

Salticidae (Araneae) of Afghanistan: an annotated check-list, with descriptions of four new species and three new synonymies

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Summary

An annotated check-list of the Salticidae of Afghanistan numbering 50 species in 29 genera is given, of which 13 species are newly recorded for the studied fauna. Four new species are described: *Evarcha crinita* sp. n. (♀), *Pellenes lucidus* sp. n. (♂), *Pseudicius datuntatus* sp. n. (♀) and *Salticus afghanicus* sp. n. (♂). Three new synonymies are established: *Yllenus starmuehlneri* Roewer, 1955 and *Evarcha afghana* Roewer, 1962 are synonymised with *Plexippoides flavescens* (O. P.-Cambridge, 1872), and *Thyene lindbergi* Roewer, 1962 is synonymised with *Thyene imperialis* (Rossi, 1846). *Pseudicius arabicus* (Wesołowska & van Harten, 1994) is removed from synonymy with *Pseudicius braunsi* Peckham & Peckham, 1903. The males of *Myrmarachne palladia* Denis, 1958 and *Langona aperta* (Denis, 1958), and the females of *Langona pallida* Prószyński, 1993 and *Pseudicius arabicus* are described for the first time; the spermathecae of *P. spiniger* (O. P.-Cambridge, 1872) are also illustrated for the first time.

Introduction

The Salticidae of Afghanistan have never been the subject of intensive taxonomic studies and as a result their fauna of that region remains poorly known. Only two important taxonomic-faunistic works by Denis (1958) and Roewer (1962) have been published on Afghan spiders, and these contained data on 26 species of Salticidae. Since that time, a few more salticid species have been recorded/described from Afghanistan (see Andreeva *et al.*, 1984; Wesołowska, 1986; Logunov, 2001a,b). The aims of the present paper are (1) to describe four new salticid species, and (2) to provide a complete annotated list of the Salticidae of Afghanistan (50 species altogether) based both on newly collected material and data derived from the literature. All doubtful and/or incorrect records are also included in the list, but all of them are discussed or commented upon.

A total of 90 specimens newly collected from Afghanistan has been studied; all of this material is kept in the National Museum of Prague, Czech Republic (NMPC; Dr A. Kurka). Comparative/type specimens were borrowed from the following museums and personal collections: CBA=Centro de Biologia Ambiental, Faculdade de Ciências de Lisboa, Baixa da Banheira, Portugal (Dr P. Cardoso); HECO=Hope Entomological

Collection, Oxford, UK (Mr J. Hogan); MNHN=Muséum National d'Histoire Naturelle, Paris, France (Dr C. Rollard); NHMB=Naturhistorisches Museum, Basel, Switzerland (A. Hänggi); PCJM=personal collection of Mr J. Murphy, Hampton, UK; SMFM=Sektion Arachnologie, Forschungsinstitut Senckenberg, Frankfurt am Main, Germany (Dr P. Jäger); ZIUL=Zoological Institute, University of Lund, Sweden (Dr L. Lundqvist).

The following abbreviations are used in the text: AME=anterior median eye, ap=apical, d=dorsal, Fm=femur, Mt=metatarsus, PLE=posterior median eye, pr=prolateral, Pt=patella, rt=retrolateral, Tb=tibia, v=ventral. For the leg spination the system adopted is that used by Ono (1988). The sequence of leg segments in measurement data is as follows: femur+patella+tibia+metatarsus+tarsus. All measurements are in mm. Reference lists for all the species treated below are limited to previous records from Afghanistan only. For complete reference lists see Platnick (2004) and Prószyński (2003a). If a species has previously been recorded from Afghanistan, all the earlier localities are given in the “Previous records” section.

Survey of species

Aelurillus logunovi Azarkina, 2004

Comments: A new record for the fauna of Afghanistan and the first record of *A. logunovi* outside its type locality, Pakistan (see Azarkina, 2004).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Churd-Kabul, Bachufer nusoz Steinen”, 1900 m a.s.l., 26 October 1962, coll.?

Asianellus festivus (C. L. Koch, 1834)

Aelurillus festivus: Denis, 1958: 110; Roewer, 1962: 29.

Comments: This is a common, trans-Eurasian temperate species, with records from Afghanistan lying in the southernmost limits of its range (Logunov & Marusik, 2000).

Previous records: Faizabad (Denis, 1958: sub *Aelurillus f.*), Bend-Amir (Roewer, 1962: sub *Aelurillus f.*).

Ballus rufipes (C. L. Koch, 1850)

Ballus rufipes: Roewer, 1962: 24.

Comments: In our opinion, this record by Roewer (1962) is doubtful. *Ballus rufipes* seems to be restricted to the western Mediterranean (see Alicata & Cantarella, 1987; Metzner, 1999), whereas all records from Central Asia and the Caucasus have proved to belong to *B. chalybeius* (Walckenaer) (see Logunov & Rakov, 1998).

Previous records: Kabul (Mt. Cher Dervazéh) (Roewer, 1962).

Bianor albobimaculatus (Lucas, 1846)

Bianor albobimaculatus: Denis, 1958: 108; Roewer, 1962: 31; Logunov, 2001a: 225–231, figs. 3–8, 13–27, 36–46 (♂♀).

Comments: This is a widespread Afrotropical–South Palaearctic species, known from South Africa to North India (Punjab) and Central Asia (see Logunov, 2001a).

Material examined: AFGHANISTAN: 1♀ (NMPC), “50 km hintet Taschkotgan, sumptige Wiese”, c. 800 m a.s.l., 3 November 1962, Kullmann; 1♀ (NMPC), Nengrahar (Prov.), 12–20 km SE of Jalal-Abad, 600 m a.s.l., 16 March 1966, D. Povolný & Tenora.

Previous records: Kabul (Denis, 1958), Sar-Pol (Roewer, 1962), Kama, Istativ, Pulikum(?) (Logunov, 2001a).

***Bianor punjubicus* Logunov, 2001**

Bianor punjubicus Logunov, 2001a: 244–247, figs. 143–153 (♂♀).

Comments: This species has so far been recorded from India (Punjab) and NE Afghanistan (Logunov, 2001a).

Previous records: Jalal-Abad (Logunov, 2001a).

***Carrhotus sannio* (Thorell, 1877)**

Comments: A new record for the fauna of Afghanistan; if this is a true record from Afghanistan (the available label does not support this statement firmly), it is the westernmost locality for the species.

Material examined: AFGHANISTAN: 1♂ (NMPC), no exact locality.

***Carrhotus xanthogramma* (Walckenaer, 1825)**

Carrhotus xanthogramma: Roewer, 1962: 25.

Comments: It is very likely that this record should be referred to *C. sannio* (see above). The matter needs special attention in the future.

Previous records: Qualat (Roewer, 1962).

***Chalcoscirtus infimus* (Simon, 1868)**

Chalcoscirtus infimus: Roewer, 1962: 32.

Comments: This is a common Mediterranean–Central Asian species (see Logunov & Marusik, 1999).

Material examined: AFGHANISTAN: 2♂ (NMPC), “Paghman (=Pagman), Ani Wasslin”, 2300 m a.s.l., 27 May 1965, coll.?, 1♀ (NMPC), “Dasht-e-Nawat, Oase unter Steinen am Bach”, 21 June 1963, Kullmann.

Previous records: Kadajahkai (Roewer, 1962).

***Chalcoscirtus lepidus* Wesolowska, 1996**

Comments: A new record for the fauna of Afghanistan; so far this species has been recorded from Turkmenistan, Tajikistan, Uzbekistan (Logunov & Marusik, 1999) and Iran (Logunov *et al.*, 2001).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Uaidan-Täl”, 2560 m a.s.l., 14 April 1963, coll.?

***Chalcoscirtus parvulus* Marusik, 1991**

Comments: A new record for the fauna of Afghanistan; this is a widespread lowland Turanian

species known from Turkey to Central Asia (see Logunov & Marusik, 1999).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Obech Kuschcos”, 2100 m a.s.l., 4 June 1964, coll.?

***Cyrba ocellata* (Kroneberg, 1875)**

Comments: A new record for the fauna of Afghanistan; this is a common, pantropical species repeatedly reported from Central Asia (Logunov & Rakov, 1998).

Material examined: AFGHANISTAN: 1♀ (NMPC), Nengrahar (Prov.), Darri-Nur, 1300–1500 m a.s.l., 18–19 March 1967, D. Povolný.

***Dendryphantes praeposterus* Denis, 1958**

Dendryphantes praeposterus Denis, 1958: 107–108, figs. 38–39 (D♀; ♀ holotype apparently in MNHN; not examined).

Dendryphantes praeposterus: Roewer, 1962: 31.

Comments: The species remains known from the type locality and the original description only. We have been unable to re-examine the ♀ holotype of this species, but judging from the original illustrations by Denis (1958: figs. 38–39) alone, one can suspect that this species may be a junior synonym of *Philaeus chrysops* (Poda, 1761). The problem needs special attention in the future.

Previous records: Surta (Koh-i-Baba) (Denis, 1958; Roewer, 1962).

***Euophrys frontalis* (Walckenaer, 1802)**

Euophrys maculata: Roewer, 1962: 30.

Comments: Roewer (1962) reported on *E. maculata* (a junior synonym of *E. frontalis*; see Prószyński, 2003a and Platnick, 2004) from a single female. This species may indeed occur in Afghanistan, as it has been recorded from neighbouring countries, e.g. Iran (Logunov *et al.*, 2001) and Turkmenistan (Logunov, 1997). However, as demonstrated earlier (Logunov *et al.*, 1993), *Euophrys* species cannot be reliably identified from separate females. As a number of *Euophrys* species are known from Central Asia (see Logunov, 1997), the record of *E. maculata* from Afghanistan by Roewer (1962) is doubtful.

Previous records: Angout (Roewer, 1962: sub *E. maculata*).

***Evarcha arcuata* (Clerck, 1757)**

Evarcha arcuata: Roewer, 1962: 26.

Comments: This is a common, trans-Eurasian temperate species (Logunov & Marusik, 2000).

Previous records: Khairabad (Karez Zamin) and SorKoh-Kotal (Roewer, 1962).

***Evarcha crinita* sp. n. (Figs. 24–25)**

Type: Holotype ♀ (NMPC), Afghanistan, “Shagaserai”, 5 June 1964, coll.?

Etymology: From the Latin “*crinitus*”, meaning “hairy” (after the hairy body of the specimen).

Diagnosis: This species is very close to “*Hyllus*” *insularis* Metzner, 1999 known from Greece to Iran (see Metzner, 1999: plate 115; Logunov, 2001b: figs. 6–7), but differs in the smaller terminal (sclerotised) parts of the spermathecae and the larger loop of the insemination ducts (Fig. 25). The male is unknown.

Being close to “*Hyllus*” *insularis*, this new species is only provisionally assigned to the genus *Evarcha* (for further discussion see Logunov, 2001b: 60–61). The problem of the generic assignment of *E. crinita* and “*H.*” *insularis* will be considered in more detail elsewhere.

Distribution: The type locality only.

