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## A NEW SPECIES OF *HERINA* (DIPTERA, ULIDIIDAE) FROM SWITZERLAND, WITH A KEY TO EUROPEAN SPECIES AND NOTES ON NOMENCLATURE AND DISTRIBUTION

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**A New Species of *Herina* (Diptera, Ulidiidae) from Switzerland, with a Key to European Species and Notes on Nomenclature and Distribution.** Kameneva E. P. — *Herina merzi* Kameneva sp. n. is described based on a male from Switzerland (type locality: Merishausen, Canton Schaffhausen); its similarity to species from Oriental and Australasian Regions is discussed. The following synonymy is established: *Ortalis gyrans* Loew, 1864 = *Anacampta unimaculata* Czerny, 1909, syn. n., *Ortalis oscillans* Meigen, 1826 = *Herina schlueteri* Becker, 1913, syn. n. An improved key to species of *Herina* Robineau-Desvoidy occurring in Europe is provided. New finds of *Herina* species in European countries are listed. *H. gyrans*, *H. scutellaris* Robineau-Desvoidy and *H. tristis* (Meigen) are briefly redescribed and figured.

Key words: Diptera, Ulidiidae, Europe, new species, new synonymy, new records.

**Новый вид рода *Herina* (Diptera, Ulidiidae) из Швейцарии с таблицей для определения европейских видов и замечаниями к номенклатуре и распространению.** Каменева Е. П. — По самцу из Швейцарии (типовая местность: Мерисхаузен, кантон Шаффхаузен) описана *Herina merzi* Каменева sp. n.; обсуждается сходство нового вида с видами из Ориентальной и Австралазиатской областей. Установлена синонимия: *Ortalis gyrans* Loew, 1864 = *Anacampta unimaculata* Czerny, 1909, syn. n., *Ortalis oscillans* Meigen, 1826 = *Herina schlueteri* Becker, 1913, syn. n. Приведена дополненная таблица для определения европейских видов рода *Herina* Robineau-Desvoidy. Перечислены новые материалы и находки видов *Herina* из ряда стран Европы. *H. gyrans*, *H. scutellaris* Robineau-Desvoidy и *H. tristis* (Meigen) кратко переописаны с иллюстрациями.

Ключевые слова: Diptera, Ulidiidae, Европа, новый вид, новая синонимия, новые находки.

Dedicated to Bob Van Aartsen (1920–2007)

### Introduction

The picture-winged flies (Ulidiidae) occur almost worldwide, with more than half of the species and 75% of the genera in the Neotropical Region. The family numbers approximately 110 species in Europe, which comprises about 20% of the World fauna; there, the most diverse fauna is in the southern regions of West and Central Europe and in the Mediterranean region (Kameneva, Greve, 2004).

*Herina* Robineau-Desvoidy is one of the largest genera occurring in Europe. The key and species synopsis by W. Hennig (1939) in “Die Fliegen der palaearktischen Region” is now out-of-date. J. F. McAlpine (1951) provided a comprehensive taxonomic treatment for Nearctic species, and B. Merz (1996; 2002) for West European species. Recently, E. P. Kameneva (2006) revised East Asian and Papuan species. These papers cover most of the distribution area of the genus, except for a few species known in collections from Asia Minor, Caucasus, the Near East and Middle Asia, which still await revision (Kameneva, unpublished data).

A new species of *Herina* surprisingly collected in Switzerland by Dr. G. Bächli (Zürich) is described below; this, as well as recent changes in the nomenclature of *Herina* species, makes improvements in the key to European species necessary.

In 1998–2007, while preparing and improving the checklist of European Ulidiidae (Kameneva, Greve, 2004) extensive additional material from many countries of Europe was examined. Comparison of the distributional data against the material deposited in collections of listed below added a few new data based upon the material listed below. This is the first article in a series of publications on the ulidiid fauna of Europe. The next two papers are to concern the genus *Otitus* Latreille, and the rest of the European species (Kameneva, in prep.).

### Material and methods

The specimens listed in this paper are deposited in the following institutions (ordered alphabetically by their abbreviations):

Miroslav Barták Collection, Prague, Czech Republic (CMB); Deutsche Entomologisches Institut, Müncheberg, Germany (DEI); Hungarian Museum of Natural History (Természettudományi Múzeum), Budapest, Hungary (HMNH); Museum of Natural History (Muséum d'histoire naturelle), Genève, Switzerland (MHNG); Museum of Natural History (Muséum d'histoire naturelle), Lille, France (MHN Lille); Natural History Museum of Vienna, Austria (Naturhistorisches Museum Wien) (NHMW); National Museum of Natural History (National Muséum d'histoire naturelle), Paris, France (NMHNP); National Museum, Prague (Národní muzeum v Praze, Kunratice) (NMP); Royal Belgian Institute of Natural History, Brussels, Belgium (RBINH); Naturalis, Museum of Natural History in Leiden, the Netherlands (Rijksmuseum van Natuurlijke Historie) (RMNH); I. I. Schmalhausen Institute of Zoology, Kyiv, Ukraine (SIZK); Staatliches Museum für Naturkunde, Stuttgart, Germany (SMNS); Silesian Museum, Opava, Czech Republic (SZMO); Tel Aviv University, Israel (TAU); National Museum of Natural History, Washington, D.C., U.S.A. (USNM); Forschungsmuseum Alexander Koenig, Bonn, Germany (ZFIB); Museum of Natural History of the Humboldt University in Berlin, Germany (Museum für Naturkunde der Humboldt-Universität zu Berlin) (ZMHB); Zoological Museum of M. V. Lomonosov University, Moscow, Russia (ZMUM); State Zoological Collection (Zoologische Staatssammlung), München, Germany (ZSSM).

Morphological terminology generally follows J. F. McAlpine (1981). As most European species have been already figured (Merz, 1996; 2002), I refer to the figures in these papers in the following key to species.

Labels of type specimens are quoted verbatim. The slash character (/) is used to separate lines. The non-type material is arranged alphabetically by country names, then from the West to the East and from the North to the South within each country, and finally by the year, month and day of collecting; the collector(-s) name(-s) and the abbreviation of depository enclose the list only once if repeated.

Series of photos were taken directly from a dissecting or compound microscope with a Nikon 5200 digital camera and then montaged with the use of CombineZM software (Hadley, 2007).

### *Herina* Robineau-Desvoidy, 1830

Type species: *Herina liturata* Robineau-Desvoidy, 1830, by designation of Hennig (1939).

See B. Merz (1996; 2002) and E. P. Kameneva (2006) for description and discussion of the taxonomic position of the genus.

Since the last revision of the Palearctic species (Hennig, 1939), one species, *Herina monticola* (Stackelberg) from Tadjikistan was transferred here from *Myennis* Robineau-Desvoidy (see Kameneva, 1992), and limited revisions of Swiss and some groups of European species have been provided (Merz, 1996; 2002). Recently, eastern Palearctic, Oriental and Papuan species were revised (Kameneva, 2006). See these papers for a diagnosis and description of *Herina*. There are up to five new undescribed species recognized in collections, mostly from the Near East, which remained beyond the scopes of this study; they will be the subject of forthcoming studies.

Further studies of phylogenetic relationships in the tribe Otitini are necessary, especially among the species assigned to *Herina*, *Otites* Latreille, *Dorycera* Rondani and *Ulidiotites* Hennig to clarify concepts of these genera, which are still poorly defined.

In the current study of European *Herina*, examination of the type specimens of *Herina* species and study of extensive new material, has resulted in several new records of species from different countries, and the discovery of new morphological characters. This allowed me to compile an improved key, which covers all of the European species.

The European species of the genus *Herina* can be recognized by the following key partially modified from B. Merz (2002).

#### Key to species of European *Herina*

#### Таблица для определения европейских видов рода *Herina*

1. Wing pattern consisting of 4 complete crossbands, widely fused forming U- and П-like pattern (Hennig, 1939: fig. 66). Male: surstyli mesally curved, with 2 groups of prensisetae: three at middle of surstylus and two mediobasally (Merz (1996): Abb. 26–28). Female: cerci oval, tergosternite 8 at most 3.5 times as long as wide (Merz (1996): Abb. 48–50); spermathecae elongate oval (Merz (1996): Abb. 51). ....  
..... *H. frondescens* (Linnaeus)

