ACTA ENTOMOLOGICA MUSEI NATIONALIS PRAGAE
Published 30.vi.2017 Volume 57(1), pp. 229–251 ISSN 0374-1036
http://zoobank.org/urn:lsid:zoobank.org:AAEF44BB-F7B0-48B7-9175-7B10C26CFC1E
doi: 10.1515/aemnp-2017-0071

Periscelis fugax sp. nov., an overlooked European species of Periscelididae (Diptera), with notes on the morphology and terminology of terminalia

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Abstract. *Periscelis* (*Periscelis*) *fugax* sp. nov. is described and illustrated based on series of specimens from Portugal and the Czech Republic. It is probably widespread in Europe but has not been previously recognized from the closely related and externally very similar *P.* (*P.*) *winnertzii* Egger, 1862. The new species differs from *P. winnertzii* not only in structures of the male and female terminalia (illustrated) but also in colour pattern of pedicel and mesonotum. Morphology of the male and female terminalia is studied in detail in both these species and terminology of their structures is discussed and redefined. A new modern key to Palaearctic species of *Periscelis* (s. str.) species is constructed.

Key words. Diptera, Periscelididae, *Periscelis fugax* sp. nov., *P. winnertzii*, taxonomy, key, morphology, male genitalia, female terminalia, biology, distribution

Introduction

The world taxa of Periscelididae (including Stenomicridae as subfamily Stenomicrinae) have recently been catalogued by Mathis & Rung (2011), including a taxonomic conspectus of this group and a key to extant subfamilies, genera and subgenera. Based on this catalogue, the Periscelidinae = Periscelididae (s. str.) comprises 6 genera and 27 extant species; the genus *Periscelis* Loew, 1858 is represented by 15 extant species placed in subgenera as follows: *Myodris* Lioy, 1864 (Holarctic: 5 species), *Notioscelis* Mathis, 1993 (Australian: 1 species) and *Periscelis* s. str (Holarctic, Oriental, Neotropical: 9 species). Simultaneously, Papp & Withers (2011) revised the Palaearctic Periscelidinae (= Periscelididae s. str., i.e.

without Stenomicridae). This paper also includes a key to Holarctic genera and subgenera of the group with elevation of the subgenus *Myodris* Lioy, 1864 to genus level, a key to extant species of *Myodris* and a description of *Periscelis nigra minor* Papp & Withers, 2011 from Hungary, a taxon missing in the above catalogue (Mathis & Rung 2011). Subsequently, Mathis & Freidberg (2012) described a first *Periscelis* species from the Afrotropical Region, viz. *P. stuckenbergi* (from Ethiopia) and placed it in the subgenus *Periscelis* s. str.

A few years ago the junior author collected a long series of *Periscelis* (s. str.) specimens in Portugal by netting around oak trunks with sap runs. They were closely resembling *P.* (s. str.) *winnertzii* Egger, 1862 but habitually differing from the latter by darker spots on wings. Closer examination revealed some differences also in the male genitalia against the redescription in Papp & Withers (2011). Based on our illustrations of male genitalia of Portuguese specimens L. Papp kindly confirmed that these differences are species-specific and, therefore, a pair of true *P. winnertzii* specimens from Hungary (compared by L. Papp with Egger's type specimen from Austria) was borrowed from HNHM for study. Direct comparison of the Portuguese, Czech, Slovak and Hungarian specimens revealed that not only the specimens from Portugal but, surprisingly, also all those from the Czech Republic belong to an unnamed species while those from Slovakia are conspecific with true *P. winnertzii* specimens from Hungary. This finding indicates that the new species (described below) is in fact widespread in Europe similarly to *P. winnertzii* which was also confirmed to occur in Portugal. The description of the new species necessitated a more detailed study of the male and female terminalia in *Periscelis* species. The results from this morphological study (including improvement of terminology of male genital appendages) are also presented below in addition to the taxonomic treatment of both above *Periscelis* species.

Material and methods

Material. The material listed in this paper is deposited in collections as follows:

ARGC	A. R. Gonçalves private collection, Coimbra (Portugal);
HNHM	Hungarian Natural History Museum, Budapest (Hungary);
JMB	J. Máca private collection, Veselí nad Lužnicí nr. České Budějovice (Czech Republic);
MBP	M. Barták private collection, Praha (Czech Republic);
NMPC	National Museum, Praha (Czech Republic);
RAP	R. Andrade private collection, Porto (Portugal);
SMLC	Severočeské Muzeum, Liberec (Czech Republic);
SMOC	Silesian Museum, Opava (Czech Republic).

Methods. Living *Periscelis* specimens were photographed in special boxes by means of a digital camera Canon EOS 60D with a macro lens (Canon MP-E 65 mm 1-5×) and ring macro flash (Canon MR-14EX) while dry mounted specimens were photographed by similar equipment but with a Canon EOS 5D Mark III camera. Specimens have been examined, drawn and measured using two types of binocular stereoscopic microscopes (Reichert, Olympus). Male genitalia and female terminalia were examined after detachment, treating in hot 10% KOH, washing in water and dissection of the whole abdomen in a drop of

glycerine under a binocular microscope. After examination, all parts were transferred to a small plastic tube in glycerine and pinned below the respective specimens. Detailed examinations were performed with a compound microscope (Jenaval) and genital structures were drawn by means of Abbe's drawing apparatus on this microscope at a higher magnification (130–350×). For more details see Roháček (2006). A detailed description of the new species is provided because all previous redescriptions of *P. winnertii* (including the most recent in Papp & Withers 2011) are incomplete, lacking many important characters shared with the new species.

Morphological terminology follows that used for Anthomyzidae by Roháček (2006) or for Stenomicridae by Roháček (2011) including terms of the male hypopygium, with some precision based on our study of male genitalia of several *Periscelis* species (see below). The „hinge" hypothesis of the origin of the eremoneuran hypopygium (see Zatwarnicki 1996), has been accepted. The following synonymous terms of the male genitalia (emanating from other hypotheses, including those used in Mathis & Papp 1998; Mathis & Rung 2010; Papp & Withers 2011) need to be listed (terms used here first): aedeagus = phallus; ejacapodeme = ejaculatory apodeme, epandrium = periandrium, gonostylus = surstylus, epandrial process of Papp & Withers (2011); medandrium = bacilliform sclerite, intraepandrial or intraperiandrial sclerite, phallapodeme = aedeagal apodeme; postgonite = gonite, paramere. Morphological terms of the male postabdomen and genitalia are depicted in Figs 6–12, 14, those of the female postabdomen in Figs 15–21.

Abbreviations of morphological terms used in text and/or figures.

A_1 – anal vein
ac – acrostichal (setulae)
bpha – basal part of phallapodeme
C – costa
ce – cercus
Cs_3, Cs_4 – 3rd and 4th costal sector
CuA_1 – cubitus
dc – dorsocentral setae
dp – distiphallus
dm-cu – discal medial-cubital (= posterior, t_p) cross-vein
ea – ejacapodeme
ep – epandrium
f_1, f_2, f_3 – fore, mid., hind femur
gs – gonostylus
hu – humeral (seta)
hy – hypandrium
M – media
ma – medandrium
npl – notopleural (setae)
oc – ocellar (setae)
ors – fronto-orbital (setae)
pa – postalar (seta)
pg – postgonite
pha – phallapodeme
pvt – postvertical (seta)
R_1 – 1st branch of radius
R_{2+3} – 2nd branch of radius
R_{4+5} – 3rd branch of radius
r_{2+3} – second radial cell
r-m – radial-medial (= anterior, t_a) cross-vein
S1–S10 – abdominal sterna
sa – supra-alar (seta)
sc – scutellar (seta)
Sc – subcosta
ss – surstylus
stpl – sternopleural (= katepisternal) (seta)
T1–T10 – abdominal terga
t_1, t_2, t_3 – fore, mid, hind tibia
vte – external vertical (seta)
vti – internal vertical (seta)

Results

Morphology of male terminalia

A detailed study of male genitalia of the *Periscelis* species (besides those treated in this paper terminalia of *P.* (s. str.) *nigra* (Zetterstedt, 1860), *P.* (*Myodris*) *annulata* (Fallén, 1813) and *P.* (*M.*) *piricercus* Carles-Tolrá & Verdugo Páez, 2009 have also been examined) revealed differences in the terminology of some genital parts due to incorrectly interpreted homology in previous treatments (Mathis & Papp 1998; Mathis & Rung 2010; Papp & Withers 2011; Mathis & Freidberg 2012). Therefore their morphology is briefly described below to elucidate terminology used here.

The general formation of the male genitalia of Periscelididae (s. str.) [i. e. without Stenomicridae] is very distinctive due to the peculiar modification of the phallapodeme which is extended to form a large pocket-shaped (hood-like in Papp & Withers 2011) capsule that is ventrally fused with the hypandrial frame. This is a strong synapomorphy of the family occurring obviously in all genera including *Periscelis* where the phallapodeme is much larger than the epandrium (see Fig. 6).