Description: *Female*: Carapace 3.30 long, 2.63 wide, 1.61 high at PLE. Ocular area 1.38 long, 2.25 wide anteriorly, 2.32 wide posteriorly. Diameter of AME 0.63. Abdomen 4.13 long, 2.93 wide. Cheliceral length 0.96. Clypeal height 0.24. Length of leg segments: I: 1.71+1.14+1.28+1.04+0.86; II: 1.68+1.14+1.11+0.96+0.80; III: 1.93+1.16+1.19+1.07+1.07; IV: 1.98+1.01+1.31+1.36+0.97. Leg spination: I: Fm d 0-1-1-3/4; Pt pr 0-2-0; Tb pr 0-1-0, rt 0-1-0, v 1-2-2ap; Mt pr and rt 1-1ap, v 2-2ap. II: Fm d 0-1-1-5; Pt pr and rt 0-2-0; Tb pr 1-2, rt 0-1-0, v 1-2-2ap; Mt pr and rt 1-1ap, v 2-2ap. III: Fm d 0-1-1-4/5; Pt pr and rt 0-1-0; Tb pr and rt 1-1, v 1-2ap; Mt pr and rt 1-2ap, v 2-2ap. 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 pr and rt 1-1-2ap, v 1-2ap. Coloration: carapace reddish brown, covered with white hairs; a W-shaped yellowish line separates eye field behind PLE from rest of carapace; black around eyes. Clypeus yellow, covered with dense long white hairs. Chelicerae reddish brown. Sternum, labium and maxillae bright yellow, covered with long white hairs. All legs brown, with patches of grey dots on dorsal surfaces. Abdomen yellowish-white, dorsally with many dark brown spots, showing distinct fir-shaped pattern. Book-lung covers yellowish grey. Spinnerets brown. Epigyne structure remains unstudied, as the epigyne had already been removed from the examined specimen and mounted on a slide (and hence its structure is invisible). However, the epigynal structure should be similar to that of the closely related species, “*Hyllus*” *insularis* (see Logunov, 2001b: fig. 6). Spermathecae as in Figs. 24–25.

Male: Unknown.

Material examined: Only the holotype.

Evarcha darinurica Logunov, 2001

Evarcha darinurica Logunov, 2001b: 59–60, figs. 31–32 (D♂).

Comments: This species is known only from the type locality (Logunov, 2001b).

Previous records: Dar-i-Nur (Logunov, 2001b).

Evarcha falcata (Clerck, 1757)

Evarcha flammata: Roewer, 1962: 26.

Comments: This is a common, Euro–Siberian temperate species, with records from Afghanistan being in the

southernmost limits of its range (Logunov & Marusik, 2000).

Previous records: Qal’eh Omar Khan, Karaghaléh, Sand-Toga (Roewer, 1962: sub *E. flammata*).

Heliophanillus lucipeta (Simon, 1890)

Distribution: This species is distributed from Algeria to Iraq (Wesołowska & van Harten, 1994), and hence the specimen from Afghanistan represents its easternmost record. However, the range of *H. lucipeta* largely overlaps with that of its close relative *H. fulgens* (O. P.-Cambridge, 1872). Both species are difficult to separate from females and therefore our current record should be considered provisional. Males are required to confirm or reject it.

Material examined: AFGHANISTAN: 1♀ (NMPC), Nengrahar (Prov.), Jalal-Abad, 580 m a.s.l., 2 April 1967, D. Povolný.

Heliophanus cupreus (Walckenaer, 1802)

Heliophanus cupreus: Roewer, 1962: 30.

Comments: The record from Afghanistan by Roewer (1962) is doubtful and needs confirmation by examination of the pertinent material. It may belong either to *Heliophanus wesolowskiae* Rakov & Logunov, 1997, which is closely related to *H. cupreus* and known hitherto only from Kyrgyzstan (see Rakov & Logunov, 1997a), or to an undescribed *Heliophanus* species from Tajikistan, which was mentioned by Wesołowska (1986: 216).

Heliophanus cupreus is a common European species known from Portugal in the west to Azerbaijan in the east (Rakov & Logunov, 1997a).

Previous records: Garghaon (Roewer, 1962).

Heliophanus mordax (O. P.-Cambridge, 1872)

Heliophanus mordax: Wesołowska, 1986: 41, figs. 476–486, 895 (♂♀).

Comments: This is a widespread species known from the eastern Mediterranean to Central Asia (Rakov & Logunov, 1997a; Logunov *et al.*, 2001). Wesołowska (1986) reported on the same specimens from Afghanistan that we have re-examined.

Material examined: AFGHANISTAN: 1♂ 1♀ (NMPC), Prov. Herat, Bala Murghab, 470 m a.s.l., 20 March 1964, O. Jakeš.

Previous records: Bala Murghab (Wesołowska, 1986).

Heliophanus potanini Schenkel, 1963

Heliophanus potanini: Wesołowska, 1986: 219–220, figs. 733–740, 891 (♂♀).

Comments: This species is restricted to Central Asia (see Rakov & Logunov, 1997a), with the finding from Afghanistan being its southernmost record. Wesołowska (1986) reported on the same specimens from Afghanistan that we have re-examined.

Material examined: AFGHANISTAN: 3♂ 2♀ (NMPC), Paghman (=Pagman), 2300 m a.s.l., 27 May 1965, O. Jakeš.

Previous records: Paghman (Wesołowska, 1986).

Heliophanus tribulosus Simon, 1868

Heliophanus tribulosus: Roewer, 1962: 30.

Comments: The record from Afghanistan by Roewer (1962) is doubtful and needs confirmation by examination of the pertinent material. The known distribution of *H. tribulosus* is limited in the east to Syria and Turkey (Wesołowska, 1986), whereas all the earlier records from Central Asia have proved to be *H. potanini* (see Rakov & Logunov, 1997a).

Previous records: Bhougavi (Roewer, 1962).

Heliophanus vittatus Denis, 1958

Heliophanus vittatus Denis, 1958: 106, fig. 35 (D♀; ♀ holotype in MNHN; not examined).

Heliophanus vittatus: Roewer, 1962: 30.

Comments: The holotype of this species was considered lost and the specific name was treated as a *nomen dubium* by Wesołowska (1986).

Previous records: Pirzada (Denis, 1958; Roewer, 1962).

Icius abnormis Denis, 1958

Icius abnormis Denis, 1958: 108, fig. 40 (D♀; ♀ holotype apparently in MNHN; not examined).

Icius abnormis: Roewer, 1962: 31.

Comments: We have been unable to re-examine the ♀ holotype of *I. abnormis*, but judging from the original illustration by Denis one can conclude that this species is probably a junior synonym of *Pseudicius cinctus* (O. P.-Cambridge, 1885), a widespread species in Central Asia, including Afghanistan (Andreeva *et al.*, 1984; Logunov & Rakov, 1998). The matter needs special attention in the future.

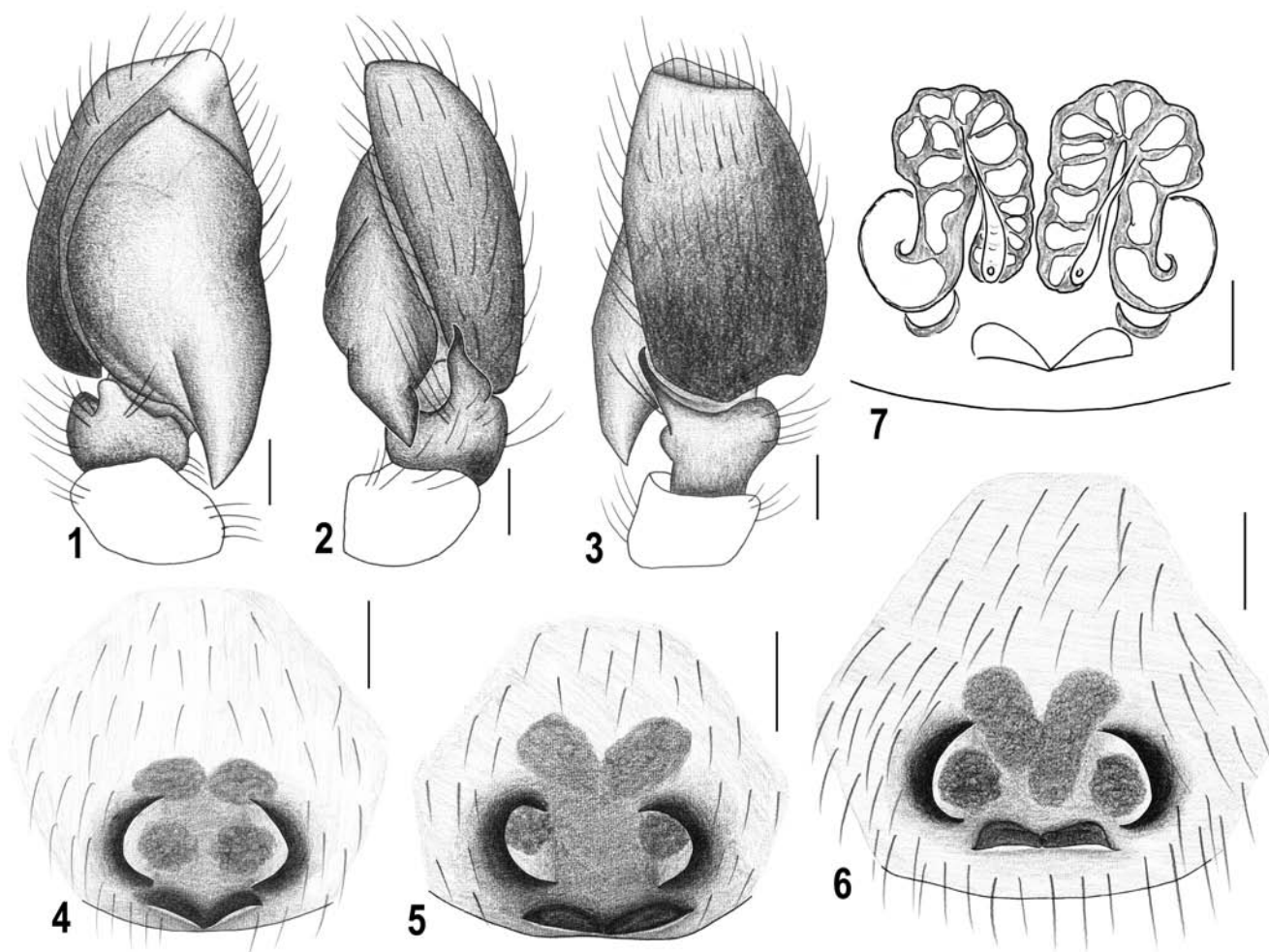
Previous records: Marrak (Koh-i-Baba) (Denis, 1958; Roewer, 1962).

Langona aperta (Denis, 1958) (Figs. 1–6)

Aelurillus apertus Denis, 1958: 110, fig. 41 (D♀; ♀ holotype apparently in MNHN; not found and not examined).

Aelurillus apertus: Roewer, 1962: 29.

Langona aperta: Hečiak & Prószyński, 1983: 229 (transferred from *Aelurillus*).



Figs. 1–7: *Langona aperta* (Denis, 1958). **1** Male palp, ventro-mesal view; **2** Ditto, retrolateral view; **3** Ditto, dorsal view; **4–6** Epigyne, variation; **7** Spermathecae, dorsal view. Scale lines=0.1 mm.

Diagnosis: *Langona aperta* differs from *L. pallida* (see below) by males having a narrower, undulating tibial apophysis (with hooked tip in *L. pallida*), brown cymbium (yellow in *L. pallida*), dark brown ventral sides of femur, patella and tibia I (yellow in *L. pallida*), and by the absence of a coverage of long brown hairs ventrally on femora I–II (present in *L. pallida*). Females of both species are practically indistinguishable. Furthermore, *L. aperta* has been recorded only from high elevations, whereas *L. pallida* is a lowland species.

We have been unable to re-examine the ♀ holotype of *Aelurillus apertus*, which was not found in the MNHN (C. Rollard, pers. comm.). It is known that females of most *Langona* species are difficult to distinguish. Despite this, we think that our identification is correct because (1) most of our specimens were collected from high elevations, as was the ♀ holotype of *L. aperta* (4600 m a.s.l., Denis, 1958), and (2) the description by Denis (1958: 110) clearly corresponds to that made by us (see below).

Langona aperta may be a senior synonym of *L. bhutanica* Prószyński, 1978, described and known from high elevations in Bhutan (see Heçiak & Prószyński, 1983); the latter species was described without a proper comparison with *L. aperta* (Prószyński, 1978: 10–11). This problem needs special attention in the future.