- Not as above. .... 2
- 2. Scutellum and legs mostly yellow. Mesonotum densely microtrichose. Wing pattern poorly developed: pterostigma in apical half brown; small brown spot at  $R_{2+3}$  apex not extended along costa in  $r_{2+3}$  cell; wing base hyaline, crossveins r-m and dm-cu faintly darkened (fig. 4, 1). Male: surstyli almost straight, elongate, medial surstylus clearly bilobate, each of two lobes with single narrow preniseta (fig. 4, 5); phallus: medial part with subrectangular spines on one side (fig. 4, 4). Female: aculeus moderately short, cerci long oval, proctiger rather short (fig. 4, 6); spermathecae long, sausage-like (fig. 4, 7). ....  
..... *H. scutellaris* (Robineau-Desvoidy)
- Scutellum brownish black; at least femora and tibiae partly dark brown. Mesonotum shining or microtrichose. Wing pattern variable. .... 3
- 3. Wing with spot in pterostigma not extending posterior beyond  $R_{2+3}$  vein. Abdominal tergites shining, without grey microtrichose areas. .... 4
- Wing with conspicuous pterostigmal crossband extending to r-m crossvein or posterior of it (fig. 1, 1; 2, 1; 3, 2; 5, 1), if narrowly broken in  $r_{2+3}$  cell, then abdominal tergite 3 with grey microtrichose crossband; if abdomen entirely shining (in *H. merzi* sp. n.), then pterostigmal crossband unbroken, flagellomere 1 short and apically rounded and gena very wide. .... 8
- 4. Wing with subbasal crossband extended from costal cell to M vein; apical spot very large, subrectangular, extending from proximal one-third of  $r_1$  cell into apex of m cell. Face, fore coxa and bases of femora yellow. Smaller species (wing 2.5–3 mm). .... *H. pseudoluctuosa* Hennig
- Wing without subbasal crossband: at most costal cell partly brown; apical spot much smaller, rounded or band-like, reaching posteriorly at most to middle of  $r_{4+5}$  cell. .... 5
- 5. Frons broadly darkened, head in profile almost as long as high; face conspicuously produced anteriorly. Flagellomere 1 very long and narrow, 3.7–4 times as long as high. Apical spot extended along costa in cell  $r_{2+3}$  and slightly extending into antero-apical corner of  $r_{4+5}$  cell. Male terminalia lateral and medial surstyli separate, each bearing single long claw-like preniseta (Merz (1996): Abb. 39–41). Female terminalia: see Merz (1996): Abb. 72–75. .... *H. paludum* Fallén
- Frons entirely reddish yellow; face scarcely produced anteriorly. Flagellomere 1 shorter, 2–3.5 times as long as high. Apical spot separated from costa in postero-apical corner of cell  $r_{2+3}$ ; if reaching almost to  $R_{4+5}$  tip in some specimens of *H. parva*, then face yellow. Male terminalia lateral and medial surstyli fused. Female terminalia variable. .... 6
- 6. Flagellomere 1 at least 3 times as long as wide, somewhat rounded apically. Larger species (wing 3.0–4.1 mm). Male terminalia: surstyli extremely long, thick and anteroventrally curved, bearing one preniseta and a few thickened setulae (Merz (1996): Abb. 42–44). Female terminalia: long wrinkled “tubus” (modified epiproct and hypoproct) well-developed between tergosternite 8 and short cerci (Merz (1996): Abb. 69–70). .... *H. palustris* (Meigen)
- Flagellomere 1 at least 3 times as long as wide, somewhat rounded apically. Smaller species (wing 2.5–3.5 mm). Male terminalia: surstyli thick and short, anterior lobe narrow, mesally and somewhat anteroventrally curved; medial surstylus fused, bearing 4 prenisetae (see Merz (1996): Abb. 35–38). Female terminalia typical for the family: cerci oval, no tubus-like structure between them and tergosternite 8 (see Merz (1996): Abb. 60–62, 64). .... 7
- 7. Face black. Flagellomere 1 apically pointed, 2.5 times as long as wide. No brown spot around r-m. ...  
..... *H. oscillans* (Meigen)
- Face reddish yellow. Flagellomere 1 apically broadly rounded, at most twice as long as wide; r-m crossvein with brown spot. .... *H. parva* (Loew)
- 8. Abdominal tergites 2–4 widely grey microtrichose in anterior portion (fig. 2, 2, 3, 3). Mesonotum densely grey microtrichose. Face yellowish brown. Wing with costal cell, pterostigma and crossvein darkened. Male terminalia: surstyli long, antero-ventrally curved, with numerous spine-like lobes, somewhat resembling lucanid mandibles (fig. 2, 4; 5, 4–5). Female terminalia: aculeus with moderately elongated and constricted, conspicuously wrinkled proctiger “tubus” (fig. 3, 3; 6, 2). .... 9
- Abdominal tergite 2 and 4 uniformly shining black or sparsely microtrichose, only tergite 3 sometimes grey microtrichose at base. Male terminalia: not as above. Wing pattern and female terminalia variable. .... 10
- 9. Wing with apical spot posteriorly narrowed and not joined to costal vein in cell  $r_{2+3}$ . Left surstylus with long spur-like posteromedial lobe (fig. 2, 4). .... *H. gyrans* Loew
- Wing with apical spot posteriorly widely joined to costal vein in cell  $r_{2+3}$  (fig. 5, 1). Left surstylus with short posteromedial lobe (fig. 5, 4). .... *H. tristis* Meigen
- 10. Flagellomere 1 wide and rounded, 1.5 times as long as wide, yellow with brown anterodorsal margin. Gena almost as high as flagellomere 1 long. Wing pattern as in fig. 1, 1; apical spot not joined to costa in  $r_{2+3}$  cell. Cell bcu closed with arcuate crossvein without posteroapical lobe. Male terminalia: surstyli short, with long finger-like mesally directed ventral lobe, and 2 large prenisetae at its base. Female unknown. .... *H. merzi* sp. n.
- Flagellomere 1 longer and often narrowed apically, 2–3 times as long as wide. Gena at most half as high as flagellomere 1 long. Wing pattern variable. Cell bcu closed with sinuate or almost straight crossvein forming short triangular posteroapical lobe. Male terminalia: medial surstylus apically

- branched into 2 lobes and 2 prenisetae either at branching point (in *H. lacustris*) or one on each branch (Merz, 2002). Female terminalia variable. .... 11
11. Abdomen uniformly subshining, tergite 3 without contrasting silvery-white crossband. Wing with apical band joined to costa in  $r_{2+3}$  cell; r-m and dm-cu crossveins broadly separated, distance between them longer than dm-cu length (compare with *H. lacustris* (Meigen) below: couplet 12). Male terminalia: surstyli long, with one long preniseta on each lateral and medial surstylus, the latter narrow and finger-like (see Merz (1996): Abb. 29–31). Female terminalia: long wrinkled “tubus” (modified epiproct and hypoproct) well-developed between tergosternite 8 and short cerci (see Merz (1996): Abb. 52–53). ..  
..... *H. nigrina* (Meigen)
- Abdomen usually with contrasting silvery-white crossband on tergite 3 and wing with apical band separated from costa in  $r_{2+3}$  cell, if sometimes (in some specimens of *H. lacustris* (Meigen)) abdomen uniformly subshining black and wing apical band joined to costa in  $r_{2+3}$  cell, then distance between r-m and dm-cu crossveins shorter than dm-cu length. Male terminalia: medial surstylus apically branched, with 2 prenisetae on each branch or near bifurcation (see Merz (2002): fig. 7–24). Female terminalia: no wrinkled “tubus” between tergosternite 8 and cerci (see Merz (2002): fig. 26–28, 30–37). ..... 12
12. Wing with cells bc, c and pterostigma entirely dark; r-m and dm-cu crossveins approximated, distance between them shorter than dm-cu length; tergite 3 with grey microtrichose crossband narrow and parallel-sided. Male: surstylus long, slightly curved mesally; bilobate on tip rather than bifurcate, with prenisetae approximated on saddle between lobes (see Merz (2002): fig. 14–17). Female: aculeus at most 3 times as long as wide, without elongated “tubus”; cercal unit elongate oval (see Merz (2002): fig. 32–33). ..... *H. lacustris* (Meigen)
- Wing basal half of pterostigma yellow or hyaline; distance between r-m and dm-cu crossveins 1.0–1.5 times as long as dm-cu; tergite 3 with grey microtrichose crossband widened medially. Male and female terminalia not as above. .... 13
13. Male terminalia: medial surstylus bifurcate, with mesal lobe wide, thumb-like and bearing single large preniseta; lateral lobe fused to lateral surstylus and bearing small preniseta; lateral surstylus narrow and mesally curved (see Merz (2002): fig. 7–8). Female: tergosternite 8 with paired or single sclerotization distal to ventral lobes (see Merz (2002): fig. 27, 31). ..... 14
- Male terminalia: medial surstylus bilobate, with both prenisetae localized close to each other, and the small one usually poorly visible (see Merz (2002): fig. 11, 20). Female: tergosternite 8 without such sclerotization (see Merz (2002): fig. 32–37). ..... 15
14. Male terminalia: larger preniseta simple (see Merz (2002): fig. 25); smaller preniseta near tip of lateral surstylus; mesally curved apical projection of lateral surstylus as long as smaller preniseta (see Merz (2002): fig. 22–23); cerci trapezoidal, with sclerotized lateral corners (see Merz (2002): fig. 22). Female terminalia: cerci narrow, anteriorly constricted (see Merz (2002): fig. 30). .....  
..... *H. rivosecchii* Merz
- Male terminalia: larger preniseta with lateral process (see Merz (2002): fig. 10); smaller preniseta near base of lateral surstylus; mesally curved apical projection of lateral surstylus 4 times as long as smaller preniseta (fig. 7–8); cerci ovoid, not sclerotized laterally (see Merz (2002): fig. 7). Female: cercal unit wide, not constricted anteriorly (see Merz (2002): fig. 26). ..... *H. aartseni* Merz
15. Wing: apical crossband usually short, reaching at most middle of cell  $r_{4+5}$  (except part of specimens from Britain with long apical crossband). Male terminalia: medial surstylus much larger and longer than lateral surstylus (beyond mesally curved lobe); cerci constricted at middle of their length, longer than wide, apically acute (see Merz (2002): fig. 18–19). Female terminalia: aculeus long and narrow, 4–4.5 times as long as wide, widest at anterior end, evenly narrowed towards apex (see Merz (2002): fig. 34). ..  
..... *H. lugubris* (Meigen)
- Wing apical crossband always extending into cell m. Male: medial surstylus truncate, shorter than lateral surstylus (before mesally curved lobe); cerci almost as wide as long, subrectangular (see Merz (2002): fig. 11–12). Female terminalia: aculeus 3.5–3.8 times as long as wide, widest at middle (see Merz (2002): fig. 36–37). ..... *H. ghilianii* Rondani

***Herina merzi* Kameneva sp. n. (fig. 1)**

Material examined. Holotype ♂: **Switzerland**: Merishausen SH [= Canton Schaffhausen], 26.07.2001 (Bächli) (MHNG).

