

Professor Anjali Goswami

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EDUCATION

Ph.D.	University of Chicago	Committee on Evolutionary Biology	August 2005
M.Sc.	University of Chicago	Committee on Evolutionary Biology	June 2003
B.Sc.	University of Michigan	Biology & Geological Sciences - High Honours	August 1998

PROFESSIONAL HISTORY

11/2017-present: Research Leader, Life Sciences, Natural History Museum, London
11/2017-present: Honorary Professor of Palaeobiology, University College London
06/2016-11/2017: (Full) Professor of Palaeobiology, University College London
07/2014 to 11/2017: Scientific Associate, Natural History Museum, London
Joint Appointment in Life Sciences and Earth Sciences
06/2013-06/2016: Reader (Associate Professor) in Palaeobiology, University College London
03/2009-06/2013: Lecturer (Assistant Professor) in Palaeobiology, University College London
Joint Appointment in Department of Genetics, Evolution & Environment and Department of Earth Sciences
07/2007-02/2009: Lecturer in Palaeobiology, University of Cambridge, Department of Earth Sciences
01/2008-02/2009: Junior Research Fellow, King's College, University of Cambridge
01/2007-01/2009: Research Associate, King's College London, Department of Craniofacial Development,
09/2005-06/2007: National Science Foundation (USA) International Research Fellow,
Natural History Museum, London, Department of Palaeontology
11/1998-07/2000: World Wide Fund for Nature and Govt. of India Project Tiger, Intern and Field Researcher,
Bandhavgarh Tiger Reserve, Madhya Pradesh, India

PROFESSIONAL AWARDS

Hind Rattan Award (recognizing the achievements of members of the Indian diaspora), 2020
Zoological Society of London Scientific Medal, 2018
Linnean Society of London Bicentenary Medal, 2016

RECENT MAJOR GRANTS

Grants currently active:

European Research Council Grant, PI, "ADaPTiVE: Analysing diversity with a phenomic approach: Trends in vertebrate evolution", €1,482,818, 2015-2021.
Leverhulme Trust Project Grant. Co-I. "How to tuna fish: Drivers of diversity in Pelagiaria (tunas, mackerels and kin)". PI Zerina Johanson, Co-Is Anjali Goswami, Matt Friedman, Sam Giles, £284,912, 2019-2022.
E.U. Marie Curie Inter-European Actions, Host. From land to water: the role of development in the evolution and diversification of baleen and toothed whales. €212,934, 2020-2022.
Royal Society Daphne Jackson Trust Fellowship, Host. The evolution and development of elephant molar morphology. £53,818. 2021-2023.
Royal Society International Exchange Grant, PI, "The end of an era: Resolving the Cretaceous-Paleogene mass extinction in Northwest Argentina", £11,993, 2018-2021. Co-I Agustin Scanferla.
US National Science Foundation grant, Strategy Committee Member, "An integrated platform for retrieval, visualization, and analysis of 3D morphology from digital biological collections", \$747,777, 2018-2021. PI Murat Maga, Co-Is Doug Boyer and Adam Summers.

Completed major grants:

- E.U. Marie Curie Inter-European Actions, Host. “EVOTOOLS: Evolutionary trends in morphological diversity: New comparative tools for high-dimensional data”, €183,454.80, 2018-2020. PI (Fellow) Julien Clavel
- Leverhulme Trust Research Project Grant, PI, “Untangling the enigmatic origins of placental mammals with fossils and genomics”, £112,219, 2015-2017. Co-I Ziheng Yang.
- Leverhulme Trust Research Project Grant, PI, “Walking the cat back: evolutionary modularity and mechanics of felid locomotion”, £219,910, 2014-2017. Co-I John Hutchinson.
- U.S. National Science Foundation grant, International Collaborator, How development and behaviour interact to change skull form: Insights from the fossil record of whales, \$220,180, 2014-2017. PI Jonathan Geisler..
- Natural Environment Research Council grant, PI, “Modularity and metamorphosis: the effect of complex life history on cranial integration”, £62,046, 2012-2014.
- Leverhulme Trust Research Project Grant, Co-I, “Testing the relationships between latitude and biodiversity in the Cretaceous”, £157,799, 2011-2015. PI Paul Upchurch.
- Natural Environment Research Council grant, Co-I, “Quantifying module- and lineage-specific variation in rates of morphological evolution in the primate skull”, £393,099, 2010-2013. PI Christophe Soligo.
- Leverhulme Trust Research Project Grant, Co-I, “Developmental sequences in basal placental mammals”, £111,044, 2009-2011. PI Robert Asher, Co-I Marcelo Sanchez-Villagra
- Volkswagen Foundation Evolutionary Biology Grant, Host, “A developmentally-focused comparative investigation of patterns and processes in mammalian brain evolution”, €206,579, 2008-2011.
- National Geographic Society Waitt Grant, PI, “High arctic faunal response to rapid climate change in the Palaeogene”, \$9807, 2009-2010. Co-I Jane Francis.
- U.S. National Science Foundation International Research Fellowship, PI, “Ontogenetic and evolutionary shape variation and modularity in the mammalian skull, \$168,347, 2005-07

PROFESSIONAL LEADERSHIP

- International Society of Vertebrate Morphology, Executive Committee, elected, 2019-present
- Linnean Society of London, Trustee, elected, 2019-present; vice-president, 2020-present
- Natural History Museum Harwell Science and Digitisation Centre Planning Board, 2020-present
- Natural History Museum Collections Programme Board, 2019-present
- Society of Vertebrate Paleontology Development Committee, Chair, 2018-present
- London Centre for Ecology and Evolution, Co-director, 2014-present
- Linnean Society of London, Chair, Awards and Nominations Committee, 2019-present
- UCL’s Centre for Life’s Origin and Evolution, Co-director, 2017-present
- Natural History Museum, London, Strategy Challenge Group, 2018-2019
- Society of Vertebrate Paleontology Executive Committee, Member-at-Large, elected position, 2015-2018
- Linnean Society of London, Vice President, 2014-2015
- Society of Vertebrate Paleontology Scientific Program Committee Co-Chair, 2009-2014
- Linnean Society of London, Trustee (Zoology), elected, 2012-2015
- University College London Life Sciences Network Steering Group, 2011-2014

PROFESSIONAL AND ACADEMIC SERVICE

- Natural History Museum Promotions Committee, 2019
- Lead Scientist, Mammal Galleries Enhancement Project, Natural History Museum
- Natural History Museum Collections Programme Existing Site Review Group, 2019-2020
- Zoological Society of London Awards Committee, 2018-present
- Associate Editor, *Evolution*, 2018-present
- Associate Editor, *Integrative and Comparative Biology*, 2018-present
- Associate Editor, *Palaeobiology*, 2015-present
- Editorial Board, *Evolution Letters*, 2016-2020
- Editorial Board, *Biology Letters*, 2015-2020

Member, Peer Review Council, Natural Environment Research Council, 2012-present
Linnean Society of London, Scientific Programmes Committee member, 2013-present
Society of Vertebrate Paleontology Ethics Committee, 2015-2018
Fellowships Coordinator, UCL Department of Genetics, Evolution & Environment, 2015-2017
Society of Vertebrate Paleontology Scientific Program Committee, member, 2007-2015; Media Response Team
and Media Liaison Committee, 2008-2015
Member, Review Panel for UK, EU SYNTHESYS grant programme, 2014
Domain of Life Science Steering Committee member, 2012-2014
Department of Earth Sciences Research Committee member, 2012-2014
Centre for Ecology and Evolution Steering Committee member, 2011-2013
University College London AthenaSWAN Equality Committee, Division of Biosciences, 2014-2016
University College London AthenaSWAN Equality Committee, Department of Earth Sciences, 2015-2017
Previous Associate Editorships: Palaeontology, 2014-2016; Journal of Vertebrate Paleontology, 2011-2015;
PLoS One, 2010-2013

PROFESSIONAL SOCIETY MEMBERSHIPS

Fellow of the Linnean Society of London, 2010-present; European Society for Evolutionary Biology, 2006-present; Palaeontological Association, 2005-present; Society for Integrative and Comparative Biology, 2004-present; International Society of Vertebrate Morphology, 2004-present; Society for the Study of Evolution, 2002-present; Society of Vertebrate Paleontology, 1997-present.

