

New thomisid and philodromid spiders (Araneae) from southern Israel

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Summary

The spider taxa discussed are a thomisid, *Oxyptila patellibidens* sp. n., and the newly identified male of *Xysticus lalandei* (Audouin, 1826); the formerly misattributed male of *X. lalandei* is distinguished as a new species, *X. sinaiticus*. The southern delimitation of the close congener *X. tristrami* (O. P.-Cambridge, 1872) is addressed. From the Philodromidae, *Philodromus latrophagus* sp. n., that was found feeding on a male *Latrodectus*, is described, along with *Ebo eremus* sp. n. and *Thanatus sepiacolor* sp. n., the latter taken solely by pitfall trapping. It is proposed that *Drassus notatus* Reuss, 1834, a recently detected senior synonym of the well-known *Thanatus vulgaris* Simon, 1870, be suppressed in order to maintain nomenclatural stability.

Introduction

Nearly all the thomisid and philodromid spiders considered here were collected during a 3-year programme of pitfall trapping conducted in the Central Negev, southern Israel by Prof. Yael Lubin. The often problematic matching of the sexes in some of these vagrant taxa was solved by the occurrence of only one species in some of these samples. This new evidence thus clarified the identity of the matching sexes of *Xysticus lalandei* (Audouin), contrary to an earlier description of that male (Levy, 1976). The latter misattributed male is newly designated as *X. sinaiticus* sp. n. *Xysticus lalandei* lives in rather xeric habitats in southern Israel and resembles very closely *X. tristrami* (O. P.-Cambridge)

that is found in more northern, mesic parts of this country. Considering the close similarity of these species the records of *X. tristrami* from outside the mesic, Mediterranean habitats should be reconsidered, e.g. Saudi Arabia (Dippenaar-Schoeman, 1989: 27). Apart from subtle differences in genital characters the two species can be superficially separated by somatic features such as the different kinds of setae covering the body, as illustrated below. The grouping of two xysticoid sections in Israel according to their setae has previously been discussed (Levy, 1976).

Pale coloured *Thanatus* species with a dorsal lanceolate mark have often been collected in Israel, but the occurrence of a dark coloured species, *T. sepiacolor* sp. n., would possibly not have been detected without the pitfall trapping. Considering its colour and the hot, semi-arid habitat, it apparently is nocturnal.

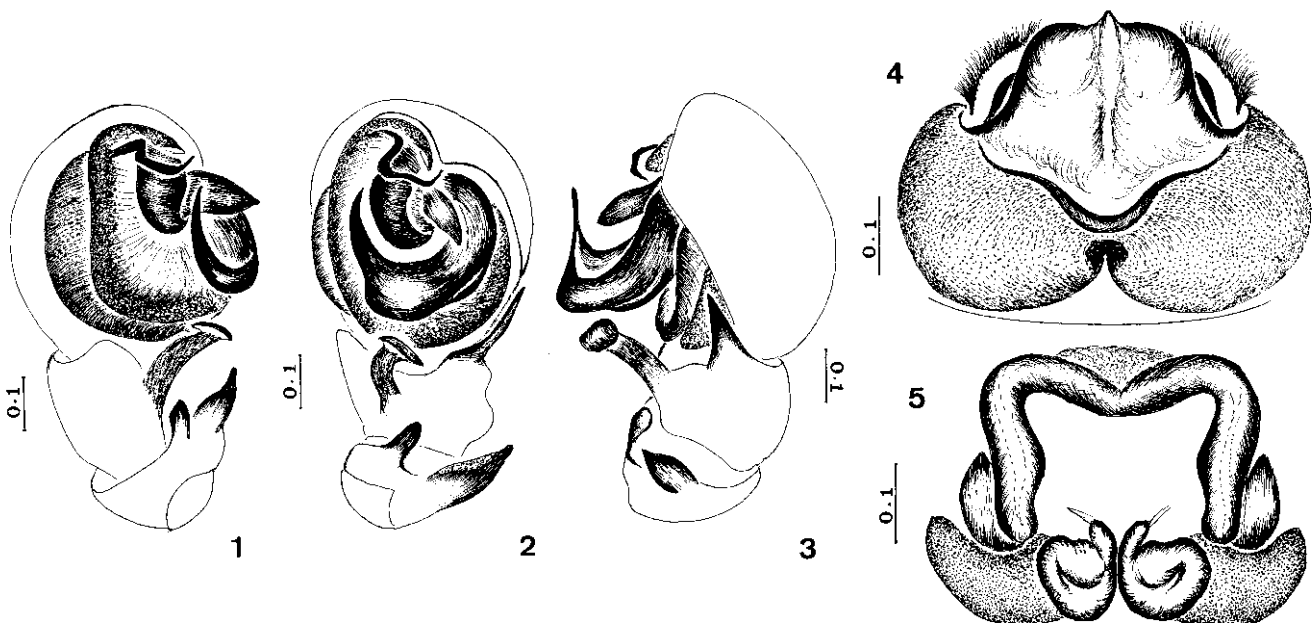
The material described here is deposited in the collections of the Hebrew University of Jerusalem (HUJ). Considered also is a type from the Senckenberg Museum in Frankfurt (SMF) and species studied at the Muséum National d'Histoire Naturelle, Paris (MNHN). The format of the descriptions follows those in Levy (1976, 1977). Measurements are in mm from preserved adult specimens.

