

*This contribution is published
to honor Dr. Amnon Freidberg,
a scientist, a colleague and a friend,
on the occasion of his 75th birthday.*

New species and synonymies in the genus *Ulidia* (Diptera: Ulidiidae) from the Middle East

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ABSTRACT

Three new species of *Ulidia* Meigen, 1826—*U. ammoni* n. sp., *U. bartaki* n. sp. and *U. skrylniki* n. sp. from Afghanistan and Uzbekistan—are described and illustrated. The following synonymies are established: *Ulidia facialis* Hendel, 1931 = *Ulidia salonikiensis* Hering 1940, n. syn., = *Timia persica* Hennig 1965, n. syn., = *Ulidia omani* Steyskal 1970, n. syn. An improved key to species of *Ulidia*, with inclusion of some species currently assigned to *Timia* that cannot be placed to one or another genus with certainty, is provided.

KEYWORDS: Diptera, Ulidiidae, *Ulidia*, picture-winged flies, Palearctic, new species, new synonymy, identification key, taxonomy.

INTRODUCTION

The tribe Ulidiini Macquart, 1835 with three genera: *Physiphora* Fallén, 1817 (29 described and at least 3 undescribed species, mainly Afrotropical), *Timia* Wiedemann, 1824 (61 described and at least 15 undescribed species predominantly in the Middle East of the Palearctic Region) and *Ulidia* Meigen, 1826 (25 described and more than five undescribed species, mainly in the Mediterranean region, see Kameneva & Korneyev (2006, 2016) and Morgulis & Freidberg (2014)), occurs predominantly in the Old World, except two species unintentionally introduced into the Nearctic and Neotropical regions.

Ulidiini are medium-sized to relatively small, mostly black-brown flies with some metallic sheen, but there are several species of mostly yellow colouration. The tribe is monophyletic, distinguished from members of other ulidiid tribes by a complex apical structure (=glans) of the phallus (Kameneva & Korneyev 2006). The phylogenetic relationships among the genera of the Ulidiini are not well understood, and while *Physiphora* appears to be a monophyletic group (Kameneva & Korneyev 2010, 2016), the phylogeny of the other two genera is not examined, and they are in need of a revision, including concepts of these genera and their diagnoses.

Before this study, 24 species were assigned to the genus *Ulidia* (see Morgulis & Freidberg 2014); about 10–12 additional undescribed species have been already

recognized during a detailed study of material collected by the authors and deposited at the main dipterological collections of the Palaearctic Middle East.

Similarly to the recently revised genus *Physiphora* (Kameneva & Korneyev 2016), the genus *Ulidia* comprised of relatively uniform, shining black flies with black to reddish and/or yellowish heads, and usually hyaline wings either without dark pattern or with 1–3 dark spots, or rarely an infusate wing, i.e. morphological characters used for diagnostics are poor; some superficially similar species can be recognized only from the structure of the male genitalia: phallus, surstyli and cerci. In most cases, these characters give more reliable characters than the external morphology (Kameneva, 2008, 2010; Morgulis & Freidberg 2014). This is important also for recognition of certain species with hypervariable body colouration and wing pattern, such as *Ulidia ruficeps* Becker, 1913 and *U. facialis* Hendel 1931, the latter species revised in this paper and found to be hitherto known under five different names.

Diagnoses of the genera *Ulidia* and *Timia* are confused, and the genera are hardly recognizable, as the characters (*i.e.*, width of frons, parafacial and gena, colouration of head, presence or absence of microtrichia) overlap, so the similar and possibly related species, such as *Timia erythrocephala* Pallas, *U. nigrocubitalis* Zaitzev and *U. transcaspica* Galinskaya, *T. reitteri* Hendel, *T. problematica* Hennig, *U. metope* Kameneva and *U. splendida* Zaitzev, *T. persica* Hennig and *U. salonikiensis* Hennig are placed in different genera. Preliminary phylogenetic analyses based on morphological data (Kameneva & Korneyev, unpubl. data) or available molecular data (Galinskaya *et al.* 2014) apparently show that *Ulidia* may be a paraphyletic genus, with several lineages of *Timia*, which also may be either a polyphyletic or monophyletic one nested within the latter genus. Furthermore, if the junior objective synonymy of name *Ulidia* Meigen, 1826 with *Physiphora* is not suppressed by a plenary power of the ICZN, the species currently assigned to *Ulidia*, must be either included into a new genus, or into *Timia* (Evenhuis & Korneyev, in prep.), which apparently would be the most reasonable solution.

We therefore add some species of *Timia* in the key below, which contain all the known species of both genera with predominantly non-microtrichose or partly microtrichose frons and body without “lace-like”, bare spotted pattern. Several unnamed species recognized in the collections, are added to the key below to avoid misidentifications (as “*Ulidia* sp. A, sp. B, sp. C” or “*Timia* sp. A, sp. B., sp. C”, depending on the current assignment of the species they are similar to).

MATERIAL

Examined material is deposited in the collection of I. I. Schmalhausen Institute of Zoology, Kyiv, Ukraine (SIZK), including numerous specimens originated from collections made by Amnon Freidberg in Israel and kindly presented to the authors; type material is deposited also in Eflatoun Collection, Entomology Department, Faculty of Science, Cairo University, Egypt (EFC), Miroslav Barták collection, Czech University of Life Sciences, Faculty of Agrobiolgy, Food and Natural Resources, Prague, Czech Republic (MBC), Museum für Naturkunde Berlin (ZMHB),

National Museum of Natural History, Washington DC, USA (USNM), Staatliches Museum für Naturkunde Stuttgart, Germany (SMNS); additional paratypes are to be deposited in the collection of the Steinhard Museum of Natural History, Tel Aviv University, Israel (SMNHTAU).

TAXONOMY

Genus *Ulidia* Meigen, 1826

Key to world species of *Ulidia*

Shining black or uniformly matt species without lace-like microtrichose pattern on frons or mesonotum currently assigned to *Timia* are also included. Additional characters facilitating identification are given in parentheses. WL – wing length.

- 1 Mesonotum uniformly gray microtrichose, without shining black spots at bases of setae. Posterior half of frons, occiput, mediotergite, and abdominal tergites 1–3 also gray microtrichose. Face, anterior half of frons and gena yellow 2
- Mesonotum entirely or mostly shining or subshining black, non-microtrichose (at most notopleuron and bordering part of mesonotal scutum narrowly microtrichose); head and body mostly shining black, if frons and parafacial widely silvery microtrichose (in *U. metope*), then mesonotum shining black. Colouration of head variable 3
- 2 Head 1.1× longer than high. Frons in profile concave. Costa at pterostigma straight, unmodified. Antenna black. Palpus black in apical two-thirds, extending beyond anterior margin of oral cavity, long setulose only at base, with short, inconspicuous apical setae. Frons in posterior half uniformly gray microtrichose *U. skrylniki* n. sp.
- Head higher than long. Frons in profile flat or convex. Costa at pterostigma convex, with erect setulae. Antenna yellow. Palpus yellow, short, not extending beyond oral cavity, uniformly setulose along whole length. Frons with gray microtrichose vertical plates, with bare spots at bases of setae and setulae, and bare or very sparsely microtrichose medial vitta anterior of ocellar triangle *T. anomala* (Becker, 1908)
- 3 Wing with pattern of brown apical spot and/or dark pterostigma 4
- Wing entirely hyaline or diffusely yellowish or brownish darkened, but without contrasting infuscated pterostigma or dark apical spot 28
- 4 Head <1.2× as long as high, and usually shorter than high. Wing variable 5
- Head >1.2× as long as high. Wing: costal cell and wing apex at most diffusely shaded 26
- 5 Costal cell partly or entirely brown, basicostal cell and pterostigma entirely darkened; wing disc otherwise hyaline 6
- Costal cell hyaline or partly yellowish; pterostigma darkened, basicostal cell variable, from brown to hyaline. If sometimes costal cell brown, then whole wing also diffusely brown with darker parts 16

- 6 Postpronotal lobe with thickened and short postpronotal seta inserted into prominent tubercle. Frons, facial carina and gena predominantly shining brownish yellow; mesonotum elongate, mostly matt rugulose, acrostichal seta lacking; fore femur with thickened ventral and posterobasal setae..... *U. amnoni* n. sp.
 – Postpronotal lobe unmodified. Other characters variable..... 7
- 7 Cell cup with brown streak 8
 – Cell cup entirely hyaline 9
- 8 Scutellum black.....*U. nigricubitalis* Zaitzev, 1982
 – Scutellum yellow.....*U. transcaspica* Galinskaya, 2011
- 9 Costal margin of wing entirely black, including most of cell r_1 . Femora with short thickened setae posteroventrally. Scutellum yellow..... 10
 – Costal margin with wide hyaline gap between dark areas: cell r_1 hyaline except apex. Femoral setae and scutellum variable..... 11
- 10 Gena entirely yellow. Notopleuron almost entirely shining.....
*T. erythrocephala* Pallas, 1824
 – Gena partly brown to black. Notopleuron entirely microtrichose.....
*T. sp. A* near *erythrocephala*
- 11 Scutellum yellow. Orbits without silvery microtrichose cuneiform area towards base of antenna. Turkmenistan. (Mesonotum non-microtrichose, shagreened)
*T. sp. B* near *erythrocephala*
 – Scutellum black. Orbits silvery microtrichose with solid cuneiform area towards base of antenna 12
- 12 Notopleuron and abdominal tergite 1 conspicuously white microtrichose.....
*U. splendida* Zaitzev, 1982
 – Thorax and abdomen entirely shining..... 13
- 13 Mesonotum strongly rugose and wrinkled. (Frons deeply pitted. Frons, face and gena yellow except ocellar triangle and vertical plates shining black. Abdomen matt, densely shagreened. Cell cup with posteroapical lobe as long as transverse shoulder of the vein Cu_2)
*U. melampodia* Loew, 1873
 – Mesonotum smooth, shining or finely shagreened. Other characters variable ...
 14
- 14 Frons, face and gena yellow (except ocellar triangle and vertical plates shining black), orbits non-microtrichose. Frons conspicuously pitted 15
 – Frons satin brown to black, almost smooth, with shining orbits. Face and gena brown to black; orbits silvery microtrichose with cuneiform cape towards base of antenna. (Mesonotum smooth, shining, very finely shagreened. Abdominal tergites 2–5 shining black, only tergite 1 and sternites 5 and 6 partly shagreened. Cell cup with posteroapical shorter than transverse shoulder of the vein Cu_2)
*U. sp. C* near *melampodia*
- 15 Frons deeply pitted or wrinkled. Costal cell pale brown. Wing apex inconspicuously shaded. Tarsi entirely black. [China: NE Xizang]... *U. gongjuensis* Chen, 2009