The epandrium is relatively small, arch-shaped (Figs 6, 11, 12, ep) but provided with a pair of distinctive but slender anteroventral appendages or projections, firmly connected (not movable) with the epandrium. This (first) pair of appendages is considered to represent true surstyli (Figs 6, 12, ss) in agreement with Papp & Withers (2011) but this structure is not homologous with the "surstylus" of authors (e.g. Sinclair 2000, Cumming & Wood 2009) because their "surstylus" is in fact homologous with the gonostylus (as interpreted here). In the subgenus *Periscelis* (s. str.) the true gonostyli are relatively small (Figs 6, 11, 12, gs) and represent a second pair of genital appendages. Papp & Withers (2011) call this paired structure incorrectly „epandrial process". They are recognizable as gonostyli because they are movably connected with the medandrium (= intraepandrial sclerite, = fused remnants of gonocoxites), thus surely not derived from the epandrium (cf. Fig. 12). While the medandrium (Figs 11, 12, ma) is reduced but still distinct in *Periscelis* (s. str.) species, it seems to be entirely absent in the subgenus *Myodris* where also the gonostyli disappeared (cf. also Papp & Withers 2011: Figs 22, 33). Such extensive reduction to absence of (true) gonostyli is very unusual in Acalyptrates as also is the presence of true (though unmovable) surstyli in *Periscelis* spp. Note: the surstylus in Periscelididae, particularly its less projecting form in species of the genus *Scutops* Coquillett, 1904 (see Papp & Withers 2011: Figs 46, 49, 52, 53) seems to be homologous with the "anteroventral process of epandrium" variously developed in species of the fossil Eocene genus *Protanthomyza* Hennig, 1965 (Anthomyzidae), see Roháček (2013a: Figs 1F, 2E, 6B). The third pair of genital appendages is formed by postgonites. They belong to the internal genitalia and are situated more medially being attached to the basal part of aedeagus (Figs 6, 14, pg). The last (fourth) pair of genital appendages are the cerci (Figs 6, 11, ce). They are enlarged, slender, elongate, setose and positioned most caudally. In species of *Myodris* the male cerci are armed by strong spines on apex (cf. Papp & Withers 2011: Figs 21, 27, 35, 39) and may have a clasping function to substitute the (here missing) gonostyli.

The internal genitalia are formed by hypandrial and aedeagal complexes. In *Periscelis* species the hypandrial complex is represented only by the hypandrium (Fig. 6, hy). It is low, frame-shaped but posteriorly medially attenuated to submembranous. Dorsally it is fused with the ventral margins of the pocket-shaped part of phallapodeme and can be best recognized laterobasally where it is more sclerotized (Fig. 6). In *Myodris* and *Scutops* species, the hypandrium is more distinctly separated from phallapodeme (cf. Papp & Withers 2011: Figs 22, 33, 52). The posterior sclerotized parts of the hypandrium (see Fig. 12, hy, rest of hypandrium removed in this illustration) are attached to the basal parts of the gonostyli, if these are present. Pregonites (= appendages of hypandrium) are not developed.

The aedeagal complex is formed by the phallapodeme, ejacapodeme, aedeagus (phallus) and postgonites. The phallapodeme (Fig. 6) is extremely enlarged, bulging dorsally to form a cup-like structure fused ventrally with the hypandrial frame and serving as a protection to the distiphallus. In addition to this large cup-like part, the phallapodeme has in *Periscelis* (s. str.) also a smaller basal part (Fig. 6, bpha) being formed as a short, ventromedially deeply forked, sclerite which is closely attached to and/or partly fused with the anterior pocket-shaped part. In *Myodris* species both these parts of the phallapodeme are fused completely. Ventral arms of the basal part of the phallapodeme reach to base of aedeagus (see Fig. 14, bpha). Also the ejacapodeme (Fig. 6, ea) is large, rod-like but basally somewhat widened to forked, situated in the ejaculatory duct (Figs 6, 12, ed) above the phallapodeme and serving as a part of the sperm-pump. The aedeagus is undivided, with phallophore reduced and not separated from the distiphallus (Figs 6, 14 dp), which is very elongate, ribbon-like, curved to twisted, weakly sclerotized and pale-pigmented, partly hidden in the phallapodemal pocket. A pair of postgonites is attached to basal part of aedeagus (Figs 6, 14, pg).

Morphology of female terminalia

Female postabdomen (6th–11th abdominal segment) is in *Periscelis* species relatively broad at the 6th segment and strongly tapered posteriorly (Figs 15, 20, 21, 28). The 6th segment is similarly constructed as the 5th segment, with separate tergum (T6) and sternum (S6). In the 7th segment T7 and S7 are fused to form a complete ring-shaped sclerite with embedded 7th spiracle (Fig. 21). T8 and S8 are smaller, flat and separate sclerites (Figs 15–17, 20) almost meeting with their margins laterally (Fig. 21); 8th spiracle is absent (as usual). T10 (= supra-anal plate) is reduced and submembranous to entirely lost (Fig. 21) while S10 is present as a weakly sclerotized and pale-pigmented, short and transverse sclerite (Figs 20, 21, 28) below bases of cerci. Cerci are relatively small, short, finely setose (Figs 20, 21, 28).

Internally there are two distinct structures of female genitalia belonging to the 8th segment. Spermathecae (2+1) are characterized by heavily sclerotized and dark spherical bodies (Figs 18, 32), robust and long ducts reinforced either by an internal spiral structure or other sclerotization (cf. Papp & Withers 2011: Fig. 20) and by the very short fused part of ducts in the paired spermathecae (Figs 18, 32). Female genital chamber is largely membranous, but anteriorly projecting in a digitiform submembranous ventral receptacle having a small tail-like projection on apex (Figs 19, 31).

Taxonomy

Periscelis (*Periscelis*) *fugax* sp. nov.

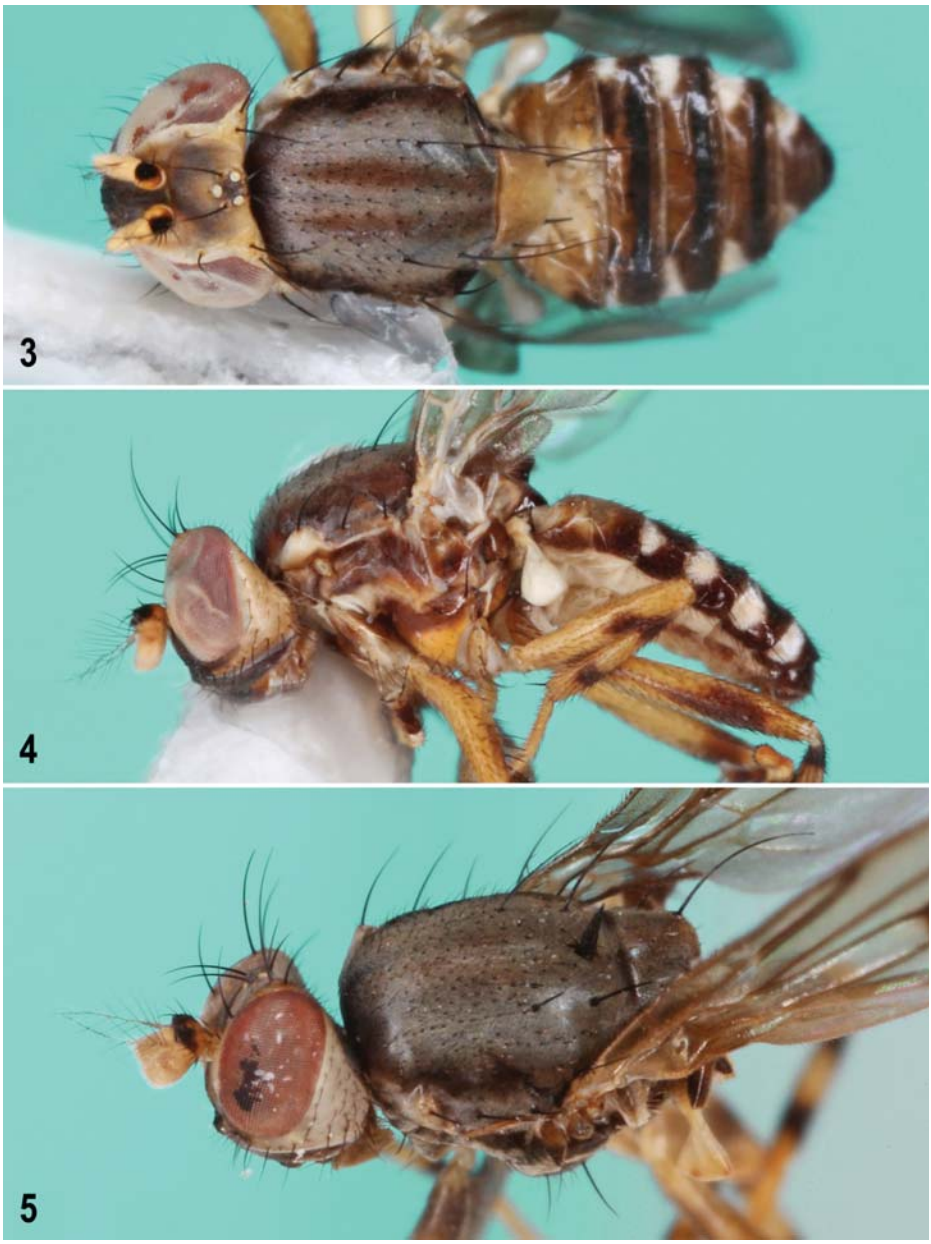
(Figs. 1–4, 6–21)