Distribution: To date, this species is known from only a few localities in Afghanistan (Denis, 1958; Roewer, 1962; present data).

Description: *Male:* Carapace 3.02 long, 2.08 wide, 1.27 high at PLE. Ocular area 1.07 long, 1.61 wide anteriorly, 1.57 wide posteriorly. Diameter of AME 0.46. Abdomen 2.45 long, 1.83 wide. Cheliceral length 0.71. Clypeal height 0.30. Length of leg segments: I: 1.14+0.63+0.63+0.61+0.54; II: 1.39+0.86+0.74+0.63+0.63; III: 1.93+1.04+1.07+1.29+0.76; IV: 1.70+0.87+1.00+1.41+0.89. Leg spination: I: Fm d 0-1-1-3; Pt pr 0-1-0; Tb v 2-2-2ap; Mt v 2-2ap. II: Fm d 0-1-2-4; Pt pr and rt 0-1-0; Tb pr 1-1, v 1-1-2ap; Mt pr and rt 1-1ap, v 2-2ap. III: Fm d 0-1-3-5; Pt pr and rt 0-1-0; Tb pr and rt 1-1-1, v 1-2ap; Mt d 1-1, pr, rt and v 1-2ap. IV: Fm d 0-1-3-5; Pt pr and rt 0-1-0; Tb d 1-1, pr and rt 1-1-1-1, v 1-2ap; Mt pr and rt 1-1-2ap, v 2-2ap. Coloration: carapace brown, with dark brown eye field. External margins of eye field covered with brown hairs. Clypeus brown with dense long white hairs. Chelicerae, sternum, labium and maxillae brown. Abdomen white ventrally, dorsally brown with pattern of grey spots. Leg I yellow, but femur, patella and tibia ventrally dark brown; metatarsus completely dark brown (almost black). Remaining legs brownish yellow. Book-lung covers white. Spinnerets dark grey. Palpal structure as in Figs. 1–3.

Female: Carapace 3.45 long, 2.30 wide, 1.39 high at PLE. Ocular area 0.99 long, 1.66 wide anteriorly, 1.73 wide posteriorly. Diameter of AME 0.48. Abdomen 3.78 long, 2.62 wide. Cheliceral length 0.71. Clypeal height 0.35. Length of leg segments: I: 1.43+1.04+0.91+0.60+0.70; II: 1.51+0.98+0.86+0.61+0.78; III: 2.15+1.27+1.14+1.43+0.86; IV: 1.60+0.88+1.20+1.43+0.87. Leg spination: I: Fm d 0-1-1-4; Tb pr 1-1, v 1-1-2ap; Mt

2-2ap. II: Fm d 0-1-2-4; Tb pr 1-1, v 1-1-2ap; Mt pr 1-0, v 2-2ap. III: Fm d 0-1-1-4; Pt pr and rt 0-1-0; Tb d 1-0, pr and rt 1-1, v 1-2ap; Mt d 1-1, pr and rt 1-2ap, v 2-2ap. IV: Fm d 0-1-1-3; Pt pr and rt 0-1-0; Tb pr and rt 1-1-1, v 1-2ap; Mt pr 1-1-2ap, rt 2-1-2ap, v 1-1-2ap. Coloration: carapace brown, with dark brown eye field. Eye field entirely covered with white hairs. Clypeus, chelicerae, sternum, labium and maxillae brownish. Abdomen ventrally white with longitudinal lines of brown spots, dorsally brown, with numerous small yellow spots and four larger central spots. All legs yellow, with brown patches and stripes. Book-lung covers white. Spinnerets brown-grey. Epigyne and spermathecae as in Figs. 4–7.

Material examined: AFGHANISTAN: 1♂ 2♀ (NMPC), “Peschsal, Hanasa (oberhals von Kandi)”, 2000–2300 m a.s.l., 17 July 1965, coll.?.; 2♀ (NMPC), Kamu, 1450 m a.s.l., 14–17 July 1963, Kullmann; 1♀ (NMPC), Nengrahar (Prov.), c. 10 km ESE of Jalal-Abad, Laghman, 860 m a.s.l., 22–23 March 1967, D. Povolný.

Previous records: Surta (Koh-i-Baba) (Denis, 1958; Roewer, 1962). Also, Denis (1958: 111) assumed that a juvenile ♂ collected from Pirzada was also *L. aperta*.

Langona pallida Prószyński, 1993 (Figs. 8–14)

Diagnosis: This species differs from *L. aperta* (see above) by males having a wider, hooked tip of the tibial apophysis (undulating tibial apophysis in *L. aperta*), yellow cymbium (brown in *L. aperta*), yellow ventral sides of femur, patella and tibia I (dark brown, almost black in *L. aperta*), and by the presence of a coverage of long brown hairs ventrally on femora I–II (absent in *L. aperta*). Females of both species are practically indistinguishable. Furthermore, *L. pallida* is a lowland species, whereas *L. aperta* has been recorded from high elevations.

Comments: The identification of *L. pallida* is provisional, as a number of poorly diagnosed *Langona* species, unknown outside their type localities (Prószyński, 2003a), have been described from regions neighbouring Afghanistan. Of the recently described species, *L. pallida* from Saudi Arabia, known hitherto only from a single male, has the same colour characters as the specimens from Afghanistan (e.g. the large brownish scutum and intensely white sides of the abdomen; cf. Prószyński, 1993: 34) and a similar structure of the male palp (cf. Figs. 8–9 and Prószyński, 1993: figs. 9–11). Also, the Afghan specimens were collected from low elevations and thus there is no zoogeographical restriction, as there are a number of salticid species with a similar distribution pattern (e.g. *Modunda staintoni*, *Plexippoides flavescens*, *Thyene imperialis*, etc.).

Distribution: A new record for the fauna of Afghanistan; hitherto *L. pallida* was known only from its type locality, Saudi Arabia (Prószyński, 1993).

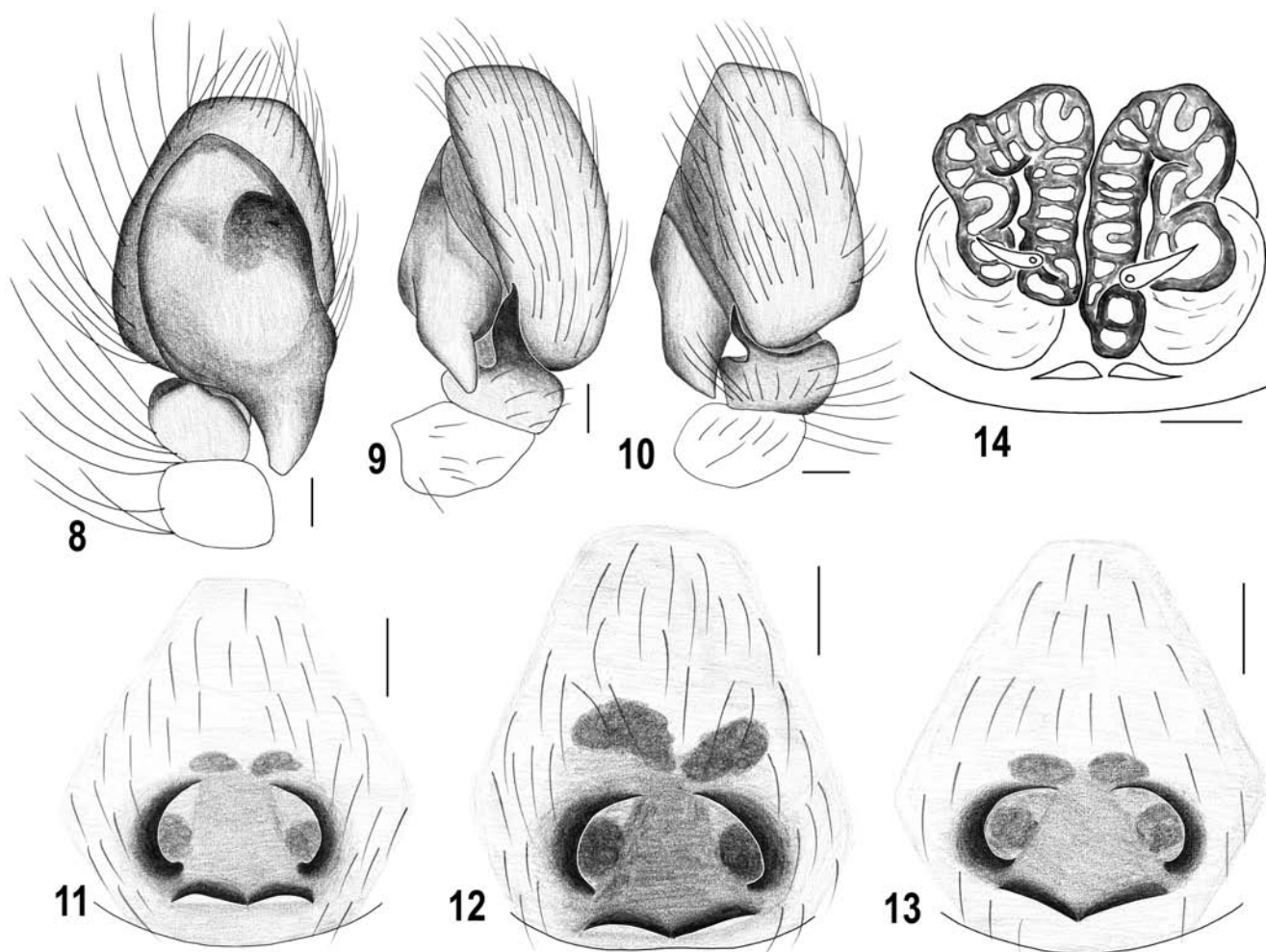
Description: *Male:* Carapace 3.00 long, 2.07 wide, 1.29 high at PLE. Ocular area 0.86 long, 1.47 wide anteriorly, 1.43 wide posteriorly. Diameter of AME 0.41. Abdomen 2.35 long, 1.64 wide. Cheliceral length 0.56. Clypeal

height 0.21. Length of leg segments: I: 1.26+0.86+0.71+0.66+0.78; II: 1.29+0.86+0.70+0.66+0.73; III: 1.60+0.89+1.07+1.26+0.90; IV: 1.68+0.77+1.08+1.36+0.71. Leg spination: I Fm d 0-1-1-3; Pt pr 0-1-0; Tb pr 1-1, v 1-1-2ap; Mt pr and rt 1-1ap, v 2-2ap. II: Fm d 0-1-1-5; Pt pr 0-1-0; Tb pr 1-1, rt 1-0, v 1-1-2ap; Mt pr and rt 1-1ap, v 2-2ap. III: Fm d 0-1-2-5; Pt pr and rt 0-1-0; Tb d 1-0, pr and rt 1-1-1, v 1-2ap; Mt d 1-1, pr and rt 2-2ap, v 1-2ap. IV: Fm d 0-1-2-5; Pt pr and rt 0-1-0; Tb d 1-0, pr and rt 1-1-1-1, v 1-2ap; Mt d 1-1, pr, rt and v 1-1-2ap. Coloration: carapace brown, with dark brown eye field, black around eyes, covered with short white hairs. Clypeus brown, covered with white hairs. Chelicerae brown. Sternum, labium and maxillae yellow, covered with long hairs. Abdomen yellow-grey anteriorly, with brownish scutum, brown with yellow stripes posteriorly, intensely white laterally. Leg I yellow, but metatarsus and tarsus brown. Legs II–IV yellow, with brownish metatarsi and tarsi. Book-lung covers light yellow. Spinnerets brown. Palp light yellow, brownish yellow on tarsus. Palpal structure as in Figs. 8–10.

