

Canacidae and Australimyziidae (Diptera) collected by Danish Scientific Expeditions and by N. L. H. Krauss, with descriptions of four new species

LORENZO MUNARI

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Four new species of the beach fly family Canacidae are described, and some new records of both canacid and australimyziid flies from the field collections carried out by Danish Scientific Expeditions and by the entomologist N.L.H. Krauss are given. *Nocticanace kraussi* sp. nov., *Masoniella darwini* sp. nov., *Pelomyia fuegina* sp. nov. and *Dasyrhicnoessa celata* sp. nov. are described from the Cook Islands (Polynesia), southern Patagonia, Tierra del Fuego, and the Bismarck Islands, respectively. Two other possibly new species, each represented by a single female, are briefly described and discussed but not named herein. Updated keys to the species of *Masoniella* Vockeroth and of the *melanocera*-group of *Pelomyia* Williston are also provided.

Keywords: Canacidae, Australimyziidae, Danish Scientific Expeditions, N. L. H. Krauss, new species, new records

Lorenzo Munari, c/o Entomology Section, Natural History Museum, S. Croce 1730, I-30135 Venice, Italy. E-mail: lormun@iol.it

INTRODUCTION

Thanks to the courtesy of Dr. T. Pape, I was able to study some material of Canacidae and Australimyziidae from the collection of the Zoological Museum of the University of Copenhagen, mainly collected around the world by Danish Scientific Expeditions, among which the renowned “Galathea Deep Sea Expedition” (Bruun *et al.* 1956) and the “Noona Dan Expedition” (Wolff 1963). Other expeditions comprise those carried out in Southern Patagonia-Tierra del Fuego (Madsen *et al.* 1980) and Morocco, the latter organised by the Zoological Museum of the University of Copenhagen. Additionally, the results of some field collections made mainly by the entomologist N.L.H. Krauss are also reported, including the description of a new species he collected in Polynesia. Although the fly material was not particularly species-rich, some interesting species were identified, four of which are new to science. Two other possibly new species have been briefly described but not named

herein because only one female is known for each of them. The concept of Canacidae adopted in the present work follows the new taxonomic arrangement recently proposed by Buck (2006) and McAlpine (2007). In particular, the latter author includes the tethinid flies into a more inclusive family of beach-flies, that is to say merging the former Tethinidae with the Canacidae *s. str.* to form the single family Canacidae *s. l.* (older family-group name).

MATERIALS AND METHODS

The specimens are double mounted, micro-pinned to a plastic block or glued on the tip of a small triangular card. Their study and illustrations required the use of dissecting and compound microscopes, the latter used in particular for perusal of the genitalic structures. Micro-pincers and micro-pins were used to remove and dissect

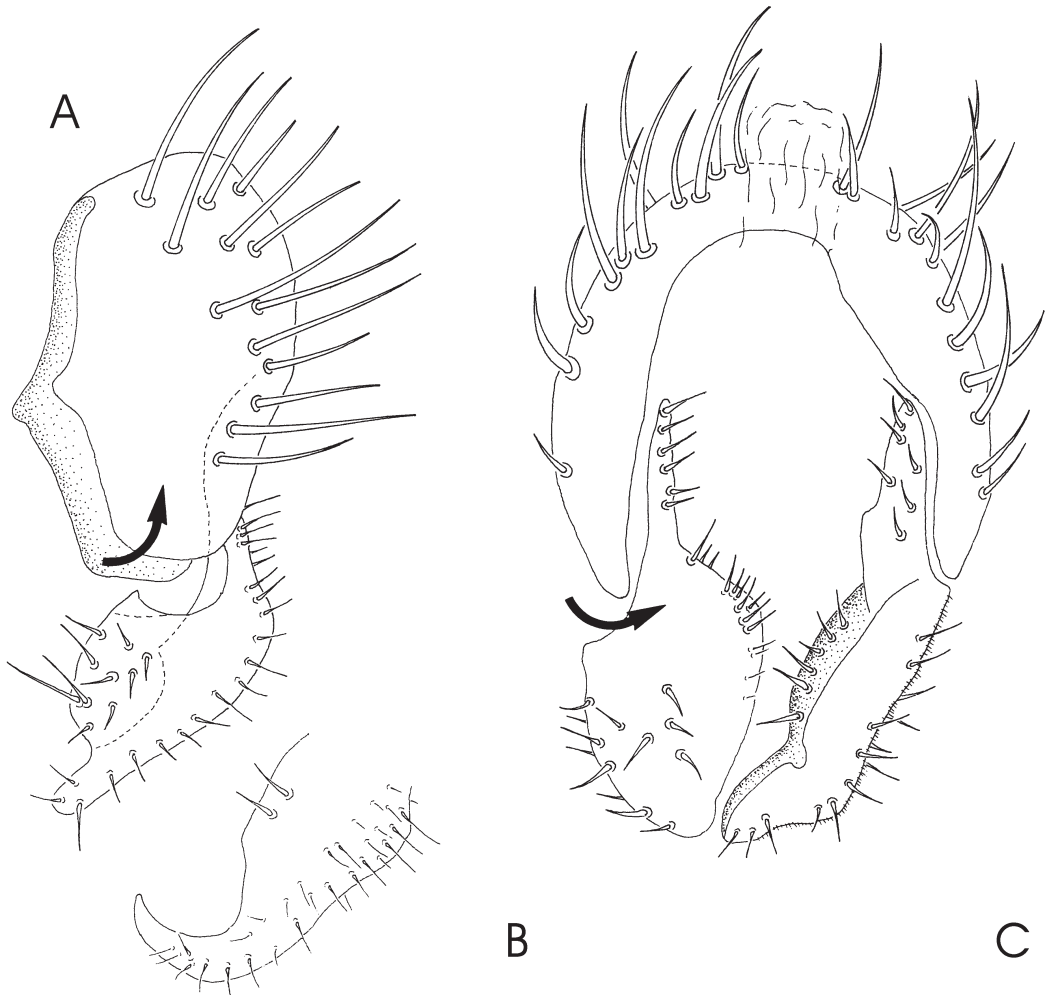


Fig. 1. *Nocticanace kraussi* sp. nov., male terminalia (cerci omitted). – A. Ventro-lateral view (N.B. the surstylus is oriented ventrally). C. Caudal view (left surstylus was previously slightly disjointed from the epandrium and correctly positioned in lateral view. The apical lobe is, therefore, very scarcely visible due to its ventral orientation). – B. *Nocticanace peculiaris* Malloch. Surstylus, lateral view (after an original sketch by N.L. Evenhuis). The arrows indicate the sense of rotation. – Scale bar = 0.1 mm.

abdomens, which were macerated in a boiling potassium hydroxide solution. Abdomens were dipped in a 20% acetic acid solution for about one minute to fully neutralize the action of caustic potash, and then rinsed in distilled water. Male terminalia, together with the entire abdomen, were subsequently transferred to glycerine for observation. When necessary for proper orientation, the anatomical piece was transferred from glycerine to glycerine jelly. The glycerine jelly

was heated and the piece appropriately oriented. After cooling, the piece embedded in glycerine jelly became immobilized. Abdomens and terminalia were in this way studied, photographed, and drawn, and finally placed in a plastic microtube filled with glycerine, and pinned below the specimen from which the anatomical piece was removed. Descriptive terminology chiefly follows the *Manual of Nearctic Diptera* (McAlpine, 1981) and the *Contributions to a Manual*

of *Palearctic Diptera* (Merz & Haenni, 2000), except for the first antennal flagellomere, for which the term “postpedicel” (*sensu* Stuckenberg, 1999) has been used. Holotype label data are quoted verbatim, i.e. without interpretation; a slash (/) indicates the end of a line of print or handwriting, two slashes (//) indicate the end of a label and the beginning of another. Significant supplementary or qualifying information is given in brackets. Descriptions of the new species are based primarily on the respective holotype, but for a few characters also on the examination of the entire paratype series. Most of the specimens dealt with in the present work are deposited in ZMUC, some duplicates in the author’s collection (property of MCNV).

Acronyms (codens) of museums quoted in the text: MCNV = Natural History Museum, Venice, Italy; ZMUC = Zoological Museum, University of Copenhagen, Denmark.

TAXONOMIC ACCOUNT

Family *Canacidae* Jones, 1906

Subfamily *Canacinae*

Nocticanace kraussi sp. nov.