Type material: Holotype: ♂ labelled: "PORTUGAL: Porto: Valongo, Valongo, 41°09′33.4″N, 8°29′05.6″W, 50–100 m, R. Andrade leg.", "10.x.2011, sweeping over bark of *Quercus* trees with sap runs" and "Holotypus ♂, *Periscelis* (*P.*) *fugax* sp.n., J. Roháček & R. Andrade det. 2016" (red label) (SMOC, intact). Paratypes: **PORTUGAL:** 9 ♂♂ 10 ♀♀, same data as for holotype (4 ♂♂ 4 ♀♀ including 1 ♂ 1 ♀ with genit. prep. SMOC; 2 ♂♂ 2 ♀♀ NMPC; 3 ♂♂ 4 ♀♀ in RAP); 1 ♀ with same data but collected 26.ix.2011 (RAP); 6 ♂♂ with same data but collected 1.x.2011 (3 ♂♂ SMOC, 3 ♂♂ /1 ♂ genit. prep./ RAP); 7 ♂♂ 2 ♀♀ with same data but collected 4.x.2011 (4 ♂♂ SMOC, 3 ♀♀ /1 ♀ genit. prep./ RAP); 8 ♂♂ 4 ♀♀ with same data but collected 14.x.2011 (2 ♂♂ 2 ♀♀ / 1 ♂1 ♀ genit. prep./ SMOC, 6 ♂♂ 2 ♀♀ RAP); Bragança: Bragança, Parâmio, Parque Natural de Montesinho, 41°53′54.0″N, 6°51′16.3″W, 780 m, 21.vi.2015, sweeping over bark of *Quercus* trees with sap runs, 1 ♂, R. Andrade leg. (RAP); Portalegre: Marvão, Santa Maria de Marvão, 39°23′50.2″N, 7°21′52.3″W, 616 m, 21.ix.2014, sweeping over bark of *Quercus pyrenaica* trees with sap runs, 1 ♂ 1 ♀, Ana Gonçalves leg. (ARGC); all specimens in SMOC and NMPC dried from ethanol and mounted on pinned triangular cards, those in RAP and ARGC retained in ethanol. **CZECH REPUBLIC:** C. Bohemia: Roztoky, Tiché údolí, Roztocký háj (5852), 50°8′47.5″N, 14°23′10.1″E, beer trap, 2.–10.ix.2009, 1 ♂, J. Preisler leg. (SMLC); Český kras PLA, Na Voskopě res., 49°54′25″N, 14°04′05″E, beer trap, oak-hornbeam forest, 16.ix.–2.x.2016, 1 ♀, P. Heřman leg. (JMB); S Moravia: Podyjí NP, Liščí skála, 48°49′52″N, 15°56′35″E, 410 m, Quercetum, 9.ix.– Malaise trap, 3.viii.–9.ix.2004, 1 ♀, 9.ix.–28.x.2004, 6 ♂♂ 7 ♀♀, M. Barták & Š. Kubík leg. (2 ♂♂ 4 ♀♀ MBP; 2 ♂♂ 2 ♀♀ / 1♂ genit. prep. / SMOC; 1 ♀ JMB); Podyjí NP, Fládnická chata, 48°48′42″N, 15°58′03″E, 360 m, forest, 9.ix.–28.x.2004, Malaise trap, 2 ♂♂, M. Barták & Š. Kubík leg. (MBP); Podyjí NP, Havrarníky, 48°48′52″N, 15°59′48″E, 330 m, forest-steppe, 1.–24.vii.2002, Malaise trap, 1 ♀, O. Meixnerová leg. (MBP); Podyjí NP, Vraní skála, 48°51′03″N, 15°53′42″E, 390 m, mixed wood, 8.vii.–28.x.2003, Malaise trap, 1 ♂, O. Meixnerová leg. (JMB); all dried from ethanol and mounted on triangular cards. All paratypes with yellow label "Paratypus ♂ (or ♀), *Periscelis* (*P.*) *fugax* sp.n., J. Roháček & R. Andrade det. 2016"

Diagnosis. A relatively large *Periscelis* species (2.45–3.8 mm) closely resembling *P. winnertzii* but somewhat smaller and differing from the latter in having antennal pedicel with smaller black spot (covering only dorsal half of its external side, Fig. 4); mesonotum grey with a distinct pair of medial brown stripes and scutellum more or less yellow on disc (Fig. 3); male S6 suboblong, with narrow medial depression, brown pigmented only laterally (Fig. 13); gonostylus shorter , with simple apex (Fig. 9); postgonite with broad proximal part produced posteroventrally (Fig. 8, arrow); female T8 uniformly brown pigmented (Fig. 16) and S8 brown margined both laterally and posteriorly (Fig. 17).

Description. ***Male.*** Total body length 2.46–3.65 (holotype 3.41) mm. General colour brown, grey microtomentose and dull, with some parts of head, thorax and legs yellow to whitish variegated and abdomen with silvery white microtomentose spots in lateral margins of terga. Head longer ventrally than dorsally in profile (Fig. 1), with face distinctly protruding in front of anteroventral eye margin, brown, ochreous and whitish variegated and almost all densely microtomentose and dull. Compound eye elongately ellipsoid to suboval with longest diameter oblique and 1.7–1.8 times as long as shortest, and exposing a large area of postgena-occiput at side of head; eye red when alive, with facets uniform and with sparse whitish interfacetal microsetulae. Occiput concave, brown with marginal parts yellow to whitish yellow on extended ventrolateral part; concave brown part with a pair of large silvery microtomentose areas. Frons largely bare, broad (about 1.6 times as wide as high), anteriorly only slightly narrower than posteriorly and its large medial disc distinctly depressed compared to orbits,

Figs 1–2. *Periscelis* (*P.*) *fugax* sp. nov. 1 – male holotype, body length ca 3.4 mm; 2 – wing, length 3.1 mm, male paratype (Portugal: Valongo). Photo by J. Roháček.



Figs 3–5. *Periscelis* species. 3 – *Periscelis* (*P.*) *fugax* sp. nov., male paratype, body dorsally, length ca 3.0 mm (Czech Republic: S. Moravia); 4 – same specimen, laterally; 5 – *Periscelis* (*P.*) *winnertzii* Egger, 1862, male, head and thorax subdorsally, body length ca 4.1 mm (Hungary). Photo by J. Roháček.

light ochreous to pale brown medially, yellow to whitish yellow laterally (orbits in particular) and entirely microtomentose; ocellar triangle small, brownish (darkest of frontal structures), slightly elevated and situated at posterior margin of frons; ocelli relatively large, arranged in ipsilateral triangle. Face markedly darker than frons, largely brown to (ventrally) blackish brown, yellowish to ochreous only in shallow concavities below antennae and on carina, medially narrowly carinate and ventrally strongly produced above mouthedge. This protruding part tuberculate and slightly shining. Facial sensilla not developed but ventral part of face with 3–5 inclinate lateral setae on each side. Gena relatively low, brown anteriorly but becoming pale posteriorly; postgena and adjacent occiput expanded, ochreous to pale yellow. Antenna very slightly divergent and largely yellow, only pedicel with dull blackish dorsal spot covering laterally about half of its side (Fig. 1). Pedicel relatively large, expanded dorsally (Fig. 1) where it bears longer setae than laterally; 1st flagellomere elongate, with anterodorsal apex entirely covered by very short whitish pilosity; arista yellow, slightly longer than antenna, long-pectinate (longest rays longer than 1st flagellomere), dorsally with 4–5, ventrally with 2 long brown rays in addition to a number of short rays in its distal half. Mouthparts ochreous to pale brown; clypeus brown; palpus clavate, pale brown, with numerous short dark setulae.

Cephalic chaetotaxy: all setae blackish brown; pvt well developed (although shortest of frontal setae), divergent, situated between posterior ocelli at dorsal margin of occiput; vti robust, longest of cephalic setae, upright, very slightly inclinate; vte, oc and ors subequal in length, strong but distinctly shorter than vti; vte lateroclinate; oc strongly proclinate and very slightly divergent, arising ouside ocellar triangle; only 1 reclinate ors situated in middle of orbit; 1–3 microsetulae in front of ors; no vibrissa or pseudovibrissa but with 2–3 short ventro-reclinate setae on ventral side of vibrissal angle and anterior part of gena; 3–5 inclinate setae also on lateroventral margin of face; gena posteriorly to vibrissal part with a series of 5–6 thicker and longer ventroclinate peristomal setae, becoming shorter posteriorly; no genal seta; expanded part of postgena and occiput behind eye with numerous short setae being stronger near posteroventral eye margin; posteroventral angle of occiput with a cluster of setae, 2 longer than others; postocular setulae behind posterodorsal margin of eye numerous, dorsally in single, ventrally in 2–3 rows.

Thorax (Figs 1, 3, 4) slightly narrower than head, generally brown, densely microtomentose and dull, with some parts yellowish to white. Mesonotum with distinctive microtomentose pattern: grey with margins and a pair of medial vittae brown (Fig. 3). Scutellum contrasting with mesonotum, pale ochreous to yellow on disc, with only sides brown darkened (Fig. 3). Humeral callus (postpronotal lobe) whitish yellow to white; also narrow notopleural area lighter, yellowish particularly around posterior npl (Figs 1, 4). Pleural part of thorax largely brown, less microtomentose and subshining, with ochreous to whitish (anteriorly) band in the middle, extended from base of fore coxa to haltere (Fig. 1). Sternopleuron (katepisternum) with ventral corner also paler to yellow. Mediotergite uniformly brown. Scutellum distinctly (basally) wider than long, rounded trapezoidal; subscutellum reduced, dark brown.

