On the East Palaearctic species of *Dicranocephalus* (Heteroptera: Stenocephalidae)

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Species status is restored for *Dicranocephalus ferganensis* Horváth, *D. brevinotum* Lindberg, *D. femoralis* Reuter, *D. alticolus* Zheng, *D. ganziensis* Ren (not synonyms of *D. agilis* Scopoli), *D. kashmiriensis* Lansbury (not a synonym of *D. marginicollis* Puton) and *D. putoni* Horváth (not a synonym of *D. marginatus* Ferrari).

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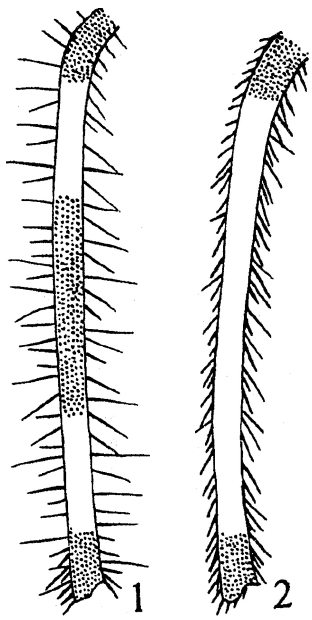
The revision of the genus *Dicranocephalus* Hahn, 1826 by Lansbury (1965-1966) included 32 species, 19 of them Palaearctic. Subsequently, two East Palaearctic species were placed in synonymy (Kerzhner, 1976) and two new species described from China (Zheng in Hsiao & al., 1981; Ren, 1990). Moulet (1994) has established numerous new synonymies in the genus, and the number of Palaearctic species has been reduced by him to eight. Moulet listed the type specimens examined by him, but did not discuss the reasons for synonymy.

Examination of collection of the Zoological Institute, St.Petersburg shows that *D. ferganensis*, *D. femoralis*, *D. kashmiriensis* and *D. putoni* are separate species, and their distinguishing characters were correctly indicated by Lansbury. The status of *D. brevinotum*, *D. alticolus* and *D. ganziensis*, known from a few specimens not examined either by Moulet or by us, is not fully clear, but at least, contrary to Moulet, they are not synonyms of *D. agilis* and for the time being should be considered separate species. The distribution of most of the species discussed in the Eastern Palaearctic is shown in Fig. 3.

Dicranocephalus ferganensis (Horváth, 1887), sp. dist.
(Fig. 1)

Moulet (1994) has placed this species in synonymy with *D. agilis* (Scopoli, 1763). Examination of extensive material of both species shows that they are readily distinguishable by many characters. In *D. ferganensis*, the hind femora are black in apical 2/3, sometimes even in 4/5; longest hairs on femora almost equal to median width of femora; hind tibiae (Fig. 1), in addition to dark base and apex, with a dark ring in the middle; hairs on hind tibiae erect and semierect, equally long at inner and outer sides, longest of them almost twice as long as width of tibia. In *D. agilis*, the hind femora are black in apical 1/3, at most in 1/2; longest hairs on femora about one-third of their median width; hind tibiae (Fig. 2) darkened at base and apex, but without dark ring in the middle, hairs covering them semierect and more stiff, longer on their inner side, longest of them about as long as width of tibiae. Also the shape and pilosity of parameres is different (see Lansbury, 1965-1966, Figs 36, 57). All differences are constant, no intermediate specimens were found, even from the areas of sympatric distribution and two localities in which both species were collected. Hence subspecific status of *D. ferganensis* is also excluded.

We have examined more than 400 specimens of *D. ferganensis* from Turkmenistan (Ashkhabad; Bakharden; Repetek; Badkhyz), Western (Inder Lake; Mugodzhary Mts; Mangyshlak) and Southern Kazakhstan (Karatau Mts; Muyun-Kum; Alma-Ata; Dzhungarsk Alatau; Tarbagatay Mts; Zaisan Lake, etc.), Uzbekistan (Tashkent; Samarkand; Bukhara, etc.), Kirgizia (Beshkek; Przhevalsk; Talas Alatau), Tadzhikistan (many localities), Iran, Afghanistan and Azerbaijan (4 specimens from Ordubad, of various collectors). Of *D. agilis*, we have ex-



Figs 1-2. *Dicranocephalus*, hind tibia: **1**, *D. ferganensis*; **2**, *D. agilis*.

amined more than 500 specimens from Western Europe, Moldavia, Ukraine, central and southern part of European Russia (including Astrakhan and Orenburg provinces), Western (Urda; middle course of Ural; Temir Distr.) and Northern Kazakhstan (Kustanay Prov.), N Altai, Georgia, Armenia, Azerbaijan, Iran and Turkmenistan (2 specimens from environs of Ashkhabad). In Azerbaijan (Nakhichevan Prov.), Northern Iran, Western Turkmenistan (Kopetdagh) and Western Kazakhstan the ranges of the two species are overlapping. Both species were collected in Ordubad and environs of Ashkhabad.

