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The genus *Mogrus* (Araneae: Salticidae) of Central Asia*

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Araneae, Salticidae, *Mogrus*, definition, review, new species, Central Asia

Abstract. The genus *Mogrus* is redefined and diagnosed. Four species of *Mogrus* are recorded from the former Soviet Central Asia and one from adjacent regions of the Caucasus: *M. antoninus*, *M. larisae* sp. n., *M. neglectus*, *M. valerii* and *Mogrus* sp. A key and distributional maps are provided.

INTRODUCTION

According to Prószyński (1990), twenty species of *Mogrus* have been described, only three of them being recorded hitherto from the former Soviet Central Asia (Nenilin, 1984a, 1985): *M. antoninus* Andreeva, *M. neglectus* (Simon) and *M. valerii* Kononenko. However, as it is recognized in the present study, *M. neglectus* is absent from the Central Asian salticid fauna, but present in the faunas of adjacent regions of the Caucasus. All these species, as well as *Mogrus larisae* sp. n. and *Mogrus* sp., are treated in the current work.

MATERIAL AND METHODS

A total of 259 specimens collected from 40 localities in the former Soviet Central Asia (Central Asia hereinafter) and the Caucasus were used for this study. Specimens are housed in the following museums: ISEN – Zoological Museum, Institute for Systematics and Ecology of Animals, Novosibirsk, Russia, D.V. Logunov; ZMAS – Zoological Institute of Russian Academy of Science, St. Petersburg, V.I. Ovtcharenko; ZMUM – Zoological Museum of the Moscow State University, Moscow, Russia, K.G. Mikhailov; MNHN – Museum National d'Histoire Naturelle, Paris, France, C. Rollard.

Terminology and nomenclature for the genitalia mainly follows Comstock (1910), Coddington (1990) and Ono (1988). The details of terminology are illustrated in Figs 2–4, 5–8, 26, 43.

Abbreviations used: AG – accessory glands, AME – anterior median eyes, ap. – apically, BH – basal haematodocha, C – cymbium, d. – dorsally, DS – distal sclerite, FD – fertilisation duct, Fm. – femur, ID – insemination duct, Mt. – metatarsus, PP – pars pendula, pr. – prolaterally, Pt. – patella, rt. – retrolaterally, S – spermatheca, T – tegulum, TA – terminal apophysis, Tb. – tibia, Tr. – truncus, TS – terminal section of spermatheca, v. – ventrally, D.L. – D.V. Logunov, A.Z. – A.A. Zyuzin. The sequence of leg segments: femur + patella + tibia + metatarsus + tarsus. For leg spination, the system adopted is that used by Ono (1988). Only relevant references to previous records in Central Asia and the Caucasus are given. All measurements are in mm.

Genus *Mogrus* Simon, 1882

Type species: *Mogrus fulvovittatus* Simon, 1882 (by original designation).

DEFINITION. Medium size spiders ranging from about 4.3 to 9.0 mm in length. Sexes similar in general habitus. Sexual dimorphism usually evident in colour markings (females

* Salticidae of Central Asia. 2.

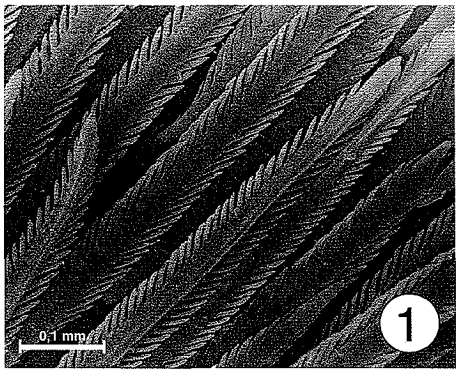
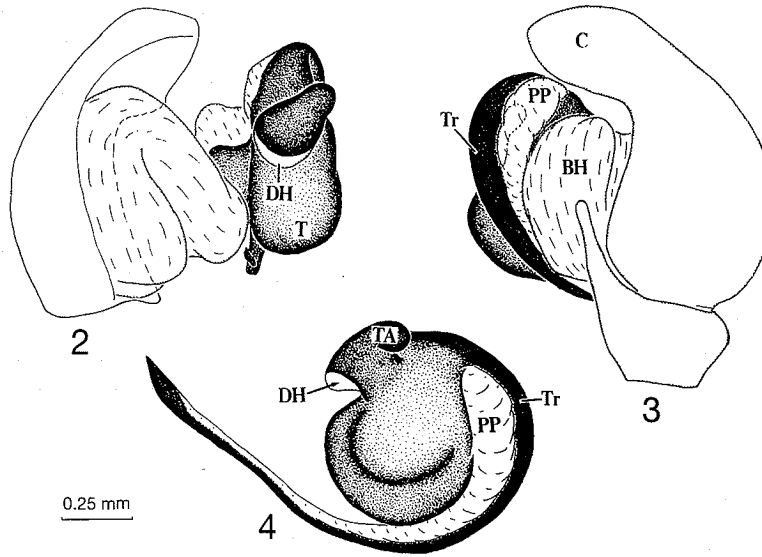
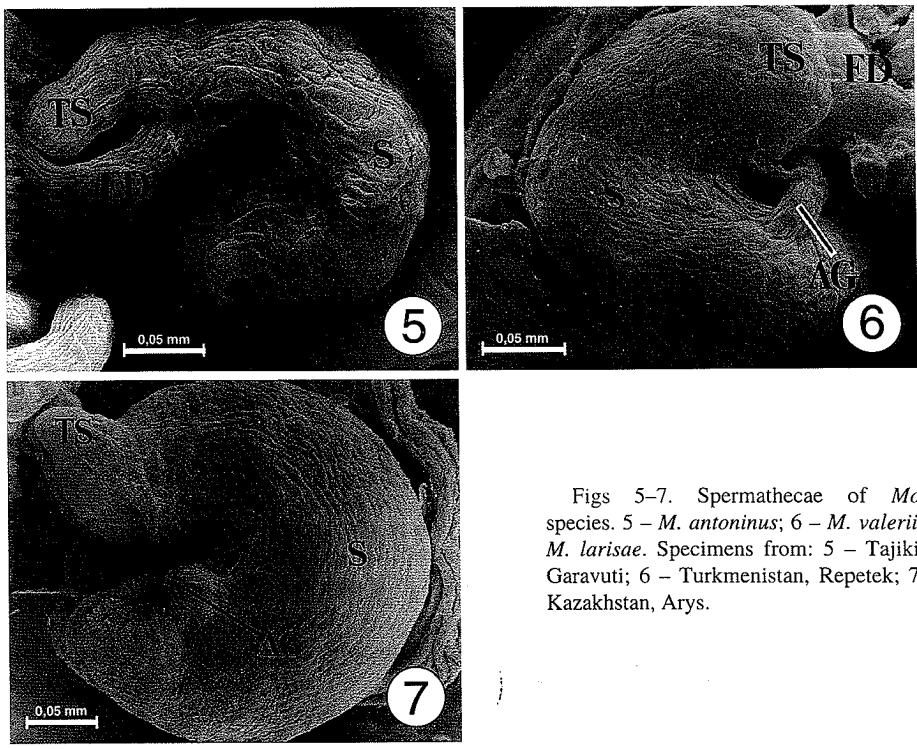


Fig. 1. *Mogrus larisae*. 1 – carapace cover of narrow scales. Specimen from Turkmenistan, Badhyz.

lack a longitudinal dark stripe on dorsum), leg formula (the 1st leg is longest in males) and shape of carapace (slightly higher in males). Body densely covered with long, narrow scales which are armed with long marginal spines (Fig. 1). Carapace: longer than broad, moderately high, with elevated eye region (Fig. 40); fovea inconspicuous; eye-field broader than long, its width 1.3–1.5 times larger than length; quadrangle length 39–50 per cent of carapace length. Eyes: arranged in three transverse rows; middle row about midway between ALE and PLE. Clypeus: vertical, low; its height 2.5–5 times smaller than AME-diameter. Chelicerae: vertical, medium in size; promargin with 2 fused teeth; retromargin with 1 tooth. Maxillae: parallel or slightly convergent. Labium and sternum: oval. Pedicel: short, usually not visible in dorsal view. Abdomen: oval; dorsum in males usually with a longitudinal dark stripe. Legs: medium in size and similar in shape; male femora with contrasting coloration, their tips dark; leg formula: I, III, IV, II in males and IV, I, III, II in females; spines usually present on all legs (see descriptions of species). Female palp:



Figs 2–4. *Mogrus larisae*, expanded male palp. 2 – mesal view; 3 – prolateral view; 4 – bulbus. All specimens from Turkmenistan, Badhyz.