Female: Carapace 3.55 long, 2.48 wide, 1.46 high at PLE. Ocular area 1.15 long, 1.75 wide anteriorly, 1.78 wide posteriorly. Diameter of AME 0.52. Abdomen 3.07

long, 2.25 wide. Cheliceral length 0.74. Clypeal height 0.42. Length of leg segments: I: 1.55+1.12+0.97+0.71+0.85; II: 1.64+1.11+0.90+0.71+0.82; III: 2.34+1.27+1.20+1.42+1.07; IV: 2.07+1.02+1.33+1.61+1.08. Leg spination: I: Fm d 0-1-1-5; Tb v 2-2-2ap; Mt v 2-2ap. II: Fm d 0-1-1-5; Tb pr 1-1, v 1-1-2ap; Mt pr 1-0, v 2-2ap. III: Fm d 0-1-1-4; Pt pr and rt 0-1-0; Tb d 1-0, pr and rt 1-1-1, v 1-2ap; Mt d 1-1, pr and rt 1-2ap, v 0-2-2ap. IV: Fm d 0-1-1-4; Pt pr and rt 0-1-0; Tb d 1-0, pr and rt 1-1-1, v 1-2ap; Mt pr 1-1-2ap, rt 2-1-2ap, v 0-1-2ap. Coloration: carapace brown, with black eye field, densely covered with white hairs; large dark spot in middle of carapace behind PLE. Clypeus brown, with some white hairs. Chelicerae dark brown, darker distally. Sternum, labium and maxillae yellow. Abdomen yellow-grey dorsally, yellow ventrally. All legs yellow, but brown at distal ends. Book-lung covers yellow. Spinnerets yellowish brown. Epigyne and spermathecae as in Figs. 11–14.

Material examined: AFGHANISTAN: 1♂ (NMPC), Prov. Herat, Bala Murghab, c. 470 m a.s.l., 20–24 July 1964, O. Jakeš; 1♀ (NMPC), Prov. Ketrghon, c. 10 km S of Kunduz, c. 450 m a.s.l., 16 March 1966, J. Šimák; 2♂ (NMPC), Churd-Kabul, 29 March 1963, coll.? 2♀ 3juv. (NMPC), Hausgarcia, Kabul, May 1963, coll.?



Figs. 8–14: *Langona pallida* Prószyński, 1993. **8** Male palp, ventral view; **9** Ditto, retrolateral view; **10** Ditto, dorso-lateral view; **11–13** Epigyne, variation; **14** Spermathecae, dorsal view. Scale lines=0.1 mm.

***Leptorchestes cinctus* (Dugès, 1836)**

Leptorchestes cinctus: Roewer, 1962: 25.

Comments: Roewer (1962) reported on *L. cinctus* from Afghanistan, but this species name is either considered a synonym of *L. berlinensis* (C. L. Koch, 1846) (see Roewer, 1955a: 1035), or a *nomen dubium* (see Bonnet, 1957: 2399; Platnick, 2004). However, this record may refer to *L. sikorskii* Prószyński, 2000, a species which is closely related to *L. berlinensis* and which has been repeatedly reported from Turkmenistan under the latter name (see Logunov & Rakov, 1998; sub *Leptorchestes* sp.). As we have been unable to re-examine the ♀ studied by Roewer (1962), the problem needs special attention in the future.

Previous records: Bhougavi (Roewer, 1962).

***Marpissa pomatia* (Walckenaer, 1802)**

Marpissa pomatia: Roewer, 1962: 33.

Comments: This is a common, trans-Eurasian temperate species, but as was noted earlier (Logunov & Marusik, 2000), the record from Afghanistan needs confirmation by reference to the pertinent material.

Previous records: Kabul (Mt. Cher Dervazéh) (Roewer, 1962).

***Menemerus marginatus* (Kroneberg, 1875)**

Comments: A new record for the fauna of Afghanistan, though this species is widespread in Middle Asia (see Rakov & Logunov, 1997b).

Material examined: AFGHANISTAN: 1♂ 2♀ (NMPC), Prov. Herat, Bala Murghab, 470 m a.s.l., 20 March 1964, O. Jakeš; 1♀ (NMPC; epigyne preparation only), “Orech Kuschtos”, 2100 m a.s.l., 4 June 1964, coll.?

***Menemerus semilimbatus* (Hahn, 1829)**

Menemerus semilimbatus: Roewer, 1962: 33.

Comments: The record of *M. semilimbatus* in Afghanistan by Roewer (1962) is undoubtedly wrong, as its easternmost confirmed localities are in Azerbaijan (Rakov & Logunov, 1997b; Logunov & Guseinov, 2001) and NW Iran (Logunov *et al.*, 2001). Roewer's record probably refers to *M. marginatus*, a widespread Central Asian species (see above).

Previous records: Tchidjan (Roewer, 1962).

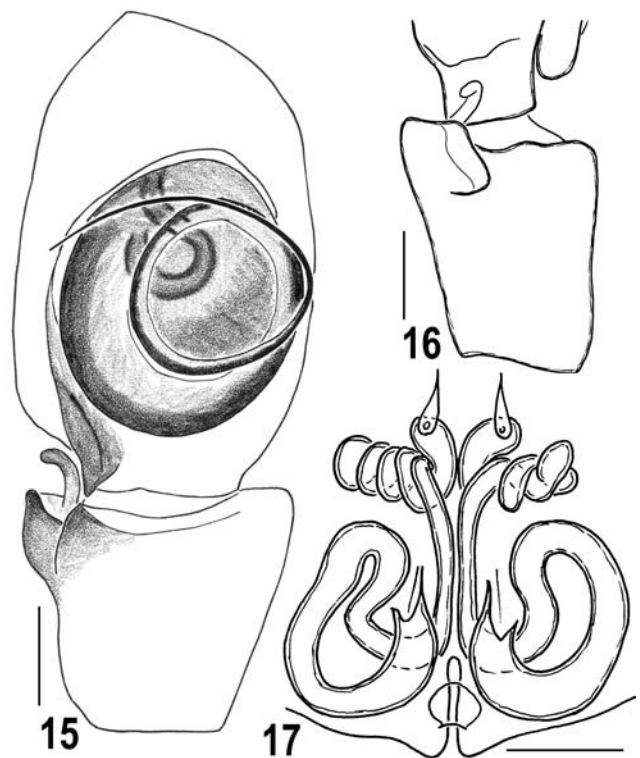
***Modunda staintoni* (O. P.-Cambridge, 1872)**

Modunda staintoni: Logunov, 2001a: 277–280, figs. 347–366 (♂♀).

Comments: This species is known from Egypt to North India (Punjab) and Afghanistan (Logunov, 2001a).

Material examined: AFGHANISTAN: 1♀ (NMPC), Nengrahar (Prov.), 12–20 km SE of Jalal-Abad, 600 m a.s.l., 16 March 1966, D. Povolný & Tenora.

Previous records: Jalal-Abad (Logunov, 2001a).



Figs. 15–17: *Myrmarachne palladia* Denis, 1958. **15** Male palp, ventral view; **16** Tibial apophysis, retrolateral view; **17** Spermathecae, dorsal view. Scale lines=0.1 mm.

***Mogrus larisae* Logunov, 1995**

Comments: A new record for the fauna of Afghanistan, though this species is widespread in Middle Asia (Logunov, 1995a).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Datunta-Stauklamm”, 17 May 1971, Kullmann; 1♂ (NMPC), Nengrahar (Prov.), 12–20 km ESE of Jalal-Abad, 600 m a.s.l., 16 March 1966, D. Povolný & Tenora; 1♀ (NMPC), same prov., c. 10 km ESE of Jalal-Abad., 620 m a.s.l., 5 April 1966, D. Povolný & Tenora; 1♀ (NMPC), “Dasht-e-Kushti”, 21 May 1971, Kullmann.

***Myrmarachne palladia* Denis, 1958 (Figs. 15–17)**

Myrmarachne palladia Denis, 1958: 105–106, fig. 34 (D♀; ♀ holotype in MNHN; not examined).

Myrmarachne palladia: Roewer, 1962: 24; Prószyński, 1976: map 197.

Diagnosis: From the common Middle East species, *Myrmarachne tristis* (Simon, 1882), this species differs in having S-shaped insemination ducts in females (straight in *M. tristis*) and a wider tibial apophysis in males (cf. Figs. 15–16 and Prószyński, 2003b: figs. 449–452).

Comments: Although we did not re-examine the ♀ holotype of this species, there is no doubt in our identification, as the studied specimens were collected from the type locality (Paghman; =Pagman) and the ♀ spermathecae (Fig. 17) clearly correspond to the illustration in Denis (1958: fig. 34); the latter author did not illustrate the spermathecae, but the characteristic S-shaped ducts are clearly shown as seen through the transparent integument. The male of *M. palladia* is described and illustrated for the first time here.

Distribution: The type locality only.

Description: *Male* (specimen badly damaged, with single (right) palp and all legs disconnected from carapace): Carapace 2.17 long, 1.26 wide, 0.87 high at PLE. Ocular area 0.86 long, 1.13 wide anteriorly, 1.21 wide posteriorly. Diameter of AME 0.33. Abdomen 1.64 long, 0.87 wide. Cheliceral length 1.39. Clypeal height 0.43. Length of leg segments: I: 1.19+0.66+1.21+0.79+0.49; II: 1.06+0.49+0.83+0.69+0.47; III: 1.07+0.50+0.84+0.86+0.49; IV: 1.49+0.63+1.14+1.17+0.46. Leg spination: I: Fm d 1-1-0; Tb v 2-2-2-2-0; Mt v 2-0-2. II: Mt v 0-0-2. III: Mt v 0-0-2. IV: Mt v 0-0-2. Coloration: carapace orange, with black margin around eyes. Clypeus and chelicerae orange. Sternum, labium and maxillae yellow. Abdomen dorsally brown, ventrally yellow on anterior one-third, with white median stripe on posterior two-thirds, having grey transverse striation on its posterior one-third. A grey longitudinal striation on both sides of ventro-posterior two-thirds of abdomen. Book-lung covers and spinnerets bright yellow. All legs bright yellow, but femur and metatarsus I orange. Palpal structure as in Figs. 15–16.

Female: Carapace 2.29 long, 1.21 wide, 0.79 high at PLE. Ocular area 0.9 long, 1.17 wide anteriorly, 1.24 wide posteriorly. Diameter of AME 0.36. Abdomen 2.60 long, 1.14 wide. Cheliceral length 0.51. Clypeal height 0.51. Length of leg segments: I: 1.24+0.57+1.04+0.67+0.41; II: 1.03+0.49+0.74+0.57+0.37; III: 1.07+0.56+0.84+0.79+0.50; IV: 1.64+0.64+1.34+1.26+0.49. Leg spination: I: Tb v 0-2-2-2-2-0; Mt v 0-2-2-0. II: Tb v 0-2-2-2-0; Mt v 0-2-2-0. III and IV spineless. Coloration: carapace reddish orange, with black margin and short white hairs around eyes. Clypeus orange, darker than carapace. Chelicerae orange. Sternum, labium and maxillae yellowish orange. Abdomen yellowish grey, ventrally with white wide central region and grey longitudinal striation on sides. Book-lung covers white. Spinnerets grey. Leg I yellow, with whitish band on femur at femur–patella joint, longitudinal grey stripe on each side of patella and tibia, metatarsus dark, and grey transverse band on tarsus at tarsus–metatarsus joint. Leg II yellow, with longitudinal grey stripe on each side of femur, patella and tibia. Leg III femur brown, with longitudinal grey stripe on each side of patella and tibia. Leg IV femur brown, patella yellow, with dark brown triangle with its base on patella–tibia joint; tibia and metatarsus dark, tarsus yellow. Epigynal structure of ♀ remains unstudied, as the epigyne had been removed from the examined specimen and mounted on a slide (and hence is invisible). Spermathecae as in Fig. 17.

