

Curriculum Vitae

Andrew R. Gray, B.Sc., M.A., M.Phil.

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Citizenship: British, England, UK

Current Position:
2001 – Present Curator of Herpetology, The Manchester Museum, University of Manchester.

Positions Held:
2002 – 2003 Visiting Scientist, Department of Zoology, University of Queensland, Australia
1996 – 2001 Curator of the Vivarium, The Manchester Museum, England

Education:
2008 M.A. (Merit) AGMS, Manchester University, England, UK
2004 M.Phil., Zoology, Manchester University, England, UK
2000 B.Sc., Biology, Manchester University, England, UK

Award:
2006 – Present Honorary Scientific Associate, Tissues and Organisms Section, Faculty of Life Sciences, Manchester University.

Principal activities include:

- Actively participating in the conservation of rare and endangered amphibian species in association with the relevant governmental and inter-governmental authorities, and consistent with National and International conventions and protocols.
- Undertaking research relevant to the ecology, behaviour, ontogeny and phylogeny of amphibian species. Participating in collaborative research projects with academic departments and other institutions.
- Teaching and supervising on Zoology and Biology courses for the Faculty of Life Sciences, conducting practicals, tropical field courses, and final year projects for undergraduate students at The University of Manchester.
- The overall management of Manchester Museum's reptile and amphibian specimens, ensuring the total well-being of the collection of live animals entrusted and the development of public exhibits.
- Initiating, developing and actively participating in the interpretive and educational use of the collection, contributing to the development and delivery of learning programmes and particularly those that fulfill the live animal collections' underpinning purposes for education and conservation.

Teaching:

At Manchester University I have taught on a variety of courses in the Faculty of Life Sciences, both in

lecture halls and in the field. I have been instrumental in facilitating new field units in the tropics, specifically initiating new courses on tropical biology and ecology that have been developed in collaboration with the local university in Ecuador. These are conducted in locations that are attractive to students and provide training not possible on former courses. The development of these has contributed to ensuring that FLS at Manchester now has a world class set of field courses that are well attended by students and support the university's 2015 goals. I have also established, developed and now deliver zoological and environmental based primary and secondary teaching programmes at the Manchester Museum. As well as delivering special needs sessions, I often give science talks to local schools from reception to A-level classes. In all cases feedback has been very positive. I have improved my higher education teaching skills through supervising a wide variety of Manchester final year undergraduate student projects in my department, and also through the teaching of undergraduate students from other British academic institutions including The University of Glasgow and The University of Leeds. Finally, developing my international lecturing experience, I regularly give talks at International amphibian conservation seminar's, which appear to be well received.

Research:

My main research interests focus on investigating unusual adaptations and reproductive strategies in neotropical hylid frogs, through combining field studies with captive observations. I have an international reputation in specializing in the ecology and conservation biology of neotropical frogs and I have been heavily involved in the establishment of important international breeding programmes for several highly endangered species. Recent amphibian research is concerned with investigating unusual evolutionary traits and adaptations and I am also working on biophysical properties and temperature regulation of frogs that have skin containing unusual pigments. All the research I conduct is completely non-invasive and aims to provide a better understanding of these wonderful creatures, specifically to aid their conservation.

My specialist knowledge in neotropical herpetology has been strengthened through an extremely wide range of experience working in the field, especially in Amazonian South America, extensively in Central America, and also in tropical Queensland, Australia. To date, I have conducted over 20 research expeditions to some of the remotest areas. I have also gained experience working with the media, directly presenting my subject on television and acting as a main scientific field advisor for several wildlife documentaries, more recently for the BBC series Planet Earth and Life in Cold Blood.

Research collaborators:

Dr. Cathy Walton, Faculty of life Sciences, University of Manchester - Molecular population genetics and biodiversity in Southeast Asia.

Dr. Richard Preziosi, Faculty of Life Sciences, The University of Manchester – Population genetics.

Dr. Mark Dickinson, Photon Science Institute, The University of Manchester – OCT analysis of structural properties and temperature regulation of frog skin containing unusual pigments.

Dr Andrea Fidgett, Nutritionist, The Zoological Society of Chester and Chester Zoo – experimental work on dietary pigment supplementation on behaviour and fitness in endangered neotropical frogs.

Professor Allen Pounds, Ecologist, Monteverde, Costa Rica – Investigation into the relationship of global warming/climate change to amphibian declines and extinctions.

Ronald Gagliardo, Curator, Atlanta Botanical Gardens, Atlanta, USA - Main *ex situ* Amphibian conservation collaborator.

Brian Kubicki, Costa Rican Amphibian Research Centre, Costa Rica. – *in situ* conservation partner.