28 (27) Last tergite without strong discals, only long hairs (Fig. 5). Marginal bristles of third tergite not reaching middle of next tergite. Interfrontalia 2 times as broad as either orbit

richardsi COLLIN, 1926 ♀

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Notes on Some Becker's Types (Diptera, Carnidae and Risidae fam. n.)

by L. PAPP, Budapest

Abstract – Lectotype designations and descriptions of *Meoneura glaberrima* BECKER, 1910, *Meoneura prima* (Becker, 1903) sp. val. and *Risa longirostris* BECKER, 1907 are given. *Meoneura seducta* COLLIN, 1937 is a new junior synonym of *Meoneura prima* (BECKER, 1903). Morphological characteristics of the new family Risidae fam. n. are discussed. With 3 figures.

Recently I spent a 12-day study tour in the Zoological Museum of Berlin (Museum für Naturkunde der Humboldt Universität). While there I had good opportunity to study the rich material of Milichiidae and Carnidae. The present paper yields information regarding a part of my research results concerning three species described by BECKER whose types I studied in detail. Herewith I would especially like to thank the extensive help of Dr. HUBERT SCHUMANN, his valuable information and his cooperation in making it possible for me to have some type-specimens on loan.

Meoneura glaberrima BECKER, 1910 (Fig. 1)

BECKER, Deutsche Ent. Ztschr., 1910: 664.
HENNIG, Flieg. pal. Reg., 6/1: 64, Textfig. 59 (other references see there).

Lectotype male. Body and legs shining black, only scutellum pruinose. Shining frontal triangle (contrary to other authors, and description!) reaching fore 3/4 of frons. Fore 1/3 of frons dark reddish brown in strong light. Acrostichal microchaetae scattered, 3 pairs of dorsocentral bristles present, front 2 pairs 2/3 length of posterior pair. Legs bearing no appreciable characteristic, middle metatarsi long and thin. Wings in transmitted light somewhat milky white with light green and sky-blue irridescence. Knob of haltere large and yellowish white, stalk dark.

Postabdomen of male syntype was used for preparation by HENNIG. This excellent preparation is in a cardboard capsule bearing HENNIG's inscription: "*Meoneura glaberrima* BECK. ♂, Korsika, Vizzavona, 1100 m hoch, 7–23.6.1907, gesammelt von TH. BECKER. Type. DR. W. HENNIG praep." I examined and made a drawing of this genitalia preparation under a microscope with high magnification (Fig. 1). On the basis of the genitalia we must reject HENNIG's supposition that *glaberrima* BECK. is perhaps the Corsican subspecies of *lacteipennis* FALL.; in fact, it is only a distant relative of the latter. Lower part of hypopygium bearing not such a large bristle as in *lacteipennis*, its lamella appearing independent bearing 2 strong, and several short, thin bristles, contrary to *lacteipennis* in which lamella fused with base of surstylus and beset only with short bristles (Fig. 1, cf. PAPP, 1976: Fig. 12). Surstylus both in shape and in its bristles widely differ from that of *lacteipennis*, and *neglecta* COLLIN, 1930 seems to come closest to it (last establishment is based on the genitalia examination of a male type-specimen of *M. neglecta* Coll.). But while the surstylus of *neglecta* strongly widening in the middle and bearing fewer bristles, furthermore, the medially bending bristle near apex is thicker

and long, the surstylus of *glaberrima* emitting more bristles, scarcely widening in the middle and its medially bending subapical bristle is shorter and thin.

Body length of lectotype: 1.48 mm, length of wing 1.35 mm, width of wing 0.53 mm.

Lectotype male: „Korsika, 55570. VI" (Becker's hand-writing), below on fading red label, printed „Typus", under this a label in Becker's hand-writing: „*glaberrima* BECK." — Paralectotype female: „Korsika 55570" (Becker's hand-writing), below on fading red label, printed „Typus". No other label on paralectotype-specimen.

