

**Three new wandering spider species  
(Aranei Lycosidae Gnaphosidae) from Mongolia.**

**Три новых вида бродячих пауков  
(Aranei Lycosidae Gnaphosidae) из Монголии.**

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**ABSTRACT:** Illustrated descriptions of 3 new wandering spider species are given: *P.sterneri* sp.n. (♂ only, close to *P.solituda* Levi et Levi), *Gnaphosa rasnitsyni* sp.n. (2 ♀♀ only, close to *G.muscorum* L.Koch), and *Fedotovia mongolica* sp.n. (♀ only, close to *F.uzbekistanica* Charitonov). All three new species are interesting from a viewpoint of both zoogeography and taxonomy.

**РЕЗЮМЕ:** Приводятся описания трех новых видов из Монголии: *Pardosa sterneri* sp.n. (только самец, близок к *P.solituda* Levi et Levi), *Gnaphosa rasnitsyni* sp.n. (только 2 самки, близок к *G.muscorum* L.Koch) и *Fedotovia mongolica* sp.n. (только самка, близок к *F.uzbekistanica* Charitonov). Все три находки интересны в таксономическом и зоогеографическом плане.

The spider fauna of Mongolia is one of the best known in continental Asia due to numerous faunistic and taxonomic publications. The most important of them are: Kulczynski, 1901; Loksa, 1965; Proszynski, 1979, 1982; Heimer, 1985, 1987; Eskov, 1989. Many papers have also been published on the spiders of adjacent areas: Inner Mongolia and Xinjiang Uygur Region [Simon, 1895; Schenkel, 1936, 1953, 1963a,b; Hu, Wu, 1989; etc.]. Working with a checklist of Mongolian spiders [Marusik, Eskov, in press] and with collections from Mongolia, I have found several new species. Descriptions of three of them are given below. These three wandering spider forms are interesting with respect to both taxonomy and zoogeography.

The new *Pardosa* species is the second representative of the *solituda* group and the only member of this group in the Palaearctic.

The new *Gnaphosa* is also interesting, but for a somewhat different reason. Recently, an excellent revision of East Palaearctic *Gnaphosa* has been published by Ovtsharenko et al. [1992]. So it was quite surprising to find an additional new species.

The discovery of a new *Fedotovia* is interesting in two respects. One is that the new species is the second representative of the genus. Second, this species has been found by the first revisors of the genus [Ovtsharenko, Platnick, 1991], probably in Mongolia (see below), but was not recognized as a new one.

The following abbreviations have been accepted in the text and figures: A - anterior, P - posterior, M - median, L - lateral, E - eyes, MOQ - median ocular quadrangle, T - terminal apophysis, d - dorsally, p - prolaterally, r - retrolaterally, pv and rv - pro- and retroventrally, respectively. All measurements are given in mm.