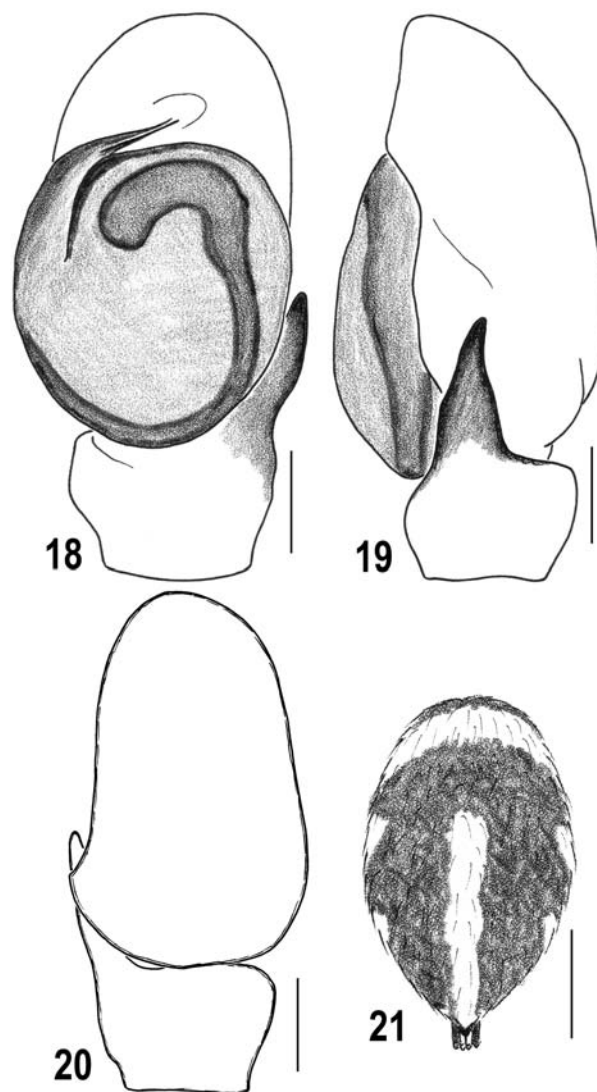
Material examined: AFGHANISTAN: 1♂ 1♀ (NMPC), Paghman (=Pagman), “Bachufermuser Steinen”, 2000 m a.s.l., 19 September 1962, coll.?

Previous records: Paghman (Denis, 1958; Roewer, 1962).

Neon reticulatus (Blackwall, 1853)

Neon reticulatus: Roewer, 1962: 32.

Comments: This is a widespread Holarctic species (see Logunov & Marusik, 2000) known also from Iran (Logunov *et al.*, 2001).



Figs. 18–21: *Pellenes lucidus* sp. n. (holotype). **18** Male palp, ventral view; **19** Ditto, retrolateral view; **20** Ditto, dorsal view; **21** Abdomen, dorsum. Scale lines=0.1 mm (18–20), 0.5 mm (21).

Previous records: Kouh-Dana Ouat (Roewer, 1962).

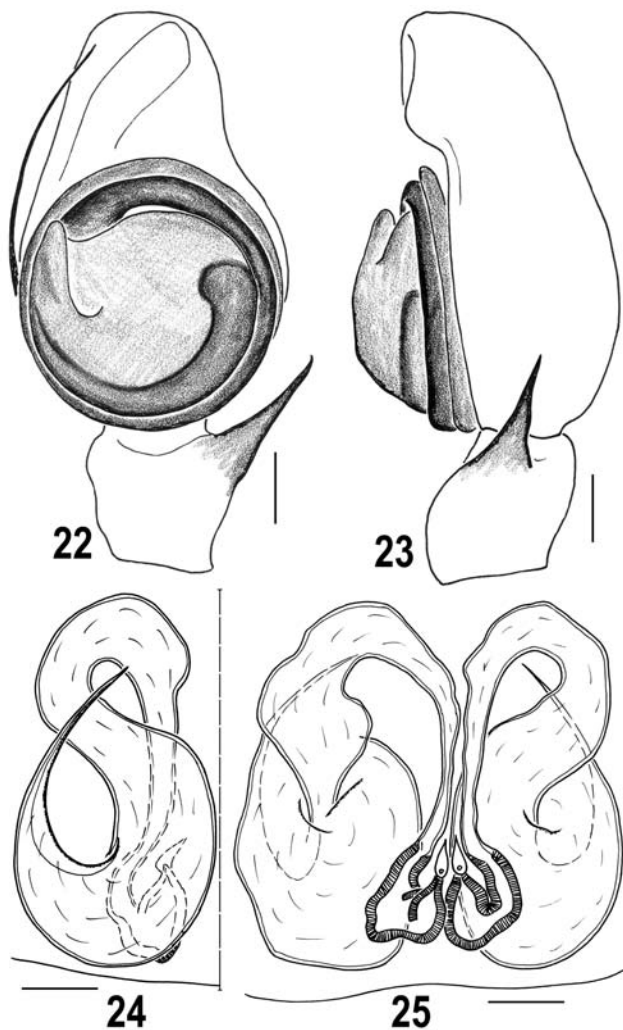
Pellenes lucidus sp. n. (Figs. 18–21).

Type: Holotype ♂ (NMPC), Afghanistan, Nengrahar Prov.), D. Povolný & Tenora.

Etymology: From the Latin “*lucidus*”, meaning “light” or “bright” (after the bright colour of the holotype).

Diagnosis: By the structure of the embolic division, this species is most similar to *P. bulawayoensis* Wesołowska, 1999 from Zimbabwe, but can easily be distinguished by the presence of a white longitudinal stripe on the abdominal dorsum (two transverse white bands in *P. bulawayoensis*; cf. Fig. 21 and Wesołowska, 1999: fig. 52), and by the embolic division that lies subparallel to the anterior margin of the bulb (protruding forward in *P. bulawayoensis*; cf. Fig. 18 and Wesołowska, 1999: fig. 54). The female is unknown.

Distribution: The type locality only.



Figs. 22–25: **22–23** *Thyene imperialis* (Rossi, 1846) (holotype of *T. lindbergi* Roewer, 1962). **22** Male palp, ventral view; **23** Ditto, retrolateral view; **24–25** *Evarcha crinita* sp. n. (holotype). **24** Spermathecae, ventral view; **25** Ditto, dorsal view. Scale lines=0.1 mm.

Description: Male: Carapace 1.71 long, 1.31 wide, 0.78 high at PLE. Ocular area 0.87 long, 1.03 wide anteriorly, 1.20 wide posteriorly. Diameter of AME 0.34. Abdomen 1.49 long, 1.01 wide. Cheliceral length 0.50. Clypeal height 0.11. Length of leg segments: I: 1.1+0.70+0.80+0.60+0.54; II: 0.69+0.47+0.37+0.36+0.39; III: 1.10+0.64+0.51+0.48+0.47; IV: 0.81+0.45+0.43+0.47+0.51. Leg spination: I: Fm d 0-0-1-1-3; Pt pr 0-1-0; Tb pr 0-2, v 0-1-1-2ap; Mt v 2-2ap. II: Fm d 0-0-1-1-3; Pt pr 0-1-0; Tb pr 0-1-1, v 1-1-2ap; Mt v 2-2ap. III: Fm d 0-0-1-3; Pt rt 0-1-0; Tb pr and rt 2-2, v 2ap; Mt pr and rt 1-2ap, v 2ap. IV: Fm d 0-1-0; Pt rt 0-1-0; Tb pr and rt 1-1, v 2ap; Mt pr and rt 1-2ap, v 1ap. Coloration: carapace brown, with dark brown eye field and group of white hairs at each side behind PLE, followed by two bright brown concave lines. Clypeus dark brown, with transverse marginal line of short white hairs. Chelicerae brown, with three lines of short white hairs. Sternum yellow, with brown pattern and long white hairs. Labium and maxillae brown. Abdomen ventrally brown, with four longitudinal white lines starting from epigastric fold and ending near spinnerets; dorsally brown, with grey pattern, transverse line of white hairs on

anterior margin and longitudinal stripe starting behind it and running back to posterior end of abdomen (Fig. 21). Leg I yellow, tibia and metatarsus tending to orange. Leg II femur grey, other segments white. Legs III–IV femora darker grey, patellae, tibiae and metatarsi yellow, tarsi white. Book-lung covers and spinnerets brown. Palpal structure as in Figs. 18–20.

Female Unknown.

Material examined: Only the holotype.

Philaeus chrysops (Poda, 1761)

Evarcha afghana Roewer, 1962: 26–27 (in part, two juveniles only, misidentified).

Comments: A new record for the fauna of Afghanistan, though this is a widespread trans-Palaeartic species (see Logunov & Marusik, 2000), which is known from neighbouring regions (Logunov & Rakov, 1998; Logunov *et al.*, 2001). Moreover, two juveniles of *P. chrysops* (re-examined) were reported by Roewer (1962) as *Evarcha afghana* Roewer, 1962. See also “Comments” above under *Dendryphantas praeposterus*.

Material examined: AFGHANISTAN: 1♂ (NMPC), Kataghan (Prov.), 400 m a.s.l., 20 April 1966, J. Šimak; 4♂ 1♀ (NMPC), Kataghan (Prov.), Kunduz, April 1963, coll.?. 1♂ (NMPC), “Doruzan”, 3500 m a.s.l., 7 July 1963, coll.?. 1♀ (NMPC), Kataghan (Prov.), Kunduz, 400 m a.s.l., 20 April 1966, J. Šimak.

Previous records: Bozbai (Roewer, 1962: sub *Evarcha afghana*, in part).

Phlegra fasciata (Hahn, 1831)

Phlegra fasciata: Denis, 1958: 110; Roewer, 1962: 29.

Comments: This is a common Palaeartic species (see Logunov & Marusik, 2000) known also from Iran (Logunov *et al.*, 2001).

Previous records: Paghman (=Pagman), Panjao (Koh-i-Baba), Bozbai (Denis, 1958; Roewer, 1962). Denis (1958) also reported this species from juveniles from Pirzada and Marrak.

Plexippoides flavescens (O. P.-Cambridge, 1872)

(Figs. 26–31)

Salticus flavescens O. P.-Cambridge, 1872: 343–344 (D♀; ♀ syntypes in HECO; examined).

Yllenus starmuehlneri Roewer, 1955b: 780–781, figs. 28–29 (D♂♀; ♂ lectotype in SMFM; designated here). **New synonymy.**

Evarcha afghana Roewer, 1962: 26–27, fig. 109 (D♀; ♀ holotype in ZIUL; examined). **New synonymy.**

Plexippoides arabicus Prószyński, 1989: 47–49, figs. 44–45 (D♂). Synonymised with *P. flavescens* by Wesołowska (1996).

Menemerops sollistimus Wesołowska & van Harten, 1994 (D♀). Synonymised with *P. flavescens* by Wesołowska (1996).

For complete reference lists for all the above species names see Platnick (2004) and Prószyński (2003a).