Thus, it is concluded that *Meoneura glaberrima* BECKER, 1910 is an independent, valid species, its closest relatives are *M. neglecta* COLLIN and an undescribed species from Tunisia (Gafsa, BIRÓ, 1903, 3 ex. in the collection of the Hungarian Natural History Museum, Budapest).

Meoneura prima (BECKER, 1903) sp. val.

Psalidotus primus BECKER, 1903 Mitt. zool. Mus. Berlin, 2: 192, Taf. 4 e, Fig. 89–91.

Lectotype male. A somewhat immature specimen, legs crumpled, otherwise entirely intact, except left basal scutellar bristle which is broken off and the 2 apical scutellar bristles broken in half. Fore 1/3 of frons reddish yellow, frontal triangle short, but reaching over middle of frons, 3 pairs of bristle in genal angle approximately of same length. Thorax black, covered in moderately strong brownish grey pruinosity. 3 pairs of dorsocentral bristles present. Front femur bearing only 1 strong posteroventral bristle. Legs wholly black, tarsi, especially metatarsi very long and thin, thus, tarsi always longer than tibiae. Wing displays no specific characteristic. I made a preparation of the abdomen on a small celluloid plate embedded in Canada-balsam, covered with another piece of celluloid plate. The genitalia well corresponds with the figures given by COLLIN (1937: Fig. 1) and SABROSKY (1959, Ann. Ent. Soc. Amer., 52: 18, 22, fig. 5) to depict seducta Coll.: genital vault large, surstyli long, slender, slightly spatulate, lamella wide and comparatively short with many long, curved, whitish transparent hairs, visible even when genitalia retracted.

Body length: lectotype male: 1.6 mm, paralectotype ♀ ♀ : 1.92, 1.60 mm. Wing length of lectotype 1.37 mm, width 0.56 mm.

Lectotype male: "Kairo, 44388, XI." (Becker's hand-writing), below on fading red label, printed "Typus". Paralectotypes: 1 ♀: "Kairo, III., 44728", "Typus", "*Psalidotus primus* BECK." det. BECK.; 1 ♀: "Kairo, II., 44388", "Typus".

In his description BECKER wrote "Mehrere Exemplare aus Kairo, Fayûm, November und März." However, his collection included no specimens from Fayûm which I examined. Other specimens (not types) of his collection: 11 ex.: "Athen IV, 49919".

BECKER described it as a new genus and species in 1903 (l. c. p. 191). In the same year HENDEL synonymized the genus (Wien. Ent. Ztschr., 22: 251). Somewhat later BECKER (1905, Kat. pal. Dipt., 4: 239) listed his *primus* as a synonym of *Meoneura obscurella* (FALLÉN, 1823). COLLIN followed in BECKER's footsteps without studying the type, accepting the original author's own synonymization. HENNIG (1937) also considered *primus* as a synonym of *obscurella*, though he had an opportunity to study the types. But he accepted the *obscurella* species on a much broader platform than it is the case today. In his work under Textfig. 68.B. he gave the drawing of male surstylus of *primus* on the basis of specimens originating from Corsica, and he said: "subspec. von Korsika, "Wahrscheinlich handelt es sich bei diesen Tieren um eine schwach differenzierte korsikanische Rasse." Finally, COLLIN (1937) in England (Grasholm Is., Pembrokeshire) also found some specimens of this species and described them under the name of *Meoneura seducta*. Consequently, *Meoneura seducta* COLLIN, 1937 is a new junior synonym of *Meoneura prima* (BECKER, 1903).

