
Redescription of the female of *Microcerella acrydiorum* (Diptera: Sarcophagidae) and new records from Argentina

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■ **ABSTRACT.** A redescription and an illustration of female *Microcerella acrydiorum* (Weyenbergh) is given, and new records from Santa Fe province, Argentina are provided. *Microcerella chaetosa* (Townsend) is recorded for the first time in Argentina. New records of *Microcerella erythropygata* (Lopes) from Buenos Aires and Córdoba provinces, Argentina are provided.

KEY WORDS. Diptera. Sarcophagidae. *Microcerella acrydiorum*. Redescription. Argentina.

■ **RESUMEN.** Redescripción de la hembra de *Microcerella acrydiorum* (Diptera: Sarcophagidae) y nuevos registros para la Argentina. Se redescrive e ilustra la hembra de *Microcerella acrydiorum* (Weyenbergh) y se aporta un nuevo registro para la provincia de Santa Fe, Argentina. *Microcerella chaetosa* (Townsend) se registra por primera vez para la Argentina. Se dan nuevos registros para *Microcerella erythropygata* (Lopes) en las provincias de Buenos Aires y Córdoba, Argentina .

PALABRAS CLAVE. Diptera. Sarcophagidae. *Microcerella acrydiorum*. Redescripción. Argentina.

INTRODUCTION

The genus *Microcerella* Macquart is restricted to the New World and contains seventy one species, six of which have been recorded previously from the Nearctic Region (Pape, 1996). The large majority belongs to the Neotropical Region, with twenty three species recorded from Argentina so far (Pape, 1996; Mariluis, 2002, 2004). Species of *Microcerella* in the Neotropical Region live at high altitudes and with the highest species richness in the southern temperate zones (Lopes, 1969a, 1982; Pape, 1990). Species with known life habits are saprophytic and prefer dead invertebrates in nature (Lopes, 1982). After studying an extensive material of *Microcerella* from Argentina, new records of *Microcerella acrydiorum* (Weyenbergh, 1875), *Microcerella erythropygata* (Lopes, 1936), and *Microcerella chaetosa* (Townsend, 1927) are provided. The two former are new for Santa Fe, Buenos Aires, and Córdoba provinces and the latter is new for Argentina and here recorded from Buenos Aires province.

Considering the insufficient and largely conflicting descriptions and illustrations available for the female genitalia of *M. acrydiorum* (Blanchard, 1942, 1963; Lopes, 1969b), a redescription is given based on the studied material.

MATERIAL AND METHODS

The terminology of Shewell (1987) and Lopes (1969b) is followed. Illustrations were made with a camera lucida attached to a stereoscopic microscope.

All the specimens studied are pinned and have been deposited in the following institutions: "Dr. Carlos G. Malbrán" Servicio de Vectores, Buenos Aires, Argentina - ANLIS, SV; Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" Buenos Aires, Argentina - MACN; Museo de La Plata Buenos Aires, Argentina - MLP.

RESULTS

Microcerella [sic] acrydiorum (Weyenbergh,
1875)
(Figs. 1-4)

Nemorea acrydiorum Weyenbergh, 1875: 85 (male, female Figs. 1-7).

Sarcophaga minuta Lahille, 1907: 82 (male, female Figs. 8-11; Argentina: Catamarca and Córdoba).

Brachycoma acridiorum: Brèthes, 1912: 445 (male, female Figs. 1A, 2A, 3; synonymy of *minuta* Lahille); Aldrich, 1927: 592 (Locusts).

Doringia acridiorum: Blanchard, 1935: 508 (combination); Blanchard, 1939: 806 (comment); Blanchard, 1942: 136 (male, female Fig. 2); Santoro de Crouzel, 1947: 434 (no parasitism); Santoro de Crouzel, 1950: 291 (larva I, figs.); Santoro de Crouzel & Salavin, 1961: 668 (comment larva; Argentina: Salta and Santiago del Estero); Blanchard, 1963: 131, 138 (key; male, female; Argentina); Lopes, 1969a: 9 (in catalog; Argentina); Lopes, 1969b: 152 (male, female mistake, Figs. 54-60; Argentina: Buenos Aires, Brazil: São Paulo); Lopes, 1980: 231, 232 (key, citations; Brazil: São Paulo); Lopes, 1982: 362 (key).

Xenopiella dyscineti Blanchard, 1966: 177, 182. (Key, male; Argentina: Buenos Aires).