- Frons conspicuously dotted. Costal cell dark brown. Wing apex with brown spot between apices of vein R_{2+3} and M. Basal tarsomeres of all legs yellow. [Iran: East Azerbaijan] *U. sp. D* near *melampodia*
- 16 Wing disk diffusely brown, with conspicuously darker pterostigma 17
- Wing disk hyaline (or with very slight yellow or brown tinge), but with pterostigma and usually basicostal cell and wing apex darkened 19
- 17 Basicostal cell, pterostigma and wing apex dark brown. Frons deeply pitted, parafacial usually wrinkled; mesonotum densely rugulose, matt; orbit with cuneiform white microtrichose area *U. atrata* Loew, 1845
- Only pterostigma dark brown; basicostal cell and wing apex diffusely pale brown. Frons sparsely pitted, parafacial smooth; mesonotum subshining; orbit without cuneiform white microtrichose area 18
- 18 Basicostal cell and base of wing diffusely brownish yellow, only slightly paler than distal three quarters of wing. Cell r_{4+5} subparallel at apex: section of costa between veins R_{4+5} and M $\geq 0.6\times$ as long as crossvein DM–Cu and $\geq 1.8\times$ as long as crossvein R–M. Male: cerci deeply separated (Kameneva 2008: fig. 5,6); phallus with short finger-like, spinulose caecum and conspicuous, sclerotized, blunt subbasal lobe of glans (Kameneva 2008: figs 5,7–9). Female: aculeus with short, round cerci (Kameneva 2008: figs 5,10); spermathecae short, globulose (Kameneva 2008: figs 5,11) *U. parallela* Loew, 1845
- Basicostal cell and base of wing hyaline or pale yellowish, contrasting with distal three-quarters of wing length. Cell r_{4+5} conspicuously narrowed to apex: section of costa between veins R_{4+5} and M $\leq 0.5\times$ as long as crossvein DM–Cu and $\leq 1.5\times$ as long as crossvein R–M. Phallus without finger-like spinulose caecum or conspicuous subbasal lobe of glans (Kameneva 2008: figs 4,5–6). Female: aculeus with oval cerci (Kameneva 2008: fig. 4,7); spermathecae elongate, pear-like (Kameneva 2008: fig. 4,8) *U. nigripennis* Loew, 1845
- 19 Postocular row with 2–3 setae almost as long as vertical setae. Larger species, WL ≥ 4.2 . Mesonotum shining 20
- Setae of postocular row uniformly short. Mesonotum and size variable 21
- 20 Haltere yellow *U. apicalis* Meigen, 1826
- Haltere black *U. megacephala* Loew, 1845
- 21 First flagellomere and scape red-orange, golden to gray microtrichose. Tarsi, at least partially, yellow. Wing with basal-cubital cell and basal half of cubital cell brown, and with apical brown spot, extending from costa at apices of cells r_1 , r_{2+3} and r_{4+5} ; otherwise, wing often slightly infusate *U. aurata* Morgulis & Freidberg, 2014
- Different combination of characters 22
- 22 Frons in profile usually concave, long and densely setulose; palp extending beyond anterior margin of oral cavity, long setulose only at base, with short, inconspicuous apical setae. (Face, frons and gena colouration variable: from mostly yellow or reddish to almost entirely black) *U. ruficeps* Becker, 1913

- Frons in profile flat or convex, at most short setulose; palp shorter, not projecting beyond anterior margin of oral cavity, uniformly setulose along whole its length..... 23
- 23 At least basal tarsomeres yellow 24
- All tarsi entirely black..... 25
- 24 Anterior half of frons, face, parafacial, anterior half of gena, and whole antenna yellow. Tibiae and apices of femora often partly yellow. Prescutellar acrostichal seta lacking. Cell cup with very short posteroapical lobe, half as long as transverse shoulder of vein Cu_2 . [Mongolia; Russia: Siberia; China: Alashan Mts].....
..... *U. kandybinae* Zaitzev, 1982
- Frons, face, parafacial, gena, and antenna black or dark brown. Tibiae and femora entirely black. Prescutellar acrostichal seta present. Cell cup with posteroapical lobe as long as transverse shoulder of vein Cu_2 . [Israel].....
..... *U. hirsuta* Morgulis & Freidberg, 2014
- 25 Haltere black. Mesonotum shining. Prescutellar acrostichal seta present. (Male genitalia: preglans with 3–4 spines)..... *U. wasimi* Morgulis & Freidberg, 2014
- Haltere yellow. Mesonotum conspicuously shagreened 26
- 26 Smaller, $WL < 4.1$. Distance between apices of veins R_{4+5} and $M \leq 0.33 \times$ as long as crossvein $DM-Cu$. Male genitalia: Surstylus angulate, with 3–5 prenisetae. Cerci short oval, not produced. Phallus with poorly sclerotized glans
..... *U. facialis* Hendel, 1931
- Larger, $WL > 4.1$. Distance between apices of veins R_{4+5} and $M \geq 0.33 \times$ as long as $DM-Cu$. Male genitalia: Surstylus with elongate, rounded apex, setulose, but bearing no prenisetae. Cerci elongate, ventrally produced. Phallus with well sclerotized glans, bearing one blunt hook-like lobe *U. bartaki* n. sp.
- 27 Frons deeply pitted or wrinkled. Head $> 1.6 \times$ as long as high. Frons, face and gena yellow except ocellar triangle and vertical plates shining black. [China: NE Xizang] *U. gongjuensis* Chen, 2009
- Frons almost smooth, satin brown to black, with shining orbits. Head $< 1.4 \times$ as long as high. Face and gena brown to black; orbits silvery microtrichose with cuneiform cape towards base of antenna. Mesonotum smooth, shining, very finely shagreened..... *U. sp. C* near *melampodia*
- 28 Parafacial entirely silvery shining white microtrichose (see Kameneva 2010: fig. 1, 1–7), with pale yellow cuticle hidden by microtrichia; frons almost entirely silvery microtrichose in male, shining black to yellow in female. Mesonotum shining *U. metope* Kameneva, 2010
- Parafacial and frons shining black to brown, at most with narrow stripe of white microtrichia at eye margin (in *U. wadicola*). Mesonotum variable, shining to shagreened or rugulose 29
- 29 Orbits narrowly white microtrichose at anterior eye margin. Male hind femur strongly swollen medially (Kameneva 2008: fig. 3,5). Female hind femur unmodified. Wing hyaline *U. wadicola* Steyskal, 1968

- Orbits entirely bare, subshining to shining brown or brownish yellow. Hind femur of both sexes at most slightly thickened. Wing hyaline or infusate 30
- 30 Wing diffusely brownish infusate, basal quarter yellowish 31
- Wing uniformly yellowish or hyaline 32
- 31 Basicostal cell and base of wing diffusely brownish yellow, only slightly paler than distal three quarters of wing. Cell r_{4+5} subparallel at apex (see also couplet 18 for more characters)..... *U. parallela* Loew, 1845 (paler specimens)
- Basicostal cell and base of wing hyaline or pale yellowish, contrasting with distal three-quarters of wing length. Cell r_{4+5} conspicuously narrowed to apex (see also anticouplet 18 for more characters)
.....*U. nigripennis* Loew, 1845 (paler specimens)
- 32 Abdominal tergites shagreened, matt. [France] *U. semiopaca* Loew, 1845
- Abdominal tergites shining 32
- 33 Wing hyaline, without yellowish tinge. Glans with sharply pointed, claw-like projections and less conspicuous rasper-like structures
..... *U. albidipennis* Loew, 1845
- Wing with yellowish tinge. Phallus glans with blunt sclerotized projections and rasper-like structures. *U. erythrophthalma* Meigen, 1826

***Ulidia ammoni* n. sp.**

(Figs 1–12)

