

Jonathan Tennant

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An exceptional student of Earth Sciences, I achieved a 1st class integrated Masters in Geology at the University of Manchester. Here, I developed a broad knowledge in all aspects of the field, and renewed my interest in palaeontology. Pursuing the PhD route, I realised that this background was not enough for a strong grounding in palaeontology, so decided to undertake an MSc course at Imperial College and the Natural History Museum, London, in Advanced Methods in Taxonomy and Biodiversity. This has given me solid training in a wide range of techniques applicable to palaeontology, significantly enhancing and complimenting my undergraduate degree and ultimately providing a strong foundation for my PhD. Presently, I am in the final stage of completing my PhD, and have established a solid grounding in techniques for quantitative analysis in palaeontology and macroevolution.

EDUCATION

September 2012-Present - **Royal School of Mines, Imperial College London**

Thesis: The Jurassic/Cretaceous boundary: a hidden mass extinction? (NERC funded)

Supervisors: Phil Mannion (ICL), Paul Upchurch (UCL), Mark Sutton (ICL)

Estimated Completion Date: August, 2016.

2010-2011 - **Imperial College London and Natural History Museum, London**

MSc in Advanced Methods in Taxonomy and Biodiversity; Result: **Merit** and Diploma of Imperial College London

Modules: Ordination Techniques, Theoretical and Applied Biodiversity, Phylogenetics, Molecular Systematics, and Bioinformatics. Completed projects included lepidopteran phylogeny, adaptive radiation of ornithopods, molecular systematics of Coleoptera, and geometric morphometrics, and a poster on beetle community ecology.

Dissertation: "A Geometric Morphometric Analysis of Ruminant (Ungulata: Artiodactyla) and Ornithopod (Dinosauria: Ornithischia) Snouts: Comparative and Functional Ecomorphology" (12,500 words); Norman MacLeod, Natural History Museum ([link](#)).

I utilised a variety of advanced geometric morphometric techniques to assess the validity of using snout shape to discriminate between browsing and grazing ruminants, and to see if any patterns could be extrapolated back to their putative extinct analogues - ornithopod dinosaurs - to infer feeding strategies. Part of this was published in PLOS ONE.

2006-2010 - **University of Manchester**

MEarthSci Geology (Hons.); Result: **1st class**

Modules covered a broad spectrum of the Earth Sciences. I also undertook numerous field courses in Spain, Wales, Scotland and England for various lengths of time.

4th year dissertation: "An Osteological Description and Analysis of a Near-Complete Skeleton of *Tenontosaurus tilletti* (Dinosauria: Ornithopoda) from the Cloverly Formation, Montana, USA" (32,000 words); John Nudds, University of Manchester ([link](#)) ([data](#))

Direct analysis and description of an exceptional dinosaur specimen. I taught myself professional drawing skills and how to fully describe the vertebrate skeleton.

3rd year dissertation: "*Geology of the Carboneras Fault Zone, Carboneras, South-East Spain*" (10,000 words)

6 week mapping project in SE Spain. Involved systematically mapping a range of geological structures.

2002-2006 - **Beauchamp College**

3 A-levels: Maths (**B**), Geography (**B**) and Geology (**B**)

2 AS-levels: Chemistry and General Studies

10 GCSEs: 9 A-C grades including Sciences, English and Maths

WORK EXPERIENCE

ScienceOpen Communications Director, 01 Jan, 2016 – present

- Managing all communications channels for a research publishing and networking platform
- Developing and implementing the Communications Strategy
- Direct engagement with researchers and publishers via social media and conferences
- Media engagement and brand awareness and promotion

PLOS Paleo Community Editor, 01 Sept 2015 – 01 Sept, 2016

- Managing of social media presence
- Writing and editing material for PLOS blogs network
- Organising community events and conference attendance

Policy Intern, 14th May 2012 – 28th September 2012, Geological Society of London

- Writing responses to governmental consultations on behalf of the Society
- Aided with website relocation/rebuilding, including the Key Stage 4, Geoscientist and Policy sections
- Contributed to social engagement activities through Twitter, blogging, and website articles
- Contributed to organising numerous events with a wide range of stakeholders

October 2011-May 2012, University of Leicester

Volunteering under the supervision of Prof. Mark Purnell within the Palaeobiology Group, looking at varying aspects of Micropalaeontology and Invertebrate Palaeontology.

2010-2011, Natural History Museum, London

Volunteering under the supervision of Dr. Paul Barrett in the vertebrate palaeontology collections. Projects included extensive cataloguing of all the type specimens in the dinosaur collection.

