

# **ZSL Scientific Medal Winners**

**2013 lain Couzin,** Princeton University, for research on the collective behaviour and structural dynamics of animal groups

**David Hosken,** University of Exeter, for contributions to our understanding of sperm competition and evolution

**Judith Mank**, University College London, for research on evolutionary genetics, gene function and gene expression

#### 2012 Jane Reid

University of Aberdeen, for contributions to evolutionary ecology and conservation biology

#### **Jason Wolf**

University of Bath, contributions to our understanding of the evolutionary genetics

#### 2011 Tom Little

University of Edinburgh, for contributions to our understanding of the evolution of host-parasite interactions and the fitness effects of immune responses.

### Jon Slate

University of Sheffield, for contributions to our understanding of the use of genetic markers and linkage mapping to study natural populations.

#### 2010 Edward Feil

University of Bath, for the development of new analytical techniques that have led to new insights into bacterial molecular evolution and epidemiology

### Rebecca Kilner

University of Cambridge, for outstanding contributions to behavioural ecology and the analysis of evolutionary processes

# **Andrew Rambaut**

University of Edinburgh, for the development of influential computational approaches for the analysis of molecular evolution

# 2009 Greg Hurst

University of Liverpool, for research on the evolution, ecology and genetics of intracellular bacteria that target host development and reproduction.

#### **Oliver Pybus**

University of Oxford, for the development and use of formal techniques that compare gene sequence data from contemporary populations to establish population genetic and population history.

# 2008 Simon Hay

University of Oxford, for research on spatial and temporal aspects of mosquito-borne disease epidemiology to support the more rational implementation of disease control and intervention options.

#### Loeske Kruuk

University of Edinburgh, for improving our understanding of the role of genes and environment in shaping the biological diversity and evolutionary dynamics.

# 2007 Tim Coulson

Imperial College London, for his major contributions to the field of quantitative population biology and the application of demographic analyses to ecological and evolutionary questions.

### Sunetra Gupta

University of Oxford, for her research on strain structure among pathogens, and for contributions to our understanding of the evolution, maintenance and dynamics of parasite population diversity.

# 2006 Angus Buckling

University of Oxford, for his research on the evolutionary ecology of pathogenic microbes and their hosts in order to better understand the causes and consequences of coevolution between bacteria and their parasitic viruses.

#### Matt Keeling

University of Warwick, for his use of mathematical methodologies to analyse a wide range of topics in disease epidemiology and evolution, including childhood infections, Foot and Mouth Disease and host-pathogen evolutionary dynamics.

#### **Stuart West**

University of Edinburgh, for his research on the evolution of social behaviour, such as cooperation and conflict within or between species, relatedness and the allocation of resources to male versus female reproduction.

# 2005 Daniel T. Haydon

for utilising mathematical models to clarify our understanding of population biology and improving our understanding of spatial coupling and disease spread in wild and domesticated animal populations

# **Andy Purvis**

for his contribution to the fields of macroecology, conservation biology and phylogeny estimation, in particular providing us with the methodology needed to understand more about relatedness and its conservation applications.

# 2004 Ian Owens

for his work applying cross-taxonomic comparative methods to help understand more clearly the selective forces and phylogenetic constraints that have shaped avian biology

# Ben Sheldon

in recognition of his use of bird models to explore the evolutionary biology of reproductive decision-making, the application of quantitative genetics to ecology, and the integration of life-history analysis with sexual selection

#### 2003 Mike Bruford

for his role in developing and exploiting emerging molecular genetic techniques to reveal the structure of natural populations, and for applying his results to conservation biology

#### **Edward Holmes**

in recognition of his analyses of gene sequences data and phylogenetic analysis to reveal the evolution and population dynamics of disease-causing viruses

# 2002 Per Erik Ahlberg

in recognition of his work in palaeontology

#### Laurence D. Hurst

in recognition of his work in the evolution and structure of genetic systems

#### 2001 Alan Cooper

in recognition of his work in phylogeography

#### 2000 Austin Burt

in recognition of his research in evolutionary biology

# 1999 Russell Foster

in recognition of his research in vertebrate physiology

#### Tim Guilford

in recognition for his research in animal behaviour

#### **Andrew Read**

in recognition of his research in the evolutionary ecology of parasites

#### 1998 Nicholas Dale

in recognition of his research in electro-physiology.

#### **Chris Thomas**

in recognition of his research in population ecology.

# Leigh W. Simmons

in recognition of his research in insect behavioural ecology.

### 1997 Ian L Boyd

for contributions to our understanding of the ecology and physiology of marine mammals.

#### Innes C Cuthill

for contributions to the study of bird behaviour and visual perception.

#### 1996 Peter WH Holland

for highly original contributions to our understanding of molecular evolution, with particular reference to duplicated gene families in Chordata.

# David G Reid

for his elegant studies of the taxonomy and phylogentics of littorinid molluscs.

#### William J Sutherland

for his pioneering theoretical and empirical research linking animal behaviour with population distributions, and for applying his work to our understanding of conservation issues.

#### 1995 Adrian VS Hill

for outstanding contribution to knowledge of the mechanisms of genetic susceptibility to parasitic infection, particular malaria.

# John R Speakman

for distinguished contribution to the study of animal energetics.

# 1994 John D Altringham

for distinguished contribution to muscle physiology.

#### **BT Grenfell**

for distinguished contribution to population demography and epidemiology in vertebrates.

