

Mr. M. Hubbard  
with kind regards  
Ad Mol

## Oligoneuriella polonica n. sp., and a note on *O. pallida* (Hagen, 1855) (Ephemeroptera: Oligoneuriidae)

by

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**ABSTRACT.** — A lectotype and paralectotype have been designated for *O. pallida*, whereas *O. mikulskii* Sowa was recognized as a junior synonym of this species. The presumed larvae of *O. pallida*, as described by Sowa (1973), appeared to belong to a new species, for which the name *O. polonica* is proposed. The adult stages of the latter are not yet known.

### Introduction

In 1855, Hagen described the mayfly *Oligoneuria rhenana* var. *pallida* after a male and a female from Hungary. The male of the variety differed from that of *O. rhenana* Imhoff, 1852, in the smaller size and the broad quadrangular cranium; in *O. rhenana* the eyes leave just a narrow cranium. Later, Hagen (1873, 1888) was convinced that *O. pallida* and *O. rhenana* were different species, but most later authors still considered *O. pallida* as a variety of *O. rhenana*. For the latter species Ulmer (1924) erected in the meantime the genus *Oligoneuriella*.

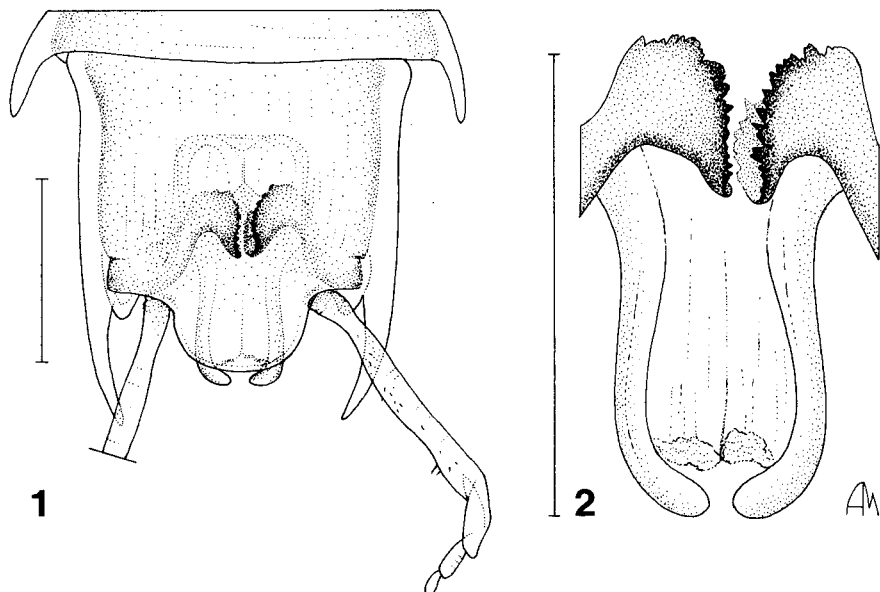
For a long period *O. rhenana* was the only recognized species in the genus. Later, *Oligoneuriella mikulskii* Sowa, 1961, and *O. keffermuelleriae* Sowa, 1973, were described from Poland. Both species were characterized a.o. by the fact that in the male the eyes were placed widely apart. A third species with the same feature, *O. poecile* Ikonomov, 1962, was synonymized with *O. mikulskii* by Sowa (1973). In the same publication, Sowa removed the name *O. pallida* from the synonymy of *O. rhenana*, to provide a newly discovered, unknown, larva with that name. No adult specimens of this species have been obtained with the larvae.

The adults of *O. pallida* were still poorly known, as no taxonomical information was added, ever since the publication of the original, rather brief, description in 1855. Therefore I decided to study the types of *O. pallida*. The study revealed that *O. pallida* was different from *O. rhenana* indeed, but surprisingly identical to *O. mikulskii*, so that this species is regarded now as a junior synonym of *O. pallida*. Dr. R. Sowa, to whom I wrote about the case, agreed with this conclusion (R. Sowa, pers. comm.).