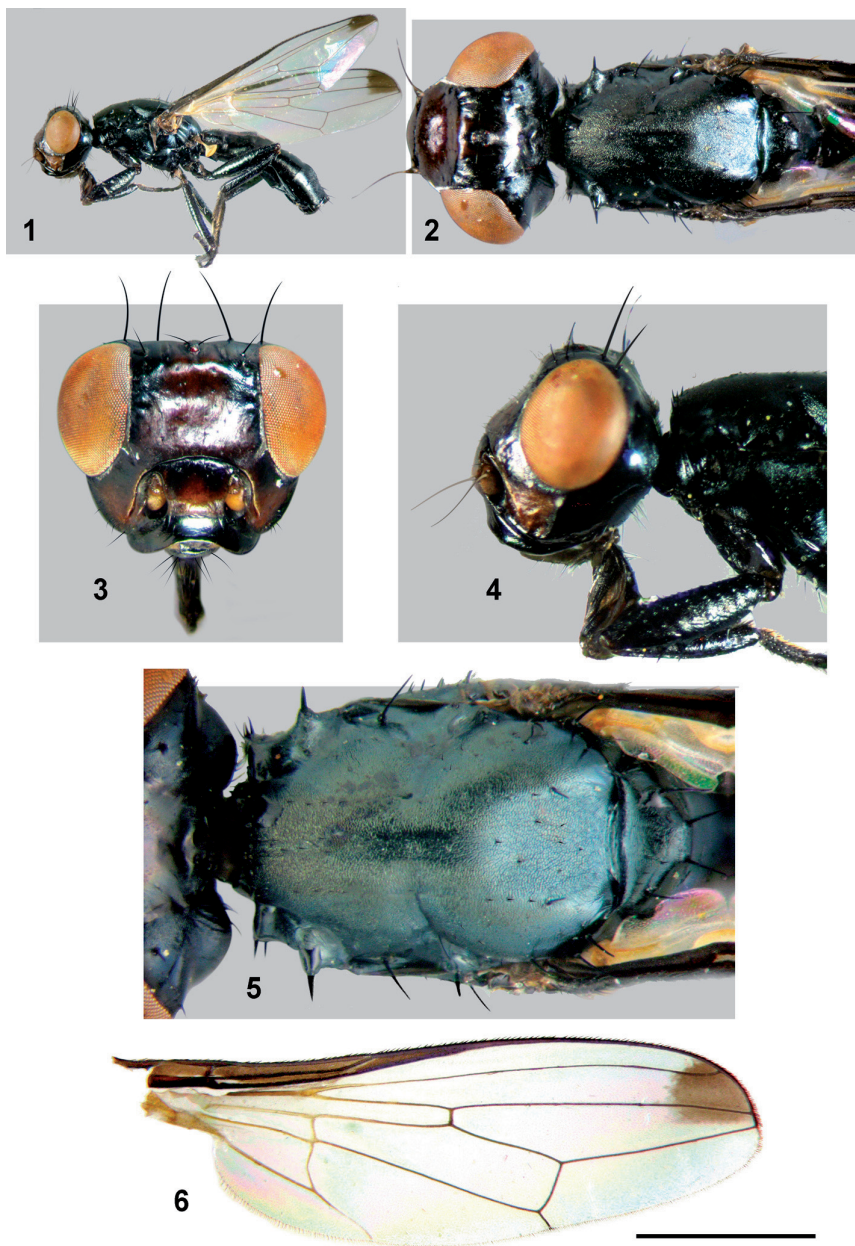
LSID: urn:lsid:zoobank.org:act:0B5B6628-AC85-4CAC-A2A4-E8742B55BA27.

Etymology: The species is named in honour of Amnon Freidberg.

Diagnosis: This species can be easily recognized from all known species of *Ulidia* by the postpronotal lobe with prominent tubercle bearing one thickened, short nail-like postpronotal seta; presence of a dark spot over wing apex; entirely brown cells bc, c, sc; and combination of predominantly shining brownish yellow frons, facial carina and gena; ventral and posterobasal setae on fore femur and anteroventral setae on hind femur strongly thickened; mesonotum elongate, mostly matt rugulose, and prescutular acrostichal setae lacking.

Description: *Head* (Figs 2–4) black, with mostly brown to yellowish brown frons, facial carina and gena. Head ratio h:l:w=1:0.8:1.3. Frons 0.8× as long as wide, reddish or yellowish brown medially, with black orbit, shining, with narrow silvery white microtrichose vitta turning cuneiform at border of frons and parafacial (Figs 3, 4, arrowed); medially frons conspicuously depressed, finely and sparsely yellowish setulose in anterolateral part. Vertical plates and ocellar triangle shining black; 2 pairs of black orbital setae (anterior fine and short); ocellar setae latero-clinate, 0.9× as long as posterior orbital seta.

Face reddish yellow to brown, lunule black, facial carina mostly reddish yellow 1.7× as wide as antennal groove and 1.3× as wide as high, subshining, finely shag-



Figs 1–6: *Ulidia amnoni* n. sp. holotype (1–5) and paratype (6) males: (1) habitus, left; (2) head and mesonotum, dorsally (direct light, white reflection screen not applied); (3) face and frons, anterior; (4) head, thorax, and fore leg, left; (5) mesonotum, dorsal (white reflection screen applied); (6) wing. Scale: 1 mm.

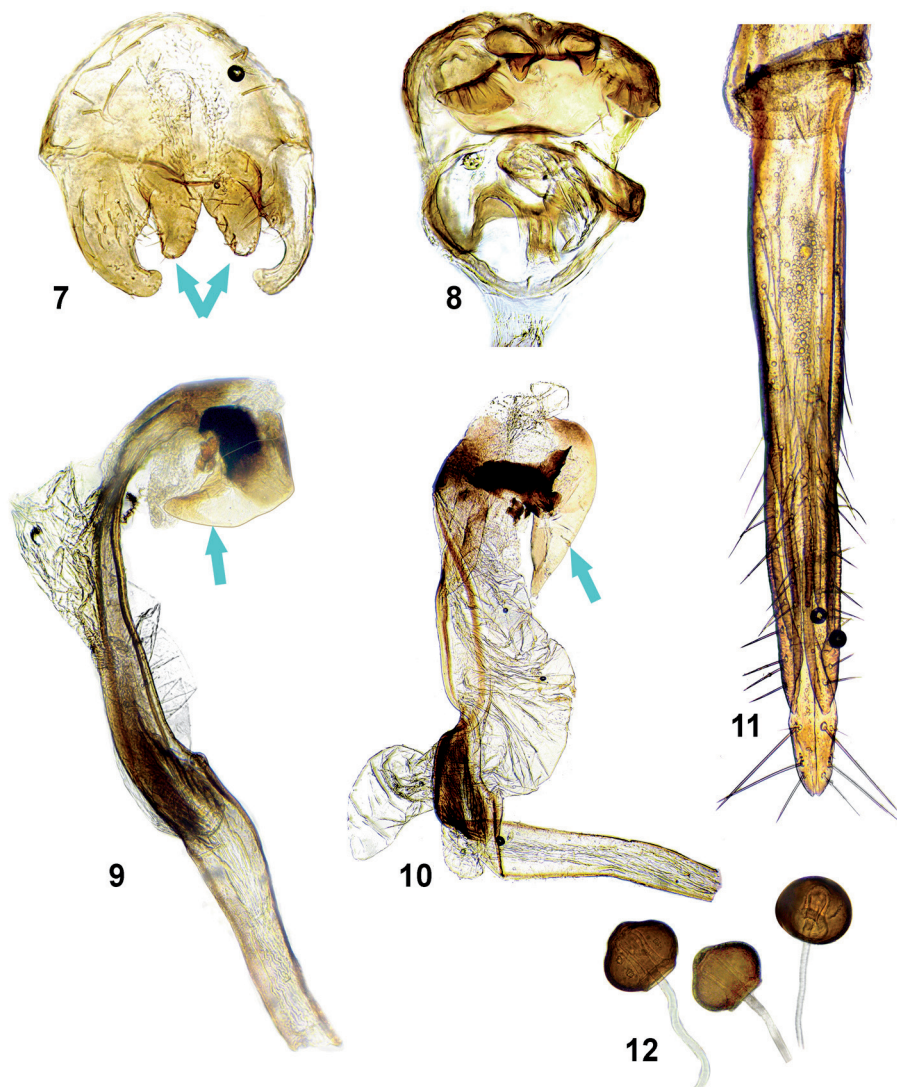
reened; epistome black, smooth, without metallic sheen; subgena moderately low. Antennal groove 1.9–2× as high as wide, deep, entirely black, white microtrichose except medioventral surface shining black. Gena reddish yellow to brown, 0.4–0.5× as high as eye; parafacial matt brownish or reddish yellow, with very narrow white microtrichose stripe along eye; gena posteriorly separated with rather blunt genal ridge from entirely black postgena. Occiput entirely black, mostly subshining, rugulose, except vertex, occipital sutures and anterior margin of postgena shining black. Ventral half of occiput conspicuously swollen. Medial vertical seta 0.25–0.45× as long as frons width, 1.1–1.2× as long as lateral vertical and 1.5–2.2× as long as ocellar, orbital, and postocellar setae. Antenna: scape black to brown, pedicel deeply incised, brown or sometimes apically yellow; flagellomere 1 short oval, 1.5× as long as wide, yellow or brownish yellow, white microtrichose; arista bare, brown. Clypeus black. Palp dark brown, gray microtrichose, with 8–9 black lateroventral setae setose. Mouthparts black.

Thorax (Figs 2, 5). Scutum and scutellum black, finely rugulose, almost matt; posterior portion of postpronotal lobe, posterior surface of notopleural triangle, postalar lobe, anterior half of katapisternum, and whole anepimeron shining black; postscutellum black, subshining; posteroventral margin of scutellum without microtrichose area; anatergite, katatergite and lateroventral parts of mediotergite subshining black. Scutum 1.5× as long as wide, with fine, poorly visible brownish setulae in intra-alar area and regular row of 8–11 dorsocentral setulae and 1 dorsocentral seta (Fig. 5); acrostichal seta lacking, at most 6–7 tiny setulae between dorsocentral setae; postpronotal lobe with short and thickened, nail-like seta inserted into conspicuous projection; proepisternal ridge strongly expressed, bearing 2 rows of 8–10 short, sometimes thickened, nail-like setulae; proepisternal seta at most 1.2× as long as proepisternal setulae; other setae moderately long, black: 2 postsutural supra-alar, 1 intra-alar and 1 postalar. Scutellum transverse, 2.8× as wide as long, finely wrinkled, subshining black, with 2 pairs of black scutellar setae.

