

Systematic position and synonymy of *Cinygma tibiale* ULMER, 1920 (Ephemeroptera, Heptageniidae)

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(With 1 figure)

Thanks to the courtesy of Prof. Dr. H. STRÜMPFEL we had the opportunity to examine the adult male paratype of *Cinygma tibiale* ULMER, preserved actually in the Zoologisches Museum, Universität Hamburg. This investigation allowed us to clarify the systematic position of this species.

Epeorus (Epeorus) tibialis (ULMER, 1920) comb. nov.

Cinygma tibiale ULMER, 1920 (1919), Arch. Naturgesch., 85A (11) : 7.

Cinygmula tibialis: TSHERNOVA, 1974, Rev. ent. URSS, 53 (4) : 812.

(?) *Epeiron amseli* DEMOULIN, 1964, Bull. Ann. Soc. Roy. Ent. Belg., 100 (2) : 358.

Genitalia of examined adult male specimen of *Cinygma tibiale* (Kleinasien, Brussa, MANN leg., 1863, Coll. ULMER; see fig. 1) are wider, than it was depicted in ULMER's original description (Fig. 56, p. 79), but the outline of the penis lobes is very similar to that designed by DEMOULIN (1964) (Fig. 5 f, g, p. 359) for his *Epeiron amseli* from eastern Afghanistan. Joints' proportions of all legs*) and the wing venation (specifically, in the pterostigmal area and along the outer margin of forewing) are also in excellent agreement with fig. 5 of DEMOULIN's paper. We could not note any important difference between the examined paratype of *Cinygma tibiale* and the original description of *Epeiron amseli*, with the exception of the forewing length (10.5 mm in *Cinygma tibiale* paratype vs. 7.5-7.7 mm in the description of *Epeiron amseli*) and the partial absence of femoral markings in *C. tibiale* (maybe, due to the alcoholic preservation of this specimen).

We can state without doubt that the above mentioned species belong to the genus *Epeorus* EATON, 1881. Members of this genus are restricted to the highlands and each species have, as a rule, a limited distribution area. Only the great distance existing between the type-localities of both these species does not allow us to consider surely *Epeiron amseli* DEMOULIN as junior synonym of *Cinygma tibiale* ULMER.

*) In the examined paratype of *Cinygma tibiale* the left protarsus is under-developed.

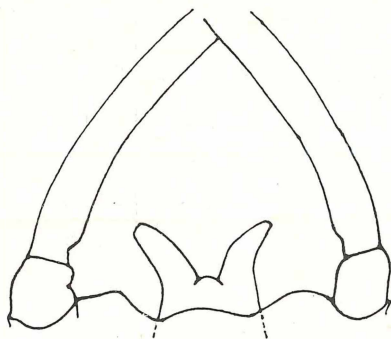


Fig. 1: Male genitalia of *Cinygma tibiale* ULMER, paratype (Original).

TSHERNOVA (1974) transferred three ULMER's *Cinygma* species to the genus *Cinygmula* McDUNNOUGH, 1933; now we suggest to be a genuine *Cinygmula* only two of these: *C. cavum* ULMER, 1927 and *C. malaisei* ULMER, 1927 (both from Kamtchatka peninsula), whereas strongly different *Cinygma tibiale* must be placed in *Epeorus* EATON.

In addition we can note that both *Epeorus tibialis* (ULMER) comb.nov. and *Epeorus amseli* (DEMOULIN) comb.nov., as well as recently described from Taiwan *Epeorus erratus* BRAASCH, 1981 are similar to *Epeorus znojko* (TSHERNOVA, 1938) from Eastern Transcaucasia and belong to the subgenus *Epeorus* s.str. sensu TSHERNOVA, 1981.

Generally, the genus *Cinygma* according ULMER's conception is quite heterogeneous; one more species - *Cinygma asiaticum* ULMER, 1924 from Kazakhstan, - is still incertae sedis. Unfortunately, the place of its type-specimens preservation is unknown, though the ULMER's original description indicates: "...im Museum Hamburg".

References

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