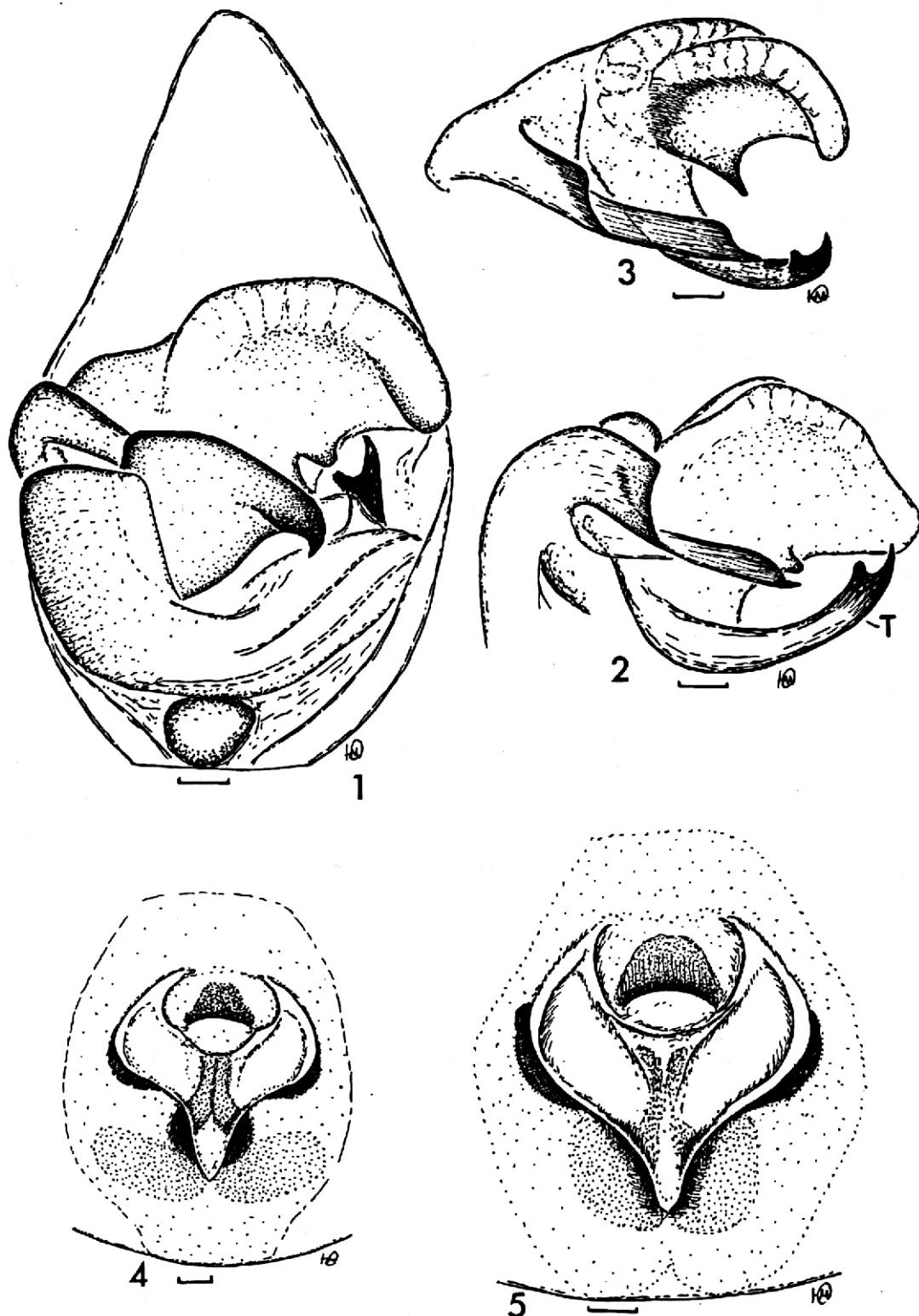
Before going further, I would like to thank Drs K.G.Mikhailov and K.Yu.Eskov, Moscow, for the material used in this work. English was kindly checked by Dr. R.Pemberton, Seoul. Three holotypes and one paratype have been deposited in the collections of the Zoological Museum of the Moscow State University.

*Pardosa sterneri* Marusik, sp.n.  
Figs.1-3.

**MATERIAL:** Holotype ♂, Mongolia, Khovsgol (Khubsugul) Aimak, Bayangol, oit tundr, 17-24.06.1986 (K.Ulykpan).

**DERIVATIO NOMINIS:** The specific name is a patronym in honour of my friend Maurice Sternner (York, Pennsylvania).

**DESCRIPTION. MALE.** Total length 8.10. General coloration black to brown-black. Carapace: 4.30 long, 3.50 wide, dark brown, with an indistinct brown median band and submarginal stripe. Sternum dark grey-brown. Abdomen brown-black dorsally with a brown median lanceolate band and some pairs of small submedian spots. Abdomen light brown ventrally. Legs and chelicerae dark brown with indistinct dark spots and rings. Coxae with light spots basally. Holotype lack left legs and right leg



Figs. 1-5. Copulatory organs of *Pardosa sternerri* sp.n. (1-3) and *Gnaphosa rasnitsyni* sp.n. (4-5): 1 - left palpus, ventral view; 2 - palea, ventral view; 3 - palea, ventro-apical view; 4 - epigyne (holotype), ventral view; 5 - epigyne (paratype), ventral view. Scale = 0.1 mm.

