Towards a molecular phylogeny of the tribe Tanytarsini (Diptera: Chironomidae): new genera emerge while others disappear

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The chironomid tribe Tanytarsini contains both large, widely distributed collective genera and small species groups with limited geographic distribution. The tribe houses species with peculiar behaviour or unusual habitat choice compared to most Chironomidae, and comprises several species and species groups still unknown to science. A stable phylogenetic hypothesis of the tribe is therefore appealing as it would provide a framework for studying behavioural evolution, character development and zoogeography of this diverse group. Previous phylogenies based on morphology generally are characterised by considerable amount of homoplasy and low branch support, while molecular data have been unavailable until recently for many relevant taxa. Here we present the current knowledge of phylogenetic relationships within Tanytarsini based on nuclear and mitochondrial markers. Our results show that while some taxa new to science require taxonomic placement at the generic level, there is little or no support to keep certain genera as they are understood today. The genera *Micropsectra, Krenopsectra, Parapsectra, Tanytarsus, Corynocera, Caladomyia* and *Virgatanytarsus* all are in need of taxonomic redefinition.

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