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Revision of the linyphiid spider collection of di Caporiacco from Karakoram (Aranei: Linyphiidae)

Ревизия пауков-линифиид коллекции Ди Капориакко из Каракорума (Aranei: Linyphiidae)

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КЛЮЧЕВЫЕ СЛОВА: паукообразные, таксономия, новые виды, Палеарктика, Азия, горная фауна.

ABSTRACT. The linyphiid spider collection of Ludovico di Caporiacco from Karakoram is revised. Five new synonyms are established, the first name being the oldest and thus valid: *Styloctetor romanus* (O. Pickard-Cambridge, 1872) = *Alioranus distinctus* Caporiacco, 1935, syn.n., = *Araeoncus duriusculus* Caporiacco, 1935, syn.n.; *Erigone atra* Blackwall, 1833 = *Aulacocyba cavifrons* Caporiacco, 1935, syn.n.; *Archaraeoncus prospiciens* (Thorell, 1875) = *Pocadicnemis desioi* Caporiacco, 1935, syn.n.; and *Prinerigone vagans* (Audouin, 1826) = *Erigone pseudovagans* Caporiacco, 1935, syn.n. Eleven *nomina dubia* are defined: *Alioranus minutissimus* Caporiacco, 1935; *Bathyphantes larvarum* Caporiacco, 1935; *B. reticularis* Caporiacco, 1935; *Gongylidiellum nigrolimbatum* Caporiacco, 1935; *Lepthyphantes annulipes* Caporiacco, 1935; *L. incertissimus* Caporiacco, 1935; *L. striatiformis* Caporiacco, 1934; *L. trivittatus* Caporiacco, 1935; *Minicia vittata* Caporiacco, 1935; *Oedothorax caporiaccoi* Roewer, 1942; *Tiso megalops* Caporiacco,1935. Seven new combinations are proposed: *Agyneta baltoroi* (Caporiacco, 1935), comb.n. ex *Gongylidium*; *Agyneta glacialis* (Caporiacco, 1935), comb.n. ex *Bathyphantes*; *Agyneta kashmirica* (Caporiacco, 1935), comb.n. ex *Troxochrota*; *Ketambea allegrii* (Caporiacco, 1935), comb.n.; *Mughiphantes nigridorsus* (Caporiacco, 1935), comb.n; *Mughiphantes pratorum* (Caporiacco, 1935), comb.n.; and *Piniphantes deosaicola* (Caporiacco, 1935), comb.n., all ex *Lepthyphantes*. Three species are described as new: *Panamomops torridus* sp.n.; *Pelecopsis pakistanicus* sp.n.; and *Tchatkalophantes karakoram* sp.n. Two species, *Megalepthyphantes nebulosus* (Sundevall, 1830) and *Microneta viaria* (Blackwall, 1841), are removed from the Karakoram list, while *Vagiphantes vaginatus* (Tanasevitch, 1983) is reported from Karakoram, Pakistan for the first time. Three species are left determined only to the genus level: *Agyneta* sp. ex *Lepthyphantes*; *Linyphia* sp., and *Oedothorax* sp.

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РЕЗЮМЕ. Ревизована коллекция пауков семейства Linyphiidae, собранная и обработанная Людовиком Ди Капориакко в Каракоруме. Установлено 5 новых синонимов (валидные названия слева): *Styloctetor romanus* (O. Pickard-Cambridge, 1872) = *Alioranus distinctus* Caporiacco, 1935, syn.n., = *Araeoncus duriusculus* Caporiacco, 1935, syn.n.; *Erigone atra* Blackwall, 1833 = *Aulacocyba cavifrons* Caporiacco, 1935, syn.n.; *Archaraeoncus prospiciens* (Thorell, 1875) = *Pocadicnemis desioi* Caporiacco, 1935, syn.n.; and *Prinerigone vagans* (Audouin, 1826) = *Erigone pseudovagans* Caporiacco, 1935, syn.n. Установлено 11 *nomina dubia*: *Alioranus minutissimus* Caporiacco, 1935; *Bathyphantes larvarum* Caporiacco,1935; *B. reticularis* Caporiacco, 1935; *Gongylidiellum nigrolimbatum* Caporiacco,1935; *Lepthyphantes annulipes* Caporiacco, 1935; *L. incertissimus* Caporiacco, 1935; *L. striatiformis* Caporiacco, 1934; *L. trivittatus* Caporiacco, 1935; *Minicia vittata* Caporiacco, 1935; *Oedothorax caporiaccoi* Roewer, 1942; *Tiso megalops* Caporiacco,1935. Предложено 7 новых комбинаций: *Agyneta baltoroi* (Caporiacco, 1935), comb.n. ex *Gongylidium*; *Agyneta glacialis* (Caporiacco, 1935), comb.n. ex *Bathyphantes*; *Agyneta kashmirica* (Caporiacco, 1935), comb.n. ex *Troxochrota*; *Ketambea allegrii* (Caporiacco, 1935), comb.n.; *Mughiphantes nigridorsus* (Caporiacco, 1935), comb.n; *Mughiphantes pratorum* (Caporiacco, 1935), comb.n.; *Piniphantes deosaicola* (Caporiacco, 1935), comb.n. все ex *Lepthyphantes*. Три вида описаны как новые: *Panamomops torridus* sp.n.; *Pelecopsis pakistanicus* sp.n.; *Tchatkalophantes karakoram* sp.n. Два вида, *Megalepthyphantes nebulosus* (Sundevall, 1830) и *Microneta viaria* (Blackwall, 1841), удалены из списка пауков Каракорума. *Vagiphantes vaginatus* (Tanasevitch, 1983) впервые отмечен в Каракоруме, Пакистан. Три вида оставлены определёнными лишь до рода: *Agyneta* sp. ex *Lepthyphantes*; *Linyphia* sp., и *Oedothorax* sp.

Introduction

The collection of linyphiid spiders from Karakoram that Ludovico di Caporiacco amassed in 1929 and processed later [Caporiacco, 1934, 1935], is presently deposited in two museums in Italy: the largest part is in the Museo Civico di Storia Naturale, Milano (MCSNM), and the smaller part in the Museo di Storia Naturale, Firenze (MSNF) [Berdondini, Whitman, 2003]. The Caporiacco collection stored in Milan was first taken for revision by Peter van Helsdingen (Leiden), but, after many years, almost untouched, it was passed on to me in 2009. The material housed in Florence was kindly sent to me on loan by Luca Bartolozzi in 2010, revised and largely returned back in 2014. A few species from the collection have since been revised and published (see below), the new ones to be described below will be deposited in MCSNM, as indicated below.

The linyphiid collection is in very poor condition: some material seems to have dried up before again put in alcohol, many specimens were partially macerated, with either whole legs or their segments, or their spines mostly missing, and many spiders had lost their natural coloration.

As Caporiacco designated no types, one and the same vial often different species bearing the same name/label. For example, the vials labeled as *Gongylidium baltoroi* Caporiacco, 1935 contained species from the genera *Agyneta* Hull, 1911, *Halorates* Hull, 1911, *Styloctetor* Simon, 1884, *Tiso* Simon, 1884, etc. Many species originally described from mature specimens actually appear to have largely been based on immature syntypes, either juveniles or subadults, and/or separate parts of the body and/or legs.

Caporiacco provided detailed descriptions of the somatic structures, yet totally omitting chaetotaxy and trichobothriotaxy. Even more importantly, there were neither detailed descriptions nor drawings of genitalia. The drawings, or rather sketches, that did accompany some descriptions had nothing to do with reality, as a rule. Such species are eventually unrecognizable, being in most cases completely useless for identification. As a result, in the absence of mature syntypes, none of the species described by Caporiacco can be unambiguously identified based solely on his descriptions and drawings. With a few exceptions, there are no correct identifications of known species in the collection.

Karakoram is a complex of mountain ranges in Central Asia, the second highest on Earth following the Himalayas. Karakoram is located in the northwest of the western chain of the Himalayas and belongs Pakistan. To the south, the Karakoram Range is separated from the western spurs of the Himalayas by the Indus River Valley. It is in this border valley that several of Caporiacco's collection sites are located: Tolti, Parkutta, Skardu, and Hoto. The bulk of the spiders were collected in Karakoram itself. Caporiacco collected some material en route to Karakoram, in Baltistan, Pakistan, and in Jammu and Kashmir, a territory disputed by Pakistan and India, mentioned below as Pakistan/India (see Table 2). In total, the author collected 2,035 arachnid specimens from different mountain profiles, at altitudes from 1,200 to almost 5,000 m a.s.l. Based on the linyphiid spider material Caporiacco collected, he described 27 new species and recorded 5 known ones [Caporiacco, 1934, 1935].

Previously established new combinations and synonyms

Aulacocyba cavifrons Caporiacco, 1935 = *Microctenonyx cavifrons* (Caporiacco, 1935) [Prószyński, Staręga 1971: 176].

Bathyphantes kashmiricus Caporiacco, 1935 = *Neriene kashmirica* (Caporiacco, 1935) [van Helsdingen, 1969: 261], = *Neriene birmanica* (Thorell, 1887) [Chen *et al*., 1989: 66].

Gongylidiellum chiardolae Caporiacco, 1935 = *Alioranus chiardolae* (Caporiacco, 1935), = *Alioranus avanturus* Andreeva et Tyschchenko, 1970 [Tanasevitch, 2013: 172].

Gongylidium crassipalpe Caporiacco, 1935 = *Milleriana crassipalpis* (Caporiacco, 1935) [Thaler, 1987], = *Halorates crassipalpis* (Caporiacco, 1935) [Tanasevitch, 2021: 113].

Linyphia baltistana Caporiacco, 1934 = *Microlinyphia pusilla* (Sundevall, 1829) [van Helsdingen, 1970: 9].

Oedothorax dubius Caporiacco, 1935 = *Oedothorax caporiaccoi* Roewer, 1942 [Roewer, 1942: 640].

Troxochrus kashmirica Caporiacco, 1935 = *Troxochrota kashmirica* (Caporiacco, 1935) [Roewer, 1942: 688].

Material and methods

The revised material is or will be stored in the Museo Civico di Storia Naturale, Milan (MCSNM), and the Museo di Storia Naturale, Florence (MSNF). The following collections were used for comparative purposes: Zoological Museum of the Moscow State University, Moscow, Russia (ZMMU); National Science Museum, Tokyo, Japan (NSMT); Senckenberg Museum, Frankfurt am Main, Germany (SMF), and Muséum d'histoire naturelle de Genève, Switzerland (MHNG).

All locality labels of the Caporiacco collection are reiterated in their original spelling.

Leg chaetotaxy is presented in a formula, e.g., TiI: 2-1-1-0, which means that tibia I has two dorsal spines, one prolateral, one retrolateral and no ventral spines, the apical spines are disregarded. The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given in mm. Scale lines in the figures correspond to 0.1 mm unless indicated otherwise. The terminology of copulatory organs mainly follows that of Merrett [1963] and/or the authors mentioned in the abbreviations section given below.

The following abbreviations are used in the text and figures: c — convector *sensu* Tanasevitch [1998], = embolic plate *sensu* Millidge & Russell-Smith [1992], = lamella characteristica *sensu* Tu & Li [2006] and Irfan *et. al*. [2022], = lamella *sensu* Chen *et al*. [2020]; bc — bursa copulatrix *sensu* Saaristo [1973]; d — duct; dsa — distal suprategular apophysis *sensu* Hormiga [2000]; e — embolus; Fe — femur; lb — lateral branches of posterior median plate; lc — lamella characteristica *sensu* Kulczyński [1898]; mm — median membrane *sensu* van Helsdingen [1965], = embolic membrane *sensu* van Helsdingen [1986], and Hormiga [2000]; Mt — metatarsus; pmp — posterior median plate *sensu* van Helsdingen *et al*. [1977]; ps — proscapus, = proscape (proximal part of scapus, = scape) *sensu* Saaristo & Tanasevitch [1996]; r — radix; sd — seminal duct; st — stretcher; t — tooth; ta — terminal apophysis *sensu* Merrett [1963]; tga — tegular apophysis *sensu* Millidge [1995]; ts — teeth stem; Ti — tibia; TmI — relative position of trichobothrium on the metatarsus of leg I; WSC — World Spider Catalog.