Wing (Fig. 6). Hyaline, with dark spot at wing apex and entirely brown cells r1, bc, c, and sc; veins brown; cell r₄₊₅ apically narrowed, apical section of M straight or slightly arcuate, ending anterior of wing apex; section of costal vein between apices of R₄₊₅ and M very narrow, ≤0.25× as long as vein DM–Cu. Postero-apical extension of cell cup shorter than transverse shoulder of vein Cu₁. Calypters with long white fringe. WL=3.9–4.2 mm. Haltere with base and stem black, knob creamy white.

Legs black; most setae and setulae black, except fore basitarsus ventrally with brush of dark yellow setulae; fore femur conspicuously thickened, posterodorsally, postero- and anteroventrally with 4–5 short thickened setae inserted into tubercles; mid femur slender, with row of 15–17 long and thin setae posteroventrally and 2 rows of slightly shorter setae on anterior surface; mid tibia apically with 1 long and 2 shorter setae; hind femur slightly thickened apically, with 2 strong preapical setae dorsally and 2 rows of 3–5 thickened setae, some inserted into tubercles, ventrally.

Abdomen entirely black, dorsally matt, finely shagreened, laterally subshining, only tergite 1 with inconspicuous and sparse microtrichia laterally; syntergite 1+2 anteriorly narrow, widened posteriorly, with short black setae laterodorsally, tergites 3–4 almost bare; tergite 5 of male and female conspicuously shagreened, with sparse



Figs 7–12: *Ulidia amnoni* n. sp. paratypes, male (7–10) and female (11, 12): (7) epandrium and cerci (arrows), posterior; (8) epandrium and hypandrium, ventral; (9, 10) phalli (separated from hypandria at bases and moderately compressed; arrows point on largest lobe of glans); (11) aculeus, ventrally; (12) spermathecae.

and relatively long setae posteriorly; female abdominal tergite 2 without dimple-like structures; female tergite 6 transverse, entirely developed, but hidden underneath of tergite 5, with 2 rows of setulae. Sternites wide in both sexes, separated by rather narrow, black membrane from tergites; sternite 1 wider than long; sternite 2 moderately wide, $1.3\times$ as long as wide, with desclerotized “window” in anterior $\frac{1}{3}$; sternites 3–4 of male and 3–5 of female subquadrate, with few sparse setae (4–6 longest at posterior margins); tergite and sternite 6 of female conspicuously narrower than preceding tergites, as wide as and half as long as oviscapae, both with 2 rows of setae, setae of posterior row moderately long. Sternites 4–6 of female without anteromedial apodemes.

Male postabdomen brown to black; pregenital sternites moderately long; sternite 8 with numerous subequal setulae. Epandrium as in Figs 7, 8, cerci deeply separated, with long, anteroventrally directed apices (Fig 7: cyan arrows); lateral surstylus simple, with one mesally directed lobe; medial surstylus entirely flat, forming no lobes, bearing 20–25 uniformly thin, moderately long setulae, and no prensisetae. Phallus 1.0 mm long, with stipe almost as long as preglans (without glans); membranous inflatable valve as long as preglans, basally with caecum 2–3 \times as long as stipe width; preglans without spines; glans with one wide, moderately sclerotized lobe (Figs 9, 10, cyan arrows) and small, strongly sclerotized inner structure. Hypandrium (Fig. 8) asymmetric, with strongly developed lateral sclerite (pregonite) at right side and pair of button-like sensory plates at both sides of basiphallus; phallopodeme dorsoventrally compressed. Ejaculatory apodeme fan-like.

Female terminalia: oviscapae black, $0.95\times$ as long as tergite 5, aculeus 0.8–0.85 mm long, 7–7.5 \times as long as wide, with long and thin setae on tergite and sternite 8 and cercal unit (Fig. 11); 3 subspherical spermathecae with smooth surface and inverted necks (Fig. 12).

Holotype: ♂ **Afghanistan:** 10 km S of Bamyan [34.7160°N 67.8400°E], 2800 m, 22–30.v.2010, Yu. Skrylnik (SIZK).

Paratypes: 5♂ 2♀, same data as holotype; 2♀, same locality, 12.vi.2016, Yu. Skrylnik (SIZK, SMNHNTAU).

Biology: Unknown.

Ulidia bartaki n. sp.

(Figs 13–30)

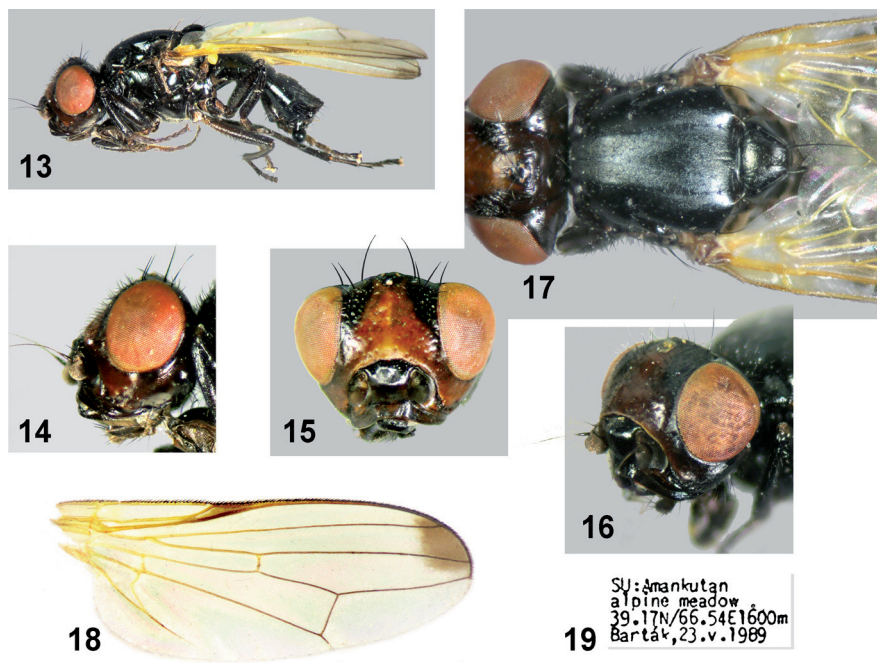
Ulidia sp. nr. *melampodia*: Kameneva 2002: 149 (material from Kyrgyzstan).

LSID: urn:lsid:zoobank.org:act:FECF6D93-D79A-4F15-8674-A3409A693F0C.

Etymology: The species is named in honor of Miroslav Barták, a Czech dipterist, the first collector of this species.

Diagnosis: This species can be easily recognized from all known species of *Ulidia* by the combination of entirely hyaline cells bc, c, and cup; brownish pterostigma, dark spot at wing apex, creamy haltere, shining occiput, matt, finely shagreened mesonotum, and prescutellar acrostichal seta lacking. In the key to the known Pa-

laearctic species (Morgulis & Freidberg 2014) it runs to the couplet 11. together with *U. hirsuta* Morgulis & Freidberg, 2014, *U. apicalis* (Meigen, 1826), and *U. sp. nr. apicalis*, differing from them by entirely black tarsi, and lack of the prescutellar acrostichal seta. It is similar to *U. apicalis* from Western Mediterranean region in having moderately large dark apical spot in cells r_1 , r_{2+3} and r_{4+5} , clearly differing from it by the almost round eye (length: height ratio = 1:1.1–1.23) and mostly matt, finely shagreened mesonotum (in *U. apicalis*, eye vertical oval, length: height ratio = 1:1.4–1.55, mesonotum polished black without sculpture). Similarly to *U. hirsuta*, it possesses moderately large dark apical spot in cells r_1 , r_{2+3} and r_{4+5} , almost round eye and head in profile, shagreened mesonotum, differing from it by moderately long (setulae at most $\frac{2}{3}\times$ as long as orbital seta) setulose orbits, lack of prescutellar acrostichal setae, and male genitalia with surstylus covered by fine setulae (in *U. hirsuta*, vertical and orbital plates of frons long setulose, prescutellar acrostichal setae present, and male genitalia with surstylus covered by thickened prenisetae, as shown by Morgulis & Freidberg 2014: figs 23, 57). This species also somewhat reminds some specimens of variable *U. ruficeps* in wing pattern and head colouration, as well as entirely black tarsi, readily differing from that species by mesonotum matt, densely shagreened (glossy in *U. ruficeps*) and palpus short and



Figs 13–19: *Ulidia bartaki* n. sp., holotype (13–15, 17, 19) and paratype (16, 18) males: (13) habitus, left; (14) head, left; (15) face and frons, anterior; (16) head, anterolaterally; (17) mesonotum, dorsal (direct light, white reflection screen not applied); (18) wing; (19) label. Scale: 1 mm.

setulose throughout its length (long and wide, setulose only at base in *U. ruficeps*). See also diagnosis of *U. facialis* below.

