

Taxonomic notes on the genus *Menemerus* Simon, 1868 in the fauna of Middle Asia (Araneae, Salticidae)

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Key words: *Menemerus*, Middle Asia, review.

ABSTRACT

Critical review of the genus *Menemerus* in Middle Asia is presented. *M. marginatus* is recognised to be the only species occurring in the area. The neotype for *M. marginatus* is designated. *M. semilimbatus* and *M. taeniatus* are known from the neighbouring areas in the Caucasus but have not yet been found in Middle Asia. A distributional map is provided.

INTRODUCTION

According to Prószyński (1990), about 52 species of *Menemerus* are known, 4 of them reported or described from Middle Asia (Nenilin 1984a, 1985). However, most of the records from Middle Asia are doubtful and should be verified:

1. *Menemerus taeniatus* (L. Koch, 1867) was reported by Saveljeva (1970) from the East Kazakhstan Area (s. Prószyński, 1976: map 15) and Spassky (1952) from the so-called 'Turan Zoogeographic Province' (with no precise localities). The study of material of *M. taeniatus* from neighbouring areas allows us to assume the species is restricted in the east by the Caucasus (Fig. 6).

2. *Menemerus indistinctus* (O. P.-Cambridge, 1872) (originally *Salticus i.*) has been repeatedly recorded in Middle Asia (Kroneberg 1875; Kharitonov 1932, 1969; Nenilin 1984a). Andreeva *et al.* (1981) recognised it as being a junior synonym of *Mogrus neglectus* (Simon, 1868), whereas the records in Middle Asia (Kharitonov 1969) were assumed by Logunov (1995) concern *Mogrus antoninus*. After restudying the Kharitonov's specimens of *M. indistinctus* it appeared to belong to *Mogrus antoninus* Andreeva, 1976 (1f (PSU), Bukhara Area, Yakkabag Distr., 1942, D. M. Fedorov; 1 m, 1f (PSU), Ishkent, 2.05.1942, D. M. Fedorov; and to *Mogrus larisae* Logunov, 1995 (2f (PSU), Kashkadariya Area, Yakkabag Distr., near Ishkent, 26-28.06.1942, D. M. Fedorov).

3. *Menemerus cronebergi* Charitonov, 1946 was described from Uzbekistan, Shakhrisjabz (Kharitonov 1946) and Tajikistan (Andreeva 1969, 1975, 1976). Nenilin (1984b) synonymized it with *M. marginatus* on the basis of circumstantial evidence as the holotype of *M. marginatus* was lost and neotype has not been designated. Because all the *Menemerus* specimens ever collected from Middle Asia turned out to belong to the only species (see below), and regarding that the type locality of *M. cronebergi* (Shakhrisjabs) is very close to that of *M. marginatus* (Samarkand), we support the idea of both specific names being synonyms. Therefore, we designate a neotype for *M. marginatus* to stabilise the synonymization proposed by Nenilin (1984b).

4. *Menemerus marginatus* Kroneberg, 1875 has been described and then repeatedly reported from Middle Asia (Kroneberg 1875; Andreeva 1975, 1976; Prószyński 1979; Spassky & Luppova 1945; etc.). It is the only representative of *Menemerus* occurring in Middle Asia.

The purpose of the study is to redescribe *M. marginatus* and to show all the known easternmost localities for *M. taeniatus* and *M. semilimbatus*, which were erroneously reported from Middle Asia.

MATERIAL AND METHODS

The work is based on museum collections and newly collected materials from Middle Asia and the Caucasus. A total of 113 specimens of *Menemerus* were studied. Specimens were borrowed from or housed in the following museums:

ISE - the Zoological Museum of the Institute for Systematics and Ecology of Animals, Novosibirsk, Russia, D. V. Logunov,

PSU - the chair of Zoology, the Perm State University, Perm, Russia, S. L. Esyunin,

ZISP - the Zoological Institute of the Russian Academy of Science, St.-Petersburg, Russia, V. I. Ovtsharenko,

ZMMU - the Zoological Museum of the Moscow State University, Moscow, Russia, K. G. Mikhailov.

In most cases the names of collectors are abbreviated as follows: V.D. - Dr. V. V. Dubatolov; S.Z. - Dr. S. L. Zonshtein; D.L. - Dr. D. V. Logunov; S.O. - Mr. S. V. Ovtchinnikov; A.Z. - Dr. A. A. Zyuzin; V.K. - V. A. Krivokhatskiy; P.D. - P. M. Dunin.

Abbreviations used: ap - apically; d - dorsally; Fm - femur; Mt - metatarsus; pr - prolaterally; Pt - patella; rt - retrolaterally; Tb - tibia; v - ventrally.