Figs 1 A, C

Type material:

Holotype ♂: [printed white label] “Cook Is. / Aitutaki / xiii.1977 / N.L.H. Krauss leg.” // [printed red label] “HOLOTYPUS / *Nocticanace kraussi* / sp. nov. ♂ / L. Munari des.”. The specimen is in excellent condition. The holotype is deposited in ZMUC, and is double mounted (glued on the tip of a small triangular card); abdomen dissected, stored in glycerol in a small plastic tube, and pinned below the specimen. Paratypes 2 ♂♂, same data as holotype. 1 ♂ is deposited in ZMUC, the other ♂ in MCNV.

Diagnosis

Externally similar to *Nocticanace peculiaris* Malloch, 1933, the new species differs from congeners mainly by the following combination of characters: body length 1.75–2.10 mm. Postocular setulae of head lacking; 3 very long, strongly laterocline frontorbital setae, each seta intercalated with 1 tiny setula; 1 pair of long, strong interfrontal setae placed laterad to anterior

ocellus and markedly spaced from it; 1 pair of minute, weak, interfrontal setulae just posterior of ptilinal fissure; antenna blackish brown, with surface surrounding base of arista distinctly black; longest diameter of eye 3.42 times as long as genal width; gena bearing 2 large, anaclinate setae, each arising from a cuticular knob, and 1 slightly smaller, vibrissa-like, anterocline genal seta; thorax black in ground colour, with mesonotum brown and pleura grey microtomentose; acrostichal setulae lacking; legs blackish, invested with faint, greyish microtomentum; wing crossvein *r-m* ending at middle of cell *dm*; crossvein *dm-cu* about 1/3 as long as last section of *CuA*₁; haltere whitish yellow; male terminalia as in Fig. 1A, C.

Description

Size. Body length 1.75 – 2.10 mm, wing length 1.68 – 1.75 mm.

Habitus. Small, dark fly with infusate wings.

Head. Black in ground colour, more or less densely microtomentose; vertex brown, occiput black, frons brown, except for the large ocellar triangle being grey microtomentose, face, parafacialia, gena mostly covered with thin, cinereous microtomentum; postocellar setae lacking; medial vertical seta curved inwardly, strong, about as long as lateral vertical seta; postocular setulae lacking; ocellar triangle bearing a pair of long, strongly divergent ocellar setae; few minute setulae just behind posterior ocelli; 3 very long, strongly laterocline frontorbital setae, each seta intercalated with 1 tiny setula; 1 pair of long, strong interfrontal setae placed laterad to anterior ocellus and markedly spaced from it; 1 pair of minute, weak, interfrontal setulae just behind ptilinal fissure; antenna blackish brown, with surface surrounding base of arista distinctly black; arista brown, short-haired; eye bare, slightly oblong, its longest diameter 3.42 times as long as genal width; gena bearing 2 large, anaclinate setae, each arising from a cuticular knob, and 1 slightly smaller, vibrissa-like, anterocline genal seta; clypeus low, width subequal to height of antennal postpedicellum; mouth parts brown, strongly sclerotized, with short, clavate palpus.

Thorax. Black in ground colour, with mesono-

tum brown and pleura grey microtomentose; 1+3 dorsocentral setae; acrostichal setulae lacking; 1 postpronotal seta; 1 presutural; 0 anterior, 1 posterior notopleural seta; 1 supra-alar; 1 postalar; 0 intra-alars; scutellum with the usual two pairs of strong setae; 1 proepisternal; 0 proepimeral; anepisternum with a few isolated, weak setulae, bearing 1 postero-marginal seta; 1 postero-dorsal katepisternal seta.

Legs. Blackish, invested with faint, greyish microtomentum; forecoxa dark brown on anterior surface; evenly setulose, except for forefemur bearing a few long postero-dorsal and postero-ventral setae; ctenidium lacking.

Wing. Membrane infuscate, veins dark brown; alula small; costal vein reaching end of M_1 , R_{2+3} , R_{4+5} , and M_1 parallel on distal half; crossvein $r-m$ ending at middle of cell dm ; crossvein $dm-cu$ about 1/3 as long as last section of CuA_1 ; haltere whitish yellow.

Abdomen. Blackish, invested with faint, grey microtomentum; tergites minutely and sparsely setulose.

Male terminalia (Fig. 1A, C). Epandrium fairly large, bearing several long setae; surstylus with many setae and setulae, prolonged distally as a digitiform, straight, short lobe, clearly visible in latero-ventral view, it being internally oriented; in lateral view the apical lobe is not or is scarcely visible and the surstylus appears to be roughly almond-shaped, with basal portion long and tapered, bearing some setae; in caudal view surstylus distinctly elongated, deeply concave internally; cercus, inner sclerites, and phallus not examined.

Female. Unknown.

Distribution

Cook Islands (Polynesia).

Biology

In all probability a thalassobiont species inhabiting the oceanic seashores.

Etymology

The species epithet, *kraussi*, is a patronym dedicated to the entomologist N.L.H. Krauss, who collected the type series.

Remarks

The new species belongs to the *pacifica*-group, and is very similar and closely related to *Nocticanace peculiaris* Malloch, 1933 described from the Marquesas Islands. It differs from the latter species mainly by the shape of the male terminalia. After comparing Malloch's (1933) and Wirth's (1951) figures of the terminalia of *N. peculiaris* (unfortunately, Malloch's figure is very poorly informative) I was at first unsure about the species assignment of the specimens from the Cook Islands. Thanks to the courtesy of Dr. N.L. Evenhuis (Honolulu), who examined and sketched in lateral view the surstylus (fig. 1.B) of Malloch's species after examining some specimens from the Marquesas (*terra typica*), I was able to notice the strong differences in terminalia morphology. Thus, I came to the conclusion that the specimens studied belong to a species new to science. It is somewhat probable that the two species are the result of insular speciation from a common stem species. The two archipelagos are ca. 2500 kilometers apart.

Xanthocanace ranula (Loew, 1874)

Material examined:

Morocco, 40 km S Larache, 0-20 m, 23-24.iv.1989, Zool. Mus. Copenh. Exp., 3 ♂♂ 2 ♀♀.

Distribution

Palaeartic: Belgium, Denmark, England, Germany, Ireland, Italy, Morocco (**new**), Netherlands, Spain (Canary Islands).

Remarks

New to Morocco.

Subfamily **Pelomyiinae**

Masoniella darwini sp. nov.

(Figs. 2-3)

Type material:

Holotype ♂: [printed orange label] "ARGENTINA, Santa Cruz / 26: Fitz Roy / Rio Deseado / 11.-12.ii.1979 / Mision Cientifica Danesa" // [printed red label] "HOLOTYPUS / *Masoniella darwini* / sp. nov. ♂ / L. Munari des.". The speci-

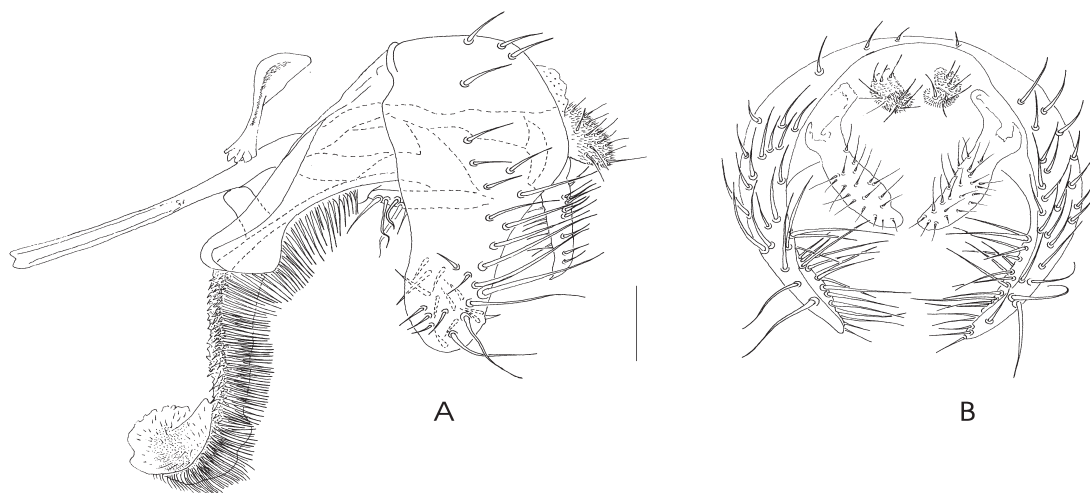


Fig. 2. *Masoniella darwini* sp. nov., male terminalia. – A. Lateral view. B. Caudal view. – Scale bar = 0.1 mm.

men is in rather good condition, except for the head being strongly collapsed laterally and dorsally, and for left hind leg lacking. The holotype is deposited in ZMUC, and is double mounted (micro-pinned in a plastic block); abdomen dissected, stored in glycerol in a small plastic tube, and pinned below the specimen.