Thoracic chaetotaxy (Fig. 3): all setae and setulae blackish brown; ac setulae numerous, in 8 rows on suture, with 4 rows reaching almost to scutellum, none of them enlarged; 2 strong postsutural dc, the anterior half length to two-thirds of the more robust posterior, 8–11 dc setulae in front of anterior dc but no setulae between dc setae; 1 strong hu (postpronotal) seta

plus 4–5 setulae on humeral callus; 2 strong npl, anterior as long as hu, posterior shorter; 1 sa (as long as hu) and 1 shorter pa; 2 sc, apical as long as posterior dc, laterobasal shorter than anterior dc; 1–3 (usually 2) fine setulae between apical sc but they can often be broken off; 1 short but distinct ppl; anepisternum with a group of short setulae in posterodorsal corner; 2 stpl (katepisternal) setae, anterior always shorter, numerous setulae on disc and 3–4 longer but fine setae on ventral corner of katepisternum.

Wing (Fig. 2) relatively broad, with pale brown membrane darker fumosely spotted in some parts and ochreous to dark brown veins. Wing pattern is characterized by infuscation of distal part of cell r_{2+3}, around apex of R_{4+5}, area around r-m, M between r-m and dm-cu, around basal part of CuA_1 and of entire alula. Veins are darkened in all these parts and also distal half of R_1 and A_1 are dark brown. C not interrupted, uniformly setulose, reaching to apex of R_{4+5}. Sc short, ending free in subcostal cell but its curvature to C indicated by venal fold. R_{2+3} long, very slightly bent to sinuate, ending closer to apex of R_{4+5} than M. R_{4+5} straight to indistinctly sinuate and terminating in wing apex. Distal part of M apically slightly recurved, diverging from R_{4+5}. Cross-vein r-m situated in distal half of dm cell; cross-vein dm-cu present but attenuated or even interrupted by spurious vein. CuA_1 distally slightly bent, ending near wing margin. Cells bm and cup developed, veins in the latter are attenuated. A_1 distinct but not reaching wing margin. Alula relatively large, dark, with marginal ciliation as long as that of anal lobe of wing. Wing measurements: length 2.78–3.61 (holotype 3.61) mm, width 1.03–1.29 (holotype 1.24) mm, $Cs_3 : Cs_4 = 0.44–0.58$, rm/dm-cu : dm-cu = 1.48–1.88. Haltere with yellowish stem and relatively large, dirty white, knob.

Legs (Figs 1, 4) yellow or yellowish white and brown variegated on fore coxa (with ventral part pale yellow) and all femora, tibiae and tarsi; setosity brown. Extent of dark areas seems to be variable, particularly on femora. Generally f_1 and f_2 have two (often incomplete) brown rings, a paler ring basally and a darker ring subapically (with knees yellow) while f_3 is brown along most of its length dorsally with complete ring subapically leaving knee and ventral basal portion yellow. All tibiae have two brown rings, a proximal below knee and a distal subapically but t_1 has distal ring longer, almost reaching apex of tibia. Tarsi are yet lighter, yellowish white to (fore tarsus) white, each with 2 distal segments brown. Chaetotaxy: f_1 with a series of 6–8 long and thicker posteroventral setae and with a double row of shorter and finer upright posterodorsal setae; f_2 posteroventrally with a row of numerous fine setae (longest about three-fourth of maximum width of femur); t_1 with 1 slightly longer posterodorsal seta; t_2 with 1 distinct and thicker ventroapical seta (about as long as maximum width of tibia); remaining parts of legs uniformly setulose, without peculiarities.

Abdomen relatively broad, subovoid in dorsal outline (Fig. 3), dorsally brown and yellow, ventrally pale ochreous to dirty yellow. T1+2 as long as T3 + T4, with boundary between T1 and T2 dorsomedially well delimited. T1 largely, T2 dorsomedially dirty yellow. T3–T5 broad and strongly transverse, bent laterally onto ventral side, becoming narrower posteriorly and each brown, with a blackish transverse band in front of posterior margin and white, silvery microtomentose spot on each side (Figs 3, 4). All preabdominal terga shortly setose, with longest and thickest setae in posterolateral corners. Preabdominal sterna (S1–S5) relatively large (hence membrane between terga and sterna small), broad, more or less transverse. S1 shorter and wider than S2, pale yellow with darker posterior marginal stripe; S2 almost

completely yellow to pale ochreous; S3–S5 subequal, of similar shape to S2 but laterally brownish. S2–S5 with scattered short fine setosity. Abdominal spiracles (1–6) in membrane close to lateral margins of terga.

Postabdomen: T6 relatively large, although narrower and somewhat shorter than T5, transverse but tapered posteriorly, setose similarly and also bearing lateral silvery spots as have T3–T5 (Fig. 4). S6 (= pregenital sternum, Fig. 13) narrower and paler than S5, suboblong, with sparse setae at posterior margin and with distinct posteromedial narrow depression. In front of epandrium there is a virtually symmetrical arch-shaped synsclerite formed probably by fusion of T7, S7 and S8. This synsclerite is shortly setose only in posterior half and has embedded 7th spiracles in its lateral parts.

Genitalia (Figs 6–12, 14). Epandrium relatively small, brown, wider than high, in form of an arch-like sclerite, with large anal opening (Fig. 11), uniformly setose at posterior margin, anteriorly projecting in a long process – surstylus (Fig. 6, ss) on each side. Cerci large, long, elongate, longer than epandrium (Fig. 6, ce), relatively distant from each other, with apex tapered and slightly incurved (Fig. 11, ce), with rich but rather uniform setosity along all its length and some micropubescence posteriorly (Fig. 10). Surstylus (Figs 6, 7, 12, ss) proximally wider, distally tapered, slender, finely setulose mainly at outer side, with apex rounded in lateral view (Fig. 7), somewhat lanceolate in anterior view (Fig. 12). Gonostylus (Figs 6, 9, 11, 12, gs) much shorter than surstylus, rod-like, tapered distally, having apex simply rounded, with a group of microsetulae. Bases of gonostyli are medially movably attached to medandrium (Figs 11, 12, ma) which is reduced to a small transverse and bare sclerite. Hypandrium (Fig. 6, hy) formed by symmetrical slender frame-like structure, which is dorsally firmly fused to ventral parts of expanded phallapodeme and posteriorly reaching to medandrium where (posteromedially) it is open or membranous. Hypandrial frame bare and without appendages (pregonites). Aedeagal complex (Fig. 6) symmetrical, markedly larger than epandrium. Phallapodeme (Fig. 6, pha) bipartite, peculiarly enlarged, composed of a voluminous pocket-shaped sclerite bulging anterodorsally and ventrolaterally fused with hypandrium and a short, well-sclerotized and ventromedially forked basal sclerite (Figs, 6, 14, bpha) attached to the former cup-like sclerite. Aedeagus simple, without disparate phallophore being reduced or undeveloped (Figs 6, 14) and largely formed by a very long, ribbon-shaped, submembranous distiphallus which is partly hidden in a pocket of the phallapodeme (Fig. 6); apex of distiphallus flat, denticulate on tip. Postgonite (Figs 6, 8, pg) relatively robust, larger than gonostylus, proximally dilated, expanded posteroventrally, distally slender, digitiform, with a series of microsetulae along posterior margin. Ejacapodeme (Fig. 6, ea) free, large but shorter than phallapodeme, rod-like but proximally widened and distinctly forked.

Female. Similar to male unless mentioned otherwise. Total body length 2.78–3.74 mm. Head distinctly lighter coloured: frons largely yellow, or only medially ochreous, thus only ocellar triangle brownish; face entirely (also ventrally) whitish yellow, at most with ochreous tinge at vibrissal angle; the latter pale brown but rest of gena ochreous to (more posteriorly) yellow. f_2 uniformly setulose, without posteroventral row of longer setae. Wing measurements: length 3.05–3.77 mm, width 1.15–1.43 mm, $Cs_3 : Cs_4 = 0.41–0.50$, rm/dm-cu : dm-cu = 1.38–1.78. Abdomen broader than in male, with preabdominal terga T3–T5 uniformly brown, lacking blackish transverse bands. Preabdominal sterna (S1–S5) similarly coloured