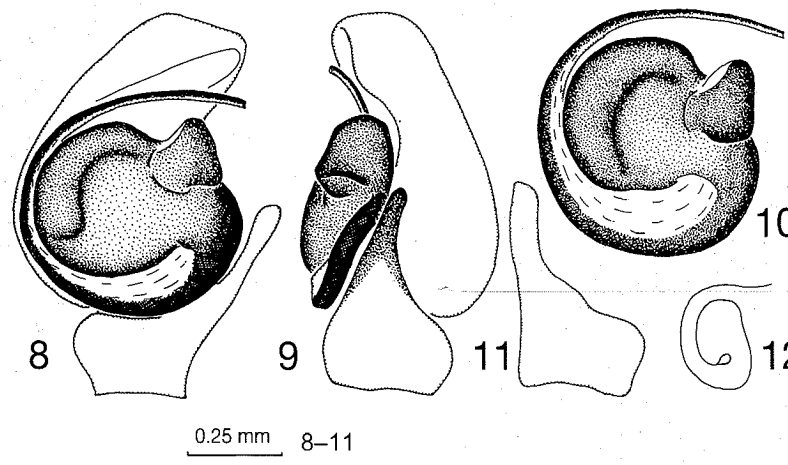


Figs 5–7. Spermathecae of *Mogrus* species. 5 – *M. antoninus*; 6 – *M. valerii*; 7 – *M. larisae*. Specimens from: 5 – Tajikistan, Garavuti; 6 – Turkmenistan, Repetek; 7 – S Kazakhstan, Arys.

without apical claws. Male palp: cymbium usually narrowed and curved apically (Fig. 3); tibial apophysis slender (Figs 11, 33); spiral embolus long and slender (Figs 4, 8, 10, 41), with its tip slender (Fig. 8) to wide (Fig. 41); pars pendula and truncus usually easily seen (Figs 4, 43); distal sclerite of embolus also may be conspicuous (Fig. 41); terminal apophysis (sensu Comstock, 1910) usually present and prominent, being in lateral (Figs 4, 10, 18, 20, 21) or basal (Andreeva et al., 1981: Fig. 6) position; distal haematodocha present, connected to terminal apophysis (seen in expanded palps, Figs 4, 43); sperm duct simple (Fig. 7). Female genitalia: epigyne simple; copulatory openings look as two subparallel holes (Figs 14, 23, 24), leading to rather wide membranous ducts; spermathecae heavily sclerotized (Figs 15, 16, 25–28), in the form of rounded sacs (Figs 6, 7), but sometimes, if the FD are as wide as the TS, the terminal section looks as if it is composed of a pair of tubes (Figs 5, 15); accessory glands short, but conspicuous (Figs 5–7).

DIAGNOSIS AND AFFINITIES. *Mogrus* differs from related taxa (see below) in the following characters: insemination ducts wider, spermathecae larger and heavily sclerotized, copulatory openings are two narrow and subparallel holes, embolus with well-developed pars pendula and the terminal apophysis prominent on the tegulum.

Mogrus was previously placed in the Pelleninae by Petrunkevitch (1928). In 1976 Prószyński suggested its placement in the Plexippinae. I only partly agree with this view. For instance, the genus *Plexippus* C.L. Koch has a membranous "conductor" in the apical division, while other genera, e.g. *Plexippoides* Proszyński and *Mogrus*, lack that character. In my opinion *Plexippus* appears to be closer to *Menemerus* Simon than to the genera mentioned by Prószyński (1976) in the Plexippinae. With regard to *Cyrba*, I follow Wanless (1984), who placed it in a separate subfamily Spartaeinae.



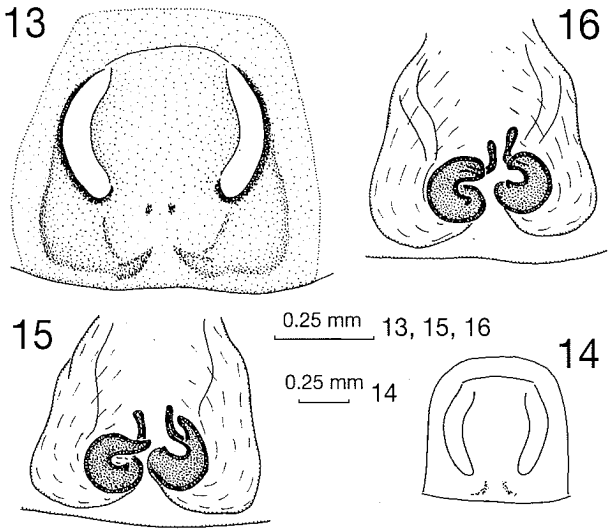
Figs 8–12. *Mogrus antoninus*. 8 – male palp, ventral view; 9 – ditto, prolateral view; 10 – bulbus, ventral view; 11 – tibial apophysis, rear view; 12 – diagrammatic course of the sperm duct. Specimens: 8, 9, 11 – W Kazakhstan, Ustyurt Plateau; 10, 12 – S Kazakhstan, Arys.

Preliminary studies based on the genital structure suggest that the following genera are related: *Mogrus*, *Plexippoides*, *Epeus* Peckham & Peckham, *Afraflacilla* Berland & Millot and *Pseudicius* Simon (at least, the *P. encarpatus* species group). All these genera share the following genital characters: terminal apophysis present (in some cases it appears as a bulge of the tegulum); cymbium usually curved apically; distal haematodocha usually conspicuous; sperm duct simple; epigynal pocket usually absent; copulatory openings as a pair of rounded or elongated holes; accessory glands usually prominent; spermathecae and insemination ducts usually distinctive, i.e. they can be easily separated from each other.

At the same time, *Mogrus*, as well as *Plexippoides* and *Epeus*, lacks the row of femoral tubercles and the rugose carapace (leg-carapace stridulatory mechanism) present in *Pseudicius* and *Afraflacilla*. This fact seems not contrary to the above grouping of the genera, since it is very likely that the stridulatory behaviour and mechanisms may have evolved independently in different groups. For instance, there are some salticid genera which include both stridulating and non-stridulating species, e.g. *Habronattus* F.P.-Cambridge (see Maddison & Stratton, 1988) or *Heliophanus* C.L. Koch (personal data, D.L.).

DISTRIBUTION. The genus *Mogrus* is known from the Mediterranean area to the Arabian Peninsula in the south and throughout the Near East and Central Asia, reaching Mongolia and western provinces of China in the east.