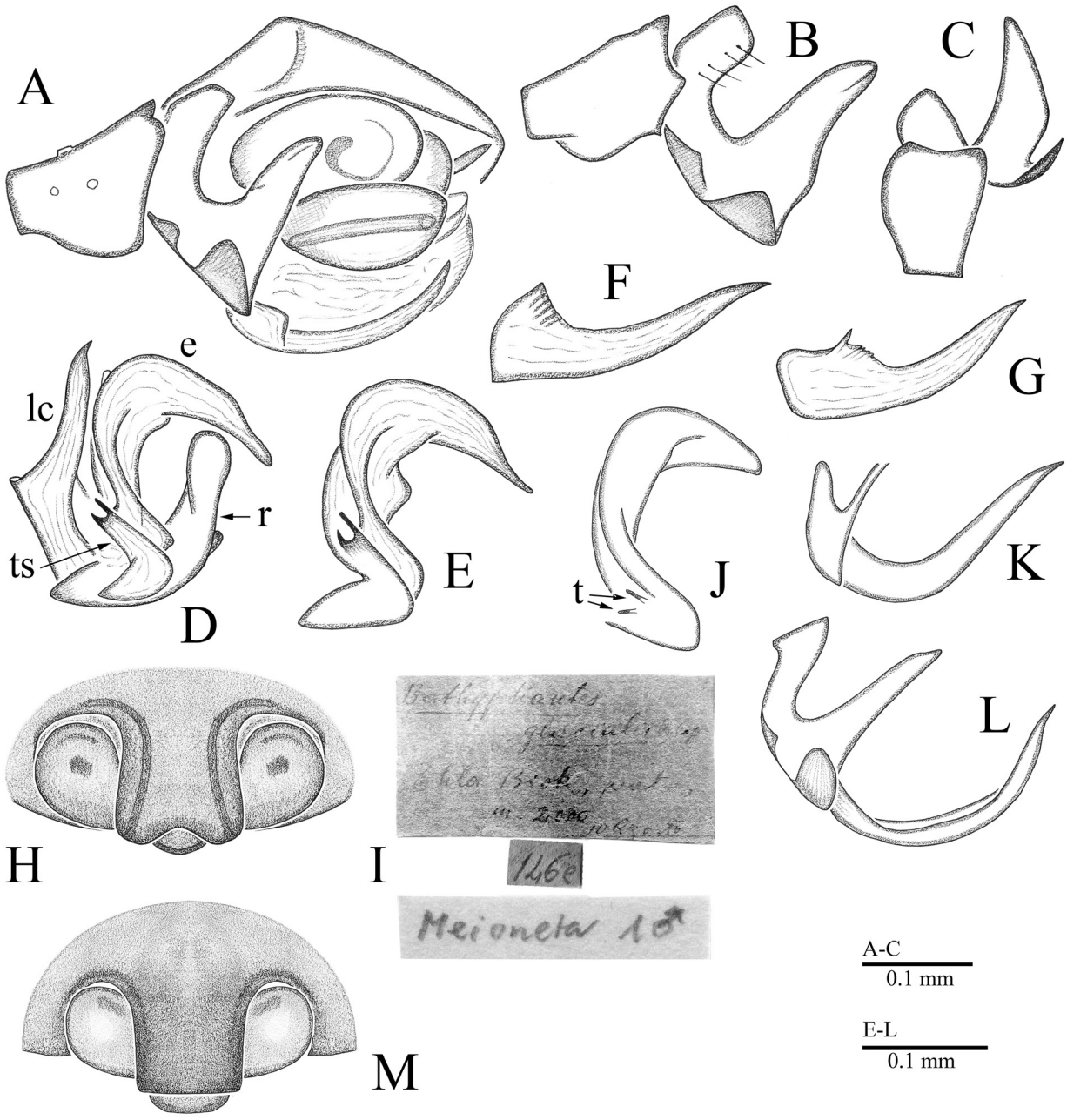

Fig. 1. *Agyneta glacialis* (Caporiacco, 1935), comb.n., ♂ lectotype (A–I); *A. subnivalis* Tanasevitch, 1989, ♂ from Lake Bolshoye Almatinskoye (J–L); *Agyneta* sp., ♂ (MCSNM, No. 169a) (M). A — right palp, retrolateral view; B, C — palpal tibia and paracymbium, lateral and dorsal views, respectively; D — embolic division; E, J — embolus; F, G, K, L — lamella characteristica; H, M — epigyne, ventral view; I — original labels.

Рис. 1. *Agyneta glacialis* (Caporiacco, 1935), comb.n., ♂ лектотип (A–I), *A. subnivalis* Tanasevitch, 1989, ♂ с Большого Алматинского озера (J–L); *Agyneta* sp., ♂ (MCSNM, No. 169a) (M). A — правая пальпа, ретролатерально; B, C — голень пальпы и парацимбиум, соответственно вид сбоку и сверху; D — эмболюсный отдел; E, J — эмболюс; F, G, K, L — ламелла характеристика; H, M — эпигина, вид снизу; I — оригинальные этикетки.

Results

Agyneta glacialis (Caporiacco, 1935), **comb.n.**
Fig. 1A–I.

1935 *Bathyphantes larvarum* Caporiacco: 167, pl. II, fig. 11 (a–c), 5 ♂♂, 1 ♀, examined, **nom.dub.**

1935 *Bathyphantes glacialis* Caporiacco: 168, pl. II, fig. 10 (a–c), 9 ♂♂, 1 ♀, 1 juv., examined partly.

1935 *Gongylidium baltoroi* Caporiacco: 172, partly revised, misidentification.

1935 *Gongylidiellum nigrolimbatum* Caporiacco: 170, pl. II, fig. 9, 1 ♀, examined, **nom.dub.**

1935 *Tiso megalops* Caporiacco: 178, pl. I, fig. 18 (a, b), 4 ♂♂, 2 ♀♀, partly revised, **nom.dub.**

REMARKS. Instead of the syntypes of the respective species, the vials labeled as *Bathyphantes glacialis* Caporiacco, 1935, *Bathyphantes larvarum* Caporiacco, 1935, *Gongylidiellum nigrolimbatum* Caporiacco, 1935, *Gongylidium baltoroi*

Caporiacco, 1935 (part), and *Tiso megalops* Caporiacco, 1935 actually contain males and/or females of *Agyneta* Hull, 1911. Descriptions and drawings are provided for all of the species listed above. However, only for *Bathyphantes glacialis* the palpal drawings more or less correspond to the contents of the vial (*Agyneta*), so I designate *Bathyphantes glacialis* from MCSNM (No. 146e) as the lectotype (see below) and transfer the species to the genus *Agyneta*: *A. glacialis* (Caporiacco, 1935), comb.n. The descriptions and drawings of *B. larvarum*, *G. nigrolimbatum*, and *T. megalops* are useless for their unambiguous identification, failing to correspond to the vials' content (specimens of *A. glacialis*). Thus, *Bathyphantes larvarum*, *Gongylidiellum nigrolimbatum*, and *Tiso megalops* must be referred to as *nomina dubia*.

MATERIAL EXAMINED. ***Agyneta glacialis*, comb.n.**: the vials labeled as *Bathyphantes glacialis* contain: 1 ♂, (MCSNM, No. 146e), designated herewith as the lectotype, PAKISTAN, Thla Brok, 2000 m, 10.VIII.1929; 1 ♂ (MCSNM, No. 146e), collected together with lectotype; 1 ♂ (MCSNM, No. 81c), Urduktas, 4250 m, VI.1929; 1 ♂ (MCSNM, No. 80c), Urdukas, Baltoro dictam, 3950 m; 1 ♂ (MCSNM, No. 131b), Shimtsà, 3200 m, 4.VIII.1929. The vials labeled as *Bathyphantes larvarum* contain: 1 ♂ (MCSNM, No. 172c), PAKISTAN, Lal Pani dictum, Lai Pani, prati, 4000 m, 1.IX.1929; 1 ♂, 1 ♀ prosoma (MCSNM, No. 167c), PAKISTAN/INDIA, Jammu and Kashmir, Karal Marpho (Morfo), 4200 m, 31.VIII.1929. The vial labeled as *Linyphia baltistana* contains: 1 ♀ abdomen (MCSNM, No. 49b), PAKISTAN, Askole, 3100 m. The vial labeled as *Microneta viaria* contains: 1 ♀ (MSNF, Nos 1164 & 39), Falole, dell' Osternegg, 1700 m, 12.VIII.1929. The vial labeled as *Gongylidiellum nigrolimbatum* contains: 1 ♀ (MCSNM, No. 62a, duplicated), Urdukas, 4000 m, V.1929. The vials labeled as *Tiso megalops* contain: 1 ♀ (MCSNM, No. 44m), Hoto, 2900 m, 30.IV.1929; 1 ♀ (MCSNM, No. 10c), PAKISTAN/INDIA, Jammu & Kashmir, Gund, 2100 m, 8.IV.1929. The vials labeled as *Gongylidium baltoroi* contain: 1 ♂, 1 ♀ (MCSNM, No. 84c), PAKISTAN, Baltoro dictae, 3950 m, VII.1929; 5 ♀♀ (MCSNM, No. 86a), Baltoro et Manda dictas, 4300 m; 2 ♀♀ (MCSNM, without No.), Baltoro, 4300 m; 5 ♀♀ (MCSNM, No. 86a), Baltoro et Manda dictas, 4300 m; 2 ♀♀ (MCSNM, No. 139), Bollà, 3200 m; 1 ♀ (MCSNM, No. 61a), Litigo, 3900 m; 1 ♀ (MCSNM, without No.), Urdukas, 4000 m, V.1929; 2 ♀♀ (MCSNM, No. 62a), Urdukas, 4000 m, V.1929; 1 ♀ abdomen (MCSNM, No. 82a), Urdukas, 4000 m. The vials labeled as *Gongylidium baltoroi* contain: 1 ♀ subad., Linyphiidae, (MSNF, No. 237), PAKISTAN, Hoto, oasi, 3900 m, 30.IV.1929; 1 ♀ juv., Linyphiidae (MSNF, No. 238), Koberzeken, pratiaridi, 3800 m, 27.VII.1929; 1 ♀ prosoma, Linyphiidae (MCSNM, No. 48e), Askole, letto del Braldo, 3000 m, V.1929; 1 ♀ prosoma, Linyphiidae (MCSNM, No.45c), Askole, oasi, 3100 m; 1 juv., Cribellatae (MCSNM, No. 46d), Askole, 3300 m; 1 ♀ prosoma, Linyphiidae (MCSNM, without No.), Askole, 3200 m, V.1929. Empty vial: (MCSNM, No. 109a), Urdukas, 3900 m.

COMPARATIVE MATERIAL EXAMINED. ***Agyneta subnivalis* Tanasevitch, 1989**: ♂ holotype (ZMMU, Ta-5432), KYRGYZSTAN, North Tian Shan Mts, Bishkek Area, Kirghizsky Mt. Ridge, Tyuya-Ashu Pass, 3000–3400 m, 6–8.VIII.1984, leg. S. Zonstein; 2 ♂♂ (ZMMU), KAZAKHSTAN, North Tian Shan Mts, Lake Bolshoye Almatinskoye, 43º05'N 79º59E, 3000 m, 3–10.VII.1995, leg. Y. Marusik & Karacheva; 1 ♂ (ZMMU), KYRGYZSTAN, Naryn-Too Mt. Ridge, Irisu Valley, 3300 m, 18.VII.1987, leg. S. Zonstein; 1 ♂ (ZMMU), TAJIKISTAN, Osh Area, North Pamir Mts, northern slope of Zaalaisky (= Trans-Alay) Mt. Ridge, Bordaba, 3500 m, 7.X.1970, leg. L. Zharkova; 1 ♂ (ZMMU), southern slope of Zaalaisky (= Trans-Alay) Mt. Ridge, Sauk-Sai River basin, Sasyk-Teke River, 3650 m, 9–10.IX.1987, leg. D.E. Shcherbakov. **All localities, except for that of the holotype, are new**.

DESCRIPTION. Male lectotype from MCSNM, No. 146e. Total length 1.70. Carapace 0.85 long, 0.63 wide, brown. Abdomen deformed, dark grey, 0.88 long. Legs missing. Palp (Fig. 1A–G): tibia with a shallow hollow. Cymbium subconical. Paracymbium with a well-developed anterior pocket (see Saaristo, Tanasevitch [1996]). Lamella characteristica broadened at base, gradually narrowed anteriorly, pointed apically. Embolus at base with two slender teeth borne on the same stem.

Female from MCSNM, No. 86a. Specimen badly damaged, epigyne as in Fig. 1H.

TAXONOMIC REMARKS. The new species seems to be especially similar to *A. subnivalis* Tanasevitch, 1989, a species that occurs in the Tian Shan and Pamir mountains, at 2400–4300 m [Tanasevitch, 1989]. *Agyneta glacialis* differs mainly by the structure of the embolic base (Fig. 1D, E cf. Fig. 1J) and a more slender lamella characteristica (Fig. 1F, G cf. Fig. 1K, L).

DISTRIBUTION. The species is known from Karakoram, Pakistan, as well as Jammu and Kashmir, Pakistan/India, at 2000–4300 m.

Agyneta baltoroi (Caporiacco, 1935), **comb.n.**

1935 *Gongylidium baltoroi* Caporiacco: 172, pl. III, fig. 2 (a–c), ♂♂, ♀♀, not examined.

REMARKS. No syntypes of the species could be found, probably being lost. Caporiacco's sketches show the outlines of the palp and epigyne of a species which probably belongs to the genus *Agyneta*. Unfortunately, it is impossible to identify the species based on those drawings. Perhaps it will be possible to identify *Agyneta baltoroi* (Caporiacco, 1935), comb.n., based on fresh topotypic material.

DISTRIBUTION. The species is presumably known only from Karakoram, Pakistan.

Agyneta sp.
Fig. 1M.

1935 *Lephthyphantes deosaicola* Caporiacco: 165, 2 ♀♀, partly revised.

REMARKS. The vial labeled as *Lepthyphantes deosaicola* (MCSNM, No. 169a) contains a female specimen of *Agyneta* sp. The description of the epigyne of *L. deosaicola* more or less corresponds to its original drawing (Caporiacco, pl. III, fig. 6, ♀, see in Fig. 9A), but does not correspond to the content of the vial. The drawing most probably refers to the second, lost syntype of *L. deosaicola* (see below under *Piniphantes deosaicola*). In the absence of a corresponding male, the female of *Agyneta* sp. cannot be unequivocally identified. It seems quite possible that it represents the unknown sex for any of the *Agyneta* species described from male material only (Fig. 1: M).

MATERIAL EXAMINED. The vial labeled as *Lephthyphantes deosaicola* contains: 1 ♀ *Agyneta* sp. (MCSNM, No. 169a), PAKISTAN, Deosai, 4200 m, 1.IX.1929.

TAXONOMIC REMARKS. The female of *Agyneta* sp. is not conspecific with *A. glacialis*, comb.n. (see above), and it may be a corresponding female of *A. kashmirica*, comb.n., or something else, known only from male material (see below).

DISTRIBUTION. *Agyneta* sp. is only known from Deosai in the western Himalayas, Baltistan, Pakistan, at 4200 m.

Agyneta kashmirica (Caporiacco, 1935), **comb.n.**
Fig. 2.

1935 *Troxochrus kashmiricus* Caporiacco: 179, pl. I, fig. 20 (a, b), ♂ (examined), ♀, not seen.

1942 *Troxochrota kashmirica*. — Roewer: 688, replacement name.

REMARKS. This is a rare case when, based on the author's sketches, one is able to guess which genus the syntype actually belongs to: *Troxochrus kashmiricus* Caporiacco, 1935 = *Agyneta kashmirica* (Caporiacco, 1935), comb.n.

MATERIAL EXAMINED. The vial labeled as *Troxochrus cachemiricus* (sic!) contains 1 ♂ (MCSNM, No. 167d), herewith designated as the lectotype. The lectotype is badly damaged, with only one intact palp, PAKISTAN/INDIA, Jammu and Kashmir, Prati di Karal Marfo, 4200 m, 31.VIII.1929.