**Description.** Head (fig. 1, 2–3) in profile 1.3 times as high as wide. Frons with matt reddish-yellow frontal vitta and narrow silver microtrichose band along eye margin. Ocellar triangle and vertical plates shining black. Parafacial 0.4 times as wide as flagellomere 1, silver microtrichose. Face yellow, carina straight in profile, white microtrichose; antennal grooves subshining yellow. Clypeus brownish yellow, antenna and palpus yellow; flagellomere 1 one and a half times as long as wide, brown along dorsoapical margin; arista entirely brown, short pubescent. Gena brownish-yellow with moderately long setulae, narrow, 0.19 times as high as eye. Occiput widely microtri-



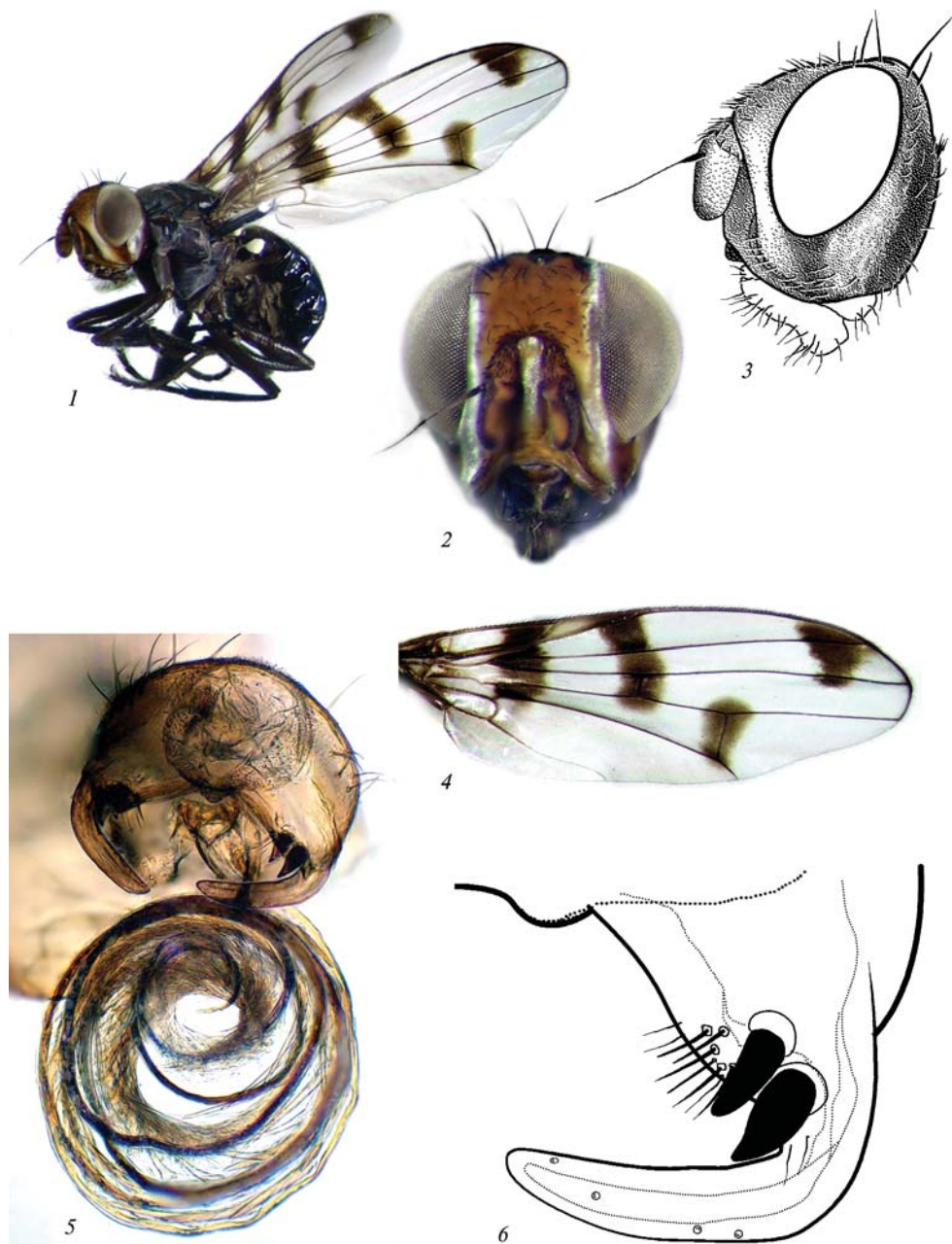


Fig. 1. *Herina merzi*, holotype  $\sigma$ : 1 – habitus, antero-lateral view; 2 – head, anterior; 3 – same, lateral; 4 – wing; 5 – epandrium and phallus, posterior; 6 – right surstylus enlarged, posterior.

Рис. 1. *Herina merzi*, голотип  $\sigma$ : 1 – общий вид, спереди и сбоку; 2 – голова, спереди; 3 – то же, сбоку; 4 – крыло; 5 – эпандрий и фаллюс, сзади; 6 – правый сурстиль, сзади (увеличено).

chose and brownish yellow in anteroventral portion (at eye margins), shining black in the rest. 2 vertical (lateral vertical setae missing in the holotype, but alveoli clearly visible), 1 orbital, 1 ocellar and 1 postocellar seta. All setae and setulae black.

Thorax. Entirely brownish black, except postpronotal lobe and notopleural triangle brown. Pleura uniformly greyish microtrichose. Mesonotum with uniformly sparse brownish microtrichia, which do not obscure shining black cuticle, without any vittae. Only 1 supra-alar, 1 dorso-central, 1 ac present. Scutellum subshining with 4 strong

setae. All setae and setulae black. Postpronotal and acrostichal setae present; presutural supraalar setae absent.

Legs entirely brownish black, moderately setulose (setae and setulae black).

Wing (fig. 1, 4) hyaline with two brown crossbands and three separated spots. Basicostal cell and base of wing posterior of it brownish. Subbasal crossband extending from apical half of costal cell through RS fork slightly over  $CuA_1$  vein into base of  $cua_1$  cell. Pterostigmal crossband from  $R_1$  apex crossing r-m and extending slightly over M vein. Vein dm-cu surrounded with isolated spot. Apical spot comma-like, proximally touching vein  $R_{4+5}$  and leaving postero-apical corner of  $r_{4+5}$  cell grayish. Vein r-m at level of  $R_1$  apex.  $R_1$  vein setulose only on apical half. Calypters and halteres white.

Abdomen uniformly shining black, without microtrichose areas, dark brown setulose. Tergites 3–5 wide, with lateral margins extending onto ventral side. Sternites 2–5 subquadrate.

Male terminalia (fig. 1, 5–6). Surstylus widened in basal portion, bearing 2 large prenisetae and 3–4 setulae, without mesal lobe and with rather thick, finger-like, mesally directed ventral (= anterior) lobe of lateral surstylus; phallus covered with uniformly acute spine-like acanthi, tip short, membranous.

Female unknown.

Measurements: Wing length 4.3 mm. Body length: 4.0 mm.

Diagnosis. This species can be recognized by the combination of the shape of the flagellomere 1, comma-like apical spot touching  $R_{4+5}$  vein and leaving postero-apical corner of  $r_{2+3}$  cell hyaline, set of thoracic setae complete (postpronotal and acrostichal setae present), non-microtrichose abdominal tergites, uniformly brownish microtrichose, subshining mesonotum, reddish-yellow frons and black occiput, pterostigmal crossband incomplete,  $R_1$  vein setulose only in apical portion, simple surstylus with wide base and long, mesally curved finger-like anterior lobe, and 2 large claw-like prenisetae.

Etymology. The new species is named in honor of Bernhard Merz, who has made a valuable contribution to the study of European *Herina*.

Notes. The new species readily differs from all the European species by the wide oval flagellomere 1, by presence of only one pair each of supra-alar and dorsocentral seta, as well as by the structure of the epandrium. Only *H. frondescens*, *H. oscillans* and *H. parva* have somewhat similar epandrium shape, differing in position and number of prenisetae, as well as by the elongate shape of flagellomere 1, lower gena and type of wing pattern.

*H. merzi* sp. n. is similar to *H. burmanica* (Frey) and *H. yunnanica* Kameneva from the Oriental Region in the shape of epandrium and flagellomere 1, differing by the details of wing pattern and number of prenisetae. It appears to be more closely related to the groups of Oriental and Australasian *Herina*, which previously were placed in the genera *Rhadinomyia* Schiner or *Hypsomyia* McAlpine (see Kameneva, 2006), than to any European species of the genus.

B. Merz kindly informed me that the type locality is a place distant from airports, railways and big cities, and the new species hardly could be an unintentionally introduced species originated from the Oriental or Australasian Regions.

### *Herina aartseni* Merz, 2002

Merz (2002): Bulgaria, Cyprus, Greece (Sporades and Ionic Islands); Turkey (Asia Minor) and Israel. — *Herina lugubris*: Hennig (1939: Abb. 14), nec Meigen (1826).

Material examined. **Non-type. Bulgaria:** Sv. Vlas, near Nesebar, h = 20 m, Malaise trap (N3), 1–31.08.1998, 17 ♂, 6 ♀ (van Achterberg, de Vries, Atanassova) (RMNH); **Croatia:** Istria: “Brioni [= Brijuni Is. near Istrian Peninsula] – V / 62423”, ♂ (Becker) (ZMHB); Rovinj, 11.08.1956, ♂, idem, 13.08.1958, ♂, ♀ (Ulrich) (ZFIB); **Cyprus:** Akrotiri Bay, 22.10.1956, 2 ♀ (RBINH); **Greece:** “Parnass”, “50842”, “Sammlung / Dr. Th. Becker”, ♂ (ZMHB); Ithaca, 6–11.06.1965, ♂ (Francois) (RBINH); **Ukraine:** Crimea:

S. Shore, Katsiveli, 10.08.1984, ♂ (Verves); Yalta, 9.09.1958, ♀; Theodosia [= Feodosia], 18.06.1917, ♂ (Paramonov); Miskhor, 24.08.1926, ♂ (Muzychenko) (SIZK).

Notes. First record from Croatia and Ukraine.

### *Herina frondescens* (Linnaeus, 1758)

Hennig (1939): Sweden, Finland, Denmark, Latvia, British Islands, France, the Netherlands, Germany, Spain, Italy, Hungary, Romania, Albania; Soós (1957): Ukraine (Transcarpathian Region); Croatia; Elberg (1969): Estonia; Nowakowsky (1991): Poland; Pakalniškis, Podenas (1992): Lithuania; Martinek (1997): Czech Republic, Slovakia; Merz (2002): Switzerland.