Risa longirostris BECKER, 1907 (Figs. 2—3)

Lectotype male. The head drawing made from the original specimen by HENNIG (1937) is very precise, only labella longer. Antenna extremely long, 2nd joint pubescent bearing only 1 small dorsomedial bristle, arista short, bent and bare. Third antennal joint only microscopically pubescent. Frons longer than its width, frontal triangle at apex reaching lunula, entire frons shining black. Vibrissae short and thin, peristomals below eyes shorter than width of 3rd antennal joint. Two inward bending lower (?) orbitals, 1 small anterior and 1 stronger posterior upper orbital bristles present, former bending forward, latter backward and outward, 1 pair each of ocellar, outer and inner vertical bristles (mostly broken off on specimens). Mouth opening very large. Praelabrum thin, long hairpin-like. Thorax and abdomen black, with greenish sheen. Thoracic chaetotaxy (Fig. 2): 1 humeral, 2 notopleural, 1 posthumeral, 1 supraalar, 0 postalar, 0 dorsocentral, 1 intraalar (!) bristle and 1 pair of bristle, regarded to be characteristic by HENNIG. This is defintely not a dorsocentral, since situated within the *dc* lines, nor does it stand in prescutellar position but in front of scutellum at a distance of its length, accordingly, it can only be an acrostichal macrochaeta. The acrostichal microchaetae are sporadic and no bristle is present behind the acrostichal macrochaeta. (Lectotype with broken off *acma*). The short apical scutellar bristles cross one another (partly broken off, cf. HENNIG l. c.), while lateral scutellar bristles weakly curving inwards. Mesopleura setulose: near caudal margin 2 stronger and 1 weaker bristle present. It has 1 strong sternopleural bristle and several sternopleural hairs. Legs carrying no characteristic bristles, except middle tibia with its ventral spur. Wing readily corresponding with drawing of HENNIG, except the anal vein present as an atrophied vein along a 2/3 portion from origin to margin of wing. c_x in lectotype: 1.25. Length of wing in lectotype 1.54 mm, width 0.62 mm. Haltere whitish yellow, stalk of a somewhat darker hue.

Length of body: lectotype male: 1.60 mm, paralectotype female: 1.71 mm. Lectotype male: "Biskra, IV. 52554" (in Becker's hand-writing), red "Typus" label, "*Ris longirostris* B." (in Becker's hand-writing); paralectotype female: upper hand-written label (in Becker's hand-writing): "Biskra, IV. 52554", below it an inverted label with "*Risa* BEKKER", red "Typus" label, below it again in "Becker's hand-writing: "*longirostris* BECK.".

Of the two type-specimens I designated the male to be the lectotype since it may better represent the species, though several of its bristles are broken off. Another point of view, HENNIG's drawing was made from this specimen.

I have cut off the abdomen of the paralectotype female in order to make a preparation of it (unfortunately, the preparation did not come up to expectation;

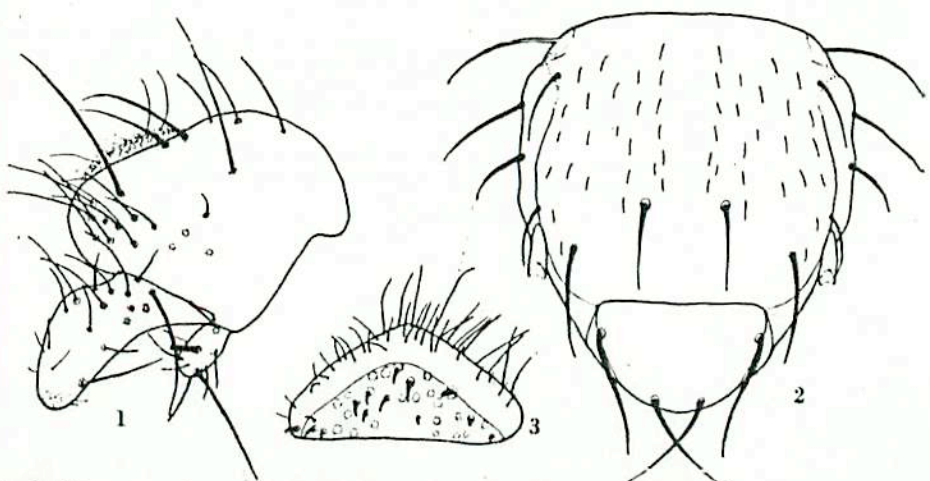

Fig. 1. *Meoneura glaberrima* BECKER: genitalia of male lectotype. — Figs. 2–3. *Risa longirostris* BECKER, paralectotype female: 2 = mesonotum in dorsal view, 3 = sternite