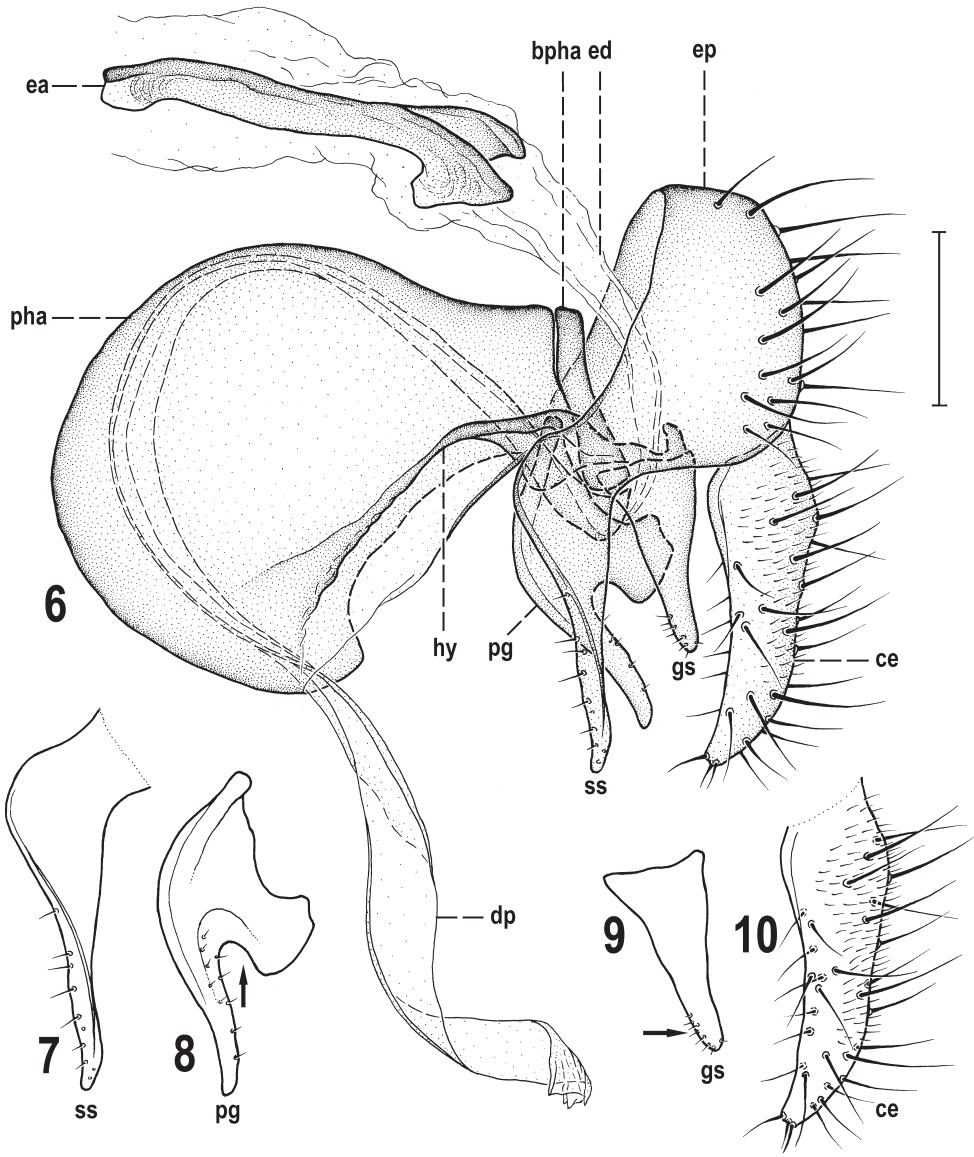
and setose as in male but somewhat more transverse and lateral darkening of S3–S5 often less distinct (cf. Fig. 20).

Postabdomen (Figs 15–17, 20, 21) broad anteriorly, strongly tapered posteriorly. T6 large, flat, with lateral part somewhat bent ventrally, brown, with well developed lateral white and silvery microtomentose spots (Fig. 15), finely setose in posterior half and laterally (setae longest). S6 simple (Fig. 20), transversely suboblong, smaller (particularly shorter) than S5, ochreous with lateral darkening and sometimes with a pair of diffuse darker spots on disc, with 2 pairs of longer setae at posterior margin besides short setosity. 6th spiracle in membrane very close to margin of T6 (Fig. 20). T7 and S7 fused to form ring-shaped tergosternum T7+S7 (Figs 15, 20, 21) which is brown except for pale ventromedial part; ventrally with more setae than dorsally, with longest setae at posterior margin latero-dorsally. 7th spiracle situated laterally, in T7+S7 (Fig. 21). T8 forming a bent, relatively narrow brown sclerite (Fig. 16), finely but relatively long setose in posterior two-thirds. S8 (Fig. 17) separate, about as wide as T8 but slightly shorter, densely setose on entire disc, yellow with characteristic brown darkening along lateral and posterior margins. Genital chamber membranous, elongate, without sclerotized structures; ventral receptacle (Fig. 19) submembranous, digitiform but distally dilated, having regularly finely striated slender proximal part and somewhat tuberculate distal widening, the latter with a tail-like, apically attenuated and twisted projection. Spermathecae (1+2) globular (Fig. 18), blackish brown and heavily sclerotized; a pair borne on common duct often larger than single one; spermathecal ducts long and relatively broad, internally strengthened by spiral structure; the terminal fork connecting 2 spermathecal bodies very short. T10 (supraanal plate) absent (Fig. 21). S10 (subanal plate) reduced (Figs 20, 21), short, crescent-shaped, weakly sclerotized and pale-pigmented, covered by micropubescence and with 2–3 minute setulae posterolaterally. Cercus (Figs 20, 21) relatively small, short, subovoid, with rich fine setae and fine micropubescence; apical seta longest, as long as cercus.

Etymology. The new species is named *fugax* because one of the meanings of this Latin adjective is „passed unnoticed" to reflect the fact that species has been so long overlooked.

Relationships. *Periscelis fugax* sp. nov. has formerly been mixed with the very similar *P. winnertzii* Egger, 1862 which undoubtedly is its nearest known relative. According to Papp & Withers (2011) *P. winnertzii* has no close ally among Palaearctic species of *Periscelis* (which they interpret as a genus in a narrower concept, i. e. without other subgenera). Despite the fact that there is now an additional species, *P. fugax* sp. nov., having similar venation and structures of the male and female genitalia, we agree with them, that this species-pair does not deserve to be classified in their own supraspecific taxon as did Enderlein (1936) for *P. winnertzii* establishing for it a separate genus *Parclioscena* Enderlein, 1936.

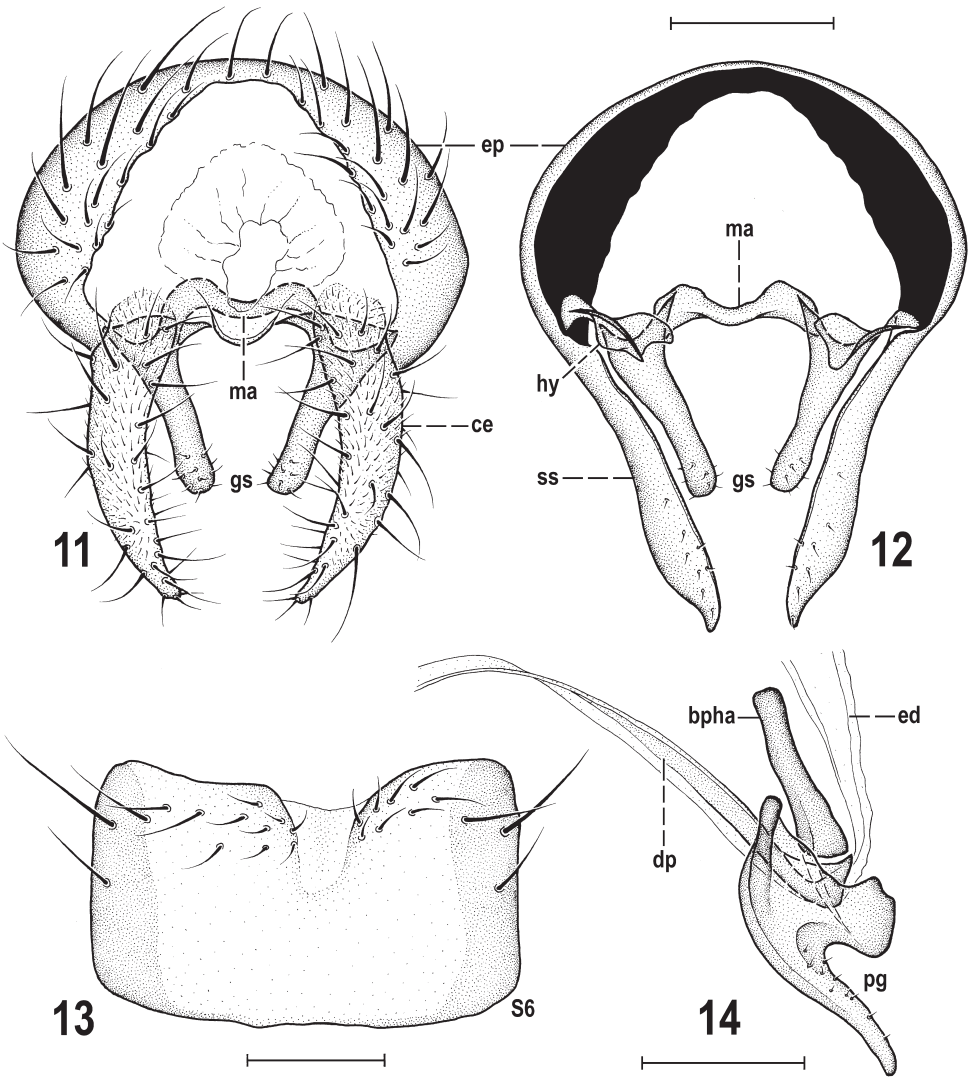
The sister-species relationships of *P. fugax* and *P. winnertzii* are demonstrated by their close resemblance in both external features and structures of the male and female terminalia. The (formerly undescribed) sexual dichroism of face (ventrally dark brown in male but yellow in female) can be a synapomorphy of this species pair. In the male genitalia two further putative synapomorphies are found: (1) gonostylus with microsetulae restricted to apical part and (2)



Figs 6–10. *Periscelis* (*P.*) *fugax* sp. nov., male paratype (Portugal: Valongo). 6 – entire genitalia, laterally; 7 – surstylus, laterally; 8 – postgonite, laterally; 9 – gonostylus, sublaterally (widest extension); 10 – cercus, laterally. Scale = 0.1 mm. For abbreviations see p. 231.