Family Thomisidae

Oxyptila patellibidens, sp. n. (Figs. 1–5)

Type material: Holotype ♂, from Haluqim Ridge near Sede Boqer, Israel, 13 January 1994, pitfall trap, leg. Y. Lubin (HUJ 15174); paratype ♀, same data (HUJ 15175).

Etymology: The specific name refers to the patella of the male palpus bearing two apophyses.



Figs. 1–5: *Oxyptila patellibidens*, sp. n. **1** Left male palpus, mesal view; **2** Ditto, ventral view; **3** Ditto, retrolateral view; **4** Epigynum; **5** Spermathecae, dorsal view.

Diagnosis: *Oxyptila patellibidens* resembles superficially the European *O. nigrita* (Thorell, 1875), but is easily distinguished, also from all other *Oxyptila* species, by the patellar apophyses and the shape of the male palpal sclerites and by the peculiar plate on the female epigynum.

Description: *Male:* Measurements (holotype and 10♂, holotype first): total length 2.7, 2.8–3.1; carapace length 1.4, 1.4–1.6, width 1.3, 1.4–1.5, length/width 1.07, 1.0–1.07; femur II length 1.0, 1.0–1.2, width 0.34, 0.35–0.40, length/width 2.94, 2.75–3.14. Carapace with light dorsal median band and brown to nearly black upper sides. Sternum marked with short, brown marginal extensions protruding into light centre. Opisthosoma with a conspicuous light marking on brown background tapering posteriorly, a light patch posteriorly above spinnerets and occasional blackish streaks on sides. Legs I deep brown mottled with white, legs II–IV light. Palpus: patella with two dark apophyses; tibia with sinuous, hammer-headed ventral apophysis and fine, pointed retrolateral apophysis (Figs. 1–3); short, barely visible, fine black embolus turns apically nearly at right angles (Figs. 1–3); tegulum bears two strongly sclerotised apophyses: one almost flat, laterally pointed, the other large, downwards and mesally curved (Figs. 1–3).

Female: Measurements (3♀): total length 3.2–3.5; carapace length 1.6–1.7, width 1.6–1.8, length/width 0.94–1.0; femur II length 1.2–1.3, width 0.45–0.50, length/width 2.50–2.67. Coloration similar to male, but lighter. Epigynum: sclerotised, brown plate with small median cavity rises from middle of large swollen nearly transparent folds (Fig. 4). Dorsal, inner view of spermathecae as in Fig. 5.

Other material examined: ISRAEL: Haluqim Ridge near Sede Boqer, 1♂ (13 January 1991), 3♂ 2♀ (20 March 1991), 1♂ (18 December 1991), 6♂ (4 March 1992), 2♂ 1♀ (13 January 1994); Hatira Ridge near Sede Boqer, 6♂ (15 January 1992), 2♂ (9 February 1993).

