The Linnean Society of London

PROGRAMME OF EVENTS | AUTUMN–WINTER 2016



RBG Kew – QMUL MSc Student Project Presentations: Plant and Fungal Taxonomy, Diversity and Conservation

PARTNER EVENT 14:00–17:00 Friday 2 September 2016

With only a small percentage of the planet's diversity formally described by science, it is more important than ever to train a new generation of taxonomists who will go on to describe, understand and conserve biodiversity. The exciting new MSc programme in Plant and Fungal Taxonomy, Diversity and Conservation, delivered by the Royal Botanic Gardens, Kew and Queen Mary University of London, teaches vital plant and fungal identification skills in the context of evolutionary biology and conservation.



Join the first cohort of students as they showcase their research projects in this end of year finale.

This event is free and open to all but registration is essential by Thursday 1 September 2016.
www.linnean.org/Events. Image © R Smith

Sex, Drugs, and Ecosystem Services: The Sweet Poisons in Nectar

EVENING MEETING 18:00–19:00 Thursday 15 September 2016

The global value of pollinators to food production is around £230 billion and £700 million to the UK alone, so their importance cannot be overstated. Their additional cultural, ecological and human health value is immeasurable. Severe declines, particularly in wild bees, suggest major problems in land management and consequences for global food security and biodiversity. The causes of these declines are well reported and primarily man-made, but can they be addressed using science-based knowledge?



Professor Philip Stevenson FRES (Royal Botanic Gardens, Kew and University of Greenwich) will present recent work on the ecological function of plant toxins in nectar and pollen that help us understand the behaviour and ecology of pollinators, and might provide ways of addressing pollinator declines.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Philip Stevenson

Open House 2016

SPECIAL EVENT 10:00-17:00 Saturday 17 September 2016

As part of *London Open House*, the Linnean Society of London will be throwing open its doors and welcoming anyone interested in looking around. From 10:00–17:00 (last entry 16:30) visitors can explore the building and its stunning rooms and find out more about the Linnean Society.

This event is free and open to all; registration is not necessary. For more information please visit www.openhouselondon.ora.uk

Understanding and Implementing Current Environmental Legislation: Biology, Borders and Ownership

SPECIALIST GROUP MEETING 11:00-16:30 Thursday 22 September 2016

Plenary Meeting of the Taxonomy and Systematics Committee of the Linnean Society of London.

Environmental legislation impacts on the work of all involved with trading in, owning and managing collections of organisms, both living and preserved. Speakers at this meeting will look into some of the issues raising concern, with particular emphasis on rational safeguards and providing adequate training for those advising on the application of the legislation with particular emphasis on the Nagoya Protocol.

Registration for this event is essential by Thursday 14 September 2016. Registration fee (£10) includes tea/coffee and lunch. www.linnean.org/Events. The event will be followed by a wine reception.

Wild New Territories: Portraits of the Urban and the Wild

NATURE READER 18:00–19:00 Thursday 29 September 2016

This groundbreaking exhibition occupied galleries as well as outdoor spaces in restored or protected wildlands in London, Vancouver and Berlin, in partnership with both art galleries and environment and natural history focused organizations. Ultimately linking cultural and environmental ecologies, Wild New Territories presented themes that reflect the complex interconnectedness of all things, highlighting issues surrounding an uncertain environment and the potential collapse of ecosystems within historically charged urban contexts.



This event is free and open to all but registration is essential by 28 September 2016. www.linnean.org/Events. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Wild New Territories

What should be in your Digital Toolbox?

DAY MEETING 10:00–17:30 Monday 10 October 2016

The Linnean Society of London, in collaboration with the Transcribe Bentham initiative at **University College London (UCL)**, hosts a one-day conference to showcase how innovative technology is being applied to the humanities and natural sciences. The conference speakers will demonstrate how researchers, curators and enthusiasts can use digital tools to explore historical and scientific material in new ways.

An example is the EU-funded READ project, which seeks to unlock complex handwritten material in archival collections, to automatically index digital images of text, and to teach computers how to transcribe handwritten text. Cutting-edge transcription technology developed as part of the READ project will be demonstrated and discussed. The conference will be a platform to share ideas on the best means of exploiting complex research data and opening it up to a wider audience. We are delighted to welcome **Melissa Terras**, Professor of Digital Humanities at UCL as keynote speaker.

Registration for this event is essential by Friday 30 September 2016. Registration fee (£15) includes tea/coffee, lunch and wine reception. www.linnean.org/Events

Sir Julian Huxley Lecture: Dosage Sensitive Genes in Evolution and Disease

PARTNER EVENT 18:00–19:00 Wednesday 12 October 2016

In association with The Systematics Association.

Human copy number variants (CNVs) account for genome variation, an order of magnitude larger than single nucleotide polymorphisms. While much of this variation has no phenotypic consequences, some variants have been associated with disease, particularly neurodevelopmental disorders.

Pathogenic CNVs are typically very large and contain multiple genes. Understanding the cause of the pathogenicity and identifying candidate disease genes remains a significant challenge. We take an approach that uses evolutionary patterns



across the vertebrate tree to infer functional constraints on gene duplication and/or loss. We identify evolutionary constraints characteristic of genes in pathogenic CNVs and that can only be explained by dosage sensitivity of those genes. These evolutionary metrics suggest a path to identifying disease genes in pathogenic CNVs.

