

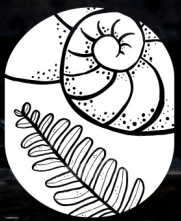
BULLETIN

OF THE

FLORIDA MUSEUM OF NATURAL HISTORY



FLORIDA
MUSEUM®



**Conservation
Paleobiology
Network**

VOL. 60, NO. 2, PP. 56-132

FEBRUARY 16, 2023

UNIVERSITY OF FLORIDA

GAINESVILLE

The **FLORIDA MUSEUM OF NATURAL HISTORY** is Florida's state museum of natural history, dedicated to understanding, preserving, and interpreting biological diversity and cultural heritage.

The **BULLETIN OF THE FLORIDA MUSEUM OF NATURAL HISTORY** is an on-line, open-access, peer-reviewed journal that publishes results of original research in zoology, botany, paleontology, archaeology, and museum science. Multi-author issues of related papers have been published together, and inquiries about putting together such issues are welcomed. Address all inquiries to the Editor of the Bulletin.

The electronic edition of this article conforms to the requirements of the amended International Code of Zoological Nomenclature, and hence the new names contained herein are available under that Code. This published work and the nomenclatural acts it contains have been registered in ZooBank, the online registration system for the ICZN. The ZooBank Publication number for this issue is 5C43C6CF-9B6F-4E48-8466-94F2551EA7C8.

Michal Kowalewski, *Editor for this issue*

Bulletin Committee

Michal Kowalewski

Michelle J. LeFebvre

Jacqueline Miller

Roger W. Portell

Jonathan I. Bloch, *Ex officio Member*

ISSN: 2373-9991

Copyright © 2023 by the Florida Museum of Natural History, University of Florida. All rights reserved. Text, images and other media are for nonprofit, educational, and personal use of students, scholars, and the public. Any commercial use or republication by printed or electronic media is strictly prohibited without written permission of the museum.

Publication Date: February 16, 2023

This and other issues of the Bulletin can be freely downloaded at:

<https://www.floridamuseum.ufl.edu/bulletin/publications/>

Send communications about this publication to:

Editor of the Bulletin; Florida Museum of Natural History; University of Florida; P.O. Box 117800; Gainesville, FL 32611-7800 USA

FAX: 352-846-0287; Email: bulletin@flmnh.ufl.edu

URL: <https://www.floridamuseum.ufl.edu/bulletin/home/>

Abstracts of the 2nd Conservation Paleobiology Symposium

Gainesville, FL | February 2023

Hilton University of Florida Conference Center
1714 SW 34th St
Gainesville, FL, USA



**Conservation
Paleobiology
Network**

MODELING PRE-IMPACT BASELINES AT SCALE TO INFORM SPECIES RECOVERY

Grace, Molly K., University of Oxford, UK; **Akçakaya, Resit**, Stony Brook University, USA; **Avery, Aaron**, University of South Florida, USA; **Duncan, Clare**, Institute of Zoology, Zoological Society of London, UK; **Hansford, James**, Institute of Zoology, Zoological Society of London, UK; **Herbert, Gregory S.**, University of South Florida, USA; **Kramer, Andrew M.**, University of South Florida, USA; **Mannion, Philip D.**, University College London, UK; **Prohaska, Ana**, University of Copenhagen, Denmark; **Ravenscroft, Harri**, University of Oxford, UK; **Rodrigues, Ana**, CNRS, France; **Saupe, Erin**, University of Oxford, UK; **Stephenson, P.J.**, University of Lausanne, Switzerland; **Turvey, Samuel**, Institute of Zoology, Zoological Society of London, UK; **Welch, Jessica**, Oak Ridge National Laboratory, USA; **Williams, Jack**, University of Wisconsin-Madison, USA

This talk will describe the work of the CPN Pre-Impact Baselines Working Group to leverage the wealth of paleoecological and historical ecological data to facilitate estimation of pre-impact species distribution baselines. Species conservation has long focused on preventing human-driven extinctions, and over the past 50 years conservation success has been measured using changes in species' extinction risk. However, recently calls have been made for a parallel focus on species recovery, and on developing metrics with which to assess its achievement. This call to action within the conservation community is fuelled in part by the recognition that baselines of species abundance and distribution have shifted dramatically across human generations with globally detectable human impacts on ecosystems beginning at least several thousand years ago. While assessment of extinction risk generally only considers species' change over the past few decades, assessment of recovery requires considering change over centuries to millennia. This requires identifying the baseline status at the time when humans first became a major factor influencing the abundance and distribution of a species. Two new frameworks for considering conservation status relative to a species' pre-impact baseline have been recently released: EPOCH (Evaluation of POPulation CHange), and the IUCN Green Status of Species. These frameworks have been lauded as moving conservation in a much-needed direction, but there is also concern about whether these methods will be applicable to any but a few well-known, charismatic species. Using a combination of modelling approaches, we are working to estimate species pre-impact distributions in a way that is accessible to conservation practitioners, helping to unshift the baseline and bring species recovery into the mainstream.

Keywords: baseline, recovery, IUCN Green Status, EPOCH, species distribution models

Grace, M. K., R. Akçakaya, A. Avery, C. Duncan, J. Hansford, G. Herbert, A. Kramer, P. Mannion, A. Prohaska, H. Ravenscroft, A. Rodrigues, E. Saupe, P. J. Stephenson, S. Turvey, J. Welch, and J. Williams, 2023. Modeling pre-impact baselines at scale to inform species recovery. In: Abstracts of the 2nd Conservation Paleobiology Symposium. Bulletin of the Florida Museum of Natural History 60(2):83. <https://doi.org/10.58782/flmnh.wosu1828>