Microcerella acridiorum: Pape, 1990: 49, 50 (combination, synonymy of *dyscineti* Blanchard, male Figs. 29-32).

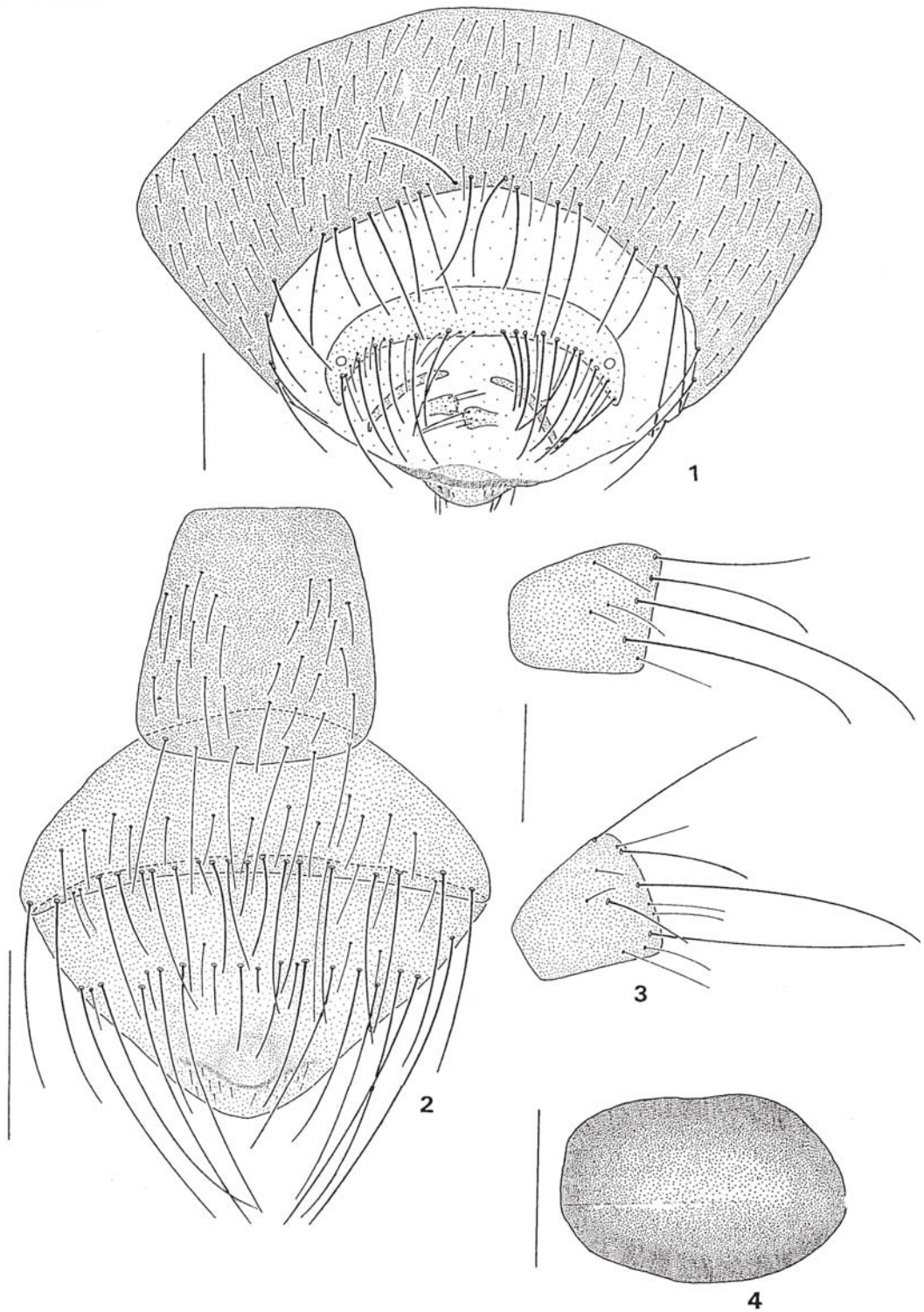
Microcerella acrydiorum: Pape, 1996: 252 (in catalog; Argentina: Buenos Aires).

acridiorum [error]: Brèthes (1912: 445), Aldrich (1927: 592), Blanchard (1935: 508, 1939: 806, 1942: 136, 1963: 131, 138), Santoro de Crouzel (1947: 434, 1950: 291), Santoro de Crouzel & Salavin (1961: 668), Lopes (1969a: 9, 1969b: 152, 1980: 231, 232, 1982: 362), Pape (1990: 49, 50); incorrect subsequent spelling of *acrydiorum* Weyenbergh, 1875.