Рис. 1-5. Копулятивные органы *Pardosa sternerri* sp.n. (1-3) и *Gnaphosa rasnitsyni* sp.n. (4-5): 1 - левая пальпа, вид снизу; 2 - апикальная часть бульбуса, вид снизу; 3 - то же, вид снизу-апикально; 4 - эпигина (голо-тип), вид снизу; 5 - эпигина (паратип), вид снизу. Шкала - 0.1 мм.

I. Leg II: patella, tibia and metatarsus with dense erected whitish hairs (their length about one half of tibial diameter). Palp as in Figs. 1-3, blackish, terminal apophysis long, tapered, curved, with two projections on tip, embolus thick at base, widely flattened distally, oblique, and curved medially, median apophysis short, broad, rounded distally, with a long, stout, hooked basal process, palea with a small pointed projection.

FEMALE unknown.

**DIAGNOSIS.** Without doubt this new species belongs to the *solituda* group erected by Dondale & Redner [1987]. This species group was treated as monobasic with only one member, *P.solituda* Levi et Levi, 1951, known from high elevations of the Rocky Mountains from Baff, Alberta to Colorado (Dondale, Redner, 1987, 1990). *P.sterneri* sp.n. is very similar to *P.solituda*, but differs from the latter in having a longer and thinner terminal apophysis, and a pointed projection of the palea.

Both species lack a distinct conductor and have unique setae covering the distal segments of the legs I and II.

*Gnaphosa rasnitsyni* Marusik, sp.n.

Figs. 4-6.

**MATERIAL:** Holotype ♀, Bayankhongor Aimak, 10 km N of Tsetsen-Ula, Bakhar, 24.08.1986 (A.P.Rasnitsyn). Paratype 1 ♀, Bayankhongor Aimak, Bogd Somon, Ikh-Bogd Mt.Range, Ushastai Gorge, 2100-2300m, 1985 (collector unknown).

**DERIVATIO NOMINIS:** The specific name is a patronym in honour of Prof. A.P.Rasnitsyn, collector of the holotype and director of the Entomological Department of the Palaeontological Institute, Moscow.

**DESCRIPTION. FEMALE.** Total length 13.5-17.5. Carapace: 6.7-7.0 long, 4.8-5.0 wide, light brown. Eye sizes and interdistances: AME 0.17, ALE 0.26, PME 0.21, PLE 0.23, AME-AME 0.13, AME-ALE 0.04, PME-PME 0.11, PME-PLE 0.36; MOQ length 0.60, front width 0.44, back width 0.50. Abdomen grey-brownish. Epigyne as in Figs. 4-6, with a wide scape (hood) which has a distinct opening, two expanded elongate midpieces. Leg spination: Femora I 3d-2p, II 2d-2p, III & IV 3d-2p-3r, Tibia I 1p-4pv-3rv, II 2p-3pv-3rv, III & IV 3d-7(8)p-5(6)r-3pv-3rv, Metatarsus I 2pv-1rv, II 2pv-2rv, III 6p-6r-4pv-3rv, IV 4pv-4rv (other not counted).

MALE unknown.

**DIAGNOSIS.** The new species belongs to the *muscorum* group sensu Ovtsharenko et al. [1992] or *lucifuga* sensu Platnick & Shadab, 1975. It is

somewhat similar to *G.muscorum*, but differs in having the more rounded lateral margins of the epigyne and a distinct projected midpiece as well as in the shape of the vulva. *G.rasnitsyni* sp.n. can be recognized by its great size as well. Only one species is comparable with it: *G.lucifuga* (total length 12-18, carapace length 5.6-8.0 [Grimm, 1985]). Moreover, the latter species can be easily separated from the new one by the shape of the epigyne.