The leg spination system is adopted from Ono (1988). The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are in mm. Only relevant literature sources are included in the text. For complete review see Kharitonov (1932, 1936) and Prószyński (1990).

RESULTS AND DISCUSSION

Menemerus marginatus (Kroneberg, 1875)

Figs. 1-6

Marpessa marginata Kroneberg, 1875: 47-48, f. 34 (syntypes from the ZMMU were lost, neotype is designated here).

Menemerus marginatus: Andreeva 1975: 340; Ibid. 1976: 94; Kharitonov 1932: 187; Kroneberg 1875: 156; Prószyński 1979: 313, ff. 200-206; Spassky & Luppova 1945: 50; Nenilin 1984: 1176-1177; 1984: 21; 1985: 130, 132; Mikhailov & Fet 1994: 517; Wesołowska 1996: f. 20.

M. sp.: Ovtsharenko & Fet 1980: 445

M. cronebergi Kharitonov, 1946: 31, ff. 59, 60 (m, holotype from the PSU, examined).

M. cronebergi: Andreeva 1969: 89-93; Prószyński 1976: map. 14; Nenilin 1984b: 1176-1177.

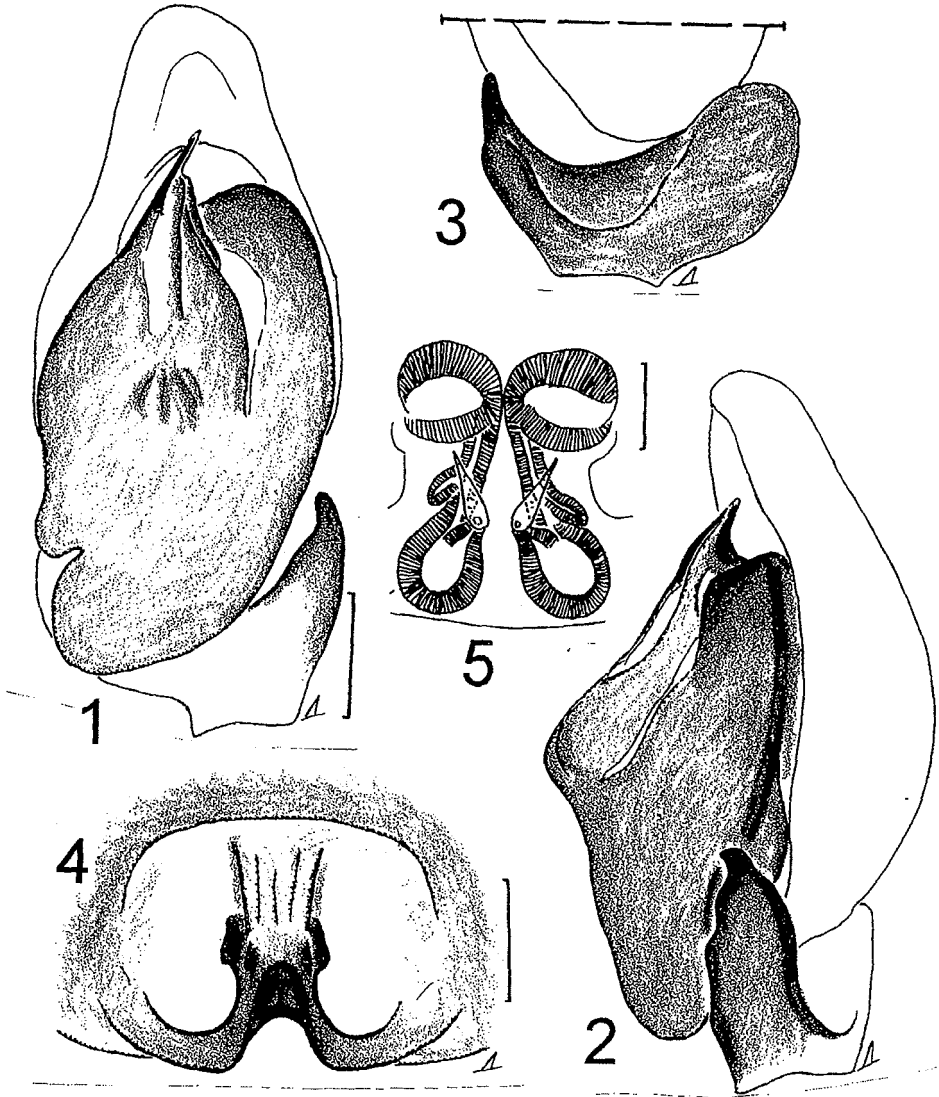
M. kronebergi (lapsus calami): Andreeva 1975: 340; Ibid. 1976: 94; Nenilin 1984a: 20.