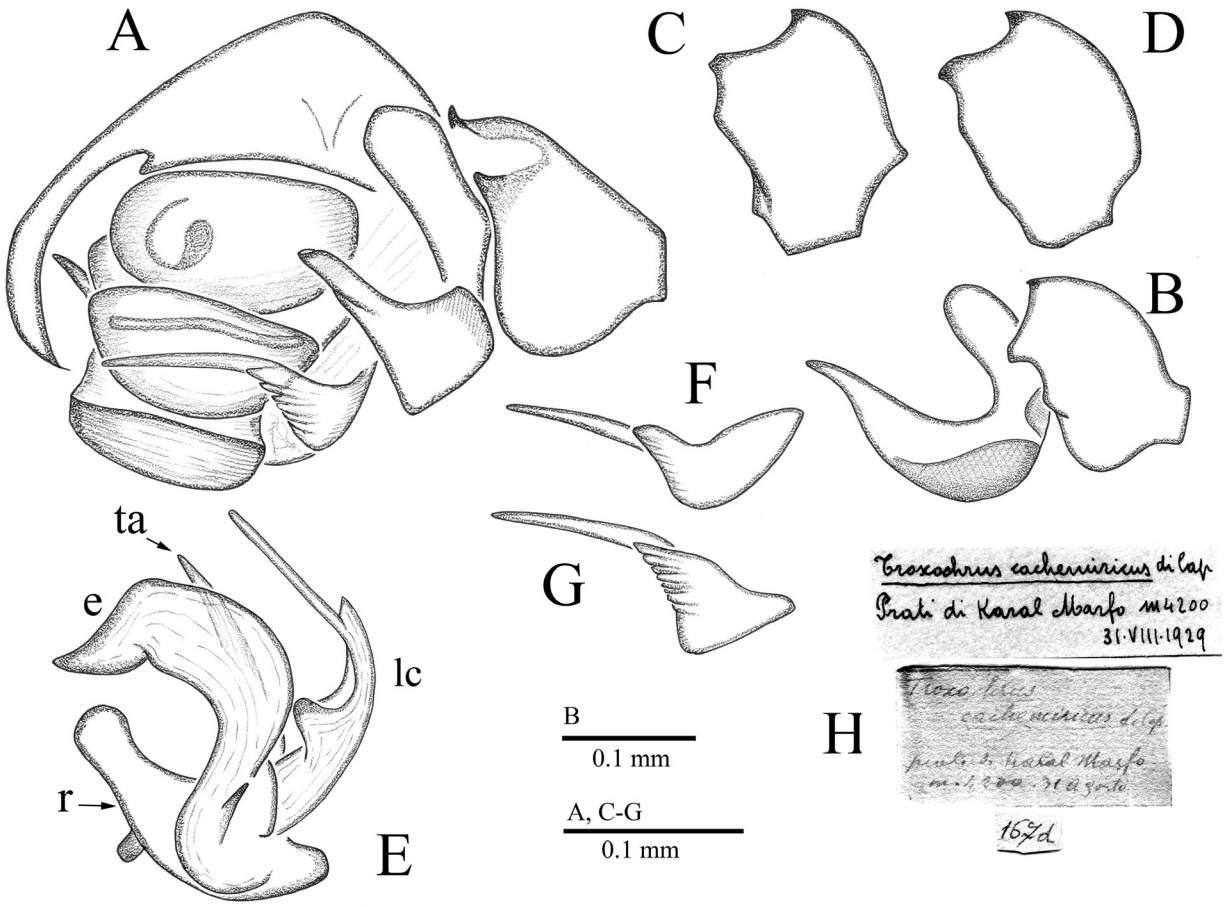

Fig. 2. *Agyneta kashmirica* (Caporiacco, 1935), comb.n., ♂ lectotype. A — left palp, retrolateral view; B — palpal tibia and paracymbium, lateral view; C, D — palpal tibia, dorsal view, different aspects; E — embolic division; F, G — lamella characteristica; H — original labels.

Рис. 2. *Agyneta kashmirica* (Caporiacco, 1935), comb.n., ♂ лектотип. A — левая пальпа, ретролатерально; B — голень пальпы и парацимбиум, вид сбоку; C, D — голень пальпы, вид сверху, различные аспекты; E — эмболюсный отдел; F, G — ламелла характеристика; H — оригинальные этикетки.

Other vials labeled as *Troxochrus kashmiricus* contain: 1 ♀ prosoma, Linyphiidae (MSNF, No. 241), PAKISTAN, Chokpiong, oasi, 2600 m, 29.IV.1929; 1 juv., Linyphiidae (MCSNM, 43b), Chokpiong, 2600 m, 29.IV.1929; 1 prosoma, Linyphiidae (MCSNM, No. 4b), PAKISTAN/INDIA, Jammu and Kashmir, Takht-i-Sulaiman, 2000 m, 27.IV.1929.

DESCRIPTION. Male lectotype. Palp (Fig. 2: A–G): Tibia apically with a hollow and a short projection each side: an obtuse retrolateral and a sharp prolateral projection. Cymbium conical. Lamella characteristica broadened basally, its distal part a slender and long ribbon. Embolus with a sharp tooth at base.

Female unknown.

TAXONOMIC REMARKS. The species somewhat resembles *A. pakistanica* Tanasevitch, 2011, known from Pakistan and Nepal [Tanasevitch, 2011]. *Agyneta kashmirica* is clearly distinguished by the presence of a stout tooth at the base of the embolus, the absence of a hook-shaped outgrowth from the base of the lamella characteristica, as well as by the shape of the palpal tibia.

DISTRIBUTION. This species is only known from the type locality, Jammu and Kashmir, Pakistan/India, at 4200 m.

Ketambea allegrii (Caporiacco, 1935), **comb.n.**
Fig. 3A–D.

1935 *Lephthyphantes allegrii* Caporiacco: 164, pl. III, fig. 7; 3 ♂♂, revised.

MATERIAL EXAMINED. The vials labeled as *Lephthyphantes allegrii* contain: 1 ♂ (MCSNM, No. 181a), herewith designated as the lectotype, PAKISTAN/INDIA, Jammu and Kashmir, Tragbal, 3000 m, 5.IX.1929; 1 ♂ (MCSNM, No. 178b), Basgiangba, 3000 m, 5.IX.1929; 1 ♂ subad., Linyphiidae (MSNF, No. 239), Bosco di Basgiangba, 3000 m, 5.IX.1929.

DESCRIPTION. Male lectotype. Legs or its segments partly lost, abdomen missing. Carapace unmodified, 1.05 long, 0.80 wide, yellowish brown, with a dark median stripe bifurcated anteriorly. Head part of carapace slightly elevated, eyes not enlarged. Chelicerae 0.45 long. Legs yellow. FeI 1.60 long. Leg IV 4.43 long (1.23 + 0.25 + 1.05 + 1.25 + 0.65). Chaetotaxy: Fe I: 1-2-0-0; Ti I: 2-?-?-?, Ti IV: 2-?-?-1; Mt IV: 1-?-?-?. Tm I unknown. Palp (Fig. 3A–C): tibia short, unmodified. Paracymbium relatively large, thin, U-shaped. Tegular apophysis a strong hook. Radix small, embolus thin, long, coiled. Convector strongly developed, with three branches, upper branch being S-curved, covering the distal part of embolus.

Leg chaetotaxy in male paralectotype from MCSNM, No. 178b: Fe I: 1-2-0-0; Ti I–II: 2-1-1-1, Ti III: 2-?-?-1, Ti IV:2-1-?-1; Mt I–IV: 1-0-0-0.

Female unknown.

TAXONOMIC REMARKS. Based on the palpal structure, *Lepthyphantes allegrii* clearly belongs to *Ketambea* Millidge et Russell-Smith, 1992. *Ketambea allegrii*, comb.n. seems to be especially similar to *K. rostrata* Millidge et Russell-Smith, 1992

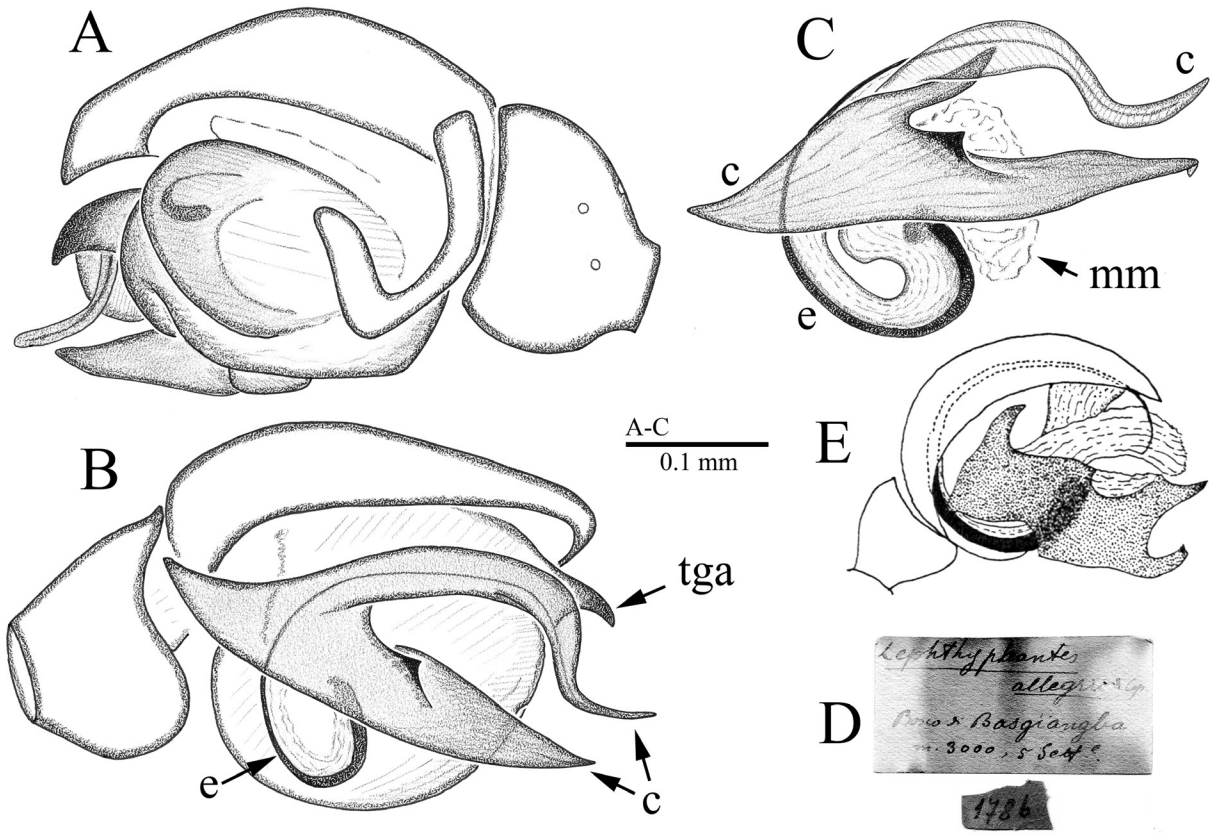

Fig. 3. *Ketambea allegrii* (Caporiacco, 1935), comb.n., ♂ paralectotype (MCSNM, No. 178b) (A–D), and *K. rostrata* Millidge et Russell-Smith, 1992, reproduced from Millidge & Russell-Smith [1992, fig. 25] (E). A — left palp, retrolateral view; B, E — left palp, prolateral view; C — embolic division; D — original label. Fig. 3E — not to scale.

Рис. 3. *Ketambea allegrii* (Caporiacco, 1935), comb.n., ♂ паралектотип (MCSNM, No. 178b) (A–D), и *K. rostrata* Millidge et Russell-Smith, 1992, воспроизведено из Millidge & Russell-Smith [1992, рис. 25] (E). A — левая пальпа, ретролатерально; B, E — левая пальпа, пролатерально; C — эмболюсный отдел; D — оригинальная этикетка. Рис. 3E — не в масштабе.

(Fig. 3C cf. Fig. 3E), a species known from Sumatra, Indonesia [Millidge et Russell-Smith, 1992]. *Ketambea allegrii* is well distinguishable by the convector divided much more deeply. The structure of the embolic division likewise resembles that of *K. acuta* Tanasevitch, 2017, from China, Myanmar and Thailand, as well as *K. nigripectoris* (Oi, 1960), from the Russian Far East, China, Korea and Japan [WSC, 2025]. *Ketambea allegrii* differs from the above species compared by the shape of the convector, as well as the longer and thinner embolus.

DISTRIBUTION. This species is only known from two nearby localities from Jammu and Kashmir, Pakistan/India, at 3000 m.

Linyphia sp.
Fig. 4.

1934 *Linyphia pusilla*. — Caporiacco: 158, 1 ♀, 1 juv., no figs, misidentification, examined.

REMARKS. The record of *L. pusilla* from Kamri, Jammu and Kashmir, Pakistan/India, must be considered as erroneous. The single adult female is badly damaged, the prosoma and abdomen of the specimen are separated, and the legs and its segments mostly lost. The abdominal dorsal pattern is as in Fig. 4B. Based on the structure of the epigyne and, particularly, vulvae, *Linyphia* sp. seems to be especially similar to *L. nepalensis* Wunderlich 1983, described from both sexes from the Dhaulagiri Massif in Nepal [Wunderlich, 1983].

MATERIAL EXAMINED. *Linyphia* sp.: 1 ♀ (MCSNM, No. 175a, labeled as *Linyphia pusilla*), PAKISTAN/INDIA, Kamri in val Kishanganga, 2400 m, 4.IX.1929.

COMPARATIVE MATERIAL EXAMINED. ♂ holotype of *Linyphia nepalensis* (SMF, No. 31654), Südliches Dhaulagiri Massiv, Dhorpatan, Nadelwald, 3000 m; 1 ♀ paratype of *L. nepalensis* (SMF, No. 31655), Südliches Dhaulagiri-Massiv, Suli Gad-Tal, 2800–3300 m, 7–8. VI.1973, leg. J. Martens.

DISTRIBUTION. This species is only known from Kamri, Jammu and Kashmir, Pakistan/India, at 2400 m.

Mughiphantes nigridorsus (Caporiacco, 1935), **comb.n.**
Fig. 5.

1935 *Lephthyphantes nigridorsus* Caporiacco: 163, pl. III, fig. 9, 3 ♀♀, partly revised.

MATERIAL EXAMINED. The vial labeled as *Lephthyphantes nigridorsus* contains 1 ♀ (MCSNM, No. 27c), herewith designated as the lectotype, PAKISTAN, Tolti, 2400 m, 21.IV.1929.

