

A preliminary key to the World genera of Luciliini (Diptera, Calliphoridae)

Clave preliminar de los géneros del mundo de Luciliini (Diptera, Calliphoridae)

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ABSTRACT

The World Genera of Luciliini are key, except *Sinolucilia* (not seen). A list of all proposed names of genera and subgenera is given.

RESUMEN

Los géneros mundiales de Lucilini se separan en una clave, excepto *Sinolucilia* (no vista). Se incluye una lista de todos los nombres propuestos para géneros y subgéneros del grupo.

1. INTRODUCTION

The present paper follows the same pattern as a preceding one (PERIS, 1991) and tries to achieve a similar purpose, therefore no introductory comments seems necessary.

The group designated here as the tribe Luciliini embraces species of Calliphoridae with remigium bare on its dorsal part, and showing the following combinations of characters:

Suprasquamal ridge with a tuft of black hairs or setulae on its posterior part near the scutellum. Lower squamae bare above. Arista usually plumose. Teguments most usually metallic green, blue-green or brassy with copper or blue reflections, only rarely black or blue black.

As far as I know it was HALL (1948) the first one giving the group the rank of tribe, and this has been followed by other authors and in Catalogues (JAMES, 1955;

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STONE & al., 1965; KURAHASHI, 1967 —on; BROWN & SHIPP, 1977; HARDY, 1981; MARILUIS & PERIS, 1984; GONZÁLEZ-MORA & PERIS, 1989, etc.) but not by others (DELFINADO & HARDY, 1977; CROSSKEY & al., 1980; SCHUMANN, 1986) just to mention some of them. Actually it seems good splitting from the huge mass of other Calliphoridae with bare remigium a certain number of genera!

The grouping of Lucilini into genera is not yet settled, meaning settled here as the adoption by most authors of agreement when considering similar generic concepts. This is being partly discussed by GONZÁLEZ-MORA & PERIS (1991) in a paper about the Spanish species of *Lucilia s.l.* and will be not be repeated here. Also, part of the question is addressed in a quite different way by BROWN & SHIPP (1977, in their introduction. Finally I consider as American authors do, that the splitting of *Lucilia s.l.* into groups is unavoidable, both for reasons of, let us call taxonomic symmetry, as biogeographical reasons. This is reflected in the following key.

One is the complex *Dyscritomyia-Viridinsula-Bufolucilia-Phaenicia* which I have tried to arrange them in some order. The differences among them seem sometimes elusive and merging, specially in the Pacific area, although some groups are quite peculiar to some islands and therefore easy to separate. *Bufolucilia* and *Phaenicia* are a relatively simple case; they could be easily considered as species-groups in the same genus, although I do not consider here they should be so, Far more simple are the relations among *Lucieliella-Phumonesia-Lucilia*. *Phumonesia* is clearly a *Lucilia* s.str. with darkened wing border, but *Lucieliella* will require more study before disition is reached. I leave aside the three *Hypopygiopsis*, *Blepharicnema* and *Hemipyrellia* as it is generally agreed they are valid genera. The three are usually big flies from the Oriental, Neotropical and Palaeotropical-Oriental regions.

All type species of the genera included in the key have been seen, with the exception of *Sinolucilia*, which is therefore omitted in the key, but being a Luciliini is included in the list of the tribe that concludes the paper.

2. KEY TO GENERA AND SUBGENERA

As formerly stated *Sinolucilia* is not in the key.

- 1 (4) Suprastigmatic convexity of thorax with long and outstanding pilosity. *prst acr* present. Subcostal sclerite setulose. Body metallic. Abdomen without discal setae on tergites. Parafacials bare at all on their length. Male hypopygium with carci and paralobi of similar structure.
- 2 (3) Big flies, usually above 15 mm. Males with legs showing long and fine pilosity on ventral side (only in small males this pilosity is not so well developed). Females with usual pilosity on legs. Femora of males also more or less curved, not so in females. Eyes subholoptic in males, clearly dichoptic in females. Arista plumose to the tip. Face, parafacials and parafrontals bright orange yellow usually. III coxae bare posteriorly. Hypopygium in males well developed, epandrium with a small prominence short forward on its anterior angle. Oriental Region.....*Hypopygiopsis*
- 3 (2) Usually smaller flies, not exceeding the 12 mm. Legs of males without striking characters, in structure, form and vestiture, as in the females. Eyes of male