*Fedotovia mongolica* Marusik, sp.n.

Figs. 7-8.

**MATERIAL.** Holotype ♀, Gobialtai, between the Atas-Bogdo and Shor-Teg Mts., 07.1989 (A.Ponomarenko, Yu.Popov).

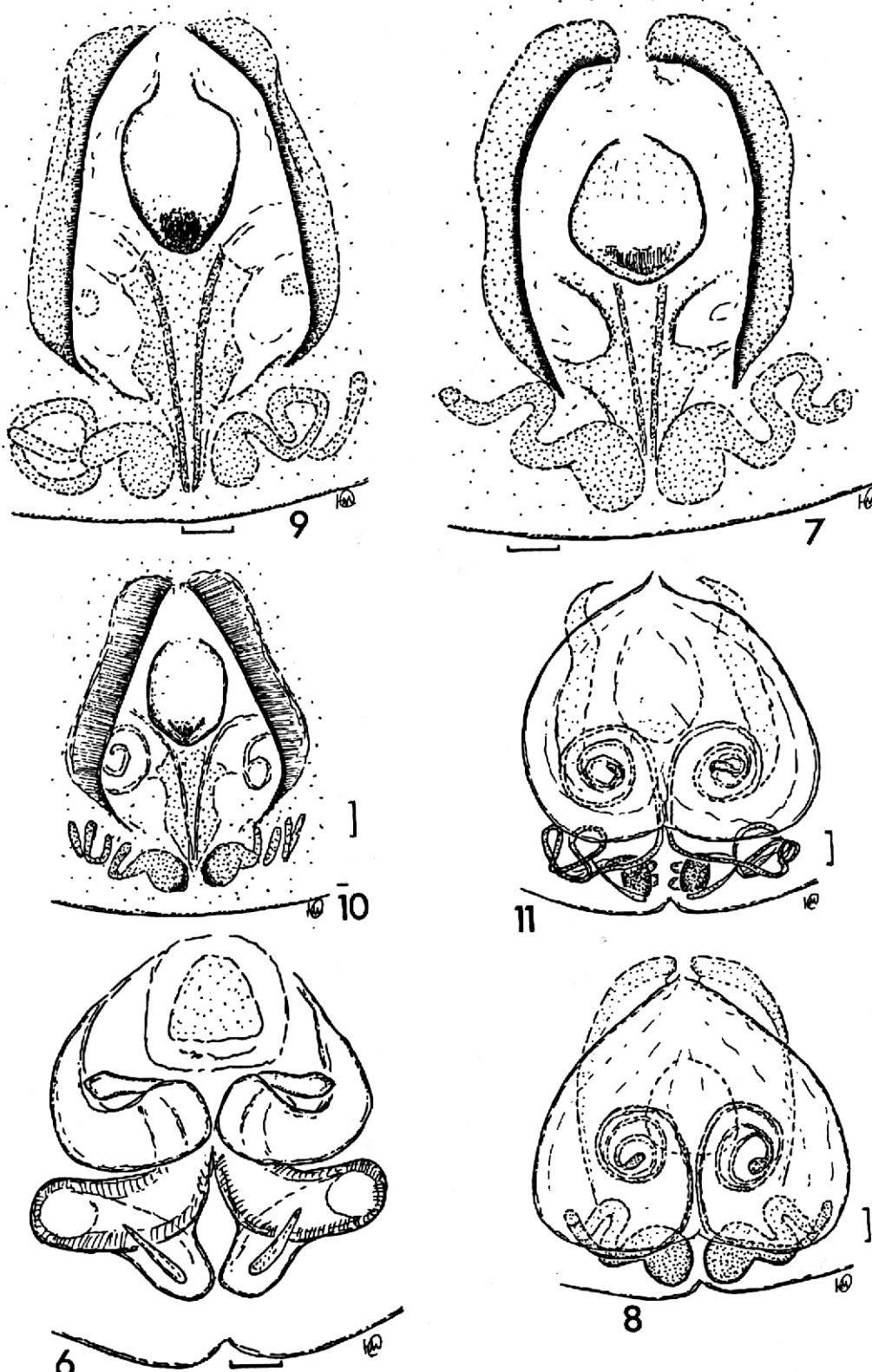
**DERIVATIO NOMINIS.** The specific name refers to the type locality and area of distribution.