SELECT RECENT INVITED ACADEMIC LECTURES

Keynote and Plenary Lectures

Plenary lecture, Society for the Study of Mammalian Evolution Inaugural Meeting, Boulder, 6/2020 (postponed)
Plenary lecture, Latin American Morphometrics Conference, Chile, 5/2020 (attended virtually)
Keynote lecture, International Geological Congress, New Delhi, 3/2020 (cancelled)
Keynote lecture, Zoological Society of Israel, Jerusalem, 12/2019
Keynote lecture, Evolutionary Transitions in Vertebrate History, Australian Academy of Science, 10/2019
Keynote lecture, Phenotypic Integration and Natural Selection Symposium, International Congress of Vertebrate Morphology, Prague, 7/2019
Plenary lecture, International Paleontological Congress, Paris 7/2018
Keynote lecture, International Biogeography Society annual meeting, Bangalore, 9/2017 (declined)
Keynote lecture, European Association of Vertebrate Paleontology, Munich, 8/2017
Keynote lecture, Brazilian Paleontological Congress, Ribeirão Preto, 7/2017
Keynote lecture, European Society of Mammalogy, Stockholm, 8/2015
Annual Grant Lecture, University College London, 11/2014

Invited Symposia and Workshops

François Jacob Symposium, College de France, Paris, 09/2020
European Molecular Biology Laboratory Symposium: The Organism and its Environment, Heidelberg, 3/2020
University of Chicago Committee on Evolutionary Biology 50th Anniversary Symposium, Chicago, 11/2019
Developmental Plasticity Consortium Meeting, UK National Oceanographic Centre, Southampton, 9/2019
Functional Integration Symposium, Society of Integrative and Comparative Biology, Tampa, Florida, 1/2019
Developmental Bias and the Extended Evolutionary Synthesis Symposium, Santa Fe Institute, 11/2018
Morphometrics, Morphogenesis, and Math Symposium, Harvard University Center for Applied Math, 10/2018
Morphological Disparity Symposium and Workshop, Royal Society of London, 1/2018
Macroevolution and the Vertebrate Fossil Record Symposium, Society of Vertebrate Paleontology and Comparative Anatomy annual meeting, Birmingham, UK, 9/2017
Evo-devo and Vertebrate Macroevolution Symposium, RIKEN, Kobe, Japan, 3/2017 (declined)
Bird Genome 10K Symposium and Workshop, Beijing, 10/2017
Paleo Evo-Devo Symposium, Society of Vertebrate Paleontology annual meeting, Salt Lake City, 10/2016

A Bigger Picture: Organismal Function at the Nexus of Development, Ecology, and Evolution Symposium, Society of Integrative and Comparative Biology, Portland, Oregon, 1/2016
Geometric Morphometrics Symposium, Society of Vertebrate Paleontology annual meeting, Dallas, 10/2015
Quantitative Evo-Devo Symposium, European Society of Evolutionary Biology, Vienna, 7/2014
Adaptive Integration Symposium and Workshop, Royal Society, 10/2012