DESCRIPTION. Female (lectotype). Total length 1.75. Habitus as in Fig. 5A. Carapace unmodified, 0.70 long, 0.63 wide, pale brown. Eyes not enlarged. Chelicerae weak, 0.17 long. Legs yellow. Leg I, 3.36 (0.78 + 0.25 + 0.80 + 0.78 + 0.55), IV, 3.06 (0.80 + 0.25 + 0.83 + 0.75 + 0.43). Chaetotaxy: Ti I: 2-1-1-?, II: 2-1-1-1, spines on Ti III–IV missing. Mt I–IV: 1-0-0-0. TmI unknown. Abdomen 1.23 long, 0.88 wide, dorsal

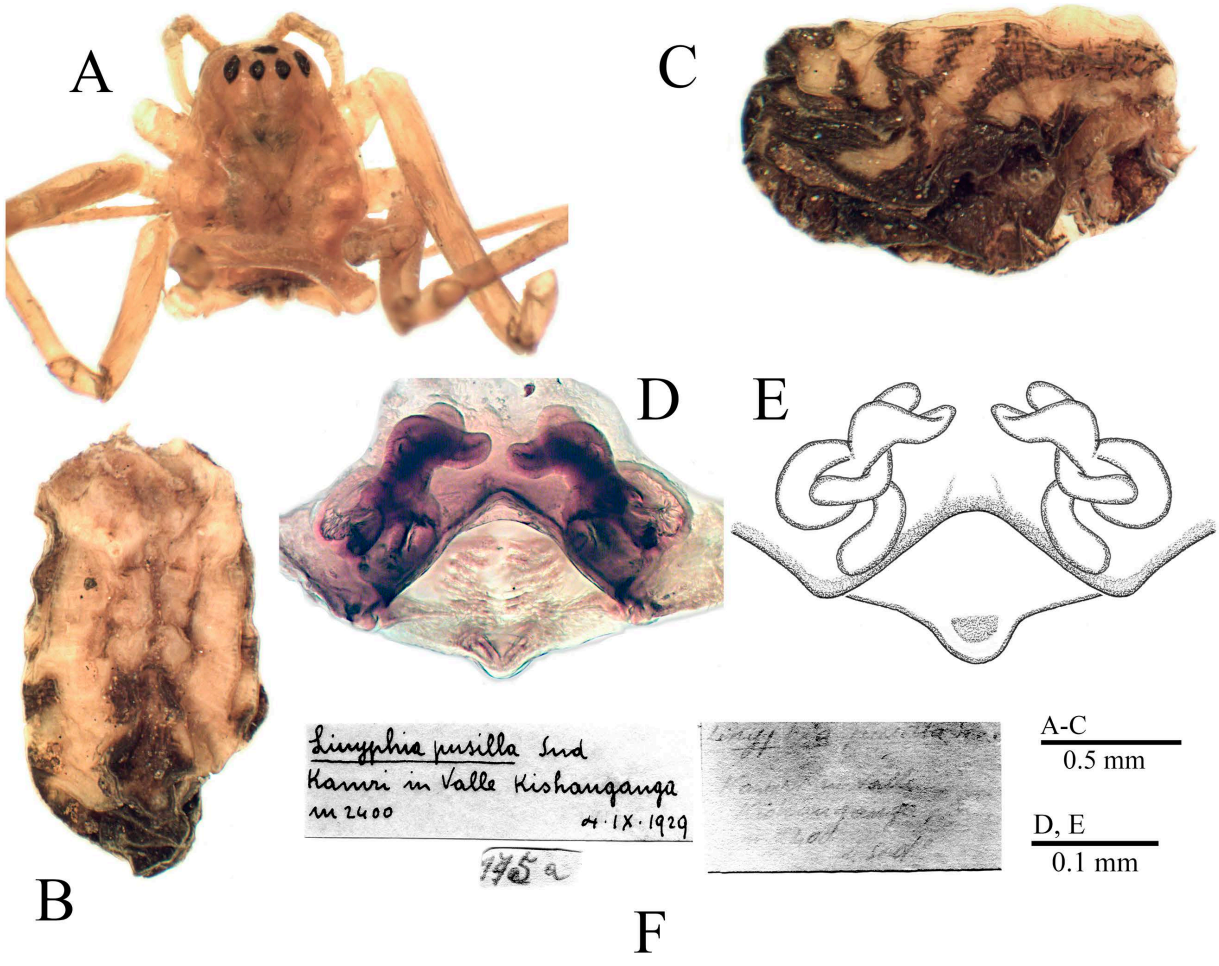

Fig. 4. *Linyphia* sp., ♀ (MCSNM, No. 175a). A — prosoma, dorsal view; B, C — abdomen, dorsal and lateral view, respectively; D — cleared epigyne, ventral view; E — vulva, ventral view; F — original labels.

Рис. 4. *Linyphia* sp., ♀ (MCSNM, No. 175a). A — просома, вид сверху; B, C — абдомен, соответственно вид сверху и сбоку; D — просветлённая эпигина, вид снизу; E — эндогина, вид снизу; F — оригинальные этикетки.

pattern as in Fig. 1A. Epigyne (Fig. 5B–E) relatively small. Proscape twice as wide as long, compact, its lateral edges rounded. Seminal ducts thick, well visible through proscape. Distal part of scape very small, lateral lobes reduced, stretcher relatively long. Posterior median plate with a shallow hollow. Receptacles bean-shaped.

Male unknown.

TAXONOMIC REMARKS. Based on the epigynal structure, the species clearly belongs to *Mughiphantes* Saaristo et Tanasevitch, 1999. The shape of the epigyne is similar to that of *M. pratorum* (see below). *Mughiphantes nigridorsus* is well distinguishable by the wide base of the proscape, and thick seminal ducts well-visible through the proscape.

DISTRIBUTION. This species is only known from the type locality: Tolti, Karakoram, Pakistan, at 2400 m.

Mughiphantes pratorum (Caporiacco, 1935), **comb.n.**
Fig. 6.

1935 *Lephthyphantes pratorum* Caporiacco: 161, pl. IV, fig. 1 (a–c), 1 ♂, 1 ♀, revised.

TYPE MATERIAL EXAMINED. The vials labeled as *Lephthyphantes pratorum* contain: 1 ♀ (MCSNM, without No.), herewith designated as the lectotype, PAKISTAN, Lal Pani (Deosai), 4000 m, 1.IX.1929; 1 ♂ devoid of palps (MCSNM, without No.), collected together with the lectotype.

DESCRIPTION. Female (lectotype). Carapace and abdomen separated, leg spines mostly lost. Carapace 0.60 long, 0.55 wide, not modified, pale brown. Eyes not enlarged. Chelicerae 0.33 long. Legs yellow. Leg I, 2.93 (0.85 + 0.20 + 0.75 + 0.65 + 0.48), IV, 3.00 (0.85 + 0.20 + 0.75 + 0.70 + 0.50). Chaetotaxy: Ti I: 2-1-1-0, other spines lost. TmI unknown. Abdomen 1.50 long, 1.10 wide, dark grey, with a pale, indistinct, herring-bone pattern. Epigyne (Fig. 6A–D) slightly protruded. Scape compact, proscape wider than long. Distal part of scape small, lateral lobes reduced, stretcher relatively long. Posterior median plate small, V-shaped.

Male (paralectotype) badly damaged: carapace and abdomen separated, palps, legs or its segments mostly lost. Carapace 0.90 long, 0.70 wide, not modified, brown. Eyes not enlarged. Chelicerae 0.35 long. Femur I, IV 1.00 long each. Chaetotaxy unknown.

TAXONOMIC REMARKS. Based on the epigynal structure, the species clearly belongs to *Mughiphantes*. The shape of the epigyne resembles that of *M. numilionis* (Tanasevitch, 1987), known from Nepal [Tanasevitch, 1987], but differs well by the narrower base of the proscape, and its distal invagination being more shallow. The epigyne is also similar to that of *M. nigridorsus*, comb.n. (see above).

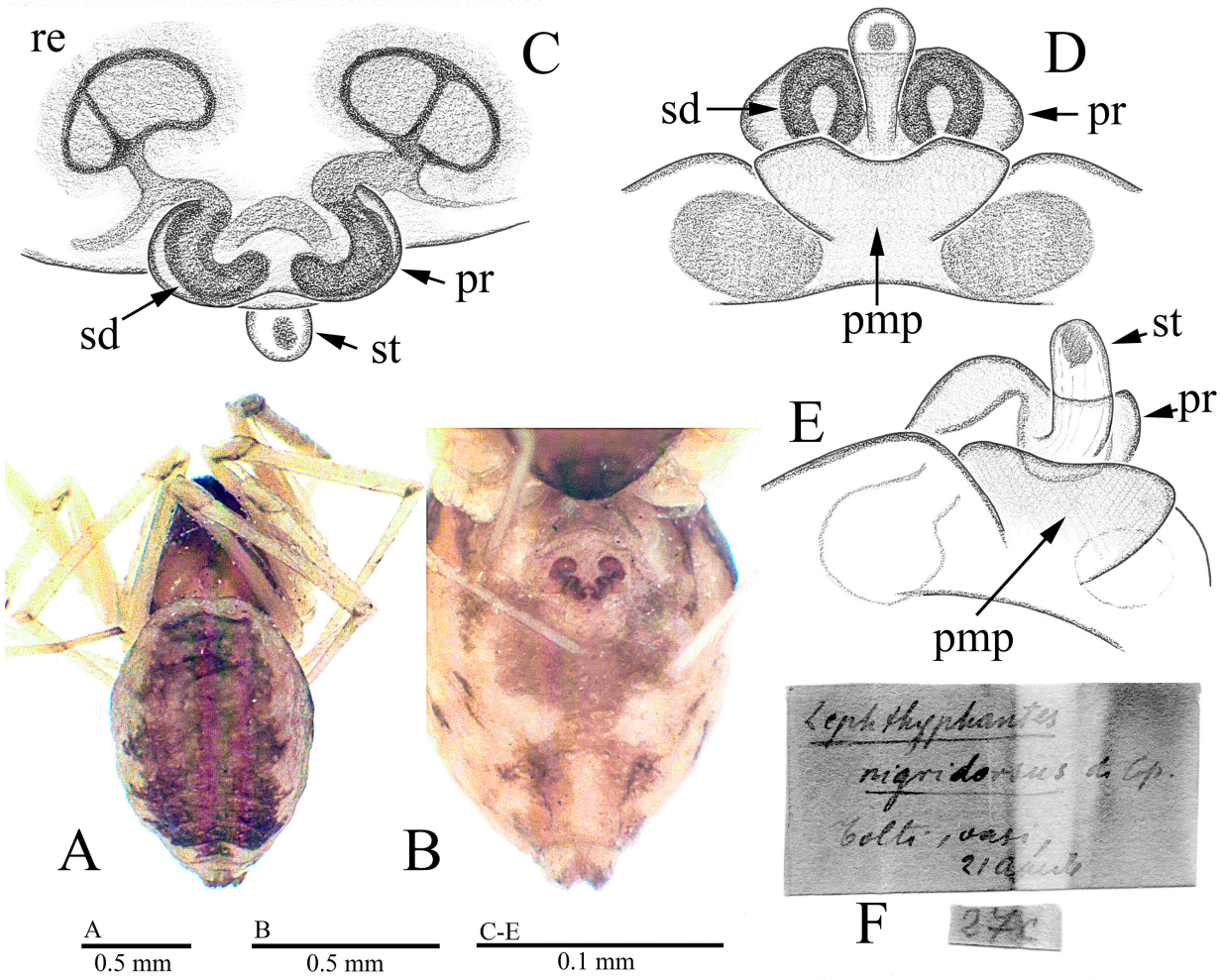

Fig. 5. *Mughiphantes nigridorsus* (Caporiacco, 1935), comb.n., ♀ lectotype (MCSNM, No. 27c). A — habitus, dorsal view; B — abdomen, ventral view; C–E — epigyne, ventral, dorsal and dorsolateral views, respectively; F — original label.

Рис. 5. *Mughiphantes nigridorsus* (Caporiacco, 1935), comb.n., ♀ лектотип (MCSNM, No. 27c). A — габитус, вид сверху; B — абдомен, вид снизу; C–E — эпигина, соответственно вид снизу, сверху и дорзолатерально; F — оригинальная этикетка.

DISTRIBUTION. This species is only known from the type locality: Deasai in the Western Himalayas, Baltistan, Pakistan, at 4000 m.

Oedothorax sp.
Fig. 7A–D.

MATERIAL EXAMINED. The vial labeled as *Erigone dentipalpis* contains 1 ♀ of *Oedothorax* sp. (MCSNM, No. 5a), PAKISTAN/INDIA, Jammu and Kashmir, Kangan, campi, 2000 m, 3.V.1929.

REMARKS. Unfortunately, in the absence of a corresponding male this specimen of *Oedothorax* sp. cannot be reliably identified.

DISTRIBUTION. This species is only known from the type locality: Kangan, Jammu and Kashmir, Pakistan/India.

Panamomops torridus **sp.n.**
Figs 7E–G; 8A.

1935 *Gongylidium baltoroi* Caporiacco: 173, misidentification.

REMARKS. The vial No. 71 (MCSNM), labeled as *Gongylidium baltoroi*, contains two females of Erigoninae of the same species. For syntypes labeled as *Gongylidium baltoroi*, see above in the *Agyneta glacialis* section. In the absence of a corresponding male, it is impossible to identify which genus these females belong to. Below, I describe both females as a new species belonging to *Panamomops* Simon, 1884, since the epigyne somewhat resembles representatives of that genus. The assignment of the species to *Panamomops* is solely preliminary.

ETYMOLOGY. The species name is a Latin adjective, meaning “withered”, referring to the poor condition of the syntypes.

HOLOTYPE ♀ (MCSNM, No. 71, labeled as *Gongylidium baltoroi*), PAKISTAN, in pratis Litigo dictis, lateribus gl. molis Baltoro dictae, 3900 m.

PARATYPE. 1 ♀ (MCSNM, No. 71), collected together with the holotype.

DESCRIPTION. Female (holotype). Total length 1.15. Habitus as in Fig. 7E, F. Prosoma, abdomen and legs have lost their natural colour and look yellowish to light brown. Carapace unmodified, 0.63 long, 0.58 wide. Eyes not enlarged. Sulci absent. Chelicerae 0.28 long, a mastidion absent. Legs pale brown. Leg I, 1.46 long (0.35 + 0.18 + 0.38 + 0.30 + 0.25), IV, 1.66 long (0.50 + 0.18 + 0.43 + 0.30 + 0.25). Chaetotaxy unknown, spines lost. TmI unknown. Abdomen 0.61 long, 0.55 wide. Epigyne as in Fig. 8A.

