The citations for the following awards were read at the Scientific Awards Presentation Ceremony on 16 June 2015

ZSL Prince Philip Award and Marsh Prize
Is awarded to an A-Level or Higher student for the best project on some aspect of animal biology. This year’s winner is Jamie Weir, of Larbert High School, for his project ‘The ground beetle fauna of Glen Finglas, Stirlingshire, and factors affecting species distribution and abundance’. In this superb study Jamie recorded the distribution of Coleoptera species in different ecological niches in order to investigate the environmental factors that influence habitat preferences. Jamie installed pitfall traps in five study sites: heathland, grassland, oak woodland, birch woodland and an area adjacent to a stream. Measurements of soil pH, moisture and temperature were also taken. Jamie demonstrated a high level of commitment to the project and undertook significant background research. He also has a real talent for identifying beetles! In addition to extensive data collection, Jamie provided an impressive critical evaluation of the project and identified priorities for future research. We are delighted to award this prize to Jamie, who receives a cheque for £600 generously sponsored by the Marsh Christian Trust, and Larbert High School is presented with a medal.

ZSL Charles Darwin Award and Marsh Prize
Is awarded for the best zoological project by an undergraduate student attending university in the UK. This year’s winner is Benjamin Hopkins, University of Oxford, for his project ‘The role of the accessory gland secondary cells in mediating sperm competition in Drosophila’. In this exceptional study, Benjamin used a range of cutting-edge molecular techniques to unravel the function of the accessory gland secondary cells in reproduction, and he was able to show how these cells affect sperm competitiveness and female fecundity. The research was technically challenging, and Benjamin’s interpretation of the results was sophisticated and insightful. The
project revealed Benjamin’s impressive breadth of knowledge about the molecular biology of male Drosophila seminal-fluid proteins and he has a very good understanding of the evolutionary implications of the findings, particularly in the context of sexual-selection theory. For this outstanding work, we are delighted to present Benjamin with a cheque for £800, kindly sponsored by the Marsh Christian Trust.

**ZSL Thomas Henry Huxley Award and Marsh Prize**

Is presented for the best zoological doctoral thesis. This year’s winner is Ben Ashby, University of Oxford. Ben’s thesis brings together novel information on the role of genetic interactions and contact between hosts and parasites in a co-evolutionary context. Ben explores the diverse range of consequences of these roles, including the evolution of sex, genetic diversity and mating behaviour. The thesis is entirely theoretical but it is comprehensively informed throughout by biological questions and scenarios. Indeed, a particular strength of this work is that Ben’s models are consistent with a variety of empirical data, and this is of crucial importance to evolutionary biology. The thesis is beautifully presented and an absolute pleasure to read. Four of the seven chapters are already published in excellent journals and there is no doubt that this study will positively impact the evolutionary-biology community. We are delighted to present Ben with a cheque for £1000, kindly sponsored by the Marsh Christian Trust.

**ZSL Scientific Medal**

Is awarded to scientists with no more than 15 years postdoctoral experience for distinguished work in zoology. This year we are awarding three medals.

**Andy Gardner, University of St Andrews**

Quite simply, Andy is one of the most talented and breathtakingly original theoreticians working on the evolution of animal behaviour. From his early research, which cleverly showed how spite could evolve, to more recent work which explores how social evolution influences genomes, Andy is far, far ahead of many of his contemporaries and is amongst the very best of any age. Andy’s productivity is striking, given that he received his PhD in 2005, and many who publish so much do so at the expense of quality or depth. Not Andy – he has published landmark papers addressing a range of issues, including social evolution, genetic systems of sexual reproduction, the evolution of mating systems, and empirical studies on bacteria and malaria. These have been profoundly influential – he has 18 papers with more than 100 citations, including one of the most cited papers ever published by the *Journal of Evolutionary Biology*, which has over 650 citations. His outlook is broad and integrative (he even has a paper on ‘Cosmological natural selection and the purpose of the universe!’), and his enthusiasm and vast range of interests contribute to his
influence. There is no doubt that Andy is a major originator of ideas. We are thrilled to present him with the Society’s Scientific Medal.

Patrik Nosil, University of Sheffield
Patrik is an evolutionary geneticist who researches the causes and mechanisms of speciation. In his relatively short career Patrik has developed much of the current understanding of how ‘genomic islands’ of differentiation caused by adaptation arise. Much of Patrik's research focuses on the ecological speciation of walking-stick insects, *Timema* sp., a genus that contains many pairs of populations, races and species at various stages of reproductive isolation. He also conducts larger-scale studies of speciation that address classic issues, such as patterns and modes of diversification. Patrik’s publication record is astonishing – including 80 very highly cited papers in the leading journals in his discipline. Patrick is remarkable because (1) he is obsessed with speciation; (2) he deeply understands the importance of natural history, ecology and evolution in understanding speciation; (3) he has moved from observational to field-experimental to genetic to genomic studies; (4) he can turn his ideas into data-driven papers with no apparent effort; and (5) he has yet to be intellectually stumped by complexity. It is a pleasure to present him with the Scientific Medal.