Material examined. Uzbekistan: 1m (ZMMU, neotype, designated here), 1m, 2f (ZISP, det. as *Marptusa marginata*), Samarkand Area, Andizhan, 09-winter, 1936, S. Spassky; 2m (ZMMU), Tashkent, A.B. Nenilin; 1m (PSU, holotype of *M. cronebergi*), Shahrizjabs, D. N. Fedorov, K. V. Arnol'di; 1f (ZMMU), Andizhan Area, Kurgantepinskiy Distr., Andijan-say valley, 3.04.1988, S.O., S.Z. Kazakhstan: 1m (ISE), S-Kazakhstan Area, Arys' Distr., Baymakhan locality, 21.05.1993, A.Z. Turkmenistan: 7m, 1f (ZISP), 1m (ISE), SE Karakum desert, Repetek Reservation, 6.05-10.06.1982, V.K.; 4m, 7f (ISE), Badkhyz, 10-12.04.1993, D.L.; 8m (ZISP), Sultanbent, 31.05.1929, Coll.?.; 1m (ISE), Ashgabad, 8.10.1990, A. N. Galkin; 1f (ISE), same locality, Chuli, 5.10.1991, A. N. Galkin; 1m (ISE), ~ 40 km SE of Ashabad, Yashlyk, 7.04.1993, A.Z.; 1f (ZMMU), SE Kopetdagh, Kara-Kala, 12.09.1988, A. V. Abramov; 1f (ISE), C Kopetdag 10 km W of Germab, Kurkulab, 17.07.1990, V.D.; 1m (ISE), Kizil-Arvat, 1-5.08.1988, A. V. Abramov. Kyrgyzstan: 1m, 3f (ISE), Dzhahalabad Distr., Tash-Kumyr, 15.06.1992, A. A. Feodorov, A.Z. Tajikistan: 1f (ISE), Garavuti, 23.05.1978, Chernenko; 1m (ZISP), "Gar... in house 12.06. ?, label illegible, but it seems to be Garavuti". Azerbaijan: 1m (ISE), Nakhichevan, Dhul'fa, 25.07.1983, D.L. Russia: 1f (ISE), Chechnya, Grozny, 14.07.1988, A. S. Rjabukhin.

Distribution. Tadjikistan: Ura-Tjube, Beshkentskaya Valley, 'Tigrovaya Balka' Reserve, Dushanbe, Varzob valley (Spassky & Luppova, 1945; Andreeva 1975, 1976: as *M. cronebergi*; Nenilin 1984a). Turkmenistan: Sultanbent, Repetek, Badkhyz, SE and C Kopetdagh Mts., Amudaryinskii Reserve, Yashlyk (Mikhailov & Fet, 1994; Ovtsharenko & Fet 1980; Nenilin 1984a; Wesołowska 1996). Usbekistan: Samarkand, Tashkent, Shakhrijabs (Kroneberg 1875;

Kharitonov 1946, 1969: as *M. cronebergi*; Andreeva 1976; Prószyński 1979; Nenilin 1984a, b). Azerbaijan: Nakhichevan' (Nenilin 1985). Russia: Chechnya (original data). All the localities in Middle Asia are shown in Fig. 6.

Habitat. Tree trunks, clay cliffs and walls of buildings.



Figs. 1-5. The genitalia of *Menemerus marginatus*: 1 - male palp, ventral view; 2 - ditto, lateral view; 3 - tibial apophysis, reared view; 4 - epigyne; 5 - spermathecae. Scales: 1-4: 0.25 mm; 5: 0.1 mm. Specimens: male - neotype from Andizhan, Uzbekistan; female - Chuli, Turkmenistan.

