

Description of a new species of *Macronymchia* Rondani, 1859, from France (Diptera, Sarcophagidae)

by Yuriy VERVES* & René RICHET**

* Postbox 23, Kyiv-118, Ukraine, 03118 <fly_@voliacable.com>

** 16, Grande Rue, F – 03220 Jaligny-sur-Besbre <richet.rene@orange.fr>

Summary. – A new species of *Macronymchia* Rondani, 1959, is described from France. A key of European species of *Macronymchia* is provided.

Résumé. – Description d'une nouvelle espèce de *Macronymchia* Rondani, 1859, de France (Diptera, Sarcophagidae). Une nouvelle espèce de *Macronymchia* Rondani, 1959, est décrite de France. Une clé des espèces européennes de *Macronymchia* est proposée.

Keywords. – Diptera, Sarcophagidae, *Macronymchia*, flesh fly, new species, key, France, Alps, Pyrenees.

The first revision of European species of *Macronymchia* was made by SÉGUY (1941). His key to species has since been used as the model for some later keys (MIHÁLYI, 1979; ROHDENDORF, 1970; VENTURI, 1960). Subsequent revisions deal with Palaearctic (KURAHASHI, 1972; PAPE, 1987; VERVES, 1982, 1990; POVOLNÝ & VERVES, 1997; VERVES & KHROKALO, 2006a), Oriental (KURAHASHI & PAPE, 1996) and American (VERVES, 1983) species. A review of the Macronymchiinae (including the single genus *Macronymchia*) of the world was published by VERVES & KHROKALO (2006b). Currently, 20 species of *Macronymchia* are known in the world (table I).

Table I. – Distribution of species of *Macronymchia* in different biogeographical regions
(Pa, Palaearctic; Ne, Nearctic; Or, Oriental; Af, Afrotropical; Nt, Neotropical)

NN	species	Pa	Ne	Or	Af	Nt
	Subgenus <i>Macronymchia</i> s. str.	5	1	1	1	3
1	<i>aurata</i> (Coquillett, 1902)	-	x	-	-	-
2	<i>aurifrons</i> Hall, 1937	-	-	-	-	x
3	<i>dolini</i> Verves & Khrokalo, 2006	x	-	-	-	-
4	<i>kanoi</i> Kurahashi, 1972	x	-	x	-	-
5	<i>lemariei</i> Jacentkovský, 1941	x	-	-	-	-
6	<i>lopesi</i> Verves, 1983	-	-	-	-	x
7	<i>ornata</i> (Townsend, 1917)	-	-	-	-	x
8	<i>striginervis</i> (Zetterstedt, 1838)	x	-	-	x	-
9	<i>substriginervis</i> Verves & Khrokalo, 2006	x	-	-	-	-
	Subgenus <i>Moschusa</i> Robineau-Desvoidy, 1863	7	2	1	-	1
10	<i>agrestis</i> (Fallén, 1810)	x	-	-	-	-
11	<i>alpestris</i> Rondani, 1865	x	-	-	-	-
12	<i>auromaculata</i> (Townsend, 1915)	-	-	-	-	x
13	<i>confundens</i> (Townsend, 1915)	-	x	-	-	-
14	<i>griseola</i> (Fallén, 1820)	x	-	x	-	-
15	<i>polyodon</i> (Meigen, 1824)	x	-	-	-	-
16	<i>richterae</i> Verves & Khrokalo, 2006	x	-	-	-	-
17	<i>seguyi</i> Verves & Richet, n.sp.	x	-	-	-	-
18	<i>utahensis</i> (Smith, 1916)	-	x	-	-	-
19	<i>xuei</i> Verves & Khrokalo, 2006	x	-	-	-	-
	Subgenus <i>Thomaspapeia</i> Verves & Khrokalo, 2006	-	-	1	-	-
20	<i>malayana</i> Kurahashi & Pape, 1996	-	-	x	-	-
	Sum	12	3	3	1	4

The biogeographical data shows that the Palaearctic contains the highest diversity of *Macronymchia*. Several regional endemic species are known for the Nearctic, Neotropical, Palaearctic and Oriental regions. These flies are very rare in Africa south of Sahara and absent in the Australasian/Oceanian, Madagascan and Antarctic regions. Eight species are present in Europe. The species appear to prefer mesophytic and humid bushland and meadows, especially in mountainous regions.