Diagnosis

The new species differs from congeners mainly by the following combination of characters: body length 2.03 mm; vertex and occiput shiny black, frons with dense, yellow microtomentum; face and gena yellow; 1 very strong frontorbital seta; interfrontal setae lacking, at most a pair of upper, pale, vestigial setulae present; eye height more than 3 times as long as genal height; parafacialia very narrow, about three times as wide as the width of arista; thorax black, with mesonotum, including scutellum, widely invested by faint, whitish grey microtomentum of waxy appearance, with latero-dorsal surface, from presutural seta to the basis of scutellum, extensively glossy black; pleura with anepisternum, anepimeron, and katepisternum noticeably glossy black, except for antero-ventral margin of anepisternum, and posterior edge of anepimeron being invested with waxy grey microtomentum;

acrostichal setulae lacking; apical setae of scutellum anaclinate; legs black, with femora and tibiae shiny; forefemur with distinctive, antero-ventral, ctenidial comb present; crossvein *r-m* ending beyond middle of cell *dm*; crossvein *dm-cu* distinctly shorter than last section of *CuA*; haltere pale brownish; abdomen (Fig. 3) entirely black; mid-dorsal surface, from syntergite 1+2 to tergite 4, rather dull, remaining parts, including broad lateral sides and epandrium, distinctly shiny; male terminalia as in Fig. 2A, B.

Description

Size. Body length: 2.03 mm, (incl. detached abdomen which is 0.98 mm long); wing length: 1.75 mm.

Habitus. Small, black fly with pale grey wings. Thorax and abdomen with wide shiny areas.

Head. (Fully collapsed) vertex and occiput shiny black, frons with dense, yellow microtomentum, apparently lacking setulation; orbital vitta silvery white; face and gena yellow, latter silvery white posteriad, with small, dark grey patch on anterior half, bearing scattered, tiny setulae over entire surface; postocellar setae weak, apparently proclinate, scarcely visible due



Fig. 3. *Masoniella darwini* sp. nov. Abdomen of holotype (later detached and dissected).

to the poor condition of head; medial vertical seta long; both lateral vertical setae broken, with distal half missing; a few microscopic setulae on upper postocular surface and on remaining surface where they are arranged in an irregular row; paravertic seta strongly reduced; ocellar triangle bearing a pair of long ocellar setae; 1 very strong (?latero-clinate) frontorbital seta; interfrontal setae lacking, at most a pair of upper, pale, vestigial setulae present; orbital vitta with a few, sparse, minute setulae; antenna with postpedicel entirely dark brown, bearing blackish, microscopically pubescent arista, pedicel distinctly darker, black; eye strongly collapsed and wrinkled (accordingly, possible interfacetal ommatrichia are not visible), bearing series of distinctive, very large, convex facets exclusively located laterad to parafacialia; eye height distinctly more than 3 times as long as genal height (a more detailed ratio eye/gena is not possible because of eye wrinkling); peristomal setae absent, at most a foremost, inconspicuous, tiny hair present; entire peristomal margin bordered by narrow, shiny, chitinized thickening extending laterally up to face; parafacialia very narrow, about three times as wide as the width of arista;

face yellow, very long and narrow; mouth parts with proboscis, including labellum, blackish to brown, and palpus pale yellow, slightly club shaped.

Thorax. Black, with mesonotum, including scutellum, widely invested by faint, whitish grey microtomentum of waxy appearance, with latero-dorsal surface, from presutural seta to the basis of scutellum, extensively glossy black; pleura with anepisternum, anepimeron, and katepisternum noticeably glossy black, except for antero-ventral margin of anepisternum, and posterior edge of anepimeron being invested with waxy grey microtomentum; 1+3 long dorsocentral setae; acrostichal setulae lacking; 2 short, divergent postpronotal setae; 1 long presutural; 2 notopleurals; 0 supra-alar; 1 long outer postalar, prescutellar postalar reduced to thin hair; intra-alar setulae lacking; scutellum bearing 2 pairs of setae, apical setae anaclinate, distinctly longer and stronger than latero-marginal setae; proepisternal and proepimeral setae strong; anepisternum with sparse, thin pubescence, bearing one posterior, marginal, long and strong seta, above and below it a very weak seta present; katepisternum with 1-2 dorsal setae, anterior seta, if present, noticeably weaker and shorter than long posterior seta.

Legs. Black, with femora and tibiae shiny, evenly setulose, bearing very small setulae; forefemur with distinctive, antero-ventral, ctenidial comb formed by 5-6 long, strong, spinelike setae decreasing in length towards apex of femur; mid tibia with ventro-apical, spurlike seta; forecoxa large, invested with dense, silvery microtomentum, bearing fairly long, median seta on outer margin; tarsi dull brown to blackish, with tarsomeres of usual shape and length.

Wing. Distinctly elongated, with pale grey membrane and brownish grey veins; alula small; costal vein reaching end of M_1 ; R_{2+3} and R_{4+5} divergent distally; R_{4+5} and M_1 parallel on distal half; crossvein *r-m* ending beyond middle of cell *dm*; crossvein *dm-cu* distinctly shorter than last section of CuA_1 ; haltere pale brownish.

Abdomen (Fig. 3). Entirely black; mid-dorsal surface, from syntergite 1+2 to tergite 4, rather dull, remaining parts, including broad lateral sides and epandrium, distinctly shiny; setal vestiture black, inconspicuous, with a few thin setae on apical margin of each tergite.

Male terminalia (Fig. 2A, B). Epandrium large; anterior lobe (*sensu* Foster and Mathis 2003) large, stumpy, broadly spatulate in lateral view (Fig. 2A), noticeably tapered in caudal view (Fig. 2B), strongly setose, with several very long setae on caudal margin and on inner side; true surstylus relatively short, straight, pointed in lateral view (Fig. 2A), bearing short setae; cercus small, setulose; phallapodeme straight, rod-like; ejaculatory apodeme small; phallus very large, distinctly enlarged apically, bearing very long, dense pubescence ventrally.

Female. Unknown.

Distribution

Argentina (southern Patagonia).

Biology

Unknown.

Etymology

The species epithet, *darwinii*, is a Latin patronym to honour the memory of the great British naturalist Charles R. Darwin who landed at Puerto Deseado (mouth of Rio Deseado) on 23 December 1833, during the *Beagle's* voyage around the world.

Remarks

Besides the male terminalia, the species is distinguished from congeners mainly by having both the thorax and abdomen partially shiny rather than entirely shiny or, vice versa, fully dull. Therefore, the new species modifies Foster and Mathis' (2003) key to species as follows:

Key to species of *Masoniella* Vockeroth

1. One frontorbital seta 4
 - Two frontorbital setae 2
2. Thorax entirely shiny
 - *M. richardsi* Vockeroth
 - Thorax with brown microtomentum 3
3. Antenna mostly brown, vein R_{2+3} ending in costa before wing apex
 - *M. delicata* Foster & Mathis
 - Antenna mostly orange; vein R_{2+3} ending in costa behind wing apex

- *M. spatulata* Foster & Mathis
- 4. Thorax entirely shiny brown 6
 - Thorax entirely or partially microtomentose
 - 5
- 5. Thorax and abdomen entirely microtomentose; ventral lobe of epandrium wider than epandrium width (lateral view); surstylus broadly rounded apically (lateral view)
 - *M. argentinaensis* Foster & Mathis
 - Thorax and abdomen with both widely shiny and thinly microtomentose areas; ventral lobe of epandrium distinctly narrower than epandrium width; surstylus acutely pointed apically *M. darwini* **sp. nov.**
- 6. Femora brown; gena high, at least 0.25 times eye height *M. advena* Foster & Mathis
 - Mid and hind femora yellow; gena moderately to very narrow, approximately 0.10–0.20 times eye height *M. flabella* Foster & Mathis

Pelomyia coronata (Loew, 1866)

Material examined:

Guatemala, Antigua, 15–1600 m, vii.1980, N.L.H. Krauss, 1 ♂.

Distribution

Nearctic: Canada, United States. **Neotropical:** Guatemala (**new**), Mexico.

Remarks

This finding represents the southernmost record hitherto known for this species which is widely distributed throughout the Nearctic Region and Mexico. New to Guatemala.