Distribution: Israel, Negev, known only from pitfall traps near Sede Boqer.

Xysticus sinaiticus, sp. n. (Figs. 6, 7)

Xysticus lalandei: Levy, 1976: 34, figs. 61, 62 (♂, not ♀); 1985: 105, figs. 166, 167 (♂, not ♀); misidentification.

Type material: Holotype ♂, from Wadi Um Adawi, west of Nabeq, Sinai, Egypt (080/725 Israel grid), 31 October 1969 (moulted to adult in laboratory, 17 December 1969), leg. G. Tsabar (HUJ 15177).

Etymology: The specific name refers to the type locality.

Diagnosis: The body of the male *X. sinaiticus* is covered by the same kind of setae as *X. lalandei* and the two species slightly resemble each other by the shape of their palpal tibial apophyses, but they differ distinctly by the form and arrangement of the structures at the centre of the tegulum and in particular by the apical hook-like outgrowth found in the new species.

Description: *Male holotype:* Total length 4.2; carapace length 1.9, width 1.8, length/width 1.06; femur II length

2.5, width 0.4, length/width 6.25. Prosoma yellowish brown with inconspicuous dorsal, wedge-shaped marking. Opisthosoma with median, dentate band edged by black spots. Legs brown with almost black tibiae. Palpus: relatively small, tibia with three apophyses (Figs. 6, 7); encircling, slender embolus issues from centre of tegulum backed by fine crescent-shaped prominence; a hook-like, serrated, sclerotised outgrowth rises apically, close to embolar tip (Figs. 6, 7).

Female: Unknown.

Distribution: Egypt, Sinai, known only from the type locality.

Xysticus lalandei (Audouin, 1826) (Figs. 8–10, 14)

Thomisus lalandii Audouin, 1826: 165, pl. 6, fig. 12 (♂♀); ♂ unidentifiable from original drawing; ♀ in MNHN, examined.

Xysticus lalandei: Simon, 1885: 16; Levy, 1976: 34, figs. 63, 64 (♀, not ♂); 1985: 105, figs. 168, 169 (♀, not ♂).

Note: Pitfall trapping in southern Israel elicited the recognition of the matching sexes of *X. lalandei*. Description of matching male follows.

Diagnosis (male): *Xysticus lalandei* (Figs. 8–10) resembles *X. tristrami* (O. P.-Cambridge, 1872) very closely (Figs. 11–13). The palpi differ in the shape of the tegular apophysis, the shape of the embolar coil at the centre and in particular by the shape of the tibial apophyses. Furthermore, the two species can be easily distinguished by the different kinds of setae covering the body: thin and elongated in *lalandei* (Fig. 14), thick and blunt in *tristrami* (Fig. 15); the latter, however, are not club-shaped as in many *Oxyptila* species (Fig. 16). *Xysticus lalandei* shares the cover of fine setae with the closely similar *X. cribratus* (Simon, 1885), but the latter differs by the shape of the ventral apophysis of the palpal tibia.

Description: *Male:* Measurements (10♂): total length 4.0–5.1; carapace length 2.0–2.4, width 1.9–2.3, length/width 1.0–1.05; femur II length 2.0–2.4, width 0.4–0.6, length/width 3.67–5.0. Prosoma brown with black margins, light wedge-shaped marking posteriorly, and light coloured space surrounding eyes. Opisthosoma with dorsal, light, dentate band edged by black markings. Legs brown mottled with light and dark spots. Body covered with fine, rugged and pointed setae. Palpus: tibia with three apophyses: ventral brown apophysis with apical, mesally pointing projection and cone-like basal protrusion, a large intermediate apophysis widely attached to a broad, retrolateral apophysis; the latter ends in a small, barely visible hooked tip (Figs. 8–10). Tutaculum ends with a small fold and tegulum, at centre, gives rise to strong encircling embolar duct backed by a black, pointed (in lateral view) tegular apophysis (Figs. 8–10).

