



## A redescription of *Culicoides griseidorsum* Kieffer, 1918, with comments on subgeneric position of some European taxa (Diptera: Ceratopogonidae)

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### Abstract

*Culicoides griseidorsum* Kieffer, 1918 is formally redescribed, and the male described and illustrated for the first time. The species is placed within *Sensiculicoides* Shevchenko, 1977 the subgenus restored from the synonymy with *Oecacta* Poey, 1853. A checklist of European species placed in subgenera *Sensiculicoides* and *Oecacta* is provided.

**Key words:** Ceratopogonidae, *Culicoides*, *Sensiculicoides*, *Oecacta*, diagnosis, checklist, Europe

### Introduction

Perhaps the most notorious genus among the speciose family of biting midges (Diptera: Ceratopogonidae) is the haematophagous *Culicoides* Latreille, which currently includes 1 365 species (Borkent 2015a, b), and further new species are still being discovered worldwide (e.g. Grogan & Phillips 2008, Nielsen & Kristensen 2015). Indeed, because of its relevance to the epidemiology of various vector-borne diseases, the group has received a great deal of attention in the last few decades. At the same time, fundamental gaps in the body of knowledge pertaining to phylogenetic relationships and species delimitation within this genus can set up serious obstacles to our understanding of the epidemiology of the vectored pathogens (Harrup *et al.* 2015).

At present, there are 129 species of the genus *Culicoides* listed in the Fauna Europaea database (Szadziewski *et al.* 2013): they represent the results of nearly 250 years of study across Europe. Nonetheless, our knowledge of their biology, taxonomy and geographical distribution can still be characterized as rather unsatisfactory. In this respect, one of the most notable taxonomic problems relates to the relationships between representatives of the subgenus *Oecacta* Poey, which for a long time has been treated as an artificial grouping of many unrelated species (Gutsevich 1973, Glukhova 1977, Augot *et al.* 2013). Moreover, a considerable number of European *Culicoides* species that belong to this grouping are still insufficiently diagnosed, and many specific names are doubtful. This also applies to *C. griseidorsum*, originally named and briefly described from Tunisia by Kieffer in 1918, and increasingly recognized as a livestock-associated species elsewhere (Ayllón *et al.* 2014, Baldet *et al.* 2004, personal observations). Males of the species have not yet been thoroughly described in the literature while the neotype was designated by the senior author based on a female specimen collected in Algeria more than thirty years ago (Szadziewski 1984). By virtue of the fact that we have a number of male specimens in our materials collected in Ukraine, and considering that the species has attracted increased attention from European workers, we deem it advisable to provide a complete redescription of *C. griseidorsum* in which both sexes are described and illustrated. Another purpose of this paper is to clarify the taxonomic position of some species within the genus *Culicoides* and to discuss the taxonomic scope of the subgenus *Oecacta* and the affiliation of its allied species.