NATURAL HISTORY. *Mogrus* species can be found in various steppe and semidesert habitats. All species known to me are low-shrub dwellers (e.g. *Artemisia*). Females make their nests (a single egg sac in each nest) among the branches of shrubs. As was noted from original field observations on *M. larisae* in S Turkmenistan (on about a hundred specimens, 10–15 April 1993), females show diurnal activity, usually spending the hottest hours of the day (from 10.00–11.00 to 16.00–17.00) outside the nest, even if it contains an egg sac, and can be found on the same shrub or under it on the ground. Copulation has been observed twice, in both cases occuring on the outer side of the nest.



Figs 13–16. *Mogrus antoninus*. 13–14 – epigyne, dorsal view; 15, 16 – spermathecae. All specimens from Tajikistan, Garavuti.

Key to Central Asian species
(*Mogrus* sp. is not included in the key)

1 Males 2
– Females 5
2 Embolus widened and bifurcated at tip (Figs 41, 43) ..... *valerii*
– Embolus thin or slightly widened to tip (Figs 8, 18, 32) 3
3 Tegular apophysis hook-shaped (Figs 20, 21), embolar base wide (Fig. 19) ..... *larisae*
– Tegular apophysis bulge-shaped (Figs 8, 10), embolar base thin (Fig. 9) 4
4 Embolus relatively long and thin (cf. Figs 8 and 32), tibial apophysis more or less straight and flattened (Fig. 11) ..... *antoninus*
– Embolus relatively thick and shorter (cf. Figs 8 and 32), tibial apophysis slightly curved (Fig. 33) ..... *neglectus*
5 Spermathecae with relatively long accessory glands (Figs 6, 46) ..... *valerii*
– Spermathecae with relatively short or inconspicuous accessory glands (Figs 7, 8) 6
6 Accessory glands and terminal section of spermathecae long and thin (Figs 5, 15, 16) ..... *antoninus*
– Spermathecae otherwise 7
7 Spermathecae as in Figs 7, 25–28 ..... *larisae*
– Spermathecae as in Fig. 38 ..... *neglectus*

Mogrus antoninus Andreeva, 1976
(Figs 5, 8–17)

Mogrus antoninus Andreeva, 1976: 82, Figs 86–90.
M. antoninus: Prószyński, 1979: 313, Figs 217–218; Ovtsharenko & Fet, 1980: 445; Andreeva et al., 1981: 94–99, Figs 22–27, 30, 31; Wesołowska, 1981: 72–73, Figs 83–84; Prószyński, 1982: 285; Fet, 1983: 843; Nenilin, 1984a: 21–22; Nenilin, 1984b: 138; Nenilin, 1985: 130 (in part, records for Central Asia only); Pavlenko, 1985: 150; Kuznetsov & Fet, 1986: 61; Zhou & Song, 1988: 4, Figs 5a–e; Hu & Wu, 1989: 376, Figs 295.1–295.7; Zyuzin et al., 1991: 280; Zyuzin & Tarabaev, 1993: 396, 400; Zyuzin et al., 1994: 7.

DESCRIPTION. Male. Measurements. Carapace 2.53 long, 1.85 wide, 1.25 high at PLE. Ocular area 1.25 long, 1.65 wide anteriorly and 1.75 wide posteriorly. Diameter of AME

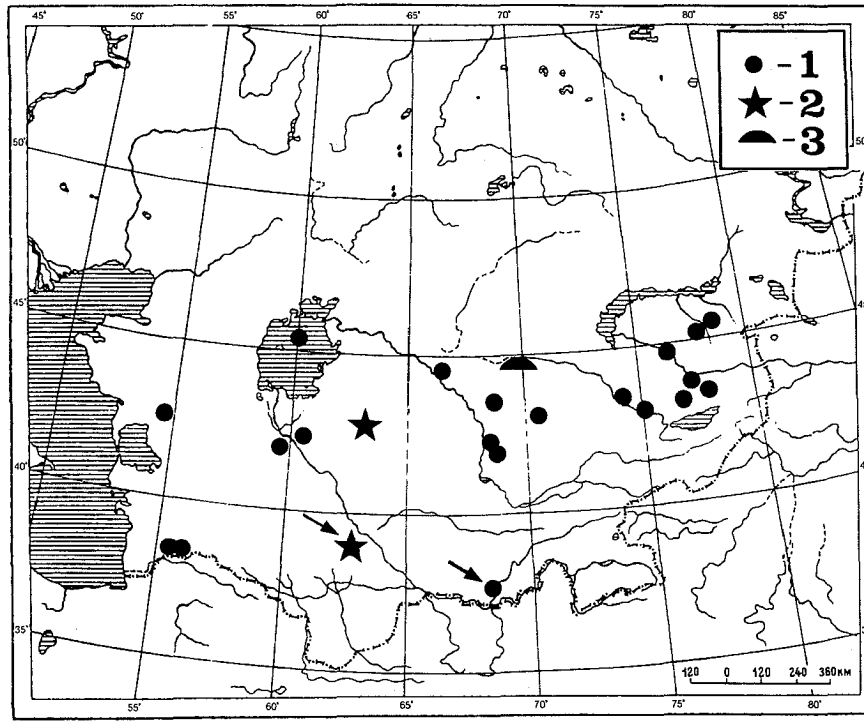
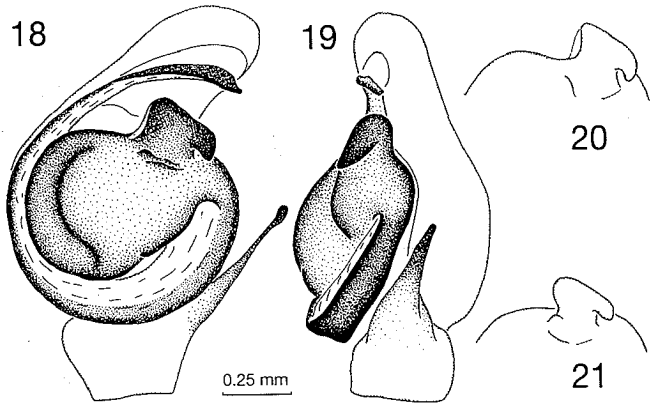


Fig. 17. Distribution map of *Mogrus antoninus* (1), *M. valerii* (2) and *Mogrus* sp. (3). Type localities arrowed.

0.50. Abdomen 2.50 long, 1.58 wide. Cheliceral length 0.95. Clypeal height 0.15. Length of leg segments: leg I – 1.50+0.89+1.05+0.88+0.58; leg II – 1.38+0.80+0.83+0.78+ +0.48; leg III – 1.70+0.85+0.83+0.95+0.58; leg IV – 1.58+0.78+0.94+0.93+0.68. Leg spination. Legs I and II: Fm. d. 0-1-1-4 or 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. pr. 1-2, rt. 0-1 or 0-2, v. 1-2-2ap. or 0-2-2ap.; Mt. pr. and rt. 1-1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-3 or 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. d. 1-0, pr. and rt. 1-1-1, v. 1-2ap. or 1-0-2ap.; Mt. d. 1-0 or without spines, pr. and rt. 1-2ap. or 1-1-2ap., v. 2-2-ap. Coloration. Carapace dark brown, covered with adpressed white and orange hairs. Black around eyes. Clypeus densely covered with long white hairs. Sternum dark brown to yellowish-brown, covered with long white hairs. Labium and maxillae dark brown with yellow tips. Chelicerae dark brown. Dorsum and sides of abdomen whitish-grey to dark grey. Dorsum also with a wide longitudinal dark brown stripe edged by golden hairs. Sometimes dorsum without colour markings. Book-lung covers yellow. Spinnerets brownish-yellow. Legs yellow, but distal parts of femora, patellae, tibiae and metatarsi with numerous dark brown patches. Palpal structure as in Figs 8, 12.

