Department of Zoology
Alumni Day
2018

Saturday 15\textsuperscript{th} September
10.30-17.30
Event Schedule

10:30-11:25 Lab Tour
   Museum Stores Tour
   Zoology Art Trail
11:30-12:25 Lab tour (repeat)
   Museum Stores Tour (repeat)
   Rare Books Tour
12:30-12:55 Tour of Elementary Lab and discussion with Dr Tim Weil and Dr William Foster

13:00-14:00 Lunch in Whale Café (tables reserved for alumni use)

14:00-15:00 ‘Merkats and Molerats: cooperating to survive’
   Lecture by Prof Tim Clutton-Brock FRS
15:00-16:10 What is this Beast?
   Spot quiz + answers
16:15-17:30 Afternoon Tea, HoD talk and Tropical Field Course report

All tours start and finish in Reception in the main Zoology building.

Please arrive with plenty of time to spare for your booked events so we can start promptly.

Lab Tours (visiting 3 labs)

Dr Andrew Gillis
Royal Society University Research Fellow

The Gillis Lab studies the embryonic development of cartilaginous fishes (sharks, skates, rays and holocephalans), in order to better understand the origin and early evolution of vertebrates. We are particularly interested in the development and evolution of jawed vertebrate skeletal and sensory systems.
Dr Andrea Manica  
University Reader in Evolutionary Ecology

My research focuses on understanding patterns of individual movement, with an emphasis on disentangling its proximate mechanisms (e.g. grouping behaviour, territoriality, migratory behaviour, etc.) and its ultimate causes (e.g. fitness benefits, selection in metapopulations). Work in my group can be split into three broad areas: the study of the costs and benefits of individual movement strategies, including their role in collective decision making; the reconstruction of movement using population genetics, including the role of natural selection in allowing colonists to adapt to new environments; and the spatial ecology of species interactions, including disease dynamics. My research often involves the use mathematical and statistical modelling to make inferences from large ecological and genetic datasets, but we also have a dedicated laboratory to study fish shoaling behaviour and a number of field projects scattered around the world.

Dr Helen Leggett  
University Lecturer and Stanley Elmore Research Fellow, Sidney Sussex College

Why do some parasite species such as Bacillus cereus cause mild nausea and diarrhoea for 24-48 hours when others such as B.anthrasis (Anthrax) kill 90-100% of infected people within 48 hours? Understanding why parasites evolve to be harmful would be an important step in our fight to control disease. Key to understanding the harm parasites cause their hosts is understanding how parasites deal with competition from other parasites within hosts, and optimise their transmission between hosts. And it’s not just other parasites that the parasites have to compete with: hosts evolve resistance, leading to a host-parasite arms-race.

My research tackles this using a powerful system of worms infected with bacteria, where the infection process is natural and I can study evolution in real time due to their short lifespans. I love this work because it may help our fight against diseases. Antibiotics are our main way of treating infection, but because of their widespread use, parasites are becoming resistant and so the drugs are less effective. The long-term aim of my research is to establish better ways of predicting and therefore preventing parasites becoming more harmful.
Department of Zoology Art Trail

Led by Paula McPhee

10.30-11.30

The works of art in the Department of Zoology span the past 150 years, and include sketches, drawings, paintings, etchings, prints, photographs and sculpture by well-known artists (Jacob Epstein, Japanese printmakers Koson and Ito Sozan); zoologists who used their artistic skills to illustrate their research (Hugh Cott, Martin Wells, Thomas Alan Stephenson, Quentin Bone); as well as family, friends and colleagues of members of the Department (Dafila Scott, Priscilla Barrett, Sam Laughlin). The Art Trail illustrates both the history of the Department and the research work carried out here in the past, and the present.

Explore the history of the Department through the portraits and works of art on display in the Balfour Library and other parts of the department.

‘Giant G’ 1949
Graphite and watercolour cartoon by Stephen Bone

Museum Stores

10.30-11.25, repeated 11.30-12.25

Behind the scenes tours of the newly refurbished Museum of Zoology basement stores, with Dr Jason Head, Curator of Palaeontology.
Rare Books Tours  
*Led by Jane Acred*  
11.30-12.00

The Balfour & Newton Libraries have over 8,500 books, spanning the 15th to the 20th centuries, within their special collections. Many of these books belonged to Alfred Newton, the first Professor of Zoology in Cambridge. Newton was an ornithologist but his library contains books on a wide range of scientific subjects. Other notable collections are those that belonged to Hugh Strickland and Robert MacAndrew chiefly containing books on ornithology and conchology respectively. The library’s collections include many varied and interesting items ranging from general zoological works to books on individual classes of animal as well as accounts of voyages of discovery to every part of the world.

The tour begins with a brief history of the library followed by an opportunity to view a small selection of some of the remarkable items from the collections. Books on display will include beautifully illustrated volumes by John Gould and August Rosel von Rosenhof along with works by Darwin and Linnaeus. There will also be an album of carte de visite photographs which Newton compiled, some of which are accompanied by an example of the subject’s signature cut from letters they wrote to Newton.
‘Meerkats and Molerats: cooperating to survive’

14.00-15.00 Main Lecture Theatre

Lecture by Prof Tim Clutton-Brock FRS
Emeritus Prince Philip Professor of Zoology and Director of the Kalahari Meerkat Project

What is this beast?
15.00-16.15 Elementary Laboratory

This is a fun quiz, based on the Animal Identification Test that – back in the last century - used to be part of the Part II Zoology Examinations. There will be 18 specimens, including vertebrates, insects and other invertebrates, set out for you in the Elementary Lab.

Test your wits and identification skills by trying to work out what these animals are! There will be prizes in three categories:

• Zoology Graduates
• Other Adults
• 18 or under

At 15:45, three members of the Museum Curators Team will briefly reveal the identity of each specimen.

Dr William Foster Curator of Insects (1976 – 2016)
Dr Jason Head Curator of Palaeontology
Dr Richard Preece Curator of Malacology

Head of Department, Dr Howard Baylis, will present the prizes
**Afternoon Tea**

*16.15-17.30 in the Part II Suite*

At the end of a busy day, enjoy a cup of tea and a sandwich in the Part II Common Room with other alumni and friends.

Listen to a short talk by Dr Howard Baylis, current Head of Department about events in Zoology over the past year, and year to come.

Hear about the first Tropical Field Course (held in Panama in August 2018) from course leader Professor Chris Jiggins. Based in the Soberania National Park it is a fantastic opportunity for our students to be exposed to the great diversity of international research that is being conducted at the Smithsonian Tropical Research Institute, as well as learning about the conservation challenges in the tropics. We are still looking for further support to ensure long-term continuity for this field course, and to ensure that all students can attend irrespective of their background.