Pelomyia fuegina sp. nov.

Fig. 4

Type material:

Holotype ♂: [printed orange label] “ARGENTINA, T. d. Fuego / 36: Estancia Viamonte / Auricosta, 2 m / 5.ii.1979 / Mision Cientifica Danesa” // [printed red label] “HOLO-TYPUS / *Pelomyia fuegina* / sp. nov. ♂ / L. Munari des.”. The specimen is in excellent condition, except for the lack of the right mid leg, and for a few setae of the head which are broken. The holotype is deposited in ZMUC, and is double mounted (micro-pinned in a plastic block); abdomen dissected, stored in glycerol in a small plastic tube, and pinned below the specimen. Paratypes 9 ♀♀, same data as holotype,

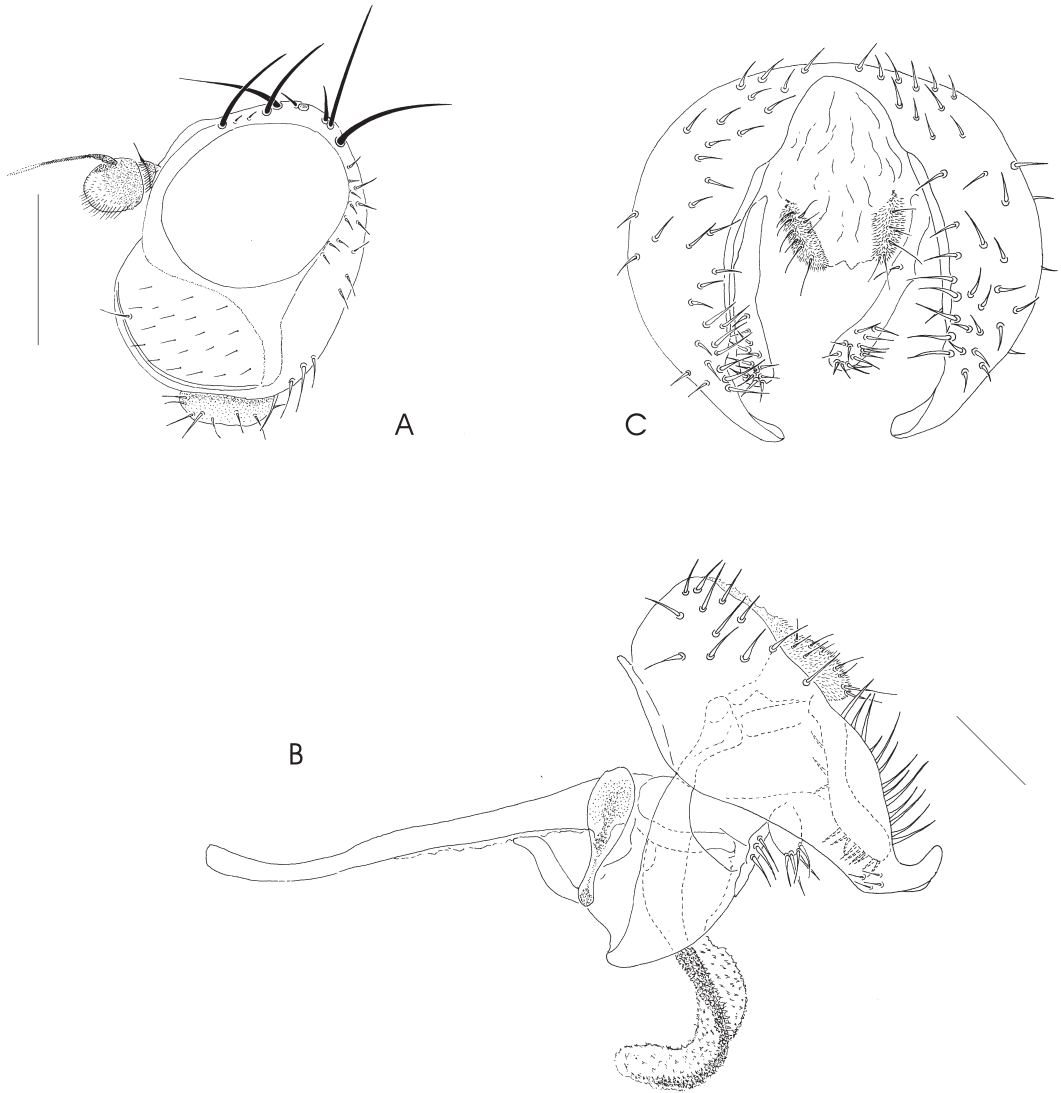


Fig. 4. *Pelomyia fuegina* sp. nov. – A. Head, lateral view. B. Male terminalia, lateral view. C. Male terminalia, caudal view. – Scale bars A = 0.4 mm; B, C = 0.1 mm.

incl. 3 specimens with date 23.i.1979. One paratype ♀ bears an additional white label which reads as follows: “[handwritten] *Pelomyia* / n. sp. / [printed] Lyneborg det. 19[handwritten]80”. 6 ♀♀ are deposited in ZMUC, the remaining 3 ♀♀ are deposited in MCNV.

Diagnosis

The new species differs from congeners mainly by the following combination of characters: body length: 2.10–2.85 mm; lower face of head pro-

truding just beneath middle of postpedicel; frons bare, bright yellow, face and gena concolourous, yellowish white; 2 frontorbital setae, each showing a dark spot at its base; interfrontal setae vestigial; antenna dark brown; longest diameter of eye 1.73 times as long as genal height; parafacialia distinctly yellow, slightly broader than half the postpedicel width; face narrow, about as broad as or slightly wider than postpedicel width, of same colour as gena; pleura grey microtomentose,

mesonotum brownish grey; acrostichal setulae inconspicuous; all setae of mesonotum with dark spot at base, like those of head; forefemur bearing a ctenidial comb; wing crossvein *r-m* ending slightly beyond middle of cell *dm*; crossvein *dm-cu* distinctly shorter than last section of CuA_1 ; crossvein *bm-cu* present; A_1+CuA_2 very faint, thin, fairly long, not reaching wing margin; anal vein slightly bent towards wing margin; haltere yellow; abdomen with setal vestiture of tergites formed by several tiny setulae regularly arranged on the entire surface; marginal, subapical setae of tergites inconspicuous, only slightly longer than setulae; male terminalia as in Fig. 4B, C; female: basitarsus of fore and hind legs with ventral brush of fine, golden setae; postabdomen with cercus bearing long, strong, black spinulae.

Description

Size. Holotype body length: 2.10 mm (incl. detached abdomen which is 1.05 mm long); holotype wing length: 1.82 mm. Paratypes (♀♀), body length: 2.45–2.85 mm; wing length: 2.24–2.45 mm.

Habitus. Small fly with black body and legs, former invested by dense grey microtomentum. Setal vestiture black. Wings with grey membrane and brown veins.

Head (Fig. 4A). Vertically slightly oblong, in lateral view with lower face protruding just beneath middle of postpedicel; vertex and occiput invested with whitish grey microtomentum, latter distinctly depressed; frons bare, bright yellow, orbital vitta invested with dense white microtomentum, face and gena concolourous, yellowish white; postocellar setae short, inclinate; medial vertical seta (broken in holotype) long and strong, distinctly longer and more robust than lateral vertical seta (lacking in holotype); paraverticilar seta lacking; postocular setulae short, arranged in two parallel rows; ocellar triangle bearing a pair of long ocellar setae; 2 slightly reclinate, frontorbital setae, each showing a dark spot at base; besides frontorbital setae, a few, sparse, tiny hairs present as well; interfrontal setae vestigial, reduced to microscopic, fine hairs; antenna dark brown, bearing microscopically pubescent, brown arista; eye glabrous, that is without interfacetal microtrichia, large, roundish, its longest

diameter 1.73 times as long as genal height; gena very broad, yellowish white microtomentose, bearing scattered, tiny, black setulae on most of surface; true peristomals lacking, at most a few foremost minute setae sometimes present; entire peristomal margin bordered by narrow, shiny, brown, chitinized thickening extending up laterally to lower face; parafacialia distinctly yellow, fairly wide, slightly broader than half the postpedicel width; face narrow, about as wide as or slightly wider than postpedicel width, of same colour as gena; mouth parts with proboscis stumpy, blackish brown, palpus yellow, distinctly clavate.