Tommaso Pizzari, University of Oxford
Tom is an exceptional scholar who undertakes highly original and influential research on the evolutionary ecology of sexual behaviour. Much of Tom’s work focuses on resolving different aspects of sexual selection and intersexual coevolution, using the red junglefowl, *Gallus gallus*, and, more recently, fruit flies, as model species. Employing a combination of experimental work, and physiological and molecular tools, Tom has made significant contributions to the study of sexual reproduction at both ecological and evolutionary scales, addressing a wide range of inter-related challenges, such as the social, genetic and ecological factors affecting sexual conflict, sexual selection theory, sperm competition and cryptic female choice. Although Tom’s work has largely focused on basic scientific questions, he has increasingly considered the implications of social and reproductive mechanisms for the welfare and management of captive populations, and he was recently awarded a large BBSRC research grant to collaborate with the poultry industry. Tom is a sophisticated, creative and critical thinker, and his work has significant influence in the field. We are delighted to present Tom with the Scientific Medal.

ZSL Silver Medal
Is awarded for contributions to the understanding and appreciation of zoology. This year’s award is presented to Darren Mann, Head of Life Collections at Oxford University Museum of Natural History. In addition to his curatorial responsibilities at the Museum, and his research interests (l
should mention here that he is the UK authority on dung beetle systematics and ecology), Darren has a remarkable ability to engage with people at all levels. From visiting primary school groups and undergraduate students, to policy makers and major university donors, everyone leaves the Museum enthused and wanting to know more. Darren is also enormously committed to networking with community and volunteer-led groups, from local Wildlife Trusts to national specialist groups. He is extremely active in 'Bug Club', the junior section of the Amateur Entomological Society, where Darren runs children’s events, hosts ‘symposium’ days and takes groups of youngsters on insect-collecting trips. Inspired by Darren’s contagious passion for entomology, many children have vowed to become entomologists, and one young Bug Club member has even written a careers guide to entomology for children! For his impressive level of immersion in, and contribution to, entomology in the UK, we are thrilled to present Darren with the Silver Medal.

ZSL Frink Award
Is the Society’s highest award for zoologists, and this year we are delighted to present it to Sir Pat Bateson FRS, Emeritus Professor of Ethology, University of Cambridge, for his substantial and original contributions to the advancement of the science. Throughout his career, Pat has had an enormous impact on the field of animal behaviour. He has worked extensively on the relationship between physiology and behaviour, the neural mechanisms behind imprinting, and how behaviour and development affect evolution. Pat also developed the concept of optimal outbreeding, generating an important area of research that has been exploited by theoreticians as well as empiricists. Pat has written extensively about the role of play in developing novel forms of behaviour, the ethics of using animals in research, animal welfare, and management issues relating to deer hunting and badger culling. Pat was elected a Fellow of the Royal Society in 1983, and was its Biological Secretary and Vice-President from 1998 to 2003. I would like to add that the awards committee at ZSL has spent the last 10 years waiting to present this award to Pat, but he was ineligible as he served as ZSL’s President from 2004 to 2014. We are enormously grateful for your many important contributions to the Society, especially for your guidance and your tremendous support. We are delighted to present Pat with the ZSL Frink Award.

Stamford Raffles Award
Is presented for distinguished contributions to zoology by amateur zoologists or for activities outside normal professional undertakings. This year’s award is presented to Elise Andrew, founder of I Fucking Love Science (or IFLScience, as we are in polite company!). Elise is an extraordinary science communicator, and the IFLScience blog and Facebook site are unquestionably among the most influential popular science outlets. Although Elise writes about
all science, much of her content concerns zoology, and I am pleased to see that she frequently
references papers published in ZSL's own *Journal of Zoology*. IFLScience was initially something
Elise did in her spare time but its popularity means that it is now a full-time venture. The
Facebook page, created in March 2012, had over 1000 followers after the first day, by October of
that year it had over 1 million followers, and it currently has over 20 million followers.
Furthermore, the site generates a huge amount of user discussion, often putting IFLScience at
the top of Facebook's engagement statistics. Science professionals enjoy her content as well,
and Elise is often invited to museums, science festivals, conferences and universities around the
world. By making science digestible Elise challenges the notion that science is 'hard' or 'boring'
and for this she really is an outreach champion! We are thrilled to present her with this award.

**ZSL Marsh Award for Conservation Biology**

Is presented for contributions of fundamental science, and its application to the conservation of
animal species and habitats. This year’s winner is Ben Collen, University College London. Ben is
establishing himself as a pre-eminent scientist in the field of global conservation biology. His
impressive publications list is testament to the influential nature of his research, both scientifically
and in policy terms. Ben led the work that resulted in the compilation of data that underlies the
WWF Living Planet Index, which has recently been used to show that over 50% of global
vertebrate populations have been lost since 1970. The results are based not only on a very
comprehensive data set, but also on the sound conceptual and analytical bases that Ben
designed and delivered for 8 years while he was at ZSL. Ben has developed new approaches to
designing and using biodiversity indicators, and these are being operationalised with numerous
collaborators worldwide. Ben collaborates on a field study that is monitoring penguins in
Antarctica, and is working to raise funding for other similar field studies. He has an exceptionally
long and strong list of publications, including several papers in *Nature* and *Science*. However,
what is truly exceptional is the impact of Ben's work. He continually produces technically and
conceptually excellent research with profound use for policy and society. We are delighted to
present Ben with a cheque for £1000 in partnership with the Marsh Christian Trust.

