

THE DISCOVERY OF THE MOSQUITO TOXORHYNCHITES
CHRISTOPHI (PORTSCHINSKY, 1884) (DIPTERA,
CULICIDAE) IN KHABAROVSK TERRITORY
(AND A DESCRIPTION OF THE MALE)

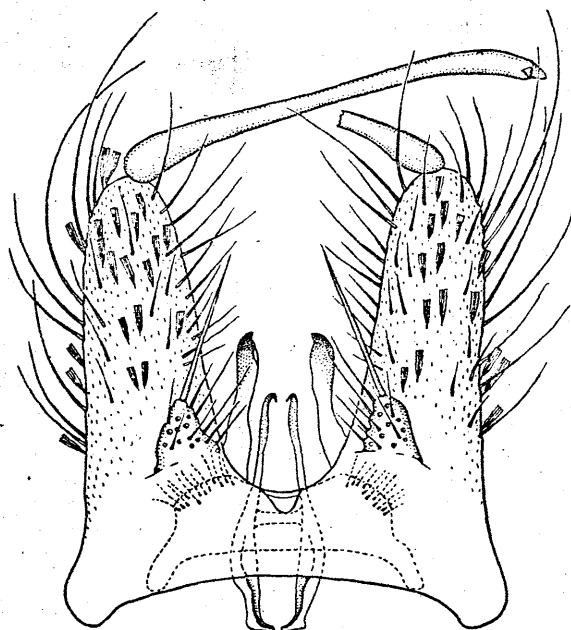
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In the years since the description of Toxorhynchites christophi by I. A. Portschinsky, on the basis of a single specimen, only three adult mosquitoes of this species (all females) have been taken. It has been surmised that this rare mosquito is found in the Soviet Union only in the Maritime Territory, since there was only the ambiguous reference ("Amur") concerning the point of discovery of the holotype, and the subsequent finds related to the south of the Maritime Territory.

On 6 June 1971 two pupae of T. christophi, from which adult insects, male and female, were subsequently obtained under laboratory conditions, were found in a hollow in a Manchurian ash (Fraxinus mandshurica Rupr.) 64 km northeast of the village of Petropavlovka. The tree, in the hollow of which the pupae were discovered, was in a stone pine and broad-leaved woodland near its edge. The thickness of the trunk in the region of the hollow was 35 cm; the distance from the ground to the entrance to the hollow was 62 cm; the diameter of the hollow was 10 cm. There were 5.5 liters of water in the hollow; the water was brownish, the color of strong tea. The hollow was inhabited by various instars of Aedes (Stegomyia) galloisi Yam. larvae and its pupae, in addition to the T. christophi pupae.

The adult specimens reared were found to be slightly damaged and part of the scales had been lost, the male genitalia were well preserved. The female corresponds to the available descriptions (Shtakelberg, 1937; Gutsevich, Monchadskiy and Shtakelberg, 1970). The male is described for the first time.

Proboscis long, tapering apically, recurved downward at a right angle. Scales of proboscis brown, with violet tinge on basal part of proboscis; there is a ring of silvery scales at the site of the bend. Palps slightly shorter than proboscis, with two narrow light rings; silvery at end of second segment and light yellow before apex of third. Palps apically recurved upward and pointed. Antennae black-brown; scales on second segment silvery, those on third segment brown. Occiput with broad appressed dark scales with metallic bluish tinge. Posterior margin of eyes bordered by a narrow band of silvery scales. Scales on scutum and abdomen not entirely preserved. Sides of thorax with patches of broad silvery scales; some of the scales on the pronotum and proepimera have a greenish tinge. Scutellum arcuate, with unbroken margin and a continuous row of bristles (a typical character of the entire subfamily Toxorhynchitinae). Wings slightly darkened, veins with brown scales, with metallic luster at wing bases. Legs mainly brown. White scales covering apices of first and second segments and base of third segment of fore tarsus, bases of first and following segments of middle tarsus, and second segment of hind tarsus. Tarsal claws simple.



Toxorhynchites christophi (Portschinsky, 1884)—male genitalia.

Genitalia (see the Figure). Coxite more or less uniformly covered with hairs, as well as with scales (externally and on the ventral face); ends of hairs of left and right coxite not in line. Tubercle of coxite conical, with a single long apical spine and several hairs. Style slender, practically straight and only slightly curved in apical fourth; length of style appreciably greater than length of coxite; a barely perceptible terminal spur slightly offset from the distal end of the style. Claspettes wanting. Plates of tenth tergites straight, sclerotized, apically hamate, with a tuft of delicate hairs. Phallosome (aedeagus) flask-shaped, consisting of two sclerotized plates connected by a membrane. Ninth tergite with two broad projections each bearing 17-19 slender long hairs along sides of posterior margin; margin of tergite between projections concave.

SUMMARY

Adult insects have been reared under laboratory conditions from pupae of the mosquito Toxorhynchites

christophi Portsch. collected from a hollow in a Manchurian ash 64 km northeast of Khabarovsk. The male of this species is described for the first time.

Culicidae. USSR fauna, Diptera, 3 (4): 1-384. Nauka Press, Leningrad.

LITERATURE CITED

GUTSEVICH, A. V., A. S. MONCHADSKIY and A. A. SHTAKELBERG. 1970. Mosquitoes. Family

SHTAKELBERG, A. A. 1937. Family Culicidae. USSR fauna, Diptera, 3 (4): 1-257. Acad. Sci. USSR Press, Moscow, Leningrad.

Khabarovsk Pedagogical Institute and Zoological Institute, USSR Academy of Sciences; Leningrad.



(Zaslavsky, 1984) - male

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