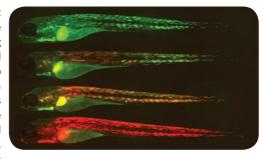
Aoife McLysaght is a professor in Genetics and Head of Genetics in University of Dublin, Trinity College. She was a member of the international consortium that published the first draft of the Human Genome sequence in 2001. She has made significant contributions to our understanding of the human genome, as well as the genomes of other animals, plants and viruses.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image @ Aoife McLysaght

The Feminisation of Nature

EVENING MEETING 18:00-19:00 Thursday 20 October 2016

Some chemicals discharged into the environment can alter hormone systems in exposed wildlife affecting developmental processes, including reproduction. Exposure to these so-called endocrine disrupting chemicals (EDCs) has also been associated with various human health disorders, including reduced sperm counts in men and obesity. One group of EDCs, the environmental estrogens, has been associated with feminised responses in male fish, frogs, reptiles, birds and mammals. Effects include



altered sexual behaviours, reduced sperm production and quality, and intersex.

Professor Charles R Tyler is a reproductive physiologist and ecotoxicologist and Deputy Head of Biosciences at the University of Exeter. His lecture will provide a critical analysis on the effects of environmental estrogens on wildlife and the implications for wildlife populations, with a principal focus on fish. It will also illustrate how some molecular technologies are helping to unravel the complex ways in which oestrogenic chemicals interact within the body.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Charles R Tyler

Book Sale

SPECIAL EVENT 19:00-20:00 Thursday 20 October 2016

The Linnean Society's annual book sale which will take place in the Council Room.

Wildflowers in the Western Mediterranean

NATURE READER 18:00-19:00 Thursday 27 October 2016

The Western Mediterranean floristic region boasts one of the richest floras in the world. This talk will explore the dazzling myriad of species which grow in the region in a 'virtual tour', from Portugal in the west to Italy in the east, the central Mediterranean islands, and North Africa.

From rock roses and pines to the rare and bizarre such as wasp-duping orchids, fly-trapping arums and insect-eating *Drosophyllum*, we will examine one of the world's most diverse floras with an ecological slant on some fascinating plants, along with the stunning habitats in which they can be found.



Chris Thorogood FLS studied parasitic plant biology for his PhD at the University of Bristol where he then worked as a postdoctoral researcher. He currently studies the flora of the western Mediterranean basin and has a particular interest in parasitic plant speciation.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Chris Thorogood

Wildlife Live - A Springwatch Experience

LUNCHTIME LECTURE 12:30-13:00 Wednesday 2 November 2016

Springwatch is one of the world's longest running and most-loved natural history series. Its eclectic mix of live wildlife, conservation stories, and stunning photography, has entertained millions of viewers for 12 years.

This lunchtime lecture draws on the experience of former Springwatch producer James Smith, who will show clips from the series and give behind the scenes insights into how the programmes are made and what impact they have on their audience.



James Smith has been making wildlife documentaries for almost 20 years. He began his career at the BBC's Natural History Unit in Bristol and has subsequently made films about conservation in the Congo Basin, climate change in Alaska, deforestation in Brazil the Amazon and most recently in southern Africa.

This event is free and open to all; registration is not necessary. Tea and coffee will be served in the Library following the event. Image © Jo Charlesworth

Darwin Lecture - Global De-Worming: A Darwinian Perspective

EVENING MEETING 18:00-19:00 Thursday 3 November 2016

In association with the Royal Society of Medicine.

Darwin had a fascination for worms but would have been largely unaware of the parasitic worms that are responsible for so many of todays Neglected Tropical Diseases (NTDs). With over 1 billion people infected globally, particularly in resource poor settings, the NTDs are responsible for considerable human suffering. Climate and environmental change, migration of people, invasion of vectors, loss of biodiversity, and emerging drug resistance threaten to change the disease landscape and often there are insufficient



resources for treatment of people in most need. The lecture will highlight the current progress in the control of schistosomiasis, guinea worm and other worm infections in different parts of Africa and delve more deeply into aspects of parasite life cycles that make them so difficult to control. In the arms race between hosts and parasites – is there likely to be a winner?

Professor David Rollinson FLS is a Merit Research Scientist at the Natural History Museum London, and Director of the World Health Organization (WHO) Collaborating Centre.

This event is free and open to all but registration is essential by Wednesday 2 November 2016. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. www.linnean.org/Events

Form, Function and Fisheries: The Scientific Legacy of Edward Stuart Russell

EVENING MEETING 18:00-19:00 Thursday 17 November 2016

E S Russell (1887–1954), a zoology graduate of Glasgow University, was President of the Linnean Society from 1940 to 1942. This year marks the centenary of his seminal book *Form and Function: A Contribution to the History of Animal Morphology* and therefore seems an appropriate time to assess his legacy. Russell's professional career was as a fisheries scientist whose work shaped much of our thinking and public policy towards biological resources; influencing the direction of fisheries management for more than



50 years. But his contributions were much wider than this implies. His books discussed the relationship between animal development, form, function, and behaviour. The meeting will ask why Russell's thoughts remain relevant today.