Male unknown.

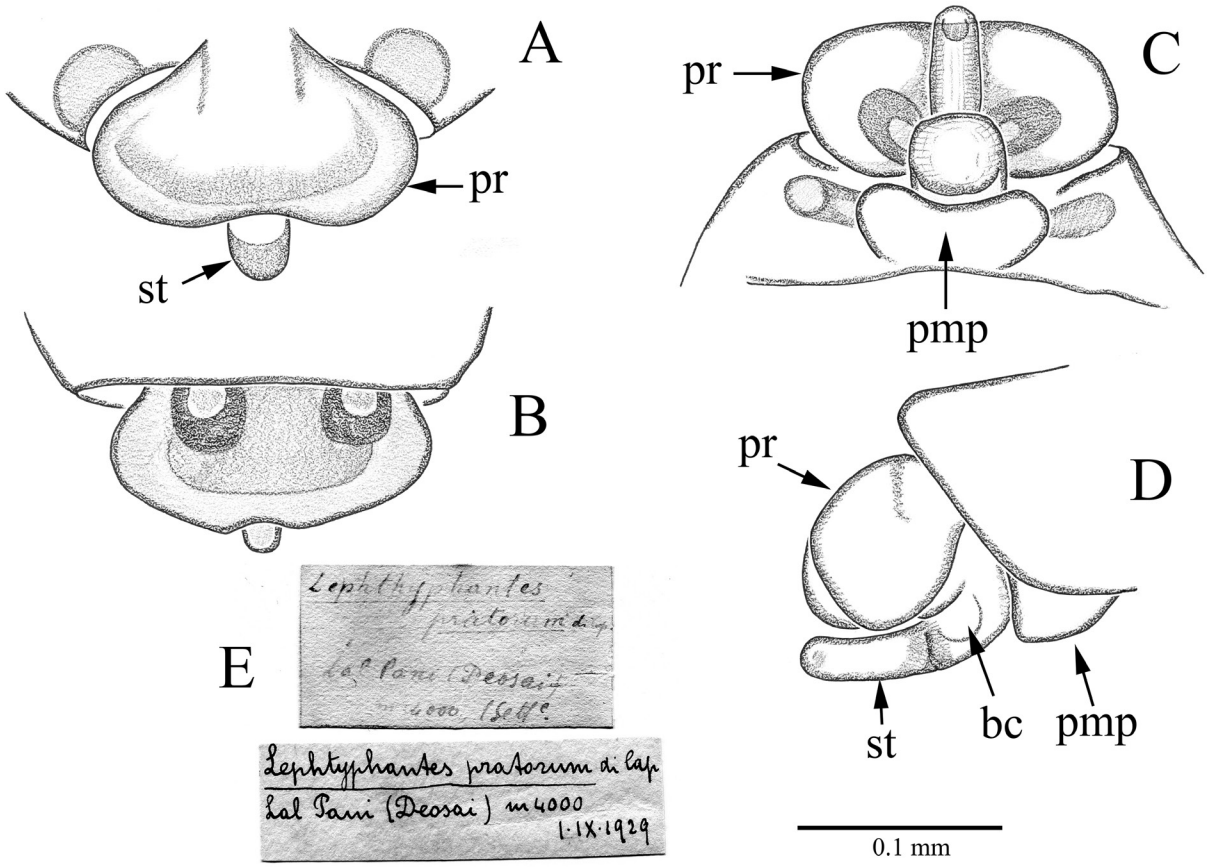

Fig. 6. *Mughiphantes pratorum* (Caporiacco, 1935), comb.n., ♀ lectotype (MCSNM, without No.). A–D — epigyne, ventral, dorsal and lateral views, respectively; E — original labels.

Рис. 6. *Mughiphantes pratorum* (Caporiacco, 1935), comb.n., ♀ лектотип (MCSNM, без No.). A–D — эпигина, соответственно вид снизу, сверху и сбоку; E — оригинальные этикетки.

DISTRIBUTION. This species is only known from the type locality: Litigo, Karakoram, Pakistan, at 3900 m.

Pelecopsis pakistanicus **sp.n.**
Figs 7H–J; 8B, C.

1935 *Lophocarenum radicicola*. — Caporiacco: 182, no figs, ♂♂, ♀♀, all subadults, partly examined.

REMARKS. Caporiacco [1935: 182] wrote: "I am not sure of the identification of these specimens, which are all immature, but the shape of the cephalic lobe and the position of the eyes make me believe that I actually have to deal with samples of this species" (translated from Latin). However, two vials contained one female each, labeled as *Lophocarenum radicicola*. These females do not belong to *Pelecopsis radicicola* (L. Koch, 1872) and they seem to represent a new species which I preliminary assign to *Pelecopsis* Simon, 1874.

ETYMOLOGY. The specific name is an adjective, derived from the area of origin.

HOLOTYPE ♀ (MCSNM, No. 1114), PAKISTAN, Tsok, 3480 m, 4 VIII.1929.

PARATYPES. 1 ♀ (MCSNM, No. 132c), oasi di Tsok in vai Punmah, 3480 m, 4 Agosto.

The other vial labeled as *Pelecopsis radicicola* (MCSNM, No. 119a) contains 1 ♂, 2 ♀♀, all subad., sopra Pajù, m. 3650, 29.VII.1929.

DESCRIPTION. Female holotype. Habitus as in Fig. 7H. Total length 2.0. Carapace modified, reddish dark brown, 0.80 long, 0.68 wide, with a hump behind posterior median eyes (Fig. 8B). Eyes not enlarged, normal. Sulci absent. Chelicerae 0.30 long, a mastidion absent. Legs pale brown. Leg I, 1.81 long (0.50 + 0.20 + 0.48 + 0.38 + 0.25), IV, 2.17 long (0.63 + 0.18 + 0.58 + 0.50 + 0.28). Chaetotaxy unknown, spines lost. TmI unknown. Abdomen 1.50 long, 1.08 wide, dark grey, sigillae distinct (Fig. 7H). Epigyne as in Fig. 8C.

Male unknown.

DISTRIBUTION. This species is only known from Tsok in the western Himalayas, Baltistan, Pakistan, at 3480 m.

Piniphantes deosaicola (Caporiacco, 1935), **comb.n.**
Fig. 9.

1935 *Lephthyphantes deosaicola* Caporiacco: 165, pl. III, fig. 6, ♀, not seen.

REMARKS. Caporiacco's description and drawing do not correspond to the content of the vial (a specimen of *Agyneta* sp.), labeled as *Lephthyphantes deosaicola* (see above). The drawing of the epigyne most likely belongs to a lost syntype of *L. deosaicola*, definitely failing to match any representative of *Lepthyphantes* Menge, 1866 (sensu stricto). The epigynal structure, namely, a narrow scapus and long lateral branches of the posterior median plate (see Fig. 9A), as well as the absence of a dorsal abdominal pattern mentioned in the description, resemble those of representatives of *Piniphantes* Saaristo et Tanasevitch, 1996. Thus, *Lepthyphantes deosaicola* Capo-

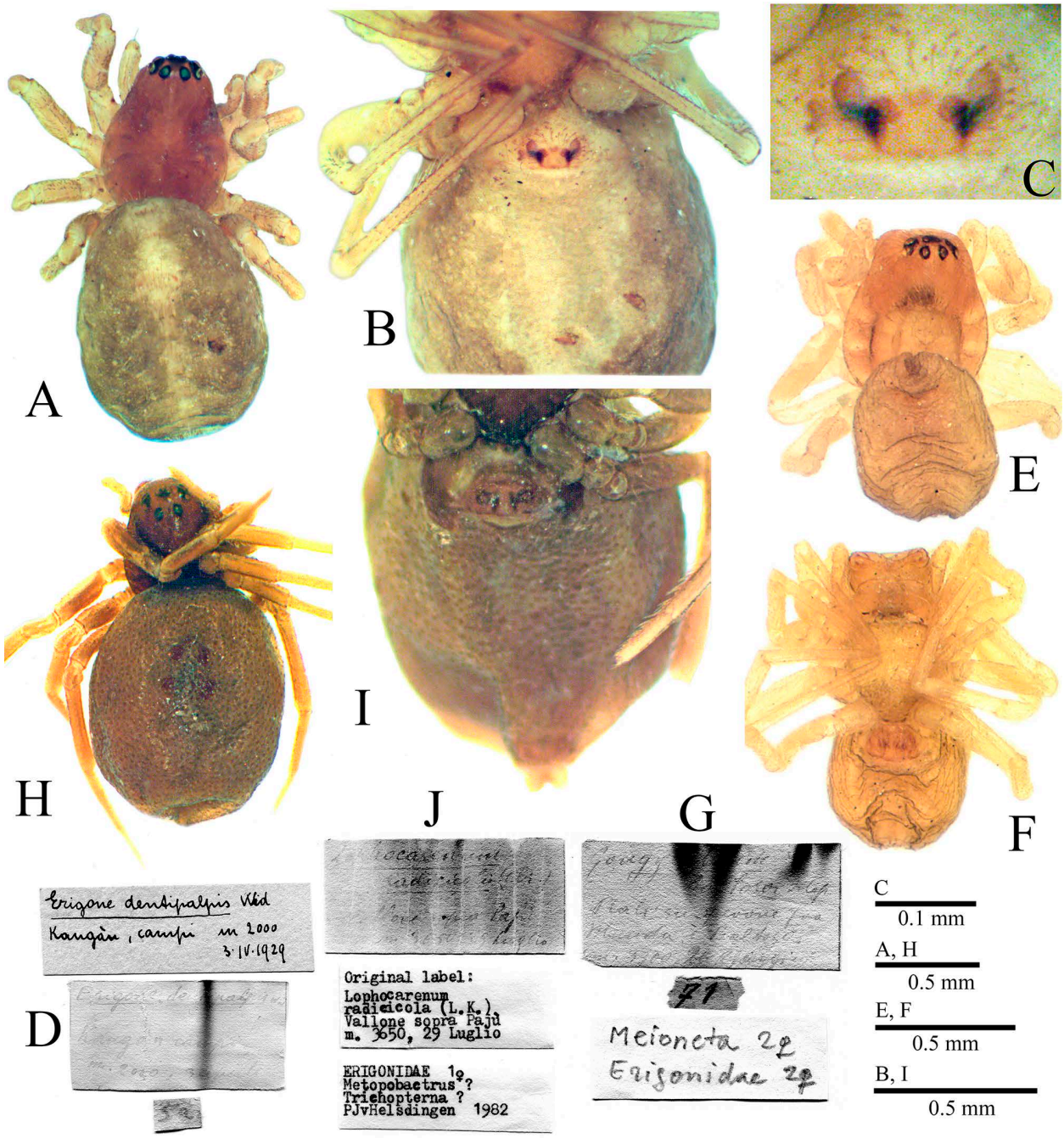

Fig. 7. *Oedothorax* sp., ♀ (MCSNM, No. 5a) (A–D); *Panamomops torridus* sp.n., ♀ holotype (MCSNM, No. 71) (E–G), and *Pelecopsis pakistanicus* sp.n., ♀ holotype (MCSNM, No. 1114) (H–J). A, H, E — habitus, dorsal view; B, I — abdomen, ventral view; C — epigyne; F — habitus, ventral view; D, G, J — original labels.

Рис. 7. *Oedothorax* sp., ♀ (MCSNM, No. 5a) (A–D); *Panamomops torridus* sp.n., ♀ голотип (MCSNM, No. 71) (E–G) и *Pelecopsis pakistanicus* sp.n., ♀ голотип (MCSNM, No. 1114) (H–J). A, H, E — габитус, вид сверху; B, I — абдомен, вид снизу; C — эпигина; F — габитус, вид снизу; D, G, J — оригинальные этикетки.

riacco, 1935 = *Piniphantes deosaicola* (Caporiacco, 1935), comb.n. The structure of the epigyne also resembles that of *Incestophantes* Tanasevitch, 1992. However, in representatives of *Incestophantes* the abdomen has a dorsal pattern, whereas in *P. deosaicola* the abdomen is monochromatic.

COMPARATIVE MATERIAL EXAMINED. *Piniphantes himalayensis* (Tanasevitch, 1987): 1 ♀ (MNHG), PAKISTAN, Swat District, above Utrot (= Utrar, Utror), ca 35.49105°N 72.47053°E, 2800 m a.s.l., *Abies* & *Cedrus* forest, sifting rotten coniferous litter, 13.V.1983, leg. C. Besuchet & I. Löbl [11c], **a new record**.

TAXONOMIC REMARKS. *Piniphantes deosaicola* differs well from *P. himalayensis*, the single, Himalayan congener, by the more narrow scapus.

DISTRIBUTION. This species is only known from the type locality: Chota Deosai, Western Himalayas, Baltistan, Pakistan, at 3850 m, see Caporiacco [1935: 166].

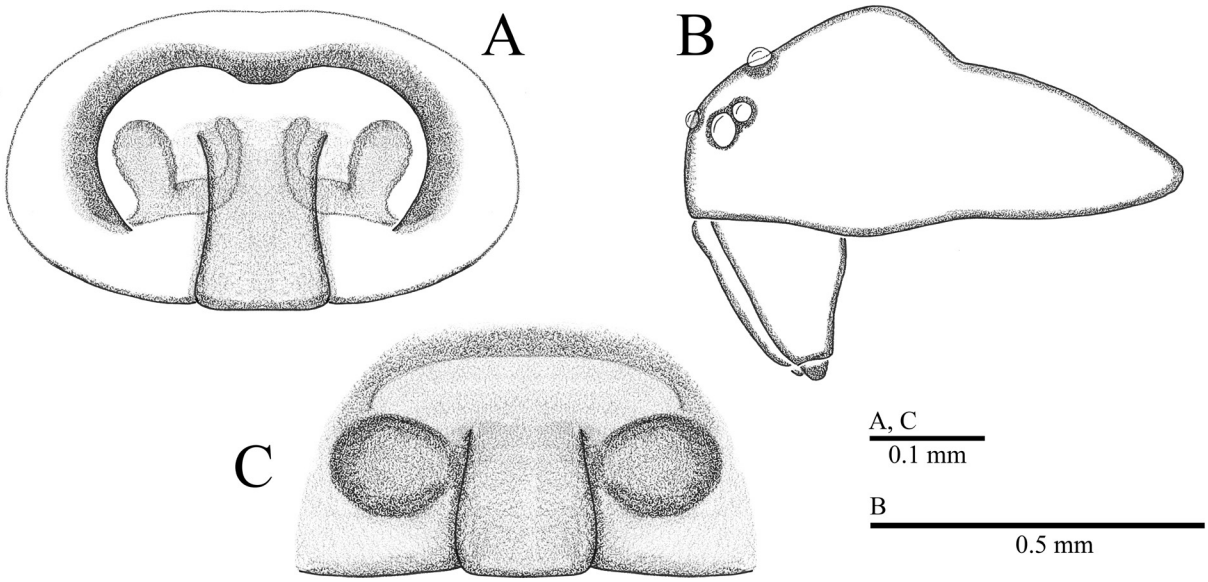

Fig. 8. *Oedothorax* sp., ♀ (MCSNM, No. 5a) (A) and *Pelecopsis pakistanicus* sp.n., ♀ holotype (MCSNM, No. 1114) (B, C). A, C — epigyne, ventral view; B — prosoma, lateral view.