Invited Department Seminars

American Museum of Natural History (11/2020), University of Calgary (11/2020), University of Pennsylvania (10/2020), University of Sheffield (12/2020); University of Edinburgh (10/2020); University of Oxford, (2/2020), University of Leicester (11/2019), University of Edinburgh (9/2019), University of Cambridge (5/2019); University of Lincoln (11/2018), Ecole Normale Supérieure (6/2018), Natural History Museum, London (5/2018), University of Copenhagen (3/2018), University of California, Berkeley (3/2018), University of Chicago (2/2018), Florida Museum of Natural History (2/2018), Virginia Tech University (2/2018), Universidade Federal do Rio Grande do Sul (7/2017), Imperial College London (5/2017), Dartmouth College (4/2017), University of Cambridge (2/2017), Museum für Naturkunde, Berlin (4/2016), University of Oxford (2/2016), University of Delhi (1/2015)

SELECT PUBLIC OUTREACH/EDUCATION:

Radio and Podcasts: BBC Radio4 Inside Science, 8/2020; Audible series on dinosaur evolution, 3/2019; Pint of Science podcast, 3/2019; BBC Crowd Science, 12/2018; BBC Inside Science, 6/2018; BBC Science Uncovered, 6/2018; The Naked Scientists podcast, 12/2017; BBC World Service, 6/2016; BBC Radio Wales, 7/2011; BBC Radio4, 2/2011; BBC Three Counties Radio, 9/2010

Television/Live Stream: Science Shambles, 07/2020; Self-Isolating Bird Club, 06/2020; Tangled Bank/PBS, 11/2018; BBC4, 2/2018; Smithsonian Channel, 11/2017; Sky News, 2/2017; BBC Natural History Unit, Nature's Greatest Events, 6/2016; Discovery Channel Prehistoric Assassins series, 1/2011; BBC News, 5/2009; National Geographic Morphed series, 1/2009

Print: Scientific American, 08/2020; National Geographic, 7/2020; Science News, 9/2019; Raising Horizons Trowelblazers Photographic Exhibit on women in field sciences, 2/2017 to present; news coverage of our research in many international newspapers.

Web: University of Cambridge 42evolution.org interview, 2/2015

Live: Guardian Masterclass, 2/2020 & 1/2019; New Scientist Live, 9/2018; Imperial College Panel on Women in Natural Sciences, 3/2017; Raising Horizons outreach event for London schoolgirls, 2/2017; Fircroft Primary School, 11/2016; Cheltenham Science Festival, 6/2016 (2 events); Cheltenham Science Festival, 6/2015; Co-curator, Grant Museum Strange Creatures exhibit, 2015; UCL Grant Lecture 11/2014; Linnean Society Lunchtime Lecture, 7/2014; Cambridge Science Festival, 3/2014; 5 public debates at The Grant Museum of Zoology (UCL) from 2009 to 2014; UCL Lunch Hour Public Lecture, 12/2011; public debate at the Horniman Museum, London, 2/2010; Scientists @ Speaker's Corner presenter, 6/2010 (organised by the Zoological Society of London); Darwin Live @ Natural History Museum, 2006; Volunteer teacher, Bio-Outreach program and Sisters for Science, University of Chicago, Chicago, IL, 2001-2003; Founder, Bhartiya Prakriti Parishad for sustainable development in Bandhavgarh Tiger Reserve, 2000-2005.

ACADEMIC SUPERVISION

Current

Marie Curie Postdoctoral Research Fellow, Agnese Lanzetti, 2020-present

Postdoctoral Research Assistant, Gizeh Rangel, 2019-present

Postdoctoral supervisor, Andrew Knapp, 2019-present

Postdoctoral supervisor, Dr. Anne-Claire Fabre, 2018-present

Ph.D. Supervisor, Eloise Hunt, Imperial College London, 2020-present

Ph.D. Supervisor, Ellen Coombs, University College London (GEE), 2016-present

Ph.D. Supervisor, Heather White, King's College London (Craniofacial Development), 2017-present

Ph.D. Co-supervisor, Jack McMinn, Oxford University, 2020-present

Ph.D. Co-supervisor, Nicole Barber, University College London (Anthropology), 2019-present