Other material examined: ISRAEL: Be'er Mash'abbim, 1♂ 1♀ (7 January 1991), 4♂ (13 November 1991), 6♂ (12 December 1991), 1♂ (20 January 1994); Makhtesh Ramon 1♀ (3 January 1993), 1♂ (14 February 1993). EGYPT: Sinai: Mt. Chifi, 1♀ (19 January 1957); Wadi Hashebi, 1♀ (10 January 1970).

Distribution: Egypt (with Sinai), probably north Africa, Israel (new record).

Comments: *Xysticus lalandei* in Israel is found mainly in sandy habitats and to a lesser extent in the stony desert. The latter habitat is dominated by the congeneric *X. rectilineus* (O. P.-Cambridge, 1872). *Xysticus tristrami*, however, is common in more northern, mesic habitats and does not extend to the southern habitats of *X. lalandei*.

Family Philodromidae

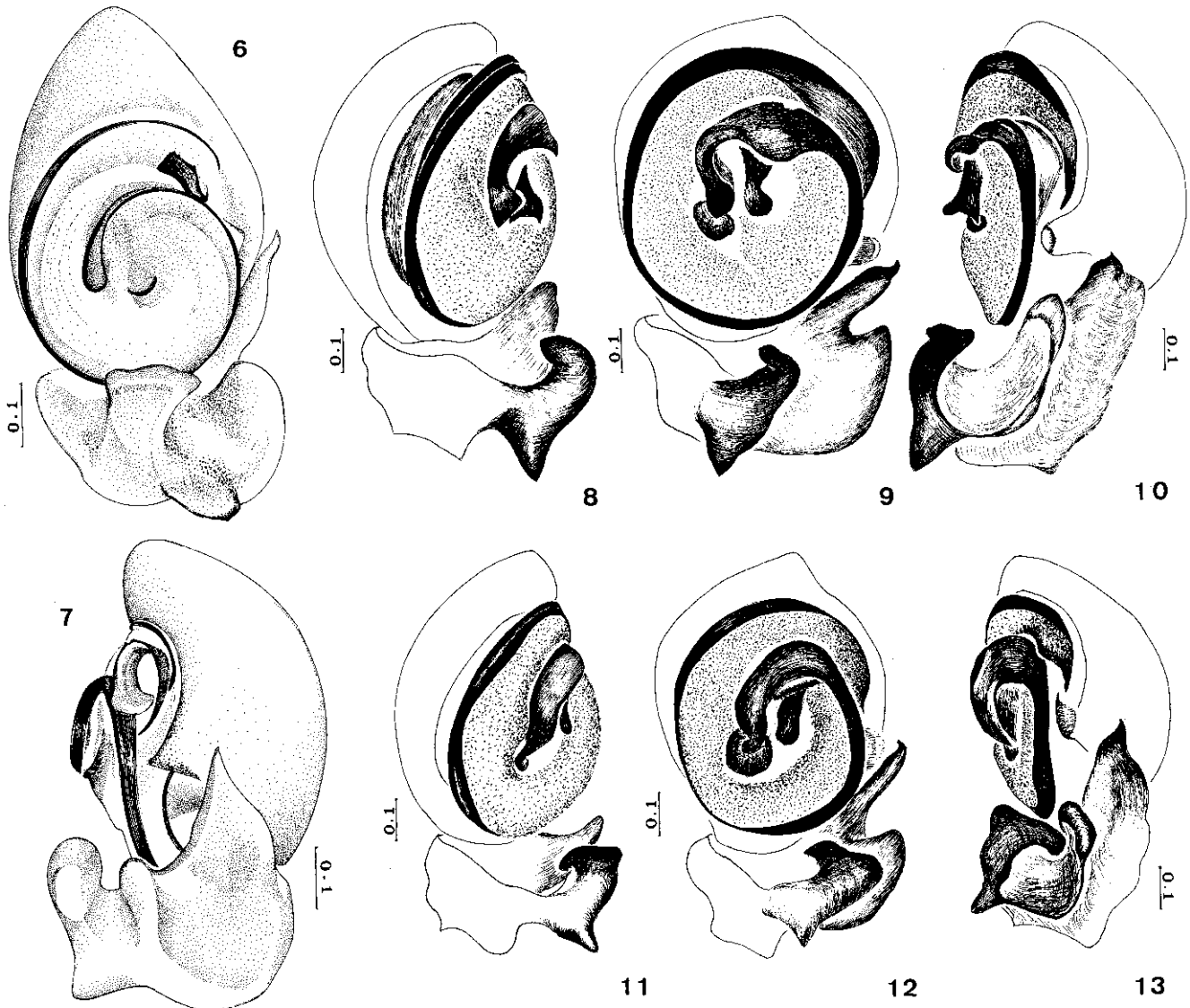
Philodromus latrophagus, sp. n. (Figs. 17–21)