Female. Measurements. Carapace 2.34–2.98 long, 1.83–2.20 wide, 1.29–1.50 high at PLE. Ocular area 1.15–1.42 long, 1.63–2.00 wide anteriorly and 1.70–2.18 wide posteriorly. Diameter of AME 0.50–0.58. Abdomen 2.38–4.75 long, 1.78–3.10 wide. Cheliceral



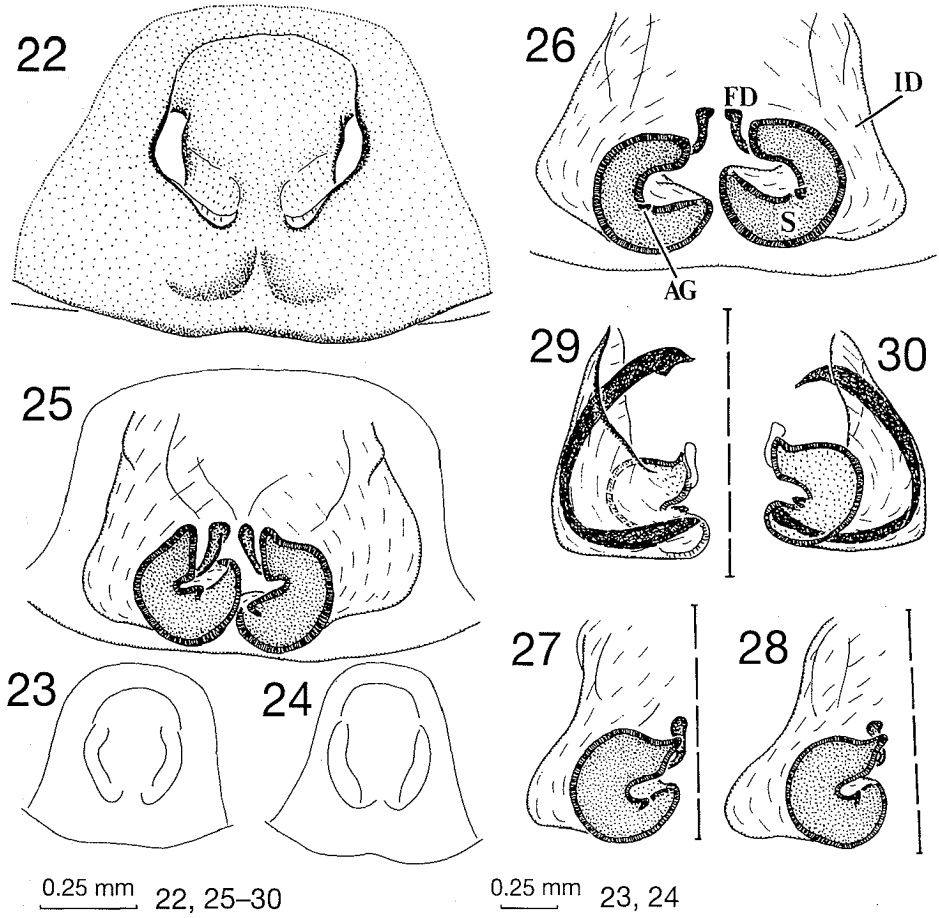
Figs 18–21. *Mogrus larisae* sp. n. 18 – male palp, ventral view; 19 – ditto, prolateral view; 20, 21 – terminal apophysis, ventral view. Specimens: 18, 19 – Turkmenistan, Badhyz; 20 – S Kazakhstan, Arys; 21 – S Kazakhstan, Zhambyl Area.

length 0.85–0.88. Clypeal height 0.10–0.18. Length of leg segments: leg I – 1.25–1.68+0.80–1.05+0.83–1.10+0.69–0.93+0.45–0.60; leg II – 1.23–1.55+0.73–1.00+ +0.73–1.00+0.63–0.85–0.43–0.53; leg III – 1.61–2.00+0.80–1.05+0.80–1.05+0.85– –1.10+0.54–0.63; leg IV – 1.58–1.90+0.73–0.90+0.88–1.13+0.88–1.23+0.63–0.73. Leg spination. Legs I and II: Fm. d. 0-1-1-4 or 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. pr. 1-2 or 1-1-1, rt. 0-1, v. 1-2-2ap. or 1-1-2ap.; Mt. pr. and rt. 1-1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-3 or 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. d. 1-0, pr. and rt. 1-1-1, v. 1-0-2ap.; Mt. d. 1-0 or without spines, pr. and rt. 1-2ap. or 1-1-2ap., v. 2-2ap. Coloration as in male, but dark longitudinal stripe on dorsum absent. Epigyne and spermathecae as in Figs 5, 13–16.

Diagnosis. This species is most closely related to *M. neglectus* (Figs 32–40), but can be separated by position of the tegular apophysis and structure of the tibial apophysis (Figs 8, 10) in males, as well as by the smaller spermathecae in females (cf. Figs 15, 16 and 37, 38).

Material. Kazakhstan: 1♀ (ISEN, 1186), Almaty [= Alma-Ata] area, Chilikskii Distr., Charyn Canyon, 1.x.1989, A.Z.; 1♀ (ISEN, 2733), same area, Talgarskii Distr., 18 km E of Kapchagai, 24.vi.1990, A. Fëdorov & A.Z.; 1♀ (ISEN, 2727), Chuiskii Distr., Chu River, 30.vi.1989, C. Tarabaev; 1♀ (ISEN, 2726), same area, Georgievka, 8 km W of Targap, 13.v.1991, A.Z.; 3♀ (ISEN, 1188), Bakanas, 19.v.1982, V. Linskii; 1♀ (ZMUM), Zhambyl [= Dzhambul] area, Moiynkumskii Distr., Kumuzek, 28.vi.1989, C. Tarabaev; 2♀ (ISEN, 1183), Sarysukskii Distr., Bolshoye Kamkaly Lake, 28.vi.1989, A.Z.; 1♀ (ISEN, 1185), same area, 20 km E of Suzak, 26.vi.1989, A.Z.; 2♀ (ISEN, 1189), 10 km S of Kzyl-Orda, 22.–23.vi.1989, A.Z.; 1♀ (ZMAS), Taldy-Kurgan area, 38th km of highway Tulebaevo-Lepsy, 2.viii.1988, A.Z.; 1♀ (ISEN, 1184), same area, Karatal'skii Distr., 21st km of highway Ush-Tobe-Akzhar, 26.vii.1988, A.Z.; 2♂, 2♀ (ISEN, 2730), 1♀ (ZMUM), Aral Sea, Barsakel'mes Island, 1.–14.vi.1982, T. Pavlenko; 31♀ (ZMAS), same locality, 17.–20.vii.1984, T. Pavlenko; 1♀ (ISEN, 2728), same locality, Ashi-Sai, 16.vii.1984, N. Derbina; 2♂, (ISEN), same locality, 29.v.1982, T. Pavlenko; 1♂ (ISEN, 1181), S Kazakhstan [= Chimkent] area, Kzylkumskii Distr., Shaulder, 9.vi.1989, A.Z.; 1♂ (ISEN, 1182), 1♀ (ISEN, 1190), Ustyurt Plateau, Kendirli, 20.–30.v.1989, A.Z. – Uzbekistan: 2♂, 2♀ (ZMUM), Karakalpakia, Badai-Tugai Reserve, 3.vi.1980, A. Nenilin. – Turkmenistan: 2♀ (ZMAS), SW Kopetdagh, Garry-Gala [= Kara-Kala], 3.v.1982, V. Fet; 8♀ (ISEN, 2729), same locality, Sumbar River, 15.xi.1981, V. Fet; 1♂ (ISEN, 2731), 12 km W of Garry-Gala, 24.iv.1991, V. Dubatolov; 1♂ (ZMAS), Tashauz, 11.iv.1982, O. Soyunov; 1♂ (ISEN, 2732), Kelif, 22.iv.1976, A. Kononenko. – Tajikistan: 16♀ (ISEN), Vakhsh River, Garavuti, 22.v.1978, Chernenko.

