

Fossil carabids from Baltic amber -II - A new subgenus of *Bembidion* Latreille 1802 (Coleoptera: Carabidae: Bembidiini)

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Abstract. *Bembidion* (*Archaeophilochthus*) *christelae* a new subgenus and species belonging to the tribe Bembidiini (Coleoptera: Carabidae: Trechinae) preserved in a piece of Baltic amber (Eocene) is described. A comparison with recent fauna is made, and paleobiology of the species is hypothesized.

Résumé. Carabiques fossiles de l'ambre balte -II -Un nouveau sous-genre de *Bembidion* Latreille 1802 (Coleoptera : Carabidae : Bembidiini). *Bembidion* (*Archaeophilochthus*) *christelae*, un nouveau sous-genre et espèce appartenant à la tribu Bembidiini (Coleoptera: Carabidae: Trechinae) est décrit à partir d'une inclusion dans de l'ambre balte (Eocène). Sa comparaison avec les taxons récents est proposée et une hypothèse sur sa paléobiologie est faite.

Keywords: Coleoptera, Carabidae, new subgenus, *Bembidion*, Baltic amber.

Bembidiini is a tribe of small sized ground beetles (body between 2.0–9.5 mm long). Most species are predator and hygrophilous, showing a preference for riparian and marsh habitats. They are widely distributed, mainly in temperate areas (Jeannel 1941). However they are less frequent in intertropical and subtropical regions where they seem to have been ecologically replaced by the tribe Tachyini Motschulsky, 1862 (Machado 1992). More than 1.300 species are known to date, one hundred of them being polytypic species (Lorenz 2005).

The systematics of the tribe has been long time debated (see Ortuño & Toribio 2005). The most conservative systematics was proposed by Müller (1918) who includes the genera *Asaphidion* Gozis 1886, *Cillenius* Samouelle 1819 and *Bembidion* Latreille 1802 (last one divided in numerous subgenera). A very different point of view is that of Perrault (1981) who included 11 genera in the tribe Bembidiini. Toledano (2000) included only nine genera in the tribe (five of them matching those proposed by Perrault), and later, both Ortuño & Toribio (2005) and Toledano (2008) proposed a tenth genus: *Sinechostictus* Motschulsky 1864 as they considered it different to *Bembidion*. All these systematics of the Bembidiini agree in considering *Bembidion* as a very diverse genus, with several evolutionary lineages (many of them considered as subgenera).

In this paper a new subgenus and species of

Bembidion, preserved in Eocene Baltic amber, is described.

Although carabids are well known as fossils from Tertiary ambers, only a small number of species have been described, four of them from Baltic amber: Yablokov-Khinzoryan (1960) described *Dyschiriomimus stackelbergi* (Scaritinae), Abdullah (1969) described *Dromius bakeri* (Lebiinae), Erwin (1971) described *Tarsitachys bilobus* (Trechinae) and Ortuño & Arillo (2009) described *Calathus elpis* (Platyninae).

Systematic Palaeontology

Order Coleoptera L. 1758
Suborder Adephaga Clairville 1806

Family Carabidae Latreille 1802

Subfamily Trechinae Bonelli 1810

Tribe Bembidiini Stephens 1827

Bembidion Latreille 1802 [Hist. Nat. Crust. Ins., 3: 82.]

Archaeophilochthus n. subgen.

Type species. *Bembidion* (*Archaeophilochthus*) *christelae* Ortuño and Arillo, n. sp.

Diagnosis. Bembidiini with basal margin of the pronotum with oblique rear angles, elytral discal setae over 3rd interstriae, lateral margin of the humeral groove is arched, ending close to 4th or 5th striae, and humeral setae of lateral umbilicate serie grouped and more or less equidistant.

Derivatio nominis. The new subgenus name is a combination of *archaeos* (Gr., meaning ancient) and the name of the related subgenus *Philochthus*.

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