PEER REVIEWED PUBLICATIONS

Tennant, J. P., Mannion, P. D., Upchurch, P. U. (in review) Sea level regulated tetrapod diversity dynamics across the Jurassic/Cretaceous interval, *Nature Communications*.

Yi, H.-Y., **Tennant, J. P.**, Young, M. T., Challinors, T., Foffa, D., Hudson, J., Dugald, R. and Brusatte, S. (in review) An unusual small-bodied crocodyliform from the Middle Jurassic of Scotland, UK, and potential evidence for an early diversification of advanced neosuchians, *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*

Tennant, J. P., Mannion, P. D., Upchurch, P. U. (in press) Evolutionary relationships and systematics of Atoposauridae (Crocodylomorpha: Neosuchia): implications for the rise of Eusuchia, *Zoological Journal of the Linnean Society*. ([link](#))

Tennant, J. P., Mannion, P. D., Upchurch, P. U. (2016) Environmental drivers of crocodyliform extinction across the Jurassic/Cretaceous transition, *Proceedings of the Royal Society B: Biological Sciences*. ([link](#)) ([IFLS](#), [phys.org](#))

Tennant J. P., Waldner, F., Jacques, D. C., Masuzzo, P., Collister, L. B. and Hartgerink, C. H. J. (2016) The academic, economic and societal impacts of Open Access: an evidence-based review [version 2; referees: 3 approved, 2 approved with reservations]. *F1000Research*, **5**:632, DOI: [10.12688/f1000research.8460.2](https://doi.org/10.12688/f1000research.8460.2).

Tennant, J. P. Mannion, P. D., Upchurch, P. U., Sutton, M. and Price, G. (2016) Biotic and environmental dynamics across the Jurassic/Cretaceous transition: evidence for a protracted period of faunal and ecological turnover, *Biological Reviews*, DOI: 10.1111/brv.12255. ([link](#)) ([European Geosciences Union](#))

Mannion, P. D., Benson, R. B. J., Carrano, M. T., **Tennant, J. P.**, Judd, J. Butler, R. J. (2015) Climate constrains the evolutionary history and biodiversity of crocodylians, *Nature Communications*, **6**, 8438, ([link](#)) ([The Mirror](#), [Forbes](#))

Young, M. T., **Tennant, J. P.**, Brusatte, S. (2015) The first definitive Middle Jurassic atoposaurid (Crocodylomorpha, Neosuchia), and a discussion on the genus *Theriosuchus*, *Zoological Journal of the Linnean Society* ([link](#)) ([Forbes](#))

Tennant, J. P. and Mannion, P. D. (2014) Revision of the Late Jurassic crocodyliform *Alligatorellus*, and evidence for allopatric speciation driving high diversity in western European atoposaurids, *PeerJ*, **2**, e599. ([link](#)) ([National Geographic](#), [European Geosciences Union](#))

Young, M. T., Steel, L., Foffa, D., Price, T., Naish, D., and **Tennant, J. P.** (2014) Marine tethysuchian crocodyliform from the Aptian-Albian (Early Cretaceous) of the Isle of Wight, England. *Biological Journal of the Linnean Society*. **113(3)**, 854-871 ([link](#))

Tennant, J. P. and MacLeod, N. (2014) Snout shape in extant ruminants, *PLOS ONE*, **9(11)**, e112035 ([link](#)) ([Discover Magazine](#))

SCIENCE COMMUNICATION AND OUTREACH ACTIVITIES

- Owner of Palaeontology blog [Green Tea and Velociraptors](#) (November 2011-present)
 - Part of the [European Geoscience Union's blog network](#) (October 2012-present)
- Author of 'Excavate Dinosaurs' book for children (published October 2014) ([Guardian coverage](#))
- Freelance science writer for [Discover Magazine](#) and [EarthTouch](#) news outlets
 - Have had additional works published in The Conversation, PhysOrg, io9, LiveScience, BuzzFeed, PopSci, Nature, Blogs, SciLogs, TWDKY, Digital Science, Geoscientist Magazine, LSE Impact Blog, Ars Technica, and Wiley Exchanges
 - Additional comments published in LA Times, BuzzFeed, Nature News, Scientific American, The BMJ, and Times Higher Education
 - Interviews for [Editage Insights](#) and [Science Disrupt](#).
- Author for Nature's Scitable educational blog network, [Earthbound](#)
- Co-owner and co-author of Palaeontology webcast series, [Palaeocast](#) (August 2012-November 2013) (Winner of [Best Podcast](#) in 2013 Science Seeker awards)
- Member of Imperial College's [Science Communication Forum](#) team (October 2012-present)
- Member of the Geological Society of London Science Committee (Feb 2015 – present)
- Nominated finalist in 2013 Science Seeker awards for blogging activities ([link](#))
- Television appearances for BBC Parliament (Aug, 2012; Feb, 2016), Sky News (Jan, 2015) and London Live (Jan, 2015)