Introduced by **Gordon McGregor Reid**, Past President of the Linnean Society. Speakers: **Roger Downie**, Professor of Zoological Education, University of Glasgow, with research interests principally in the life histories of amphibians and marine turtles; and **Carl O'Brien FLS**, DEFRA Chief Fisheries Science Adviser and the 2015 Buckland Professor.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Carl O'Brien

The Invention of Nature

FOUNDER'S DAY 18:00-19:00 Friday 2 December 2016

The Invention of Nature tells the story of Alexander von Humboldt (1769–1859), the great thinker and intrepid explorer who has more things named after him than anyone else. Humboldt explored deep into the rainforest, climbed the world's highest volcanoes and inspired thinkers, politicians, scientists and poets alike. Taking us on a fantastic voyage in his footsteps, Andrea Wulf shows why his life and ideas remain so important today. Humboldt predicted human-induced climate change as early as 1800, and The



Invention of Nature traces his ideas as they go on to revolutionize and shape science, conservation, nature writing, politics, art and the theory of evolution.

Andrea Wulf FRGS is the author of five acclaimed books including *The Brother Gardeners* and *The Founding Gardeners*. She writes for *The New York Times, Wall Street Journal* and *The Atlantic* amongst others. *The Invention of Nature* won the Costa Biography Award 2015 and LA Times Book Prize 2016.

This event is free and open to all; registration is not necessary. Tea will be served in the Library from 17:30 and the event will be followed by a wine reception. Image © Andrea Wulf

The Botany of Christmas

LUNCHTIME LECTURE 12:30–13:00 Wednesday 7 December 2016

Whether in the frankincense and myrrh of the Bible, the mistletoe hanging from ceilings at Christmas parties, or in the ingredients of Christmas food and drink, plants play an important role in the meaning and enjoyment of the Christmas festival. In this seasonal talk, **Dr Mark Nesbitt FLS**, curator and ethnobotanist at the Royal Botanic Gardens, Kew, will explore the past and future of such plants, drawing on the rich biological and art collections at Kew and the Linnean Society. We will see how specimens such



as those kept at Kew's Economic Botany Collection carry rich histories and are used in research into the science and culture of Christmas plants.

This event is free and open to all; registration is not necessary. Tea and coffee will be served in the Library following the event.

Irene Manton Lecture: On You, Inside You: the Amazing World of Parasites

REGIONAL EVENT 16:00–18:00 Tuesday 6 December 2016 @ Manchester Museum, The University of Manchester

Parasites are the most common form of cellular life on our planet. **Dr Sheena Cruickshank** will show why parasites are so successful and how new scientific methods that help us visualise parasites are helping us unlock even more of their secrets.

GENERAL EVENTS

Linnean Society Treasures Tours

TOURS 14:00–15:00 Thursday 4 August and Friday 23 September, 13:30–14:30 Wednesday 5 October, Wednesday 2 November, and Wednesday 7 December 2016

These ever-popular tours will cover the history of the Society with particular emphasis on Charles Darwin and Alfred Russel Wallace, as well as the Collections and legacy of Carl Linnaeus. Tours last approximately 1 hour and include a visit to the Meeting Room, complete with portraits of Charles Darwin and Alfred Russel Wallace; the Linnaean Collections, housed in an underground bomb-proof strongroom and the grand Reading Room of the Library, a stunning room that never fails to impress visitors and researchers alike. *Registration for the tours is essential. www.linnean.org/Events*

EDUCATION EVENTS

BioMedia Meltdown Awards Ceremony

SPECIAL EVENT 18:00–19:30 Friday 14 October 2016

Join us to celebrate the creativity of the students who took part in the Ecosystems module. The project, funded by John Lyon's Charity, brings art and science together for students aged 11–14. This celebratory evening will showcase entries that have been submitted into the competition and include a brief talk and theatrical performance. The celebration will be a fantastic opportunity for students to meet their peers from other schools, and to acknowledge the winning entries during the awards ceremony. *This event is free, registration for this event is essential. Refreshments available. www.linnean.org/Events*

Why We Die

STUDENT LECTURE 17:30-19:00 Tuesday 4 October 2016

In this lecture, **Simon Watt**, biologist, writer, science communicator, comedian and TV presenter, will delve into the surprising science behind why we die.

Exploring Ocean Wonders

STUDENT LECTURE 17:30–19:00 Tuesday 8 November 2016

Oceans cover seven tenths of our planet and are home to a huge range of living things. **Dr Helen Scales**, marine biologist, writer and documentary-maker, will unveil the oceans' living wonders, offer a glimpse into the life of a marine biologist, and show why there has never been a more important time to look after the marine realm.

Our student lectures are for A-level and undergraduate students and their accompanying teachers/ lecturers only. Registration for the Education Events is essential. www.linnean.org/Events

Stay up to date with all of our events and activities at: www.linnean.org/events Sign up to our e-newsletter LinneanNews

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Linnean learning