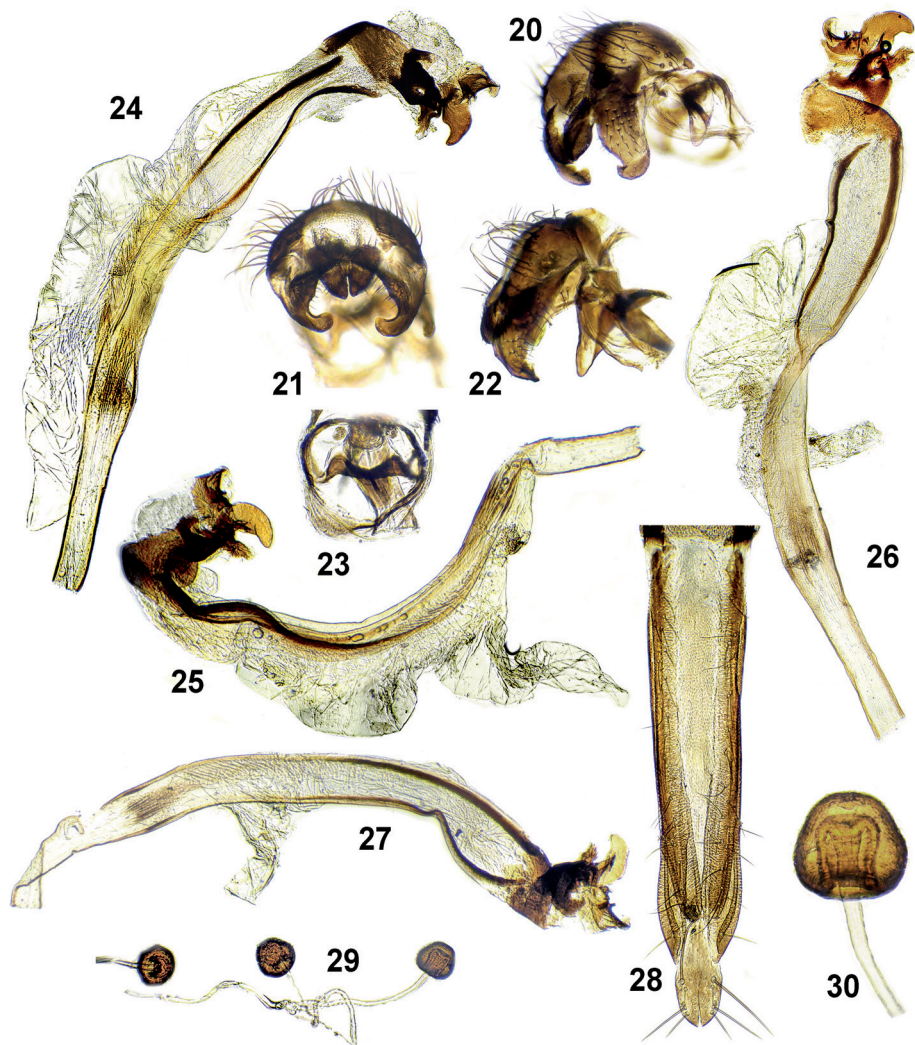
Description: *Head* (Figs 14–16) black, with frons and facial yellowish brown to dark brown. Head ratio $h:l:w=1:1-1.05:1.45-1.5$. Frons $0.6-0.7\times$ as long as wide, yellowish brown to dark brown medially, with orbits widely black, shining, laterally shallowly wrinkled, with small white microtrichose triangular spot at anterolateral margin, slightly convex, with numerous black setulae, $0.5-0.65\times$ as long as orbital setae), inserted into shallow pits. Vertical plates and ocellar triangle shining black; 2 pairs of black orbital setae, posterior orbital seta $0.7-0.8\times$ as long as medial and lateral vertical seta, anterior orbital seta short, hardly distinguishable from surrounding inclinate and lateroconclinate setulae; ocellar setae lateroconclinate, $0.2-0.3\times$ as long as posterior orbital seta.

Face and lunule black, facial carina $1.6\times$ as wide as antennal groove and as wide as high, subshining, finely shagreened; epistome black, finely shagreened; subgena moderately low. Antennal groove $1.5-1.6\times$ as high as wide, deep, entirely black, white microtrichose except ventral surface shining brown to black. Eye $1.23\times$ as high as long. Gena reddish yellow to brown, half as high as eye; parafacial matt brownish or reddish yellow to black, with very narrow white microtrichose stripe along eye; gena posteriorly separated with rather blunt genal ridge from entirely black postgena. Occiput entirely black, mostly subshining, rugulose, except smooth vertex, occipital sutures and anterior margin of postgena shining black. Ventral half of occiput conspicuously swollen. Medial vertical seta $0.25-0.45\times$ as long as frons width, $1.1-1.2\times$ as long as lateral vertical and $1.5-2.2\times$ as long as ocellar, orbital, and postocellar setae. Antenna: scape black to brown, pedicel deeply incised, brown or sometimes apically yellow; flagellomere 1 short oval, $1.5\times$ as long as wide, brownish yellow to black, white microtrichose; arista bare, brown. Clypeus black. Palp dark brown, gray microtrichose, with 8–9 black lateroventral setae. Mouthparts black.

Thorax (Fig. 17). Scutum and scutellum black, finely rugulose, almost matt; posterior portion of postpronotal lobe, entire notopleural triangle, postalar lobe, anterior half of anepisternum and katapisternum, and whole anepimeron shining black; postscutellum black, subshining; posteroventral margin of scutellum without microtrichose area; anatergite, katatergite and lateroventral parts of mediotergite subshining black, finely rugulose. Scutum wide, $1.1-1.2\times$ as long as wide, with irregular, moderately short setulae in intra-alar area and regular row of 12–16 dorsocentral setulae and 1 dorsocentral seta (Fig. 17); acrostichal seta lacking, at most 4–6 setulae between dorsocentral rows; postpronotal lobe with 1 thin, unmodified seta and 2–3 setulae; proepisternal ridge poorly expressed, bearing numerous fine setulae; proepisternal seta short, not distinguished among setulae; other setae moderately long, black: 1 postsutural supra-alar, 1 intra-alar and 1 postalar. Scutellum moderately long, $1.7\times$ as wide as long, finely wrinkled, with 2 pairs of black scutellar setae.

Wing (Fig. 18) hyaline, with dark spot at wing apex reaching from apex of cell r_1 to middle of cell r_{4+5} , cells bc and base of cell c yellowish, cell sc and veins brown;

cell r_{4+5} moderately narrowed at apex: section of costal vein between apices of R_{4+5} and M $0.35-0.45\times$ as long as crossvein $DM-Cu$. Postero-apical extension of cell cup $2\times$ as long as transverse shoulder of vein Cu_2 . Calypters with long white fringe. $WL=3.8-4.5$ mm. Haltere with base brown, knob creamy.



Figs 20–30: *Ulidia bartaki* n. sp. paratypes, male (20–27) and female (28–30): (20) male genitalia posterolaterally (phallus detached); (21) epandrium and cerci, posterior, ventral; (22) male genitalia, right; (23) hypandrium, ventral; (24–27) phalli (separated from hypandria at bases and moderately compressed; arrows point on largest lobe of glans): (24) Aman-Kutan Pass; (25) Kyrghyz Alatau, Kara-Archa; (26) Karatau Mountains; (27) Chatkal Ridge; (28) aculeus, ventrally; (29) spermathecae; (30) spermatheca, enlarged.

Legs entirely black; most setae and setulae black, except fore and hind basitarsi ventrally with brush of dark yellow setulae; fore femur moderately thickened, with fine, unmodified setae; mid femur narrow, with row of 8–10 moderately long and thin setae posteroventrally and shorter setulae on anterior surface; mid tibia apically with 1 long and 2 shorter apical setae; hind femur slightly thickened apically, with 2 strong preapical setae dorsally.

Abdomen entirely black, dorsally matt, finely shagreened, laterally subshining, with inconspicuous and sparse microtrichia only at sides of tergite 1; syntergite 1+2 anteriorly narrow, widened posteriorly, with short black setae laterodorsally, tergites 3–4 almost devoid of setae; tergite 5 of male and female conspicuously shagreened, with sparse and relatively long setae posteriorly; female abdominal tergite 2 without dimple-like structures; female tergite 6 transverse, entirely developed, but hidden underneath tergite 5, with 2 rows of setulae. Sternites wide in both sexes, separated by rather narrow, black membrane from tergites; sternite 1 wider than long; sternite 2 1.3× as long as wide, with desclerotized ‘window’ in anterior 1/3; sternites 3–4 of male and 3–5 of female subquadrate, with few sparse setae (4–6 longest at posterior margins); tergite and sternite 6 of female conspicuously narrower than preceding tergites, as wide as and half as long as oviscapae, both with 2 rows of setae, setae of posterior row moderately long. Sternites 4–6 of female without anteromedial apodemes.

Male postabdomen (Figs 20–27) brown to black; pregenital sternites moderately long; sternite 8 with numerous subequal setulae. Epandrium as in Figs 20–22; cerci deeply separated, apically approximated and rounded (Fig. 21); lateral surstylus simple, with one mesally directed lobe (Fig. 21); medial surstylus entirely flat, forming no lobes, bearing 20–25 uniformly thin, moderately long setulae, and no prenisetae (Fig. 20). Phallus 1.0 mm long, with stipe almost half as long as preglans (without glans); membranous inflatable valve as long as preglans, basally with caecum 2–3× as long as stipe width; preglans without spines; glans with wide transverse sclerite basally, one wide, moderately sclerotized, apically rounded claw-like lobe and two complex, strongly sclerotized inner structures bearing radiate sculpture (Figs 24–27). Hypandrium (Figs 22, 23) asymmetric, with strongly developed lateral sclerite (pregonite) at right side and pair of button-like sensory plates at both sides of basiphallus; phallapodeme dorsoventrally flattened, suboval. Ejaculatory apodeme fan-like.

Female terminalia: oviscapae black, 0.95× as long as tergite 5, aculeus 0.85 mm long, 7–7.5× as long as wide, with long and thin setae on tergite and sternite 8 and cercal unit; 3 spherical spermathecae with smooth surface and inverted necks (Figs 29–30).

Biology: Unknown.

Holotype: ♂ **Uzbekistan:** Aman-Kutan [pass], alpine meadow, 39.17°N 66.54°E, 1600 m, 23.v.1989, M. Barták (SIK).