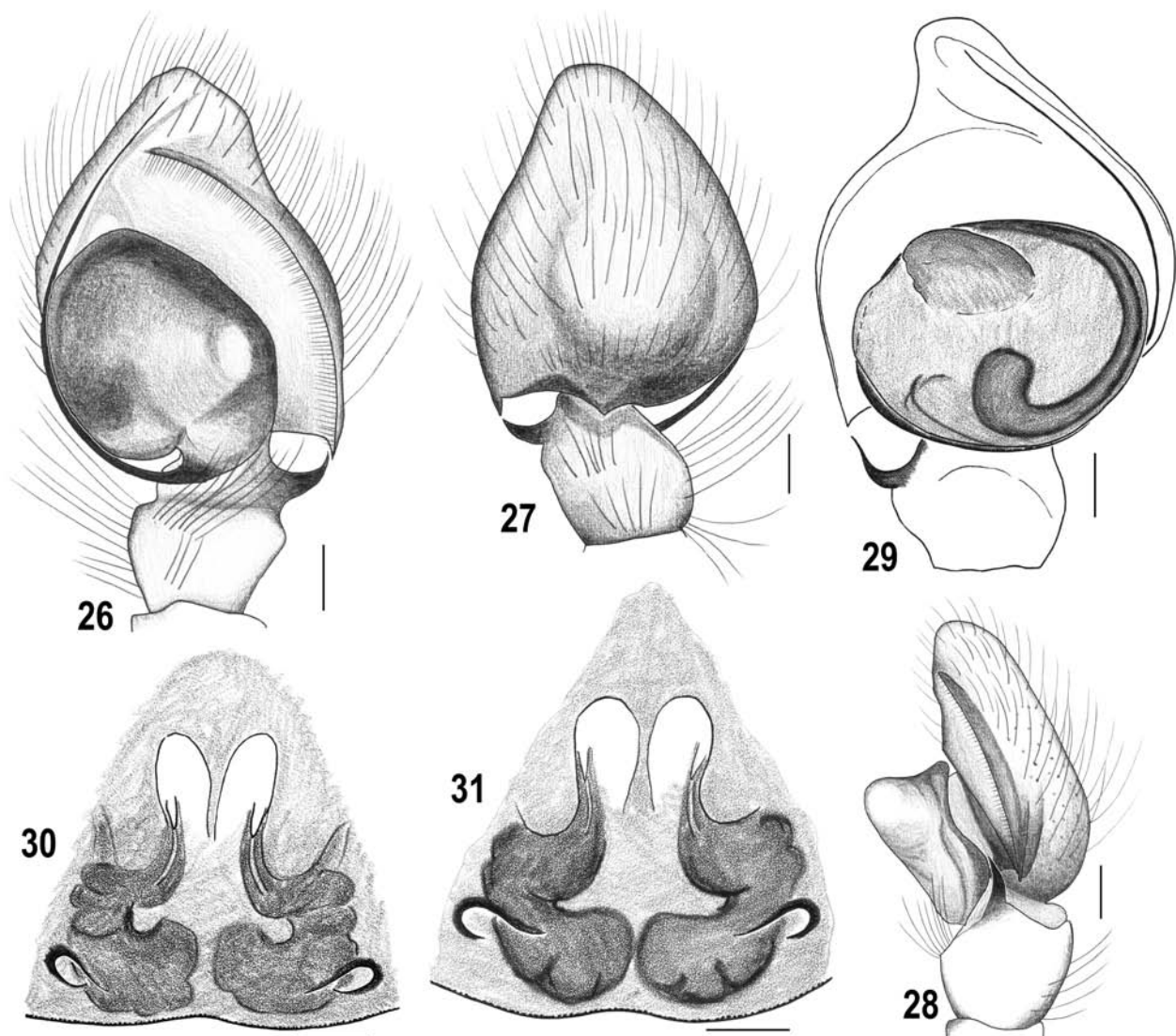
Types: Syntypes of *Salticus flavescens*: 2♀ (HECO, bottle 1739, tube 52, iv), bottle label “Salticidae, Palestine” [according to O. P.-Cambridge (1872), the specimens were collected from Lebanon (near Ain Ata)].

Lectotype ♂ of *Yllenus starmuehlneri* (SMFM, 38743; designated here), Afghanistan, Choramabad, F. Starmühlner. Holotype ♀ of *Evarcha afghana* (ZIUL, L57/3743), “*Evarcha afghana* n. sp./1♀ Typ, 3 inad./AI, 408 — Roew. det.” [according to Roewer (1962), the locality was Bozbai in Afghanistan, 23 October 1957].

Comments: The species *Salticus flavescens* was described from an unknown number of females (see O. P.-Cambridge, 1872: 344) from Lebanon (Ain-Ata). We re-examined two/all of them, which we consider as syntypes (Fig. 30; see also Prószyński, 2003b: fig. 567). These syntypes are identical with the females from Afghanistan and other regions. As many of the examined samples of *P. flavescens* contained both sexes (see also Wesolowska, 1996; Logunov & Rakov, 1998; Logunov *et al.*, 2001), matching females and males causes no problem. Moreover, we have been able to compare *P. flavescens* with some other species described and known from single sexes and to reveal new synonyms.

This species was once assigned to a monotypic genus of its own, viz. *Menemerops* (see Prószyński, 1992). As the type species of *Menemerops* is definitely a member of *Plexippoides*, the former genus is a junior synonym of the latter (first synonymised by Wesolowska, 1996). The problem of the relationships of *Plexippoides* and *Epeus* Peckham & Peckham, 1886 is outside the scope of the present paper and will be considered elsewhere.

The ♀ assigned by Roewer (1955) to *Y. starmuehlneri* (re-examined) belongs with *Langona redii* (Audouin, 1826) known from Egypt to Iran (see Logunov *et al.*, 2001). Therefore, as the ♂ and ♀ in Roewer's original description of *Y. starmuehlneri* are not congeneric, to stabilise the taxonomic status of this species name we have designated a ♂ lectotype. The designated lectotype of *Y. starmuehlneri* has a single (right) palp, which is slightly squashed, resulting in a slight displacement of the bulbus (Fig. 29). Except for this tiny difference the lectotype's palp is identical to those of numerous males of *P. flavescens* we have studied. Also, the ♂ lectotype



Figs. 26–31: *Plexippoides flavescens* (O. P.-Cambridge, 1872). **26** Left male palp, ventral view; **27** Ditto, dorsal view; **28** Ditto, retrolateral view; **29** Right male palp, ventral view (lectotype of *Yllenus starmuehlneri* Roewer, 1955); **30** Epigyne (syntype of *Salticus flavescens* O. P.-Cambridge, 1872); **31** Ditto (holotype of *Evarcha afghana* Roewer, 1962). Scale lines=0.1 mm.

has the typically black ventral sides of tarsus I. Thus, the name *Y. starmuehlneri* is synonymised with *P. flavescens*.

The species *Evarcha afghana* was described from a single female (Fig. 31) and three juveniles, as Roewer (1962: 26) wrote himself. Having re-examined these juveniles, we found that one of them is a palpless male of a *Langona* sp. and the other two belong to *Philaeus chrysops*. The epigyne of the holotype of *E. afghana* is virtually identical to that of the ♀ syntypes of *Salticus flavescens* (cf. Figs. 31 and 30); the minor differences reflect only variation of the epigynal structures. Therefore, the name *E. afghana* is here synonymised with *P. flavescens*.

The species *P. arabicus* was described from Saudi Arabia (Sharoura and Al Khardi) from two males (Prószyński, 1989). The ♂ holotype should have been kept in the NHMB, but was not found there following our request (A. Hänggi, pers. comm.). However, we have examined a male collected from exactly the same locality and on the same date as the holotype of *P. arabicus*, and this male was identical with *P. flavescens*. Besides, the reliable illustrations and description by Prószyński (1989) leave no doubt that the author dealt with *P. flavescens*; the conformation of the male palpus and some colour characters (e.g. tarsus I is ventrally black, etc.) are identical to those of *P. flavescens* from other regions. Therefore, Wesołowska (1996) correctly synonymised these two names and we support this synonymy. Further evidence that *P. arabicus* is a junior synonym of *P. flavescens* has come from the most recent work by Prószyński (2003b), in which the author reported on both species. He used the specimens of *P. flavescens* from South Turkmenistan (Gezgyadyk Mt. Range), which were also examined by one of us (DL) and Wesołowska (1996), but treated them as *P. arabicus*, with no direct diagnosis between the two forms being provided. It was stated instead (Prószyński, 2003b: 140) that “the problem of differences between these species, or eventual synonymization of some of these forms, requires study of fresh specimens”. One of us (DL) has (re)examined virtually all the available specimens of *P. flavescens* (see below under “Comparative material”), many of which were collected recently and contained both sexes in many samples, and compared them either between themselves or with the ♀ holotype of *Salticus flavescens*. There is no doubt that all the studied material, as well as those reported by Prószyński (2003b) under the names *arabicus/flavescens*, belong to the same species, for which the name *P. flavescens* should stand as the valid one.

This species has been well described and illustrated by a number of authors (e.g. Wesołowska, 1996; Prószyński, 2003b: sub both *P. arabicus* and *P. flavescens*; etc.), thus in the present work we do not re-describe *P. flavescens*, but provide some relevant comparative figures of its copulatory organs (Figs. 26–31).

Distribution: The species is widespread from the Near East and Sinai to Central Asia in the east, where it has been reported or described under many different names.

Material examined: AFGHANISTAN: 1♂ 1♀ (NMPC), “Pechsal, Kandi am Bach”, 1200–1500 m a.s.l., 12 July 1965, Hölu; 1♂ (NMPC), “Kuna Tal”, 3 May 1963, Kullmann; 1♀ (NMPC), “Pechsal, Hamasa, (Obenhalb von Kandi)”, 2000–2300 m a.s.l., 17 July 1965, Mischwald; 1♀ (NMPC), “Kushtos”, 2000 m a.s.l., date and coll.?, 1♀ (NMPC), “Ogrusass” or “Ogrucan” [label illegible], 3500 m a.s.l., 8 July 1963, coll.?, 1♂ 2juv. (NMPC), “Kamu”, 1450 m a.s.l., 17 July 1963, coll.?, 1♂ (NMPC), “Datinut”, 18 May 1971, Kullmann; 1♂ 1♀ (NMPC), Kamu, 1500 m a.s.l., 14 July 1963, coll.?

Previous records: Bozbai (Roewer, 1962: sub *Evarcha afghana*).

Comparative material: TURKMENISTAN: 2♂ 1♀ (SZMN), Badkhyz Reserve, Kyzyl Dzhar, rock outcrops, 10–12 April 1993, A. A. Zyuzin. SAUDI ARABIA: 1♂ (NHMB), Sharoura, 27 March 1979, coll.? See also “Material” listed in Logunov & Rakov (1998) and Logunov *et al.* (2001).

Plexippus devorans (O. P.-Cambridge, 1872)

Comments: A new record for the fauna of Afghanistan; this is a rather common species earlier better known as *P. coccineus* Simon, 1902 (see Prószyński, 2003a). This species has been recorded from Greece (Metzner, 1999; sub *P. coccineus*) and Yemen (Wesołowska & van Harten, 1994: sub *P. paykulli* (Audouin)) in the west to Tajikistan in the east (Logunov & Rakov, 1998; sub *P. coccineus*).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Shagasczai”, 5 June 1964, coll.?

Plexippus paykulli (Audouin in Savigny, 1826)

Comments: A new record for the fauna of Afghanistan; this is a widespread pantropical species (Prószyński, 2003a).

Material examined: AFGHANISTAN: 1♂ 1♀ (NMPC), Jalal-Abad, 17 May 1971, coll.?

Pseudicius frigidus (O. P.-Cambridge, 1885)

Icius frigidus: Andreeva *et al.*, 1984 (*pro parte*, ♀ only): 374–375, figs. 69–70 (♀; designation of ♀ lectotype).

Comments: This species is known from India (Kashmir: Shrinagar and ruins of Pari Mahal) and Afghanistan (Andreeva *et al.*, 1984: sub *Icius f.*; present data). Andreeva *et al.* (1984: sub *Icius f.*) reported on the same ♀ specimen from Afghanistan that we have re-examined. The male of *P. frigidus* reported by the same authors (*op. cit.*: figs. 72–74) is not congeneric with the ♀ lectotype and therefore this record is disregarded here.

Material examined: AFGHANISTAN: 1♀ (NMPC), “Kushtos”, 2000 m a.s.l., 26 May 1971, coll.?