# Anne E Magurran

for outstanding work on the maintenance of biological diversity and on the role of predation in the evolution of social behaviour.

# 1993 HCJ Godfray

for contribution to population biology at the interfaces between ecology, evolution and behaviour.

# 1992 Nick H Barton

for contribution to quantitative population genetics.

# 1991 BJ Finlay

for research into the physiological ecology of protozoans and their bacterial symbionts.

#### Anne E Keymer

for broad-ranging work on the ecology, immunology and evolutionary biology of parasites.

# 1990 CP Ellington

for outstanding contribution to the mechanics and physiology of insect flight.

### 1989 JC Smith

for work on early embryonic development.

### 1988 DJ Patterson

for his broad contributions to protozoology, on particular to knowledge of evolution and systematics of the protozoa.

#### **RM Sibly**

for his applications of optimality theory to the study of both animal behaviour and life-history

#### 1987 NB Davies

for work on the behavioural ecology of birds, amphibians and insects.

#### 1986 GA Boxshall

for elegant contributions to the systematics of the copepoda and other crustaceans.

#### **PH Harvey**

for work in evolutionary biology, ranging from population genetics to evolution.

#### **JMV Rayner**

for innovations in the study of the mechanics of animal flight.

#### 1985 JP Brockes

for work on development of the nervous system.

#### **RC Tinsley**

for contribution to the systematics and biology of anuran amphibians and their parasites and the interactions between the two.

#### 1984 JP Croxall

for contributions to knowledge of the ecology, population dynamics and energetics of seabirds in relation to the trophodynamics of the marine ecosystem.

#### IA Johnston

for research on the comparative physiology of teleost muscle.

#### 1983 TH Clutton-Brock

for research into behaviour and ecology of red deer on the island of Rhum.

#### JP Hearn

for work on reproductive and developmental biology of New World primates.

# 1982 RM Anderson

for work on parasite ecology.

### **PJ Butler**

for work on respiratory physiology.

#### J Cooke

for work on amphibian development.

#### 1981 MP Hassell

for his work on population ecology, in particular on arthropod predator-prey systems.

#### JR Krebs

for his work on the behavioural ecology of birds.

# 1980 JM Elliott

for his work on the ecology of benthic steam invertebrates and fishes.

#### 1979 M Burrows

for his work on the anatomy and physiology of insect nervous system.

#### 1978 GA Lincoln

for his work on the influence of environment on reproductive performance in birds and mammals.

# 1977 DWT Crompton

for his work on the acanthocephala and on other parasitic worms in relation to the ecology and physiology of the host environment.

### **RL Gardner**

for his work on experimental mammalian embryology.

#### **PA Lawrence**

for his work on developmental pathways in insect development.

#### 1976 PPG Bateson

for his work on ethology and on experimental and developmental psychology and neurology.

# **BK Follet**

for his work on seasonal breeding cycles in higher vertebrates, particularly on photoperiodism in birds.

#### 1975 WD Hamilton

for his work on evolutionary biology.

### **SHP Maddrell**

for his work on secretory mechanisms in insects.

#### 1974 PF Baker

for work on ionic transport across cell membranes.

#### **H Kruuk**

for his work on the behaviour and ecology of gulls and carnivores

# 1973 HC Macgregor

for his work on cell and molecular biology.

# JN Brady

for his work on ecology, physiology and pure and applied entomology.

# 1972 C Patterson

for his work on fossil fishes in a wide field.

### **M** Rudwick

for his work on fossil branchiopods.

# 1971 DL Lee

for his work on parasitology, in particular on helminths and protozoans.

#### PL Miller

for his work in neurophysiology, in particular the nervous control of insect respiration.

# 1970 D Noble

for his work on the physiology of nerve and muscle.

#### J Phillips

for his work on comparative endocrinology.

#### 1969 R Alexander

for his work on the mechanical biophysics and morphology of fish.

#### **RV Short**

for his work on the physiology of reproduction, particular in the field of chemical assay of sex hormones.

# **TRE Southwood**

for his work on the ecology of insects.

# 1968 GA Horridge

for his work on the anatomy and physiology of nervous systems of invertebrates.

#### **Martin Wells**

for his work on brain and behaviour in cephalopods.

# 1967 JB Gurdon

for his work on nuclear transplantation.

#### JE Treherne

for his work on insect physiology.

#### L Wolpert

for his work on cell biology and embryology.

### 1966 Anne McLaren

for her work on the physiology of reproduction in mammals.

#### J Miller

for his work on the physiology of the thymus gland.

#### T Shaw

for his work on comparative physiology.

### 1965 EH Ashton

for his work on primate anatomy.

# **BB Boycott**

for his work on cephalopod and vertebrate nervous systems.

#### **RM Laws**

for his work on ecology and physiology of large mammals.

# 1964 J Shaw

for his work in the general field of osmotic and ionic regulation.

# 1963 Leslie Brent

for his work on the field of transplantation immunology.

# **Janet Harker**

for her work on the physiology of the sense of time and the basis of periodic activities in lower animals.

#### **PH Greenwood**

for his work on the biology, taxonomy and palaeontology of fishes.

#### 1962 JWL Beament

for his work on the physical and chemical approaches to biological problems.

#### NA Mitchison

for his work on immunology and tissue transplantation.

# 1961 AJ Cain

for his work on taxonomy.

# **RA Hinde**

for his work on behaviour and territory of birds.