Thorax. Black in ground colour, densely invested with grey microtomentum on pleura, brownish grey on mesonotum; 1+3 long dorso-central setae; acrostichal setulae inconspicuous, irregularly scattered on median surface; postpronotal lobe with 1 strong seta and 2-3 tiny setulae; 1 presutural; 2 notopleurals; 1 supra-alar; 2 postalars, outer seta longer and stronger than inner seta; intra-alar setae inconspicuous; scutellum concolourous with scutum, brownish grey, bearing 2 pairs of long setae; all setae of mesonotum with dark spot at base, like those of head; 1 proepisternal; 1 proepimeral; anepisternum very sparsely pubescent, bearing 2 long postero-marginal setae and 1 short, weak postero-dorsal; katepisternum sparsely pubescent, bearing long, strong postero-dorsal seta.

Legs. Black in ground colour; coxae covered with dense grey microtomentum being distinctly fainter on femora; tarsi black; legs evenly setulose, except for forecoxa and forefemur bearing a few long setae, latter also bearing a ctenidial comb of 9 short, spine-like setae; anterior surface of mid femur with 1 stronger seta in middle; mid tibia with ventro-apical, black spurlike seta.

Wing. Membrane grey, veins brown; alula of normal shape and size; costal vein reaching end of M_1 , R_{2+3} and R_{4+5} slightly divergent distally; R_{4+5} and M_1 parallel on distal half; crossvein *r-m* ending slightly beyond middle of cell *dm*; crossvein *dm-cu* distinctly shorter than last section of CuA_1 ; crossvein *bm-cu* present; A_1+CuA_2 very faint, thin, fairly long, not reaching wing margin; anal vein slightly bent towards wing margin, without, however, reaching it; haltere yellow.

Abdomen. Dark in ground colour; tergites

and sternites evenly invested by grey microtomentum; tergites 3-5 with narrow (in female paratypes very narrow to almost entirely absent), whitish, transverse, apical stripe; setal vestiture of tergites black, formed by several, tiny setulae regularly arranged on the entire surface; marginal, subapical setae of tergites inconspicuous, only slightly longer than setulae; epandrium concolourous with or slightly lighter than tergites.

Male terminalia (Fig. 4B, C). Epandrium large, bearing some short setae irregularly arranged dorsally, around perianal surface; ventral lobe, in lateral view, tapered and markedly hooked caudally, with inner side distinctly concave; caudal margin of ventral lobe bearing several setae, hooked apex bare; surstylus, in lateral view, fully hidden inside ventral lobe (Fig. 4B), in caudal view rather elongated, with apical part slightly swollen, bearing several small setae; hypandrium strongly developed; phallapodeme very long, slightly bent anteriorly; ejaculatory apodeme as in Fig. 4B; cercus small, setulose, of usual shape; distiphallus large, rather stumpy, entirely covered with many spinulae/papillae, particularly on margins.

Female. Similar to male except for usual, slight, sexual dimorphism. Basitarsus of fore and hind legs with ventral brush of fine, golden setae. Postabdomen scarcely telescopically retractile, with short, stumpy cercus bearing long, strong, black spinulae.

Distribution

Argentina (Tierra del Fuego).

Biology

Unknown.

Etymology

The species epithet, *fuegina*, is a Latin adjective meaning "inhabiting Tierra del Fuego [Land of Fire]" and refers to the archipelago off the southernmost tip of the South American mainland (southern Patagonia) where the new species was collected.

Remarks

The new species belongs to the *melanocera*-group, which is distinguished from other species

groups mainly by having two or more frontorbital setae, and modifies Foster and Mathis' (2003) key to species as follows:

Key to species of *Pelomyia* of the *melanocera*-group

1. Body length more than 3.50 mm; apex of femora yellow
..... *Pelomyia* sp. (Argentina, see below)
- Body length less than 3.20 mm; apex of femora dark 2
2. Frons mostly yellow to orange 3
- Frons mostly dark, infusate brown to black 6
3. Three frontorbital setae
..... *P. crassispina* Foster & Mathis
- Two frontorbital setae 4
4. Legs entirely with gray to black microtomentum; forecoxa dark in ground colour 5
- Foretibia yellow on basal one third; basal 2 tarsomeres yellow; forecoxa yellow in ground colour
..... *Pelomyia* sp. (Chile, see F. & M. 2003)
5. Lower face vertically flattened (lateral view); ventral lobe of epandrium with very short, large, obtuse apex, bearing an acutely pointed, hook-like projection oriented backwards at right angle; surstylus abruptly bent backwards on distal third (lateral view)
..... *P. crassiseta* Foster & Mathis
- Lower face distinctly convex (head slightly prognathous); ventral lobe of epandrium with long, narrow, gently bent apex, bearing blunt, hook-like projection caudally; surstylus sinuous, smoothly bent on distal half
..... *P. fuegina* **sp. nov.**
6. Frons orange toward antennal bases; gena at most only 0.35 times eye height
..... *P. grisecoxa* Foster & Mathis
- Frons entirely dark, infusate brown to black; gena at least 0.5 times eye height
..... *P. melanocera* Foster & Mathis

***Pelomyia* sp.**

Material examined:
Argentina, Pichileufu, prov. Rio Negro, 13.ii.1966, Axel M. Hemmingsen, 1 ♀.

Diagnosis

This species differs from congeners mainly by the following combination of characters: body length 3.57 mm, wing length 3.29 mm; mesonotum brown; eye large, roundish, its longest diameter 2.43 times as long as gena height; mesonotum brownish; acrostichal setulae minute, arranged in 4 rows near mesonotal suture, more numerous posteriad; pleura grey; apex of blackish femora distinctly yellow; crossvein *dm-cu* dark brown; crossvein *bm-cu* present; abdomen subshiny, with grey microtomentum; female cercus bearing some well-developed, black spinulae.

Description

Size. Body length: 3.57 mm; wing length: 3.29 mm.

Habitus. Small fly of robust appearance; head mostly yellow; thorax brownish; abdomen dark grey; legs blackish; wing infusate, brownish. Apex of all femora distinctly yellow, strongly contrasting with rest of leg.

Head. Vertex brownish, frons yellow; interfrontal setulae minute, upper ones arranged in two regular rows convergent towards middle of frons; 2 long, reclinate frontorbital setae; antenna mostly brownish yellow; gena yellow, bearing several, minute, black setulae; peristomal setae, including foremost seta, moderately developed; eye large, roundish, its longest diameter 2.43 times the gena height.

Thorax. Mesonotum brownish, pleura grey; acrostichal setulae minute, arranged in 4 rows near mesonotal suture, more numerous posteriad; 2 postpronotals, outer seta longer and stronger; 2 postalar setae, between them a tuft of short setulae. Legs blackish, invested with thin microtomentum; forecoxa with dense, whitish grey microtomentum; forefemur bearing ctenidial comb of numerous short spinulae; fore- and hind femora not swollen; apex of all femora distinctly yellow; anterior surface of mid femur with 1 stronger seta in middle; tarsi darker, with tarsomeres of normal size; wing crossvein *dm-cu* distinctly dark brown; crossvein *bm-cu* present.

Abdomen. Subshiny, brownish, invested with grey microtomentum. Female cercus bearing some well-developed, black spinulae.

Male. Unknown.

Distribution

Argentina (Rio Negro).

Biology

Unknown.

Remarks

This species is not named herein because only one female is known. Based on presence of two frontorbital setae and of crossvein *bm-cu*, I suggest this species belongs to the *melanocera* group (see key above).

Subfamily **Tethiniinae***Dasyrhicnoessa celata* sp. nov.

Fig. 5

Type material:

Holotype ♂: [printed white label] "Bismarck Isl. Dyaul / Sumuna / 4. March 1962 / Noona Dan Exp. 61-62" // [(reverse) printed white label] "Caught by / Mercury - light" // [printed red label] "HOLOTYPUS / *Dasyrhicnoessa / celata* sp. nov. ♂ / L. Munari des.". The specimen is in excellent condition, except for the right wing which is lacking. The holotype is deposited in ZMUC, and is double mounted (micro-pinned in a plastic block); abdomen dissected, stored in glycerol in a small plastic tube, and pinned below the specimen. Paratypes 2 ♂♂, same data as holotype. All specimens are double mounted. 1 ♂ is deposited in ZMUC, the other ♂ is deposited in the author's collection (property of MCNV).

