A NEW GENUS OF TRICHOCERIDAE FROM JAPAN (DIPTERA)

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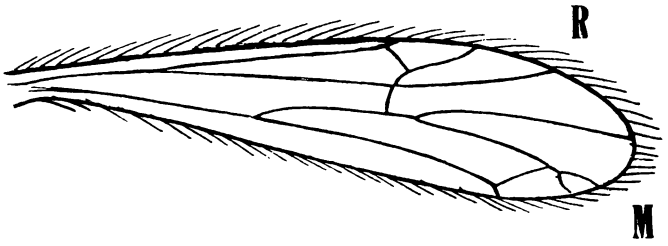
In 1935, Dr. Masaaki Tokunaga described a most interesting subapterous Trichocerid fly under the name *Alfredia imanishii*, from the Japanese Alps (Mount Sasagamine, Niigata Prefecture, Honshu, altitude 1300 meters, taken March 17, 1932, by Kinji Imanishi). The following year, Tokunaga transferred the fly to the genus *Trichocera*. It should be noted that when Bezzi described his new genus and species *Alfredia acrobata* from high altitudes in Italy, that the genus *Trichocera* was still considered as being a Tipulid and was placed in the tribe Hexatomini (Petauristini), close to the genus *Limnophila* Macquart. Tokunaga from the very first recognized the present fly as being a Trichocerid and was entirely justified in placing it in *Trichocera*, since only the female sex was then available. The recent discovery of the male confirms Tokunaga's statement "The male of the fly, which is unknown as yet, is probably with normal wings and until this point is settled it may be best to refer the fly to the genus *Trichocera*"—Tokunaga, 1936.

Recently I have received from Mr. Eiji Kawase, of the Hokuriku Agricultural Experiment Station, various specimens of Tipulidae from Niigata and these included two specimens of the present fly, including the hitherto unknown male. While this latter shows certain of the characters of *Trichocera*, particularly in the presence of tibial spurs, proportions of the tarsal segments and basic structure of the male hypopygium, the wing outline and venation are so different that a new genus for this species is indicated. The wings of the male are relatively small yet almost fully developed and the venation shows signs of being relatively constant. However, the veins are very pale and difficult to trace and I am able to describe and figure the venation in general terms only. There can be no doubt as to the distinctness of the venation when compared with that of the other four genera hitherto described in this family. Although the male specimen now available is in poor condition, I believe that the characters should be defined as accurately as is possible under these circumstances with the hope that more materials will be found by Mr. Kawase and his colleagues in Takada. The exact geographical station for the present material is at present unknown to me but may well prove to be topotypical or virtually so since various Tipulidae had been sent to me from Mount Sasagamine in an earlier shipment. Mr. Kawase has written as follows: "In the winter also, these mountains (Myoko and Hiuchi) are very

interesting since we found some of the flies on snow. These specimens, despite their poor condition, will be sent to you as soon as possible." I am very pleased to name this new generic group of winter crane-flies for Mr. Eiji Kawase, in appreciation of his important work on the Japanese Tipulidae.

Kawasemyia, gen. nov.

Characters generally as in *Trichocera* Meigen, especially as regards the antennae, presence of tibial spurs, relative proportions of the tarsal segments and structure of the male and female genitalia. It differs primarily in the moderate reduction of the wings, with distinctive venation, in the male, and in the subapterous condition in the female. The virtual loss of the halteres is noteworthy.



Wing of male *Kawasemyia imanishii* (Tokunaga) showing general outline and venation.

Wings of female reduced to small long-oval structures that show a concentration of veins and trichia in the radial and cubital fields. In the male, wings (Figure) proportionately small and weak the for size of the insect, with the veins very pale and indistinct, yet showing a definite arrangement or venation. Costal border narrowly thickened and continued virtually around the wing as a circumambient vein that is fringed with unusually long setae; veins *R* and *Cu* with rows of shorter trichia, other veins with sparse scattered trichia near outer ends. Venation approximately as figured but evidently variable within certain limits; entirely different from that of *Trichocera* and allies, apparently with vein *R* 3-branched, vein *M* 3- or 4-branched, and with cell *1st* M_2 elongate. Veins behind *M* or *Cu* entirely lacking, this due to the marked reduction of this field of the wing. Male hypopygium of normal Trichocerine structure, the dististyle simple, without armature. Gonapophyses appearing as long slender rapierlike blades. Ovipositor with the cerci only slightly decurved.

Genotype.— *Trichocera imanishii* (Tokunaga). Still known only from the alpine region of Niigata Prefecture, Honshu.

Now that the exact habitat is known and is accessible in winter to the entomologists of the Hokuriku Agricultural Experiment Station, it is earnestly to be hoped that larger series of this most remarkable fly will be taken and the full details of its morphology, and possibly its biology, be determined.

Published references

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1913 Atti della Soc. Italiana Sci. Nat., **57**: 19–23, 2 figs. (body, ♂ hypopygium of *Alfredia acrobata*).

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