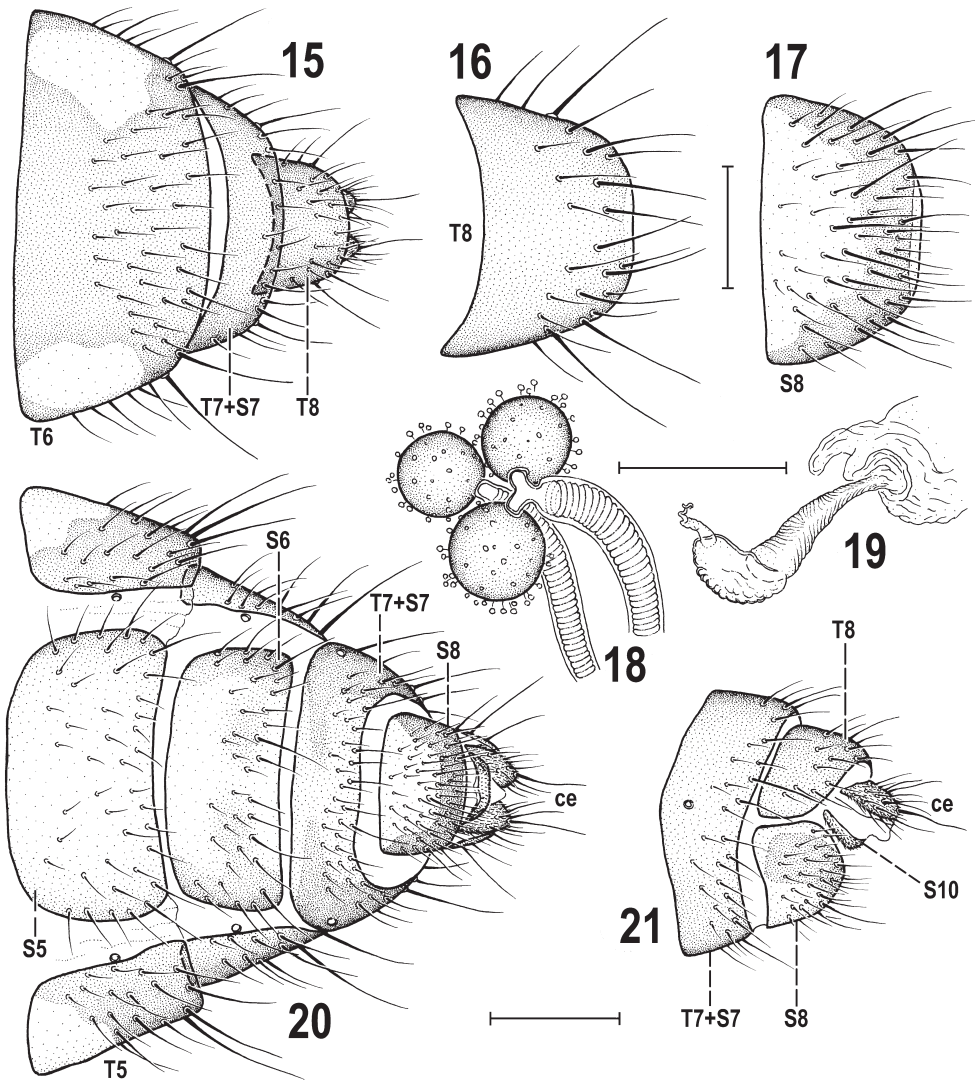
cercus with relatively short setae on apex. In the female terminalia no synapomorphy can be revealed because these structures remain undescribed in other species of the subgenus.

Biology. The species seems to be associated with sap runs of oaks because the majority of type specimens were collected in this habitat (cf. also Roháček et al. 2016, as *P.* sp. cf. *winnertzii*), thus living similarly to *P. winnertzii* (see below). Interestingly, *P. fugax* has hitherto not been



Figs 11–14. *Periscelis* (*P.*) *fugax* sp. nov., male paratype (Portugal: Valongo). 11 – external genitalia caudally (surstyli omitted); 12 – same, cranially (cerci omitted); 13 – pregenital sternum (S6), ventrally; 14 – aedeagal complex, laterally (only basal part of distiphallus depicted). Scale = 0.1 mm. For abbreviations see p. 231.

found to co-occur syntopically with *P. winnertzii* although both species can apparently be sympatric (confirmed for Portugal). Almost all specimens examined were found in September–October, only singletons in June, July and August.



Figs 15–21. *Periscelis* (*P.*) *fugax* sp. nov., female paratype (Portugal: Valongo). 15 – postabdomen, dorsally; 16 – T8, dorsally; 17 – S8, ventrally; 18 – spermathecae; 19 – ventral receptacle, laterally; 20 – 5th segment and postabdomen, ventrally; 21 – posterior part of postabdomen (from 7th segment), laterally. Scales = 0.2 mm (Figs 15, 20, 21) and 0.1 mm (Figs 16–19). For abbreviations see p. 231.

Distribution. *Periscelis fugax* is probably widespread in Europe: it has hitherto been recorded from Portugal and Czech Republic (both Bohemia and Moravia) but is surely also living in intervening areas. It has previously been recorded from the Czech Republic (Podyjí NP) by Máca et al. (2005) under the name *P. winnertzi*, see the type material. Two of the specimens recorded by Roháček et al. (2016) as *P.* sp. cf. *winnertzii* from Portugal were subsequently found not to belong to *P. fugax* but to true *P. winnertzii* (see material examined under that species).

Periscelis (*Periscelis*) *winnertzii* Egger, 1862

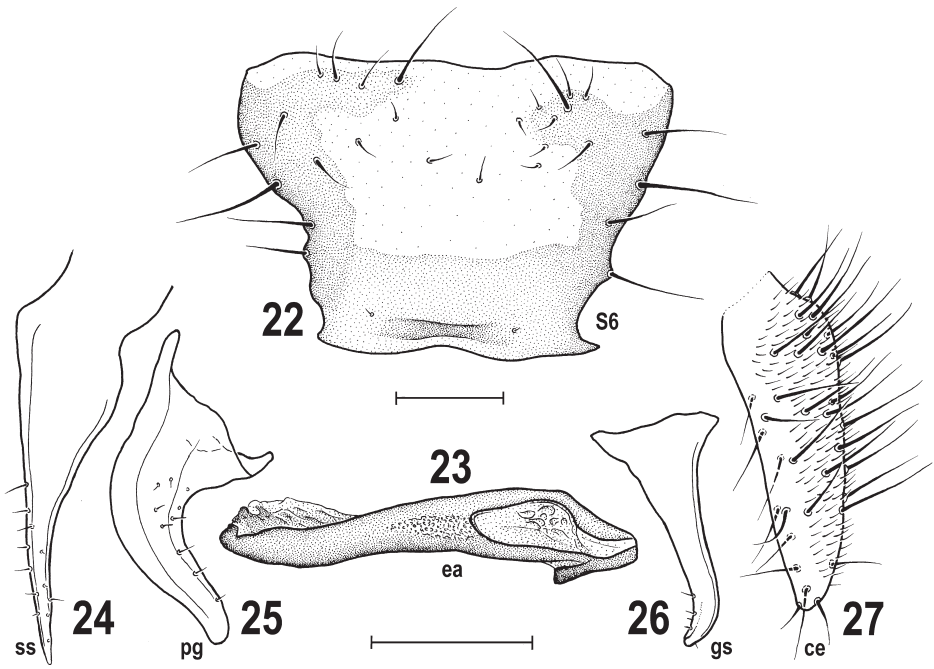
(Figs 5, 22–34)

Periscelis Winertzii Egger, 1862: 780 (description, typographical error);
Periscelis winertzii: Mathis & Rung (2011: 358) (catalogue, misspelling).
Periscelis Winnertzii: Schiner (1863: 272) (revision, key, emendation of name).
Periscelis winnertzii: Papp & Withers (2011: 354) (revision, illustr.)
Periscelis Winnertzi: Becker (1905: 217) (catalog, misspelling).
Microperiscelis Winnertzi: Oldenberg (1914: 37) (generic combination, misspelling); Séguy (1934: 394) (key, misspelling).
Periscelis (*Microperiscelis*) *Winnertzi*: Duda (1934: 11) (revision, misspelling)
Periscelis Winnertzi: Papp (1973: 79) (key, misspelling).
Periscelis (*Microperiscelis*) *winnertzi*: Papp (1984: 234) (catalog; misspelling).
Periscelis (*Myodris*) *winnertzi*: Tschirnhaus (1999: 170) (subgeneric combination, misspelling).
Parclioscena Winnertzii: Enderlein (1936: 177) (generic combination).

Material examined: PORTUGAL: Porto: Vila Nova de Gaia, Avintes, Parque Biológico de Gaia, 41°06′00.0″N, 8°33′35.3″W, 50 m, 29.vi.2011, sweeping over bark of *Quercus* trees with sap runs, 1 ♂, R. Andrade leg. (dried from ethanol, genit. prep., SMOC); Porto: Braga, Vila Nova de Famalicão, Novais, 41°23′26.34″N, 8°26′06.06″W, 150 m, 28.vi.2013, sweeping over bark of *Quercus* trees with sap runs, 1 ♀, R. Andrade leg. (in ethanol, genit. prep., RAP). **HUNGARY:** Szokolya, Vasfazék-v., Magas Tax alatt, 450 m, fekete tölgyfaseb, kifolyó nedvéről, 13.ix.1997, 1 ♂ 1 ♀ (caught in copula), L. & J. Papp leg. (both genit prep., HNHM). **SLOVAKIA:** Muránska Dlhá Lúka 2 km SE, 48°42′12″N, 20°05′51″E, 360 m, beer trap in hornbeam forest, 3.ix.-27.x.2012, 1 ♀, J. Roháček & J. Ševčík leg. (dried from ethanol, SMOC); Muránska planina NP: Muránska Lehota 3.7 km E, above Javorníčková dolina, 48°43′15″N, 19°59′56″E, 780 m, sweeping undergrowth of oak-linden forest, 13.viii.2015, 1 ♀, J. Roháček leg. (genit. prep., SMOC).