Type material: Holotype ♂, from Haluqim Ridge near Sede Boqer, Israel, 11 May 1995, leg. Y. Lubin (HJU 15181); paratype ♀, same locality, 1 August 1986, leg. Y. Lubin (HJU 15182).

Etymology: The female paratype was found resting on a thread of a widow web feeding on a male *Latrodectus*, hence the specific combination of *latro* and *phago*, to eat. Apparently, females of other taxa join the widows in the kill of their mates.

Diagnosis: The male of *P. latrophagus* differs distinctly from all other *Philodromus* species by the shape of the palpal tibial apophyses combined with the lamellar projection on the tegulum and the short embolus. The epigynum of the female slightly resembles that of *P. kalliensis* Levy, 1977 but differs by the shape of the median septum and the less twisted spermathecae. The two sexes are considered a matching pair because of their similar humps on the opisthosoma and the peculiar scales not encountered in other *Philodromus* species in Israel.

Description: *Male holotype:* Total length 4.7; carapace length 1.8, width 1.6, length/width 1.13; femur II length 3.5, width 0.4, length/width 8.75. Prosoma and legs



Figs. 6–13: Left male palpi. 6–7 *Xysticus sinaiticus*, sp. n. 6 Ventral view; 7 Retrolateral view (drawings by Ms S. Halbreich, May 1974). 8–10 *Xysticus lalandei* (Audouin, 1826). 8 Mesal view; 9 Ventral view; 10 Retrolateral view. 11–13 *Xysticus tristrami* (O. P.-Cambridge, 1872). 11 Mesal view; 12 Ventral view; 13 Retrolateral view.

beige, eye area light, palpal bulbs brown. Angular, light spotted, grey opisthosoma bears dark, peculiar scale-like macrosetae protruding amongst ordinary setae; opisthosoma with cleft in front, dorsally flat and with two humps projecting on sides posteriorly. Palpus: tibia with flat, transparent ventral apophysis and strong, sclerotised retrolateral apophysis bearing broad, membranous flap extending along mesal side (Figs. 18, 19); tutaculum absent; embolus short; tegulum apically with an inconspicuous, small lamellar projection curving inwards (Figs. 18, 19).

Female: Total length 5.7; carapace length 2.3, width 2.1, length/width 1.1; femur II length 3.0, width 0.6, length/width 5.0. Coloration similar to male, but opisthosomal humps larger (Fig. 17). Epigynum: plates on margins of grooved median septum extend into dark expansions close to epigastric furrow (Fig. 20). Dark-edged, yellow spermathecae form large tubular bodies recurving on themselves (Fig. 21).

Distribution: Israel, known only from the type locality, Sede Boqer.

***Ebo eremus*, sp. n.** (Figs. 22, 23)

Type material: Holotype ♀, from Hatira Ridge near Sede Boqer, Israel, 24 April 1991, pitfall trap, leg. Y. Lubin (HUU 15178).

Etymology: The specific name refers to the desert habitat of this species.

Diagnosis: The shape of the epigynal plate and the peculiar scooped spermathecae distinguish *Ebo eremus* distinctly from all other *Ebo* species.

