

Thomas Guillerme

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ORCID: [0000-0003-4325-1275](https://orcid.org/0000-0003-4325-1275) — ResearcherID: [G-9833-2014](https://www.researcherid.com/G-9833-2014)

RESEARCH INTERESTS

I am interested in macroevolutionary biology; the stories behind the history of Life and the methodologies with which it is investigated. I am particularly interested in ways of combining classical methods such as descriptive palaeontology with modern bioinformatic tools such as phylogenomics and mathematical modelling.

EDUCATION

2012 - Present:	PhD in Zoology, Trinity College Dublin (viva due 22/10/2015) <i>Macroevolution with living and fossil species</i>
2010 - 2012:	MSc in Palaeontology (honours), Université Montpellier II 2 nd year project: <i>Molecular clocks and evolutionary rates among primates: a palaeontological and genomic approach.</i> 1 st year project: <i>Southern France Upper Cretaceous Theropod teeth variability.</i>
2007 - 2010:	BSc in Biology, Université Montpellier II

PUBLICATIONS

Peer reviewed

2016: **Guillerme T.** and Cooper, N. Effects of missing data on topological inference using a Total Evidence approach. *Molecular Phylogenetics and Evolution* 94:146158, DOI: [10.1016/j.ympev.2015.08.023](https://doi.org/10.1016/j.ympev.2015.08.023)

2015: **Guillerme T.** and Cooper, N. Morphological data are lacking for living mammals. *bioRxiv*, DOI: [10.1101/022970](https://doi.org/10.1101/022970)

Note: This paper is ready an invited submission for a special issue at **Biology Letters**. The deadline for submission to this issue has been extended until December 2015.

2014: Healy, K., **Guillerme T.**, Finlay, S., Kane, A., Kelly, S.B.A., McClean, D., Kelly, D.J., Donohue, I., Jackson, A.L. and Cooper, N.
Ecology and mode-of-life explain lifespan variation in birds and mammals.
Proceedings of the Royal Society B, 281(1784). DOI: [10.1098/rspb.2014.0298](https://doi.org/10.1098/rspb.2014.0298)

Personal Contributions: writing the code and running the analysis. Developed R package: `mulTree` – github.com/TGuillerme/mulTree.

In prep.

Guillerme T. and Cooper, N. Mammalian morphological diversity does not increase in response to the Cretaceous-Paleogene mass extinction and the extinction of the (non-avian) dinosaurs.

Note: A preprint is available [here](https://goo.gl/MiaRaO) (goo.gl/MiaRaO).

AWARDS AND GRANTS

- 2014: BES Photo Competition Student Price (Ecology and Society)
 2012: Trinity Postgraduate Research Studentship (€46800)

COMPUTER SKILLS

- Coding: **R***, **Bash***, HTML, \LaTeX , git
 Phylogenetics: PAUP, MrBayes, **BEAST***, RAxML, PhyloBayes, CoEvol
 MACSE, MAFFT, SEAvew, Tracer, Mesquite, R{ape}
 R{geiger}, R{diversitree}, R{MCMCglmm}, R{caper}, ...
 Morphometrics: TPS, R{geomorph}, R{MASS}
 Graphics: Adobe Illustrator, Adobe Photoshop, Gimp, Inkscape

* Skills taught at workshops (see below)

Developed software:

- R{mulTree}: Performs MCMCglmm on multiple phylogenetic trees
 GitHub page: github.com/TGuillaume/mulTree

CONFERENCES AND WORKSHOPS

International Conferences

- 2015: *Systematics Association Biennial* - Oxford, UK
 Talk: Total evidence phylogenies, the data issue
 Available here: goo.gl/MVwMTY
 2014: *SVP annual meeting* - Berlin, Germany
 Symposium presentation (**invited talk**): *Putting fossils in trees*
 Talk: Total evidence phylogenies and missing data
 Available here: goo.gl/CBqSVJ
 2014: *BES Macroecology SIG meeting* - University of Nottingham, UK
 Talk: Trees with fossil and living species: the data issue
 Available here: goo.gl/Sdcxon
 2014: *Evolution 2014* - Raleigh NC, USA
 Symposium presentation: *Ernst Mayr Symposium*
 Talk: Total evidence phylogenies: the missing data issue
 Available here: goo.gl/oPfhZE
 2014: *Challenges in Macroecology: Scaling the Time Barrier* - Natural History Museum
 London, UK
 Talk: Trees with fossil and living species: the missing data issue
 Available here: goo.gl/c1RBER
 2013: *European Society for Evolutionary Biology Congress* - Lisbon, Portugal
 Poster: Combining fossils and molecular phylogenies
 Available here: goo.gl/3HcRGH
 2013: *11th International Mammalogical Congress* - Queen's University, Belfast, UK
 Poster: Combining fossils and molecular phylogenies
 Available here: goo.gl/3HcRGH

