

Contribution to the study of European Ephemerellidae
(Ephemeroptera). III. Synonymy of *Ephemerella maculocaudata*
IKONOMOV, 1961, syn. n. with *Ephemerella mesoleuca*
(BRAUER, 1857)

DENISE STUEDEMANN & IVAN TOMKA

Entomological Department, Institute of Zoology, Péroilles, CH-1700 Fribourg

Based on the larval and female imaginal morphology *Ephemerella maculocaudata* IKONOMOV, 1961, syn. n. is synonymized with *Ephemerella mesoleuca* (BRAUER, 1857).

INTRODUCTION

In June 1988 we found larvae of *Ephemerella mesoleuca* (BRAUER, 1857) on stones bordering the river Loire in Châtillon-sur-Loire (France). Most of them were reared to the imaginal stage. In his publication on Ephemerellidae from Macedonia, IKONOMOV (1961) erected *Ephemerella maculocaudata* on the nymph and the female imago, and provided some ecological data. We compared IKONOMOV's (1961) description of *E. maculocaudata* with our sample and with descriptions of *E. mesoleuca* (BRAUER, 1857; ULMER, 1929; MIKULSKI, 1934 and KEFFERMUELLER, 1960).

RESULTS

The comparison reveals that all the defining characters of *E. mesoleuca* are represented in *E. maculocaudata*.

Nymphal characters: dark coloured segments in the middle section of the light cerci; a yellow longitudinal band on the head and the thorax which are brown; tergites without posterior tubercules; broad spines on the legs; tarsal claws with two teeth; mouth parts with the segmented maxillar palpus, the rounded glossae, the two broad first segments of the labial palpus. The habitat of the larvae mentioned by IKONOMOV (1961) resembles the one in which we captured the larvae of *E. mesoleuca*: little holes in great stones at the edges of the river. The larvae can only be collected one by one with a pair of tweezers.

Characters of the female imago: white coloration of the cerci and the legs, three curved veins between A1 and A2, the pterostigma with no anastomosed veins.

In the absence of significant morphological or ecological differences we propose following new synonymy: *E. mesoleuca* (BRAUER, 1857) = *E. maculocaudata* IKONOMOV, 1961.

ACKNOWLEDGEMENTS

This study was supported by the Swiss National Science Foundation (grant no. 3.506-0.86). We thank Dr. Landolt, Mr. Chovet and Mr. Lecureuil for their useful help in collecting the mayflies. We are furthermore obliged to Mrs. Mitrevska-Spasoska and Mrs. Janke for their translations.

RÉSUMÉ

La description de la larve et de la femelle adulte de *Ephemerella maculoaudata* IKONOMOV (1961) est comparée avec du matériel frais et des descriptions de *Ephemerella mesoleuca*. La similitude morphologique et écologique entre les deux espèces permet de synonymiser *E. maculoaudata* avec *E. mesoleuca*.

BIBLIOGRAPHY

- BRAUER, F. 1857. Neuroptera austriaca. *Carl Gerold's Sohn*, Wien, 75 pp.
- IKONOMOV, P. 1961. Eintagsfliegen (Ephemeroptera) Mazedoniens, Fam. Ephemerellidae. *Acta Mus. maced. Sci. nat.*, 8 (3): 53–74.
- KEFFERMUELLER, M. 1960. Badania nad fauna jetek (Ephemeroptera) wielkopolski. *Poznanskie towarzystwo przyjaciol nauk*, 19: 1–70.
- MIKULSKI, J. 1934. Über zwei interessante Ephemeropteren aus Polen. *Konowia*, 13 (1): 47–53.
- ULMER, G. 1921. Über einige Ephemeropteren-Typen älterer Autoren. *Arch. Naturgesch.*, 87 (6): 229–267.

(received December 5, 1988)