

NEW SYNONYMS OF EUROPEAN BITING MIDGES (DIPTERA: CERATOPOGONIDAE)

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Abstract.— New synonyms are proposed for the following species: *Alluaudomyia needhami* Thomsen, 1935 (= *A. pentaspila* Remm et Glukhova, 1971), *A. riparia* Clastrier, 1978 (= *A. falcata* Knoz et Ratajsky, 1987, *A. bohemiae* Boorman, 1997), *Atrichopogon luteicollis* Becker, 1903 (= *Ceratopogon flavoscutellatus* Becker, 1908), *Brachypogon (B.) beaufortanensis* Delécolle et Rieb, 1992 (= *B. sudowicus* Szadziewski, 2001), *Ceratoculicoides moravicus* Knoz, 1987 (= *Ceratopogon gracilipes* Remm, 1967 preoccupied, *Ceratoculicoides havelkai* Wirth et Grogan, 1988, *Ceratoculicoides remmi* Gosseries, 1989), *Culicoides tbilisicus* Dzhanfarov, 1964 (= *Culicoides dendriticus* Boorman, 1976).



Key words.— Diptera, Ceratopogonidae, synonymy.

Biting midges in Europe is a group of small Diptera with many doubtful names proposed during regional studies. Moreover, types for many species are not recognized or lost. In this paper we explain relations of the names concerning five species reported or expected in Europe of the genera *Alluaudomyia* Kieffer, *Atrichopogon* Kieffer, *Brachypogon* Kieffer and *Culicoides* Latreille and propose nine new synonyms.

Alluaudomyia needhami Thomsen, 1935

Alluaudomyia needhami Thomsen, 1935: 287 (male, female, USA, New York); Wirth 1952: 430 (male, female, distribution in USA); Wirth and Grogan 1981: 16 (all stages, North America); Knoz and Ratajsky 1987: 567 (male, female, Czechia).

Alluaudomyia pentaspila Remm et Glukhova, 1971: 304 (all stages, Russia, Uzbekistan, Tajikistan); Remm 1988: 41 (Germany, France, Estonia, Russia, Ukraine, Tajikistan, Uzbekistan); Delécolle and Rieb 1990: 183 (record from France). **New Synonymy.**

Discussion. Wirth and Grogan (1981) mentioned that both species are very similar. However, they accepted Remm's personal opinion that they had different wing pattern. Further records in Europe of the species with the same male genitalia and wing patterns confirms previous suggestion that *A. pentaspila* is a junior synonym of the Holarctic *A. needhami*. In North America it is reported from Alaska to Texas and

Florida. This is the first species of *Alluaudomyia* with an Holarctic distribution.

Alluaudomyia riparia Clastrier, 1978

Alluaudomyia riparia Clastrier, 1978: 29 (male, France).
Alluaudomyia falcata Knoz et Ratajsky, 1987: 566 (male, female, Moravia). Preoccupied by *A. falcata* DeMeillon et Wirth, 1983.
New synonymy.

Alluaudomyia bohemiae Boorman, 1997: 173 (new name for *A. falcata* Knoz et Ratajsky, records from England and Spain).
New synonymy.

Discussion. The male genitalia and dark spots on wings of *A. falcata* (*A. bohemiae*) are identical to those of *A. riparia* and evidently indicate that all the names concern the same European species.

Atrichopogon luteicollis (Becker, 1903)

Ceratopogon luteicollis Becker, 1903: 74 (female, Egypt).
Atrichopogon luteicollis: Szadziewski 1984: 184 (combination, male, female, = *A. aegyptius* Kieffer, 1925; *A. phrixus* DeMeillon, 1943).

