 images and 60,965 records, with thousands of page views per day from mainly academic audiences.

Old Dog, New Tricks

Institutions using their collections in public and scientific engagement is nothing new. Knowledge is, according to Prof James Secord, continually "in transit". And as suggested in *Globalising Knowledge in the 18th Century* (Hodacs, Nyberg and Van Damme), Linnaeus' study of natural history "provides an extraordinarily fertile ground for exploring how knowledge is constantly (re)produced and (re)negotiated". Rather than it being the venture of one 'great man', the dissemination of this knowledge was actually "a collective and collaborative enterprise". Much the same as scientific engagement today.



Where historical collections are really coming into play with technology is by helping to provide a baseline for measuring environmental change and impact. As they pre-date and run alongside the Industrial Revolution, these collections are singular in their scientific value. In their talk for Google, 'Species to Pixels', Prof Ian Owens and Dr Vince Smith of the Natural History Museum, London (NHM), speak about a potential 1.5 to 3 billion specimens in natural history collections worldwide. While not all of these will be available online, those that are act as a data pool for projects like PREDICTS (Projecting Responses of Ecological Diversity in Changing Terrestrial Systems), which harnesses data for a plethora of taxonomic groups and is used to map terrestrial biodiversity (currently holding 3.6 million data records). From this it is possible to ascertain that we have lost c. 13.6% of species, and, as illustrated in Nature, a global analysis of the PREDICTS database shows that by 2100 that number could increase by a further 3.4%.

Making an Exhibition of Ourselves

While the data gives us clarity, it doesn't, in itself, stop the process of decline. As with Linnaeus and his taxonomic breakthroughs, dissemination of this evidence is collaborative in nature, and the public's engagement is vital. In his talk, Prof Ian Owens posits that while a physical visit to a museum could result in an inspiring Q&A with a scientist, "if you want to change society's mind about things it has to be [about] more than that". Information can be collectively and innovatively displayed in physical exhibitions, and some are very successful (the British Library's *Harry Potter: A History of Magic* exhibition, utilising numerous ground-breaking and lesser known natural history texts to support the popular series of books, is its most successful exhibition on record) but of course geography is a barrier for many visitors.

ABOVE:

The Linnean Learning
Video Series has helped
engage more online
users with the Society's
collections
© The Linnean Society
of London

BELOW: Ross Ziegelmeier interviews forensic biologist Dr Mark Benecke FLS for a podcast Limited space and funding is also an issue for smaller institutions like the Linnean Society-providing resources online is a great way to engage an audience we would otherwise never meet. We have been slowly building our social media presence; in PuLSe 28 (Dec 2015) we reported on our online stats, which have increased by 70%+ (Facebook: 1,855 followers in 2015, to 3,732 in 2018; Twitter: 4,076 in 2015, to 6,982 in 2018). Staff contribute to the Society's blog, and we have produced a number of stunning videos to showcase items from our collections. But what else could we be doing? Online exhibitions are now a go-to for many organisations: universities like Southampton, Durham, Cornell and Harvard; museums like the NHM. Fitzwilliam and Museum of London; and institutions like the British Red Cross and the National Archives in Kew. Originally. virtual exhibitions were devised to accompany, and direct visitors to, a physical exhibition, but this is no longer the case, and virtual exhibitions can open up audiences to materials that might become lost in a larger setting. The Google Cultural Institute, with which the NHM is collaborating regarding its online engagement, plays host to many online-only exhibitions (via their Google Arts and Culture page), but Open Source options are also available. The team at the Society is keen to reveal our collections and share our distinct identity with a global audience.

Distinct Identities

How does the Society, as a smaller institution with more limited reach, stand out in a sea of online information? In a discussion with *The Guardian Science Weekly* podcast producer, Max Sanderson, one key statement stood out: "Institutions such as yours are original content producers. You have the objects, stories, knowledgeable people and the ability to share them." Unlike some other places, we have primary sources available to interpret and share. In 2017 the Society launched its first video series based on its collections—the Linnean Learning Video Series (LLVS); the remit was to bring the collections up to date for a modern, and varied, audience, and the Society aims to build on this video series throughout 2018. Since the launch, the Society's YouTube channel saw an increase of 159 new subscribers within the space of a week, and the videos currently have over 11,000 views collectively.

By diversifying our output we can also increase the number of platforms through which to connect with an audience. In parallel with increasing our online connections, making our lectures available online and releasing videos showcasing our stories, we are producing a succession of podcasts in order to help solidify the Society's digital brand. These will mine the vein of unique material running through all of the Society's activities: the collections, Linnean Learning, events, our Fellowship and special publications, allowing the Society to 'come alive online' and develop a recognisable digital personality.

The podcasts are set to publish every two weeks, with four already online: a podcast reporting on **Women in Science: The First Female Fellows** event; another outlining the story of **Lady Pleasance Smith's** impact on her correspondents (using Linnean







Society staff as the voices of the letters); Jack Ashby's podcast delves into **how specimens are interpreted in museums**; and our President, Dr Sandy Knapp, heads up a raft of terrific interviewees looking at the idea of **taking plants into space**. Listen to all the podcasts here: soundcloud.com/user-679811756. Though we are still building the foundations of our podcast audience, we have already amassed c. 300 listens. Future podcasts will feature high profile speakers like effervescent Zack Rago from the documentary *Chasing Coral*. The Society hopes to capitalise on the exposure that such speakers and their associated connections will bring.