Paratypes: **Qazaqstan:** 5♂ 6♀, Karatau Mts, Aktobe R. 15 km N Atabaj, 750–820 m, 8.v.1994 (2♂ [1 dissected], 1♂♀ in copula); 9.v.1994 (2♂), 10.v.1994 (5♀), Korneyev; 1♂ (dissected), Jambyl Region,

S slopes of Karatau Mts NE of Biblikol, 1100 m, 19.v.1988, Antropov; 1 ♀ Jambyl Region, S slopes of Karatau Mts NE of Biblikol, 700–1300m, 19.v.1998, Kireychuk; 20 ♂ (1 dissected) 11 ♀ 1 ♂♀ in copula, Karatau Mts, N Achisai 35 km NNE Kentau 1200–1700m, 12.v.1994, Korneyev (SIZK, SMNHTAU, ZMHB). **Kyrgyzstan:** 1 ♂ (dissected), Kara-Archa vill., SW Kyrgyz Alatau Mts., 35 km ESE Jambyl [=Taraz], 3.v.1994, Korneyev; 2 ♂ 1 ♀, 10 km N Tash Kumyr 1500 m, 21.v.1994 (1 ♂), 22.v.1994 (1 ♂ 1 ♀), Korneyev; 1 ♂ 1 ♀, Chichkan R. 1000 m, 12 km N Toktogul, 23.v.1994, Korneyev; 1 ♀, Chon-Aryk prope Bishkek, 1200 m, 26.v.1994, Korneyev; 1 ♂ 1 ♀, same, 42°43.2'N 74°34.4'E, 1060–1100 m, 19.vi.1999, Korneyev & Kameneva; 3 ♀, Talas Region, 20 km ESE of Pokrovka (=45 km ESE of Taraz), 20–22.v.1988, Kireychuk; 1 ♂, Talas ridge, Chatkal flood plain, 76 km of Jangy-Bazar, 42°04.0'N 71°35.8'E, 2210 m, 29.vi.1998 Korneyev & Kameneva; 12 ♂ 9 ♀ Chatkal River valley, 15.3 km of Jangy-Bazar, 41°41.1'N 70°39.7'E, 1400–1700 m, 1.vii.1998 (7 ♂ 6 ♀), 2.vii.1998 (5 ♂ 3 ♀), Korneyev & Kameneva (SIZK). **Uzbekistan:** 24 ♂ 23 ♀, same data as holotype (MBC, SIZK).

Ulidia skrylniki n. sp.

(Figs 31–36)

LSID: urn:lsid:zoobank.org:act:280CFF6F-05A3-434D-BF13-B72BAD21F019.

Etymology: The species is named in honor of Yuriy Skrylnik, Ukrainian entomologist, collector of the type series.

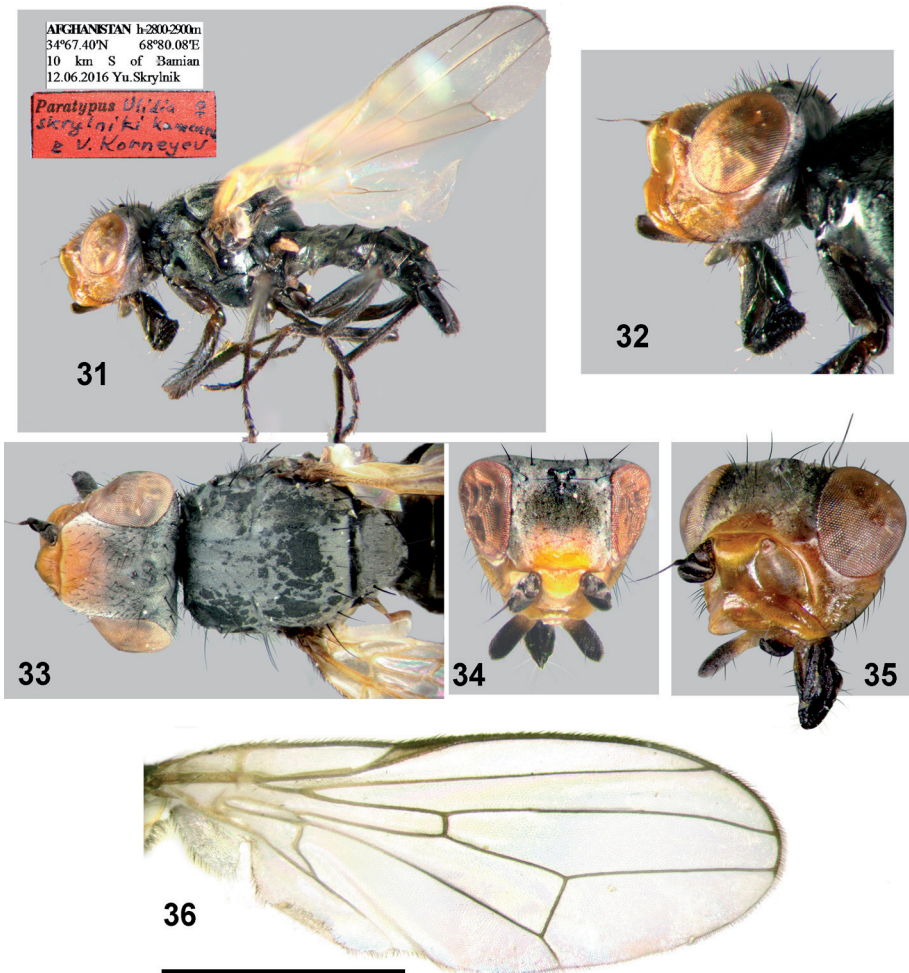
Diagnosis: This species can be easily recognized from all known species of *Ulidia* by the combination of frons, occiput, mesonotum and abdominal tergites 1–3 sparsely gray pollinose without shining dots at bases of setae and setulae, entirely hyaline wing, face and gena yellow, frons depressed, palp long, extending beyond oral margins. It is similar to *U. ruficeps*, widespread from Greece and Israel to Iran and Kyrgyzstan, in having elongate head with strongly depressed frons, widely yellow face, and long palp, readily differing from that species by the uniformly microtrichose frons and mesonotum (in *U. ruficeps*, frons subshining and mesonotum glossy).

Description: *Head* (Figs 32–35) black, with mostly yellow to yellowish brown frons, facial carina and gena. Head ratio h:l:w=1:1.2:1.6. Frons 0.9–1.0× as long as wide, black in posterior half and yellow to orange in anterior half, entirely and uniformly covered with sparse white microtrichia, including vertical plate, orbits and ocellar triangle (Fig. 34), frons slightly depressed medially, moderately densely and short setulose. Vertical plate with 2 orbital setae and 2–3 rows of moderately long erect setulae 0.5–0.75× as long as setae); ocellar setae latero-clinate, 1.0–1.2× as long as posterior orbital seta.

Face yellow, lunule conspicuously projected anteriorly, with 6–8 setulae; facial carina yellow 0.9–1.0× as wide as antennal groove, subshining, finely shagreened; epistome yellow, smooth, shining; subgena high. Antennal groove 1.5–1.6× as high as wide, deep, entirely yellow, almost entirely white microtrichose. Parafacial yellow, white microtrichose in posterior 0.3–0.5 of width along eye. Gena yellow, matt, white microtrichose in posterior part, black setulose, 0.55× as high as eye (Fig. 32). Occiput black, entirely white microtrichose. Ventral half of occiput conspicuously swollen. Medial vertical seta 0.39–0.45× as long as frons width, 1.0–1.1× as long as lateral vertical and 1.3–1.5× as long as ocellar, orbital, and postocellar setae. Antenna: scape black, pedicel deeply incised, black, white microtrichose; flagel-

lomere 1 round, as long as wide, black, silvery white microtrichose; arista bare, entirely black. Clypeus yellow. Palp black in apical 0.6 of length, brownish yellow at base, with long basoventral setae and a few short marginal apical setae, silvery white microtrichose. Mouthparts black, short, labellum $0.8\times$ as long as eye; prementum shining black.

Thorax (Figs 31, 33) entirely black, covered with silvery white sparse white microtrichia not hiding colour of cuticle; antep pronotum, posterior portion of postpronotal



Figs 31–36: *Ulidia skrylniki* n. sp., holotype (34, 36) and paratype (31–33, 35) females: (31) habitus, left and labels; (32) head, thorax, and fore leg, left; (33) head and mesonotum, dorsally (direct light, white reflection screen not applied); (34) frons, dorsal; (35) head anterior and left (left antenna missing); (36) wing. Scale: 1 mm.

lobe, anterior half of anepisternum anterior half of katepisternum, and meron partly shining black; posteroventral margin of scutellum, anatergite, and mediotergite almost entirely microtrichose.

Scutum narrow, 1.1–1.2× as long as wide, one intra-alar row of 3–4 setulae and regular row of 9–11 dorsocentral setulae and 1 dorsocentral seta (Fig. 33); acrostichal seta lacking; at most 4 setulae between dorsocentral setae; postpronotal lobe with 1 seta and 2–3 setulae; proepisternal ridge low, with 8–10 black setulae; other setae moderately long, black, 1 postsutural supra-alar, 1 intra-alar and 1 postalar seta present. Scutellum transverse, twice as wide as long, with 2 pairs of black scutellar setae.

Wing hyaline, with yellow cell bc, gray cell sc, and brown veins; cell r_{4+5} apically slightly narrowed, vein M reaching costa at wing apex; section of costal vein between apices of R_{4+5} and M wide, ≤ 0.50 – $0.55\times$ as long as crossvein DM–Cu. Postero-apical extension of cell cup 1.2× as long as transverse section of vein Cu_2 . Calypters with long white fringe. WL=2.9–3.0 mm. Haltere with base and stem brown, knob brownish yellow.

Legs entirely black, mostly white microtrichose; most setae and setulae fine, black; fore basitarsus and 2 basal hind tarsomeres with brush of brownish yellow setulae on ventral surface; mid tibia with 1 apicoventral seta; hind femur slender, with 1–2 preapical dorsal setae.

