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ON THE INFRASPECIFIC STRUCTURE OF DRUSUS DISCOPHORUS RADOVANOVIĆ IN BULGARIA, WITH DESCRIPTION OF TWO NEW SUBSPECIES

(TRICHOPTERA: LIMNephilidae)

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ABSTRACT. Drusus discophorus Rad. is represented by two forms in Bulgaria. Both of them differ from the nominate one (occurring in some mountains in SW Yugoslavia) by their small size and less noticeable differences in male genitalia. These two forms are considered and briefly described as separate new subspecies. One of them is spread in the subalpine zone of the high W Bulgarian mountains Pirin, Rila and Vitosha, and it is much smaller and considerably lighter in colour. The second new subspecies is also smaller than the nominate form, but noticeably fuscous; it occurs in the Rhodope Mountains, and its geographical isolation is another reason for being separated from the type subspecies.

Radovanović (1942) described this species from several massifs along the Yugoslav-Albanian border, in Macedonia and Montenegro. Later Schmid (1956) published an exhaustive redescription of D. discophorus, based on material from one of the typical localities of this species. The first record of the presence of D. discophorus in Bulgaria is given by Botosaneanu & Sýkora (1963) who revised the material erroneously published (Klapálek, 1913) as D. rectus McL. I have now established that D. discophorus is one of the most common representatives of the genus in most of our high mountains: Rila, Pirin and Vitosha. At the same time, underestimating the considerable size and colouration differences, I attributed the Bulgarian insects to the typical form. Thus, it was rather surprising to find (Kumanski & Malicky, 1976) a quite different, dark population of this species on the Rhodope Mts., its subspecific status had not been specified then. Intensive trichopterological investigation in the last decades have shown that the mountainous territories of the Balkan Peninsula are regions of high speciation activity. For the genus Drusus in particular the massifs in the northern half of the peninsula are most important (i.e. in Yugoslavia and Bulgaria) where a series of usually closely related and locally spread endemic species have been discovered. The existence of three closely related, although separate forms of D. discophorus again confirms that.

Drusus discophorus pallidus ssp. n.

Drusus discophorus: Botosaneanu & Sýkora, 1963:122-123; Kumanski (nec Radovanović), 1981:142. Drusus discophorus discophorus: Kumanski (nec Radovanović), 1973:112-113; Kumanski & Malicky (nec Radovanović), 1976:104. Drusus rectus: Klapálek (nec McLachlan), 1913:15.

Rather small insects, very variable in size; length of forewing (♂, ♀) 5,5 - 9,0 mm. Coloration pale-yellow to yellow-brownish, in general much lighter than in the other subspecies. Spur formula and other body features as in the nominate form, except the caudal shape of segment 10 of the male; the latter is heart-shaped (as shown on Fig. 2, e-f in Botosaneanu & Sýkora, 1963) and not vertically oval (Schmid 1965, pl. 10, Fig. 4) as in the typical subspecies.

Distribution. This subspecies is spread in the zone between 1400 and 2500m in the high mountains Pirin, Rila and Vitosha in W Bulgaria. It inhabits both the subalpine lakes and the adjacent rhithral where it usually is one of the common caddisflies from July to the first decade of October.

Holotype chosen among the males of a large sample (20♂ and 5♀) from the Rila Mountains, the Lower Elensko Lake (ca. 2300m alt.), 31.7.1965, leg.A.Popov. The holotype and a large series of paratypes (altogether 50♂ and 25♀) from 20 localities in the three above mentioned mountains is kept in the collection of the National Museum of Natural History, Sofia.

Discussion. Besides the restricted distribution, the new subspecies is easily distinguished from its light coloration and smaller size (the insects from Vitosha population being the most reduced in size).

Drusus discophorus rhodopaeus ssp.n.

Drusus discophorus Rad.ssp.?: Kumanski & Malicky, 1976:104.

Also small insects, but less variable than D.d.pallidus ssp.n.; forewing length (♂,♀) 7,5-9,5 mm. General coloration rather fuscous; head, mesothorax, metathorax and legs dark brown to black. Wing membrane brownish, venation well marked, darker. Spurs and other features (including genitalia) not different from D.d.pallidus, as well as from the nominate form, with the exception of the caudal shape of segment 10 in the male (after Schmid's (1956) illustrations of D.discophorus Rad.).

Distribution. The area inhabited by this new subspecies is restricted to the rhithral between 1200 and 1700m of the Central Rhodope Mts, thus occupying the easternmost part of the territory of distribution of the species as a whole.

Holotype ♂ and a couple (♂ and ♀) of paratypes (streamlets in the vicinity of the mountain hut "Erkyupriya", 1300-1700m, 26.5.1969, leg.D.Braasch) in the collection of the National Museum of Natural History, Sofia; 1♂ paratype (same region, 1.-2.9.1971, leg.D.Braasch) and 1♀ paratype (River Shirokolashka, upper stream, 1200-1600m, 21.-31.8.1971, leg.D.Braasch) in coll.Malicky, Lunz am See, Austria.

Discussion. Except for the smaller size, the new subspecies is morphologically less different from the nominate form than D.d.pallidus. Its main distinctive feature remains the geographical isolation of the population. This is more noteworthy as the most individualized subspecies (D.d.pallidus) occupies the central part of the species territory of distribution, thus separating the two subspecies closer to each other: D.d.dicophorus in the West, and D.d.rhodopaeus in the East.

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