Ph.D. Co-supervisor, Miranda Kou, University College London (Earth Sciences), 2018-present
Ph.D. Co-supervisor, Anna Westland, University College London (Anthropology), 2017-present
Ph.D. Co-supervisor, João Leite, University College London (GEE), 2016-present

Past

Postdoctoral supervisor, Carla Bardua, 2019-2020
Postdoctoral supervisor, Marie Curie Fellow, Dr. Julien Clavel, 2018-2020
Research Assistant, Eve Noirault, 2016-2019
Postdoctoral supervisor, Dr. Marcela Randau, 2018-2019
Postdoctoral supervisor, UCL Excellence Fellow, Dr. Aida Gomez-Robles, 2017-2018
Postdoctoral supervisor, Dr. Ryan Felice, European Research Council, 2015-2018
Postdoctoral supervisor, Dr. Aki Watanabe, European Research Council, 2016-2017
Postdoctoral supervisor, Dr. Thomas Halliday, The Leverhulme Trust, 2015-2017
Postdoctoral supervisor, Dr. Andrew Cuff, The Leverhulme Trust, 2014-2016
Postdoctoral co-supervisor, Dr. Mark Bell, Leverhulme Trust project grant, 2012-2014
Postdoctoral co-supervisor, Dr. Jeroen Smaers, NERC project grant, 2010-2013
Postdoctoral co-supervisor, Dr. Roger Benson, Leverhulme Trust project grant, 2011-2012
Postdoctoral co-supervisor, Dr. Lionel Hautier, Leverhulme Trust project grant, 2009-2011
Postdoctoral supervisor, Dr. Vera Weisbecker, Volkswagen Foundation Grant, 2008-2011
Postdoctoral supervisor, Dr. Daniela Sanfelice, CAPNS (Brazil) grant, 2009-2010
Ph.D. Supervisor, Carla Bardua, University College London (GEE), 2015-present
Ph.D. Supervisor, Dr. Marcela Randau, University College London (GEE), 2014-2017
Ph.D. Supervisor, Dr. Thomas Halliday, University College London (Earth Sciences), 2011-2015
Ph.D. Co-supervisor, Sarah Strachan, University College London (Earth Sciences), 2016-2018
Ph.D. Co-supervisor, Dr. Gemma Price, University College London (Anthropology), 2010-2015
Ph.D. Co-supervisor, Dr. Sam Bennett, Royal Holloway College (Earth Sciences), 2010-2014
Ph.D. Supervisor, Dr. Anne-Claire Fabre, University College London (GEE), 2010-2013
Ph.D. Supervisor, Dr. Verity Bennett, University College London (GEE), 2009-2013
+ >40 M.Sc., M.Sci., M.Res, and B.Sc. students at UCL, Imperial College, University of Cambridge & more

TEACHING AND KNOWLEDGE TRANSFER

Imperial College London MSc Taxonomy and Biosystematics, lecturer, 2019-present
Natural Environment Research Council London Doctoral Training Programme, lecturer, 2014-present
UCL BIOL1006, Life on Earth, contributing lecturer, 2009-present
UCL BIOSG007, Current Topics in Biodiversity, Evolution, and Conservation, lecturer, 2014-2017
UCL BIOSG008, Analytical Tools in Biodiversity, Evolution, and Conservation, lecturer, 2015-2017
UCL GEOL3036, Biodiversity and Macroevolutionary Patterns, co-organiser, 2011-2018
UCL BIOL3018, Vertebrate Life and Evolution, lecturer, 2009-2016
UCL GEOLM003, Earth and Planetary Systems Science, co-organiser, 2010-2012, 2014
UCL GEOL2026, Maps, Images, and Structures, 9-day field trip lecturer, 2010-2012
UCL BIOL3008, Species Conservation and Biodiversity, co-organiser, 2011-2012
UCL AthenaSWAN committee member, Biosciences and Earth Sciences, 2014-2017
UCL Centre for Biodiversity and Environment Research, academic staff member, 2013-2017
Palaeobiology Degree Tutor, UCL-Earth Sciences, 2014-2017
Founder and Director, UCL/NHM/IoZ joint M.Res in Biodiversity, Evolution & Conservation, 2011-2013
Centre for Ecology and Evolution Seminar Series coordinator, 2011-2013
UCL Natural Sciences Environmental Biology Stream Representative, 2009-2011
UCL Environmental Biology (Biosciences) Degree Tutor, 2011
University of Cambridge Quantitative Palaeobiology, course organiser and lecturer, 2008
University of Cambridge Dorset Geology field trip, lecturer, 2007 and 2008

