

A new transitional “libelluloid” family of odonates with Mesozoic affinities in the Eocene Green River Formation of Utah, USA

Steven D. Sroka, Thomas F. Howells, and André Nel

Acta Palaeontologica Polonica 68 (2) 2023: 337-342 doi:10.4202/app.01072.2023

The new “libelluloid” family Cordulibellulidae is described to accommodate a new genus and species *Cordulibellula inopinata* from the Eocene Green River Formation, Utah, USA. Even if its affinities remain somewhat uncertain because of the lack of information on structures others than those of the hind wing, its putative closest relatives are known from the Late Jurassic and Early Cretaceous. Therefore, this new fossil is interpreted as a “relict” taxon surviving until the Paleogene. This new addition to the odonatan paleoentomofauna of the Green River Formation confirms the high diversity of this clade during the Paleogene and in this formation.

Key words: Insecta, Odonoptera, Anisoptera, K/Pg boundary crisis, paleodiversity, Eocene, USA.

Steven D. Sroka [stevesroka@utah.gov; ORCID: <https://orcid.org/0009-0002-4670-6001>] and Thomas F. Howells [tomfh2@gmail.com; ORCID: <https://orcid.org/0009-0006-7221-7972>], Utah Field House of Natural History State Park Museum, Vernal, UT 84078 Utah, USA.

André Nel [anel@mnhn.fr; ORCID: <https://orcid.org/0000-0002-4241-7651>] (corresponding author), Institut de Systématique, Évolution, Biodiversité (ISYEB) Muséum national d'Histoire naturelle, CNRS, Sorbonne Université, EPHE, Université des Antilles, CP50, 57 rue Cuvier 75005, Paris, France.

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.