Abdomen entirely black, dorsally matt, finely shagreened, sparsely white microtrichose; tergite 2 laterally long setose; syntergite 1+2 wide, tergites 3–4 setose mostly laterally; female abdominal tergite 2 without dimple-like structures; female tergite 6 hidden underneath of tergite 5. Sternites wide, separated by rather narrow, black membrane from tergites; oviscape shining black, black setulose, 1.2× as wide as long and 1.1–1.3× as long as tergites 4 and 5.

Female terminalia not dissected.

Male. Unknown.

Biology: Unknown.

Holotype: ♀ **Afghanistan:** 10 km S of Bamyán, 34°67.40'N 68°80.08'E, 2800–2900 m, 12.vi.2016, Yu. Skrylnik (SIZK).

Paratype: 1♀ **Afghanistan:** same locality as holotype, 22–30.v.2010, I. Pljusch (SIZK).

Ulidia facialis Hendel, 1931

(Figs 37–54)

Ulidia facialis: Hendel 1931: 60 (description); Hennig 1940: 14, 16 (key, redescription, figures of male genitalia); Steyskal & El-Bialy 1967: 38 (checklist); Zaitzev 1984: 61 (catalogue); Kameneva 2008: 440, 443 (key, illustration); Morgulis & Freidberg 2014: 223 (discussion).

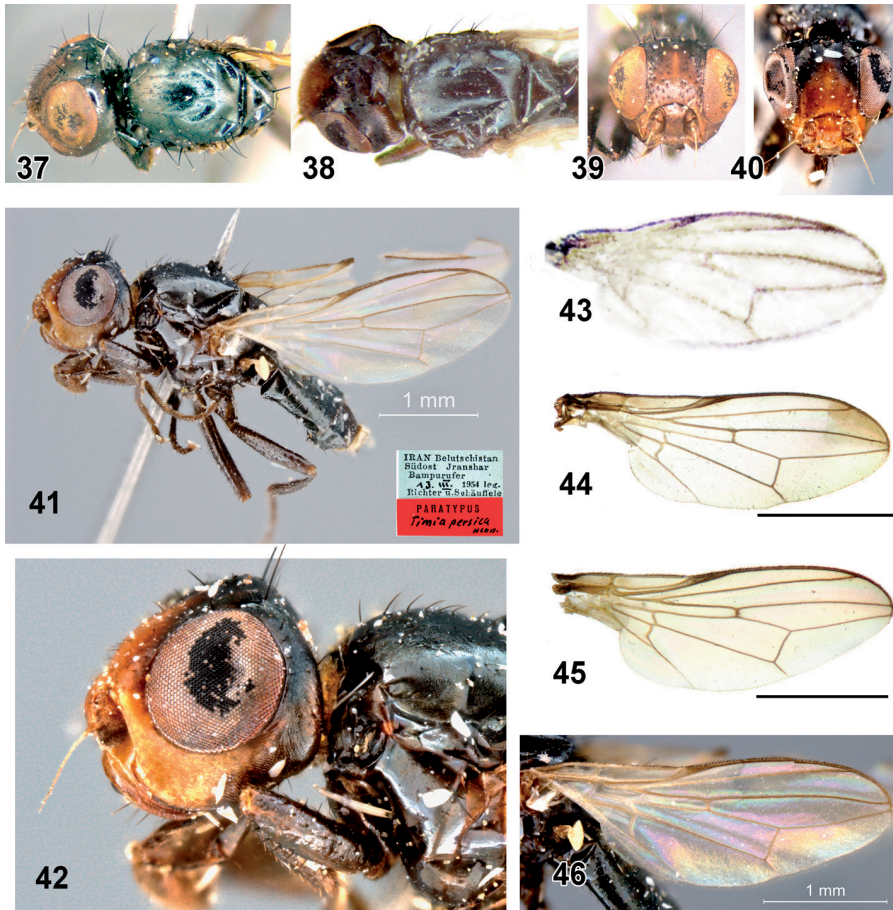
Ulidia fascialis: Hendel 1931: 60 (emendation; unavailable); Hennig 1940: 16 (discussion; Principle of the First Reviser applied); Morgulis & Freidberg 2014: 230 (discussion).

Ulidia salonikiensis: Hennig 1940: 13, 17 (key, description); Zaitzev 1984: 61 (catalogue); Belcari *et al.* 1995: 7 (checklist); Kameneva 2008: 447 (material); Morgulis & Freidberg 2014: 223 (key), **n. syn.**

Ulidia omani: Steyskal 1970: 227 (description); Zaitzev 1984: 61 (catalogue); Kameneva 2008: 440 (key); Morgulis & Freidberg 2014: 223 (key), 229 (redescription, incl. male and female genitalia, material, discussion), **n. syn.**

T. persica: Hennig 1965: 5 (description); Zaitzev 1984: 64 (catalogue), **n. syn.**

Diagnosis: This species is similar to *U. bartaki* n. sp. in having acrostichal seta lacking, wing with darkened pterostigma, frons widely reddish or yellowish brown, finely dotted, mesonotum finely rugulose, haltere knob yellow, and all tarsi entirely black, differing from it by smaller size, surstylus angulate, with 3–5 thick prenisetae, cerci short oval, non-produced, and phallus with stipe as long as or longer



Figs 37–46: *Ulidia facialis*. Syntype female *U. facialis* (43), paratype male *U. persica* (38, 40, 41, 42, 46), non-type male, Northern Greece (37, 39, 44) and non-type male, Israel: (37, 38) head and mesonotum, dorsal; (39, 40) face and frons, anterior; (41) habitus, left, and labels; (42) head, thorax, and fore leg, left; (43–46) wing. Scale: 1 mm.

than preglans, and glans poorly sclerotized, bearing no long projected lobes (in *U. bartaki* n. sp. size bigger, surstylus apically rounded, with thin setae only, cerci long oval, produced ventrally, phallus with stipe conspicuously shorter than preglans, and glans with at least one moderately sclerotized lobe and largely sclerotized inner structures). Most specimens from Egypt, Israel, Iraq and Iran also differ from *U. bartaki* n. sp. in having hyaline wing apex without dark spot, whereas the specimens from Greece have apical dark spot. In addition, specimens of *U. facialis* can be recognized from cell r_{4+5} strongly narrowed at apex (distance between apices of veins R_{4+5} and $M \leq 0.33 \times$ as long as crossvein DM–Cu (in other *Ulidia*, cell r_{4+5} only slightly narrowed to the apex, distance between apices of veins R_{4+5} and $M \geq 0.33 \times$, usually $0.35–0.55 \times$ as long as crossvein DM–Cu).

Redescription: *Head* (Figs 14–16) black, with frons, face, parafacial and gena brownish yellow to dark brown. Head ratio h:l:w=1:1.05–1.1:1.35–1.4. Frons (from lunule to anterior ocellus) as long as wide, reddish brown to dark brown medially, with orbits widely black, shining, laterally shallowly wrinkled, with small, usually inconspicuous white microtrichose triangular spot at anterolateral margin, slightly convex, with numerous short ($0.2–0.3 \times$ as long as orbital setae) black setulae inserted into shallow pits. Vertical plates and ocellar triangle shining black; 2 pairs of black orbital setae, of them anterior seta inclinate and posterior seta latero-clinate, $0.6–0.7 \times$ as long as medial and lateral vertical seta; ocellar setae latero-clinate, as long as posterior orbital seta.

Face and lunule reddish brown to dark brown, facial carina $1.1 \times$ as wide as antennal groove and $1.2 \times$ as wide as high, shining, finely shagreened; epistome brownish yellow to dark brown, finely shagreened; subgena moderately low, slightly lower than width of antennal groove, brown to dark brown, shagreened or rugulose. Antennal groove $1.8–1.9 \times$ as high as wide, deep, brownish yellow, white microtrichose except ventral surface shining yellow to brown. Eye $1.1–1.15 \times$ as high as long. Gena brownish yellow to brown (sometimes to black in posterior quarter), half as high as eye; parafacial entirely shining, brownish yellow to brown. Occiput entirely black, mostly subshining, rugulose; ventral half of occiput conspicuously swollen. Medial vertical seta $0.65–0.75 \times$ as long as frons width, $1.1 \times$ as long as lateral vertical and $1.6–1.8 \times$ as long as ocellar and orbital setae; postocellar seta $0.3–0.4 \times$ as long as medial vertical seta or lacking. Antenna: scape brown, pedicel shallowly incised, brown to black; flagellomere 1 short oval, $1.1 \times$ as long as wide, brownish to black, white microtrichose; arista bare, brown to black. Clypeus black, at most as long as eye. Palp dark brown, gray microtrichose, with 5–6 black lateroventral setae basally and 3–4 short setae at apex. Mouthparts black, with labellum short and prementum shining black, elongate, $1.0–1.1 \times$ as long as labellum.