PROFESSIONAL FIELDWORK:

Mesozoic vertebrate palaeontology, Central, West, and South India, 2004-2019 (10 trips)
Mesozoic vertebrate palaeontology, Northwest Argentina, 2015-2018 (3 trips)
Tertiary geology and palaeontology, Svalbard, 2008-2010 (3 trips)
Neogene vertebrate palaeontology, Peruvian Amazonia, 2004-2006 (3 trips)
Neogene vertebrate palaeontology, Chilean Altiplano, 2004
Mesozoic vertebrate palaeontology, Morondava Basin, Madagascar, 2003
Mesozoic vertebrate palaeontology, Big Horn Basin, WY, 2002
Paleogene palaeobotany, Big Horn Basin, WY, 2001
Wildlife behavior, ecotourism, and conservation, Bandhavgarh National Park, India, 1998-2000

PUBLISHED SOFTWARE AND DATABASES:

Phenome10k.org, online open repository for 3D reconstructions biological and palaeontological specimens, 2015-present
'paleomorph' package, R software environment, for geometric morphometric analysis, 2016
'EMMLi' package, R software environment, for maximum likelihood evaluation of phenotypic modularity, 2016
'Modularity' package, Mathematica, for geometric morphometric analysis of integration and modularity, 2010

LANGUAGES

Spoken and Written: Fluent in Hindi and French
Computer: Proficient in Mathematica and R, experience with Matlab

PUBLICATIONS:

In review/revision

C. Bardua, M. Bon, A-C Fabre, A. K. Das, EL. Stanley, DC. Blackburn, **A. Goswami**. Habitat and size drive cranial diversification in frogs. *Nature Communications*.
M.L. Zelditch and A. Goswami. The meaning of modularity. *Evolution & Development*.
J.B. Smaers et al. (author 11 of 22). Evolutionary repatterning of the brain-body relationship in mammals. *Science Advances*.

In press/published

H. White, J. Clavel, A. Tucker, **A. Goswami**. 2020. Quantifying the shape of sutures. *Royal Society Interface*, in press.
R.N. Felice, A. Watanabe, A.R. Cuff, M. Hanson, B.-A.S. Bhullar, E.R. Rayfield, L.M. Witmer, M.A. Norell, and **A. Goswami**. Decelerated dinosaur evolution at the origin of birds. *PLOS Biology*, 18(8): e3000801
E.J. Coombs, J. Clavel, T. Park, M. Churchill, and **A. Goswami**. Wonky whales: The evolution of cranial asymmetry in cetaceans. *BMC Biology*, 18 (1): 1-24
A.-C. Fabre, C. Bardua, M. Bon, J. Clavel, R.N. Felice, J.W. Streicher, J. Bonnel, E.L. Stanley, D.C. Blackburn, **A. Goswami**. 2020. Metamorphosis and the evolution of morphological diversity in salamanders. *Nature Ecology and Evolution*, <https://doi.org/10.1038/s41559-020-1225-3>.
C. Bardua, M. Bon, A-C Fabre, K. Das, EL. Stanley, DC. Blackburn, **A. Goswami**. 2020. Evolutionary integration of the frog cranium. *Evolution*, 74: 1200-1215.
M. Bon, C. Bardua, **A. Goswami**, A.-C. Fabre. 2020. Cranial integration in the fire salamander, *Salamandra salamandra* (Caudata: Salamandridae), *Biological Journal of the Linnean Society*, 130: 178-194.
T. Guillerme et al (author 7 of 21). 2020. Disparities in the analysis of morphological disparity. *Biology Letters*, 16: 20200199.
A. Watanabe, A.-C. Fabre, R.N. Felice, J.A. Maisano, J. Müller, A. Herrel, and **A. Goswami**. Ecomorphological diversification in squamates from conserved pattern of cranial integration. *Proceedings of the National Academy of Sciences, USA*, 116 (29), 14688-14697.