Distribution. This species is recorded from Central Asia (Andreeva, 1976; Nenilin, 1984a,b and present data), Mongolia (Wesołowska, 1981; Prószyński, 1982), Afghanistan (Andreeva et al., 1981) and



Figs 22–30. *Mogrus larisae* sp. n. 22–24 – epigyne, dorsal view; 25–28 – spermathecae, dorsal view; 29–30 – spermatheca with inserted male embolus. Specimens: 22–23, 29, 30 – Turkmenistan, Badhyz; 26–28 – W Kazakhstan, Ustyurt Plateau.

China, Xinjiang (Zhou & Song, 1988; Hu & Wu, 1989). All records from Central Asia are shown in Fig. 17. Type locality: the lower reaches of the Vakhsh river, SW Tajikistan (arrowed in Fig. 17).

HABITAT. Dry *Artemisia* steppes and semideserts, where it occurs on various shrubs.

Mogrus larisae sp. n.
(Figs 1, 2–4, 8, 18–31)

Mogrus antoninus (in part): Andreeva et al., 1981: 94–99, Figs 28, 29, 32.
M. neglectus: Zyuzin & Tarabaev, 1993: 400 (misidentification); Zyuzin et al., 1994: 7 (misidentification).

DESCRIPTION. Male. Measurements. Carapace 2.13–3.38 long, 1.58–2.53 wide, 1.08–1.55 high at PLE. Ocular area 1.08–1.40 long, 1.40–2.14 wide anteriorly and 1.57–2.21 wide posteriorly. Diameter of AME 0.48–0.53. Abdomen 2.15–3.63 long, 1.40–2.18 wide.

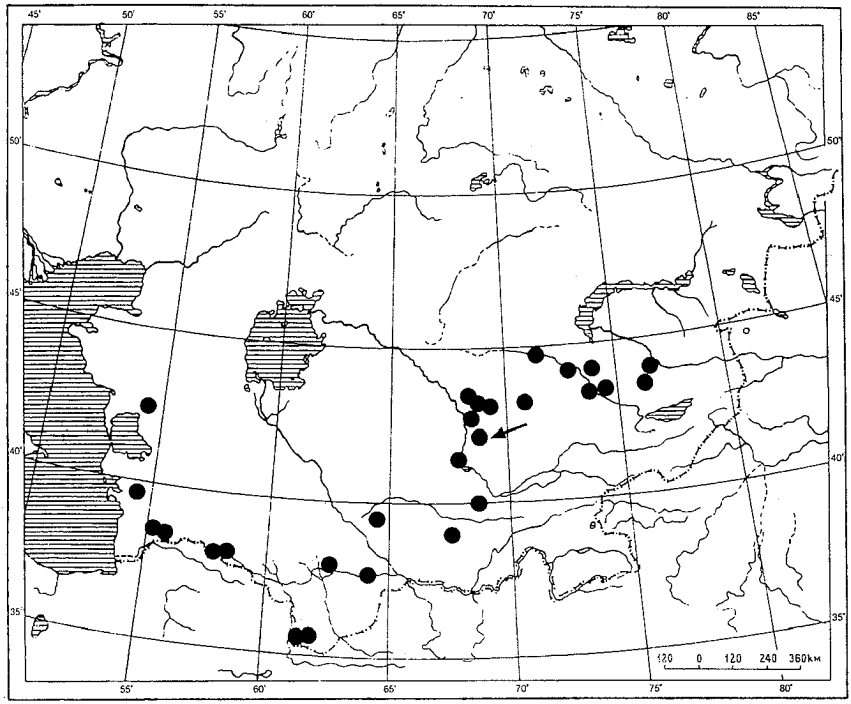
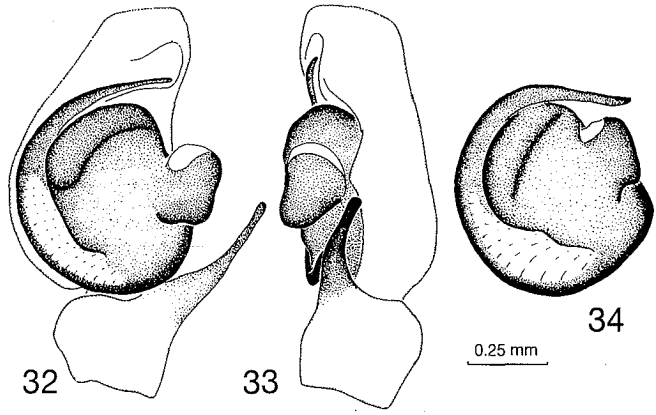


Fig. 31. Distribution of *Mogrus larisae* sp. n. Type locality arrowed.

Cheliceral length 0.83–1.55. Clypeal height 0.18–0.25. Length of leg segments: leg I – 1.30–2.18+0.80–1.25+0.95–1.78+0.78–1.53+0.65–0.88; leg II – 1.18–1.85+0.68–1.05+ +0.75–1.23+0.63–1.08+0.58–0.65; leg III – 1.50–2.25+0.68–1.20+0.80–1.18+0.85– –1.33+0.60–0.75; leg IV – 1.35–2.00+0.58–1.00+0.80–1.20+0.85–1.40+0.58–0.68. Leg spination. Legs I and II: Fm. d. 0-1-1-3 or 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1-1 or 1-2, b. 1-1-2ap. or 1-2-2ap.; Mt. pr. 1-1ap., rt. 1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-3; Pt. pr. and rt. 0-1-0; Tb. d. 1-0, pr. and rt. 1-2, v. 1-2ap.; Mt. d. 1-0, pr. and rt. 1-0-2 or 1-1-1, v. 2-2ap. Coloration. Carapace brown, tinged with black and densely covered with adpressed white and black hairs and long protruding dark hairs. Eye field black. Clypeus densely white-haired. Sternum dark brown to brown, sometimes with a central yellow spot, densely covered with white hairs. Maxillae and labium dark brown with yellow tips. Chelicerae dark brown. Abdomen: dorsum with a wide longitudinal black stripe, bordered by whitish lines; sides grey to black, often with transverse white dashes; venter yellow with a median wide grey band. Book-lung covers and spinnerets brownish-yellow to yellow. Legs: coxae and trochanters yellow, but sometimes brown dorsally; femora yellow with dark brown tips; remaining segments mottled (yellow + grey + black). Palpal structure as in Figs 2–4, 18–21.