Workshops

- 2015: OpenData & Reproducibility workshop
Nick Isaac & Emiel van Loon, Charles Darwin House, London, UK
- 2013: Introduction to Trinity Centre for High Performance Computing
Paddy Doyle, Trinity College Dublin, Ireland
- 2013: Spatial Analysis in R Workshop
Barry Rowlingson, University of Sheffield, UK
- 2013: Introduction to Morphometrics Workshop
François Gould, Trinity College Dublin, Ireland
- 2013: IUCN Red List of Ecosystems Workshop
Edmund Barrow, Trinity College Dublin, Ireland

PROFESSIONAL SERVICE

Reviewing: Reviewer for: *the International Journal of Primatology*; *The Royal Society: Interface focus*.

Workshops:

- 2014: Tip-Dating workshop — *helper*
Nicholas Matzke & April Wright, SVP Annual meeting - Berlin
- 2014: Software Carpentry Bootcamp - R and UNIX — *helper*
Devasena Inupakutika & Aur Saraf, University of Nottingham

Academic memberships:

- 2015-present: Member of the Systematic Association
- 2014-present: Member of the Society of Vertebrate Palaeontology
- 2013-present: Member of Society of Systematic Biologists
- 2013-present: British Ecological Society (BES) including Macroecology Special Interest Group

Departmental services: 2013-present: Zoology Postgraduate student social committee chair

TEACHING

Academia

- 2014: MSc students: Timing Evolution
Teacher, Trinity College Dublin - IE
- 2014 : Software Carpentry Bootcamp - R and UNIX
Helper, University of Nottingham - UK
- 2013-14: 2nd year MSc students: Statistics with R
Teaching assistant, Trinity College Dublin - IE
- 2013-14: 4th year undergraduate students: Evolution
Teaching assistant, Trinity College Dublin - IE
- 2012-13: 4th year undergraduate students: Statistics with R
Teaching assistant, Trinity College Dublin - IE
- 2012-13: 1st year undergraduate students: Introduction to Biodiversity Evolution and the Environment
Teaching assistant, Trinity College Dublin - IE

Student supervision

- 2014-2015: Luke Hannon (4th year project) *Orbit size and nocturnality in living and fossil primates*.
- 2013-2014: Maura Judge (4th year project): *Bite force and diet in mammals*.

FIELDWORK AND DATA COLLECTION

- 2013-14: Museum data collection: Smithsonian Institute Natural History Museum (Washington DC), American Museum of Natural History (New York), Museum of Comparative Zoology (Cambridge, MA), Muséum National d'Histoire Naturelle (Paris)
- 2011-12: Excavations in Cruzy, France
Southern France, Continental Cretaceous
- 2011: Excavations in Krasiejów, Poland
Southern Poland, Continental Trias
- 2009-10: Excavations in Espéraza, France - Site fore-person
Southern France, Continental Cretaceous

PUBLIC ENGAGEMENT AND OUTREACH

- Regular contributor to [EcoEvo@TCD](#) blog; rated [best Irish Science and Technology blog \(2014\)](#).
- Complete list available here: goo.gl/MAq9oA
- Featured posts: [How do lego cars evolve?](#); [If you please – draw me a dino...](#); [The more the better?](#).
- [Threesis video](#) (*early stage* thesis project explained in three minutes – winner of the NERD club threesis award 2013).

Outreach Events

- 2015 & 2014 & 2013: Trinity College Dublin Zoology Department, Researcher's night – *participant*
- 2014: 1st Soapbox Science Ireland – *helper*
- 2014: "What can we learn from skeletons", comparative anatomy practical – *Co-organiser*
- 2013: Trinity College Zoology Museum guided tours – *tour guide*
- 2010: Introduction to palaeontological excavations, Musée des Dinosauriens (FR) – *animator*