Pseudicius arabicus (Wesołowska & van Harten, 1994) (Figs. 34, 38, 39)

Afraflacilla arabica Wesołowska & van Harten, 1994: 4–7, figs. 6–10 (D♂; ♂ holotype in Museum Royal d’Afrique Centrale,

Tervuren, Belgium; not examined). Transferred to *Pseudicius* by Wesolowska (1996: 38).

For a complete reference list see Platnick (2004) and Prószyński (2003a).

Diagnosis: The male and female of *P. arabicus* were not collected together and therefore are matched provisionally. The male of *P. arabicus* is close to that of *P. spiniger* (O. P.-Cambridge, 1872) (cf. Figs. 38 and 37), but can be easily distinguished by the shape of the tegulum, especially by the position of the “tegular bulge”, and by the shorter embolus. The female of *P. arabicus* (Fig. 34) is very close to that of *P. asoroticus* Simon, 1890 (see Wesolowska & van Harten, 1994: figs. 12–13, sub *Afraflacilla a.*), but differs slightly in the arrangement of the insemination ducts. However, it is likely that the differences in the spermathecae between *P. arabicus* and *P. asoroticus* reflect variation only. If so, *P. arabicus* described from a single male and *P. asoroticus* known only from females, but both known from Yemen, may belong to the same species, for which the name *P. asoroticus* should stand as the valid one. We cannot solve this problem now, as there is not enough material to evaluate the genitalic variation. The matter needs further attention when more specimens become available.

Contra Wesolowska (1996), we consider *Pseudicius arabicus* as a valid species name (at least, until the aforementioned problem with *P. asoroticus* has been resolved) and remove it from synonymy with *Pseudicius braunsi* Peckham & Peckham, 1903. The males of the latter species differ from *P. arabicus* in having a clearly shorter embolus (cf. Figs. 38–39 and Logunov, 1995b: figs. 12–15). Furthermore, if we matched both sexes correctly, the females of *P. braunsi* differ from those of *P. arabicus* in having much shorter and thicker insemination ducts (see Logunov, 1995b: figs. 18–19 and Wesolowska, 1996: fig. 27d; cf. Fig. 34).

Comments: This is the first record of *P. arabicus* outside the type locality, Yemen (Sana'a), and hence a new record for the fauna of Afghanistan. The female is also described for the first time here.

Here the spermathecae of *P. spiniger* (Fig. 33) are illustrated for the first time. Having examined it, we are of the opinion that *Pseudicius tripunctatus* Prószyński, 1989, known from a single ♀ from Saudi Arabia, is probably a junior synonym of *P. spiniger*. Both species have virtually identical structure both of the epigyne and the spermathecae (cf. Figs. 32–33 and Prószyński, 1989: figs. 53–55). We postpone a formal synonymy of both names until the ♀ holotype of *P. tripunctatus* has been re-examined.

Description: *Male* (specimen damaged): Carapace 1.75 long, 1.23 wide, 0.65 high at PLE. Ocular area 0.90 long, 1.00 wide anteriorly, 1.10 wide posteriorly. Diameter of AME 0.34. Abdomen 1.95 long, 1.08 wide. Cheliceral length 0.45. Clypeal height 0.05. Length of leg segments: I: 1.05+0.63+0.83+0.53+0.33; II: 0.78+0.40+0.48+0.40+0.28; III: 0.80+0.35+0.49+0.43+0.40; IV: 0.95+0.45+0.63+0.65+0.33. Leg spination: I: Tb pr 0-2; Mt v 2-2ap. II: Fm d 1-1-1; Mt v 1-1ap. III: Fm d 1-1-1; Mt v 4ap. IV: Fm d 1-1-1; Mt v 4ap. Coloration: carapace

brown, covered with white addressed scales. Eye field dark brown, with black around eyes and two oval black spots in centre. Sternum, maxillae, labium and chelicerae brownish. Abdomen yellow-grey, dorsum without marked colour pattern (but specimen damaged). Book-lung covers grey-yellow. Spinnerets yellowish brown. Leg I stronger than others, brown, femur with black apical dorso-prolateral patch. Remaining legs yellow brownish. Palpal structure as in Figs. 38, 39.

Female (specimen badly damaged): Carapace 1.85 long, 1.28 wide, 0.60 high at PLE. Ocular area 0.84 long, 1.04 wide anteriorly, 1.11 wide posteriorly. Diameter of AME 0.35. Abdomen 2.25 long, 1.35 wide. Cheliceral length 0.50. Clypeal height 0.05. Length of leg segments: I: 0.85+0.50+0.55+0.43+0.35; II: 0.73+0.43+0.43+0.38+0.30; III: 0.78+0.40+0.45+0.48+0.38; IV: 1.03+0.53+0.68+0.65+0.38. Leg spination: I: Fm d 0-1-1-2; Tb pr 0-2; Mt v 2-2ap. II: Fm d 0-1-1-2; Mt v 2-2ap. III and IV: Fm d 0-1-1-2; Mt v 4ap. Coloration as in male, but lighter. All legs yellow, with brownish patches near segment joints. Venter yellow, dorsal colour pattern unclear, as specimen badly damaged. Epigyne structure remains unstudied, as the epigyne had been removed from the examined specimen and mounted on a slide (and hence its structure is invisible). Spermathecae as in Fig. 34.

Material examined: AFGHANISTAN: 1♂ (NMPC), [two labels are enclosed in this vial]: “Kabul, Haus. Saltic., 13.6.1969” and “Katerband, Bach-Geulls, 29.03.1963”, coll.?. 1♀ (NMPC), “Chund-Kabul”, 19 July 1962, coll.?

Comparative material: *Salticus spiniger* (O. P.-Cambridge, 1872) (Figs. 32, 33, 37): EGYPT: 1♂ 5♀ 4juv. (HECO, bottle 1732; syntypes of *A. spiniger*), “*Attus spiniger* Cambr./Cairo B&c” [according to O. P.-Cambridge (1872), the specimens were collected from the trunks of palm trees in 1864]; 1♂ 1♀ (HECO, bottle 1832, tube 103), bottle label “Salticidae, Egypt” [no other data, but this sample was probably taken from the previous tube and hence represent syntypes as well]. Also re-examined were 4 subadult ♂ (HECO, bottle 1821, tubes 29 and 59) with bottle label “Salticidae, Palestine Types”; these are the immature specimens from Hebron and Jerusalem assigned by O. P.-Cambridge (1872: 340) to *Attus spiniger*.

Pseudicius datuntatus sp. n. (Figs. 35, 36)

Types: Holotype ♀ (NMPC; the ♀ with intact epigyne), Afghanistan, “Datunta-Stauklamm”, 17 May 1971, Kullmann. Paratype: 1♀ (NMPC), together with holotype.

Etymology: After the type locality (“Datunta”), as written on the data label.

Diagnosis: This new species is very close to *P. flavipes* (Caporiacco, 1935), but can be distinguished by the longer and more winding insemination ducts (cf. Fig. 36 and Logunov & Rakov, 1998: figs. 1–3, sub *Icius f.*). The male is unknown.

Distribution: The type locality only.

Description: *Female* (holotype): Carapace 1.80 long, 1.18 wide, 0.56 high at PLE. Ocular area 0.78 long,

0.95 wide anteriorly, 1.08 wide posteriorly. Diameter of AME 0.31. Abdomen 2.25 long, 1.40 wide. Cheliceral length 0.56. Clypeal height 0.06. Length of leg segments: I: 0.83+0.50+0.55+0.40+0.28; II: 0.68+0.40+0.38+0.35+0.26; III: 0.75+0.40+0.38+0.45+0.31; IV: 0.96+0.43+0.60+0.58+0.30. Leg spination: I Fm d 0-1-1-2; Tb pr 0-2; Mt v 2-2ap. II: Fm d 0-1-1-2; Mt v 1-1ap. III: Fm d 0-1-1-2; Mt 4ap. IV: Fm d 0-1-1-1; Mt v 4ap. Coloration: carapace yellow brownish, densely covered with adpressed white scales. Eye field brown, with black around eyes and two oval black spots in centre. Sternum yellow, with narrow brown marginal line. Maxillae, labium and chelicerae yellow. Abdomen dorsally yellow, with two wide brownish interrupted bands, each consisting of four large spots; these spots getting darker towards rear end of abdomen; two pairs of small, white

rounded spots at rear end of dorsum. Venter yellow. Book-lung covers yellow. Spinnerets yellow brownish. Leg I stronger than others, yellow, with brown patch anteriorly on patella. Legs II–IV yellow. Epigyne and spermathecae as in Figs. 35, 36.

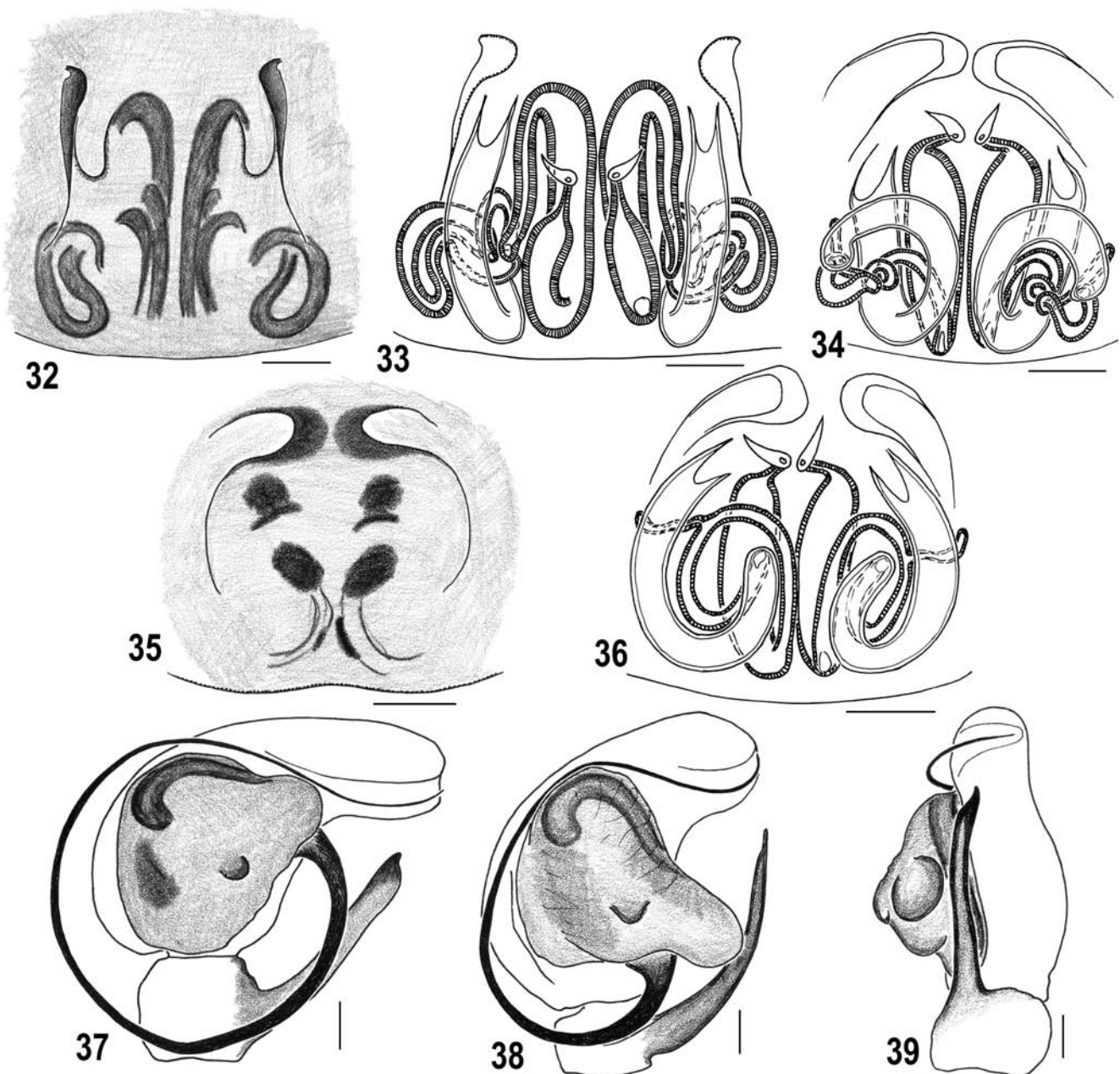
Male: Unknown.