Рис. 8. *Oedothorax* sp., ♀ (MCSNM, No. 5a) (A) и *Pelecopsis pakistanicus* sp.n., ♀ голотип (MCSNM, No. 1114) (B, C). A, C — эпигина, вид снизу; B — просома, вид сбоку.

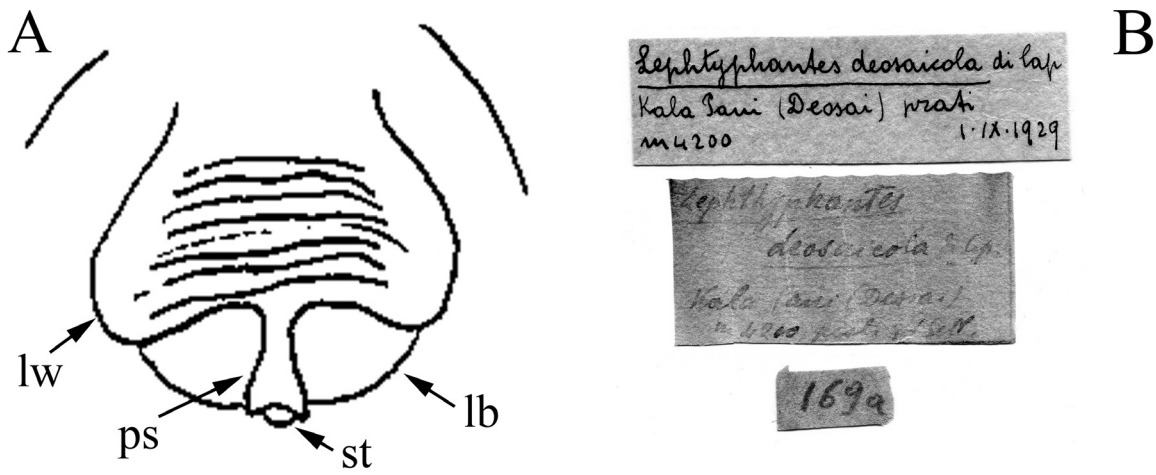

Fig. 9. *Piniphantes deosaicola* (Caporiacco, 1935), comb.n. A — epigyne, ventral view, reproduced from Caporiacco [1935, pl. III, fig. 6]; B — original labels.

Рис. 9. *Piniphantes deosaicola* (Caporiacco, 1935), comb.n. A — эпигина, вид снизу, воспроизведено из Caporiacco [1935, pl. III, fig. 6]; B — оригинальные этикетки.

Tchatkalophantes karakoram **sp.n.**
Fig. 10.

REMARKS. The vials labeled as *Gongylidium baltoroi* contain: *Agyneta* sp., *Agyneta glacialis* (Caporiacco, 1935), comb.n., *Panamomops torridus* sp.n. (see above), *Halorates crassipalpis* (Caporiacco, 1935), and *Styloctetor romanus* (see below). In addition, the vial (MCSNM, No. 66a), also labeled as *G. baltoroi*, contains a female belonging to the genus *Tchatkalophantes* Tanasevitch, 2001, which I describe below as a new species.

ETYMOLOGY. The specific name is noun in apposition, derived from the *terra typica*.

HOLOTYPE ♀ (MCSNM, No. 66a), PAKISTAN, super morenam mediani glaciatae molis Mustagh dictae, 4000 m, die XVI a. K. Iun."

DESCRIPTION. Female holotype badly damaged: prosoma crushed, abdomen deformed, legs lost. Carapace greyish brown, length approximately 0.78. Abdomen dark grey, 1.53 long. Epigyne as in Fig. 10 A–B. Base of scape narrow and relatively long. Pseudoscape oval, shield-shaped, stretcher long. Posterior median plate narrow, sickle-shaped.

TAXONOMIC REMARKS. The new species differs well from *T. baltistan* Tanasevitch, 2011, the single congener also known from Karakoram only [Tanasevitch, 2011], as well as from other species of the genus, by the rounded, shield-shaped pseudoscape, coupled with the sickle-shaped posterior median plate.

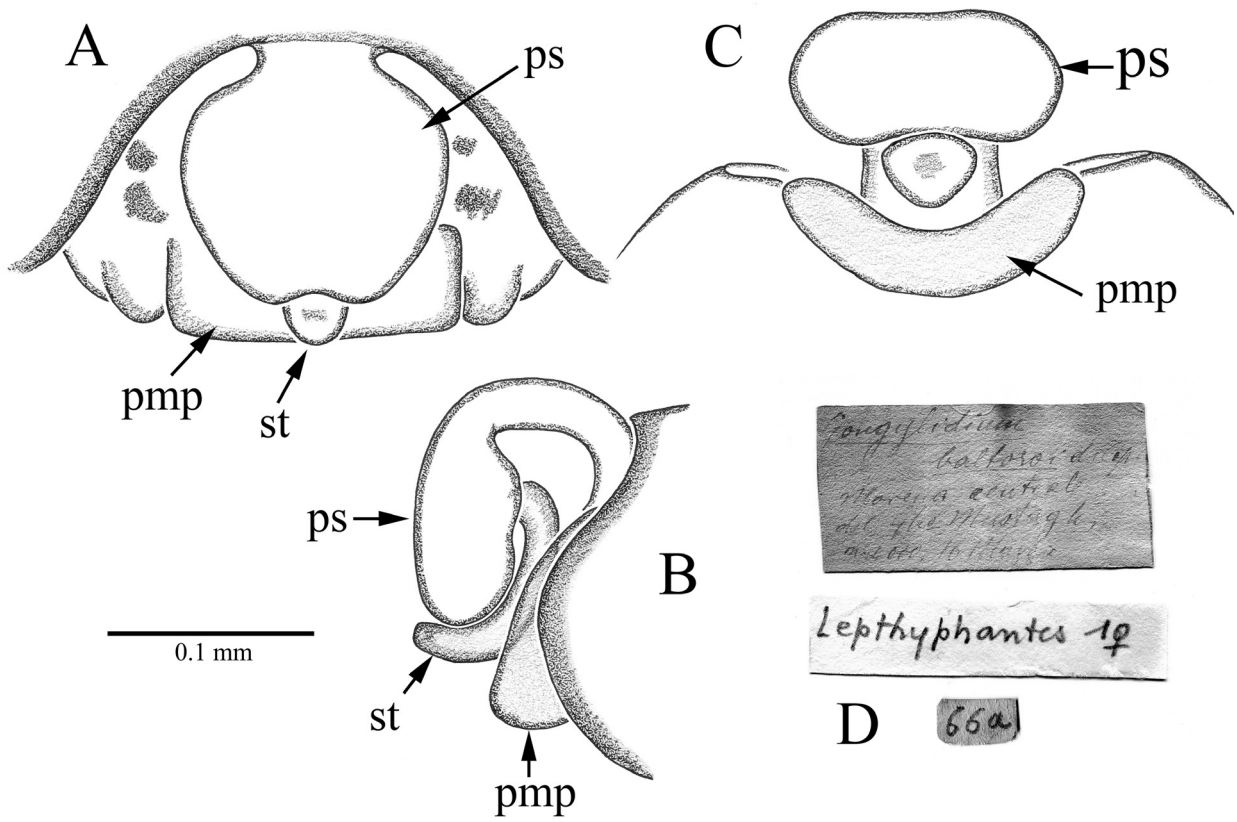

Fig. 10. *Tchatkalophantes karakoram* sp.n., ♀ holotype (MCSNM, No. 66a). A–C — epigyne, ventral, lateral and dorsal views, respectively; D — original labels.

Рис. 10. *Tchatkalophantes karakoram* sp.n., ♀ голотип (MCSNM, No. 66a). A–C — эпигина, соответственно вид снизу, сбоку и сверху; D — оригинальные этикетки.

Male unknown.

DISTRIBUTION. This species is only known from the Mustagh Range, Karakoram, Pakistan, at 4000 m.

Alioranus chiardolae (Caporiacco, 1935)

1935 *Gongylidiellum chiardolae* Caporiacco: 169, pl. III, fig. 1 (a–c), ♂♂, ♀♀, partly revised.

2013 *Alioranus chiardolae*. — Tanasevitch: 172, transferred.

REMARKS. Based on material from Caporiacco's collection (MCSNM), *Gongylidiellum chiardolae* has recently been confirmed as a senior synonym of *Alioranus avanturus* Andreeva et Tyschchenko, 1970 [Tanasevitch, 2013].

ADDITIONAL MATERIAL EXAMINED. The vials labeled as *Gongylidiellum chiardolae* contain: 1 juv., Cribellate (MCSNM, No. 60), PAKISTAN, Bardumal, 3300 m, 14.V.1929; 1 prosoma, Linyphiidae (MCSNM, No. 40a), Dusso, 3500 m, 28.IV.1929.

DISTRIBUTION. The species is widespread in the mountains of Central Asia: Tian Shan, Pamir-Alay, and Pamirs [Andreeva, Tyschchenko, 1970; Andreeva, 1976; Tanasevitch, 1989, 2013]. In fact the species is not known from Karakoram, but it occurs instead at Punmah and Bardumal, in the western Himalayas, Baltistan, Pakistan, at 3300–3950 m.

Archaraeoncus prospiciens (Thorell, 1875)

1935 *Pocadicnemis desioi* Caporiacco: 181, pl. I, fig. 17 (a–c), ♂, ♀, revised, **syn.n.**

MATERIAL EXAMINED. The vials labeled as *Pocadicnemis desioi* contain: 1 ♂, 1 ♀ of *Archaraeoncus prospiciens* (MCSNM, No. 23c); ♂ designated herewith as the lectotype, PAKISTAN, Olthingthang, 2600 m, 18.IV.1929; 1 ♀ of *A. prospiciens* (MCSNM, No. 39b), Duno, 2400 m, 28.IV.1929.

REMARKS. Revision of the syntypes of *Pocadicnemis desioi* shows that they are fully identical to *Archaraeoncus prospiciens* (Thorell, 1875), this leading to *Pocadicnemis desioi* Caporiacco, 1935 as its new junior synonym.

DISTRIBUTION. This South Palaearctic species is being reported from the western Himalayas, Baltistan, Pakistan for the first time, at 2400–2600 m.

Erigone atra Blackwall, 1833

1935 *Aulacocyba cavifrons* Caporiacco: 176, pl. I, fig. 21 (a, b), revised, **syn.n.**

1971 *Microctenonyx cavifrons*. — Prószyński, Staręga: 176.

REMARKS. The female syntype of *Aulacocyba cavifrons* actually belongs to *Erigone atra* and, based on the lectotype (see below), *Aulacocyba cavifrons* Caporiacco, 1935 becomes a new junior synonym of *Erigone atra* Blackwall, 1833.

MATERIAL EXAMINED. ***Erigone atra***: the vials labeled as *Aulacocyba cavifrons* contain: 1 ♀ (MCSNM, without No.), designated herewith as the lectotype, PAKISTAN, locality label illegible; 1 ♂ subad., 1 ♀ (MCSNM, without No.), Urdukas, 4250 m; 3 ♂♂ subad., Linyphiidae (MCSNM, No. 81b), Urdukas, 4250 m; 1 prosoma, Linyphiidae (MCSNM, No. 51m), Brohè (Blohoè), prati aridi, 3000 m, 10.V.1929; 1 prosoma, 1 abdomen, Linyphiidae (MCSNM, No. 48), Braldo, Askole, 3000 m.

Specimens of *Erigone atra* erroneously labeled as *E. dentipalpis*: 1 ♂, 2 ♀♀ (MCSNM, No. 62b), PAKISTAN, Urdukas, 4000 m; 1 ♂, 3 ♀♀ (MCSNM, No. 83b), Urdukas, 4250 m, VII.1929; 2 ♂♂, 7

♀♀ (MCSNM, No. 81a), Urdukas, 2000 m; 5 ♂♂ of *E. atra* and 1 ♀ of *Lathys stigmatisata* (det. by Y. Marusik, based on a photograph) (MCSNM, No. 146b), Thla Brok, prati, 4000 m; 2 ♀♀ (MCSNM, No. 77), locality label illegible, 4800 m; 1 ♂, 2 ♀♀ (MCSNM, No. 62b), Urdukas, 4000 m; 2 ♂♂ (MCSNM, No. 81a), Urdukas, 2000 m; 1 ♂, 1 ♀ (MSNF), Thla Brok, prati, 4000 m, 11.VIII.1929; 1 ♂ (MSNF), Boorgi Nullah, 3200 m, prati, 31.VIII.1929.

DISTRIBUTION. This Holarctic species is known from Karakoram, Pakistan, at 2000–4800 m.

Erigone dentipalpis (Wider, 1834)

1935 *Erigone dentipalpis*. — Caporiacco: 174, ♂♂, ♀♀, examined.