Acry Sicorum: Weyenbergh (1875: 85); incorrect original spelling of *acrydiorum*.

Redescription of female. Length: 6.0 – 7.0 mm. Head black, with silvery microtomentum; green eyes in alive specimens; fronto orbital plate darkened on $\frac{3}{4}$ inferior part, and weak silvery microtomentum, with few sparse black hairs, the upper part black without silvery microtomentum; parafacial plate with silvery microtomentum bearing a single row of short black

hairs along eye margin, with one or two setae on inferior part; frontal vitta black, with delicate silvery microtomentum, with or without black short sparse hairs; front at its narrowest portion about 0.30 of head width; frontal setae 6-7, the row of frontals diverging strongly anteriorly at the level of pedicel, directed inwards but reclinate the first one; two pairs of lower proclinate orbital setae; one pair of upper reclinate orbital seta; outer vertical seta about $\frac{1}{2}$ of inner one; ocellar triangle black, with one pair of strong ocellar setae; postocular setae black, in one row; genal groove, genal dilation, and postgena black with silvery microtomentum and black setae, gena with black setae; face and facial ridge with silvery microtomentum, facial ridge bare with one or two supravibrissal setae beside vibrissa; antenna black, first flagellomere 1.20 as long as pedicel, arista short plumose on basal half with setulae at most 1x as long as the largest diameter of arista; lower facial margin no protuberant; palpus black. Thorax black, with silvery microtomentum; proepisternum bare. Chaetotaxy: acrostichals 2 (fore and median) + 0, dorsocentrals 2+3 (spaced for 3), intra-alars 1+2, supra-alars 2+3 (strong median fourth time as long as the others), postpronotals 3, postalars 2, notopleurals 4 (2 small setae interpose by 2 strong ones), katapisternals 3 (the median one a little smaller and inserted slightly below others). Scutellum with basal scutellar seta 1, subapical scutellar seta 1; postalar wall bare. Wing hyaline, tegula dark brown, basicosta and basal costal part clear, rest of veins clear brown, costal spine differentiated, R_1 bare, R_{4+5} setose dorsally from junction of R_{2+3} almost to crossvein r-m, calypteres white. Legs black, coxas and femurs with silvery microtomentum; forefemur with two posterodorsal rows and one posteroventral row setae; foretibia with three dorsal and one posterior setae; midfemur with three anterior, one anteroventral and three ventral setae; midtibia with two posterodorsal, one posterior, one ventral, and two anterodorsal setae; hindfemur with one anterodorsal row setae, one anterior row setae, four anteroventral, and two ventral setae; hindtibia with two posterodorsal, two anteroventral, and anterodorsal row intercalated with large and small setae, these large twice than the small. Abdomen black with silvery microtomentum and silvery or pale golden marks laterally near anterior margins of the tergites III to V. Tergite IV with one pair of median marginal setae. Tergite V with 14-16 marginal setae. Tergite VI-VII orange with setae on edge and tergite VIII orange without setae on edge (Fig. 1). Cerci as



Figs. 1-4. *M. acrydiorum*, female. **1**, Genitalia posterior view. **2**, Sternites V, VI+VII, VIII, IX and hypoproct. **3**, Cerci. **4**, Spermatheca. (Scale = 0.5 mm, except Figs. 3, 4 = 0.1 mm).

indicated in drawing (Fig. 3). Sternites (ST) with strong marginal setae. Sternites I to V black with silvery microtomentum, STVI-VII orange dark with setae on posterior edge, STVIII orange wider than longer with setae on posterior edge, ST IX brilliant orange convex in profile, hypoproct orange brilliant posterior edge narrow and well sclerotized (Fig. 2). Spermatheca oval finely striated (Fig. 4).

Distribution. Argentina (Buenos Aires, Catamarca, Córdoba, Salta, Santa Fe, and Santiago del Estero) and Brazil (São Paulo).

New records. Argentina. Santa Fe: departamento Sarmiento.

