

On the identity of *Pardosa taczanowskii* (Thorell) (Araneae: Lycosidae)

О тождестве *Pardosa taczanowskii* (Thorell) (Araneae: Lycosidae)

Torbjörn Kronestedt
Т. Крунестедт

Department of Entomology, Swedish Museum of Natural History Box 50007, SE-104 05 Stockholm, Sweden. E-mail: torbjorn.kronestedt@nrm.se

KEY WORDS: taxonomy, Siberia, *Pardosa chionophila*, new synonym.

КЛЮЧЕВЫЕ СЛОВА: таксономия, Сибирь, *Pardosa chionophila*, новый синоним.

ABSTRACT. A study of the type material of *Lycosa* (now *Pardosa*) *taczanowskii* Thorell, 1875, originally said to have been collected in Poland but apparently of Asian origin, has revealed that it is conspecific with *Pardosa chionophila* L. Koch, 1879. Thorell's description of male *P. taczanowskii* fits the single male type specimen (here designated as lectotype) which is conspecific with a male of *P. chionophila* from the type locality of the latter species. *Pardosa chionophila* L. Koch, 1879, syn.n. is placed as a junior synonym to *P. taczanowskii*. The epigyne of *P. jeniseica* Eskov et Marusik, 1995, a species in the *taczanowskii* group, is depicted for the first time.

РЕЗЮМЕ. Изучение типового материала *Lycosa* (теперь *Pardosa*) *taczanowskii* Thorell, 1875, описанного из Польши, но, предположительно, собранного в Азии, показало, что этот вид не отличается от *Pardosa chionophila* L. Koch, 1879. Описание самца *P. taczanowskii*, приведённое Тореллем, однозначно подходит к единственному самцу из типовой серии (выделен мною в качестве лектотипа). Лектотип не отличается от самца *P. chionophila*, собранного в типовой местности. Соответственно, *Pardosa chionophila* L. Koch, 1879, syn.n. признаётся младшим синонимом *P. taczanowskii*. Эпигина *P. jeniseica* Eskov et Marusik, 1995, вида, принадлежащего к группе *taczanowskii*, проиллюстрирована впервые.

Introduction

Two out of numerous species described in 1875 by Tamerlan Thorell [Thorell, 1875a], viz. *Pardosa* (sub *Lycosa*) *taczanowskii* and *Alopecosa* (sub *Tarentula*) *edax*, were based on material which he received from Władysław Taczanowski, contemporary curator at the Zoological Cabinet of Imperial Warsaw University. Taczanowski's main interest was ornithology, but he also dealt with spiders from different parts of the world. Apart from participating in an expedition to Algeria, Taczanowski did not undertake any travels outside Europe [Wikipedia, 2012]. He was, however, very active

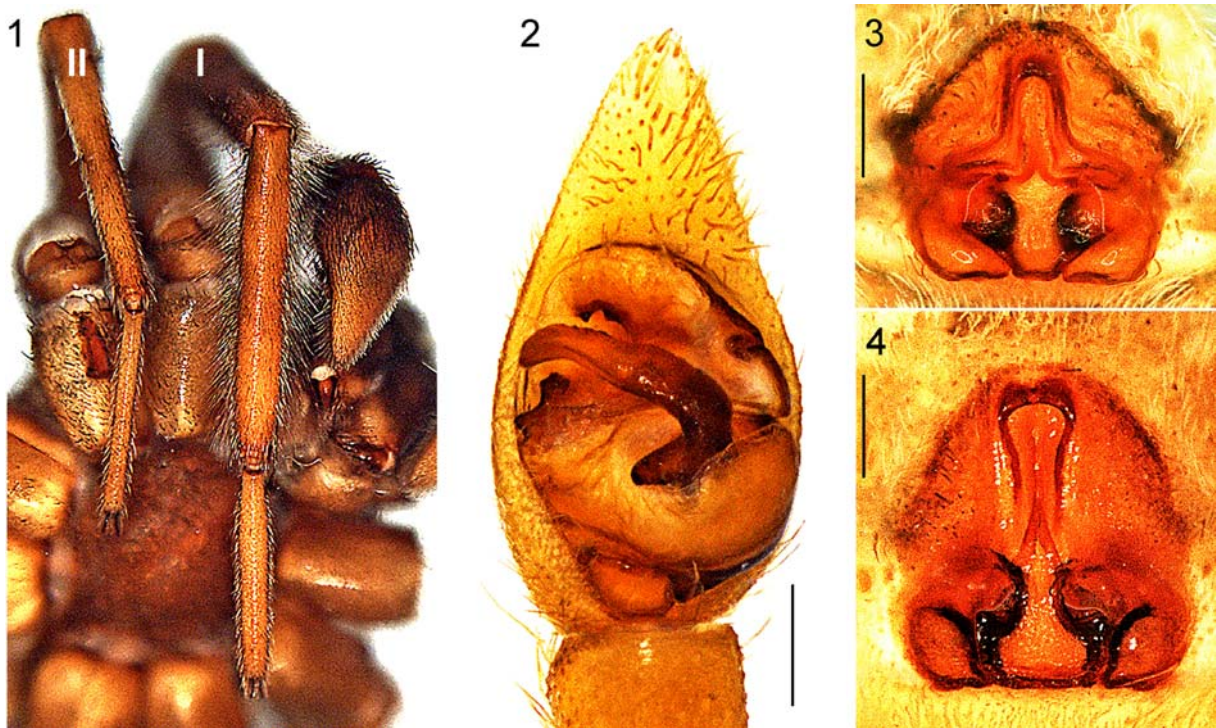
in arranging for material to be sent from various collectors to the museum in Warsaw. In arachnology, Taczanowski is mainly known for his papers on spiders from French Guyana and Peru [Prószyński, 2001].