- contiguous or subholoptic, dichoptic in females. Arista plumose. Face, parafacials and parafrontals no bright orange yellow. III coxae with 1-2 hairs behind just above femora basis. Male hypopygium of usual size (as in *Lucilia*), except in *H. jucunda* from Christmas Island with a peculiar male genitalia. Afrotropical & Indoaustralian Regions.....*Hemipyrellia*
- 4 (1) Suprastigmatic convexity of thorax without such long and erect pilosity, just with the usual tomentum.
- 5 (6) *prst acr* setas absent. Subcostal sclerite setulose. Big flies, between 12 to 18 mm. Males with curved tibiae II and III and with long pilosity of woolly aspect that makes scarcely visible the usual setae; in females these tibiae straight, also pilose but less so, the usual setae quite apparent. General colouration dark metallic green. Basicosta black. Wings smoked on its whole surface, the alula black. Squamae strongly smoked. Parafacials and cheeks golden yellow. Arista clearly plumose. Rain forests of Neotropical Region.....
.....*Blepharicnema*
- 6 (5) *prst acr* present. Flies, usually smaller, 6-9 mm (except in some *Dyscritomyia* that may reach big size). Tibiae of male and female similar without such long pilosity above described. Squamae usually whitish or yellowish, if smoked the alula is always hyaline.
- 7 (10) Subcostal sclerite black setulose, at least with only one or few more setulae. Abdominal tergites III and IV without erect marginals, at most marginal bristles decumbent and their length shorter than the length of following segment. Oral border not protruding. Basicosta almost always dark (*Lucilia* s.l.)
- 8 (9) Parafacial setulose on its upper half, reaching downwards to level of third antennal segment. Squamae dark brown. 2 + 2 *acr*. Anterior border of wing darker than the rest of the membrans. Philippines.....*Lucieliella*
- 9 (8) Parafacials no setulose, bare on their entire length, if with setulae they appear from the lower part and the body is black (*L. snyderi* & *L. graphita* from the Pacific and *L. problematic* from Bermuda (?)).
a (b) Costal border of wing black dark, its limits being the vein *r4-r5*, basal portion of *M* and the apices of basal cells.....*Phumonesia*- group
b (a) Costal border not so darkened, usually yellowish (darker in *L. peruviana* from South America).....*Lucilia* s.str.
- 10 (7) Subcostal sclerite bare.
- 11 (12) Antennal arista thickened towards its middle after the first aristal article giving it a fusiform aspect. Arista pilose, the longest hairs scarcely reaching the maximum aristal width, being longest above than ventrally. Head longer at vibrissal level than at antennae basis, due to the length of the head, not of the peristom which is not protruding. Parafacial bare and wide. *ia prst* absent. 2 *post ia*. Squamae white. Wings slightly smoked, grey. Basicosta black. Vibrissae above oral margin. Occipital dilatation black setulose. Beret bare. Coloration dark green metallic. Boreal region both in Europe and America.*Francilia*
- 12 (11) Arista not thickened in a fusiform manner, of the usual form, i.e. its maximum thickness at its basis. Arista largely plumose, the longest rays longer than III antennal width and therefore much longer than aristal basis.

- 13 (14) Hawaiian flies usually with a pair of median discal setae on abdominal tergites II to V, at least in males (only *D. alta* lacks these bristles in both sexes); in females such bristles may be absent on the III tergite, or (*D. obscura* and *retracta*) may lack in both III and IV tergites. Hindmost *ph* seta present or absent. Metallic flies with pollinose or testaceous parts. Male genitalia with the epandrium showing lateral apophysis or extensions at its basis, that may be added to the normal paralobi. Cerci with apex not rounded. An endemic group in Hawaii.....*Dyscritomyia*
- 14 (13) Flies with other combination of characters and from other parts of the World.
- 15 (16) Abdominal tergites III and IV with the dorsomedian marginals distinct from the others by its length and strenght, erected and surpassing the half the length of following segment. Head not protruding, Basicosta black. Holarctic region, reaching Mexico City, D.F.....*Bufolucilia*
- 16 (15) Not so in general, marginal setae of III and IV tergites similar, either rather strong or short and decumbent. Basicosta usually yellow or orange yellow, rarely darkened.
- 17 (18) Head in profil clearly protruding, fowards and even sometimes downwards (*V. pionia*). Male epandrium with the ventral part sinuated (*pionia*?) Basicosta dark brown. Galápagos Islands, Cocos Island.....*Viridinsula*
- 18 (17) Head in profile not extended clearly forward. Basicosta yellow or orange, rarely darkened. Male epandrium not so sinuated. Widely distributed in the World.....*Phaenicia*

3. LIST OF GENERA

Blepharicnema MACQUART, 1843, Mem. Soc. agr. Lille 1842: 283 (sep: 126)
Type-species: *Blepharicnema splendens* MACQUART, 1843 (monotypy).