- A. Goswami**, A. Watanabe, R.N. Felice, C. Bardua, A.C. Fabre, and P.D. Polly. High-density morphometric analysis of shape and integration: the good, the bad, and the not-really-a-problem. *Integrative and Comparative Biology*, 59: 669–683.
- C. Bardua, R.N. Felice, A. Watanabe, A.C. Fabre, and **A. Goswami**. A practical guide to surface sliding semi-landmarks in morphometric analyses. *Integrative Organismal Biology*, 1: obz016.
- R. Felice, A. Watanabe, A. Cuff, E. Noirault, D. Pol, L. Witmer, M. Norell, P. O'Connor, and **A. Goswami**. 2019. Evolutionary integration and modularity in the archosaur cranium. *Integrative and Comparative Biology*, 59: 371-382.
- M. Randau, D. Sanfelice, and **A. Goswami**. 2019. Shifts in cranial integration associated with ecological specialisation in pinnipeds (Mammalia, Carnivora). *Royal Society Open Science*, 6 (3), 190201.
- T.J.D. Halliday, P.A. Holroyd, E. Gheerbrant, G.V.R. Prasad, A. Scanferla, R.M.D. Beck, D.W. Krause, and **A. Goswami**. 2019. Leaving Gondwana: The Changing Position of the Indian Subcontinent in the Global Faunal Network. *In Biological Consequences of Plate Tectonics: New Perspectives on Post-Gondwananland Break-Up* (Springer Science, NY), in press.
- T.J.D. Halliday, M. dos Reis, A.U. Tamuri, H. Ferguson-Gow, Z. Yang, and **A. Goswami**. 2019. Rapid morphological evolution in placental mammals post-dates the origin of the crown group. *Proceedings of the Royal Society B*, B 286 (1898), 20182418.
- S. Álvarez-Carretero, **A. Goswami**, Z. Yang, and M. dos Reis. 2019. Bayesian estimation of species divergence times using correlated quantitative characters. *Systematic Biology*, 68: 967-986.
- R.N. Felice, J. Tobias, A. Pigot, and **A. Goswami**. 2019. Dietary niche and the evolution of cranial morphology in birds. *Proceedings of the Royal Society B*, 286 (1897), 20182677.
- A. Marshall, C. Bardua, D.J. Gower, M. Wilkinson, E. Sherratt, and **A. Goswami**. 2019. High-dimensional 3D morphometric analysis supports conserved static (intraspecific) modularity in caecilian (Amphibia: Gymnophiona) crania. *Biological Journal of the Linnean Society*, 126 (2), 225-239.
- C. Bardua, M. Wilkinson, D.J. Gower, E. Sherratt, and **A. Goswami**. 2019. Morphological evolution and modularity of the caecilian skull. *BMC Evolutionary Biology* 19 (1), 30.
- M. Churchill, J. Miguel, B.L. Beatty, **A. Goswami**, and J.H. Geisler. 2018. Asymmetry drives modularity of the skull in the common dolphin (*Delphinus delphis*). *Biological Journal of the Linnean Society*, 126 (2), 225-239.
- C. Barda, S.E. Evans, and **A. Goswami**. 2018. Phylogeny, ecology and deep time: 2D outline analysis of anuran skulls from the Early Cretaceous to the Recent. *Palaeontology*, 62 (3), 417-431. <https://doi.org/10.1111/pala.12405>
- R.N. Felice, M. Randau, and **A. Goswami**. 2018. A Fly in a Tube: Macroevolutionary expectations for integrated phenotypes. *Evolution*, 72: 2580-2594. <https://doi.org/10.1111/evo.13608>
- M. Churchill, J.H. Geisler, B.L. Beatty, and **A. Goswami**. 2018. Evolution of cranial telescoping in echolocating whales (Cetacea: Odontoceti). *Evolution* 72, 1092-1108
- R.N. Felice and **A. Goswami**. 2018. Developmental origins of mosaic evolution in the avian cranium. *Proceedings of the National Academy of Sciences, USA*, 115: 555-560.
- M. Randau & **A. Goswami**. 2018. Shape covariation (or the lack thereof) between vertebrae and other skeletal traits in felids: the whole is not always greater than the sum of parts. *Evolutionary Biology*, 45 (2), 196-210.
- C.V. Bennett, P. Upchurch, F. Goin & **A. Goswami**. 2018. Deep-time diversity of metatherian mammals: Implications for evolutionary history and fossil record quality. *Paleobiology*, 44 (2), 171-198.
- M. Randau & **A. Goswami**. 2017. Morphological modularity in the vertebral column of Felidae (Mammalia, Carnivora). *BMC Evolutionary Biology*, 17, 133.
- T. Davies, M.A. Bell, **A. Goswami** & T.J.D.Halliday. 2017. Completeness of the eutherian mammal fossil record and implications for reconstructing mammal evolution through the Cretaceous-Palaeogene mass extinction. *Paleobiology*, 43: 521-536.
- M. Randau and **A. Goswami**. 2017. Unravelling intra-vertebral integration, modularity and disparity in Felidae (Mammalia). *Evolution & Development*, 19: 85-95.
- A.R. Cuff, C. Stockey, and **A. Goswami**. 2017. Endocranial morphology of the extinct North American lion (*Panthera atrox*). *Brain, Behaviour, and Evolution*, 88: 213-221.
- T.J.D. Halliday, G.V.R. Prasad, and **A. Goswami**. 2017. Faunal similarity in Madagascan and South Indian Late Cretaceous vertebrate faunas. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 468: 70-75.

