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MICRASEMA SETIFERUM PICTET (TRICHOPTERA) REPRESENTED IN THE APPENNINES BY A NEW SUBSPECIES

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ABSTRACT

In the Appennines of central and southern Italy, as well as in Sicily, *Micrasema setiferum* Pictet, a species largely distributed in northern, central, and eastern Europe, is represented by a distinct geographical race, well defined by several features in the ♂ genitalia.

Male specimens of *Micrasema* Mc Lachlan, sampled between 1951-1984 in the central and southern Appennines and Sicily, and deposited in the Instituto di Zoologia of Perugia, closely resemble *M. setiferum* Pictet, 1834, in their genitalia (Botosaneanu, 1974: 96-100). Nevertheless, careful study of all the ♂ genitalic characters showed that three of them are clearly characterizing a distinct geographical race, which will be described here as new subspecies. The characters are present without strong variation in all the available specimens. It should be noted that in this genus a slightly different angle of observation, a longer or shorter macerating time in KOH (as well as the individual variability) can result in quite different aspects of details of the genitalia; such aspects did not influence us when describing the new subspecies. The ♀♀ caught in association with the ♂♂ of the new ssp. are not described here, the ♀ genitalia having no interesting distinctive characters; they were, nevertheless, designated as paratypes.

Micrasema setiferum dolcinii nov. ssp.

Material.-

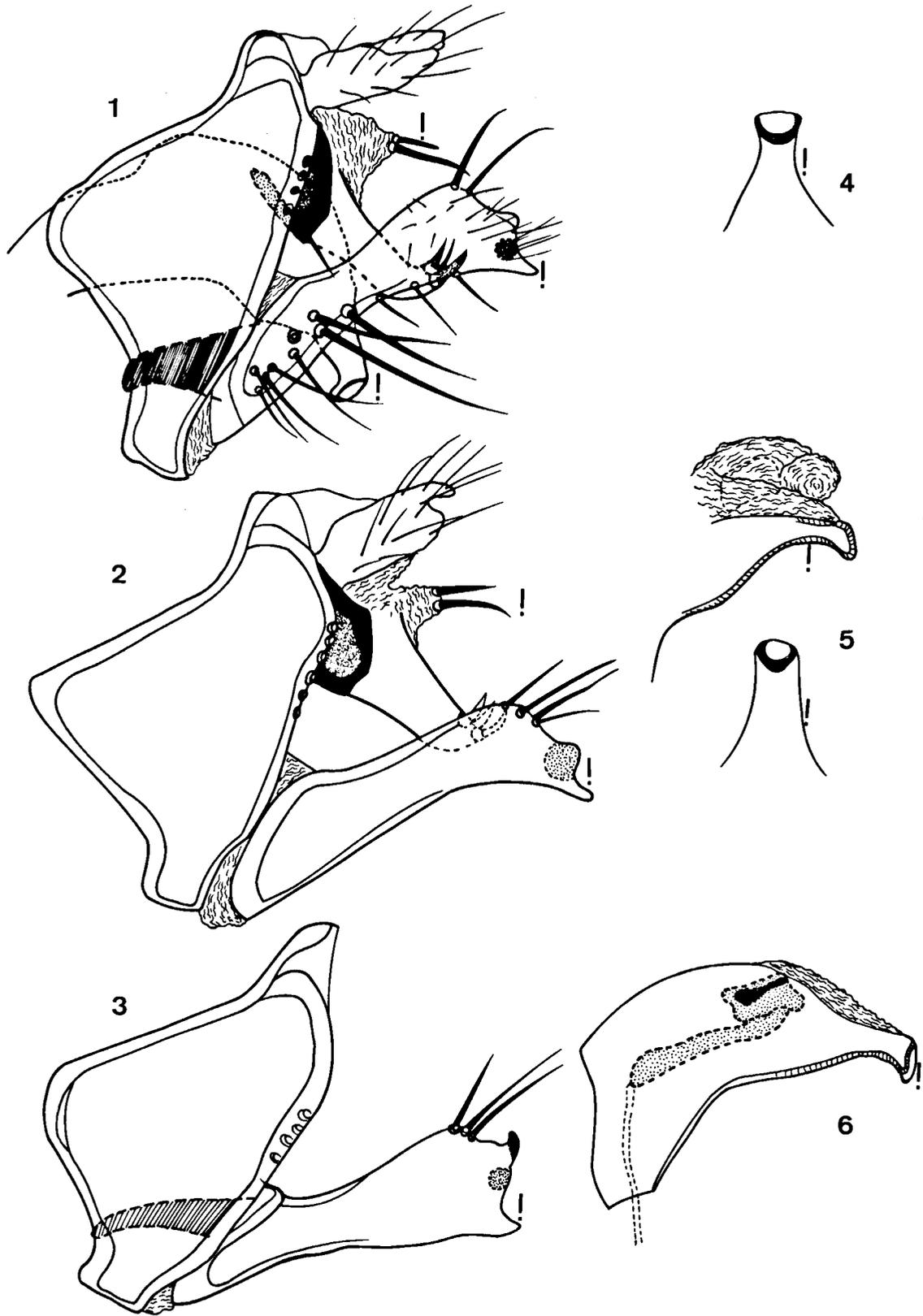
♂ holotype from Fiume (= River) Vomano, Montorio al Vomano (Teramo, Abruzzi), alt. 260 m, 14.V.1951, leg. G.P. Moretti. 230 ♂ paratypes (as well as 45 ♀ paratypes) were collected either together with the holotype or from the following localities:

Fiume Nera, Visso (Macerata, Marche), 600 m; Fiume Potenza, Fiuminata (Macerata, Marche), 400 m; canal of Fiume Nera, Piediluco (Terni, Umbria), 368 m; Fiume Sentino, Isola Fossara (Perugia, Umbria), 400 m; Fiume Velino (Rieti, Lazio), 400 m; Camigliatello, Sila Piccola (Cosenza, Calabria), 1200 m; stream Cavaliere, Sila Piccola (Cosenza, Calabria), 1500 m; spring S. Domenica, Paternò (Catania, Sicilia), 200 m.

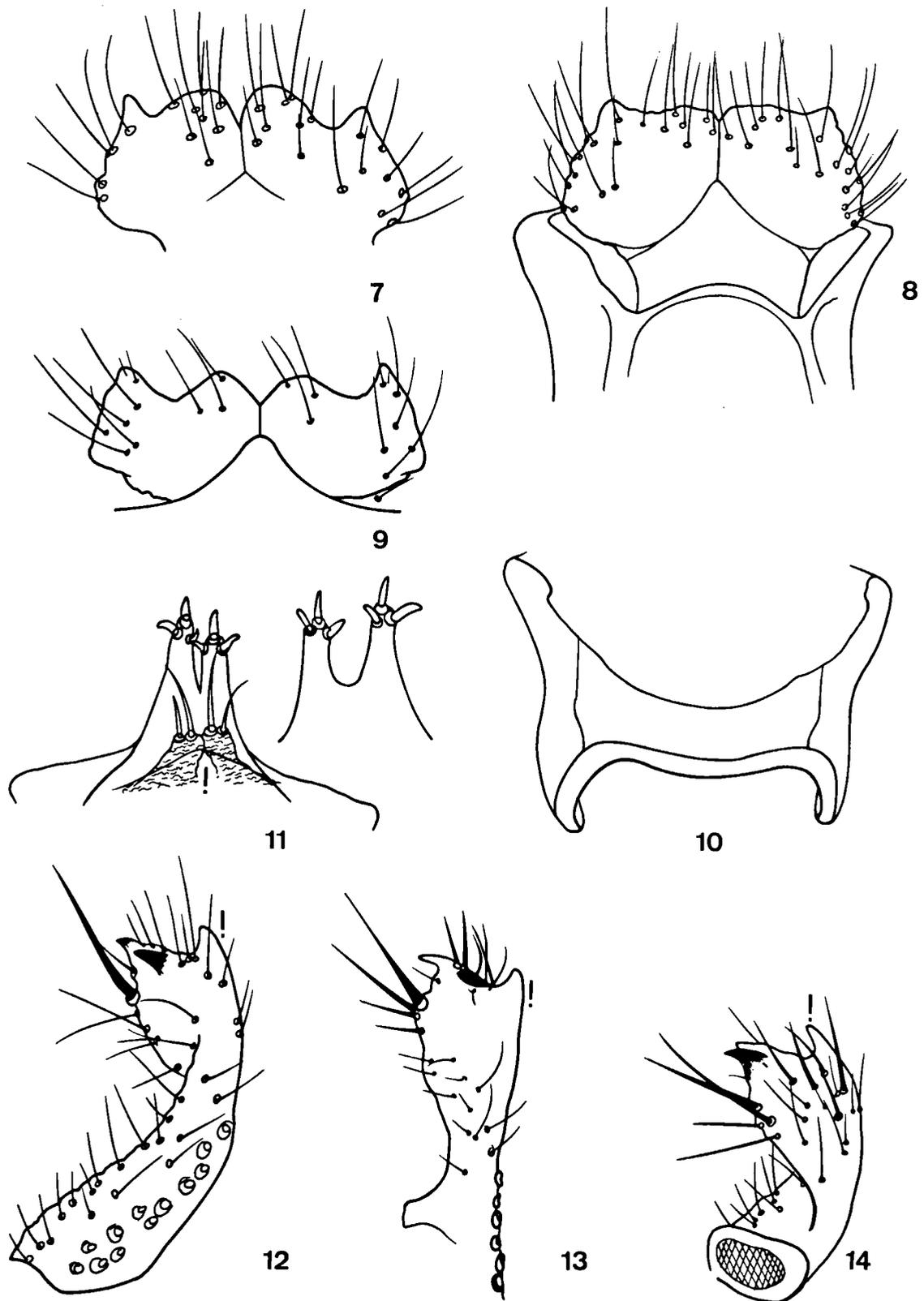
Holotype and most of the paratypes kept in the Instituto di Zoologia, Facoltà di Scienze di Perugia; 15 paratypes of both sexes are in the Zoölogisch Museum Amsterdam.

