Paleontological Society

Paleobiology

https://doi.org/10.1017/pab.2025.10069 Published online by Cambridge University Press

Paleobiology
A Journal of the Paleontological Society
https://www.cambridge.org/core/journals/paleobiology

Volume 52, Issues 1–4
eISSN: 1938-5331; ISSN: 0094-8373

Editor-in-Chief
Erin Saupe, *University of Oxford, UK*

Editors
Nicolás Campione, *University of New England, Australia*
Melanie Hopkins, *American Museum of Natural History, USA*
Andrew Leslie, *Stanford University, USA*
Adam Tomazovych, *Slovak Academy of Sciences, Slovak Republic*

Managing Editor
Jessica Kastigar, *Cincinnati, OH, USA*

Paleontological Society Intern
Sanaa Mughal, *University of Alberta, Canada*

Associate Editors
Marie-Pierre Aubry, *Rutgers University, USA*
Juan L. Cantalapiedra, *Museo Nacional de Ciencias Naturales, Spain*
Simon Darroch, *Senckenberg Research Institute, Germany*
Alexander Dunhill, *University of Leeds, UK*
Matt Friedman, *University of Michigan, USA*
Paul Harnik, *Colgate University, USA*
John Huntley, *University of Missouri, USA*
Adiel Klompmaker, *University of Alabama, USA*
Lee Hsiang Liow, *University of Oslo, Norway*
Cynthia Looy, *University of California Berkeley, USA*
Matthew McCurry, *Australian Museum Research Institute, Australia*
Celeste Pérez-Ben, *CONICET, Argentina*
Maria Rose Petrizzo, *University of Milan, Italy*
Catalina Pimiento, *Swansea University, UK*
James Saulsbury, *University of Oslo, Norway*
James Schiffbauer, *University of Missouri, USA*
Carl Simpson, *University of Colorado Boulder, USA*
Graham Slater, *University of Chicago, USA*
Caroline Strömberg, *Univeristy of Washington, USA*
Rachel Warnock, *Friedrich-Alexander-Universität (FAU), Germany*

Information about editors and editorial board members correct as of 1st January 2025. For the latest information please see https://www.cambridge.org/core/journals/paleobiology/information/editorial-board

The Patrons Fund
The Patrons Fund was established to broaden the basis of financial support for Paleobiology and thus to encourage paleontological publication.

To become a Patron, send a check payable to Paleobiology to:
Paleobiology Patrons Fund
The Paleontological Society
P.O. Box 9044
Boulder, CO 80301-9044.

The Paleontological Society gratefully acknowledges the following Patrons of Paleobiology:

ROBERT ANEMONE
SCOTT BOBBS
JULIA BRADSHAW
JULIA CLARKE
PAOLO CUSTODI
RUSSELL ENGELMAN
JOHN HANDLEY
DAVID JABLONSKI
BRUCE MACFADDEN
WILLIAM MILLER
ARNOLD MILLER
YUKA OSHIMA
MARK PATZKOWSKY
IN MEMORY OF TOM SCHOPF
ERIC SCOTT
ANDREJ SPIRIDONOV
ROGER THOMAS
BRUCE TIFFNEY
PETER WAGNER

Aims & Scope
Paleobiology publishes original contributions of any length (but normally 10–50 manuscript pages) dealing with any aspect of biological paleontology. Emphasis is placed on biological or paleobiological processes and patterns, including macroevolution, extinction, diversification, speciation, functional morphology, bio-geography, phylogeny, paleoecology, molecular paleontology, taphonomy, natural selection and patterns of variation, abundance, and distribution in space and time, among others. Taxonomic papers are welcome if they have significant and broad applications. Papers concerning research on recent organisms and systems are appropriate if they are of particular interest to paleontologists. Papers should typically interest readers from more than one specialty. Proposals for symposium volumes should be discussed in advance with the editors.

The Paleontological Society
The Paleontological Society is an international nonprofit organization devoted exclusively to the advancement of the science of paleontology: invertebrate and vertebrate paleontology, micropaleontology, and paleobotany. The Society was founded in 1908 in Baltimore, Maryland, and was incorporated in April 1968 in the District of Columbia. The Society has several membership categories, including regular, student, and retired. Members, representing 40 countries, consist of professional paleontologists, academicians, science editors, earth-science teachers, museum specialists, and undergraduate and graduate students and post doctoral scholars, as well as avocational paleontologists.

© The Paleontological Society
Published by Cambridge University Press.

https://doi.org/10.1017/pab.2025.10069 Published online by Cambridge University Press

PALEOBIOLOGY

VOLUME 52 | ISSUE 1 | 2026

Featured Article

Fecundity in fossil Bryozoa: accounting for colony fragmentation and the spatial division of reproductive labor
Maya Samuels-Fair and Seth Finnegan 1

Methodological Advances

Estimating minimum sample size for detecting phenotypic dimorphism using computational simulations
Yibo Zhou, Xudong Hou, and Yanhong Pan 12

Articles

Comparative spatial paleoecology: assessing niche competition between Eocene North American multituberculates and rodents regarding forest resources to elucidate the cause of multituberculate extinction
Benjamin John Burger 30

High overlap of extant mammal ranges with sediment sinks indicates high fossilization potential of total diversity
Melissa Ceylan Wood 46

Recolonization strategies of early animals in the Avalon (Ediacaran 574–560 Ma)
Nile P. Stephenson, Katie M. Delahooke, Princess A. Buma-at, Benjamin W. T. Rideout, Nicole Barnes, Charlotte Kenchington, Andrea Manica, and Emily G. Mitchell 57

Evaluating morphological species recognition in fossil and modern gastropods (Littorinidae, periwinkles)
Caren P. Shin and Warren D. Allmon 69

Bayesian inference of phylogenetic trees is not misled by correlated discrete morphological characters
Xueer Liu and Chi Zhang 80

Using state space models to understand trait evolution in fossil lineages
Gene Hunt, Wilmer Martínez-Rivera, Melanie Jane Hopkins, John Fricks, and Beckett Sterner 89

Parallelism of mandibular function in therian carnivores: a morphometric, phylogenetic, and finite element analysis
Charles J. Salcido and P. David Polly 104

Convergence in aquatic locomotion: reconstructing mosasaurian (Squamata: Mosasauria) tail fins from osteological correlates and covariation with extant sharks
Yang Song and Johan Lindgren 121

Evolution of chondrichthyan jaw morphology, from ecological generalists to specialists
Benjamin William Griffin, Joseph N. Keating, Pablo S. Milla Carmona, Zerina Johanson, Richard P. Dearden, Philip C. J. Donoghue, and Emily J. Rayfield 131

Morphological diversity of the cetacean mandibular symphysis coincides with novel modes of aquatic feeding
Rebecca J. Strauch, Jacob S. Berv, Danielle Fraser, Nicholas D. Pyenson, and Carlos Mauricio Peredo 145

https://doi.org/10.1017/pab.2025.10069 Published online by Cambridge University Press

Corrigendum

Morphological diversity of the cetacean mandibular symphysis coincides with novel modes of aquatic feeding – CORRIGENDUM
Rebecca J. Strauch, Jacob S. Berv, Danielle Fraser, Nicholas D. Pyenson, and Carlos Mauricio Peredo 155

https://doi.org/10.1017/pab.2025.10069 Published online by Cambridge University Press