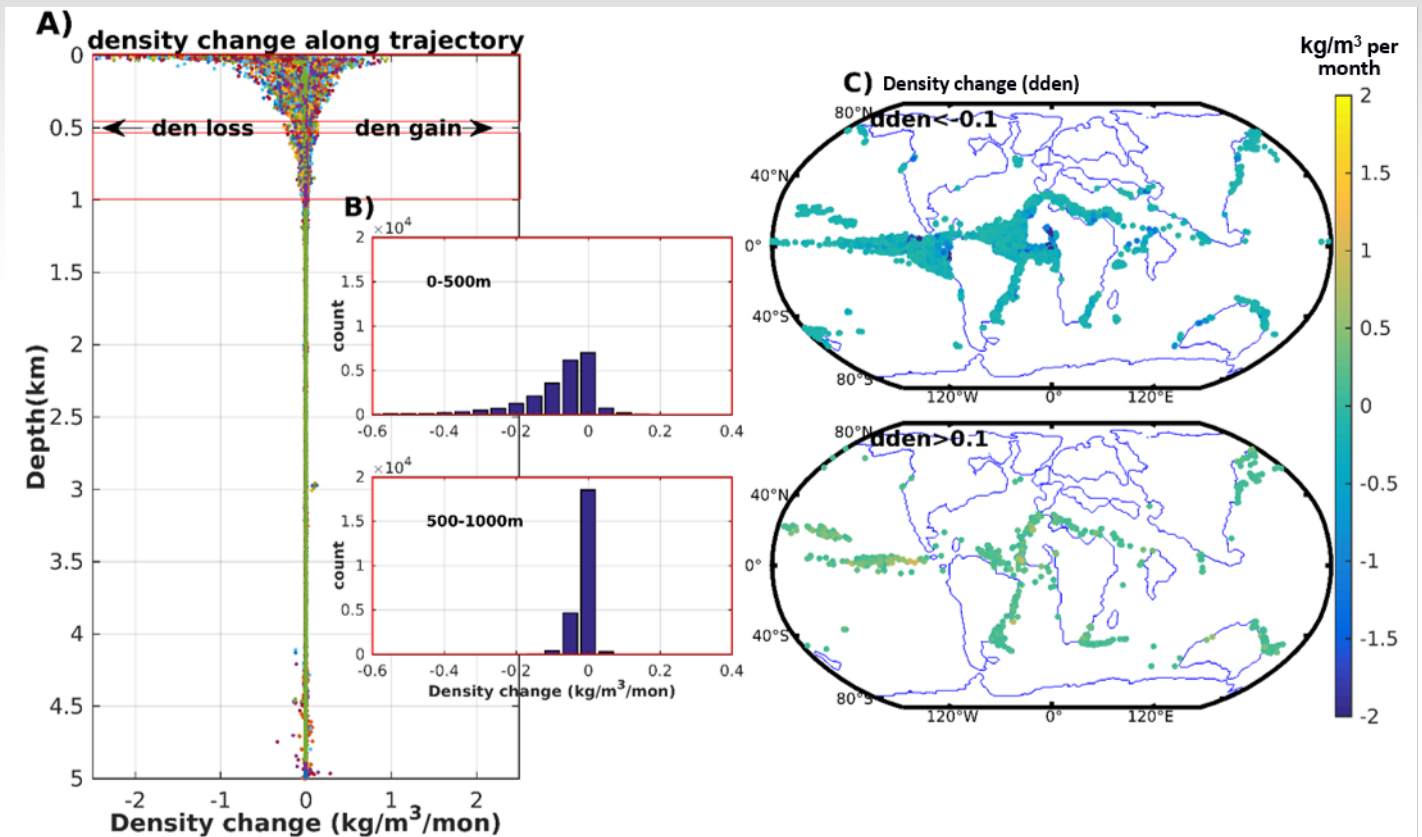


Paleoceanography and Paleoclimatology

January 2021 • Volume 36 • Issue 1



Paleoceanography and Paleoclimatology

AN AGU JOURNAL EXPLORING EARTH'S PALEOCLIMATE

Aims and Scope. *Paleoceanography and Paleoclimatology* focuses on original contributions dealing with all aspects of understanding and reconstructing Earth's past climate and environments. The journals' scope has expanded from its original focus on paleoceanography and marine paleo-environmental records to include terrestrial records and reconstruction, and modeling and integrated studies linking diverse records together, including geochemical and biotic records. Contributions will emphasize global and regional understandings, rather than purely local interests, and can cover all ages (Precambrian to the Quaternary, including modern analogs).

Editors: Matt Huber (Editor in Chief) (huberm@purdue.edu), Ursula (Ulla) Röhl (uroehl@marum.de).