Material examined. **Non-type. Andorra:** Ransol, 1820 m, 26.08.1980, ♀ (Roche) (RMNH); **Estonia:** “Estland / Iechhta”, 8–15.08.1918, 4 ♂ (ZSSM); **Germany:** Brandenburg, Berlin-Hermadorf, 15/25.06.1968, ♀ (Verbeke) (RBINH); **Lithuania:** “Litauen / Romanas”, 1 specimen (DEI); **Romania:** Mehadia, 1859, ♂, ♀ (Mann) (NHMW); **Russia:** Moscow Region: Orechovo, 55°48'N / 37°45'E, 23.05.1987, ♂ (Barták) (ZSSM); **Sweden:** Oeland Is., 26.06, 9–10, 22, 31.07.1928, 9 ♂, 5 ♀ (Lochmander) (SIZK); **Ukraine:** Zhitomyr Region: Nova Chortoryja, meadow, 31 km W of Chudnov, 14.06.1926 [unreadable], ♂, ♀; Kyiv Region: Koncha-Zaspa S of Kyiv, 4.06.1985, 15.06.1991, 10 ♂, 4 ♀ (Korneyev); Transcarpathian Region: Rakhiv, Kostylivka vill., 10.08.1989, 2 ♂, 2 ♀ (Ermolenko); vicinity of Rakhiv, Carpathian Natural Reserve, 10–22.06.1997, ♀ (Gumovsky) (SIZK).

Notes. First record from Andorra.

### *Herina ghilianii* Rondani, 1869

Material examined. **Non-type. Italy:** Sicily, Pioppo, 28.08.1982, 26 ♂, 23 ♀ (Freidberg) (TAU); **Malta:** Ghain Righana, 13.09.1975, ♂ (Schembri) (NMP); **Morocco:** Haut-Atlas, Ansegmir-Tal, W Midelt, 1400 m, 4–5.07.1987, ♂ (Schacht) (ZSSM).

### *Herina gyrans* (Loew, 1864) (fig. 2–3)

*Ortalis gyrans* Loew, 1864; *Herina tristis gyrans*: Hennig (1939); Soós (1984). — *Anacampta unimaculata* Czerny in: Czerny, Strobl, 1909, **syn. n.**; *Ceroxys unimaculata*: Hennig (1939); Soós (1984); Carles-Tolrà, Baez, (2002).

Material examined. **Type.** Syntypes 2 ♂, 2 ♀ *Ortalis gyrans*: [**Croatia:**] “Dalmat. / Stein”, “Coll. / H. Loew”, “Type” [red label], “gy- / rans / Lw.” (ZMHB); Syntype ♀ *Anacampta unimaculata*: [**Spain:**] “Escorial / Lauffer”, “Anacampta / unimaculata Czerny / det. L. Czerny”, “PARATYPE”, “Syntype ♀ / Anacampta / unimaculata / Czerny, 1909 / des. Kameneva 2001” (NHMW). **Non-type. Spain:** “Spanien, Chamartin”, “Anacampta / unimaculata / det. L. Czerny”, 4.08.1903, ♂, 13.08.1904, ♀; Arag. Moscardon / b. Albarracin”, 17.07.1924, ♂ (Zerny) (NHMW); Pr. Teruel, Sierra d. Albarracin, Noguera, 1600 m, 3–6.08.1980, 2 ♂ (Schacht) (ZSSM); Pr. Salamanca: Ciudad Rodrigo, 12.09.1984, ♂; Puentes de Offoro, 8.09.1984, ♀ (Tschornig) (SMNS); “Spanien / 54620”, ♂, ♀ (Becker) (ZMHB); **Algeria:** “Prv. Constantine”, ♂ (Seitz) (ZMHB).

**Redescription.** Head 1.7 times as high as long; flagellomere 1 apically acute (fig. 2, 3; 3, 1). Thorax (fig. 2, 1–2) as in *H. tristis* (see below). Wing as in fig. 2, 1; 3, 2, similar to that of *H. tristis*, except apical band widely separated from costal vein at  $r_{4+5}$  cell apex; cell  $bcu$  with triangular posteroapical lobe. Male terminalia. Surstyli (fig. 2, 4) similar to those of *H. tristis*; but left surstylus with posteroventral lobe twice as long as preniseta, long triangular and sclerotized. Phallus typically with long triangular acanthi over entire length (fig. 2, 5). Female terminalia (examined in *A. unimaculata* type only). Aculeus and tergosternite 8 not entirely exposed and not examined; apical tubus wrinkled, narrowed; cerci slightly longer than wide, rounded pentagonal (fig. 3, 3). Spermathecae not examined.

Notes. *H. gyrans* was sometimes considered a subspecies of *H. tristis* (Hennig, 1939; Soós, 1984). They are sympatric in the Mediterranean region rather than geographically isolated, and therefore certainly are not subspecies of the same species. The two taxa clearly differ by having a shorter or longer apical wing crossband. Male terminalia show certain differences in the structure of the left surstylus between dissected males of *H. gyrans* from Spain and *H. tristis* from Italy (fig. 2, 4 and 5, 4), as shown



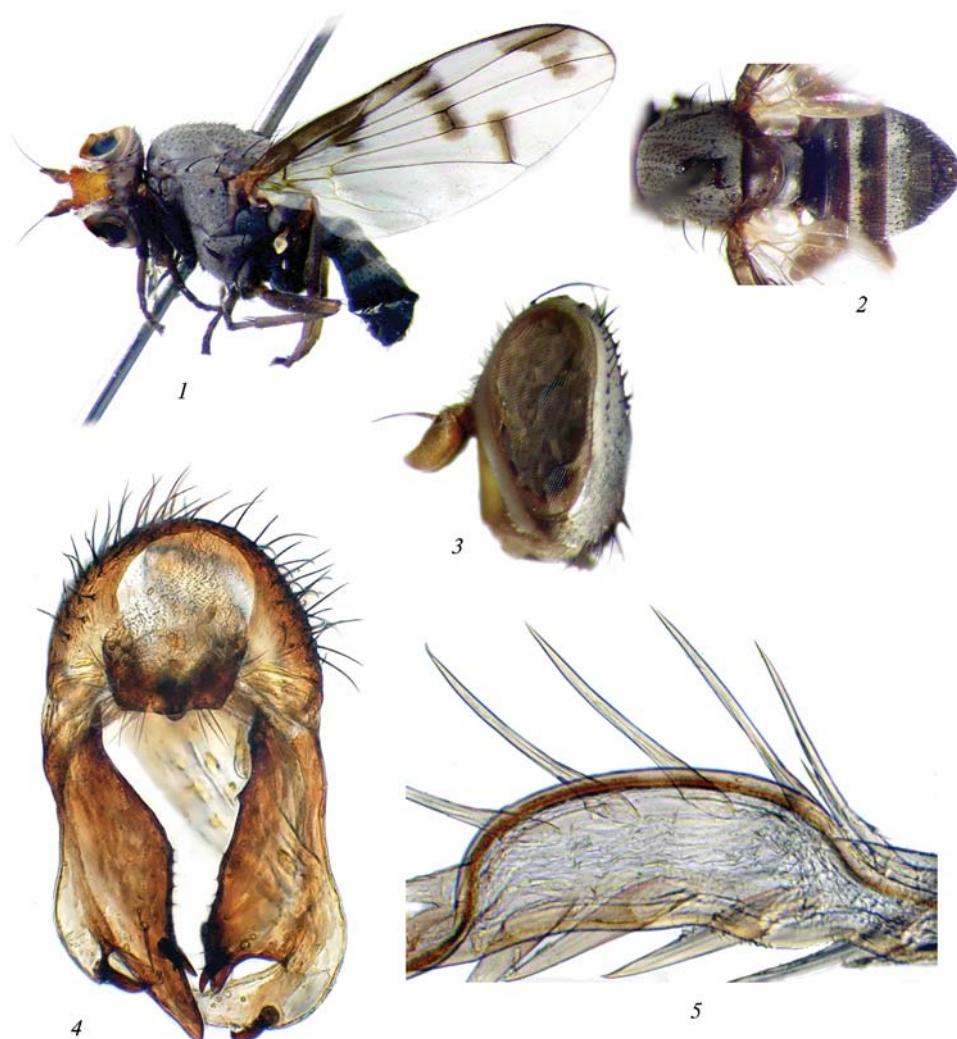


Fig. 2. *Herina gyrans*, non-type  $\sigma$ : 1 – habitus, left; 2 – mesonotum and abdomen, dorsal; 3 – head, left; 4 – epandrium, posterior; 5 – phallus, fragment from medial portion.

Рис. 2. *Herina gyrans*, нетиповой  $\sigma$ : 1 – общий вид, слева; 2 – среднеспинка и брюшко, сверху; 3 – голова слева; 4 – эпандрий, сзади; 5 – фаллос, фрагмент средней части.

in the key to species. As only a single male has been dissected of each of *H. gyrans* and *H. tristis*, the ranges of variability remain unknown. Study of the *Anacampta unimaculata* type shows that it does not differ morphologically from Spanish *O. gyrans*, which is considered here the senior synonym. However, as the syntypes of *H. gyrans* from Croatia have not been dissected yet, there is a small chance that they might be non-conspecific with Spanish specimens.

### *Herina lacustris* (Meigen, 1826)

*Ortalis lacustris* Meigen, 1826; *Herina lacustris*: Séguy (1934), Hennig (1939). – *Herina nigrina* var. *approximata* Villeneuve, 1921 (type locality: “Tunisia, Aïn-Draham”).