Description: *Female*: Measurements (holotype and 2♀; holotype first): total length 4.0, 3.3–4.2; carapace length 1.5, 1.4–1.7, width 1.6, 1.4–1.8, length/width 0.94, 0.94–1.0; femur II length 3.1, 2.5–3.2, width 0.4, 0.35–0.40, length/width 7.75, 7.14–8.0. Prosoma brown with black

dotted sides and broad, dorsal light chevron-like marking. Sternum and legs speckled with dark dots. Opisthosoma grey with distinct anterior mid-dorsal, dark marking and dark stripes on posterior part. Epigynum: relatively large; median septum with deep sclerotised anterior constriction and posterior expansion bearing setae (Fig. 22); black anteriorly-scooped spermathecae (Fig. 23: a) extend into yellow, distended bodies each bearing a small, fleshy outgrowth (Fig. 23: b).

Male: Unknown.

Other material examined: ISRAEL: Hatira Ridge near Sede Boqer, 1♀ (8 May 1991), 1♀ (20 August 1992).

Distribution: Known only from near Sede Boqer.

Comments: Adult females were taken only by pitfall traps. The two other *Ebo* species in Israel have also been found thus far only in the southern parts of this country: Dead Sea area and the Arava Valley (Levy, 1977).

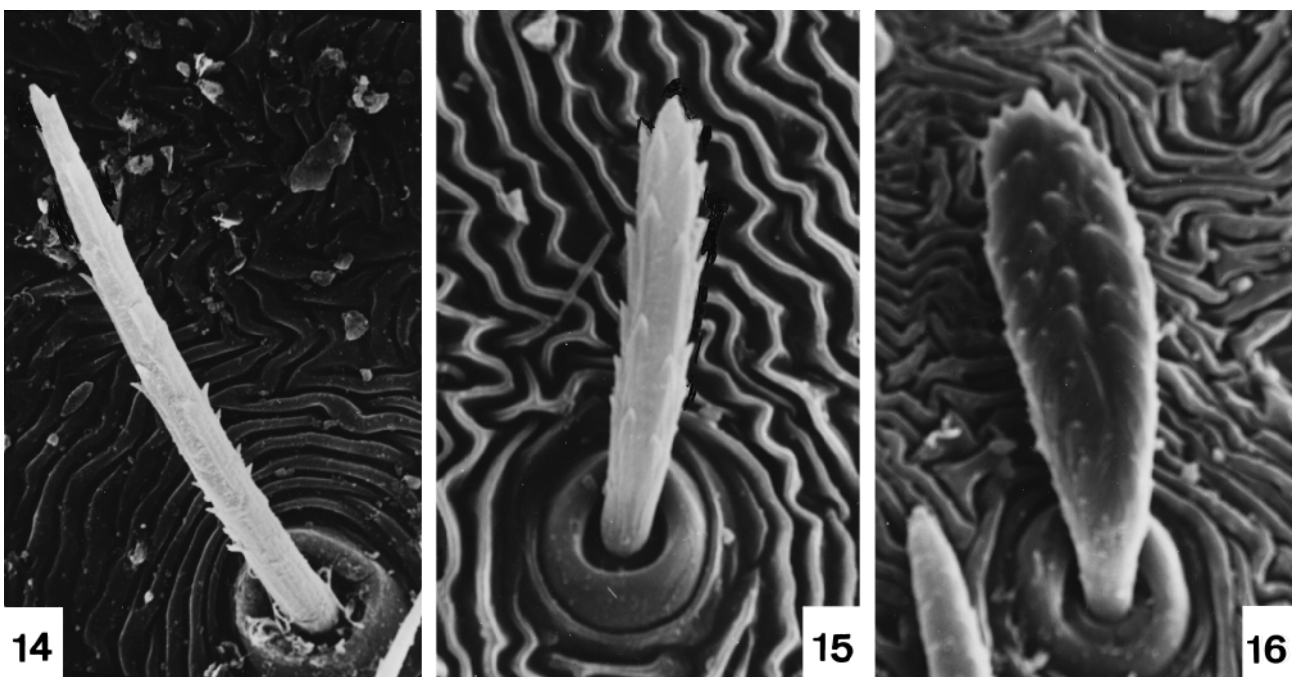
***Thanatus sepiacolor*, sp. n.** (Figs. 24–27)

Type material: Holotype ♂, from Be'er Mash'abbim, Israel, 27 May 1992, pitfall trap, leg. Y. Lubin (HUU 15183); paratype ♀, same locality, 8 July 1992, leg. Y. Lubin (HUU 15184).