In the original descriptions [Thorell, 1875a], both of the abovementioned species were said to have been collected in Warsaw, Poland, but no additional material has ever been found in that country. Both species were catalogued as Polish in Prószyński & Starega [1971] but Starega later [Starega, 1983] stated that they probably are of Asian origin, maybe from Mongolia. Comparison of the male holotype of *Alopecosa edax* with that of *Alopecosa pseudohirta* (Schenkel, 1963) from Kansu Province in China revealed that these two are conspecific [Buchar, 2001].

No subsequent study of the type material of *Pardosa taczanowski* has been undertaken. The type series, consisting of one male and three females [Thorell, 1875b: "marem adustum et feminas paucas" [adult male and a few females]], is shared between the Swedish Museum of Natural History, Stockholm (NHRS) (1♂-palp, 1♀) and the Museum and Institute of Zoology of the Polish Academy of Sciences, Warsaw (MIZW) (1♂ with one palp, 2♀♀).

The male specimen of *P. taczanowskii* is conspecific with a male of *Pardosa chionophila* L. Koch, 1879 from the type locality of the latter species [cf. Holm, 1973]. Though the male of *P. taczanowskii* now lacks the characteristic first leg pair, this is described in detail in Thorell's [1875b] extended description: "Tibiae, metatarsi et tarsi pedum I:mi.... evidenter solito crassiores sunt, et aculei subter in tibiis et metatarsi horum pedum brevissimi,..." [Tibiae, metatarsi and tarsi of the first legs... clearly being habitually thick, and spines underneath of tibiae and metatarsi of these legs very short, ...]. Two of the females (in MIZW) are most probably conspecific with the male while the single female (in NHRS) belongs to a species in the *P. lapponica* group (females of some species in this group have very similar epigyne and are hard to identify to species without accompanying males [cf. Marusik et al., 2000]).

While Thorell's description of male *P. taczanowskii* clearly fits that of *P. chionophila*, his description of the



Figs 1–4. *Pardosa taczanowskii* (Thorell) (1–3): male leg I and II (1), right male palp of lectotype (2), epigyne (3) and *Pardosa jeniseica* Eskov et Marusik (4), epigyne. Material in Figs 1 and 3 from Russia: Tuva, Uyuk, shore steppe, 4–5 June 1995 (S. Koponen). Material in Fig. 4 from Russia: Irkutsk Area, Baikal'sk, Solzan River, 22 June 1977 (Shylenkov). Scale lines = 0.25 mm.

Рис. 1–4. *Pardosa taczanowskii* (Thorell) (1–3): нога самца I и II (1); правая пальпа самца, лектотип (2); эпигина (3) и *Pardosa jeniseica* Eskov et Marusik (4), эпигина. Рис. 1 и 3, экземпляры из Тувы: Уюк, прибрежные степи, 4–5.06.1995 (С. Коронен); рис. 4, экземпляр из Иркутской обл., Байкальск, р. Солзан, 22.06.1977 (Шиленков). Масштаб 0,25 мм.

female, though with a rather detailed account of the epigyne, may fit also other species in this species group (the *taczanowskii* group [cf. Marusik et al., 2000 (sub *astrigera* group)]. Presently the *taczanowskii* group encompasses *P. taczanowskii*, *P. astrigera* L. Koch, 1878 and *P. jeniseica* Eskov et Marusik, 1995 but there are also hitherto unrecognized species in this group (Kronestedt, Marusik, unpublished).