Abbreviations for depositaries. – IZK: Schmalhausen Institute of Zoology, Kyiv, Ukraine; MNHN: Muséum national d'Histoire naturelle, Paris; ZMUC: Zoological Museum, University of Copenhagen, Denmark.

Macronymchia (Moschusa) seguyi n. sp.

HOLOTYPE: ♂, deposited in MNHN: abdomen glued to a piece of cardboard pinned under the specimen, France: 65 Gèdre/25.VII.1993/R. Richet rec., Holotypus (red label), *Macronymchia seguyi*/Verves & Richet (white label). PARATYPES: 1 ♂, deposited in IZK: genitalia in Canada balsam between two slides fixed on a piece of coated polystyrene onto which the rest of the abdomen has been glued and which is pinned under the specimen, France: 05 Le Monetier-les-Bains/VI.1991/R. Richet rec., Paratypus (red label), *Macronymchia seguyi*/Verves & Richet (white label); 1 ♂, deposited in ZMUC: head and abdomen on a piece of cardboard pinned under the specimen, genitalia in Canada balsam on a separate big slide and under 4 coverslips, France: 74 Bourg-Saint-Maurice/25.VII.1992/R. Richet rec., Paratypus (red label), *Macronymchia seguyi*/Verves & Richet (white label).

Distribution. – Palaearctic Region: France (Alps and Pyrenees only).

Diagnosis. – This species is similar to *Macronymchia (Moschusa) alpestris* Rondani, 1865, by presence of strong mediomarginal bristles at 1st +2nd abdominal syntergite, by 4-6 irregular vertical rows of parafacial setae, and by frons at level of posterior ocelli 0.33 of the head width or more, but well differing by yellow basicosta and basicostal scale, and by presence of well developed several pairs both of pre- and postsutural *acr* bristles.

Description. – *Length:* 10-12 mm. Female unknown.

Head: frons at level of posterior ocelli 0.33-0.39 times, at level of antennal base – 0.46-0.53 times as wide as head width. Fronto-orbital plate and parafacial densely greyish white dusted, frontal vitta black, with brown tinge; orbital triangle densely light silvery-grey pollinose; frontal vitta at level of anterior ocellus 1.5-2.3 times as wide as one of fronto-orbital plates, ratio of the width of anterior to posterior 1 : 1, but slightly narrowing at level of upper reclinate fronto-orbital setae. Flagellomere 1.5-1.7 times as long as pedicel, arista almost bare, microscopically pubescent, thickened in basal 0.3-0.4, antenna entirely greyish black; palpus slightly widened at apex, brownish black. Proboscis about 3-4 times as long as high. Parafacial at level of antennal base 0.34-0.38 times, gena 0.33-0.37 times as wide as eye height. One regular row of postocular setae present; outer vertical bristle strong, about 0.5 times as long as inner vertical bristles; ocellar bristles strong and long; 2-3 pairs of fine postocellar bristles present; fronto-orbital bristles strong, 1 + 4-5, only two posterior proclinate pairs long and strong, others short and thin; 9-13 pairs of moderately long frontal bristles; fronto-orbital covered with numerous moderately long erect black setae. Parafacial with 4-6 irregular vertical rows of short black setae. Face and lunula silver-grey dusted, genal groove and facial ridge reddish, slightly white pubescent. Vibrissa well developed; subvibrissal setae black, moderately long and relatively strong. Gena grey dusted, covered with black setae, postgena and occiput grey pollinose, covered with black setae only.