**Material examined. Type.** Lectotype  $\sigma$  *O. lacustris*: “Meigen \ 2411 40”, “lacustris”, “2214”, “LECTOTYPE”, “Lectotypus  $\sigma$  / Ortalis / lacustris Meigen, 1826 / desig. B. Merz 2001” (MNHNP) (examined). Syntypes *Herina nigrina* var. *approximata* [not located; not examined]. **Non-type. France:** “Südostfrankreich / Mtgn. de Lure / Lauzon-Tal / b. Montlaux / 500 m, 12.08.1985”,  $\sigma$ , idem, “Mgne de Lure / Cruis”, 6–7.09.1996, 2  $\sigma$ , 2  $\varphi$ ,” (Schacht); “Süd-Frankreich / Corbières / Umgb. Albas / 400 m”,



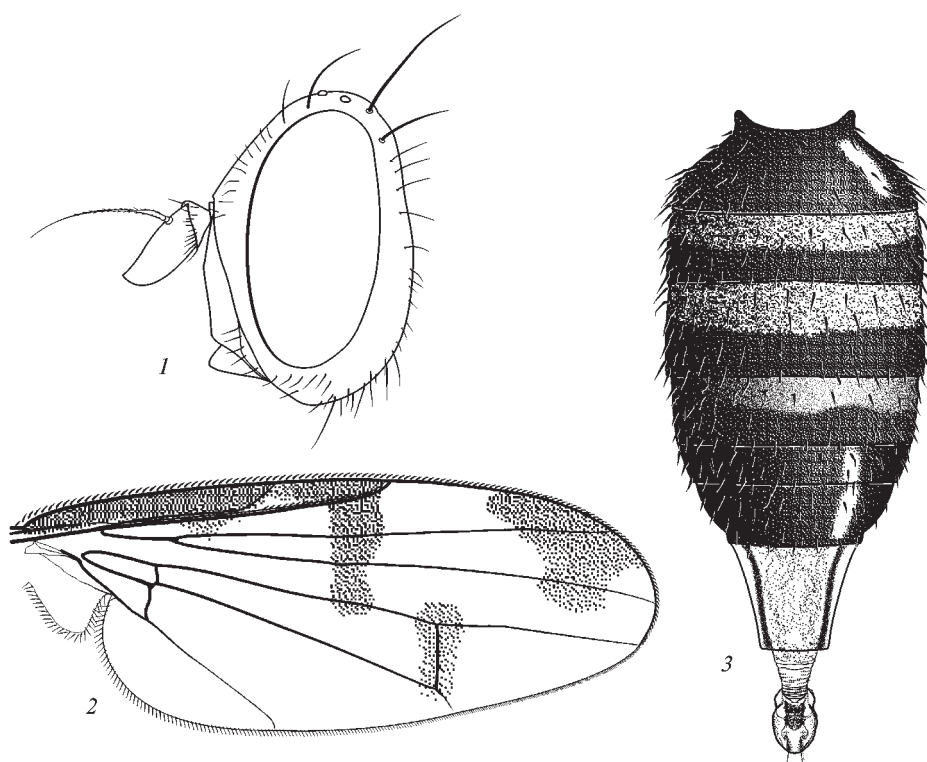


Fig. 3. *Herina gyrans*, holotype ♀ *Anacampta unimaculata* (NHMW): 1 – head, left; 2 – wing; 3 – abdomen and aculeus (exposed, dry, partially shriveled).

Рис. 3. *Herina gyrans*, голотип ♀ *Anacampta unimaculata* (NHMW): 1 – голова, слева; 2 – крыло; 3 – брюшко и лезвие яйцеклада (вытянуто наружу; сухое, частично сморщено).

idem, “Umgb. Albas / 500 m”, 2.08.1980, 2 ♀, 6.08.1980, ♂, “Albas / 400 m / 7–8.08.1980”, 3 ♂, 2 ♀ (Lukasch) (ZSSM); “Douelle (Lot), ♂, ♀, 06.–08.1935, ♂, ♀, “Le Cariol, Lot”, 23.07.1934, ♂ (Lhomme) (ZMHB); **Portugal**: “Portugal / Hoffmannsegg S.”, “Lusitan. Hoffsg.”, “2792”, 2 ♀ (ZMHB); SW Portugal, Estremadura, pine woods near Janas between Estoril and Casceus, 27.07.1970, 10 ♂, 2 ♀ (Pronk) (RMNH); **Spain**: Pr. Aragon, JACA, Rio Aragon, 12–14.07.1981, 5 ♂, 2 ♀ (Pottier) (RBINH); Pr. Cadiz, Hozgarganta-Tal bei Jimena, 200 m, 17.07.1979, ♂ (Schacht) (ZSSM). **Non-European. Algeria**: “La Goix”, ♀, (“*Herina approximata* Vill. det. Soós ♀”) (TAU); **Morocco**: “Baie de Tanger”, 23.05–10.06.1966, ♂ (Francois) (RBINH); **Tunisia**: “Babouch”, ♂ (“*Herina approximata* Vill. det. Soós ♂”) (TAU).

**Notes.** The species has been recorded for the first time from Spain based on material listed above (Carles-Tolrá, Kameneva, in press). First records from Algeria and Morocco.

### *Herina lugubris* (Meigen, 1826)

*Ortalis lugubris* Meigen, 1826. – *Ortalis lugens* Meigen, 1826. – *Ortalis afflicta* Meigen, 1830 (unnecessary replacement name for *Ortalis lugens* Meigen). – *Herina longistylata* Rivoscechi, 1992; Kameneva (2000) (synonymized by Merz, 2002).

**Material examined. Type.** Holotype ♂ *O. lugubris*: [no locality] “Meigen \ 2422, 20”, “lugubris”, “2227”, “LECTOTYPE”, “Holotypus ♂ *Ortalis lugubris* Meigen, 1826 desig. B. Merz 2001” (MNHNP); Lectotype ♂ *O. lugens*: [no locality] “Meigen”, “*Ortalis afflicta*”, “LECTOTYPE”, “Lectotypus ♂ *Ortalis lugens* Meigen, 1826 desig. B. Merz 2001”, “*Herina lugubris* Mg. det B. Merz 2001” (MNHNP); Paralectotype ♂ *O. lugens*: [no locality] “Meigen \ 2419, 40”, “*Ortalis afflicta* (lugens)”, “Paralectotypus ♂ *Ortalis lugens* Meigen, 1826 desig. B. Merz 2001”, “*Herina lugubris* Mg. det B. Merz 2001” (MNHNP); **Non-type. France**: Blerrffe, 29.07.1905, ♂ (Bequaert); Vendee, Ile d’Yeu, 2/19.08.1950, 7 ♂, 3 ♀ (Janssens) (RBINH); “Gall. [ia] mer. [idionalis] Charb. [?]”, “2790”, “dissoluta / n.” (ZMHB); **Italy**: Triest, 26.06. [year?] 2 ♀; 13.09. [year?] ♀; 9.10. [year?], 2 ♀ (ZSSM); [Campania: ]“Cilents Geb. [Valle Cilento] / Montano Attilio [Montano Antilia]”, 27.09.1966, 4 ♂ (Hennig) (SMNS); Carsoli – 10 km N, flowering

meadow, 42°13'N, 12°59'E", 4.08.1988, ♂ (Barták) (CMB); Paestum, riv. Solofrone, 14.08.1963, ♂ (RBINH); Portugal: beach near Lameiras NW of Lisbon, 20.07.1970, ♂; SW Portugal, Estremadura, pine woods near Janas between Estoril and Casceus, 27.07.1970, 2 ♀ (Pronk) (RMNH); **Spain**: "Andalus.[ia] / Stauding.[er]", "Coll. / H. Loew", ♂, ♀ (ZMHB); Pr. Cuenca, Rio Jucar-Tal, bei Huelamo, 1200 m, 24.07.1979, ♀ (Schacht) (ZSSM); Villada, pine wood, 42°07'N, 1°54'E, 500 m, 6.07.1990, ♂ (Barták) (CMB).

Notes. Merz (2002) listed material from France, Portugal and Spain and noted that this species also occurs in England and mainland Italy; he also (2002) showed that most West European records listed under "*H. lugubris*" actually were *H. rivosecchii* except for the material from the British Islands, which is *H. lugubris*.

### *Herina nigrina* (Meigen, 1826)

*Musca germinationis* Rossi, 1790, unavailable n.: preocc., nec *Musca germinationis* Linnaeus, 1758, (see Thompson, Pont, 1994); *Herina germinationis*: Rondani (1869); Séguy (1934); Hennig (1939); Soós (1984); Merz (2002); Kameneva, Greve Jensen (2004). — *Ortalis nigrina* Meigen, 1826; *Herina nigrina*: Schiner (1864); Becker (1902; 1905); Aartsen, Beuk (2002): the Netherlands.

Material examined. **Type**. Syntypes *Ortalis nigrina*: ♂ [Switzerland:] "Genf" [=Geneva], "nigrina / coll. Winthem", "nigrina / Genf" [original Winthem's or Meigen's label] (NHMW); ♀: [Switzerland:] "nigrina / Genf", "2223" and "LECTOTYPE" (apparently, Hennig's designation) (MNHN). **Non-type**. **Austria**: "Admont / 27930 | Sammlung / Dr. Th. Becker", ♂, 2 ♀, 1 specimen without abdomen (ZMHB); "Wien / 8.40 / Schiner", "Coll. / H. Loew", 2 ♀ (ZMHB); Sulzgau, along river, 47°33'N, 13°11'E, 30.07.1988, ♀ ("*Herina germinationis* det. Martinek") (Barták) (CMB). **Bulgaria**: Kotel, 42°55'N / 26°24'E, 21.07.1987, ♂ (Barták) (ZSSM); **Croatia**: "Dalmatia / Arbe", 06.1914, ♀ (Maidl) (NHMW); "Kroatien / 40008", "Delnice", 17.08.1894, ♀ (Becker) (ZMHB), **France**: Haute Savoie, Cheus-le-Pont", 24.07.1949, ♂ (Chesquiere) (RBINH); **Germany**: Baden-Württemberg: "Württemberg / v. Roser / 1872–75", ♂, 4 ♀; Stuttgart, 1902, ♂, ♀ (Heller); "Degenfeld N. N. O. 1.0 km Eierberg, Kr. Schw., Gmünd, 650 m", 29.07.1975 ♂ (Grab) (SMNS); Bavaria: "Gg. Necker / Bavaria / Krs. Kelheim / Sendharlenden", 25.07.1969, ♂ (ZSSM); "Ober-Bayern, FFB, Schöngesing, 550 m": "Vorweiler", 28.07.1987, ♀, 23.08.1987, ♀; "Jägereinfang", 16.08.198, ♀, "U. Birken-Eintang", 28.06.1989", ♀; "Alter Eintang", 20.07.1990, ♀ (Schacht); "Ober-Bayern, Alpen / Karwendel-Gebirge / Forein-Alm 1400- / 1800 m", 2.07.1999, ♀ idem, 3.08.1999, 3 ♀ (Schacht) (ZSSM); "Tegernsee / St. Quirin", 07.1937, ♀ (Thomala); "Reichh[ut].", "Coll. / H. Loew", ♀ (ZMHB); Sachsen: "Wesnig / Jul. 57", Coll. / H. Loew", ♀; "Waisnix [Wessnig] / Jul. 55", "Coll. / H. Loew" 1 specimen (abdomen missing) (ZMHB); **Liechtenstein**: 3.07.1935, ♂ (Lindner) (SMNS); **Romania**: "Carpathes / Azuga-Valachie / Montadon / 50849", ♀ (coll. Becker) (ZMHB); **Switzerland**: Canton Geneva, Chancy, 350 m, 25.07.2004, 13 ♀ (Kameneva, S. Korneyev and V. Korneyev) (SIZK); **Spain**: Huesca, Bonansa Alt., nr. Port de Suert, 1100 m, at light, 29.07.1981, ♂, ♀ (Sijstermans) (RMNH).