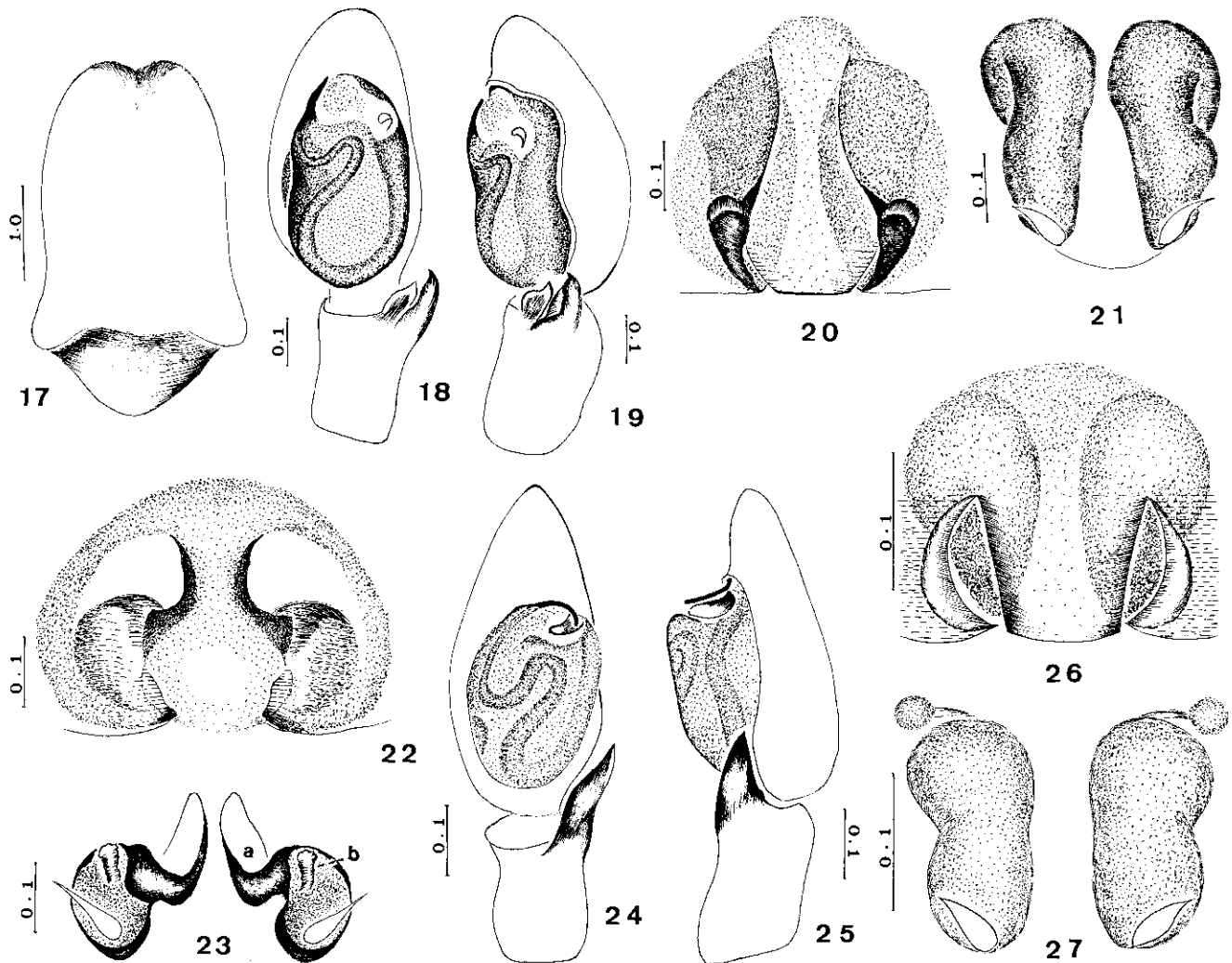
Etymology: The specific name refers to the colour of the spider.