- A.R. Cuff, **A. Goswami**, and J.R. Hutchinson. 2017. Reconstruction of the musculoskeletal system in an extinct lion. *Palaeontologia Electronica*, 20.2.23A.
- T. Davies et al. (**A. Goswami** author 20 out of 45, arranged alphabetically). 2017. Open data and digital morphology. *Proceedings of the Royal Society B*, 284: 20170194.
- M. Randau, A.R. Cuff, J.R. Hutchinson, S.E. Pierce, and **A. Goswami**. 2016. Regional differentiation of felid vertebral column evolution: a study of 3D shape trajectories. *Organisms, Diversity, and Evolution*, 17:305-319.
- T.J.D. Halliday and **A. Goswami**. 2016. The impact of dating method on interpreting continuous trait evolution: eutherian body size evolution at the Cretaceous-Palaeogene mass extinction. *Biology Letters*, 12: 20160051.
- T.J.D. Halliday, P. Upchurch, and **A. Goswami**. 2016. Eutherians experience elevated evolutionary rates in the immediate aftermath of the Cretaceous-Palaeogene mass extinction. *Proceedings of the Royal Society B*, 283: 20153026.
- A. Goswami** and J.A. Finarelli. 2016. EMMLi: a maximum likelihood approach to the analysis of modularity. *Evolution*, 70: 1622-1637.
- A. Goswami**, M. Randau, P.D. Polly, V. Weisbecker, C. V. Bennett, L. Hautier, and M.R. Sanchez-Villagra. 2016. Do high integration and developmental constraints limit the evolution of the marsupial cranium? *Integrative and Comparative Biology*, 56: 404-414.
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