Diagnosis. A slightly larger on average (3.7–4.2 mm) and more robust species than *P. fugax* sp. nov. with very similar colouration and chaetotaxy but differing from the latter mainly as follows: pedicel with black spot larger, extended laterally to its ventral margin (Figs 5, 33); mesonotum more uniformly grey microtomentose, with brown medial vittae reduced or absent (Figs 5, 34); scutellum darker, with yellow colour reduced (Fig. 34) to entirely brown (Fig. 5); male pregenital sternum (S6) widened posteriorly, with brownish pattern along margins but without posteromedial depression (Fig. 22); sustylus distally thinner and more acute (Fig. 24); gonostylus with apex curved anteriorly (Fig. 26); postgonite with basal part not expanded ventrally and with distal part more robust (Fig. 25); female T8 wider, posteromedially pale pigmented (Fig. 29); female S8 also wider, less densely setose and dark-pigmented only laterally (Fig. 30).

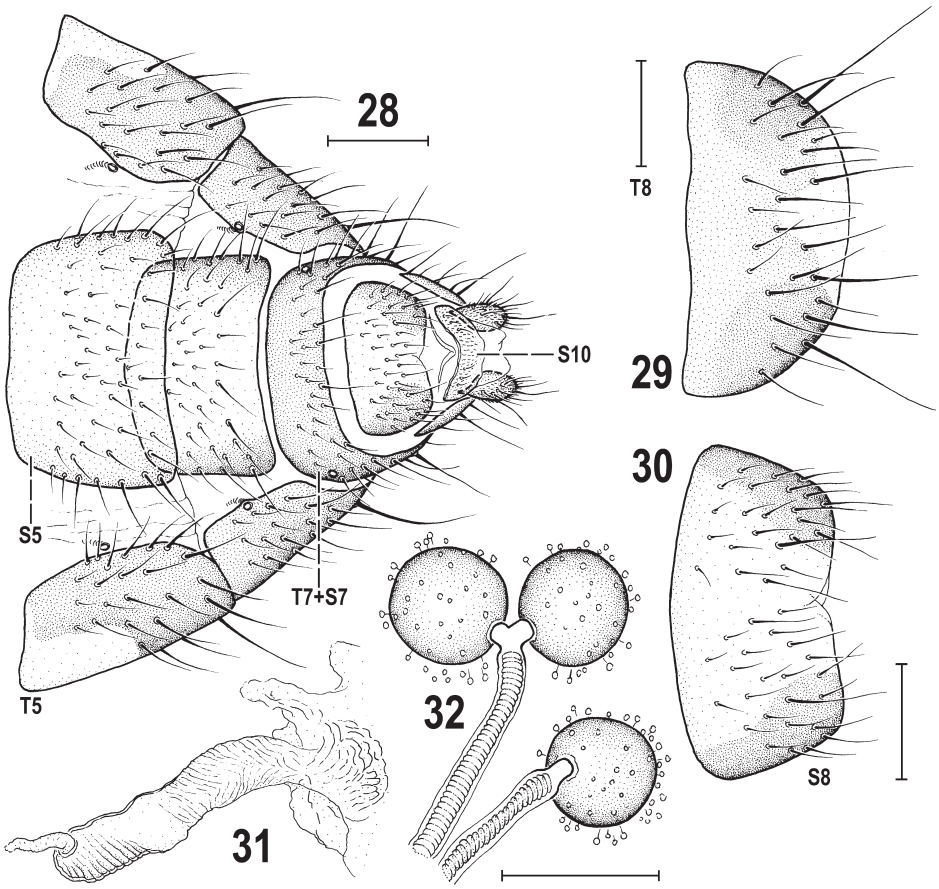
Further differences against *P. fugax* sp. nov.: ***Male*** head with gena lighter, brownish only at ventral margin. Antenna with apex of 1st flagellomere more rounded, with little prominent



Figs 22–27. *Periscelis* (*P.*) *winnertzii* Egger, 1862, male (Hungary). 22 – pregenital sternum (S6), ventrally; 23 – ejacapodeme, laterally; 24 – surstylus, laterally; 25 – postgonite, laterally; 26 – gonostylus, sublaterally (widest extension); 27 – cercus, laterally. Scales = 0.1 mm. For abbreviations see p. 231.

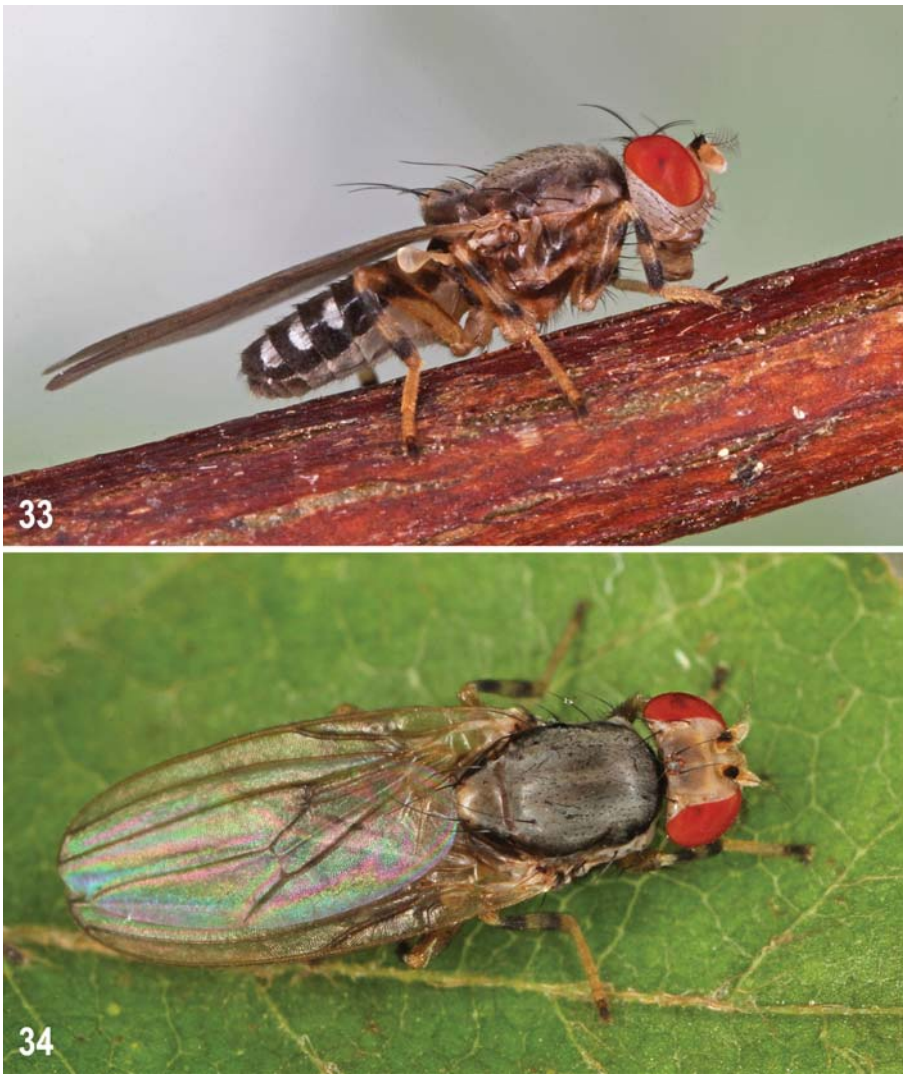
anterodorsal corner (Fig. 5). Arista with 5 long dorsal and 3–4 long ventral rays. Cephalic chaetotaxy with some setae (vte, oc) slightly longer and thicker, also peristomal setae distinctly more robust. Thorax darker than in *P. fugax* not only as regards microtomentose pattern on mesonutum and darker scutellum but also pleural part of thorax darker, with longitudinal pale band narrower. On mesonotum ac setulae more numerous, in up to 10 rows on suture; macrosetae more robust, particularly anterior dc longer. Wing with fumose spots definitely smaller, less distinct: that in the middle restricted to close surrounding of r-m and those in wing apex (at ends of R_{2+3} and R_{4+5}) small, often poorly visible. Knob of haltere partly yellow on tip. Legs not different from those of *P. fugax*. Male preabdomen with the same blackish brown bands on T3–T5 but S3–S5 distinctly darker, entirely uniformly brown. Postabdomen of similar construction but S6 markedly dissimilar in shape and pigmentation (see diagnosis). Male genitalia different not only in form of surstylus, gonostylus and postgonite (see above) but also cercus (Fig. 27) differently setose (densely proximally, sparsely distally) and ejacapodeme (Fig. 23) of different shape, particularly proximally.