**ZSL Marsh Award for Marine and Freshwater Conservation**

Is presented for contributions of fundamental science and its application to conservation in
marine and/or freshwater ecosystems. This year’s winner is ZSL’s Heather Koldewey. Heather
started working for ZSL in 1995, initially as a research scientist, then as curator of the ZSL
London Zoo Aquarium, and she currently heads ZSL’s Global Conservation Programmes.
Heather’s work is truly interdisciplinary, and her research sits at the interface between
communities and environment. She has made a real impact in many areas, including important
reef and open-ocean work in Chagos; the conservation of threatened species, as co-founder of
Project Seahorse; and ecosystem management, particularly mangroves. Heather was instrumental in making the case for the creation of the Marine Protected Area in Chagos, and she led ZSL’s involvement in a collaboration that resulted in the UK government’s decision to establish the world’s largest marine reserve around the Pitcairn Islands in March this year. Her activities have spread far and wide in recent years, and it is hard to keep up. I often come across good initiatives and when I dig into who is behind them, Heather pops up among the leading players. Heather is everything that you would want in a recipient of the Marsh Award for Marine Conservation and I cannot think of a more deserving candidate. We are delighted to present Heather with a cheque for £1000 in partnership with the Marsh Christian Trust.

**ZSL Thomson Reuters Award for Communicating Zoology**

Is awarded for a communication of a zoological nature that has an outstanding impact on a general audience. This year’s award is presented to Brett Westwood and Stephen Moss for the BBC Radio 4 programme and book *Tweet of the Day*. As any of you who are roused by tweets at 5.58 on weekday mornings will know, each *Tweet of the Day* lasts a minute and a half, and features the song of a particular bird followed by captivating insights into the behaviour and habits of that species. The enthusiasm of the authors is central to the charm and delight of the episodes. In the book version of the programme, Brett and Stephen take readers through the year month by month, describing the lives of Britain’s favourite birds. These memorable and often amusing accounts include personal anecdotes from Brett and Stephen, which cannot fail to leave listeners and readers uplifted and joyful. We are sorry that Brett and Stephen cannot join us tonight; they win a cheque for £1000, kindly sponsored by Thomson Reuters.

**ZSL Award for Outstanding Contributions to the Zoo Community**

Is presented to Dr Ulrich Schürer. Ulrich has made significant contributions to the international zoo community. His career began with an internship as a keeper at Wuppertal Zoo in 1966; he received his doctorate in 1978 and was appointed Managing Director of the Wuppertal Zoo in 1991. Ulrich was a founder representative of the European Zoo Union in 1988, and served on the Council of the European Association of Zoos and Aquaria (EAZA), where he played an active role, particularly in the development of the European Zoo Directive. Ulrich chaired the EAZA legislative committee for many years, and this important work has been fundamental in establishing the high standards required of zoos and aquariums in all EU countries. He has served on the ISIS Board of Trustees and was chair of the German Union of Directors of Zoological Gardens. Ulrich has used his extensive knowledge of animals and zoo biology to develop and promote the highest standards of husbandry, animal welfare and exhibit design. He has devoted himself to research projects, published many papers, and generously shared his knowledge and experience with the international zoo community. In 2009 he received the EAZA
Award in recognition of his far-reaching contributions. We are delighted to present Ulrich with this award.

**ZSL Staff Medal**

Is presented to Robin Fitzgerald. Robin joined ZSL in 1992 as an electrician, became electrical foreman in 1997, was appointed construction projects manager in 2003, and became Senior Project Manager in 2008. Robin has managed all major construction projects across ZSL Whipsnade Zoo and ZSL London Zoo since 2006, beginning with Butterfly Paradise, through to Gorilla Kingdom, Penguin Beach and Tiger Territory. The total capital spend on these projects must well exceed £20 million. Many projects have achieved international recognition, ranging from design awards for the Terrace Restaurant to sustainability awards for Gorilla Kingdom.

Robin consistently manages very tight budgets and timelines, and balances the needs of all stakeholders. He has used his ingenuity to develop advances in animal welfare by translating keepers’ requests into practical husbandry solutions, and he has advanced our sustainability programme by ensuring that all projects have green initiatives and exceed environmental building guidelines. Robin has great humility, a much needed sense of humour and strongly believes he is here to support the work of others. He is admired and respected by staff across the organisation.

Robin embodies the values we set and work within at ZSL, and we are delighted to present him with the Society’s Staff Medal.

*We thank our sponsors, Brian Marsh of the Marsh Christian Trust, and Thomson Reuters, for their generous support of the Society’s awards programme*