MATERIAL EXAMINED. ***Erigone dentipalpis***: the vails contain: 1 ♂, 1 ♀ (MCSNM, No. 33d), PAKISTAN, Alchori, oasi, 2300 m, 26.IV.1929; 1 ♂ (MCSNM, No. 153), Askole, 3100 m, 14.VIII.1929; 1 ♂ (MCSNM, No. 48b), Askole letto del Braldo, 3000 m, V.1929; 2 ♀♀ (MCSNM, No. 45a), Askole, oasi, 3100 m; 1 ♀ (MCSNM, No. 6b), Kangàn, 2000 m, 3.IV.1929; 1 ♂, 1 ♀ (MSNF), Kangàn, letto del Sid, 2000 m, 4.IV.1929; 1 ♂ (MCSNM, No. 5a), Kangàn, campi, 2000 m, 3.IV.1929; 4 ♂♂ (MCSNM, No. 6a), Kangàn, letto del Sid, 2000 m., 4.IV.29; 1 prosoma without palps and legs (MCSNM, No. 38), Kushumul, oasi, 2300 m, 27.IV.29; 1 ♀, 1 juv. (MSNF), Kushumul, oasi, 2300 m, 27.IV.1929; 1 ♂ (MSNF), Scardu, oasi, 2200 m, 29.VIII.1929; 3 ♂♂ (MCSNM, No. 161d), Shigar, oasi, 2300 m, 27.VIII.1929; 1 ♀ (MCSNM, No. 30a), Skardu, oasi, 2200 m, 23.IV.1929; 1 ♂ (MCSNM, No. 164a), Skardu, oasi, 2200 m, 29.VIII.1929; 1 ♂ (MCSNM, No. 23a), Olthingthang, 3600 m, oasi; 3 ♀♀ (MCSNM, No. 44a), locality label illegible; 1 ♂ (MCSNM, No. 25a), Ragicha (?), oasi, 2500 m, 20.IV.1929; 1 ♀ (MCSNM, No. 10d), PAKISTAN/INDIA, Jammu and Kashmir, Gund campi, 2080 m, 8.IV.1929; 1 ♂ (MCSNM, No. 10b, duplicated), Gund, 2100 m, 8.IV.1929; 1 ♂ (MCSNM, No. AR177), Razdhainangan, 3600 m, 5.IX.1929; 1 ♂ (MCSNM, No. 168b), Boorgi Nullah, 3200 m, prati, 31.VIII.1929. Empty vials: MCSNM, 83b, Urdukas, 4250 m., VII.1929, and MCSNM, No. 124.

DISTRIBUTION. This Holarctic species is known from Karakoram and the western Himalayas, Baltistan, Pakistan, as well as from Jammu and Kashmir, Pakistan/India, at 2000–4250 m.

Halorates crassipalpis (Caporiacco, 1935)

1935 *Gongylidium crassipalpe* Caporiacco: 171, pl. III, fig. 3a, b; ♂ lectotype re-examined.

1935 *Gongylidiellum chiardolae* Caporiacco: 169, misidentification, revised.

1935 *Gongylidium baltoroi* Caporiacco: 173, misidentification, revised.

1983 *Collinsia japonica*. — Wunderlich: 231, misidentification, revised.

2021 *Halorates crassipalpis*. — Tanasevitch: 113.

For a full synonymy list see World Spider Catalog [2024].

TYPE MATERIAL EXAMINED. ♂ lectotype of *Gongylidium crassipalpe* Caporiacco, 1935, designated by K. Thaler in 1987 (MCSNM), PAKISTAN, Mts Karakoram [error], Olthingthang, 2600 m, 13.IV.1929; 1 ♀ syntype (NSMT, Ar. 2725), 1 ♂, 1 ♀ syntypes (NSMT, Ar. 2726) of *Scotargus japonicus* Oi, 1964, JAPAN, Ishkawa Prefecture, Mt Hakusan; 2.VIII.1961, leg. H. Tokumoto, det. R. Oi.

MATERIAL EXAMINED. ***Halorates crassipalpis***: 2 ♀♀ (MCSNM, No. 131a, labeled as *Gongylidiellum chiardolae*), PAKISTAN, Shimtsà, 3200 m; 1 ♂ (MCSNM, without No., labeled as *Gongylidium baltoroi*), Prati di Bioho, fronte gla. Biafo, 3000 m.

REMARKS. Revision of the type specimens of *Collinsia japonica* (Oi, 1964) (NSMT, SMF) and *C. crassipalpis* (MCSNM) showed that all specimens from Nepal that had been identified as *C. japonica* actually belonged to *C. crassipalpis*. For more information, see Tanasevitch [2021].

DISTRIBUTION. Considering corrected locality data, *Halorates crassipalpis* is not known from Karakoram, but it occurs in the western Himalayas, Baltistan, Pakistan, at 2400–2600 m. The species is also widespread in Nepal, at 2000–4300 m [Wunderlich, 1983, as *Collinsia japonica*; Tanasevitch, 2021].

Microlinyphia pusilla (Sundevall, 1830)

1934 *Linyphia baltistana* Caporiacco: 158, 3 ♂♂, 5 ♀♀, partly revised.

1970 *Microlinyphia pusilla*. — van Helsdingen: 9, synonymized.

REMARKS. *Linyphia baltistana* was synonymized with *Microlinyphia pusilla* by van Helsdingen [1970].

TYPE MATERIAL EXAMINED. 1 ♂ lectotype, 1 ♀ paralectotype (MCSNM, No. AR24, both labeled as *Linyphia baltistana*), designated by van Helsdingen in 1967, PAKISTAN/INDIA, Jammu and Kashmir, Shiriting.

MATERIAL EXAMINED. ***Microlinyphia pusilla***: 1 ♀ (MCSNM, No. 33a, labeled as *Linyphia baltistana*), PAKISTAN, Alchori, oasi, 2300 m, 26.IV.1929; 1 ♀ subad., *Microlinyphia* sp. (MCSNM, No. 26b, labeled as *Linyphia baltistana*), PAKISTAN/INDIA, Jammu and Kashmir, Parkutta, 2350 m, 21.IV.1929. The other vials labeled as *Linyphia baltistana* contain: 1 juv., Linyphiidae (MCSNM, No. 161h), PAKISTAN Shigar, oasi, 2300 m, 23.VIII.1929. Empty vials: (MCSNM, No. 164e), Skardu, oasi, 3300 m, 28VIII.1929; (MCSNM, without number), Dusso, 2480 m, 18.VIII.1929.

DISTRIBUTION. This Holarctic species is known from Karakoram, Pakistan and from Jammu and Kashmir, Pakistan/India, at 2300–3300 m.

Neriene birmanica (Thorell, 1887)

1935 *Bathyphantes kashmiricus* Caporiacco: 167, pl. II, fig. 12, ♂, not seen.

1969 *Neriene kashmirica*. — van Helsdingen: 261.

1989 *Neriene birmanica*. — Chen *et al*.: 66, synonymized.

REMARKS. *Bathyphantes kashmiricus* was transfered to *Neriene* by van Helsdingen [1969], and later synonymized with *Neriene birmanica* (Thorell, 1887) by Chen *et al*. [1989].

DISTRIBUTION. The species is only known from the type locality: Garhi, Jammu and Kashmir, Pakistan/India.

Porrhomma pygmaeum (Blackwall, 1834)

1935 *Lephthyphantes nigridorsus* Caporiacco: 163, 2 ♀♀, revised, misidentification.

REMARKS. *Lephthyphantes nigridorsus* from Caporiacco's collection is re-described and transferred to *Mughiphantes* based on the designated lectotype (see above). Specimens of *P. pygmaeum*, labeled as *L. nigridorsus* and *Gongylidium crassipalpe* (see above), must be considered misidentifications.

MATERIAL EXAMINED. ***Porrhomma pygmaeum***: 1 ♀ (MCSNM, 27c, labeled as *Lephthyphantes nigridorsus*), PAKISTAN, Tolti, 2400 m, 21.IV.1929; 1 ♀ (MCSNM, No. 27f, labeled as *Gongylidium crassipalpe*), Tolti, oasi, 2400 m, 21.IV.1929; 1 ♀ (MCSNM, without No., labeled as *G. crassipalpe*), Tolti, 2400 m, 21.IV.1929.

DISTRIBUTION. This Palaearctic species has already been registered from Karakoram, Pakistan, from Kaplu Ghwari, at 2480 m, see Tanasevitch [2011], as well as from Tolti, at 2400 m (present data).

Prinerigone vagans (Audouin, 1826)

1935 *Erigone pseudovagans* Caporiacco: 175, pl. I, fig. 22, ♂♂, ♀♀, revised, **syn.n.**

REMARKS. As all syntypes of *E. pseudovagans* actually belong to *Prinerigone vagans*, the latter name becomes its junior synonym, *Erigone pseudovagans* Caporiacco, 1935, syn.n.

MATERIAL EXAMINED. ***Prinerigone vagans***: syntypes labeled as *Erigone pseudovagans*: 1 ♂ (MCSNM, No. 26a), designated herewith as the lectotype, PAKISTAN/INDIA, Jammu and Kashmir, Parkutta,

2350 m, 21.IV.1929; 2 ♂♂, 3 ♀♀ (MCSNM, No. 10d), Jammu and Kashmir, Gund campi, 2080 m, 8.IV.1929; 1 ♀ (MCSNM, No. 26a), Parkutta, 2350 m, 21.IV.1929; 1 ♀ (MCSNM, No. 145a), PAKISTAN, Askole, 3100 m, 10.VIII.1929; 2 ♂♂, 3 ♀♀ (MCSNM, No. 161c), Shigar, oasi, 2300 m, 26.VIII.1929; 1 ♂, 1 ♀ (MCSNM, without No.), Shigar, 2300 m, 26.VIII.1929; 2 ♂♂, 3 ♀♀ (MCSNM, No. 161c), Shigar, oasi, 2300 m, 26.VIII.1929. The vials labeled as *Erigone dentipalpis*: 1 ♀ (MCSNM, No. 145a), PAKISTAN, Askole, oasi, 3100 m, 10.VIII.1929; 1 ♀ (MCSNM, No. 33e), Alchori, oasi, 2300 m, 26.IV.1929; 1 ♀ (MCSNM, No. 50b), nella zona stepposa presso la Hot Sulphur Spring di Chongo, 3000 m, Maggio; 1 ♀ (MCSNM, No. 160), nella zona arida alla confluenza delle valli Basha e Braldo, 2300 m; 1 ♀ (MCSNM, No. 27g), Tolti, oasi, 2400 m, 20.IV.1929; 1 ♀ (MCSNM, without No.), Askole, 3100 m, VIII.1929; 1 ♀ of *P. vagans*, 1 ♀ of *E. dentipalpis* (MCSNM without No.), Askole, 3100 m. The vial labeled as *Troxochrus cachemiricus*: 1 ♀ (MCSNM, No. AR 179), PAKISTAN, Skardu, 2200 m, 25.IV.1929.

DISTRIBUTION. This cosmopolitan species is known from Karakoram, Pakistan and Jammu and Kashmir, Pakistan/India, at 2080–3100 m.

Styloctetor romanus (O. Pickard-Cambridge, 1872)

1935 *Alioranus distinctus* Caporiacco: 177, pl. II, fig. 8 (a, b), ♂♂, ♀♀, partly revised, **syn.n.**

1935 *Araeoncus duriusculus* Caporiacco: 180, pl. I, fig. 19, ♀♀, revised, **syn.n.**

REMARKS. All mature syntypes of both species, *Alioranus distinctus* (♂) and *Araeoncus duriusculus* (♀), actually belong to *Styloctetor romanus*. The Caporiacco's drawings for both species are also quite well correspond to *S. romanus*. Thus, both *Alioranus distinctus* Caporiacco, 1935 and *Araeoncus duriusculus* Caporiacco, 1935 become junior synonyms of *Styloctetor romanus* (O. Pickard-Cambridge, 1872), syn.n. A few specimens of *Styloctetor romanus* labeled as *Gongylidium baltoroi* must be considered as misidentifications (see below).

MATERIAL EXAMINED. ***Styloctetor romanus***: syntypes labeled as *Alioranus distinctus*: 1 ♂ (MCSNM, No. 111b), designated herewith as the lectotype, PAKISTAN, Boorgi (= Burji) La, 4600 m, 31.VIII.1929; 1 ♂ (MCSNM, No. 111b), Boorgi La, 4600 m. The vials labeled as *Alioranus distinctus* contains: 1 ♂, 1 ♀, both subad., Linyphiidae (MCSNM, No.171a), PAKISTAN, Boorgi La, 4600 m, pridie K. Sept.); 1 prosoma, Linyphiidae (MCSNM, without No.), Boorgi La, 4600 m, 31.VIII.1929; 1 ♂ subad., 1 ♀ of subad., Linyphiidae (MCSNM, No. 171a), Boorgi La dictum, 4600 m, 31.VIII.1929; 1 ♂ of subad., Linyphiidae (MSNF, No. 233), Lopsang Brapsa, Mustagh, 4500 m, 24.VII.1929; 2 ♂♂, 2 ♀♀, all juv. (MCSNM, No. 111b), Mustagh, 4600 m, VI.1929; 1 prosoma, subad. Linyphiidae (MCSNM, No. 76c), Chang Tok, 4930 m; 1 ♂ subad., Linyphiidae (MCSNM, No. 78c), Moni Bransa, 4600 m; 1 ♂ subad., 1 ♀ subad., Linyphiidae (MCSNM, No. 171a), Boorgi La, 4600 m. The vials, labeled as *Araeoncus duriusculus* contain: 1 ♀ (MCSNM, No. 75b), designated herewith as the lectotype, Lopsang Bransa, 4500 m; 1 ♀ (MCSNM, No. 114), PAKISTAN, Biange dictae, 4430 m; 1 ♀ (MSNF, No. 235), Lopsang Bransa, 4500 m, 7.VI.1929; 2 ♀♀ (MCSNM, No. 67a), Lopsang Bransa, 4500 m, 18.V.1929; 1 ♀ (MCSNM, No. 114), Biange dictae, 4430 m; 1 ♀ of (MCSNM, No. 75b), Lopsang Bransa, 4500 m; 1 ♂ suad. (MCSNM, No. 78c), Moni Bransa, 4600 m. The vials, labeled as *Gongylidium baltoroi* contain: 1 ♀ (MCSNM, No. 74a), PAKISTAN, Hoto, oasi, 3000 m, 30.IV.1929; 1 ♀ of *S. romanus* (MCSNM, No. 78b), Moni Bransa, 4600 m; 1 ♀ (MCSNM, No. 111a), Lopsang Bransa, 4500 m. The vials, labeled as *Erigone dentipalpis* contains: 1 ♀ (MCSNM, No. 81a), PAKISTAN, Urdukas, 2000 m; 1 ♀ (MCSNM, No. 83b), Urdukas, 4250 m, VII.1929.