Diagnosis

Externally strikingly similar to *Dasyrhicnoessa tripunctata* Sasakawa, 1974, the new species differs from congeners mainly by the following combination of characters: body length: 1.89–2.52 mm; vertex and occiput grey; frons golden brown, yellow on anterior margin; gena invested with dense, white microtomentum; parafacialia yellow; 3 latero-clinate frontorbital setae; 3 pairs of inclinate, interfrontal setae; antenna yellowish brown; longest diameter of eye about 6 times as long as gena height; mesonotum brown, pleura dark grey; acrostichal setulae arranged in 6 irregular rows; acrostichal prescutellars very long and thin; intra-alars arranged in 4 irregular rows; legs yellowish brown, with apical tarsomere slightly infusate; forefemur bearing

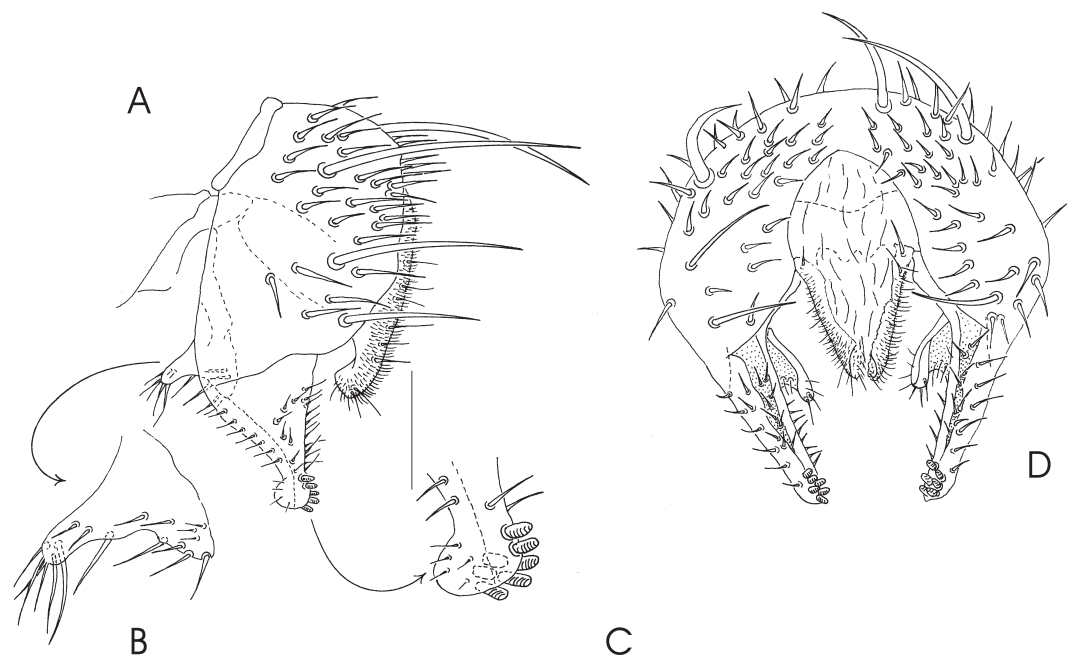


Fig. 5. *Dasyrhicnoessa celata* sp. nov., male terminalia. – A. Lateral view. B. Anterior surstylus (slightly magnified). C. Apex of the posterior surstylus (slightly magnified). D. Caudal view. – The arrows indicate the portions magnified. Scale bar = 0.1 mm.

a ctenidial comb; wing crossvein *r-m* ending approximately at basal one-third of cell *dm*; cell *bm* open, or at most delimited by an upper, faint trace of longitudinal vein; crossvein *dm-cu* very short, about $\frac{1}{4}$ as long as last section of *CuA*₁; haltere bicoloured, with base and stem yellow, knob brown; abdomen blackish brown, bearing distinctive black spots at least on lateral sides of tergites 3–5; male terminalia as in Fig. 5.

Description

Size. Body length: 1.89–2.52 mm; wing length: 1.75–1.91 mm.

Habitus. Small fly with body brown to yellowish brown; abdominal tergites with lateral black spots; setal vestiture black; wings dark grey.

Head. Vertex and occiput grey, thinly microtomentose; frons golden brown, yellow on anterior margin; golden patches laterad to ocellar triangle not confluent before anterior ocellus; frontal and interfrontal vittae distinctly yellowish brown; face apparently membranous, translucent; gena invested with dense, white

microtomentum; parafacialia yellow, markedly narrow, about 1.5 times as wide as the diameter of the largest, anterior facets of compound eye; postocellar setae inclinate, forward oriented or erect; medial vertical seta curved inwardly, strong, about as long as lateral vertical seta; paraverticilar seta strong; postocular setulae minute, arranged in two rows, becoming more numerous on postgenal surface; ocellar triangle bearing a pair of long, strong ocellar setae, a few hair-like setulae between and behind posterior ocelli; 3 laterocliniate frontorbital setae, anterior seta shorter than two posteriors, two anterior setae intermixed with two rows of short setulae, only one row of setulae between mid and posterior frontorbitals; 3 pairs of inclinate, interfrontal setae, mid pair with distinctly longer setae, all setae intermixed with tiny setulae; antenna yellowish brown; arista brown, fairly long-haired; eye pubescent, bearing a multitude of interfacetal ommatrichia, very large, its longest diameter 6 times as long as gena height; gena yellowish (white if viewed frontally); 5 peristomal setae, 3 foremost setae, including vibrissa, distinctly long and strong;

mouth parts homogeneously brown, with slender, setulose palpus.

Thorax. Mesonotum brown, pleura dark grey; 1+3 dorsocentral setae; acrostichal setulae arranged in 6 irregular rows; acrostichal prescutellars very long and thin; 3 postpronotal setae, each with different orientation, mid seta distinctly longer and stronger; 1 presutural; 2 notopleurals; 1 supra-alar; 2 postalars, external seta long and strong; intra-alars arranged in 4 irregular rows; scutellum with the usual two pairs of strong setae subequal in length; 1 proepisternal; 1 proepimeral; anepisternum strongly setulose, bearing 3 postero-marginal setae, mid seta distinctly longer and stronger; katepisternum with numerous setulae, bearing long, postero-dorsal seta.

Legs. Yellowish brown, with apical tarsomere slightly infuscate; evenly setulose, bearing short setae and setulae, except for forefemur bearing postero-dorsal and postero-ventral rows of long, spaced setae; forecoxa strongly setulose, yellowish, invested by thin, white microtomentum; forefemur bearing ctenidial comb of 6–7 short spinulae; mid femur of male with postero-ventral comb on distal half, formed by setae slightly decreasing in length toward apex; mid tibia with ventro-apical, spur-like seta.

Wing. Dark grey, with brown veins; alula of normal shape and size; costal vein reaching end of M_1 ; R_{2+3} and R_{4+5} distinctly divergent on distal half; R_{4+5} and M_1 parallel on distal half; crossvein *r-m* ending approximately at basal one-third of cell *dm*; cell *bm* open, or at most delimited by an upper, faint trace of longitudinal vein; crossvein *dm-cu* very short, about 1/4 as long as last section of CuA_1 ; haltere bicoloured, with base (scabellum) and stem (pedicel) yellow, knob (capitulum) brown.

Abdomen. Blackish brown, bearing distinctive black spots at least on lateral sides of tergites 3–5; several setulae and apico-marginal setae on each tergite; tergites 4–5 with posterior margins bordered by narrow, whitish stripe.

Male terminalia (Fig. 5). Epandrium large, bearing several setae, some of which are very long and strong; anterior surstylus small, setulose (Fig. 5B), with inner portion subtriangular; posterior surstylus, in lateral view, of characteristic shape (Fig. 5A), with apical portion (Fig. 5C) strongly swollen, bearing 6–7 stout spinu-

lae; cercus elongate, setulose, characteristically truncate apically; phallapodeme long, sinuous; ejaculatory apodeme large, with distal fan wide, membranous; distiphallus ribbon-like, setulose ventrally.

Female. Female specimens are not discernible from those of *Dasyrhicnoessa tripunctata* Sasakawa, when the two species are found syntopically and synchronically in the same habitat.

Distribution

Dyaul Island (Bismarck archipelago). It occurs sympatrically with *D. tripunctata* Sasakawa.

Biology

Probably a thalassobiont species strictly associated to mangrove swamps.

Etymology

The species epithet, *celata*, is a Latin adjective meaning “hidden, concealed” and refers to the strong morphological similarity with the individuals of the closely related *Dasyrhicnoessa tripunctata* Sasakawa, 1974.

Remarks

The new species was discovered by chance after examining the male terminalia of every specimen of *D. tripunctata* Sasakawa. The surstyli of these two species are always exposed and the peculiar surstylus of the new species was, therefore, immediately noticed and the specimens segregated.