Female. Measurements. Carapace 2.90–3.40 long, 2.13–2.45 wide, 1.35–1.50 high at PLE. Ocular area 1.31–1.35 long, 1.85–2.00 wide anteriorly and 2.00–2.25 wide posteriorly. Diameter of AME 0.50–0.58. Abdomen 4.13–5.50 long, 3.00–3.80 wide. Cheliceral

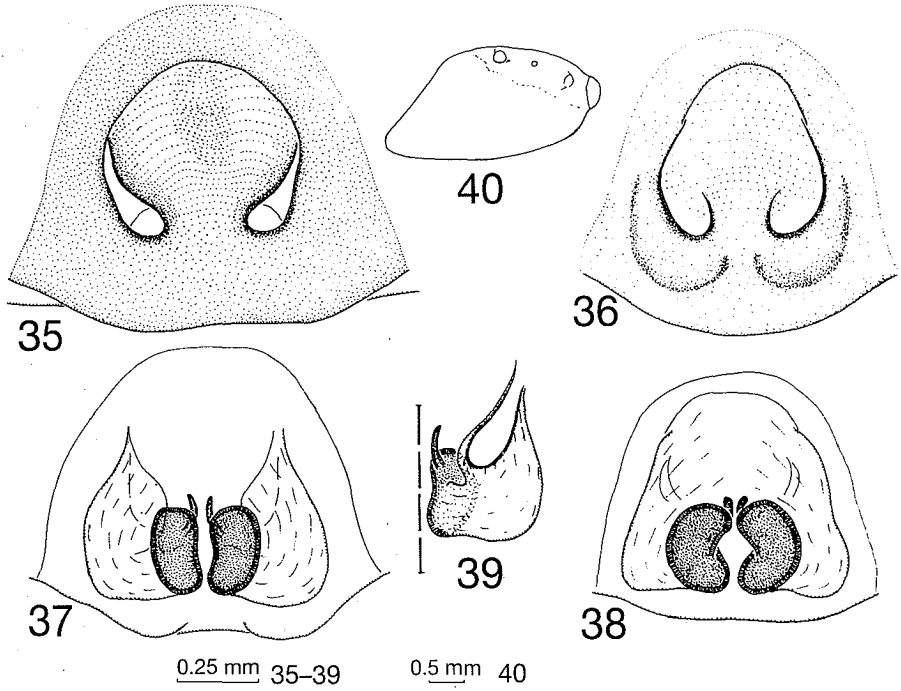


Figs 32–34. *Mogrus neglectus*. 32 – male palp, ventral view; 33 – ditto, prolateral view; 34 – bulbus. Specimens: 32, 33 – Turkey; 34 – Caucasus, Apsheron.

length 1.43–1.63. Clypeal height 0.15. Length of leg segments: leg I – 1.50–1.65+ +0.98–1.20+1.05–1.28+0.90–1.00+0.63–0.75; leg II – 1.48–1.75+0.88–1.10+0.93– –1.12+0.78–0.88+0.55–0.65; leg III – 1.93–2.25+0.90–1.15+1.03–1.18+1.08–1.32+ +0.63–0.75; leg IV – 1.80–2.08+0.88–0.95+1.03–1.25+1.15–1.33+0.68–0.70. Leg spination. Leg I: Fm. d. 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. pr. 1-2, v. 1-2-2ap.; Mt. pr. 1ap., rt. 1-1ap., v. 2-2ap. Leg II: Fm. d. 0-1-13; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1-1, v. 1-1-2ap.; Mt. pr. and rt. 1-1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-3 or 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. d. 1-0, pr. and rt. 1-2, v. 1-2ap.; Mt. d. 1-0 or without spines, pr. 1-2ap. or 1-2-2ap., rt. 1-0 or 1-2ap., v. 2-2ap. Coloration as in male, but paler. Epigyne and spermatheca as in Figs 22–28.

DIAGNOSIS. This species is closely related to *M. neglectus* and *M. antoninus*, but can easily be separated by the position and shape of the terminal apophysis, shape of the tibial apophysis and thickness of the embolar base in males (cf. Figs 19 and 9, 33), as well as by the wider and rounded terminal section of the spermatheca in females (Figs 8, 25–28).

TYPE MATERIAL. Holotype: 1♂ (ISEN, 2682), Kazakhstan, S Kazakhstan [Chimkent] area, Arys, 3.v.1988, D.L. Paratypes: Kazakhstan: 6♀ (ISEN, 2678), together with the holotype; 3♀ (ISEN, 2679), same locality, 28.iv.1993, D. L.; 1♀ (ISEN, 2689), same locality, 2.vi.1990, D.L.; 1♂, 2♀ (ZMUM, Ta-4798), 3♀ (ISEN, 2701), same locality, 7.v.1988, D.L.; 3♀ (ISEN, 2701), same locality, 25.v.1987, D.L.; 1♀ (ZMUM, Ta-4796), S Kazakhstan [Chimkent] area, Suzak Distr., 25 km W of Chulakkurgan, Karatau Mt. Range, 25.vi.1989, A.Z.; 1♀ (ISEN, 2010), same area and district, 2 km S of Aksumbe, Karatau Mt. Range, 16.vi.1989, A.Z.; 1♀ (ISEN, 2705), same area, Turkestan Distr., Bayaldyr River, Karatau Mt. Range, 11.vi.1989, A.Z.; 4♀ (ISEN, 2704), same area and district, Turlan pass, 24.vi.1989, A.Z.; 1♀ (ISEN, 2691), along highway Shevchenko-Uralsk, 13.–26.vi.1987, C. Tarabaev; 3♀ (ISEN, 2686), Zhambyl [= Dzhambul] area, Moiynkumskii Distr., Kumuzek, 28.vi.1989, C. Tarabaev; 1♀ (ISEN, 2688), same area and district, 6 km NE of Khantau, 23.v.1991, A.Z.; 1♀ (ISEN, 2698), same area and district, 24th km NE of Ulanbel, 17.v.1991, A.Z.; 3♀ (ISEN, 2692), same area and district, 21 km S of Furmanovka, 15.–16.v.1992, A. Fyodorov & A.Z.; 1♀ (ISEN, 2683), same area and district 58 km NW of Abakay, Betpak-Dala desert, 7.vi.1990, A.Z. & A. Fyodorov; 1♂, 2♀ (ISEN, 2699), same area, Talasskii Distr., 70th km of highway Akkol'-Ulanbel', Moiynkum desert, 15.v.1991, A.Z.; 1♀ (ISEN, 2696), Tchuyiskii Distr., 9th km of highway Novotroitchkoye-Moyinkum, 31.v–2.vi.1990, A. Fyodorov & A.Z.; 4♀ (ZMUM, Ta-4797), 30♀ (ISEN, 1179), Ustyurt Plateau, Kendirli, 20.–30.v.1989, A.Z.; 2♀ (ISEN, 2693), northern regions of Ustyurt Plateau, Baiganinskii Distr., July 1989, A.Z.; 1♂ (ISEN, 2695), Almaty [= Alma-Ata] area, Georgievka, 24.iv.1984, S. Ovchinnikov; 1♀ (ISEN, 2684), same locality, 8 km W of Targap, 13.v.1991, A.Z.; 2♀ (ISEN, 2687), same area, Kurtinskii Distr., Bozoi, 20.vi.1986, V.



Figs 35–40. *Mogrus neglectus*. 35, 36 – epigyne; 37–39 – spermathecae; 40 – female carapace, lateral view. Specimens: 35, 37, 39 – Turkey; 36, 38, 40 – Caucasus, Apsheron.