Ceratopogon flavoscutellatus Becker, 1908: 74 (female, Canary Islands). **New synonymy.**

Discussion. *Ceratopogon flavoscutellatus* Becker being a primary homonym of *C. flavoscutellatus*

Zetterstedt, 1850 was treated as a synonym of *Atrichopogon nemestrinus* (Santos Abreu, 1918) from the Canary Islands (Santos Abreu 1918, Borkent 1997). Present examination of the suggested female holotype preserved in the Museum für Naturkunde, Berlin (S. Cruz, 47179. II. flavoscutellatus, Zool. Mus. Berlin, mounted on a microscope slide by Peter Havelka) with two seminal capsules indicates that *flavoscutellatus* should be removed from the synonymy of *nemestrinus* and treated is a junior synonym of *Atrichopogon luteicollis*. The female has elongated setae on proximal flagellomeres (intersex) which is mentioned in the original description and this indicates that the specimen is not mislabelled and actually it is the holotype of *C. flavoscutellatus* from the Canaries.

Atrichopogon luteicollis is an Afrotropical species reported from South Africa, Sudan, Egypt, Algeria and the Canary Islands. It is expected to occur in southern Europe.

***Brachypogon (B.) beaufortanensis* Delécolle et Rieb, 1992**

Brachypogon (B.) beaufortanensis Delécolle et Rieb, 1992: 33 (male, female, France).

Brachypogon (B.) sudowicus Szadziewski, 2001: 211 (male, Poland). **New synonymy.**

Discussion. The original description of *B. sudowicus* stated that flagellomeres 2–11 were fused. The reexamined male from Poland has only 10 recognisable flagellomeres (2–8 fused) like the male from France.

The species represents a boreal faunal element as it was reported from French Alps (Savoie), 1400 m.a.s.l., and lowlands of NE Poland.

***Ceratoculicoides moravicus* Knoz, 1987**

Ceratoculicoides moravicus Knoz, 1987: 388 (male, female, Czechia). *Ceratopogon gracilipes* Remm, 1967: 27 (male, female, Georgia)(preoccupied). **New synonymy.**

Ceratoculicoides havelkai Wirth et Grogan, 1988 (new name for *gracilipes* Remm); Delécolle and Schiegg 1998: 274 (= *gracilipes*, *remmi*, *moravicus*, male, female, Switzerland). **New synonymy.**

Ceratoculicoides remmi Gosseries, 1989: 2 (new name for *gracilipes* Remm). **New synonymy.**

Discussion. Delécolle and Schiegg (1998) correctly concluded that *C. moravicus* and *C. havelkai* are conspecific, however they recognized the priority of a junior name *havelkai* over older *moravicus*. Now we correct the synonymy.

The species has been reported from Georgia, Turkey, Czechia, Germany, Switzerland, Macedonia (Struga n. Ohrid, 19 June 1974, 1 female, R. Szadziewski), Poland (Pagórki n. Elbląg, 10 July 1993, 1 male, J. Krzywiński). Recorded from Poland and Macedonia for the first time.

***Culicoides tbilisicus* Dhafarov, 1964**

Culicoides tbilisicus Dhafarov, 1964: 309 (male, female, Georgia); Glukhova 1989: 304 (male, female, Georgia).

Culicoides dendriticus Boorman, 1976: 102 (male, southern England); Delécolle 1995: 37 (male, female, France – Lorraine, Italy – Perugia). **New synonymy.**

Discussion. Gutsevich (1973) synonymized *Culicoides tbilisicus* Dhafarov, 1964 from Georgia with *C. furcillatus* Callot et al., 1962 from France. Boorman (1976) described *C. dendriticus* from England which was close but distinct from *C. furcillatus* in having similarly shaped parameres. Subsequently, Glukhova (1989) found that *C. tbilisicus* and *C. furcillatus* were distinct species, and removed *C. tbilisicus* from the synonymy. We now find that *C. dendriticus* is a junior synonym of *C. tbilisicus*.

The species probably represents a Mediterranean faunal element. It was recorded from Georgia, Bulgaria (1 male, Jasna Poljana, 10 June 1982, W. Krzemiński leg.), Italy, France, England. It is recorded from Bulgaria for the first time.

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