Thorax: black, densely grey dusted, covered with black setae; mesonotum with one median broad and two lateral stripes, median stripe subdivided into three narrower stripes near transverse suture; all these stripes slightly shot from black to light-brown colors. Scutellum with grey pruinescence on dorsal surface and with black latero-basal setal spots. Lateral parts of thorax densely light grey dusted. *acr* 2-3 + 3, *dc* 2-3 + 3, strong; *ial* 0 + 2-3; *prs* 1; *spal* 3-4; *h* 3; *ph* 2-3; proanepisternum bare; *npl* 2, in addition to these bristles, notopleural area covered with numerous erect setae; anepisternum in posterior

half covered with moderately long and dense setae and a row of 6-8 longer and strong posterior bristles; katepisternum with long anterior and posterior bristles (1 + 1), a patch of long erect setae between them; scutellum with long and strong paired crossed preapical, lateral and basal bristles, apical absent, one pair of discals well developed, much longer than discal setae. Anterior and posterior thoracic spiracles brownish grey.

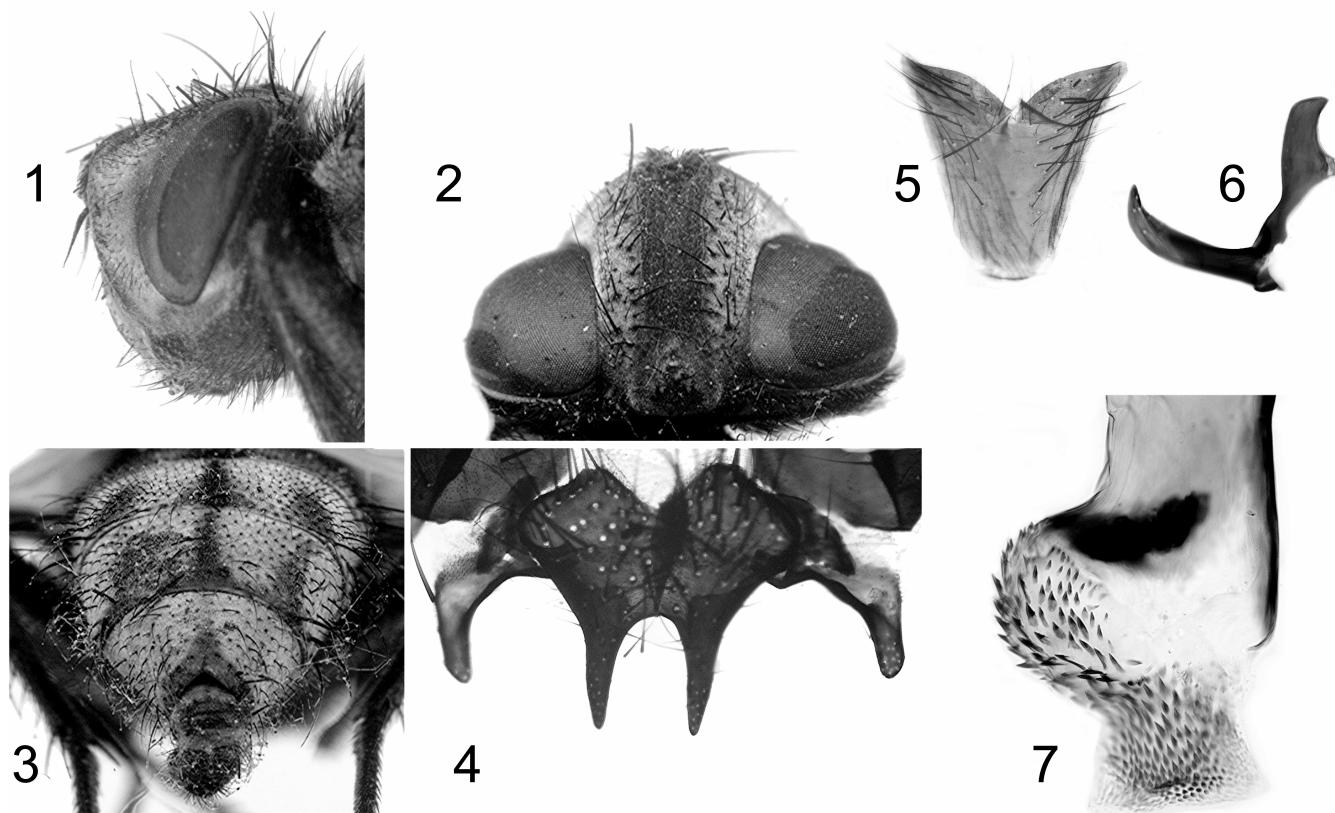


Fig. 1-7. – *Macronymchia seguyi* n. sp., male. – 1, Head in profile. – 2, Head from over. – 3, Abdomen from backwards. – 4, Cerci and surstyli between slides. – 5, Fifth sternite. – 6, Pre- and postgonites. – 7, Extremity of the phallus in profile.