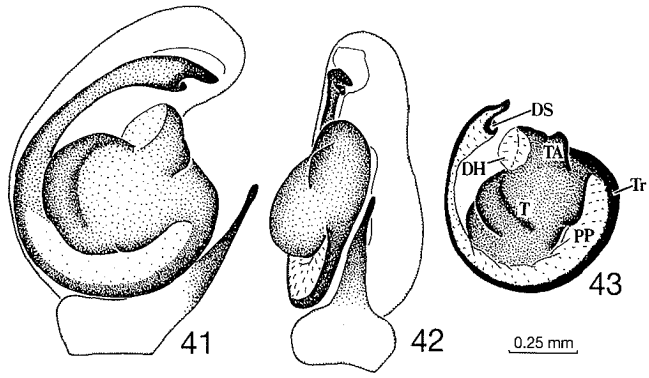
Linskii; 1♀ (ZMAS), same area, Chu River, 30.vi.1989, C. Tarabaev; 4♀ (ISEN, 2702), same area, Chardara, June 1981, A. Nenilin. – Uzbekistan: 6♀ (MNHN), 15 km SE of Karaulbazar, Karshynskaya steppe, 25.iv.1993, D.L.; 1♀ (ISEN, 2706), 7 km N of Kitab, Zeravshanskii Mt. Range, 800 m elev., 26.iv.1993, D.L. & A.Z.; 2♀ (ISEN, 2703), Dzhyzak area, Zaaminskii Distr., Obruchevskaya steppe, 28.vi.1980, A. Nenilin. – Kyrgyzstan: 1♀ (ISEN, 2680), Dzhalal-Abad area, Dzhany-Dzhalskii Distr., 5 km SE Kyzyl-Dzhar, 22.vi.1992, A. Fyodorov & A.Z. – Turkmenistan: 2♂ (ISEN, 2690), 8 km SE of Nebit-Dag, B-Balkhan Mt. Range, 1.–2.iv.1993, D.L.; 1♀ (ZMAS), SE Kopetdagh, Garry-Gala [= Kara-Kala], 4.v.1987, A.Z.; 1♂ (ZMAS), Kelif, 22.iv.1976, A. Kononenko; 7♂, 16♀ (ISEN, 2685), 20–25 km SE of Polekhatum, Gezgyadyk Mt. Range, 15.–16.iv.1993, D.L.; 1♀ (ISEN, 2694), 63 km SE of Utch-Adzy, 21.iv.1993, D.L.; 8♂, 1♀ (ISEN, 2681), 10 km SE of Bakharden, 3.–4.iv.1993, D.L.; 1♀ (ISEN, 2700), Badkhyz, Kyzyl-Dzhar Canyon, 10.–12.iv.1993, D.L.; 2♂ (MNHN), 40 km SE of Polekhatum, Zul'fagarskii Mt. Range, 1,000 m elev., 13.–14.iv.1993, A.Z.; 1♂ (ISEN, 2697), Ashkhabad, Berzengi, July 1980, G. Kuznetsov; 1♀ (ZMUM, Ta-4799), Central Kopetdagh, Firyuza, 13–14.vi.1929, leg.?

ETYMOLOGY. The new species is dedicated to my wife and best friend, Mrs Larisa B. Logunova.

DISTRIBUTION. Throughout Central Asia (Fig. 31). Type locality: Arys, S Kazakhstan (arrowed in Fig. 31).

HABITAT. *Artemisia* steppe and semidesert, where it occurs on shrubs.

NOTE. Two females of *M. larisae* had the male embolus inserted totally into the insemination duct. As illustrated in Figs 29, 30, when maximum insertion is achieved, the tip of the embolus reaches the basal end of the spermathecae.



Figs 41–43. *Mogrus valerii*. 41 – male palp, ventral view; 42 – ditto, prolateral view; 43 – bulbus. All specimens from Turkmenistan, Repetek.

Mogrus neglectus (Simon, 1868)
(Figs 17, 32–40)

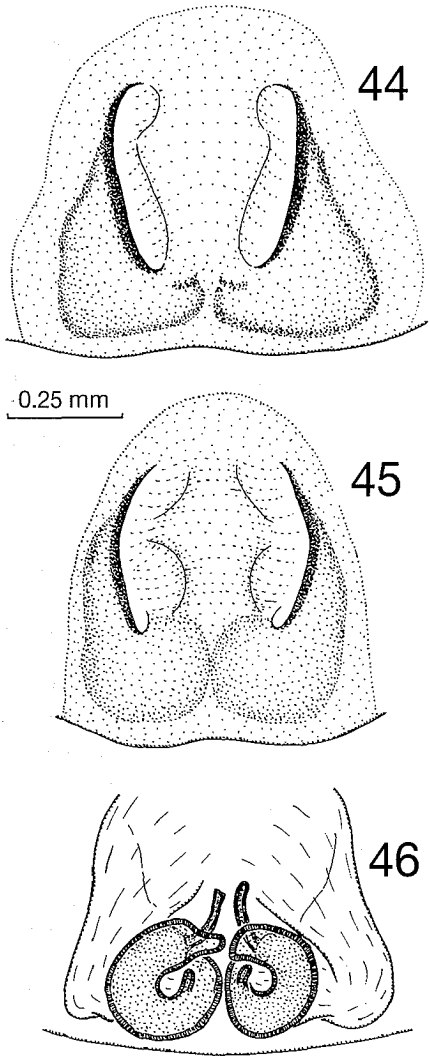
Mogrus antoninus: Dunin, 1984: 58; Nenilin, 1985: 130 (in part, records for the Caucasus).
M. neglectus: Dunin & Mamedov, 1992: 57.
Menemerus indistinctus: Kharitonov, 1969: 131; Nenilin, 1984a: 20.

DESCRIPTION (Azerbaijanian specimens). Male. Measurements. Carapace 2.75 long, 2.10 wide, 1.40 high at PLE. Ocular area 1.03 long, 1.90 wide anteriorly and 2.00 wide posteriorly. Diameter of AME 0.50. Abdomen 3.00 long, 1.88 wide. Cheliceral length 1.00. Clypeal height 0.15. Length of leg segments: leg I – 1.50+0.98+1.08+0.95+0.58; leg II – 1.43+0.75+0.88+0.80+0.50; leg III – 1.78+0.95+0.90+1.03+0.63; leg IV – 1.60+ +0.78+0.95+1.08+0.63. Leg spination. Legs I and II: Fm. d. 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1-1, rt. 0-1, v. 2-2-2ap. or 1-1-2ap.; Mt. pr. 1-1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 1-2ap.; Mt. pr. and rt. 1-1-2ap., v. 2-2ap. Coloration. Carapace dark brown, covered with adpressed scales and protruding hairs; black around eyes. Clypeus densely covered with long white hairs. Sternum dark brown, covered with erect white hairs. Maxillae dark brown with yellow tips. Chelicerae dark brown. Abdomen grey, tinged with white. Dorsum with a longitudinal wide black stripe. Book-lung covers yellow. Spinnerets brownish-yellow. Legs mottled (yellow + brown), except femora yellow with brown tips. Palpal structure as in Figs 32–34.

Female. Measurements. Carapace 3.13 long, 2.50 wide, 1.65 high at PLE. Ocular area 1.38 long, 2.05 wide anteriorly and 2.25 wide posteriorly. Diameter of AME 0.58. Abdomen 4.70 long, 3.20 wide. Cheliceral length 1.25. Clypeal height 0.15. Length of leg segments: leg I – 1.63+1.03+1.10+0.90+0.63; leg II – 1.58+1.03+0.93+0.85+0.58; leg III – 2.10+1.08+1.05+1.13+0.70; leg IV – 1.95+1.03+ +1.08+1.33+0.75. Leg spination. Legs I and II: Fm. d. 0-1-1-4 or 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1-1 or 1-2, rt. 0-1, v. 1-2-2ap. or 1-1-2ap.; Mt. pr. and rt. 1-1ap. v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-4 or 0-1-1-5; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1 or 1-1-1, v. 2ap. or 1-2ap.; Mt. pr. and rt. 1-1-2ap., v. 2-2ap. Coloration as in male, but paler. Epigyne and spermathecae as in Figs 35–39.