Being conspecific with *P. chionophila*, it is plausible that the type material of *P. taczanowskii* was collected somewhere in Siberia or Mongolia and sent to Taczanowski probably by some of the Polish exiles with scientific interests dwelling there because of participating in the anti-Russian 'January uprising' starting in 1863. Kulczyński [1895] mentioned two Polish exiles who collected spiders which were sent to Warsaw: Benedykt Dybowski and Wiktor Godlewski. Dybowski lived in and travelled to different parts of Siberia between 1863 and 1883. He lived for longer periods in Transbaikalia, at times accompanied by among others Godlewski, and participated in expeditions eastwards (Amur area, Sakhalin, Vladivostok) before staying in Kamchatka 1879–1883 [Mlíkovský, 2007]. Though there is no indication about where the type material of *P. taczanowskii* came from, it might have been collected somewhere in Transbaikalia by one of the Polish exiles.

Pardosa chionophila L. Koch cannot be maintained as name for this species due to prevailing usage. The conditions in ICZN Article 23.9.1.1 and 23.9.1.2 are not met with.

Pardosa taczanowskii (Thorell, 1875)
Figs 1–3.

Lycosa taczanowskii Thorell, 1875a: 105 (♂♀); 1875b: 148 (♂♀).

Pardosa chionophila L. Koch, 1879: 102, pl. 3 fig. 15 (♀); Holm, 1973: 100, figs 86, 88, 90, 91 (♂♀); Zyuzin, 1993: fig. 11 (♂: palea with embolus, conductor and terminal apophysis); Eskov, Marusik, 1995: 66; figs 66, 67 (♂: entire palp and terminal part of bulb). **Syn.n.**

Lectotype ♂ (lacking one palp and both first legs) of unknown origin (erroneously labeled 'Varsoviæ Taczan') deposited in MIZW, designated here. ♂-palp of the same specimen deposited in the NHRS (Collectio Thorell No. 247(jar)/1557(tube)). *Holotype* ♀ of *P. chionophila* from Russia, Krasnoyarsk, deposited in NHRS.

DIAGNOSTIC REMARKS. The species is well described in Holm [1973]. The male is characterized by the first pair of legs having thickened tibia, metatarsus and tarsus (Fig. 1).

In addition, the tibia and metatarsus I have rather short spines, and metatarsus I is covered with a dense pubescence of long thin light hairs, longest pro- and retrolaterally (Fig. 1). A dense pubescence of long thin

hairs is also present in tibia I (except most proximally). The palp has a tegular apophysis with a long anterior branch directed obliquely retrolaterally, apically turned even more in that direction (Fig. 2) (the tegular apophysis in *P. astrigera* has a similar shape).

The epigyne has a configuration characteristic for the *taczanowskii* group (Fig. 3). It is not found to be distinguishable from that in, e. g., *P. astrigera*. Therefore, the identification of females without accompanying males may be uncertain in samples from areas where more species in the *taczanowski* group co-occur. Females of *P. jeniseica*, however, have a distinct epigyne and are clearly distinguishable. The epigyne depicted as *P. jeniseica* in Esyunin et al. [1999] belongs to another species (an opinion also expressed in Marusik et al. [2000]). Samples containing both sexes of *P. jeniseica* from different localities in Siberia make clear that the epigyne shown in Fig. 4 belongs to this species.

DISTRIBUTION. Middle Siberia southward to Mongolia [Marusik et al., 2000], also recorded from the Russian Far East [e.g. Kim & Kurenschikov, 1995; Omelko, 2010] as well as China [Song et al., 2001]. Marusik et al. [2007] have, however, expressed doubt about the identity of material from the Russian Far East, suggesting that it may belong to a close but undescribed species.

ACKNOWLEDGEMENTS. I am indebted to Dr. Dominika Mierzwa-Szymkowiak, Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw, for loan of material, and to Dr. Yuri M. Marusik, Institute of Biological Problems of the North, Far Eastern Branch of the Russian Academy of Sciences, Magadan, for comparative material and for commenting on the manuscript. I am also grateful to Dr. Kirill Mikhailov for checking previous usage of the name *Pardosa* (or *Lycosa*) *chionophila*.

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Responsible editor Yu.M. Marusik