Material examined. ARGENTINA. Buenos Aires: Bahía Blanca, 6-V-2002, A.V. De Arriba col., 1 male, 6 females (ANLIS, SV); same locality but VIII-2002, A.V. De Arriba col., 2 males, 2 females (ANLIS, SV); same locality but IX-2002, A.V. De Arriba col., 9 males, 2 females (ANLIS, SV). **Córdoba:** Córdoba, 12-XII-1911, Caride col., 10357, 1 female (MACN); same locality but 1932, 1 female (MACN); same locality but 25-I-1933, 1 female (MACN); same locality but II-1975, J.C. Mariluis col., 1 male (ANLIS, SV); Capilla del Monte, I-2001, 1000 m a.s.l., J.C. Mariluis col., 1 female (ANLIS, SV); Guanaco Muerto, II-1975, J.C. Mariluis col., 1 male (ANLIS, SV). **Salta:** Campo Santo, 26-IV-46, Instit. Invest. Langosta, 1 male (MLP). **Santa Fe:** dpto. Sarmiento, 18-I-1934, 1 male (MLP), 1 female (MACN). **Santiago del Estero:** Robles, 17-V-1945, Instit. Invest. Langosta, 1 male (MLP); Donadeu, 6-VI-1933, 2 males (MLP); same locality but VII-1933, 1 male, 1 female (MACN); Villa Unión, VII-1949, 7 males, 5 females (MLP).

Discussion. The studied specimens agree with the male and female descriptions by Blanchard (1942, 1963) and the male by Lopes (1969b). The redescription of female genitalia by Lopes (1969b) does not match with the bred females studied here.

Biology. The larvae from gravid females were bred with cow meat.

Microcerella chaetosa (Townsend, 1927)

Catheteronychia chaetosa Townsend, 1927: 295 (male, Brazil: São Paulo); Lopes, 1969a: 10 (in catalog; Brazil: São Paulo); Lopes, 1972: 346 (male, female Figs. 1-10; Brazil: Minas Gerais and São Paulo); Lopes, 1979: 19 (male holotype, comment Figs. 1-2); Lopes, 1982: 362 (key).

Microcerella chaetosa: Pape, 1990: 49 (combination); Pape, 1996: 254 (in catalog; Brazil: São Paulo).

Distribution. Argentina (Buenos Aires), Brazil (Minas Gerais and São Paulo).

New records. Argentina. Buenos Aires: Campana.

Material examined. ARGENTINA. Buenos Aires: Campana, XI-1998, J.C. Mariluis col., 1 male (ANLIS, SV).

Discussion. The studied specimens agree with the original description of *C. chaetosa* by Townsend (1927) and the subsequent redescriptions of Lopes (1972, 1979). Lopes (1972) indicated that the species should have green eyes but my specimen has green eyes with reddish edge while alive.

Microcerella erythropya (Lopes, 1936)

Xenoppia erythropya Lopes, 1936: 71 (male, female Figs. 1-2; Brazil: Rio de Janeiro); Lopes, 1940: 950 (comment, Brazil: Rio de Janeiro).

Doringia erythropya: Lopes, 1969a: 9 (in catalog; Brazil: Rio de Janeiro and São Paulo); Lopes, 1969b: 154-156 (male, female Figs. 61-67, larva I; Brazil: Rio de Janeiro); Lopes, 1980: 231, 232 (key, cites; Argentina: Agua Caliente, N.E. Güemes, Brazil: Espirito Santo).

Microcerella erythropya: Pape, 1990: 49 (combination); Pape, 1996: 255 (in catalog; Argentina: no further data, Brazil: Espirito Santo, Rio de Janeiro, and São Paulo).

Distribution. Argentina (Buenos Aires and Córdoba), Brazil (Espirito Santo, Rio de Janeiro, and São Paulo).

New records. Argentina. Buenos Aires: Campana. **Córdoba:** Capilla del Monte.

Material examined. ARGENTINA. Buenos Aires: Burzaco, X-2002, P.R. Mulieri col., 1 male (ANLIS, SV); Campana, III-2003, J.C. Mariluis col., 4 males (ANLIS, SV). **Córdoba:** Capilla del Monte, I-2001, 1000 m a.s.l., J.C. Mariluis col., 1 male (ANLIS, SV); same locality but II-2002, 1500 m a.s.l., J.C. Mariluis col., 7 males (ANLIS, SV); Copina, II-1975, J.C. Mariluis col., 2 males (ANLIS, SV).

Discussion. The studied specimens agree with the original description and with Lopes (1969b). Live specimens with light green eyes with a reddish edge.

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