

Dr Paul Barrett

Head of Division, Natural History Museum, London, specialising in dinosaur evolution

Whether 'getting hot and dirty' or 'staring at bones', Paul loves his work as a dinosaur detective.

I hold an Individual Merit Research post at the Natural History Museum, London where I am also Head of Division for our Fossil Vertebrates, Anthropology and Micropalaeontology team. I've been working at the museum for 10 years, having joined as a junior researcher in 2003. In addition to my research work, I am also involved in managing the Earth Sciences Department and am the museum's public face for dinosaur-related discoveries. Following my Earth Sciences PhD at Cambridge University, I stayed on at Cambridge in a Research Fellowship and then moved to a fixed-term teaching post in Oxford University (Zoology).



My research has several strands, but is centred on collections- and field-based studies of dinosaur taxonomy, evolution, and palaeobiology, although I also work on other extinct reptile groups such as lizards and turtles. Current projects are concentrating on descriptions of new dinosaur species from Africa and South America, as well as detailed revisions of animals from China, the UK, Australia, and the USA. I began my research career working on dinosaur herbivory, which remains a major interest, though I have also moved on to work on other aspects of dinosaur biology including hearing, locomotion, and respiratory systems. These all require combination of data from living animals and fossils, using CT-scanning and computer-based modelling techniques. The other major strand to my work is macroecological and macroevolutionary, looking at large scale patterns in the distribution of fossil reptiles and the quality of the fossil record, relating these to environmental, climatic, and floristic factors using statistical and geospatial methods.

Days in my lab are quite varied, ranging from getting hot and dirty in the field, working with my students and postdocs, staring at bones in collections or computer screens, to editing journals and giving public lectures or media interviews on dinosaurs. Palaeontology has always been a passion – a truly synthetic subject that demands you combine numerous types of data to tackle a problem. It's exactly like detective work and involves a lot of fun deductive skills – with the proviso that the smoking gun is very cold and the subjects have been dead for many millions of years, which makes it that much more difficult and interesting.

I applied for the IMP as the Natural History Museum regards this as an external benchmark of excellence, equivalent to a personal university Chair, and I felt it was the right time in my career to go for it. Since getting the promotion I've found that my involvement in setting the research agenda at the museum has become much stronger than it was previously.