Notes. The broadly used name *Herina germinationis* goes back to Rondani (1869), whose concept of Rossi's name was universally accepted in European literature of the 1930–2000s, including the Ulidiidae chapter of the 1st edition of Fauna Europaea. As primary homonymy of *Musca germinationis* Linnaeus, 1758 and *Musca germinationis* Rossi, 1790 was discovered (Thompson, Pont, 1994), the latter name is unavailable, and its junior synonym *Ortalis nigrina* Meigen was accepted as the valid name (van Aartsen, Beuk, 2002). No valid designation of *Ortalis nigrina* lectotypes in the literature has been ever published, so I consider both Meigen's specimens deposited in Paris and Vienna to be syntypes. First records from Bulgaria and Liechtenstein.

### *Herina oscillans* (Meigen, 1826)

*Ortalis oscillans* Meigen, 1826. — *Herina oscillans*: Schiner (1864); Austria; Becker (1910): France (Corsica), Algeria; Séguy (1934): Belgium, France (mainland); Hennig (1939): England, Italy (Bolzano, Venice and Trieste). — *Ortalis apicalis* Zetterstedt, 1849: Sweden (Gottland); Hennig, 1939: synonymy with *oscillans*. — *Herina schlueteri* Becker, 1913 **syn. n.**: Morocco; Kameneva, Greve Jensen (2004): Cyprus, France, Germany, Greece, Hungary, Italy, Spain (Balears).

Material examined. **Type**: Holotype ♂ *Ortalis oscillans*: "oscil- / lans", "Meigen \ 2419 / 40" [paper circle], "2218". "Lectotype" [red label] (MNHN). Syntypes ♂, ♀ *H. schlueteri*: [Morocco:] "1899 / Tanger", "Sammlung / Dr. Th. Becker", "schlüteri / Beck.", "Typus" [red label] (ZMHB). **Non-type**. **Cyprus**: Lemesos 7 km SW, Salt lake, E shore, 8.04.2002, ♂, 3 ♀ (Rohaček) (SZMO); Lamassal, 9.04.1951, 2 ♂; Akrotiri Bay, 12.04.1950, ♀; Sermasoyia Hills, 27.04.1951, ♂ (Mavromoustakis) (RBINH); **France**: "Hyères / 48519. V", 6 ♂, 5 ♀; "Arles / 48519. V" [note in the collection manuscript catalogue: "Mittelmeerküste bei Nizza"], "Sammlung / Dr. Th. Becker", ♂, ♀ (ZMHB); **Germany**: Bavaria mer.

Ammersee, Wartaweil, 16.06.1947, 4 ♂ (Forster) (ZSSM); **Greece**: Corfu: “50184. V” (Strobl) (ZMHB); **Hungary**: “Zamardi, parti, homokbuckás”, 21.05.1953, 23 ♂, 23 ♀ (HMNH); idem, 24.06.1953, ♂ (Mihályi), Kiskunaági N. P., Fülóphaza, homokbuckás, 22.06.1978, ♀ (Soós) (TAU); **Italy**: [Riviera]: “Alassio / 48405. V”, ♂, ♀ (ZMHB); **Spain**: Mallorca, Arenal, 06.1957, ♂ (Bequaert) (RBINH).

**Notes.** This species had been previously recorded as “*Herina schlueteri*” from Cyprus, Spain, France, Germany, Greece, Hungary and Italy (Kameneva, Greve Jensen, 2004) based on material compared with the type of *H. schlueteri* alone. Further study of the type of *Ortalis oscillans* has shown that the types of both nominal species types are certainly conspecific, and the synonymy suspected by Hennig (1939) is confirmed. Furthermore, both type specimens possess a triangular widened palpus, the character that differentiates *H. oscillans* from other *Herina* species, and it strongly resembles palpi shape in the tribe Cephaliini. The two syntypes of *H. schlueteri* presumably deposited in the ZISP collection have not been examined yet.

### *Herina paludum* (Fallén, 1820)

Hennig (1939): England, France, Germany, Italy, Latvia, Sweden; Egypt; Soós (1957): Austria, Hungary, Romania. Nowakowsky (1991): Poland. Merz (1996): Switzerland. Martinek (1997): Czech Republic, Slovakia. Martinek (1999): Germany.

**Material examined.** **Austria**: Salzburg-Parsch, 20.08.1963, ♀ (Bahig) (ZSSM); **France**: “Südostfrankreich, Mgne de Lure”, 1700 m, 5–7.09.1996, 2 ♂ (Schacht) (ZSSM); **Germany**: Bavaria: “Ober-Bayern, FFB, Schöngesing, 550 m, Jägereinfang”, 16.08.1987, ♀ (Schacht); “Bavaria mer., Steinebach, a. Wörthsee”, 15.07.1949, ♀ (Daniel) (ZSSM); Baden-Württemberg: “Württemberg / v. Roser / 1872–75” ♂, 3 ♀ (SMNS); **Greece**: Makedonia: Kilkis: Skra, Koupa, 5.06.2002, 9 ♂, ♀ (Kameneva and V. Korneyev) (SIZK); **Hungary**: M. Szeget, 3.08.1903, ♂ (Uhl), (“*Herina paludum* Fall. det. Soós ♂”); “Szászka Iingow, Kriston”, ♀ (“*Herina paludum* Fall. det. Soós ♀”) (TAU); **Italy**: “Süd-Tirol, St.-Martin, 2 km sdl.” [Bolzano: San Martino 12 km NNE of Merano], 10.08.1969, ♀ (Haller) (SMNS); **Slovenia**: Jesenice, 19.06.1975, ♀ (Zwölfer) (“*Herina paludum* Fall. Lindner det.”) (SMNS).

**Notes.** First record from Greece and Slovenia.

### *Herina palustris* (Meigen, 1826)

Hennig (1939): England, France, Germany, Hungary, Italy, Latvia, Sweden; Soós (1957): Austria, Slovakia, Slovenia; Nowakowsky (1991): Poland; Merz (1996): Switzerland. Roháček (2006): Czech Republic.

**Material examined.** **Type.** Syntypes ♂, ♀ *Ortalis palustris*: [**Germany**:] “palustris”, “Meigen \ 2419 / 40” [paper circle], “2215”. “Lectotype” [red label on ♂ only] (MNHN); Syntype ♀ *Ortalis palustris*: [**Germany**:] “palustris / coll. Wiedemann”, “O. palustris M.” [Meigen’s handwriting] (NHMW); **Non-type.** **Germany**: “Berlin / Ruthe”, ♂, ♀ (ZMHB); **Hungary**: “Kiskunsági N. P., Agasegyháza, homokbuckás”, 20.06.1978, ♂, ♀ (Soós) (HMNH); **Spain**: Valencia, El Saler, 21/31.03.1964, ♀ (Verbeke) (RBINH); **Switzerland**: Canton Geneva, Chancy, 350 m, 25.07.2004, 8 ♂, 23 ♀ (Kameneva, S. and V. Korneyev) (SIZK); **Russia**: “Kalinin” [= Tver’], Dmitrovo vill., 9.07.1936, ♂, ♀ (E. Smirnov) (ZMUM); **Ukraine**: Kyiv Region: 70 km NW of Kyiv, Spartak Railway Station, 25.07.1984, ♀ (V. Korneyev); Kyiv, vicinity: Mrygi, 50°15,822' N, 30°34,018' E, 22.07.2006, 55 ♂, 60 ♀ (Kameneva, V. Korneyev) (SIZK).

**Notes.** The species has been recorded for the first time from Spain based on material listed above (Carles-Tolrá, Kameneva, in press).

### *Herina parva* (Loew, 1864)

**Material examined.** **Type.** Syntypes 5 ♂, 2 ♀: [**Austria**:] “Schneeb. [erg] / Juli [18]55”, “Coll. H. Loew”; possible syntype ♂: “Aug. 56 / Kittel”, “Coll. H. Loew” (ZMHB). **Non-type.** **Austria**: Salisburgia [= Salzburg] Golling [an der Saltzach], 13.07.1916, ♂, ♀ (Zerny) (NHMW); Tirol: Lermoos, “19.7. 19273” [im Baignoir (?)], ♀; Namlos, 2 ♀ (SMNS); Niederösterreich: Schneeberg, 6.06.1867, ♂, ♀, 10.06.1867, ♀ (coll. H. Loew); Steiermark: Admont, 2 ♂ (Strobl) (“coll. Duda”), idem, “25788” [im Gefange] 25.06.1890 (“Sammlung Dr. Th. Becker”); Kärnten: “Karnth.”, 3.06.1867, ♂, ♀ (coll. H. Loew) (ZMHB); **France**: Haute-Savoie: “Chamonix[-Mont-Blanc] 61244. VII”, “Sammlung Dr. Th. Becker”, 3 ♀ (ZMHB); **Germany**: Bavaria: “St. Veit”, 25.07.1907, 2 ♀, “Coll. Duda” (ZMHB); “Ober-Bayern, Alpen, Karwendel-Gebirge, Forein-Alm, 1400–1800 m, 2.07.1999, ♂, idem, 20.07.1999, ♂, ♂, idem, 3.08.1999, ♀ (Schacht), idem, Karwendel, Schüttelkar-Spitze, 2000 m, 10.06.1946 (Daniel), Bayrischzell, 18.06.1946, ♂ (Geltinger), Ammersee, Wariaweil, 16.06.1947, 2 ♀ (Forster), Ammergau Berge, Friedei-Gebiet,

1700–2000 m, 23–30.07.1948, ♀; Heimgarten, 16.07.1967, 2 ♂ (Dingler) (ZSSM); **Spain**: Mallorca, Aleudia bantal, 28.05.–9.06.1956, 25 specimen (Bequaert) (RBINH).