Description.-

Wing expanse, in the ♂♂: 8.5-9 mm (in the ♀♀: 10.1-12.6 mm). In both sexes a rather long, pointed, median spur near posterior border of abdominal venter VI, and no trace of such a



Figs. 1-6. *Micrasema setiferum dolcini* nov. ssp., ♂ genitalia. 1-3: lateral view, more or less complete; 4-6: phallic complex in lateral view (5-6) and apex of phallobase in ventral view (4-5). 1, 3, 4, 6: Fiume Vomano; 2, 5: Fiume Sentino.



Figs. 7-14. *Micrasema setiferum dolcinni* nov. ssp., ♂ genitalia: 7-9: superior appendages, dorsal view; 10: IXth abdominal sternite; 11: Xth segment in dorsal view; 12-13: right gonopod, median side; 14: left gonopod, dorsal view. 7-8, 10-11, 13-14: Fiume Vomano; 9: Fiume Velino; 12: Fiume Sentino.

spur on the VIIth venter.

IXth segment (fig. 1-3) as described for *M. s. setiferum*; IXth sternite (fig. 10) short, only very indistinctly delimited laterally. Plate formed by the superior appendages (fig. 7-9) varying in shape, with median excision shorter or deeper, narrower or broader, median lobes more or less prominent, and with some tendency of the lateral lobes (more or less pointed in dorsal view) to reach beyond the median ones. Intermediate appendages (Xth segment) as in *s. setiferum*, ventral lobes very strong (fig. 1, 2, 11), with a distinct, dark "frame" laterally at base, and with 3 spurs (fig. 1-2), dorsal lobes membranous, always with one shorter and one longer seta. Gonopods (fig. 1-3, 12-14) as described for *s. setiferum*, with only one distinction: instead of being a blunt lobe, the lower apical angle is always a prominent, pointed projection, notwithstanding the orientation given to the gonopod. The phallic complex is characterized by the apical portion of the ventral, sclerotized part of its phallobase (fig. 1, 4-6) looking like a bottleneck, and distinctly bent ventrad in lateral view.

The following characters will serve to distinguish the new subspecies from the Central-European *M. s. setiferum*: dorsal lobes of Xth segment with one longer and one shorter seta (this last seta replacing one or two small "spurs" similar to those of the ventral lobes); gonopods with distinctly protruding, acute apical-inferior angles; apical part of phallobase bottlenecked, apex strongly bent ventrad.

The subspecies is named for the untimely deceased Prof. Carlo Dolcini, former physiologist at the Faculty of Sciences, University of

Perugia.

Ecological and distributional remarks.-

This subspecies inhabits the Rhithral of water courses draining altitude zones between ca. 200-1500 m of the Appennines of central and southern Italy (Marche, Umbria, Abruzzi, Lazio, Calabria) and of Sicily. These streams are shallow, with clear or slightly turbid water, current velocity about 50 cm/sec; temperatures oscillating between 7 and 14°C. The larvae and pupae are present in very high numbers on stones, frequently in association with *Potamo-phylax cingulatus* Steph. The imaginal emergence is massive at sunset during June-July (April-May in Sicily), when the winged insects move away from the water courses, being often squashed by passing cars. The typical *Micrasema setiferum* was never found in Italy and, according to the present paper, *Micrasema setiferum* (as recorded in the First list of Italian Trichoptera, 1981) should be substituted by *Micrasema setiferum dolcini*. It is interesting to note that neither *M. setiferum setiferum*, nor *M. setiferum dolcini* nov. ssp., were found in northern Italy: there is apparently a gap between the distribution areas of the two taxa.

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