

TO THE KNOWLEDGE OF THE GENUS *CULICOIDES* LATR. 1809 (DIPTERA, CERATOPOGONIDAE) IN CZECHOSLOVAKIA

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Abstract. The author gives a short survey of 11 species of the genus *Culicoides* Latreille, 1809 (Diptera, Ceratopogonidae) captured in the territory of Czechoslovakia in 1965. Some of the mentioned species are recorded from Czechoslovakia for the first time.

The problems of the representation and distribution of species of the genus *Culicoides* in the territory of Czechoslovakia have been sparsely studied. First papers dealing with this subject (MINÁŘ 1962, 1965, PACLT 1962) have appeared only recently. However, the number of hitherto recorded species from Czechoslovakia (including the species mentioned in this paper), if compared with the number of species from the countries where the studies of the genus *Culicoides* have a long tradition (EDWARDS, OLDROYD, SMART 1939, CAMPBELL, PELHAM-CLINTON 1960, GUTSEVICH 1960), is low (16). This unfavourable proportion will soon be certainly decreased, if the studies in all regions of our territory are further intensified.

During 1965 the author obtained some material of Diptera of the family Ceratopogonidae. While determining the genus *Culicoides* he identified 11 species. As there were some species among them which have not been recorded from the Czechoslovak territory yet, the author publishes his findings in the form of this brief communication. He is most grateful to Dr. J. Chalupský of the Parasitology and Hydrobiology Department, Charles University in Prague for the revision of the material determined and for the valuable advice which he has given.

The material of Diptera was collected by means of UV-lamp, type Premalux/UV 100-2, with quartz mercury discharger THK 101, Tesla-Rožnov. The author employed the following method: At the height of 100 cm from the soil surface a white piece of linen 150 cm × 200 cm large was stretched. The UV-lamp was placed at the same height and at a distance of 150 cm from the linen to be illuminated by it. The lamp was switched on at dusk and was in operation for 2 hours. The Diptera of the family Ceratopogonidae were collected from the illuminated piece of linen by means of an exhaustor. The collection was made in the summer months. The collecting took place in the area of the Biological station of the Natural Sciences Faculty, Comenius University, in the territory of the forest reserve "Jurský Šúr" near Bratislava. The material was killed by the fumes of chloroform and deposited in the 70% ethyl alcohol.

The forest reserve "Jurský Šúr" is situated at the foot of the Small Carpathians, about 12 km northeast from Bratislava, near the village Jur. The whole district of this forest reserve is very moist. The core of the reserve, the alder forest, is regularly flooded in spring. The stagnant water pools in the adjoining meadows continue to exist until middle of June. The water level of streams and general inundation is outlined in the paper by PODHRADSKÝ 1961. Details on the forest reserve are given in the papers by KORBEL 1951, ČEPELÁK, VLČKOVÁ 1964. Adequate temperature and a number of water reservoirs and water pools have made this region an extensive breeding place of Diptera (Chironomidae, Ceratopogonidae, Culicidae etc.)

A SURVEY OF SPECIES IDENTIFIED

(Species marked with an asterisk are recorded from Czechoslovakia for the first time.)

Culicoides nubeculosus (Meigen), 1818 — 13. IX. (11 ♀ 4 ♂). Until recently recorded only from the district of the Lipno water reservoir, MINÁŘ 1965.

* *C. riethi* Kieffer, 1914 — 14. VII. (9 ♀ 4 ♂), 13. IX. (1 ♀ 5 ♂).

* *C. circumscriptus* Kieffer, 1918 — 14. VII. (5 ♀ 3 ♂), 15. VIII. (12 ♀ 3 ♂), 13. IX. (4 ♀ 6 ♂).

* *C. salinarius* Kieffer, 1914 — 13. IX. (4 ♀).

C. pulicaris (Linnaeus), 1758 — 14. VII. (70 ♀ 18 ♂), 15. VIII. (89 ♀ 13 ♂), 13. IX. (18 ♀ 23 ♂). Distributed in suitable localities all over the territory of Czechoslovakia, but not dominant everywhere.

C. obsoletus (Meigen), 1818 — 14. VII. (10 ♀), 15. VIII. (22 ♀ 7 ♂), 13. IX. (79 ♀ 11 ♂). Distributed as the preceding species *C. pulicaris*.

* *C. pictipennis* (Staeger), 1839 — 14. VII. (24 ♀ 6 ♂), 15. VIII. (11 ♀), 13. IX. (19 ♀ 4 ♂).

* *C. odibilis* Austen, 1921 — 14. VII. (6 ♀ 2 ♂), 15. VIII. (7 ♀), 13. IX. (3 ♀).

* *C. simulator* Edwards, 1939 — 14. VII. (1 ♀).

C. fascipennis (Staeger), 1839 — 14. VII. (4 ♀), 15. VIII. (6 ♀ 1 ♂), 13. IX. (9 ♀ 3 ♂). So far recorded only from the locality Doubí u Tábora, MINÁŘ 1962.

C. pallidicornis Kieffer, 1919 — 14. VII. (13 ♀), 15. VIII. (18 ♀ 6 ♂), 13. IX. (2 ♀). Recorded from the locality Doubí u Tábora, MINÁŘ 1962 and from the district of the Lipno water reservoir, MINÁŘ 1965.

Apart from the mentioned species some forms related to the species *C. maritimus* Kieffer, 1924 (3 ♀ of 14. VII., 1 ♀ of 13. IX) and *C. subfascipennis* Kieffer, 1919 (18 ♀ 2 ♂ of 14. VII, 12 ♀ 4 ♂ of 15. VIII., 5 ♀ of 13. IX.) were found. The occurrence of several halophilous species (*C. salinarius*, *C. circumscriptus*, *C. riethi*) is of interest. The occurrence of these species is likely to be connected with the presence of places with high concentration of salt in soil, which exist in the territory of the forest reserve of the Pannonian grove and which are regularly flooded every year.

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