Material examined: Only the types.

***Pseudicius encarpatus* (Walckenaer, 1802)**

Pseudicius encarpatus: Roewer, 1962: 31.

Comments: This South European species is known from France in the west (Simon, 1937) to Azerbaijan (Logunov & Guseinov, 2001) and Turkey (Logunov, unpubl. data) in the east. As a number of *Pseudicius* species, other than *P. encarpatus*, have been reported



Figs. 32–39: **32, 33, 37** *Pseudicius spiniger* (O. P.-Cambridge, 1872) (syntypes of *Salticus spiniger*). **32** Epigyne; **33** Spermathecae, dorsal view; **37** Male palp, ventral view. **34, 38, 39** *Pseudicius arabicus* (Wesołowska & van Harten, 1994). **34** Spermathecae, dorsal view; **38** Male palp, ventral view; **39** Ditto, retrolateral view. **35, 36** *Pseudicius datuntatus* sp. n. **35** Epigyne; **36** Spermathecae, dorsal view. Scale lines=0.1 mm.

from the most neighbouring fauna of Turkmenistan (Logunov & Rakov, 1998), we think that Roewer's record from Afghanistan should be disregarded until the pertinent material (2♀) has been re-examined.

Previous records: Qual'eh No (Roewer, 1962).

Salticus scenicus (Clerck, 1757)

Salticus scenicus: Denis, 1958: 106; Roewer, 1962: 33.

Comments: This is a widespread Holarctic species (see Logunov & Marusik, 2000).

Previous records: Herat (Denis, 1958), Saroubi (Roewer, 1962).

Salticus tricinctus (C. L. Koch, 1846)

Salticus simillimus Denis, 1958: 107, figs. 36–37 (D♀). Synonymised with *S. tricinctus* by Nenilin (1984).

Salticus simillimus: Roewer, 1962: 33.

Comments: This is a common Turanian species (see Logunov & Rakov, 1998) known westward as far as Iran (Logunov *et al.*, 2001).

Previous records: Kajkai (Denis, 1958: sub *S. simillimus*; Roewer, 1962).

Salticus afghanicus sp. n. (Figs. 40–43)

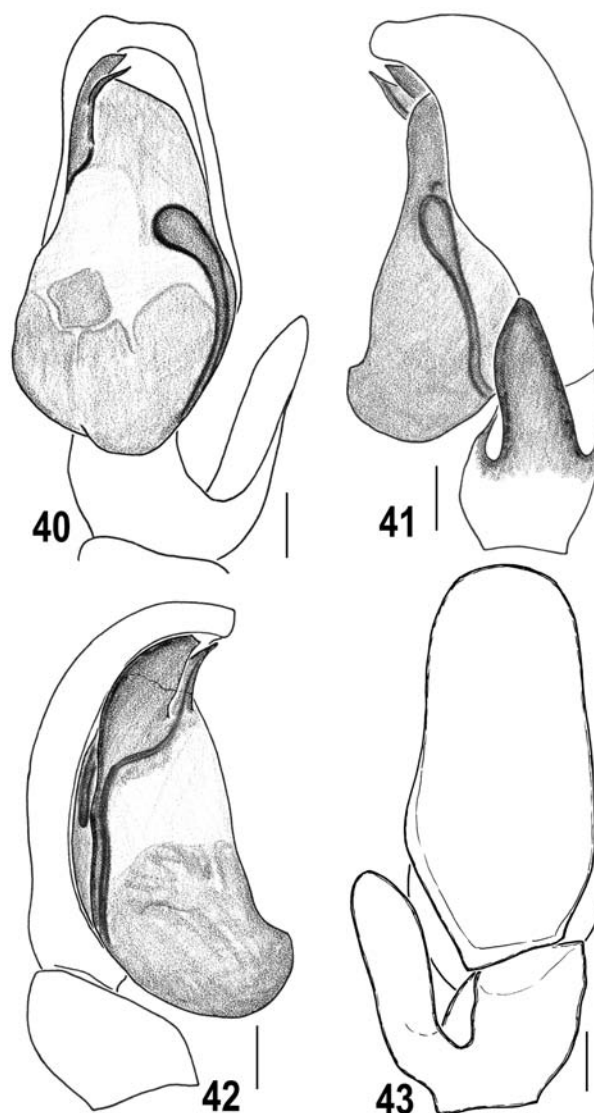
Type: Holotype ♂ (NMPC), Afghanistan, “Oberli Kuschtos”, 2100 m a.s.l., 4 June 1964, coll.?

Etymology: From the country of origin of the holotype.

Diagnosis: This species is rather similar to *Salticus unciger* (Simon, 1868) from southern Europe (cf. Prószyński, 1984: 128), but differs in the shape of the tegulum (Fig. 40) and the more deeply split apical division (Fig. 42), as well as by the tibial apophysis being subparallel to the cymbial margin (Figs. 40, 43; bent inwards in *S. unciger*). The female is unknown.

Distribution: The type locality only.

Description: *Male* (holotype; badly damaged, carapace and abdomen separated, both palps and third legs detached from carapace): Carapace 2.07 long, 1.36 wide, 0.70 high at PLE. Ocular area 0.84 long, 1.10 wide anteriorly, 1.10 wide posteriorly. Diameter of AME 0.34. Abdomen 2.14 long, 1.43 wide. Cheliceral length 0.66. Clypeal height 0.10. Length of leg segments: I: 1.03+0.61+0.74+0.61+0.50; II: 0.86+0.51+0.57+0.50+0.46; III: 0.91+0.47+0.58+0.58+0.51; IV: 1.09+0.54+0.78+0.70+0.54. Leg spination: I: Fm d 1-1-0; Tb v 1-1 or 1-0; Mt v 2-0-2. II: Tb v 1-0; Mt v 2-0-2. III: Fm d 1-1-1; Tb v 1ap; Mt v 3ap. IV: Fm d 0-1-0-0; Tb v 1ap; Mt v 1ap. Coloration: carapace brown, dark brown at eye field. Eye field separated from rest of carapace by light yellow transverse line, just in front of fovea. Clypeus brown, with long hairs on ventral margin. Chelicerae orange, clearly enlarged (typical for males of *Salticus*). Sternum and labium yellow. Maxillae orange, but white distally. Palps brown. Abdomen bright brown ventrally, with four rows of white spots, dorsally dark brown with white median longitudinal line of white



Figs. 40–43: *Salticus afghanicus* sp. n. (holotype). 40 Male palp, ventral view; 41 Ditto, retrolateral view; 42 Ditto, mesal view; 43 Ditto, dorsal view. Scale lines=0.1 mm.

hairs. Book-lung covers bright brown. Spinnerets greyish yellow. Leg I brown, with orange metatarsus and tarsus. Legs II–IV greyish brown, with white band at middle of metatarsus and tarsus. Palp with wide, strong tibial apophysis, structure as in Figs. 40–43.

Female: Unknown.

Material examined: Only the holotype.

Sitticus ammophilus (Thorell, 1875)

Comments: A new record for the fauna of Afghanistan; this is a European-Central Asian species (see Logunov & Rakov, 1998), recorded also from Iran (Logunov *et al.*, 2001).

Material examined: AFGHANISTAN: 1♀ (NMPC), “Istativ, am marscz unter Steinen”, 28 May 1965, coll.?

Sitticus pubescens (Fabricius, 1775)

Sitticus truncorum: Roewer, 1962: 32.

Comments: This identification is doubtful and needs to be verified by re-examining the pertinent material

(1♂). *Sitticus pubescens* is a typical European species (see Logunov & Marusik, 2000), so far not recorded from Central Asia or from the Caucasus.

Previous records: Bhougavi (Roewer, 1962).

Thyene imperialis (Rossi, 1846) (Figs. 22, 23)

Attus imperialis Rossi, 1846: 12 (D♂; ♂ holotype not examined).

Thyene lindbergi Roewer, 1962: 27–28, figs. 111–112 (D♂; ♂ holotype in ZIUL; examined). **New synonymy.**

Thyene sinensis Schenkel, 1963: 441, fig. 253 (D♀; ♀ holotype in MNHN; examined). Synonymised with *T. imperialis* by Wesolowska (1981).

Types: Holotype ♂ of *Thyene lindbergi* (ZIUL, L57/3761), “*Thyene lindbergi*/1♂-Holotype.-n.sp./AI, 484 — Roew. det.” [according to Roewer (1962), the locality was Kouh-Siah Pochtéh (Farah) in Afghanistan, 19 April 1958]. Holotype ♀ of *Thyene sinensis* (MNHN), China, “Wuchang, Ho Ting Chich”.

Comments: This is a rather common species known under several names from East Africa, throughout the Mediterranean and Central Asia to China and India (Prószyński, 2003a).

The male palp of the holotype of *Thyene lindbergi* (Figs. 22, 23) is identical to that of *T. imperialis* (cf. Metzner, 1999: plate 97b,c) and therefore the former name is synonymised with the latter.

Material examined: AFGHANISTAN: 1♂ (NMPC), Nengrahar (Prov.), Jalal-Abad, 560 m a.s.l., 18 March 1966, D. Povolný & Tenora; 2♂ 1♀ (NMPC, Nengrahar (Prov.) (no exact locality), 860 m a.s.l., 10 March 1966, D. Povolný; 1♂ (NMPC), Torbham/Khyber, 600 m a.s.l., September 1963, Kullmann; 2♂ 2♀ (NMPC), Nengrahar (Prov.), 10 km ESE of Jalal-Abad, 620 m a.s.l., 29 March 1966, D. Povolný & Tenora.

Previous records: Kouh-Siah Pochtéh (Roewer, 1962: sub *T. lindbergi*).

Comparative material: SPAIN: 1♂ (PCJM, 22198), Gran Canaria, Juan Grande, stony area near sea, 27 March 1997, J. Murphy; 1♀ (PCJM, 22180), Gran Canaria, Maspalomas, dunes, 23 March 1997, J. Murphy; 2♀ (PCJM, 18570), Almería, Cabo de Gata, 0 m a.s.l., stones and low plants, 10 April 1981, J. Murphy. PORTUGAL: 1♂ (PCJM, 1846), Algarve, Monte Gordo, marsh, immature when collected 15 April 1971, moulted in lab 12 September 1971, J. Murphy. FRANCE: 1♂ (PCJM, 18874), Corsica, c. 8 km N of Aleria, 0 m a.s.l., coastal scrub, 22 May 1989, J. Murphy. GREECE: 2♂ 2♀ (PCJM, 6726), Halkidiki, Gerakina, 5 m a.s.l., hotel grounds, 6 April 1978, J. Murphy; 1♂ 1♀ (PCJM, 1019, 1045), Crete, Mallia, 50–500 m a.s.l., hillside (shrubs), 3–13 April 1972, J. Murphy. ISRAEL: 1♀ (CBA, 5350), Sobreiral, 20 May 2003, P. Cardoso. ETHIOPIA: 1♂ (HECO), Eloa Dancaha, rocks and grass, 19 September 1960, G. Lampel. IRAN: 1♂ (HECO), c. 50 km SE of “Sabrevon(?)” [label illegible; apparently Sabzevâr in NE Iran], 10 August 1961, G. Lampel.

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