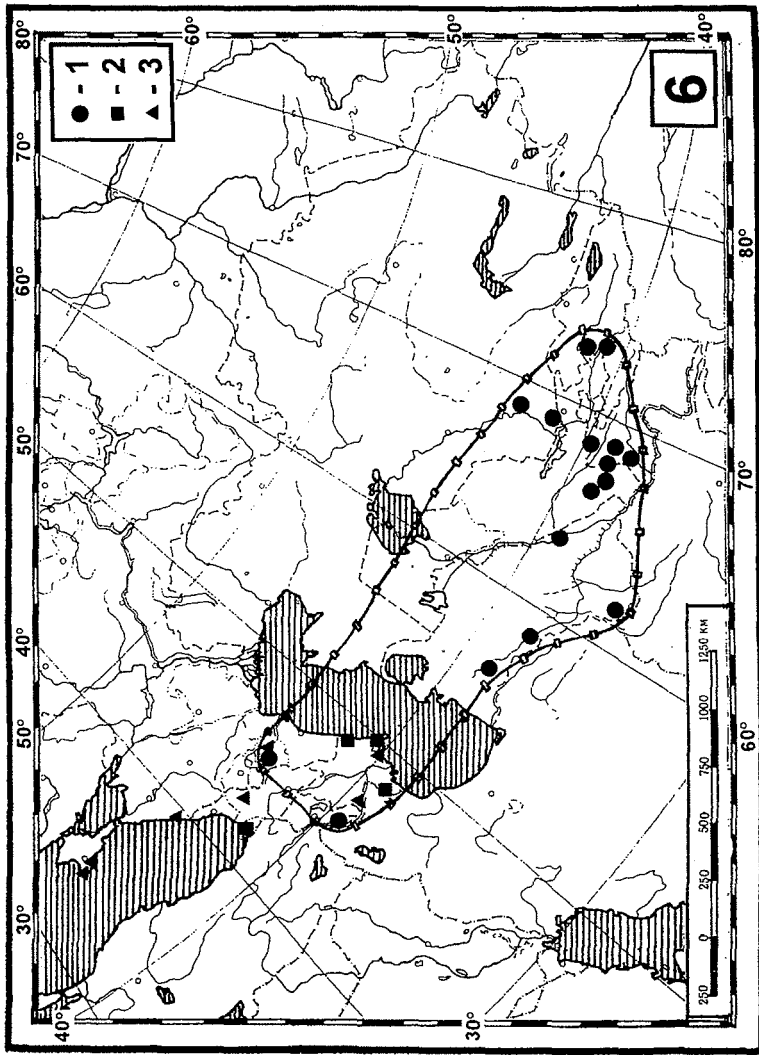


Fig. 6. Distribution of *Menemerus marginatus* (1) and the eastermost localities for *Menemerus semilimbatus* (2) and *Menemerus taeniatus* (3).

Description. Male from Sultanbent. Carapace 3.50 long, 3.30 wide, 1.35 high at PLE. Ocular area 1.50 long, 1.85 wide anteriorly and 1.75 wide posteriorly. Diameter of AME 0.50. Abdomen 4.00 long, 2.75 wide. Cheliceral length 1.25. Lengths of legs: leg I: 2.50+1.50+2.50+1.75+1.25; leg II: 2.00+1.25+1.75+1.50+1.00; leg III: 1.50+1.00+1.75+1.50+1.00; leg IV: 2.00+1.00+2.00+1.75+1.60. Leg spination: I: Fm d 1-1-2; Pt v 0-1; Tb v 2-2-1-2ap; Mt v 2-2ap. II: Fm d 1-1-2; Tb pr 0-0-1, v 2-2ap; Mt v 2-2ap. III: Fm d 1-2-3; Pt rt 0-1-0; Tb pr and rt 0-1, v 1-2ap; Mt d 2ap., pr and rt 1ap, v 1-2ap. IV: Fm d 1-1-3; Tb pr 1-1, rt 0-1-0, v 2-2ap; Mt d 2ap, pr and rt 1ap, v 1-2ap. Carapace orange, its margins covered with white hairs. Eye field brown, black around eyes. Eyes surrounded by short orange hairs. Sternum yellow. Chelicerae brown. Labium and maxillae orange. Abdomen grey with light dorsal lanceolate spot and light sides. Legs I and II grey-yellow, legs III and IV yellow. Palp structure as shown in Figs 1-3.

Female from Garavuti. Carapace 3.50 long, 2.75 wide, 1.25 high at PLE. Ocular area 1.25 long, 1.85 wide anteriorly and 1.75 wide posteriorly. Diameter of AME 0.50. Abdomen 5.00 long, 3.00 wide. Cheliceral length 1.25. Lengths of legs: I: 1.75+1.25+1.50+1.25+0.75; II: 1.50+1.25+1.25+1.00+0.85; III: 1.50+1.00+1.50+1.25+1.00; IV: 2.00+1.60+2.00+1.50+1.00. Leg spination: I: Fm d 1-1-2; Tb v 1-1-1-1; Mt v 2-2ap. II: Fm d 1-1-2; Tb pr 0-0-1, v 1-1; Mt v 2-2ap. III: Fm d 1-2-3; Tb pr and rt 0-1, v 1-2ap; Mt d 2ap, pr and rt 1ap, v 2ap. IV: Fm d 1-1-3; Tb pr 1-1, rt 0-1-0, v 1-2ap; Mt d 2ap, pr and rt 1ap, v 2-2ap. Carapace brown medially, its margins covered with white hairs. Eye field dark brown, covered with light hairs. Sternum grey. Chelicerae brown. Labium and maxillae light brown. Clypeus and AME surrounding covered with light hairs. Dorsum with light lanceolate spot and light margins. Legs I and II brown, legs III and IV grey-yellow. Epigyne and spermathecae as shown in Figs 4, 5.