Diagnosis: *Thanatus sepiacolor* is easily distinguished from all other *Thanatus* species by the coloration and by the shape of the retrolateral tibial apophysis of the male palpus combined with the lamellar outgrowth on the tegulum, and by the form of the epigynal structures of the female.

Description: *Male*: Measurements (holotype and 10♂, holotype first): total length 2.7, 2.4–2.7; carapace length 1.3, 1.2–1.3, width 1.3, 1.2–1.3, length/width 1.0, 0.92–1.08; femur II length 1.6, 1.4–1.7, width 0.25, 0.24–0.30, length/width 6.4, 5.6–7.0. Prosoma deep-brown to



Figs. 14–16: Opisthosomal setae of males. **14** *Xysticus lalandei* ($\times 600$); **15** *X. tristrami* ($\times 900$); **16** *Oxyptila judaea* Levy, 1975 ($\times 500$).



Figs. 17–27: **17–21** *Philodromus latrophagus*, sp. n. **17** Female opisthosoma, dorsal outline; **18** Left male palpus, ventral view; **19** Ditto, retrolateral view; **20** Epigynum; **21** Spermathecae, dorsal view. **22–23** *Ebo eremus*, sp. n. **22** Epigynum; **23** Spermathecae, dorsal view (a, b, see text). **24–27** *Thanatus sepiacolor*, sp. n. **24** Left male palpus, ventral view; **25** Ditto, retrolateral view; **26** Epigynum; **27** Spermathecae, dorsal view.

almost black, sepia coloured, with broad, white margins. Sternum uniform brown, legs distally light brown. Opisthosoma sepia dorsally with two scalloped, convergent, white patches close to posterior tip. Palpus: tibia with broad, upright, brown retrolateral apophysis tapering apically to a pointed tip (Figs. 24, 25); terminal portion of embolus curves above barely visible, apical, lamellar projection of tegulum (Figs. 24, 25).

Female: Measurements (8♀): total length 3.2–4.1; carapace length 1.3–1.6, width 1.3–1.6, length/width 1.0; femur II length 1.3–1.7, width 0.3–0.4, length/width 4.0–4.4. Coloration similar to male except: femora of legs I–II occasionally black along posterior side; dark hues generally less pronounced and light pattern on opisthosoma more extensive. Epigynum: median septum wide, opaque, with slightly converging sides flanked by transparent, lateral hoods (Fig. 26); spermathecae slightly constricted at middle, with short, apical tubes extending into small globules (Fig. 27).

Other material examined: ISRAEL: Be'er Mash'abbim, 1♀ (14 June 1990), 1♂ (13 May 1991), 2♂ (27 May 1992), 2♀ (25 June 1992); Hatira Ridge near Sede Boqer, 1♂ (21

May 1992), 2♂ (12 May 1993), 4♂ (4 May 1994); Nahal Sekher, 1♀ (22 July 1993); Makhtesh Ramon, 3♀ (17 May 1994).

Distribution: Southern Israel.

Thanatus vulgaris Simon, 1870

Drassus notatus Reuss, 1834: 206, ♀ holotype from E-Tur, Sinai, Egypt, leg. Eduard Rüppell, 1822 (SMF, 4404; examined). **Syn. n.**

Thanatus vulgaris Simon, 1870: 328; specimens det. by E. Simon in MNHN, examined.

Thanatus notatus: Strand, 1916: 34; Roewer, 1955: 796; Bonnet, 1959: 4407.

Note: *Drassus notatus* Reuss, 1834 is a senior synonym of the well-known *Thanatus vulgaris* Simon, 1870, but the unused earlier name should be suppressed in order to maintain nomenclatural stability (ICZN, Art. 79c).

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