DISTRIBUTION. This Palaearctic species is known from Karakoram, Pakistan, at 2000–4960 m.

Vagiphantes vaginatus (Tanasevitch, 1983)

1934 *Lephthyphantes nebulosus*. — Caporiacco: 160, 1 ♂, 4 ♀♀, misidentification, partly revised.

REMARKS. Caporiacco [1934] recorded *Leptyphantes nebulosus* from five localities. Only two vials have been relocated in the collection: the first one contains 1 ♂ subad., micronetine, the second vial contains a ♂ of *Vagiphantes vaginatus* (see below).

MATERIAL EXAMINED. ***Vagiphantes vaginatus***: 1 ♂ (MCSNM, labeled as *Lephthyphantes nebulosus*), PAKISTAN, a Pajù, oasi, 3500 m, 18.VII.1929; 1 ♂ subad., micronetine (MSNF, No. 1221 (14)), labeled as *Leptyphantes nebulosus*), Foralla Forchia, fra i sassi (Ovaro), 2000 m.

DISTRIBUTION. *Vagiphantes vaginatus* is known from the Central Asian mountains of Tian Shan and Pamir-Alay [Tanasevitch, 1989]. This is the first record of the species in the western Himalayas, Baltistan, Pakistan. As regards *Megalepthyphantes nebulosus* (Sundevall, 1830), in Central Asia the species is known to be replaced by its vicariant, *M. nebulosoides* (Wunderlich, 1977) [Tanasevitch, 1989, 2009].

Species to be designated as *nomina dubia*

Alioranus minutissimus Caporiacco, 1935, **nom.dub.**

1935 *Alioranus minutissimus* Caporiacco: 177, no figs, ♂♂, ♀♀, all juveniles, partly revised.

REMARKS. As all available syntypes are juveniles or subadults and the description is devoid of illustrations, no reliable identification of this species is possible, to be referred to as a *nomen dubium*, *Alioranus minutissimus* Caporiacco, 1935, nom.dub.

MATERIAL EXAMINED. 1 ♂ subad., Linyphiidae (MSNF, No. 234, labeled as *Alioranus minutissimus*), PAKISTAN, Baltoro, Urduktas, 3950 m, VII.1929; 1 ♂, 1 ♀ subadults, Linyphiidae (MCSNM, No. 84b), Baltoro, 3950 m, VII.1929; 1 juv., Linyphiidae (MCSNM, No. 88), Baltoro, 4300 m, 15.VII.1929; 1 ♂ subad., Linyphiidae (MCSNM, No. 78d), Sarpo Laggo, 4600 m, 10.VI.1929; 1 juv., Linyphiidae (MCSNM, No. 76b), Chang Tok, Sarpo Laggo, 4930 m, 8.VI.1929.

Bathyphantes reticularis Caporiacco, 1935, **nom.dub.**

1935 *Bathyphantes reticularis* Caporiacco: 166, pl. I, fig. 24, 1 ♂ juv., revised.

REMARKS. The species was described from an inadult male. The description is provided with a sketch of the abdomen in dorsolateral view. The abdominal pattern of the syntype is typical of many micronetines. In the absence of an adult specimen, a reliable identification of the species is impossible, and the species must be referred to as a *nomen dubium*, *Bathyphantes reticularis*, nom.dub.

MATERIAL EXAMINED. 1 prosoma, juv. Linyphiidae (MCSNM, No. 129, labeled as *Bathyphantes reticularis*), PAKISTAN, Punmah fl., 3100 m, 3.VIII.1929.

Lepthyphantes annulipes Caporiacco, 1935, **nom.dub.**

1935 *Lephthyphantes annulipes* Caporiacco: 162, no figs, 3 ♂♂, 4 ♀♀, all juveniles, partly revised.

REMARKS. The species was originally described from immature specimens and reported from four localities. The absence of adult syntype(s) makes reliable identifications of the species impossible, and it must be referred to as a *nomen dubium*, *Lepthyphantes annulipes* Caporiacco, 1935, nom.dub.

MATERIAL EXAMINED. 1 juv. (MSNF, No. 240, labeled as *Lephthyphantes annulipes*), PAKISTAN, Bardumal, 3300 m, 2.VIII.1929.

Lepthyphantes incertissimus Caporiacco, 1935, **nom.dub.**

1935 *Lephthyphantes incertissimus* Caporiacco: 165, pl. III, fig. 4, 1 ♀, revised.

Table 1. Results of the revision of linyphiid spiders from the Caporiacco collection from Karakoram.
Таблица 1. Результаты ревизии пауков-линифиид коллекции Капориакко из Каракорума.

Species * Виды	**Result Результат**
57. *Linyphia pusilla* Sund.	*Linyphia* sp.
58. *L. baltistana* sp.n.	*Microlinyphia pusilla* (Sund.), see Helsdingen [1970]
59. *Lephthyphantes nebulosus* (Sund.)	*Vagiphantes vaginatus* (Tan.)
60. *L. striatiformis* sp.n.	nom.dub.
61. *L. pratorum* sp.n.	*Mughiphantes pratorum*, comb.n.
62. *L. trivittatus* sp.n.	nom.dub.
63. *L. annulipes* sp.n.	nom.dub.
64. *L. nigridorsus* sp.n.	*Mughiphantes nigridorsus*, comb.n., partly; *Porrhomma pygmaeum* (Bl.)
65. *L. allegrii* sp.n.	*Ketambea allegrii*, comb.n.
66. *L. incertissimus* sp.n.	nom.dub.
67. *L. deosaicola* sp.n.	*Agyneta* sp., comb.n., partly; *Piniphantes deosaicola*, comb.n.
68. *Bathyphantes reticularis* sp.n.	nom.dub.
69. *B. larvarum* sp.n.	syn.n., = *Agyneta glacialis*, comb.n.
70. *B. kashmiricus* sp.n.	*Neriene birmanica* (Thor.), see Chen *et al*. [1989]
71. *B. glacialis* sp.n.	*Agyneta glacialis*, comb.n.
72. *Microneta viaria* (Bl.)	*Agyneta glacialis*, comb.n.
73. *Gongylidiellum chiardolae* sp.n.	*Alioranus chiardolae* (Capor.), see Tanasevitch [2013]
74. *G. nigrolimbatum* sp.n.	syn.n., = *Agyneta glacialis*, comb.n.
75. *Oedothorax dubius* sp.n.	nom.dub.
76. *Gongylidium crassipalpe* sp.n.	*Halorates crassipalpis* (Capor.), see Thaler [1987], Tanasevitch [2021]
77. *G. baltoroi* sp.n.	syn.n., = *Agyneta glacialis*, comb.n., partly; *Tchatkalophantes karakoram* sp.n.
78. *Erigone dentipalpis* (Wid.)	*Erigone atra* Bl., *E. dentipalpis* (Wid.), *Prinerigone vagans* (Aud.), and *Styloctetor romanus* (O.P.-Cambr.)
79. *E. pseudovagans* sp.n.	syn.n., = *Prinerigone vagans* (Aud.), partly; *Erigone dentipalpis* (Wid.),
80. *Aulacocyba cavifrons* sp.n.	syn.n., = *Erigone atra* Bl.
81. *Alioranus minutissimus* sp.n.	nom.dub.
82. *A. distinctus* sp.n	syn.n., = *Styloctetor romanus* (O.P.-Cambr.)
83. *Tiso megalops* sp.n.	syn.n., = *Agyneta glacialis*, comb.n.
84. *Troxochrus kashmiricus* sp.n.	*Agyneta kashmirica*, comb.n.
85. *Araeoncus duriusculus* sp.n.	syn.n., = *Styloctetor romanus* (O.P.-Cambr.)
86. *Pocadicnemis desioi* sp.n.	syn.n., = *Archaraeoncus prospiciens* (Thor.)
87. *Lophocarenum radicicola* (L. Koch)	*Panamomops torridus* sp.n., partly; *Pelecopsis pakistanicus* sp.n.
88. *Minicia vittata* sp.n.	nom.dub.

* The numbers of species are arranged in the order given by Caporiacco [1934, 1935].
Номера видов расположены в порядке приведённым Caporiacco [1934, 1935].

REMARKS. The species was described from a single damaged female holotype. Its description was accompanied by a drawing of the abdomen in dorsal view. The abdominal pattern of the holotype is typical of many Linyphiidae. As the absence of the abdomen makes a reliable identification impossible, the species must be referred to as a *nomen dubium*, *Lepthyphantes incertissimus* Caporiacco, 1935, nom.dub.

MATERIAL EXAMINED. 1 ♀ prosoma, Linyphiidae (MCSNM, No. 23c), PAKISTAN, Chokpiong, 2600 m, 23.IV.1929.

Lepthyphantes striatiformis Caporiacco, 1934, **nom.dub.**

1934 *Lephthyphantes striatiformis* Caporiacco: 160, pl. III, figs 5, 1 ♂ subad., not seen.

REMARKS. The species was described from a subadult male coming from Pakistan, Tolti, 2400 m, die XI a. K. Mai. The holotype is probably lost. The description is provided with two schematic drawings of the abdomen from above and laterally. The abdominal pattern of the holotype is typical of many micronetines. In the absence of an adult specimen no reliable identification of *Lephthyphantes striatiformis* species is possible. Thus, the species must be referred to as a *nomen dubium*, *Lepthyphantes striatiformis* Caporiacco, 1934, nom.dub.

Lepthyphantes trivittatus Caporiacco, 1935, **nom.dub.**

1935 *Lephthyphantes trivittatus* Caporiacco: 162: pl. III, fig. 8, 1 ♂, not examined.

REMARKS. The species was originally described from the single male holotype coming from Pakistan, in pratis vallis Boorgi Nullah dictae, 3200 m, pridie K. Sept. The holotype has not been found and is probably lost. As the single drawing of the abdominal dorsal pattern is typical of many micronetine taxa, this makes a reliable identification of the species impossible. So it must be referred to as a *nomen dubium*, *Lepthyphantes trivittatus* Caporiacco, 1935, nom.dub**.**

Table 2. Distribution of the valid species from the Caporiacco collection arranged by provenance regions.
Таблица 2. Распределение валидных видов коллекции Капориакко по регионам сборов.

	Valid species Валидные виды	**Pakistan** Пакистан		**Pakistan/India** Пакистан/Индия
		Karakoram Каракорум	**Baltistan** Балтистан	**Jammu and Kashmir** Джамму и Кашмир
1	*Agyneta baltoroi*, comb.n.	+		
2	*Agyneta glacialis*, comb.n.	+		+
3	*Agyneta kashmirica*, comb.n.			+
4	*Agyneta* sp., comb.n.		+	
5	*Alioranus chiardolae* (Capor.)		+	
6	*Archaraeoncus prospiciens* (Thor.)		+	
7	*Erigone atra* Bl.	+		
8	*E. dentipalpis* (Wid.)	+		+
9	*Halorates crassipalpis* (Capor.)	+		
10	*Ketambea allegrii*, comb.n.			+
11	*Linyphia* sp.			+
12	*Microlinyphia pusilla* (Sund.)	+		+
13	*Mughiphantes nigridorsus*, comb.n.	+		
14	*Mughiphantes pratorum*, comb.n.		+	
15	*Neriene birmanica* (Thor.)			+
16	*Oedothorax* sp.			+
17	*Panamomops torridus* sp.n.	+		
18	*Pelecopsis pakistanicus* sp.n.		+	
19	*Piniphantes deosaicola*, comb.n.		+	
20	*Porrhomma pygmaeum* (Bl.)	+		
21	*Prinerigone vagans* (Aud.)	+		+
22	*Styloctetor romanus* (O.P.-Cambr.)	+		
23	*Tchatkalophantes karakoram* sp.n.	+		
24	*Vagiphantes vaginatus* (Tan.)		+	
	Total species by regions: Всего видов по регионам:	**12**	**7**	**9**

Minicia vittata Caporiacco, 1935, **nom.dub.**

1935 *Minicia vittata* Caporiacco: 182, pl. II, fig. 7, 1 ♀, not examined.

REMARKS. The species was described from a single female holotype coming from Pakistan, Urdukas, Baltoro, 4250 m. A sketch of the epigyne somewhat resembles that of *Agyneta*, *Minicia* Thorell, 1875, *Hylyphantes* Simon, 1884, and many other linyphiid genera. In the absence of the holotype from the collection, no reliable identification of this species is possible. So it must be referred to as a *nomen dubium*, *Minicia vittata* Caporiacco, 1935, nom.dub.

Oedothorax caporiaccoi Roewer, 1942, **nom.dub.**

1935 *Oedothorax dubius* Caporiacco: 171, pl. I, fig. 23, 1 ♂ juv., 2 ♀♀ subad., partly revised.

1942 *O. caporiaccoi* Roewer: 640, replacement name.

REMARKS. All syntypes are juveniles or subadults, and the description is only accompanied by the drawing of a carapace with has a slightly elevated head part. As the shape of the carapace is typical of many erigonines, it cannot be characteristic of the species. So it must be referred to as a nomen dubium, *Oedothorax caporiaccoi* Roewer, 1942, nom.dub.

MATERIAL EXAMINED. 1 juv., Linyphiidae (MCSNM, No. 4a, labeled as *Oedothorax dubius*), PAKISTAN/INDIA, Jammu and Kashmir, Takht-i-Sulaiman, Srinagar, 2000 m, 27.III.1929; 1 ♀ subad., Linyphiidae (MCSNM, No. 180d, labeled as *Oedothorax dubius*), Srinagar, 2000 m, 10.IX.1929.

Conclusion

Revision of the linyphiid spiders collected by di Caporiacco in 1929 from Karakoram, Pakistan, can be summarized as follows. Of the 32 species he described (27) or recorded (5), only 24 are found to be valid. Seven new combinations, 5 new synonyms and 11 *nomina dubia* are established; 3 species are described as new. Three species known only from females are left identified only to the genus level. Misidentifications of known species are corrected. The results are briefly presented in Table 1.

Not all linyphiid spiders from Caporiacco's collection were collected in Karakorum. Significant parts of material were collected on the way to Karakorum, in Jammu and Kashmir, Pakistan/India, and in Baltistan, Pakistan, see Table 2.

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