The postabdominal segments of two of the three specimens found were dissected and studied. The examination confirmed the new specific status of those specimens. Each of the abdominal tergites 3–5 shows a pair of lateral black spots like those present in most specimens of *D. tripunctata*. Other specimens of *D. tripunctata* bear an additional spot (or faint darkening) on the tergite mid-line and this might be expected to occur in some specimens of *D. celata*, too. Three species of *Dasyrhicnoessa* with spotted abdomen are known, namely *D. adelpha* Munari from western India, *D. tripunctata* Sasakawa widely distributed throughout the western Pacific Ocean, and *D. celata* **sp. nov.** from the Bismarck Islands.

The three species differ from each other exclusively in the morphology of the male terminalia (see Fig. 6A–E illustrating the male terminalia of *D. adelpha* and *D. tripunctata*).

Dasyrhicnoessa insularis (Aldrich, 1931)

Material examined:

Bismarck Islands, Dyaul, Sumuna, 4.iii.1962, Noona Dan Exp. 61–62, 1 ♀ (cf.); New Hebrides, Erromanga, Dillon Bay, iii.1978, N.L.H. Krauss, 5 ♂♂; West Indies: St. Kitts, Basseterre, vii.1979, N.L.H. Krauss, 1 ♂; Dominica, Portsmouth, vii.1979, N.L.H. Krauss, 1 ♀.

Distribution

Afrotropical: Cameroon, Madagascar, Nigeria. **Australasian/Oceanian:** American Samoa (Tutuila), Australia (Queensland), Bismarck Islands (Dyaul) (**new** (cf.)), Canton Island, Caroline Islands (Pohnpei, Chuuk, Yap, Palau), Fiji Islands (Ovalau, Suva, Viti Levu), ?French Polynesia (Society Islands: Moorea), Hawaii (Hawaii, French Frigate Shoals, Hilo, Maui, Oahu, Pearl and Hermes Reef), Kiribati (Butaritari, Makin, Eita, Tarawa, Abemama), Line Islands (Christmas), Mariana Islands (Saipan, Tinian), Marquesas (Hivaoa, Nuku Hiva), Marshall Islands (Majuro, Japton, Parry, Lib, Jibu, Jaluit, Namorik), New Hebrides (Erromanga) (**new**), Palmyra Island, Pitcairn Island, Rapa Island, Society Islands (Bora Bora), Wake Island. **Nearctic:** Bermuda, USA (Florida). **Neotropical:** Bahamas (South Bimini), Belize, Brazil (Ceará), Mexico (Tabasco), West Indies (Cuba, Dominica, St. Lucia, St. Kitts (**new**), St. Vincent).

Remarks

Species rather variable in body colour, which is yellowish brown to dark brown or even blackish, with legs yellow to dark brown; the abdomen is variable too, entirely dark brown to bicoloured, that is with usual, distinctive, apical, white stripe on each tergite.

Dasyrhicnoessa sexseriata (Hendel, 1913)

Material examined:

Bismarck Islands (Noona Dan Exp. 61–62): Dyaul, Sumuna, 4.iii.1962, 12 ♂♂ 6 ♀♀; Hermit, Luf, 26.vi.1962, 1 ♂ 1 ♀;

Lavongai, Banatam, 18.iii.1962, 1 ♂; Manus, Lorengau, 24.vi.1962, 2 ♂♂. Philippines (Noona Dan Exp. 61–62): Palawan, Brookes Point, Uring Uring, 16.viii.1961, 1 ♂. Tonga Islands, Tongatapu, Nukualofa, ii.1978, N.L.H. Krauss, 1 ♂ 1 ♀.

Distribution

Australasian/Oceanian: Australia (Queensland), Bismarck Islands (Dyaul, Hermit, Lavongai, Manus) (**new**); Caroline Islands (Yap, Palau, Pohnpei, Ponape), Fiji Islands (Ovalau, Viti Levu), Mariana Islands (Guam, Saipan), Marshall Islands (Namorik), Papua New Guinea, Tonga Islands (Tongatapu) (**new**), Wake Island. **Oriental:** China (Hong Kong), Philippines, Taiwan.

Remarks

Species rather common throughout the Pacific area. Besides the male terminalia features, it is distinguished from the similar *D. vockerothi* Hardy and Delfinado by the pattern of the postero-ventral armature of the male mid femur, which is formed by a row of spine-like setae distinctly closer and more bent on apical one third, forming a small comb of black spinulae, otherwise from *D. vockerothi*, the armature of which shows all spine-like setae regular and equidistant to each other, although slightly decreasing in length towards the apex of femur.

Dasyrhicnoessa tripunctata Sasakawa, 1974

(Figs. 6.D–E)

Material examined

Bismarck Islands (Noona Dan Exp. 61–62): Dyaul, Sumuna, 4.iii.1962, 13 ♂♂; Mussau, Boliu, 6.vi.1962, 1 ♂ 1 ♀. Philippines (Noona Dan Exp. 61–62): Tawi-Tawi, Tarawakan, north of Batu-Batu, 13.xi.1961, 2 ♂♂ 2 ♀♀; Balabac, Dalawan Bay, 9.x.1961, 9–13.x.1961, 7 ♂♂ 7 ♀♀.

Distribution

Australasian/Oceanian: Australia (Queensland), Bismarck Islands (Dyaul, Mussau) (**new**); Caroline Islands (Kosrae, Palau, Pohnpei), Mariana Islands (Guam), Papua New Guinea. **Oriental:** Japan (Ryukyus), Malaysia (Sabah, Sarawak), Philippines (Balabac (**new**), Culion, Palawan, Tawi-Tawi (**new**)).