**Notes.** This species has been recorded for the first time from Spain (Balears) based on material listed above (Carles-Tolrà, Kameneva, in press). It is well represented in collections from Germany and was listed by Hennig (1939), but omitted in the Checklist of German Diptera (Martinek, 1999).

### *Herina rivosecchii* Merz, 2002

*Herina rivosecchii* Merz, 2002: Croatia, France, Greece, Italy, Spain, Switzerland. — *Herina lugubris*, pro parte major (misidentification): Hennig (1939); Soós (1984), Rivosecchi (1992), Merz (1996), Clements, Merz (1997).

**Material examined. Non-type. Croatia:** "Dalmatien, Castelnuovo", 15.06.1911, ♂ (Spaney-Schumacher) (ZMHB); **France:** Lot: Douelle, 07–08.1935, ♂, ♀ (Lhomme) (ZMHB); **Greece:** "Corfu", ♂, ♀ (Erber) (DEI); **Italy:** Lazio: Carsolini, 10 km N of, 42°13' N, 12°50' E, flowering meadow, 4.08.1988, ♂, ♀ (Barták) (ZSSM); Sicily: Messina, "10.7. Zur.", ♂, ♀ (ZMHB); **Montenegro:** Buljarica, 19–22.09.1988, 3 ♂ (Miksch) (SMNS); **Spain:** "Granada, srr. / Nevada, 1200 m", 18.09.1978, ♀ (Haller) (SMNS); [?Murcia:] "Casa Blanca", "477", ♀ (RBINH); **Switzerland:** Vaud: Peney, 13.09.1874, ♀ (Tournier) (RBINH); Canton Geneva, Chancy, 350 m, 25.07.2004, ♀ (Kameneva, S. Korneyev, V. Korneyev) (SIKZ).

**Notes.** First record from Montenegro.

### *Herina scutellaris* Robineau-Desvoidy, 1830 (fig. 4)

*Herina scutellaris* Robineau-Desvoidy, 1830; *Herina scutellaris*: Hennig (1939): Croatia, Greece, Italy; Soós (1957): Hungary; Roháček (2006): Czech Republic, Slovakia. — *Ortalis rufipes* Macquart, 1835; *Tephronota rufipes*: Séguy (1934): France. — *Herina helvipes* Rondani, 1869 (replacement name for *O. rufipes* Macquart, nec *Herina rufipes* Robineau-Desvoidy, 1830).

**Material examined. Type.** Syntype (sex?) *Ortalis rufipes* [France:] destroyed or on loan (?) — only a pin with folded blue paper rectangle under bottom label "*H. rufipes* n. Bordeaux" (MHN Lille). **Bosnia and Herzegovina:** Hutovo Blato-Skrka Lake, 8 km SE Capljina, 11.09.1987, 7 ♂, 5 ♀ (Mathis) (USNM); **Croatia:** "Dalmat / Erber", "Coll. H. Loew, ♂, 3 ♀ (ZMHB); **Cyprus:** Akrotiri, 18.06.1961, 2 ♂, 2 ♀ (RBINH); **Greece:** Corfu, "50185", "Sammlung Dr. Th. Becker, 05. (year?)", 2 ♀ (ZMHB); **Italy:** Trieste, "40959", "Sammlung Dr. Th. Becker, ♀ (ZMHB); **Romania:** "Siebenbürgen [Transylvania]", "38580", "Sammlung Dr. Th. Becker", 10.07. (year?), 2 ♂ (ZMHB); **Spain:** Valencia, El Saler, 21/31.03.1964, ♀ (Verbeke) (RBINH). **Non-European. Turkey:** Içel: Mersina, "46654", "Sammlung Dr. Th. Becker", 1897, ♂ (Holtz) (ZMHB).

**Redescription.** Head 1.5 times as high as long; gena 0.25 times as high as eye; flagellomere 1 apically narrowed, but blunt, twice as long as wide (fig. 4, 3). Mesonotum and pleura grey microtrichose; 2 pairs of supraalar and 2 pairs of dorsocentral setae, 8 rows of setulae between latter; scutellum yellow apically, brownish yellow and white microtrichose at anterior margin (fig. 4, 2). Male terminalia. Surstyli long; medial surstylus apically bilobate, with one dowel-like preniseta on apex of each lobe; lateral surstylus slightly longer than medial, in profile widened at apical one-third, then narrowed into mesoventrally directed anterior (ventral) lobe (fig. 4, 5). Hypandrium almost twice as long as wide, with large right gonite apparently bearing no setulae. Phallus with vestiture uncommon for *Herina*: basal quarter with regular long triangular acanthi, middle one-third of length with one row of scale-like, subrectangular acanthi, subapical quarter with narrow and long triangular acanthi at base, then almost bare, apex with membranous lobe bearing cluster of short dark microtrichia in narrow pit and lamp-brush apical structure, bearing numerous fine acanthi to apex (fig. 4, 4). Female terminalia. Aculeus relatively short: tergo sternite 8 less than 3 (2.6–2.8) times as long as wide and 3 times as long as cerci; ventral lobes inconspicuous, half as long as tergo sternite 8, apical tubus not expressed; epiproct slightly shorter than cerci; cerci twice as long as wide, long oval (fig. 4, 6). Three long spermathecae 5–6 times as long as wide, with spiral wrinkles; narrowed to apex, truncate at base (fig. 4, 7).



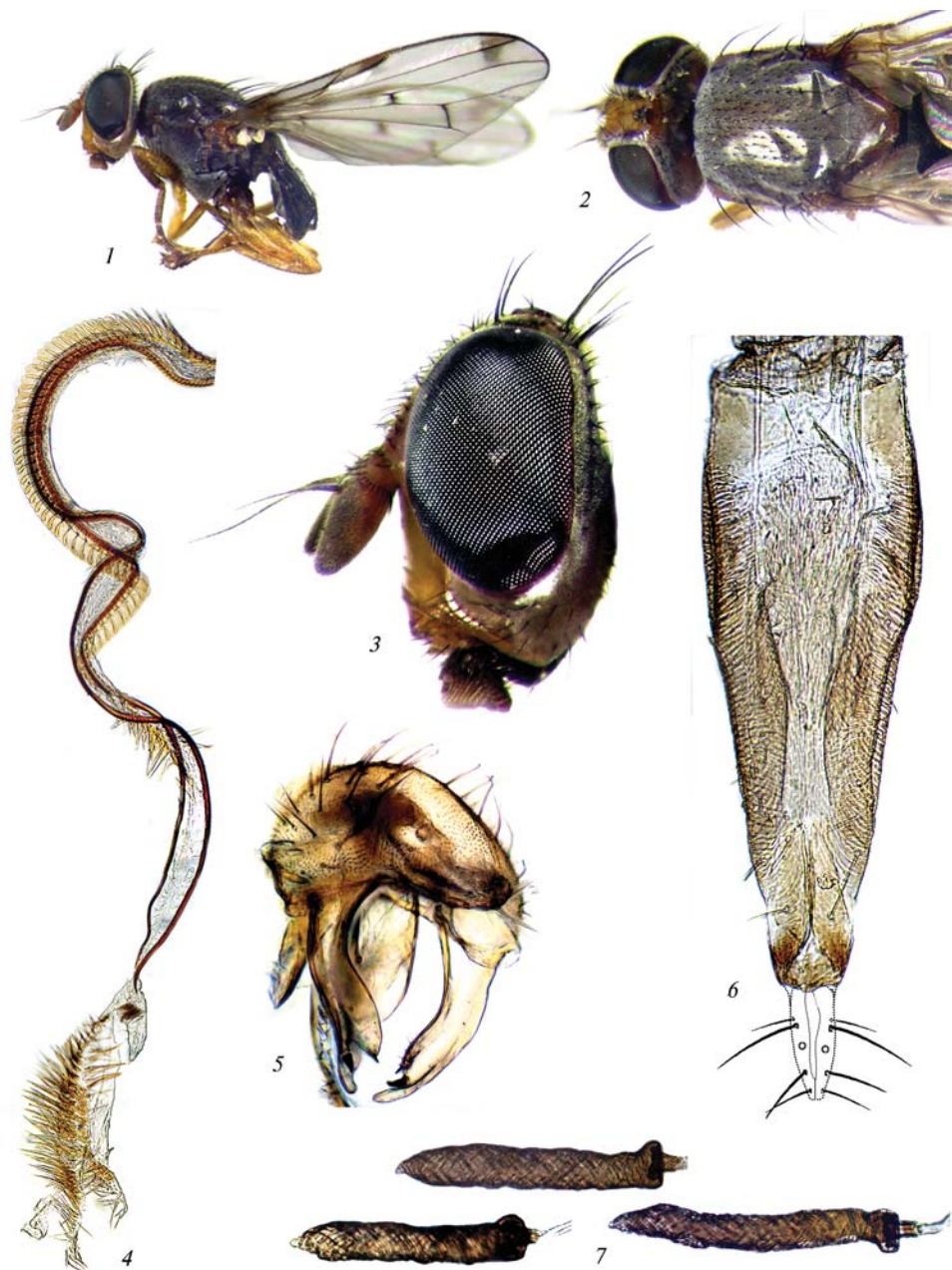


Fig. 4. *Herina scutellaris*: 1 – habitus, left; 2 – head and mesonotum, dorsal; 3 – head, left; 4 – phallus; 5 – epandrium, posterior; 6 – aculeus, ventral (cerci shape drawn based on intact specimen); 7 – spermathecae.

Рис. 4. *Herina scutellaris*: 1 – общий вид, слева; 2 – голова и среднеспинка, сверху; 3 – голова, слева; 4 – фаллос; 5 – эпандрий, сзади; 6 – лезвие яйцеклада, вентрально (форма церков нарисована с другого, не вскрытого экземпляра); 7 – сперматеки.

