



# 1st Palaeontological Virtual Congress

December 1<sup>st</sup>-15<sup>th</sup>, 2018

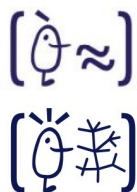
**BOOK OF ABSTRACTS**

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**Palaeontology in the virtual era**



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Museo Paleontológico de Alpuente



**Ist Palaeontological Virtual Congress.**  
**Book of abstracts.**  
**Palaeontology in a virtual era.**

**From an original idea of** Vicente D. Crespo.

**Published by** Vicente D. Crespo, Esther Manzanares, Rafael Marquina-Blasco, Maite Suñer, José Luis Herráiz, Arturo Gamonal, Fernando Antonio M. Arnal, Humberto G. Ferrón, Francesc Gascó and Carlos Martínez-Pérez.

**Layout:** Maite Suñer.

**Conference logo:** Hugo Salais.

**ISBN:** 978-84-09-07386-3

## BLOOD-SUCKING GENUS *CULICOIDES* (DIPTERA: CERATOPOGONIDAE) IN THE UPPER CRETACEOUS FOSSIL RECORD

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**Keywords:** amber, biting-midges, *Ceratopogonidae*, Cretaceous, haematophagy.

Biting-midges (Diptera: Ceratopogonidae Newman, 1834) belonging to the suborder Nematocera are small insects resembling non-biting midges (Chironomidae) or mosquitoes (Culicidae). The characters distinguishing it from other nematocerans were given by Edwards (1926). Fossil record of the family reaches Lower Cretaceous.

The genus *Culicoides* Latreille, 1809 is the most speciose containing about 1400 described species, covering more than 20% of the Ceratopogonidae fauna. Adult females of *Culicoides* are haematophagous on vertebrates, this way of nutrition is considered plesiomorphic. *Culicoides* belongs to Culicoidini: Ceratopogoninae, but relationships between subgenera and groups of species recognised within are unclear.

Fossil biting-midges are most often described from amber inclusions, whose unquestionable advantage is the very good preservation of morphological features, which allows the examination of fossil using similar criteria as for extant specimens.

So far, the oldest record of the genus *Culicoides* was *C. doyeni* CHOUFANI *et al.* 2014, from the French amber of Vendée (89,8-93,9 Mya). Currently, fossil records of the genus includes 49 species; fossil resins, inclusions, exclusively from the Upper Cretaceous (72-100 Mya), covers 18 species.

*Culicoides* inclusions come successively from ambers: Turonian French amber of Vendée with 1 species, New Jersey amber (also Turonian, 89.8-93.9 Mya) with 5 species, Siberian amber (Santonian, 84-86 Mya) with 4 species, French amber of Provence (also Santonian, 84-86 Mya) with 1 species, and Canadian amber (Campanian, 72-84 Mya) with 7 species. Presently, two new species in Burmese amber (Cenomanian, 99 Mya) have been found, which are coeval to the oldest records of *Culicoides*. Moreover, these fossils share number of morphological features with extant, European *Culicoides cameroni* Campbell *et Pelham-Clinton*, 1960, suggesting the recent species may be “living fossil” among Ceratopogonidae.