# Cambridge Core

Access leading journals in your subject

Explore today at cambridge.org/core

Cambridge Core



## Cambridge Core

The new home of academic content

cambridge.org/core

Cambridge Core



# Earth and Environmental Science Books and Journals from Cambridge University Press

Cambridge publish books and journals across the full spectrum of sub-disciplines – everything from soil science to space physics and from palaeontology to petroleum geoscience. We are particularly well known for our world-leading book lists in atmospheric science and geophysics.

Books range in level from undergraduate and graduate textbooks, to research and reference volumes, and handbooks for industry practitioners.

We have an ever-expanding journals portfolio including prestigious journals such as *Radiocarbon*, the journals of the *International Glaciological Society*, the *Journal of Paleontology* and *Paleobiology* and from 2017, *Quaternary Research*.

For further details visit: cambridge.org/earth-and-environmental

Cambridge Core



### Editorial Board (as of 1 August 2021)

Ian ALSOP (Editor), University of Aberdeen Tectonics/structural geology

Kevin EDWARDS (Editor), University of Aberdeen Environmental change in northern Europe & North Atlantic; Palynology; palaeoecology; Quaternary science; environmental archaeology

Rob M. ELLAM (*Editor*), Scottish Universities Environmental Research Centre *Isotope geochemistry*, *igneous petrogenesis* 

Fiona FORDYCE (Editor), British Geological Survey Environmental geochemistry, sediment, soil and water quality, environment and health

Allan LILLY (Editor), James Hutton Institute Soil hydrology, soil science, soil survey

Alistair MCGOWAN (*Editor*), BioGeoD, Edinburgh Palaeobiology; biodiversity; invertebrate palaeontology; the Fossil Record Emrys PHILLIPS (Editor), British Geological Survey Glacial sciences, soft-sediment deformation

Andrew ROSS (Chairman & Editor-in-Chief), National Museums Scotland, Edinburgh Invertebrate palaeontology; palaeobiology; palaeoecology; palaeoenvironment; palaeoclimate

Chris SOULSBY (*Editor*), University of Aberdeen *Hydrogeology; biogeochemistry* 

Rachel WALCOTT (*Editor*) National Museums Scotland, Edinburgh *Mineralogy, geomorphology, structural geology and tectonics* 

Stig WALSH (Editor), National Museums Scotland, Edinburgh Vertebrate palaeobiology; vertebrate palaeontology

### Earth and Environmental Science Transactions of the Royal Society of Edinburgh

### **Volume 112** June 2021 Issue 2

David W. JOLLEY, John M. MILLETT, Nick SCHOFIELD, Lena BROADLEY and Malcolm J. HOLE Stratigraphy of volcanic rock successions of the North Atlantic rifted margin: the offshore record of the Faroe–Shetland and Rockall basins	61
Laiche AOUIDANE, Mohamed BELHAMRA and Asma KHEDDOUMA Integrated statistical and hydro-geochemical approach to identify the origin and process of saline contamination of Remila plain groundwater (Khenchela, Algeria)	89
Chun-Sheng WEI and Zi-Fu ZHAO Theoretical inversion of the fossil hydrothermal systems with oxygen isotopes of constituent minerals partially re-equilibrated with externally infiltrated fluids	101
Siamak JAMSHIDI and Mahdieh JAFARI Environmental impacts of physical and dynamical characteristics of the southern coastal waters of the Caspian Sea	111
Rafel MATAMALES-ANDREU, Francesc X. ROIG-MUNAR, Oriol OMS, Àngel GALOBART and Josep FORTUNY A captorhinid-dominated assemblage from the palaeoequatorial Permian of Menorca (Balearic Islands, western Mediterranean)	125
Pedro PIÑERO, A. Itatí OLIVARES, Diego H. VERZI and Victor H. CONTRERAS  Paralonchothrix gen. nov., the first record of Echimyini (Rodentia, Octodontoidea) in the late  Miocene of Southern South America	147

