

NY
M75

ISSN 0959 - 6836

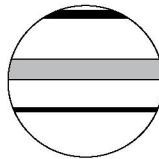
THE **HOLOCENE**

an interdisciplinary journal
focusing on recent
environmental change

VOLUME 24, NUMBER 9, 2014

Editor: John A Matthews





Contents

Special issue: Holocene peatland carbon dynamics in the circum-Arctic region

Guest editors: Zicheng Yu, Julie Loisel, Daniel J Charman, David W Beilman and Philip Camill

Introduction

- Holocene peatland carbon dynamics in the circum-Arctic region: An introduction 1021
Zicheng Yu, Julie Loisel, Daniel J Charman, David W Beilman and Philip Camill

Circum-Arctic and regional peatland syntheses

- A database and synthesis of northern peatland soil properties and Holocene carbon and nitrogen accumulation 1028
Julie Loisel, Zicheng Yu, David W Beilman, Philip Camill, Jukka Alm, Matthew J Amesbury, David Anderson, Sofia Andersson, Christopher Bochicchio, Keith Barber, Lisa R Belyea, Joan Bunbury, Frank M Chambers, Daniel J Charman, François De Vleeschouwer, Barbara Fiałkiewicz-Kozięł, Sarah A Finkelstein, Mariusz Gałka, Michelle Garneau, Dan Hammarlund, William Hinchcliffe, James Holmquist, Paul Hughes, Miriam C Jones, Eric S Klein, Ulla Kokfelt, Atte Korhola, Peter Kuhry, Alexandre Lamarre, Mariusz Lamentowicz, David Large, Martin Lavoie, Glen MacDonald, Gabriel Magnan, Markku Mäkilä, Gunnar Mallon, Paul Mathijssen, Dmitri Mauquoy, Julia McCarroll, Tim R Moore, Jonathan Nichols, Benjamin O'Reilly, Pirita Oksanen, Maara Packalen, Dorothy Peteet, Pierre JH Richard, Stephen Robinson, Tiina Ronkainen, Mats Rundgren, A Britta K Sannel, Charles Tarnocai, Tim Thom, Eeva-Stiina Tuittila, Merritt Turetsky, Minna Välijärvi, Marjolein van der Linden, Bas van Bellen, Dale Vitt, Yan Zhao and Weijian Zhou
- Holocene carbon dynamics of boreal and subarctic peatlands from Québec, Canada 1043
Michelle Garneau, Simon van Bellen, Gabriel Magnan, Véronique Beaulieu-Audy, Alexandre Lamarre and Hans Asnong
- Climatic and autogenic control on Holocene carbon sequestration in ombrotrophic peatlands of maritime Quebec, eastern Canada 1054
Gabriel Magnan and Michelle Garneau
- Quantifying Holocene variability in carbon uptake and release since peat initiation in the Hudson Bay Lowlands, Canada 1063
Maara S Packalen and Sarah A Finkelstein
- Peatland succession and long-term apparent carbon accumulation in central and northern Ontario, Canada 1075
James R Holmquist and Glen M MacDonald
- Continental fens in western Canada as effective carbon sinks during the Holocene 1090
Zicheng Yu, Dale H Vitt and R Kelman Wieder

Studies on peatland processes

- Relative importance of climatic and autogenic controls on Holocene carbon accumulation in a temperate bog in southern Ontario, Canada 1105
Jennifer A Shiller, Sarah A Finkelstein and Sharon A Cowling
- Carbon accumulation in peat deposits from northern Sweden to northern Germany during the last millennium 1117
Marjolein van der Linden, Monique MPD Heijmans and Bas van Geel
- Recent paludification rates and effects on total ecosystem carbon storage in two boreal peatlands of Northeast European Russia 1126
Nathalie Pluchon, Gustaf Hugelius, Nea Kuusinen and Peter Kuhry
- Holocene peatland initiation, lateral expansion, and carbon dynamics in the Zoige Basin of the eastern Tibetan Plateau 1137
Yan Zhao, Yu Tang, Zicheng Yu, Huan Li, Bao Yang, Wenwei Zhao, Furong Li and Quan Li

Novel approaches in peatland studies

- Impacts of climate and vegetation change on carbon accumulation in a south-central Alaskan peatland assessed with novel organic geochemical techniques 1146
Jonathan E Nichols, Dorothy M Peteet, Christopher M Moy, Isla S Castañeda, Alicia McGeachy and Max Perez
- Development, carbon accumulation, and radiative forcing of a subarctic fen over the Holocene 1156
Paul Mathijssen, Juha-Pekka Tuovinen, Annalea Lohila, Mika Aurela, Sari Juutinen, Tuomas Laurila, Eerika Niemelä, Eeva-Stiina Tuittila and Minna Välijärvi
- Exploring the relationship between peatland net carbon balance and apparent carbon accumulation rate at century to millennial time scales 1167
Steve Froking, Julie Talbot and Zack M Subin