INVITED TALKS AND EVENTS

- Talks for Imperial College Library workshop on using [social media and blogging](#) in science (Jan and May 2013, April and Dec, 2014)
- Selected representative of geological community (by the Geological Society) at the [Voice of the Future](#) event in Parliament (March, 2013; March 2016)
- Invited speaker for panel discussion on [social media for academics](#) at European Geosciences Union AGM, Vienna, April 2013
- Invited speaker for 'Oxford Biotech Roundtable' to discuss [social media for academics](#) (London, June 2013)
- Invited speaker for INNGE on how [blogging can raise your academic profile](#) (London, August 2013)
- Invited speaker at the Cambridge Science Festival (2014) on [The Importance of Palaeontology](#)
- Radio appearance for [The Naked Scientists](#) (April, 2014) to discuss mass extinctions ([link](#))
- Invited to co-lead workshop at the British Science Association's Science Communication Conference (May, 2014) on the [art of popular science writing](#)
- Nature Live talks (x2) at the Natural History Museum, London (January, 2015)
- Invited panellist for the Festival of Science, April 2015. (Theme: Science and Criticism)
- Invited panellist and speaker, [Altmetricon](#), London, September 2015
- Invited speaker, Nature Careers Expo, London September 2015 (Theme: Social media and science)
- Invited speaker, Max Planck Institute (Magdeburg, Germany) (Theme: [Open access and junior researchers](#)) (March, 2016)
- Workshop with UAEM on open science for students ([slides](#)), Berlin, Germany (May, 2016)
- Invited speaker, [ZALF](#) (Muncheberg, Germany) (Theme: [Barriers and opportunities in open science](#)) (June, 2016)

ACADEMIC MEMBERSHIPS

- Elected Fellow of the Geological Society of London (2010-present)
- Member of the Palaeontological Association, Palaeontological Society, the Society of Vertebrate Palaeontology, Society of Systematic Biologists, and the Willi Hennig Society
- Member of Campaign for Science and Engineering and Science is Vital

GRANTS AWARDED

- £150 towards 3rd year undergraduate field mapping in Spain
- NERC scholarship (ca. £7500) towards my second Master's degree

- £1344 from the Imperial College Biology Department towards Masters tuition fees
- £1500 from the Palaeontological Society for developing the *Palaeocast* project
- £2000 from the Palaeontological Association for developing the *Palaeocast* project
- Full NERC studentship for PhD at Imperial College (2012-2015)
- \$600 Jackson School of Geoscience Travel Grant for SVP 2013
- £200 award from Palaeontological Association for Society of Vertebrate Palaeontology attendance
- £750 Palaeontological Association travel grant for IPC4 (August, 2014)
- \$500 early career travel award from [PLOS](#) towards SVP attendance (October, 2015)

CONFERENCES ATTENDED

- Progressive Palaeontology, 2010 – 2016 (talks and poster presentations)
- Young Systematists Forum, 2010 – 2012, Natural History Museum, London (poster presentations)
- Co-ordinated [panel session and workshop](#) in Science Policy section for SpotOn London (Oct, 2012)
- Co-ordinated [panel session](#) in Outreach section for SpotOn London (Nov, 2013)
- Society of Vertebrate Palaeontology, Los Angeles (Oct-Nov, 2013); Berlin (Oct-Nov, 2014); Dallas (Oct, 2015)
- International Palaeontology Congress 4, Mendoza, Argentina, (Sept-Oct, 2014)
- OpenCon, Washington DC (Nov, 2014) and Brussels (Nov, 2015)
 - Organised satellite event in Berlin following OpenCon 2015
- SciFoo camp, invited attendee (June, 2014) (invited but did not attend 2015)

PUBLISHED ABSTRACTS

Tennant, J. P., Mannion, P. D., Upchurch, P. (2016) A hidden extinction in tetrapods at the Jurassic/Cretaceous boundary?, *Progressive Palaeontology Abstracts Booklet*, 26A ([link](#)) ([slides](#))

Tennant, J. P. (2015) Environmental drivers of crocodyliform extinction and diversity, *Progressive Palaeontology Abstract Booklet*, 22A ([link](#))

