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A SUBGENUS OF THE BLOODSUCKING MOSQUITOES OF THE GENUS AEDES, NEOMELANICONION NEWST. (= BANKSINELLA THEOB.) (DIPTERA, CULICIDAE), NEW TO THE FAUNA OF THE SOVIET UNION

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From material from the Maritime territory a new species of mosquito Aedes aureus Guts. (Gutsvich, 1955), was described from female specimens, with the suggestion that it possibly belonged to the subgenus Aedes Mg. The correct subgeneric placement of this species has remained in doubt until the present time. The subgenera of Aedes differ more distinctly in the characters of the males; and the male of A. aureus has not been described. Although it is stated in the dissertation of V. I. Shestakov (1966) that he succeeded in rearing a male of this species from a pupa, its description has not appeared in print. This circumstance, however, does not preclude the possibility of solving the problem with which we are concerned. A detailed investigation will make it possible to determine the subgeneric assignment of the species on the basis of the female.

We studied the collection material of the Zoological Institute of the Academy of Sciences of the USSR and the literature dealing with the subgenera of Aedes distributed in the foreign countries of the Far East, and we were able to establish that A. aureus should be assigned to the subgenus Neomelaniconion Newstead, 1907. This subgenus is better known under the name Banksinella Theobald, 1907. As stated in the Catalog of Mosquitoes (Stone et al., 1959), however, Newstead's work was published 22 days earlier than that of Theobald.

The subgenus Neomelaniconion comprises 20 species, of which two are oriental and one Australian while the remainder are distributed in the Ethiopian Region (Stone et al., 1959). Subsequently, A. imprimens (Walk.) previously placed in this subgenus, was assigned to the separate subgenus Edwardsaedes, mainly on the basis of features of the structure of the male genitalia (Belkin, 1962); A. imprimens, the range of which extends to the south of Japan, differs from A. aureus in the presence of light ringlets at the bases of the tarsal segments and of slight spots on the sides of the abdominal tergites.

The need, therefore, arises for comparing A. aureus with the only species of Neomelaniconion known from Asia—A. lineatopennis (Ludl.), which is distributed in the Oriental Region, in the north to the Philippines and China, and also in Australia and Africa (Knight & Hull, 1953). The presence in the collection of the Zoological Institute of a specimen of A. lineatopennis from Durban (South Africa) made it possible to compare the two species not only from the descriptions. They are very similar, which is evident primarily in the presence of characters peculiar to the subgenus as a whole: head from the sides with broad contiguous scales, in the center of the occiput a spot of narrow upright scales; proboscis somewhat longer than the fore femora; lateral surface of the thorax almost devoid of scales (except for some small spots); scales of the scutellum narrow; claws of the fore and middle tarsi each with a tooth; abdominal sternite VIII narrow. Differences were also noted especially in the color of the abdomen: in A. linneatopennis clear light bands occur at the bases of the tergites; in A. aureus indistinct spots of light scale are present in the middle part of the tergites and closer to their bases.

Morphological characters, distinguishable in microscopic preparations of the head, were also similar in both species: palps four-segmented, 1/5-1/4 as long as the proboscis (more precisely 0.22-0.23); 3rd antennal segment thin, without thickening; frons broad, with very numerous hairs and scales. The difference consists in the frons in A. lineatopennis being somewhat broader than in A. aureus, while the number of hairs in the former species is about 20, and in the latter 9-10.

In spite of the original proposal, A. aureus cannot be assigned to the subgenus Aedes since it differs in significant characters: in the middle part of the occiput the scales are narrow (in mosquitos of the subgenus Aedes, they are mainly broad), and the palps of the female are moderately long (in the subgenus Aedes, very short, 0.16-0.2 the length of the proboscis); further differences also exist.

In conclusion, we take this opportunity of thanking V. I. Shestakov for making available extracts from the text of his dissertation.

SUMMARY

The mosquito Aedes aureus Guts., found in the south of the Maritime territory, belongs to the subgenus Neomelaniconion Newst. (=Banksinella Theob.), reported for the first time for the fauna of the Soviet Union.

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