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# The first fossil record of *Nandeva* Wiedenbrug, Reiss & Fittkau (Diptera: Chironomidae) in early Eocene Fushun amber from China

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The first fossil representative of the extant chironomid genus *Nandeva* Wiedenbrug, Reiss & Fittkau, 1998 is described based on a specimen found in early Eocene (50–53 Ma) Fushun amber from China. The adult male of *Nandeva pudens* sp. nov. has the long RM vein as a continuation of M and R<sub>4+5</sub>, the bare squama, the strongly reduced anal area of the wing and hypopygial characters typical of extant species of the genus. Following the systematic concept based on adult male morphology and characters examinable in fossil specimens, we present *N. pudens* as a possible member of the Tanytarsini, arguing that *Nandeva* is part of this tribe or a possible sister group to the tribe. This is the first record of *Nandeva* from the Palaearctic region.

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CHIRONOMIDAE is a large dipteran family with more than 7000 extant species distributed worldwide (Pape *et al.* 2011). The family has left fossil records since the Late Triassic (Krzemiński & Jarzembowski 1999) with most taxa known from Eocene ambers. The fossil chironomid fauna from amber of the Baltic region (*ca* 43–48 Ma) is the best studied and includes the oldest known members of the tribe Tanytarsini (Seredszus & Wichard 2007, Gilka 2010, 2011a, Gilka *et al.* 2013, Zakrzewska & Gilka 2013, 2014, 2015a, b). Fushun amber, which derives from mining districts south of Fushun City, Liaoning Province, China (Fig. 1), has been dated as early Eocene (50–53 Ma: Wang *et al.* 2014). Thus, it is slightly older than amber from the Baltic region. There are 25 species-level names ascribed to Chironomidae from Fushun amber, all of which have been originally attributed to the subfamily Chironomiinae and placed in six newly proposed tribes: Fushunitendipini, Longicopulini, Lacustitendipini, Frutexitendipini, Asiatendipini, Hamicaudini (Hong 1981, 2002). Unfortunately, the descriptions provided

by Hong (1981, 2002) are inconsistent with the Code rules (ICZN 1999, i.a. Article 72.10, specification of type depository), some names are spelt in at least two ways (see Evenhuis 2002) and require validation (cf. Baranov *et al.* 2015). Moreover, the fossils are poorly presented, and the drawings are in an obsolete style. Consequently, on the basis of Hong's (1981, 2002) descriptions, the majority of the names originally attributed to the Chironomidae should be treated as *Nematocera incertae sedis* at best, and only some of them can be associated with genera of the subfamily Orthocladinae, presumably also recorded from Baltic and Sakhalin ambers (Seredszus & Wichard 2007, Baranov *et al.* 2015). Regardless of the systematic/nomenclatural inconsistency in Fushun chironomid studies, no records of the Tanytarsini from this amber have been published to date.

Here, the first fossil representative of *Nandeva* Wiedenbrug, Reiss & Fittkau, 1998 is described from Fushun amber. Although the genus has been erected relatively recently, several concepts for its systematic (tribal) placement have been proposed—within or close