

Preface

Authors: Brown, Matthew A., and Padian, Kevin

Source: Journal of Vertebrate Paleontology, 41(sp1) : 1

Published By: The Society of Vertebrate Paleontology

URL: <https://doi.org/10.1080/02724634.2020.1853560>

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

PREFACE

MATTHEW A. BROWN  and KEVIN PADIAN

Citation for this article: Brown, M.A., and K. Padian. 2021. Preface; pp. 1 in K. Padian and M.A. Brown (eds.), The Late Cretaceous pterosaur *Quetzalcoatlus* Lawson 1975 (Pterodactyloidea: Azhdarchoidea). Society of Vertebrate Paleontology Memoir 19. Journal of Vertebrate Paleontology 41(2, Supplement). DOI: 10.1080/02724634.2020.1853560.

The giant azhdarchid pterodactyloid pterosaur *Quetzalcoatlus* Lawson, 1975, is undoubtedly one of the most spectacular fossil discoveries of the 20th century. In fact, it was two discoveries: a giant pterosaur known from only a few bones and a smaller one eventually known from hundreds. Comparisons soon made it clear that the disparately sized animals could be assigned to the same genus, and it remained possible that the smaller form was a juvenile of the larger (although it now appears that the smaller form is a different species, named in this memoir). The smaller form appeared to have a wingspan of 5–6 meters (16–20 feet), and the relatively similar proportions of the limited material of the larger form, *Q. northropi*, suggested a size approximately twice as large, or 10–12 meters (33–40 feet). Although some estimates have differed, and limited material of other giant azhdarchids has been discovered, this is certainly the largest known flying animal ever to have existed. How (and even if) it flew, how it walked, what it ate, and how it avoided predation are only a few of the questions raised by this remarkable and bizarre animal.

Quetzalcoatlus has sparked the imagination of scientists, engineers, artists, science fiction authors, filmmakers, children's book writers, journalists, and of course the public. But public interest has outstripped published scientific study of the very complex remains of the animal—until now.

In this memoir, our group of colleagues explores a variety of aspects of *Quetzalcoatlus*, trying to reconstruct its anatomy, functional morphology, paleoenvironment, paleobiology, and phylogeny, as well as the history of collecting and curating its known remains. Many aspects remain to be studied; here, we try to provide at least some basic information that may be useful to future work.

Acknowledgments of help and contributions to the research in this memoir can be found in the individual papers. More

generally, we would like to thank, first of all, the Society of Vertebrate Paleontology's (SVP) Publications Committee for accepting our proposed memoir and seeing it through the press. We thank the editors and the reviewers of each manuscript, and the many colleagues who provided readings, advice, information, illustrations, and support. In individual papers, we outline the contributions to collection, preparation, curation, casting, and modeling, but we must acknowledge the greatest debt of all to the late Wann Langston Jr., the main impetus of the study of *Quetzalcoatlus* for four decades. We regret that he did not live to see this memoir.

Financial and material support for this work in general ways have come from the National Park Service, the University of Texas Geology Foundation, the Sakana Foundation, the Uplands Foundation, Nathan Myrhvold, and the families of Ernest and Judith Lundelius, Wann Langston, and the late John A. Wilson, among many other contributors. To all, we extend our deepest gratitude. We especially thank Nathan Myrhvold for providing the funding that enabled this entire Memoir to be published on Open Access.

Matthew A. Brown

Kevin Padian

ORCID

Matthew A. Brown  <http://orcid.org/0000-0002-2713-1161>

LITERATURE CITED

Lawson, D. A. 1975. Could pterosaurs fly? *Science* 188:676–677.

© 2021 Matthew A. Brown and Kevin Padian.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.