Bufolucilia TOWNSEND, 1919 *Proc. U.S. Nat. Mus.* 56 (1920): 542
Type-species: *Lucilia bufonivora* MONIEZ, 1876, orig. design.
= *Chaetophaenicia* ENDERLEIN, 1936 *Tierw. Mitteleur.* 6 (2) Dipt.: 211.
Type-species: *Musca silvarum* MEIGEN, 1826, brig. design.

Dyscritomyia GRIMSHAW, 1901 *Fauna Hawaiiien.* 3 (1): 21
Type-species: *Catapicephala limbipennis* THOMSON, 1868, orig. design.
= *Prostethochaeta* GRIMSHAW, 1901 *Fauna Hawaiiien.* 3 (1): 24.
Type-species: *Prostethochaeta robusta* GRIMSHAW, 1901, orig. design.

Francilia SHANNON, 1924 *Inst. Inst. Menstr.* 6: 154.
Type-species: *Francilia alaskensis* SHANNON, 1924, monotypy.
(= *Sarcophaga fuscipalpis* ZETTERSTEDT, 1845)
= *Acrophagella* RINGDAHL, 1942 *Opusc. ent.* 7: 64.
Type-species: *Sarcophaga fuscipalpis* ZETTERSTEDT, 1845 orig. design.

Hemipyrellia TOWNSEND, 1918 *Ins. Ins. Menstr.* 6: 154.

Type-species: *Hemipyrellia curriei* TOWNSEND, 1918, orig. design.
 (= *Lucilia fernandica* MACQUART, 1855).

Hypopygiopsis TOWNSEND, 1916 *Proc. U.S. Nat. Mus.* **51**: 300.

Type-species: *Hypopygiopsis splendens* TOWNSEND, 1916, orig. design.
 = *Musca fumipennis* WALKER, 1857.

Lucilia ROBINEAU-DESCOYD, 1830 *Myod.*: 452.

Type-species: *Musca caesar* LINNAEUS, 1758 (design. MACQUART, 1834: 162)

= *Phumonesia* VILLENEUVE, 1914 *Bull. Soc. Entomol. Fr.* 1914: 307.

Type-species: *Phumonesia infernalis* VILLENEUVE, 1914, monotypy.

= *Roubaudiella* SEGUY, 1925 *Bull. Soc. Path. Exot.* **18**: 735.

Type-species: *Roubaudiella caerulea* SEGUY, 1925, monotypy,

= *Phumonesia infernalis* VILLENEUVE, 1914.

= ? *Argoracrites* SEGUY, 1925, *Bull. Soc. Path. Exot.* **18**: 734. *nomen nudum*

= *Caesariceps* ROHDENDORF, 1926 *Zool. Zh.* **6**: 63.

Type-species: *Lucilia flavipennis* KRAMER, 1917, monotypy,

= *Lucilia ampullacea* VILLENEUVE, 1922.

Lucieliella MALLOCH, 1926 *Ann. Mag. Nat. Hist.* (9) **17**: 507 (*Lucilia* sbg.)

Type-species: *Lucilia fumicosta* MALLOCH, 1926, orig. design.

Phaenicia ROBINEAU-DESVOIDY, 1863 *Hist. Nat. Dipt. Paris* **2**: 520.

Type-species: *Phaenicia concinna* ROBINEAU-DESVOIDY, 1863, design. TOWNSEND, 1916.

= *Musca sericata* MEIGEN, 1826

= *Phoenicia*, error

= *Dasylicilia* ROHDENDORF, *Zool. Zh.* **6**: 92 (*Lucilia* sbg.)

Type-species: *Lucilia pilosiventris* KRAMER, 1910, monotypy.

Sinolucilia FAN, 1965 (sbg. *Lucilia*) *Key synanthrop. flies China*: 173

Type-species: *Lucilia (Sinolucilia) appendifera* FAN, 1965, monotypy.

Viridinsula SHANNON, 1926, *Proc. Entomol. Soc. Wash.* **28**: 131

Type-species: *Lucilia piona* WALKER, 1849, orig. design.

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