I experienced several times that while making a preparation of a 50-year old, or of older specimens it was not successful since the abdomen did not stand potash treatment, in some cases even a soaking in water proved disastrous: it fell into pieces). The spiracle pairs 1–6 in the female are within the tergites, spiracle pair 7 is absent. The posterior margin of the very short tergites 6 and 7 bears longer bristles. Tergite 8 is not only short but it is even narrower. Tergite 9 falls into two lateral portions bearing densely set longer hairs. Sternite 1 comparatively large, sternite 2 cranially with only a shallow impression (in contrary with *R. mongolica* L. PAPP, 1977), sternite 8 (?8+9) very striking (Fig. 3): on its anterior, more heavily chitinized part several backwards pointing thornlets present, on its posterior part the hairs are short or moderately long. This sternal complex both as far as its shape and chaetotaxy are concerned is somewhat asymmetrical and significantly differs from *mongolica* L. PAPP, 1977. Subanal plate weakly chitinized, beset with short hairs, cerci absent. It has a characteristically shaped spermatheca, resembling that of mongolica, but obviously much smaller than the same of latter.

Some of the cephalic features, thoracic chaetotaxy and more especially the structure of the abdomen of the *Risa* species so strikingly different from the representatives of the family Milichiidae, where they belonged so far, so that in my opinion they deserve a family to themselves, described hereunder.

Risidae fam. n.

Type-genus: *Risa* BECKER, 1907, Zeitsshr. f. syst. Hym. u. Dipt., 7: 404; with type-species *R. longirostris* BECKER, 1907, l. c. (monotypy).

The diagnosis of the family is given in comparison with the features of families Milichiidae, Carnidae, where the genus *Risa* used to belong, alongside in a comparison with the family of Ephydridae in which I seem to recognize a close affinity with Risidae.

Antenna, especially the 1st joint is much longer than that of Milichiidae, Carnidae, no long bristle present on it, arista short, bent, comparatively thick and wholly bare. Antennal grooves absent. Characteristic features in all 4 families:

a/ costa disjoint in two places, first: just before r_1 (at point of conjointment of *sc*), second: behind humeral vein;

b/ anal vein reduced (HENNIG: $cu_{1b}+1a$);

c/ vibrissae present.

Corresponding with features in Milichiidae, Carnidae 2 pairs of lower orbitals present (though it is somewhat doubtful whether the 2 lower orbitals in Risidae are homologous with the same of the other two families); labella strongly elongated, as in Milichiidae: Madizinae species (in contrary to the representatives of Carnidae and Ephydridae). The clypeus of Risidae extraordinarily thin, hairpin-like. The most significant difference from the families Milichiidae, Carnidae is the spiracular pairs 1–6 in the females (in the males obviously 1–5) situating inside the tergites, and that pair 7 is wholly absent, these features are identical in Ephydridae. The females of Milichiidae, Carnidae possess no spermatheca, further, GRIFFITHS (1972) declares that the only chitinized formation perceptible in Ephydridae is in fact not a spermatheca but the ventral receptacle. Whatever the case is, in this respect, too, Risidae stand closer to Ephydridae than to the other two families. I was not able to ascertain whether tergites 6–8 fused (Milichiidae, Carnidae) or

lack of thoracic postalar and dorsocentral bristles, and presence of strong acrostichal bristle not prescutellar in position, mesopleuron with bristles, lack of posterior crossvein and basal crossvein, cerci entirely absent from abdomen of females.

The new family includes very rare species. *Risa longirostris* BECKER, 1907 is known in two type-specimens only and a further specimen from Egypt: Wadi Gharaghid, STEYSKAL, 1968; *Risa mongolica* L. PAPP, 1977 was described on the basis of one female specimen. Thus, the study of specimens to be collected, especially that of male exemplars, will be important, partly to better characterize the family, and partly to learn more about its relations.

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