Though still in our infancy digitally-speaking, we have already attracted potential collaborators such as the Association for Science Education (ASE), who have applied for funding to produce a film about the English palaeontologist Mary Anning. Eventually, the objects to be displayed in the new Discovery Room at Burlington House will be accompanied by audio descriptions, which could then be incorporated into an online exhibition. Lastly, the effectiveness of our existing content, such as our lectures, has been assessed and a one minute summary video is to be implemented pre-lecture online. With an eye to also including online exhibitions in the future, the team will be working collaboratively to produce content that will keep bringing audiences back. Audiences become part of the chain of dissemination; Carreras and Mancini, in their paper A Story of Great Expectations also state that online audiences "look at other visitors" comments to decide whether to visit an exhibition or not". Our overall aim is to make sure those comments are positive and that audiences feel not just informed (changing society's mind) but entertained.

> Leonie Berwick, Special Publications Manager leonie@linnean.org & Ross Ziegelmeier, Education Project Officer ross@linnean.org

References

Carreras C. & Mancini F. 2014. A Story of Great Expectations: Past and Present of Online/Virtual Exhibitions. *DESIDOC Journal of Library & Information Technology* 34(2): 87–96

Hodacs H., Nyberg K. & Van Damme S. 2018. Globalising Knowledge in the Eighteenth Century. https://voltairefoundation.wordpress.com/2018/01/17/globalising-knowledge-in-the-eighteenth-century-the-linnaean-story/ [Accessed June 2018]

Keene S. 1998. *Digital Collections: Museums and the Information Age.* London: Routledge.

LEFT: 2018 has seen the launch of the Society's podcast series on Soundcloud

BELOW:
Many institutions, like
the National Archives,
use online exhibitions to
open up and interpret
their collections

FORTHCOMING EVENTS 2018

5 Sept Nature Reader **Unnatural Selection: Evolution at the**

Nature Reader Hand of Man 12.30-13.00 Speaker: Katri

Speaker: Katrina van Grouw, Author

and Illustrator

Registration is essential: https://www.linnean.org/events

7 Sept
Day Meeting
11.00-16.30

How Are We Communicating the Importance of Taxonomy and Systematics?

Taxonomy and Systematics Committee

Plenary Meeting

Registration is essential: https://www.linnean.org/events

11 Sept Nature Reader 12.30-14.00 **Biosphere 2: Lessons and Relevance to Global Ecological Challenges**

Organiser: Dr Mark Nelson, *Institute of Ecotechnics* and Sir Ghillean Prance FRS PPLS, *former Director of Royal Botanic*

Gardens, Kew

Registration essential:

https://www.linnean.org/events

20 Sept Evening Meeting 18.00-19.00 Life after Death: The Ecology and Evolution of Burying Beetles

Speaker: Prof Rebecca Kilner, University

of Cambridge

Registration essential:

https://www.linnean.org/events

3 Oct Lunchtime Lecture 12.30-13.00 The Weird and Wonderful World of Mosses

Speaker: Prof Jeff Ducket FLS, Past President British Bryological Society and International

Association of Bryologists Registration essential:

https://www.linnean.org/events

18 Oct Evening Meeting 18.00-19.00 **SCIENCE POLICY LECTURE 2018:**

Lost Prophets, Deluded Wizards, Addicted

Alchemists, and Us

In association with the Systematics Association Speaker: Mustafa Zaidi, Director of Research at Clarmond and Advisor to Synchronicity Earth

Registration essential:

https://www.linnean.org/events

Please check our website for other events not listed here



The Linnean Society of London Burlington House, Piccadilly, London W1J 0BF UK

T: +44 (0)20 7434 4479 E: leonie@linnean.org W: www.linnean.org

Manufactured in the UK, using paper with a minimum 75% recycled content that is FSC accredited. Printed to ISO 14001 accreditation.

Charity Reference No. 220509

Intern:Ellie Marshall



A new face to spot at the Society is Ellie Marshall who is currently doing a Masters in Science Communication at the University of Sheffield. Ellie has taken up an internship at the Society as part of her dissertation and will be creating a video with Education Project Officer and digital content producer Ross Ziegelmeier about how the Polar bear contributed to Darwin's theory of evolution. Ellie's work will also look at blog posts, particularly focussing on the 160th anniversary of the joint presentation of the Darwin-Wallace papers on natural selection in 1858, and is aiming to assist with

school visits and an engagement day at Brompton cemetery. Please join us in welcoming Ellie!

© The Linnean Society of London

Maxwell Knight: 24 November 2018

The British Herpetological Society (BHS) Commemorative Symposium

This symposium will celebrate and commemorate the 50th anniversary of the death of Maxwell Knight (1900–68), the famous naturalist, broadcaster and a leading agent within the Security Service—better known as MI5. (Some former agents believed that the figure of 'M' in lan Fleming's James Bond novels possibly found inspiration in the form of Knight.)

The event will look at Knight's life and work, with several 'long-lost' materials from his own collections on display, including manuscripts discovered within his personal filing cabinet. There will also be an



opportunity to view some of his films. Current naturalists will investigate his work in a modern context and look into his concerns, from over half a century ago, about environmental issues, animal welfare, and conservation of wildlife.

This event has been organised by the British Herpetological Society (BHS), with support from the British Chelonia Group (BCG), the Amateur Entomologists Society (AES), the Institute of Animal Technology (IAT), the British Veterinary Zoological Society (BVZS), the Frightened Face of Nature (FFON) and others.

For more information or to register please visit:

https://thefrightenedfaceofnature.com/maxwell-knight-symposium/

© National Portrait Gallery



All articles welcome – please submit news, reviews, events and articles in MS Word format to the Editor at leonie@linnean.org. Accompanying images must be a high resolution JPEG or TIFF with appropriate permission and copyright.