Wings: hyaline, membrane slightly smoked in basal part; veins yellowish brown; basicosta and basicostal scale yellow, tegula black. Costal spine very short, indistinct; cell r_{4+5} open; vein R_1 bare, node of vein R_{4+5} with 1-2 black setae above and below; vein $dm-cu$ slightly curved, almost straight; M rectangular; the ratio of 3rd and 5th costal sections is 1 : 0.9-1.0; the ratio of length of 2nd and 3rd M -sections is 1 : 0.3-0.4. Thoracic squama yellowish white, bare on upper surface. Halteres light brown except for whitish knob.

Legs: claws elongate, slightly curved, as long as 5th tarsomere; fore tibia with 2 *p* and 2-3 very short spine-like *ad* on basal half; mid tibia with 2-3 *ad*, 4-5 *p* and 1 *v*; hind tibia with rows of several fine and 2-4 strong *ad* and *pd*, and 1 *av*.

Abdomen: narrow, elongate-conical, black, densely light grey dusted, with three elongate triangle black spots on 2nd-5th tergites; 2nd and 3rd tergites with pair of moderately long mediomarginal bristles; 4th and 5th tergites with rows of marginal bristles. Each of 2nd-4th sternites covered with long erect setae.

Genitalia: small, not prominent, 6th tergite, 7th + 8th syntergosternite and epandrium black, distinctly grey dusted. Cerci, gonites and phallus typical for subgenus *Moschusa*.

Etymology. – The species is named in memory of the well known French dipterologist of the 20th century, Eugène Séguy.

KEY TO EUROPEAN SPECIES OF *MACRONYCHIA*

1. Male: pregonite s-shaped; apical parts of cerci broad, connected together to apex. Female: ovipositor terminating in elongate spine-shaped shining black piercer (subgenus *Macronymchia* Rondani, 1859, *s. str.*) **2**
- Male: pregonite hook-shaped; apical parts of cerci distinctly separated, narrow. Female: ovipositor inconspicuous, retracted (subgenus *Moschusa* Robineau-Desvoidy, 1863) **5**

2. Postgena and occiput intermixed with black and yellowish white setae. Wing membrane more or less darkened, mediomarginal bristles on 1st + 2nd abdominal syntergite more or less distinct *M. (s. str.) dolini* Verves & Khrokalo, 2006
- Postgena and occiput covered with black setae only 3
3. Mediомarginal bristles on 1st + 2nd abdominal syntergite strong and erect. Basicosta brownish black *M. (s. str.) striginervis* (Zetterstedt, 1844)
- Mediомarginal bristles on 1st + 2nd abdominal syntergite absent or very fine 4
4. Basicosta brown to black. Mesonotum grey dusted; palpi black *M. (s. str.) substriginervis* Verves & Khrokalo, 2006
- Basicosta yellow. Palpi yellow or light brown *M. (s. str.) lemariei* Jacentkovský, 1941
5. 1st + 2nd abdominal syntergite with strong mediomarginal bristles 6
- 1st + 2nd abdominal syntergite without mediomarginal bristles or they very fine 8
6. Parafacial with 1–3 irregular vertical rows of setae *M. (Moschusa) agrestis* (Fallén, 1810)
- Parafacial with 4–6 irregular vertical rows of setae 7
7. Basicostal scale yellow *M. (Moschusa) seguyi* n. sp.
- Basicostal scale black *M. (Moschusa) alpestris* Rondani, 1865
8. Abdomen entirely grey with narrow median longitudinal dark stripe. Basicostal scale yellow *M. (Moschusa) griseola* (Fallén, 1820)
- All abdominal tergites with 3 longitudinal black spots. Basicostal scale brownish black *M. (Moschusa) polyodon* (Meigen, 1824)

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