Tennant, J. P. and Mannion, P. D. (2014) Evolutionary relationships of atroposaurid crocodylomorphs, and evidence for allopatric speciation driving their high diversity in the Late Jurassic of western Europe, *Society of Vertebrate Palaeontology Abstracts Booklet*, 239A ([link](#)) ([published online](#))

Mannion, P., Judd, J., Butler, R., Benson, R., Carrano, M., **Tennant, J. P.**, Upchurch, P. and Pol, D. (2014) Climate drives spatiotemporal patterns in crocodylomorph diversity, *Society of Vertebrate Paleontology Abstract Booklet*, 177A ([link](#))

Tennant, J. P. and Mannion, P. D. (2014) Evolutionary relationships of atroposaurid crocodylomorphs, and evidence for allopatric speciation driving their high diversity in the Late Jurassic of western Europe, *International Palaeontology Congress Abstracts Booklet*, 820A ([link](#))

Tennant, J. P. and MacLeod, N. (2013) Comparative ecomorphology of ornithopod and ruminant snouts – a geometric morphometric approach, *Society of Vertebrate Paleontology*, 224A ([link](#)) ([poster](#))

Tennant, J. P. and MacLeod, N. (2013) Getting geometric with ruminant rostra, *Progressive Palaeontology Abstract Booklet*, 18A ([link](#)) ([presentation](#))

Tennant, J. P. and MacLeod, N. (2011) A Geometric Morphometric Analysis of Ruminant (Ungulata: Artiodactyla) and Ornithopod (Dinosauria: Ornithischia) Snouts: Comparative and Functional Ecomorphology, *Young Systematists Forum Abstract Booklet*, 21A ([link](#)) ([poster](#))

OTHER PUBLISHED ACADEMIC PAPERS

Tennant, J. P. and MacLeod, N. (2013) Geometric morphometric analysis of snout shape in extant ruminants (Ungulata, Artiodactyla), *PeerJ PrePrints*, 1:e176v1, ([PrePrint](#))

Tennant, J. P. et al. (2014) Open letter to the American Association for the Advancement of Science, [The Winnower](#), ([The Conversation](#), [New Statesman](#), [The Scientist](#), [Times Higher Education](#))

McKiernan, E. C. *et al.* (2014) Open letter to the Society for Neuroscience, [The Winnower](#)

McKiernan, E. C. and **Tennant, J. P.** (2014) AAAS misses opportunity to advance open access, [The Winnower](#)

Tennant, J. P. (2016) Fossil focus: Mesozoic crocodyliforms. *Palaeontology Online*, 6. ([link](#))

ADDITIONAL SKILLS AND EXPERIENCE

- Graduate Teaching Assistant at the School of Earth Science and Engineering for first and second year modules (October 2012-present), and Dorset Field course (March 2013)

- Special instruction in PAUP, PAST, and R in the context of cladistic and macroevolutionary analysis, and Mathematica for geometric morphometrics
- Excellent knowledge of most areas of IT, with the ability to use all Microsoft Office programs, Adobe Illustrator, Petrel, ImageTool, ImageJ, Image-Pro Plus, PCA, the tps software series, and the capability to adapt to new software with ease
- Have been instructed in most current analytical equipment relevant to Earth Sciences, with special practical instruction in the use of the Scanning Electron Microscope and Camera Lucida
- Student representative (2008-2010), University of Manchester
- Student mentor for younger undergraduates (2008-2010)
- [Community Specialist for F1000](#); Member of the London ScienceGrrl Network; [ImpactStory Advisor \(Advisor of the Month, June 2014\)](#), Figshare advisor
- Frequent guest contributor to the [United Kingdom Amateur Fossil Hunting](#) site and Trilobite Times
- Contributor to [Palaeocritti](#) website (2011-2012)

ADDITIONAL REFEREES

Dr. Philip Mannion

Leverhulme Early Career Fellow, PhD supervisor

Address: Department of Earth Science and Engineering, Imperial College London, London, SW6 2AZ

E-mail: philipdmannion@gmail.com

Prof. Paul Upchurch

Professor of Palaeobiology, PhD supervisor

Address: Department of Earth Sciences, University College London, Gower Street, London, WC1E 6BT

E-mail: p.upchurch@ucl.ac.uk

Dr. John Nudds

Senior lecturer in Palaeontology, Masters supervisor

Address: Williamson Building, University of Manchester, Oxford Road, Manchester, M13 9PL

E-mail: john.nudds@manchester.ac.uk

Prof. Norman MacLeod

Keeper of Palaeontology, Masters supervisor

Address: Palaeontology Department, Natural History Museum, Cromwell Road, London, SW7 5BD

E-mail: n.macleod@nhm.ac.uk

Nic Bilham

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