Dicranocephalus brevinotum (Lindberg, 1935), sp. dist.

The species is known from two males from N India (Karakorum Range) and N Pakistan. They are similar to *D. ferganensis*, except for the longer rostrum reaching the hind coxae and shorter hairs on femora and tibiae (Lansbury, 1965-1966). No specimens with so long a rostrum are found among numerous examined specimens of *D. ferganensis*. Examination of additional material is necessary to clarify the status of this species, but in any case *D. brevinotum* is not conspecific with *D. agilis*, in synonymy with which it was placed by Moulet (1994).

Dicranocephalus femoralis (Reuter, 1888), sp. dist.

Moulet (1994) placed this species in synonymy with *D. agilis* (Scopoli, 1763). It is easily distinguished from *D. agilis* in the coloration of femora which are black in no less than 4/5 of their length and from *D. ferganensis* in the shorter hair cover of legs, which is more similar to that of *D. agilis*. The coloration of hind tibiae and antennal segment 2 is variable. Hind tibiae are narrowly black at base and apex, but in most specimens a narrow ring distad of the basal black ring is whitish and the remainder of tibia is pale brown to dark brown. Antennal segment 2 in some specimens is with 3 black rings: at base, at apex and in the middle part, but closer to base than to apex; in most specimens the basal and middle rings are confluent, so that only a narrow ring in apical half remains pale. The coloration of tibiae and antennae varies independently and is apparently not associated with the geographical distribution. *D. femoralis* was described from Beijing. We examined 8 specimens from Russia (Transbaikal and Primorsk Terr.), Mongolia (Central Aimak) and China ("Shan-hai-Kwan" [Qinhuangdao] in Prov. Hebei, env. of Tsitsikar and Dzachu River in S Qinghai; the first of these specimens, a female without legs and with damaged antennae, was misidentified as *D. medius* by Kerzhner (1976)).

Dicranocephalus alticolus (Zheng, 1981), sp. dist.

The species was described from a series of specimens of both sexes from South Tibet (Gyirong). Judging from the original description and photograph, they are very similar to *D. femoralis*, and very probably conspecific with it. We prefer not to establish the synonymy without examination of the types, but at least it is clear that, contrary to Moulet (1994), *D. alticolus* is not a synonym of *D. agilis*.

Dicranocephalus ganziensis Ren, 1990, sp. dist.

This species was described from 1 male and 1 female from W Sichuan (Garze). According to the original description, it is very similar to *D. alticolus*, differing slightly in

