

A new pliosaurid from the Oxford Clay Formation of Oxfordshire, UK

Hilary F. Ketchum and Roger B.J. Benson

Acta Palaeontologica Polonica 67 (2), 2022: 297-315 doi:<https://doi.org/10.4202/app.00887.2021>

We describe the anatomy of a new longirostrine pliosaurid, *Eardasaurus powelli* gen. et sp. nov., based on a substantially complete skeleton from the Middle Jurassic Oxford Clay Formation of Oxfordshire, UK. The specimen brings the number of pliosaurid genera known from the Oxford Clay Formation up to a minimum of six, contributing to our understanding of the most taxonomically rich pliosaurid assemblage. The teeth of *Eardasaurus powelli* gen. et sp. nov. have “carina-like” apicobasal enamel ridges, previously only identified in *Liopleurodon ferox* among Middle Jurassic pliosaurids, and which may be more widespread among early pliosaurids than has been recognised. Our phylogenetic analysis shows that *Eardasaurus powelli* gen. et sp. nov. is nested within Middle Jurassic thalassophonean pliosaurids, slightly more derived than *Peloneustes philarchus*, as sister to a group comprising “*Pliosaurus*” *andrewsi*, *Simolestes vorax*, *Liopleurodon ferox*, *Pliosaurus* spp. and brachauchenines.

Key words: Plesiosauria, Pliosauridae, Oxford Clay Formation, Jurassic, Callovian, England.

Hilary F. Ketchum [hilary.ketchum@oum.ox.ac.uk], Oxford University

Museum of Natural History, Parks Road, Oxford, OX1 3PW, UK. Roger

B. J. Benson [roger.benson@earth.ox.ac.uk], Department of Earth Sciences, University of Oxford, 3

South Parks Road, Oxford, OX1 3AN, UK.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Supplementary file \(1,243.1 kB\)](#)