Thorax (Figs 37, 38, 41) entirely black, scutum and scutellum sparsely rugulose, subshining to matt; other parts subshining, sparsely rugulose or shagreened; posteroventral margin of scutellum without microtrichose area; postscutellum and lateroventral parts of mediotergite subshining black, finely rugulose or inconspi-

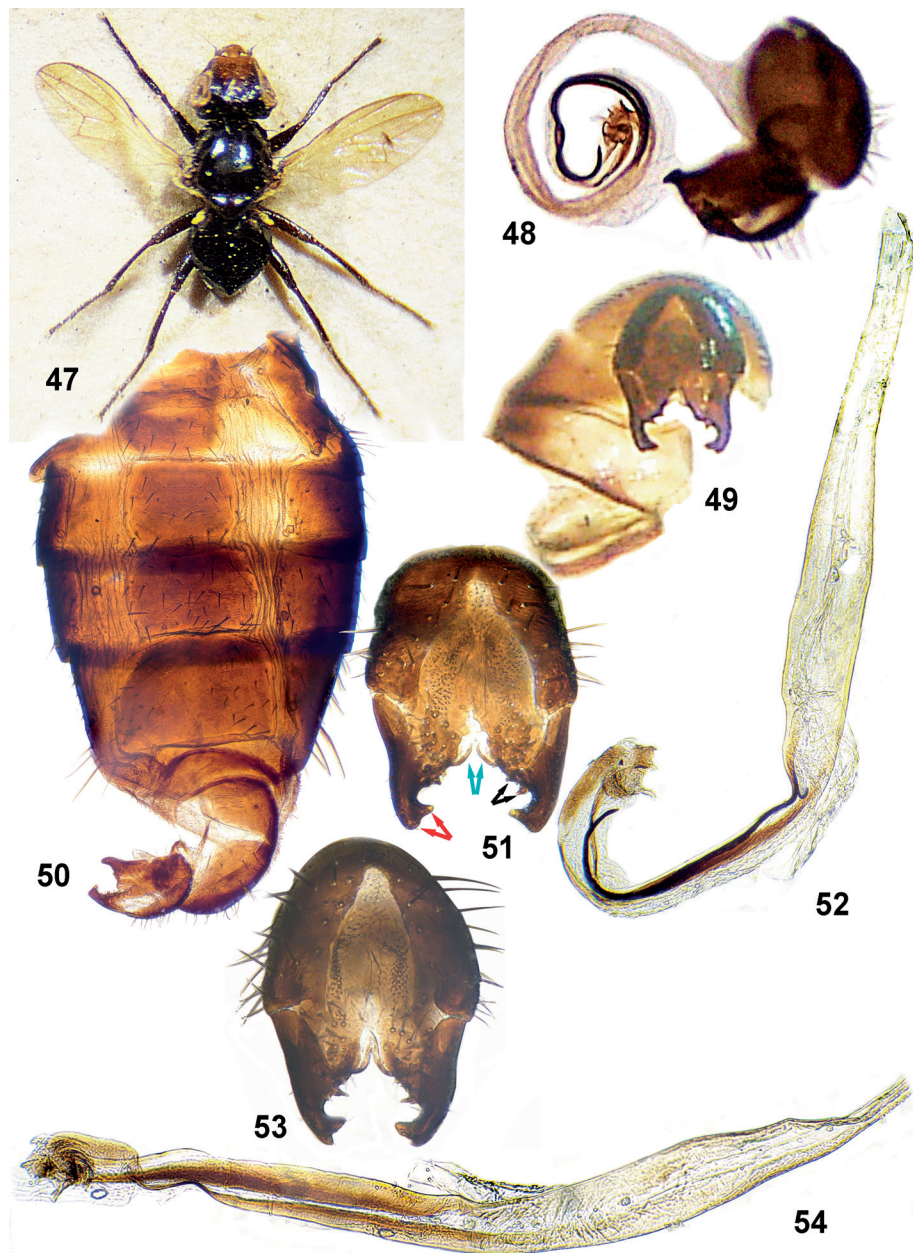
cuously microtrichose. Scutum wide, 1.1–1.2× as long as wide, with irregular, moderately short setulae in intra-alar area and regular row of 10–12 dorsocentral setulae and 1 dorsocentral seta (Fig. 37); acrostichal seta lacking, at most 4–5 setulae between dorsocentral rows; postpronotal lobe with 1 thin, unmodified seta and 2–3 setulae; proepisternal ridge poorly expressed, with 1–3 fine setulae; proepisternal seta tiny, inconspicuous; other setae moderately long, black: 2 postsutural supra-alar, 1 intra-alar and 1 postalar. Scutellum moderately long, twice as wide as long, sparsely shagreened, with 2 pairs of black scutellar setae.

Wing (Figs 43–46) hyaline with pale brownish tinge, with cells bc, sc, pterostigma and veins gray to brown; wing apex usually hyaline, in specimens from Greece, pale brown spot at wing apex reaching from apex of cell r_1 to middle of cell r_{4+5} present; cell r_{4+5} strongly narrowed to apex: section of costal vein between apices of R_{4+5} and M 0.25–0.3× as long as vein $DM-Cu$. Postero-apical extension of cell cup as long as transverse section of vein Cu_2 . Calypters with long white fringe. $WL=2.3-2.9$ mm. Haltere with base brown, knob creamy white.

Legs entirely black; all setae and setulae black, except fore tibia, fore and hind basitarsi ventrally with brush of dark yellow setulae; femora slender, with fine, unmodified setae; mid tibia apically with 1 long seta; hind femur slightly thickened apically, with 1–2 strong preapical setae dorsally.

Abdomen entirely black subshining, finely shagreened, subshining, with inconspicuous and sparse microtrichia only at sides of tergite 1, basal half of tergite 2, and base of tergite 5; syntergite 1+2 anteriorly narrow, widened posteriorly, with short black setae laterodorsally, tergites 3–4 laterally short and sparsely setose; tergite 5 of male and female sparsely shagreened, with sparse and relatively long setae posteriorly and laterally; female abdominal tergite 2 without dimple-like structures; female tergite 6 transverse, entirely developed, but hidden underneath of tergite 5, with 2 rows of setulae. Sternites wide in both sexes, separated by rather narrow, black membrane from tergites; sternite 1 wider than long; sternite 2 moderately wide, 1.3× as long as wide, with desclerotized ‘window’ in anterior $\frac{1}{3}$; sternites 3–4 of male and 3–5 of female subquadrate, with a few sparse setae (4–6 longest at posterior margins); tergite and sternite 6 of female conspicuously narrower than preceding tergites, as wide as and half as long as oviscape, both with 2 rows of setae, setae of posterior row moderately long. Sternites 4–6 of female without anteromedial apodemes.

Male postabdomen (Figs 48–54) brown to black; pregenital sternites moderately long; sternite 8 with numerous subequal setulae. Epandrium as in Figs 49, 51, 53; cerci very short, not produced (Fig. 51, cyan arrows); lateral surstylus simple, with two mesally directed, angulate lobes (Fig. 51, red arrows); medial surstylus, bearing 11–55 thin, moderately long setulae, and 3–4 prenisetae (Fig. 51, black arrow). Phallus with stipe almost as long as or slightly longer than preglans (without glans); membranous inflatable valve as long as preglans; preglans without spines; glans poorly sclerotized, with 3–4 short acute projections (Figs 48, 52, 54).



Figs 47–54: Syntype female *U. facialis* (47), topotypic male (48, 49), non-type males from Greece (50–52) and Israel (53, 54): (47) habitus, dorsal; (48, 49) male postabdomen; (50) abdomen, dissected, ventral; (51, 53) epandrium, posterior; (52, 54) phallus.

Female terminalia: oviscapae black, 0.9× as long as tergite 5, aculeus 0.75 mm long, 8–8.5× as long as wide, with long and thin setae on tergite and sternite 8 and subtriangular cercal unit (see also Morgulis & Freidberg 2014: fig. 96); 3 globular spermathecae with smooth surface and inverted necks.

Biology: Unknown.

Material examined: Syntypes of *Ulidia facialis* 2♀: **Egypt:** Mariout, 5–10.iii.1929 (EFC).

Holotype of *Ulidia salonikiensis* ♂: **Greece:** “Saloniki / 26 301”, “Miari / - smeca I”, “Holotypus” [red label] “*Ulidia / salonikiensis / n. sp. / det. Dr. W. Hennig 1939*” (ZMHB). **Paratypes:** 2♀: **Greece:** “Saloniki / 26 299” and “Saloniki / 26 299” [“Saloniki Turkei an Garry de N. Hough” according to the Museum Catalogue], “Paratypus” (ZMHB).

Holotype ♂ and **paratypes** 1♂ 2♀ of *Ulidia omani*: **Israel:** Be'er Sheva' [Beersheba], 24.iii.1964 [64], P. Oman (USNM).

Holotype ♂ of *T. persica*: **Iran:** Belochistan, Iranshahr, 800 m, 1–10.iii.1954, Richter & Schäuuffele. **Paratypes:** 2♂, same data as holotype; 11–18.iii.1954, 2♂ 3♀, SE Iranshahr, Barnpurufer, Richter & Schäuuffele, 13.iii.1954 (SMNS).

Other material examined: Egypt: 6♂, Mariout, 5–10.iii.1929, Eflatoun (EFC). **Israel:** 3♂ 2♀, Ein Avda, 29.v.1980, Mathis & Freidberg; 1♂, Yeruham, 25.iii.1987, Freidberg; 2♂ 1♀, Bor Mashash, 25.iii.1987, Kaplan; 4♀, Dimona, 12.iv.1990, Freidberg; 4♂ 3♀, Nahal Seher, 6.iv.1992, Freidberg; 4♂ 1♀, Mizpe Ramon observatory, 17.iii.1995, Freidberg (SIZK). **Iraq:** 1♂ 2♀, Haira, pools in steppe, 6.iv.1988, Olejnicek (MBC, SIZK).

Remarks: Hendel (1931) had used two alternative spellings: “fascialis” (in the title) and “facialis” (in the body of description); later Hennig (1940) cited both names together and selected the spelling “facialis” as correct; according to the Principle of the First Reviser (ICZN 1999: Art. 24), the spelling *Ulidia facialis* Hendel, 1931 was fixed as the valid name for this species. The statement of Morgulis and Freidberg (2014: 230) that “the spelling “facialis” ... is an unjustified emendation” is therefore incorrect.

Probable conspecificity of specimens identified as *U. omani* and *U. facialis* was noted by Morgulis and Freidberg (2014), but the synonymy was pending, despite no characters to distinguish them were found. Detailed study by M.S. El-Hawagry of genitalia in the topotypic specimens collected together with the syntype females, but formally not included by Hendel (1931) into the type series, has shown that *U. omani* and *U. facialis* have the same structure of the male surstyli, cerci and phallus, which are very constant and species-specific.

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