The synonymy of the species is as follows:

- Oligoneuriella pallida* (Hagen, 1855)
- Oligoneuria rhenana* var. *pallida* Hagen, 1855: 268
- Oligoneuria pallida*: Eaton, 1871: 56
- Oligoneuria pallida*: Hagen, 1873: 390
- Oligoneuria rhenana* var. *pallida*: Eaton, 1883: 32
- Oligoneuria pallida*: Hagen, 1888: 225
- Oligoneuriella yugoslavica* Ikonomov, 1958: 858 (nomen nudum)
- Oligoneuriella mikulskii* Sowa, 1961: 287 (n. syn.)
- Oligoneuriella poecile* Ikonomov, 1962: 69

The type series of *Oligoneuriella pallida* consists of two pinned specimens, one male and one female. The male, with genitalia in microtube, and bearing a white label: "Oligoneuria pallida Ungarn Fric." and a red label: "Type 11204", is designated now as lectotype. The female, with two white labels: "Hungar. Frivald." and "Hagen" and one red label: "Type 2 11204", is a paralectotype. Both specimens were collected in Hungary by Frivaldszky. No exact locality is known, but according to dr. S. Ujhelyi, Budapest (in lit.), it is not unlikely that the specimens originated from the river Danube in or near Budapest. The types are kept in the Museum of comparative Zoology, Cambridge, Massachusetts, USA.



Figs 1-2. *Oligoneuriella pallida*, lectotype, genitalia after treatment with lactic acid, ventral view. 1: genitalia; 2: detail of penis. Scale-lines indicate 0.5 mm.

The type specimens of *O. pallida* agree very well with the description and figures of *O. mikulskii* by Keffermüller (1978). It is notable that dorsal spots are present on the abdomen of the lectotype, which is contradicting to the original description of *O. pallida*. These spots, however, are not very contrasting to their background and may easily be overlooked, as the abdominal integument is rather crumpled. The genitalia of the lectotype are shown in figs 1 and 2.

*O. pallida* is known from Poland (Keffermüller, 1978; Sowa, 1961, 1975), Czechoslovakia (Soldán, 1978), Rumania (Russev, 1973, 1977) (all sub nom. *O. mikulskii*), Yugoslavia (Ikonomov, 1962, sub nom. *O. poecile*) and Hungary (Hagen, 1855; Pongrácz, 1914). From the latter country I have seen two additional females (Nagy­tétény, 6.VII.1961; Tanakajd, 14.VIII.1961), which are in the collection of dr. S. Ujhelyi, Budapest. Two specimens from Elberfeld (east of Düsseldorf, BRD), which are mentioned by Hagen (1873), do not belong to *O. pallida*. Apparently *O. pallida* is confined to large lowland rivers.

The larvae, described by Sowa (1973) as *O. pallida*, and mentioned later by Soldán & Landa (1977) and Alba Tercedor (1983), cannot be given that name. In fact they belong to a new species, which is described below.

*Oligoneuriella polonica* n. sp.

*Oligoneuriella pallida*: Sowa, 1973 (nec Hagen, 1855).

Material. — Holotype: Full-grown ♂ larva (in alcohol), River San at Krzeszów, Poland, 20.VI.1966, leg. R. Sowa. Paratypes: 3 ♀ larvae (in alcohol), same locality and date as holotype; 1 ♂ larva (on slides), River Warta before Wielún; Poland, 21.VII.1963, leg. B. Szczęncy. Holotype and 1 paratype in Rijksmuseum van Natuurlijke Historie, Leiden, the Netherlands; remaining paratypes in author's collection. 13 additional larvae from the river San and two from the river Warta are in the collection of dr. R. Sowa, Kraków.

*Oligoneuriella polonica* has already been described in detail by Sowa (1973). There is no need to give a full description here. The combination of characters, by which the new species can be recognized, is as follows: Gill-blades of abdominal segment I larger than other gill-

blades; row of long soft hairs on basal half of posterior margin of middle and hind femora; dorsal side of fore tibia with some spines in distal part; no pigmentation on tergites; side margins of abdominal segment IX convex; in full-grown ♂ larvae space between eyes as wide as one eye and eyes reaching beyond lateral margins of head. Adults are not known yet. Thus far *O. polonica* is found only in large slowly running rivers with a sandy bottom. Particularities of the type-locality in the river San are given bij Sowa (1975).

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