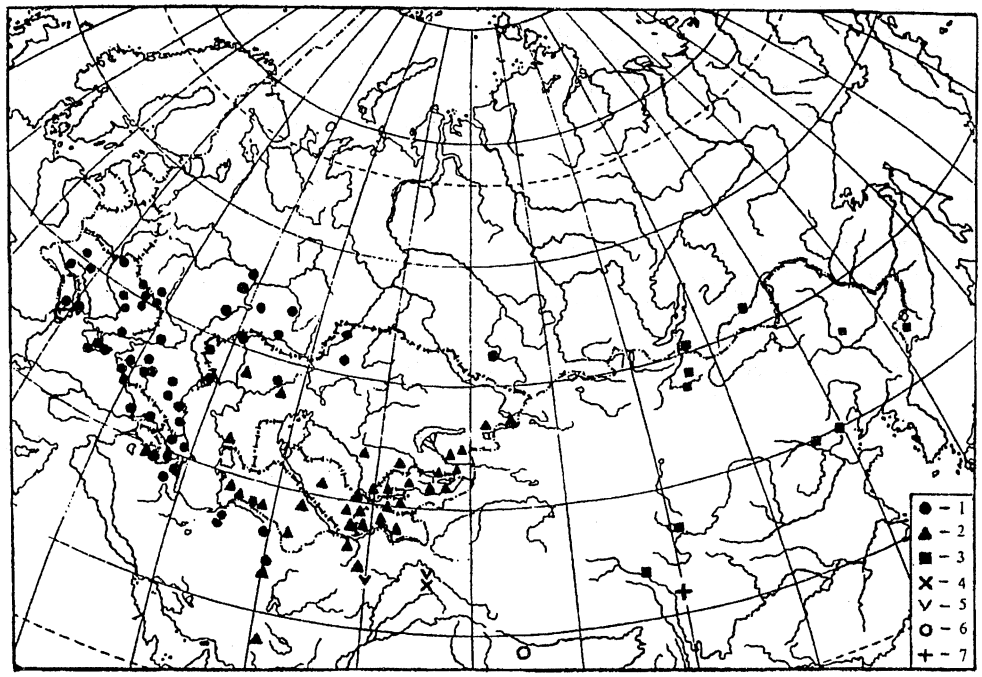


Fig. 3. *Dicranocephalus*, distribution of some species: **1**, *D. agilis*; **2**, *D. ferganensis*; **3**, *D. femoralis*; **4**, *D. kashmiriensis*; **5**, *D. brevinotum*; **6**, *D. alticolus*; **7**, *D. ganziensis*.

the coloration of the upper side of body. It is possibly a further synonym of *D. femoralis*, but clearly not a synonym of *D. agilis* to which it was placed by Moulet (1994).

Dicranocephalus kashmiriensis Lansbury, 1965, sp. dist.

The species was described from two females collected in Kashmir. The holotype has been examined by us. Moulet (1994) placed this species in synonymy with *D. marginicollis* Puton, 1881, a species from Western Mediterranean. However, in *D. marginicollis* the hind femora are pale at base, lateral margins of pronotum and corium yellow, and hind tibiae darkened at base and apex only, whereas in *D. kashmiriensis* the hind femora are entirely black, sides of pronotum only faintly yellowish (as in many other species) and those of corium black, and hind tibiae in addition to dark base and apex with a dark ring in the middle. Also the distribution ranges of *D. marginicollis* and *D. kashmiriensis* are different. Hence, *D. kashmiriensis* should be reinstated as separate species. It is similar to *D. ferganensis* in many characters, but differs in the completely black hind femora and in the short hairs of the hind tibiae.

Dicranocephalus putoni (Horváth, 1897), sp. dist.

Moulet (1994) placed this species in synonymy with *D. marginatus* Ferrari, 1874. We have examined a large sample of *D. marginatus* from Turkmenistan, Kazakhstan, Uzbekistan, Kirgizia, Tadzhikistan, Iran and Afghanistan. Of *D. putoni*, we have examined only two specimens from Iran, including the holotype of *D. dimidiatus* Jakovlev, a species correctly placed by Lansbury (1965-1966) in synonymy with *D. putoni*. The differences of the two species are as follows: in *D. marginatus* the antennal segment 2 is with 3 dark rings and the yellow lateral stripe of corium covers at base its outer vein, whereas in *D. putoni* the antennal segment 2 is with 2 dark rings and the yellow stripe of corium does not cover its outer vein. These differences are stable, no specimens with transitional characters were found in the extensive material of *D. marginatus*, also in the area of Iran from which both species are represented in the St.Petersburg collection. In addition,

D. putoni differs in the denser and longer hair cover of tibiae and antennae and in the structure of parameres (see Lansbury, 1965-1966). Thus, *D. putoni* should be restored as separate species.

References

Hsiao, T.Y., Zheng, L.Y. & Ren, S.Z. 1981. Hemiptera: Coreidae, Stenocephalidae. *Insects of Xizang*, **1**: 186-192. (In Chinese, with English summary).

Kerzhner, I.M. 1976. New and little known Heteroptera from Mongolia and adjacent regions of the USSR. III. *Nasekomye Mongolii*, **4**: 30-86. (In Russian).

Lansbury, I. 1965-1966. A revision of the Stenocephalidae Dallas, 1852 (Hemiptera-Heteroptera). *Entomol. mo. Mag.*, **101**: 52-92, 145-160.

Moulet, P. 1994. Synonymies nouvelles dans les famille des Stenocephalidae Latreille, 1825 (Heteroptera, Stenocephalidae). *Nouv. Rev. Entomol.* (N. S.), **11**(4): 353-364.

Ren, S.Z. 1990. A new species of *Dicranocephalus* from Hengduan Mountains in Southwest China (Heteroptera: Stenocephalidae). *Acta zootaxon. sin.*, **15**: 352-354. (In Chinese, with English summary).

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