**DESCRIPTION. FEMALE.** Carapace: 5.0 long, 3.7 wide, uniformly yellow. Eye sizes and interdistances: AME 0.19, ALE 0.26, PME 0.16, PLE 0.21, AME-AME 0.10, AME-ALE 0.04, PME-PME 0.13, PME-PLE 0.30, ALE-PLE 0.26; MOQ length 0.50, frontal width 0.46, back width 0.50. Abdomen yellow-grey. Epigyne as in Figs. 7-8, with long and wide lateral margins, short median scape situated between lateral margins, epigynal ducts twisted posteriorly and spiralled medially. Femur I length - 4.0. Leg spination: Femur I & II 2d-3p-2r, III 2d-3p-2r or 2d-2p-2r, IV 2d-2p-2r, Tibia I 1(2)p-3pv-3rv, II 2p-3pv-3rv, III 2d-8p-5r-3pv-3rv, IV 2d-4p-4r-3pv-3rv, Metatarsus I 3pv-2rv (2pv-2rv), II 2p-3pv-3rv (III and IV not counted). Tibia I length/width ratio 5.00.

MALE unknown.

**DIAGNOSIS.** *F.mongolica* sp.n. is closely related to the generotype, the single congener *F.uzbekistanica*. The two species can be separated by the distinctly greater body size in the new species and other nongenitalic features. In particular, *F.mongolica* sp.n. has longer and thinner legs. Tibia I length/width ratio is 5.00, while in *F.uzbekistanica* it is 3.17. Both species have different eye arrangements. The new species has the PLE smaller than both ALE-PLE interdistance and ALE size (in *F.uzbekistanica* ALE-PLE = ALE = PLE). The epigyne of *F.mongolica* sp.n. has a short, nearly round scape (elongate in the type species), relatively wide receptacula and ducts. The ducts in *F.mongolica* sp.n. are much more short than in the type species, so the male of the new species probably has a shorter embolus. Unlike the generotype (6-7), the new species has eight long pyriform gland spigots on the anterior lateral spinnerets.

**COMMENTS.** The record of *F.uzbekistanica*



Figs. 6-11. Epigynes of *Gnaphosa rasnitsyni* sp.n. (6), *Fedotovia mongolica* sp.n. (7-8) and *Fuzbekistanica* Charitonov (9-11, specimens from Tajikistan): 6, 8, 11 - dorsal view; 7, 9, 10 - ventral view. Scale = 0.1 mm.

Рис. 6-11. Эпигини *Gnaphosa rasnitsyni* sp.n. (6), *Fedotovia mongolica* sp.n. (7-8) и *Fuzbekistanica* Charitonov (9-11, особи из Таджикистана): 6, 8, 11 - вид сверху; 7, 9, 10 - вид снизу. Шкала 0.1 мм.

from Bayan-Khongor Aimak, Mongolia [Ovtsharenko, Platnick, 1991] probably refers to *F.mongolica* sp.n. The above paper was the first redescription of *Fedotovia*, erected by Charitonov in 1946 from Yakkabag, Uzbekistan. Ovtsharenko and Platnick [1991] recorded *F.uzbekistanica* from the West (Guryev Area), South-central (Kzyl-Orda and Chimkent areas) Kazakhstan, West Mongolia, and the type locality. Specimens of this species (in the collection of the Biological Institute, Novosibirsk) have also been collected from Tajikistan (Kurgan-Tyube Area, Aktau Mt. Range).

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