Menemerus semilimbatus (Hahn, 1827)

Menemerus semilimbatus: Kharitonov 1932: 187; Nenilin 1985: 130; Dunin 1979: 39; Ibid. 1984: 58, 1989: 38; Prószyński 1990: 214.

Material examined. Azerbaijan: 1m (ISE), Apsheron, Baky, Zarya, 25.08.1971, P.D.; 2m, 1f (ISE), 1m, 1f (ZMMU), same locality, 20.03-20.09.1976, P.D.; 1m, 2f (ISE), same locality, 14.01-17.07.1977, P.D; 2m (ZMMU), same locality, Yasamal valley, 14.06.1981, P.D; 1m (ISE), same locality, Balandjary, 15.04.1983, P.D; 1m (ZMMU), 2f (ISE), same locality, Yardymly, 9.06-12.08.1985, P.D; 1m (ISE), Khachmasskiy Distr., Akhmetoba, 19.06.1989, Talybova; 4m, 1f (ISE), same distr., Hudat Mt., 14.06.1989, Talybova. Georgia: 1f (ZISP), Batumi, 07-08.1925, N. Slavski.

Distribution. From the Canary Islands (Wunderlich 1987) to Azerbaijan (original data) (Fig. 6). No records from Middle Asia (see Introduction); the

information of Kharitonov (1932) was based on the wrong identification of *Euophrys intenta* Blackwall and *M. semilimbatus* (s. Nenilin 1984a).

Menemerus taeniatus (L. Koch, 1867)

Menemerus taeniatus: Prószyński 1976: map 15; Ibid. 1979: 313, ff. 209-216; Dunin 1979: 39; Ibid. 1984: 58; Ibid. 1989: 38; Nenilin 1984a: 21; Ibid. 1985: 130; Dunin, Mamedov 1992: 57.

M. parietinus Spassky 1934: 135-137, ff. 1-3 (syntypes from the ZISP, examined).

M. parietinus: Kharitonov 1936: 219. Synonymized with *M. taeniatus* by Prószyński 1979: 313.

Material examined. Russia: 1f (ZISP), Krasnodar Region, Adlor, Moldovka, 20.07.1979, M. S. Nenilin; 16m, 16f (ZISP, syntypes of *M. parietinus*), same region, Khosta, Chernomorsk, 08.1927-1930, S. A. Spasskiy; 1m (ISE), Chechnya, Grozny, 14.07.1988, A. S. Robuhin. Ukraine: 1m, 1f (ISE), Krym Peninsular, Bahchisaray, 24-26.06.1993, S. V. Vasilenko; 1m, 1f (ZISP), Krym Peninsular, Sevastopol, 26.07.1979, M. S. Nenilina. Azerbaijan: 1f (ISE), Fizuli, 10.08.1986, P.D.; 1m (ZMMU), Apsheron Peninsular, Primorsk station, 30.05.1976, P.D; 1f (ZMMU), Apsheron Peninsular, Mardjakajan, 1.05.1988, P.D; 1f (ZMMU), Caspian Sea, Glinjanyi Island, 15.07.1979, P.D.; 1f (ISE), near Mingechaur, 20.04.1982, Shatrovskiy. Georgia: 1m (PSU, det. as *M. parietinus*), Kutaiskiy Distr., Bardedi, 10.04.1938, M. S. Mheidze.

Distribution. The Mediterranean species restricted in the east by the Caucasus (Fig. 6). No records from Middle Asia (see Introduction).

Acknowledgements

We wish to express our warmest thanks to the following persons who provided specimens for study: Dr. S. L. Zonshtein and Mr. S. V. Ovtchinnikov (both from Bishkek), Dr. V. V. Dubatolov (Novosibirsk) and Dr. P. M. Dunin (Toljatti). Our special thanks are extended to Dr. K. G. Mikhailov, of the ZMMU, Dr. V. I. Ovtsharenko, of the ZIP, and Dr. S. L. Esyunin, of the PSU, for the opportunity to study materials from their museums. Many thanks are due to anonymous referees who indicated a number of errors and defects in the typescript helping to eliminate them. The work was partly supported by the International Science Foundation grants RA6000 and RA6300.

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