Female with sexually different coloration of face as in *P. fugax* but with gena lighter, all yellowish white, not brownish at vibrissal angle. Abdomen with T3–T5 dorsomedially paler



Figs 28–32. *Periscelis* (*P.*) *winnertzii* Egger, 1862, female (Hungary). 28 – 5th segment and postabdomen, ventrally; 29 – T8, dorsally; 30 – S8, ventrally; 31– ventral receptacle, laterally; 32 – spermathecae. Scales = 0.2 mm (Fig. 28) and 0.1 mm (Figs 29–32). For abbreviations see p. 231.

brown than laterally. Sterna S3–S5 uniformly ochreous (thus lighter than in male), see S5 in Fig. 28. Postabdomen broader anteriorly, with S6 distinctly longer and less transverse than that of *P. fugax* and 6th spiracle in margin of T6 which is more bent ventrally (Fig. 28). Differences in pigmentation and setosity of T8 (Fig. 29) and S8 (Fig. 30) are stressed in the above diagnosis. Ventral receptacle (Fig. 31) digitiform but not widened distally, with similarly finely striated proximal part but distal part also striated, not tuberculate and terminal small projection different, distally thicker. Spermathecae (Fig. 32) very similar to those of *P. fugax* but larger compared to ducts. Setae on cercus shorter, the apical in particular (Fig. 28).



Figs 33–34. *Periscelis* (*P.*) *winnertzii* Egger, 1862, female (Slovakia), body length ca 4.2 mm. 33 – living adult, laterally; 34 – same specimen, dorsally. Photo by J. Roháček.

Remarks: *Periscelis winnertzii* had formerly been classified in several genera and/or subgenera and its name has been variously misspelled (see review of synonymies above). In Egger's (1862) original description it is named "*winertzii*" but this is an evident typographical or typing error because the species was named according to Johann Winnertz whose name is written correctly in the derivatio nominis in Egger's (1862) paper, see also Papp & Withers (2011: 356). Consequently, Schiner (1863: 272) emended the species' name correctly.

P. winnertzii and its sister species *P. fugax* surely do not belong to a separate supraspecific taxon inasmuch as their genitalia are of the same construction as those of the type species of *Periscelis*, viz. *P. annulipes* Loew, 1858. Classification of *P. winnertzii* within subgenus or genus *Myodris* (and its synonyms, see above) was also incorrect because based on the (plesiomorphic) presence of posterior cross-vein (dm-cu). In reality, dm-cu is distinctly attenuated or interrupted by a spurious vein in both these species, indicating a first step to reduction of the cross-vein being so characteristic of other *Periscelis* (s. str.) species.

Biology. The biology of *P. winnertzii* was studied by Papp (1998) in Hungary. Adults emerge in mid July to beginning of September. They lay eggs in September. The larvae live in sap runs in black oozing wounds on old oak trees, and during autumn develop to third instar which is the overwintering stage. Mature (third instar) larvae were found as late as in May. Pupariation occurs on wet bark in June or July. Adults occur from June to September (most commonly in September) but the two specimens examined from Portugal were found already towards the end of June.

Distribution. Also *P. winnertzii* is probably widely distributed in Europe. Because formerly mixed with *P. fugax*, the reliable records are only those revised by Papp & Withers (2011) from Poland (Breslau = Wrocław), Austria and Hungary and those recorded here from Portugal (new) and Slovakia. A record by Roháček (2013b) from the latter country also is correct (revised). Previous records of *P. winnertzii* from other countries, summarized by Mathis & Rung (2011), viz. from Great Britain, France, The Netherlands, Switzerland and Germany are to be checked as they can partly deal with *P. fugax*. The same can be true for the finding of the species in Spain (Carles-Tolrá & Pagola-Carte 2013). On the other hand the species is to be (for the time being) deleted from the fauna of the Czech Republic (Máca 2009) because all specimens recorded by Máca et al. (2005) proved to belong to *P. fugax*.

Some corrections to revision of Palaearctic Periscelididae by Papp & Withers (2011)

(1) *Periscelis annulipes* Loew, 1858 is also known from the Czech Republic and Slovakia, see Máca (2009) and Mathis & Rung (2011).

(2) *Periscelis nigra* (Zetterstedt, 1860) has been recorded from Slovakia (Poľana Biosphere Reserve), see Roháček (2009) and Máca (2009), not from the Czech Republic as incorrectly given by Papp & Withers (2011: 353).

Key to identification of the Palaearctic taxa of the subgenus *Periscelis* s. str.

1 Wing with membrane unicolorous; posterior cross-vein (dm-cu) absent. 2
– Wing with fumose cloudings; posterior cross-vein (dm-cu) developed (Fig. 2). 4
2(1) Larger species (body length more than 4 mm). Antennal pedicel (not scape) blackish brown. Ventral part of face yellow, whitish microtomentose and with 5–6 pairs of setae. Mesonotum grey microtomentose with a pair of longitudinal brownish microtomentose vittae. A pair of strong prescutellar ac setae (situated in front of posterior dc) present. Male genitalia with robust elongately triangular surstylus, short subtriangular gonostylus (Papp & Withers 2011: Fig. 1) and cercus large, broad and with long setae. ..... ***P. annulipes*** Loew, 1858

– Smaller species (body length distinctly less than 3 mm). Pedicel pale brown, ochreous yellow basally. Ventral part of face brown, grey microtomentose and with only 1 pair of setae. Mesonotum dark grey, with pale grey microtomentum. No prescutellar ac. Male genitalia with very slender and long surstylus, elongately subtriangular gonostylus, and cercus more slender but with robust setae (Papp & Withers 2011: Figs 6, 7). 3

3(2) Gonostylus longer, hence surstylus less than 1.4 times as long as gonostylus (Papp & Withers 2011: Fig. 5); ejacapodeme more robust and proximally not widened (Papp & Withers 2011: Figs 3, 6). ..... ***P. nigra nigra*** (Zetterstedt, 1860)

– Gonostylus shorter, hence surstylus about 1.6 times as long as gonostylus (Papp & Withers 2011: Figs 7, 14, 15); ejacapodeme more slender and proximally dilated (Papp & Withers 2011: Figs 7, 9). .....***P. nigra minor*** Papp & Withers, 2011

4(3) Antennal pedicel with blackish spot on outer side extended laterally up to ventral margin (Fig. 5). Mesonotum medially unicolorous grey (Fig. 5) or with brown vittae only indicated (Fig. 33); scutellum all dark or with yellow restricted to apex (Figs 5, 34). Male S6 widened posteriorly, brown pigmented along anterior and lateral margins, simple posteromedially (Fig. 22). Gonostylus more slender and with apex bent anteriorly (Fig. 26); postgonite distally more robust but its broad proximal part not extended posteroventrally (Fig. 25). Female T8 posteromedially pale-pigmented, darker only laterally (Fig. 29); S8 narrowly brown only laterally and less densely setose (Fig. 30). ..... ***P. winnertzii*** Egger, 1862

– Antennal pedicel with blackish spot smaller, laterally reaching to about half of its outer side (Fig. 4). Mesonotum medially with distinct pair of brown vittae (Fig. 3); scutellum with largely or entirely yellow disc (Fig. 3). Male S6 suboblong, not widened posteriorly, brown pigmented only laterally and with narrow medial depression (Fig. 13). Gonostylus shorter and thicker, with apex simple (Fig. 9); postgonite distally more slender and broad proximal part produced posteroventrally (Fig. 8, arrow). Female T8 uniformly brown pigmented (Fig. 16); S8 narrowly brown laterally and posteriorly and more densely setose (Fig. 17). ..... ***P. fugax*** **sp. nov.**

Discussion

The examination of the male genitalia of *P. fugax* sp. nov. and some of its relatives (including two species of the subgenus *Myodris*) raised some doubts about the generic classification of Palaearctic Periscelididae sensu stricto as proposed by Papp & Withers (2011). The absence of gonostylus (= epandrial process of authors), used by Papp & Withers (2011) to argue for the separation of *Myodris* Lioy, 1864 as a genus different from the rest of *Periscelis* is not restricted to this group. Apart from *Myodris* species the gonostylus disappeared also in the New World genus *Scutops* Coquillett, 1904 (as found by Papp & Withers 2011: 366–369) and even in the Afrotropical *Periscelis stuckenbergi* Mathis & Freidberg, 2012 from Ethiopia having been originally classified in the subgenus *Periscelis* s. str. (Mathis & Freidberg 2012). Moreover, the structures of the male genitalia (and female terminalia in particular) are unknown in some other (Neotropical) genera placed in Periscelididae (s. str.). It should also be stressed that the loss of gonostylus has not necessarily occurred only once and, consequently,

this character need not be synapomorphic for all the taxa discussed above. In our opinion it seems premature to change the generic classification of Periscelididae (s. str.) until it can be based on serious phylogenetic analysis including also characters of terminalia in all known taxa. For this reason we have followed the nomenclature and the generic and subgeneric classification used by Mathis & Rung (2011).

Acknowledgements

We would like to thank the following curators and owners of private collections for loan of the material of *Periscelis* for our study: M. Barták (Praha, Czech Republic), Ana R. Gonçalves (Coimbra, Portugal), J. Máca (Veselí nad Lužnicí, Czech Republic), L. Papp and Z. Soltész (Budapest, Hungary), P. Vonička and J. Preisler (Liberec, Czech Republic). Our thanks are further extended to P. J. Chandler (Melksham, England) for the linguistic as well as scientific review of the manuscript and helpful comments. The research of the senior author (JR) was financially supported by the Ministry of Culture of the Czech Republic by institutional financing of long term conceptual development of the research institution (the Silesian Museum, MK000100595), internal grant of the Silesian Museum No. IGS201607/2016.

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