



meeting link

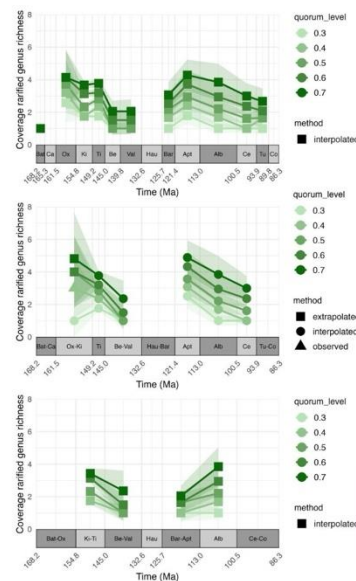
EARTH SYSTEMS SEMINARS



TRENDS IN DIPLODOCOIDEA DIVERSITY: THE JURASSIC/CRETACEOUS FAUNAL TURNOVER

WHAT'S THIS
ABOUT?

Reconstructing life's diversity through time is key to understanding evolution, extinction, and recovery. The fossil record shows how biodiversity was shaped by past climates and shifting landmasses. Sauropods—non-avian, globally distributed, and ecologically significant dinosaurs—reached peak diversity during the Kimmeridgian-Tithonian, linked to the rise of Neosauropoda, followed by a faunal shift at the Jurassic–Cretaceous boundary. Diplodocoidea, a major neosauropod group with three subclades (Dicraeosauridae, Diplodocidae, and Rebbachisauridae), underwent a transition in which Rebbachisauridae replaced Flagellicaudata (Dicraeosauridae + Diplodocidae) and persisted into the Cretaceous. We assess genus-level Diplodocoidea biodiversity using raw taxonomic data and Shareholder Quorum Subsampling (SQS). Results support prior findings of biological—not sampling—patterns: high Flagellicaudata diversity in the Late Jurassic and peak Rebbachisauridae diversity in the Albian. We also recover novel patterns, including higher overall diversity in the Cretaceous than previously recognized. Multivariate analyses suggest climate strongly influenced these faunal shifts, highlighting its role in shaping sauropod biogeography during the Jurassic–Cretaceous transition.



TRENDS IN DIPLODOCOIDEA DIVERSITY:

THE JURASSIC/CRETACEOUS FAUNAL TURNOVER

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Joana Órfão
(IDL)

October 16
Thursday: 13:00

in IDL room 1.1.37 (C1) or online
Teams Meeting ID: 347 677 275 084 0
Passcode: HS6Yg2Cz



calendar link