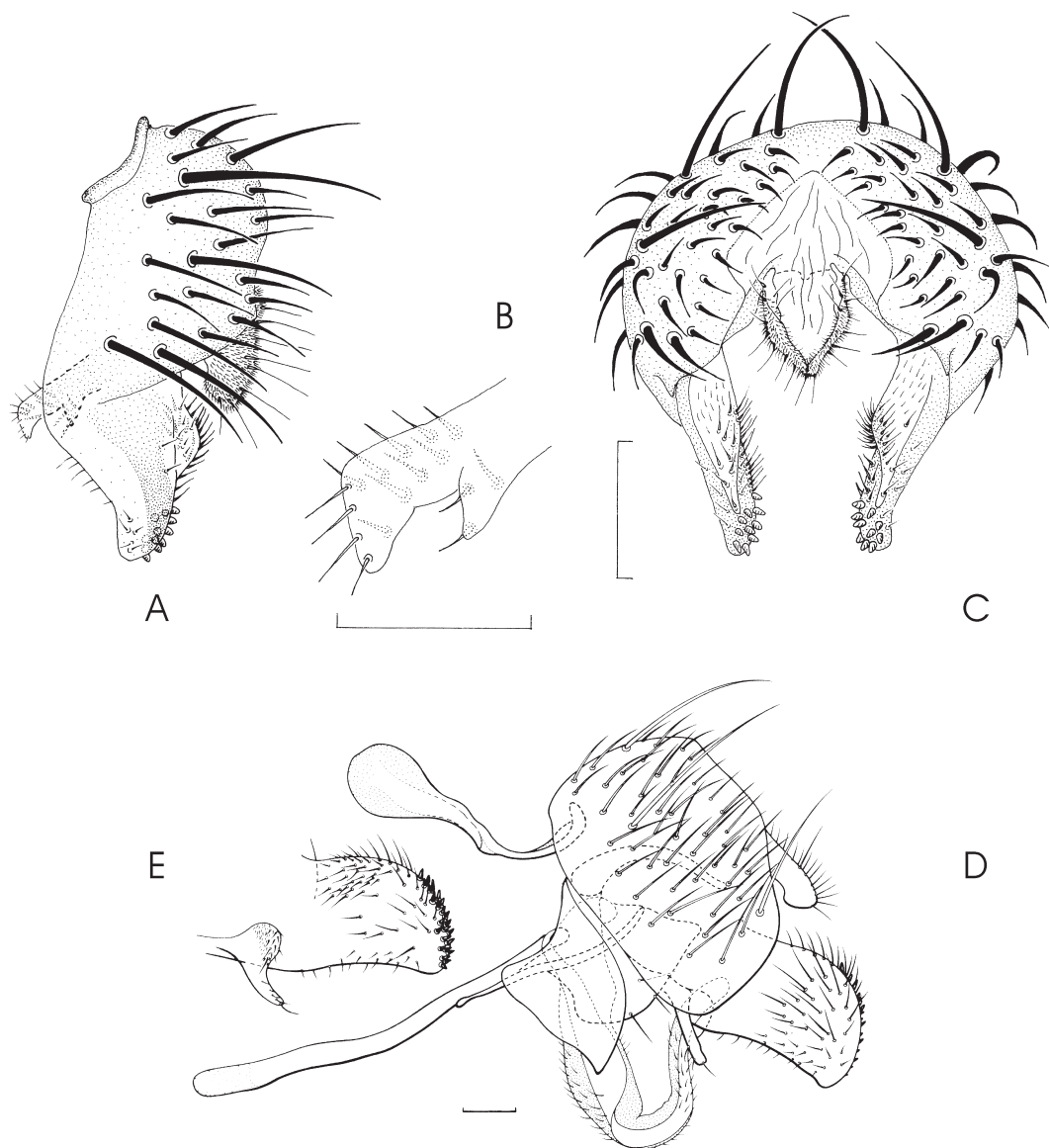


Fig. 6. Male terminalia of the two other *Dasyrhicnoessa* species with spotted abdomen. – A–C. *Dasyrhicnoessa adelpha* Munari (after Munari 2005). – A. Lateral view. B. Apical part of the anterior surstylus. C. Caudal view. – Scale bars A, C = 0.1 mm; B = 0.05 mm. – D–E. *Dasyrhicnoessa tripunctata* Sasakawa (after Sasakawa 1995, as *D. phylloides*, syn.). – D. Lateral view. E. Anterior and posterior surstyli, inner view. – N.B. The length of the scale bar (0.1 mm) in Sasakawa's figures is obviously incorrect, as in this species the surstylus, from its external base to the apex, is approximately 0.1 mm long. Sasakawa's figures reproduced herein maintain the incorrect scale bar as in the original).

Remarks

I have noticed in the male specimens from Sumuna (Dyaul Is.) a slightly different outline of the

surstylus with respect to most of the individuals of this species (Fig. 6D–E). The surstylus is less stumpy and, therefore, slightly more slender and sinuous than the specimens from other localities

of the distribution area. In all probability, that is merely due to geographic variation. Also, 17 ♀♀ from the above locality have been tentatively determined as *D. tripunctata/celata*, it not being possible to discriminate between the females of these two species when they are found in the same place (also see discussion in the Remarks section under *D. celata* **sp. nov.**).

***Dasyrhicnoessa vockerothi* Hardy and Delfinado, 1980**

Material examined:

Bismarck Islands, Dyaul, Sumuna, 4.iii.1962, Noona Dan Exp. 61-62, 2 ♂♂.

Distribution

Afrotropical: Seychelles (Aldabra, Mahé). **Australasian/Oceanian:** Australia (New South Wales, North Territory, Queensland), Bismarck Islands (Dyaul) (**new**); Caroline Islands (Truk, Palau), Gilbert Islands, Hawaii (Hawaii, Hilo, Kauai, Maui, Molokai, Oahu), Mariana Islands (Guam, Saipan), Marshall Islands, ?New Caledonia, Papua New Guinea, Wake Island. **Oriental:** Japan (Ryukyus), Malaysia (Sarawak), Philippines, Sri Lanka.

Remarks

Species very common throughout the huge Indo-Pacific area.

***Dasyrhicnoessa* sp.**

Material examined:

Bismarck Isl., Dyaul, Sumuna, 4.iii.1962, Noona Dan Exp. 61-62, 1 ♀.

Diagnosis

This species differs from congeners mainly by the following combination of characters: body length: 2.38 mm; species mostly bright yellow; head with patches laterad to ocelli reduced to weak, darkening impressions; antenna with scapus and pedicel yellow, postpedicel black; longest diameter of eye 6.2 times as long as genal height; acrostichal setulae arranged in 6 rows near mesonotal suture; acrostichal prescutellars

long; legs entirely yellow, including apical tarsomeres; forefemur with a long ctenidial comb of tiny spinulae; wing crossvein *r-m* ending at less than one-third of the length of cell *dm*; abdomen mostly bright yellow, except for tergites 3–6 bearing T-shaped, brown patches medially.

Description

Size. Body length: 2.38 mm; wing length: 1.63 mm.

Habitus. Small fly with head, body, and legs almost entirely bright yellow; wings pale grey; setal vestiture black.

Head. Entirely yellow, with usual patches laterad to ocelli reduced to weak, darkening impressions; 2-3 laterocliniate frontorbital setae; 3 strong interfrontal setulae, intermixed with tiny setulae; antenna with scapus and pedicel yellow, postpedicel black, bearing fairly long-haired arista (this character state is scarcely discernible due to widespread greasiness of the antenna); 5 peristomal setae, including strong vibrissa; eye large, vertically slightly oblong, its longest diameter 6.2 times as long as genal height.

Thorax. Yellow, except for some brown areas of mesonotum; acrostichal setulae arranged in 6 rows near mesonotal suture; acrostichal prescutellars long; 3 postpronotal setae, posterior seta distinctly longer; 2 postalar setae, outer seta longer and stronger. Legs entirely yellow, including apical tarsomeres; evenly setulose, bearing several long, strong setulae, except for forefemur also bearing some long postero-dorsal and postero-ventral setae, and a long ctenidial comb of tiny spinulae. Wing crossvein *r-m* ending at less than one-third of the length of cell *dm*.

Abdomen. Mostly bright yellow, except for tergites 3–6 bearing T-shaped, brown patches medially; postabdominal tergites with long, postero-marginal setae.

Male. Unknown.

Distribution

Dyaul Island (Bismarck Archipelago).

Biology

Probably a thalassobiont species strictly associated to mangrove swamps.

Remarks

This species is not named herein because only one female is known. It possibly belongs to the *ciliata*-group (Munari 2004). The most distinctive character state in this species is the colour of the antennal postpedicellum, which is distinctly piceous.

***Pseudorhinoessa spinipes* Malloch, 1914**

Material examined:

Bismarck Islands (Noona Dan Exp. 61-62): Hermit, Luf, 26.vi.1962, 8 ♂♂ 3 ♀♀; Duke of York, Manuan, 18.vii.1962, 1 ♂; Manus, Lorengau, 14.vi.1962; 8 ♀♀; *ibidem*, 24.vi.1962, 1 ♂ 6 ♀♀; Dyaul, Sumuna, 4.iii.1962, 2 ♂♂ 7 ♀♀; Lavongai, Banatam, 18.iii.1962, 35 ♂♂ 36 ♀♀. Philippines, Balabac, Dalawan Bay, 9.x.1961, Noona Dan Exp. 61-62, 1 ♂. Thailand: Krabi Prov., Krabi area, 27.ii-9.iii.1989, Stig Andersen, 1 ♂.

Distribution

Australasian/Oceanian: Australia (North Territory, Queensland), Bismarck Islands (Duke of York, Dyaul, Hermit, Lavongai, Manus) (**new**), Caroline Islands (Palau, Tobi, Yap), Mariana Islands (Guam, Saipan), Marshall Islands (Alu, Likiep, Majuro), Papua New Guinea. **Oriental:** Japan (Ryukyus), Malaysia (Sabah, Sarawak, Singapore), Philippines, Taiwan, Thailand, Vietnam.

Remarks

Males from Hermit Island (Bismarck archipelago) exhibit apical dark rings on the hind legs only, externally resembling, in this way, to *P. rattii* Munari, the vicariant species inhabiting the seashores of the western Indian Ocean and Sri Lanka.

Family **Australimyziidae** Griffiths, 1972***Australimyza australensis* (Mik, 1881)**

Material examined:

Campbell Is., St. L 406, 30.xii.1951, Galathea Eksp. 1950-52, 3 ♂♂ 1 ♀.

Distribution

Australasian/Oceanian: Antipodes Islands, Auckland Islands, Campbell Island, Chatam Island, New Zealand, The Snares.

Remarks

Species widely distributed on the small islands south of New Zealand.

ADDENDUM

Previously published records of Tethininae

Two other records of *Tethina* species collected by the Copenhagen Zoological Museum Expedition to Morocco were previously published by Munari (1997). In that paper the following species were recorded:

Tethina incisuralis (Macquart, 1851)

Morocco: Erfoud/Rissani area, 900 m, 13-14.iv.1989, 1 ♂ 1 ♀.

Tethina mariae Munari, 1997

Morocco: 40 km S Larache, 0-20 m, 23-24.iv.1989, 1 ♂ (holotype, ZMUC).

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