Associate Editors: Gabriel J. Bowen, Min-Te Chen, Andrea Dutton, Oliver Friedrich, Nathalie Goodkin, Guy Harrington, Sandra Kirtland Turner, Matthew Lachniet, Zhifei Liu, Christopher J. Poulsen, Isabella Raffi, Joellen L. Russell, Amelia Shevenell, David Thornalley, Kaustubh Thirumalai, Yige Zhang

AGU Editorial Team. For assistance with submitted manuscripts, file specifications, or AGU publication policy please contact paleoceanography@agu.org.

For submission instructions or to submit a manuscript visit: <http://paleoceanography-submit.agu.org>.

The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscript to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

Paleoceanography and Paleoclimatology accepts articles for Open Access publication. Please visit <http://olabout.wiley.com/WileyCDA/Section/id-406241.html> for further information about OnlineOpen.

Publication Charges. The publication charge income received for *Paleoceanography and Paleoclimatology* helps support rapid publication, allows more articles per volume, makes possible the low subscription rates, and supports many of AGU's scientific and outreach activities. Publication charge information can be found here: <http://publications.agu.org/author-resource-center/publication-fees/>.

To encourage papers to be written in a concise fashion, there is an excess length fee. For *Paleoceanography and Paleoclimatology* the fee is assessed only on the equivalent of more than 25 publication units. The excess length fee does not apply to review articles, and the editor may waive the fee on a limited number of concisely written papers that merit being longer. There is no charge for color in any format.

Copyright and Photocopying. Copyright © 2021 American Geophysical Union. All rights reserved. No part of this publication may be reproduced, stored or transmitted in any form or by any means without the prior permission in writing from the copyright holder. Authorization to copy items for internal and personal use is granted by the copyright holder for libraries and other users registered with their local Reproduction Rights Organisation (RRO), e.g. Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, USA (www.copyright.com), provided the appropriate fee is paid directly to the RRO. This consent does not extend

to other kinds of copying such as copying for general distribution, for advertising or promotional purposes, for republication, for creating new collective works or for resale. Permissions for such reuse can be obtained using the RightsLink "Request Permissions" link on Wiley Online Library. Special requests should be addressed to: permissions@wiley.com.

Disclaimer. The Publisher, American Geophysical Union, and Editors cannot be held responsible for errors or any consequences arising from the use of information contained in this journal; the views and opinions expressed do not necessarily reflect those of the Publisher, American Geophysical Union, and Editors, neither does the publication of advertisements constitute any endorsement by the Publisher, American Geophysical Union, and Editors of the products advertised.

Individual Subscriptions. Member subscriptions are available through members.agu.org or by contacting the AGU Member Service Center. The Service Center is open from 8:00 a.m. to 8:30 p.m. Eastern time: +1 202 462 6900, +1 800 966 2481; Fax: +1 202 777 7393; e-mail: service@agu.org. Questions about meetings or membership will be referred to the appropriate staff.

Publisher. *Paleoceanography and Paleoclimatology* is published on behalf of the American Geophysical Union by Wiley Periodicals LLC, 111 River St., Hoboken, NJ, 07030-5774, +1 201 748 6000.

Journal Customer Services. For institutional subscription information, claims and any enquiry concerning your journal subscription please go to <https://hub.wiley.com/community/support/onlinelibrary> or contact your nearest office.

Americas: Email: cs-journals@wiley.com; Tel: +1 781 388 8598 or +1 800 835 6770 (toll free in the USA & Canada).

Europe, Middle East, and Africa: Email: cs-journals@wiley.com; Tel: +44 (0) 1865 778315.

Asia Pacific: Email: cs-journals@wiley.com; Tel: +65 6511 8000.

Japan: For Japanese speaking support, Email: cs-japan@wiley.com.

Visit our Online Customer Help available in 7 languages at <https://hub.wiley.com/community/support/onlinelibrary>.

Production Editor. For assistance with post-acceptance articles and other production issues please contact paloprod@wiley.com.

Access to this journal is available free online within institutions in the developing world through the AGORA initiative with the FAO, the HINARI initiative with the WHO, the OARE initiative with UNEP, and the ARDI initiative with WIPO. For information, visit www.aginternetwork.org, www.who.int/hinari/en/, www.oaresciences.org, or www.wipo.int/ardi/en.

ISSN 2572-4525 (Online)

View this journal online at <https://paleo.agu.org>.

Cover: In Zhang et al. (<https://doi.org/10.1029/2019PA003845>), density transformation along full-range trajectory of paleo-AABW parcels entering the mixed layer. (a) Scatterplot of density change (kg/m^3 per month) as a function of depth. (b) Probability distribution as a function of density change at the two vertical layers as indicated in Figure 6a, with the per density change bin of 0.05 kg/m^3 . (c) Geographical location of large density transformations, shown as the geographical scatterplots of water parcels whose density change is greater than 0.1 kg/m^3 or less than -0.1 kg/m^3 . See p. e2019PA003845.