Notes. First record from Bosnia and Herzegovina, Cyprus, Romania and Asian Turkey. This species has been recorded for the first time from mainland Spain based on material listed above (Carles-Tolrá, Kameneva, in press).

*Herina tristis* (Meigen, 1826) (fig. 5—6)

*Ortalis tristis* Meigen, 1826; Becker (1902); *Tephronota tristis*: Séguy (1934): France; *Herina tristis*: Hennig (1939), Rivosecchi (1995): Italy. — *Ortalis bifasciata* Loew, 1858.

Material examined. **Type.** Syntype ♀ *Ortalis tristis*: [unknown country of origin:] “tristis”, “Meigen \ [label lower side not examined]” [paper circle], “2222”. “Lectotype” [red label] (MNHN). Syntype ♂ *O. bifasciata*: [Italy:] “Sicilia / Mann”, “Coll. H. Loew”, “Type [red printed label]”, “bifa- / sciata / Lw.”, “Tephro- / nota / Lw.”, “Offenbar echter Typus von Tephronota bifasciata Loew / Hennig” (ZMHB). **Non-type.** France: Vendee, Ile d’Yeu, 2/19.08.1950, ♀ (Janssens) (RBINH); Italy: “Calabria”, 06.1893, ♂ (NHMW); idem, 2 ♀ (DEI); Sicily, “M. Nebrodici, Biviere di Cesaró”, 1250—1350 m, 30.07—7.08.1961, ♂ (dissected), ♀ (dissected) (van der Goot) (SIZK).

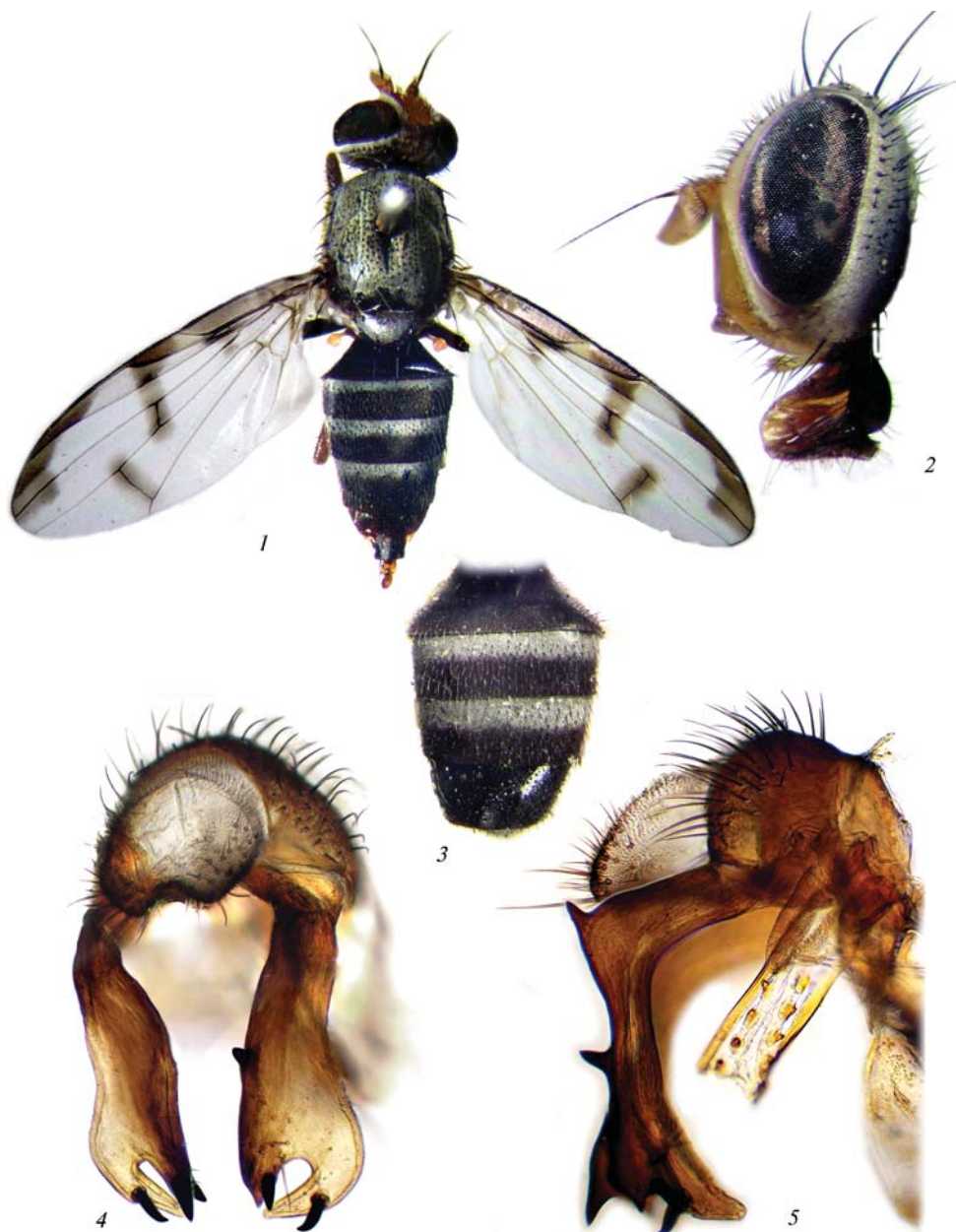


Fig. 5. *Herina tristis*: 1 — habitus of female, dorsal; 2 — head, left; 3 — male abdomen, dorsal; 4 — epandrium, posterior; 5 — same, right (phallus detached).

Рис. 5. *Herina tristis*: 1 — общий вид самки, сверху; 2 — голова, слева; 3 — брюшко самца, сверху; 4 — эпандрий, сзади; 5 — то же, справа (фаллус удален).

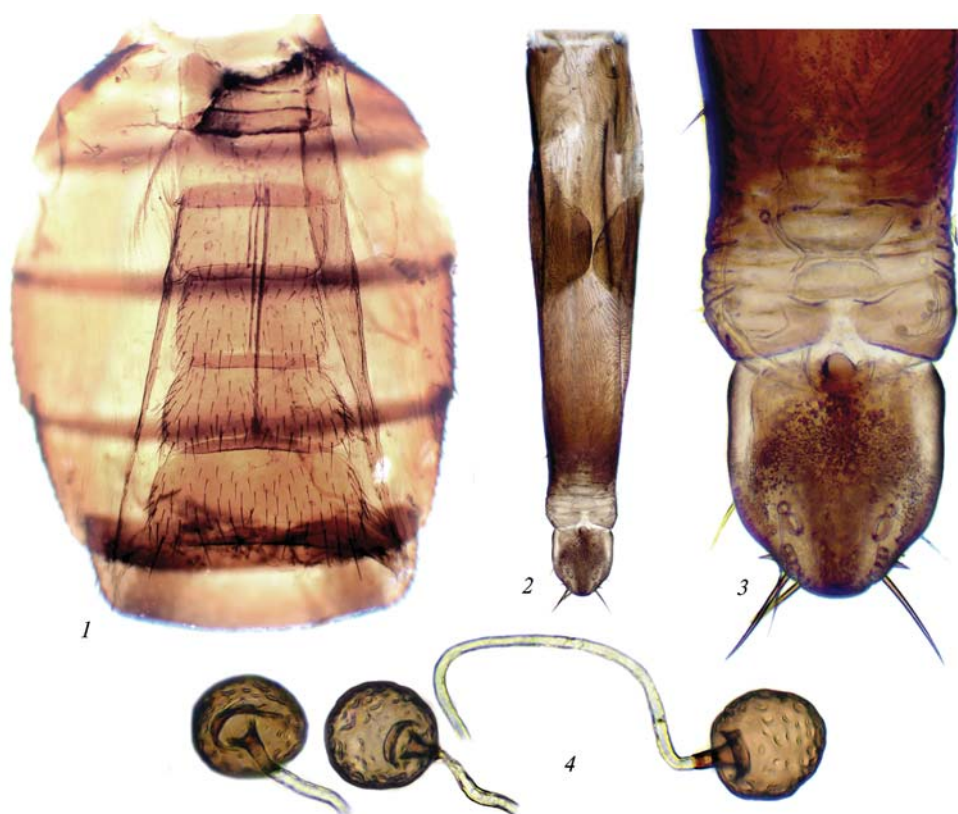


Fig. 6. *Herina tristis*, ♀: 1 – abdominal sternites, ventral (ovipositor detached); 2 – aculeus, ventral; 3 – aculeus apex, enlarged, ventral; 4 – spermathecae.

Рис. 6. *Herina tristis*, ♀: 1 – брюшные стерниты, вентрально (яйцеклад удален); 2 – лезвие яйцеклада, вентрально; 3 – вершина лезвия яйцеклада, вентрально (увеличено); 4 – сперматеки.

**Redescription.** Head almost 1.5 times as high as long; flagellomere 1 apically acute (fig. 5, 2). Mesonotum and pleura gray microtrichose; 2 pairs of supraalar and 2 pairs of dorsocentral setae, 8 rows of setulae between latter; scutellum black to brown, grey microtrichose (fig. 5, 1). Wing pattern as on fig. 5, 1, apical band joined to costal vein; cell *bcu* closed with sinuate vein, with triangular posteroapical lobe. Male terminalia. Surstyli strongly elongate and apically bilobate, with spurious, strongly sclerotized lobes, 3 on left and 2 on right surstylus (fig. 5, 4–5); one preniseta on medial lobe and another at base of mesally curved anteroventral lobe. Phallus with regular (long triangular) acanthi over entire length. Female terminalia. Aculeus comparatively long: tergosternite 8 five times as long as wide and 7 times as long as cerci; ventral lobes short, 0.3 times as long as tergosternite 8 (fig. 6, 2), apical tubus wrinkled, narrowed; cerci slightly longer than wide, rounded pentagonal (fig. 6, 3). Three subspherical or mushroom-like spermathecae with pitted or papillose surface (fig. 6, 4).

**Notes.** This species has been very briefly redescribed by Becker (1902) and partly figured by Hennig (1939): Textfig. 22, fig. 76 and Rivosecchi (1995): fig. 37. I therefore give more detailed pictures of the specimens from Sicily. See discussion for *H. gyrans* above.

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