DIAGNOSIS. See comments under "Diagnosis" of *M. antoninus*.

MATERIAL. Azerbaijan: 6♀ (ZMUM), Apsheron Peninsula, Baku, 20.v.1988, P. Dunin; 1♀ (ISEN, 2861), same locality, 12.v.1986, P. Dunin; 1♂, 10♀ (ISEN, 2857), same locality, 20.vi.1987, P. Dunin;



Figs 44–46. *Mogrus valerii*. 44, 45 – epigyne; 46 – spermathecae. All specimens from Turkmenistan, Repetek.

2♀ (ISEN, 2860), Apsheron Peninsula, Primorsk, 18.v.1977, P. Dunin; 1♀ (ISEN, 2859), 30 km NE of Shemakha, Pirkulinskii Reserve, 1,300 m elev., 18.ix.1984, D.L.; 6♀ (ISEN, 2858), Turianchaiskii Reserve, 13.v.1986, P. Dunin.

Comparative material of *M. neglectus* (syntypes): 1♂, 6♀ (MNHN, 751), "E.S. Graucia(?), Turcia" [label illegible].

Distribution. The Mediterranean, the Near East and the Caucasus.

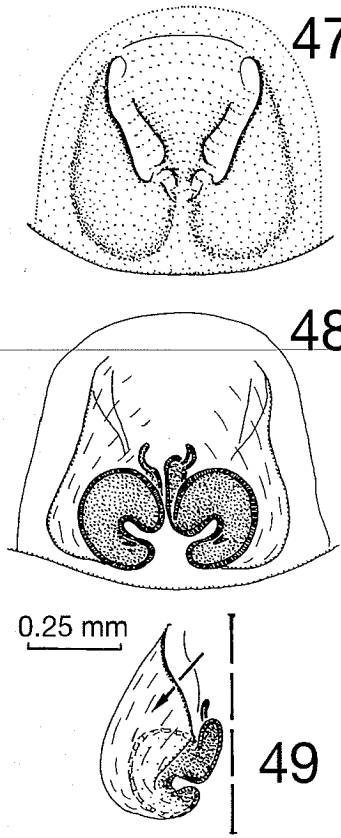
Note. According to Prószyński (1990) this species was also recorded in Central Asia (Ishkent, near Shakhrisyabz) under the name *Menemerus indistinctus* (O.P.-Cambridge) by Kharitonov (1969). However, I have been unable to examine Kharitonov's specimens and hence I am not certain if they really belong to *M. neglectus*. Most probably, this author dealt with *M. antoninus*.

Mogrus valerii Kononenko in Andreeva et al., 1981

(Figs 17, 41–46)

Mogrus valerii Kononenko in Andreeva et al., 1981: 99–103, Figs 33–36.
M. valerii: Nenilin, 1985: 130.

Description. Male. Measurements. Carapace 2.63 long, 2.00 wide, 1.35 high at PLE. Ocular area 1.20 long, 1.75 wide anteriorly and 1.81 wide posteriorly. Diameter of AME 0.45. Abdomen 2.83 long, 1.83 wide. Cheliceral length 1.18. Clypeal height 0.13. Length of leg segments: leg I – 1.68+1.00+1.25+ +1.08+0.63; leg II – 1.40+0.86+0.93+0.94+0.63; leg III – 1.70+0.88+0.93+1.03+0.60; leg IV – 1.65+0.79+0.98+1.13+0.58. Leg spination. Legs I and II: Fm. d. 0-1-1-3 or 0-1-1-4; Pt. pr. and rt. 0-1-1; Tb. pr. 1-1-1, rt. 0-1, v. 1-1-2ap. or 2-2-2ap.; Mt. pr. and rt. 1-1ap., v. 2-2ap. Leg III: Fm. d. 0-1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-2, v. 1-0-2ap.; Mt. d. 1-0, pr. and rt. 1-2ap., v. 2-2ap. Leg IV: Fm. d. 0-1-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 1-1-2ap.; Mt. d. 1-0, pr. 1-0-2ap., rt. 1-1-2ap., v. 2-0-2ap. Coloration. Carapace dark brown, covered with adpressed white hairs; black around eyes. Clypeus sparsely covered with long light hairs. Sternum dark brown, covered with protruding white hairs. Maxillae and labium dark brown with yellow tips. Chelicerae dark brown. Abdomen: dorsum grey with a wide longitudinal black stripe; each side with a similar stripe; venter yellow with an oval dark spot. Book-lung covers yellow. Spinnerets greyish-yellow. Leg



Figs 47–49. *Mogrus* sp. 47 – epigyne; 48, 49 – spermathecae. Specimen from SE Kazakhstan, Betpak-Dala desert.

coloration composed of numerous yellow and brownish patches, femora usually darker than remaining segments. Palpal structure as in Figs 41–43.

Female. Measurements. Carapace 2.85 long, 2.30 wide, 1.30 high at PLE. Ocular area 1.30 long, 1.83 wide anteriorly and 2.00 wide posteriorly. Diameter of AME 0.55. Abdomen 4.13 long, 2.88 wide. Cheliceral length 1.20. Clypeal height 0.13. Length of leg segments: leg I – 1.50+0.95+1.04+0.83+0.65; leg II – 1.50+0.88+0.88+0.80+0.60; leg III – 1.68+0.85+1.03+0.93+0.65; leg IV – 1.75+0.88+ +1.08+1.15+0.70. Leg spination. Legs I and II: Fm. d. 0-1-1-2 or 0-1-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. 1-2 or 1-1-1, rt. 1-0 or 0-1, v. 1-2-2ap. or 1-1-2ap.; Mt. pr. and rt. 1-1ap., v. 2-2ap. Legs III and IV: Fm. d. 0-1-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 1-1-2ap. or 1-0-2ap.; Mt. d. 1-0, pr. and rt. 1-2ap., v. 2-2ap. Coloration as in male, but clypeus densely covered with long white hairs and abdomen lacks longitudinal black stripes. Epigyne and spermathecae as in Figs 6, 44–46.

Diagnosis. This species can be easily distinguished from all other Central Asian congeners of *Mogrus* by the embolus widened to tip, the structure of the tibial apophysis (Figs 41, 42) and the long accessory glands in females (Figs 6, 46).

Material. Uzbekistan: 1♂ (ISEN, 1180), Kyzylkumy desert, Bukantau Mts, Irlir Mt., Karakuduk, 9.vi.1976, A. Kononenko. – Turkmenistan: 1♀ (ZMUM), 1♀ (ISEN, 2734), Repetek, summers 1981, 1982, V. Krivokhatskii; 2♂ (ISEN, 2735), same locality, 22.iv.1993, D.L.

Distribution. Deserts of Turkmenistan and Uzbekistan (Fig. 17). Type locality: Repetek, Turkmenistan (arrowed in Fig. 17).

Mogrus sp.
(Figs 47–49)

Because of a quite different structure of the spermathecae, especially its terminal parts (Figs 48, 49), it can be stated that *Mogrus* sp. is a new species. However, it is known that species in the genus *Mogrus* can be more accurately diagnosed by the male genitalia (Andreeva et al., 1981; Prószyński, 1989). Therefore, I defer a description of this species until more materials, including a male, is found.

Material. Kazakhstan: 1♀ (ISEN), Zhambyl [Dzhambul] area, Moiynkumskii Distr., 24 km NE of Ulanbel, Betpak-Dala desert, 17.v.1991, A.Z.

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