

# A new species of *Coenosia* Meigen, 1826 from the Seychelles Islands (Insecta, Diptera: Muscidae)

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**Abstract:** A new species, *Coenosia extincta* sp. nov., is described from a single male from Mahé, collected in 1892. It has not been found since then, and is now believed to be extinct.

**Keywords:** Diptera, Muscidae, *Coenosia*, Seychelles, new species

## Introduction

The recently published book on the entomology of the Seychelles (Gerlach 2009) includes a brief review of the family Muscidae by the present author (Pont 2009). At the time that this chapter was being prepared, a small amount of unidentified material was available from the Muséum National d'Histoire Naturelle, Paris (MNHN), which included one male of a small species of the muscid genus *Coenosia* Meigen, 1826. Further study has shown that this is in fact an undescribed species and that it has not been found since it was first collected by the French entomological explorer, Charles Alluaud, in 1892.

The fact that this species has not been collected since 1892, despite the relatively large amount of fieldwork carried out on Mahé Island in the Seychelles (see Gerlach 2009), suggests that it is no longer present on the island. The possibility that the specimen might have been mislabelled was also considered. However, the peculiar dark markings on the scutum and abdomen are unique and exclude the possibility that it might be one of the described mainland African species. The group of species to which it belongs, which Emden (1940) assigned to a separate genus *Caricea* Robineau-Desvoidy, 1830, is very speciose in the Afrotropical region but there are relatively few species described from the Palaearctic and Oriental regions. It is also the case that such a "*Limnophora*" type of black-and-grey scutal and abdominal pattern is found in Afrotropical species of a number of genera (especially *Helina* Robineau-Desvoidy, *Phaonia* Robineau-Desvoidy, *Hydrotaea* Robineau-Desvoidy, *Spilogona* Schnabl) and could justifiably be thought of as an Afrotropical regional colour pattern.

In view of the fact that this appears to be an endemic species that is no longer present on the Seychelles Archipelago, the species name *extincta* has been selected.

## *Coenosia extincta* sp. nov.

### Holotype

Male, SEYCHELLES: Mahé, 1892 (Ch. Alluaud), in MNHNP.

Alluaud (1893) collected on the Seychelles during March, April and May 1892, but no further details as to precise locality and date are present on the specimen labels.

### Description

Male. *Head*. Slightly shrivelled, but condition good. Ground-colour black. Frons broad, subparallel, just above lunula about as wide as an eye (in frontal view). Eye bare. Fronto-orbital plate whitish pruinose, silvery below; parafacial, face, gena and lower occiput silvery pruinose, rest of occiput light grey. Fronto-orbital plate narrow, at middle 1/3 width of frontal vitta at this point. Frontal triangle distinct, reaching to just below level of orbital seta. Only 1 vertical, very long. Upper post-ocular setulae in one row. Ocellar seta long, subequal to orbital seta. 3 pairs of inclinate frontal setae, with a fourth tiny pair at lunula; 1 pair of reclinate orbitals. Antennae dark brown, the articulation between pedicel and postpedicel orange; postpedicel moderate, twice as long as pedicel (frontal view), falling short of epistoma by half its own length, the anterior tip rounded and not produced into a point. Arista plumose in basal half, the longest combined hairing equal to length of postpedicel. Parafacial narrow, everywhere wider than diameter of anterior ocellus. Vibrissal angle behind level of profrons; vibrissae strong, crossed. Gena moderate, the depth below lowest eye-margin equal to width of postpedicel. Mentum of proboscis dark brown, glossy. Palpus dark brown. - *Thorax*. Ground-colour black. Scutum light grey dusted, with a black transverse postsutural band that is bordered anteriorly by the suture and posteriorly by the 2nd dorsocentral, and also extends laterally over post-alar callus; scutellum black, undusted; postpronotal lobes and pleura light grey dusted. Acrostichal setulae weak, in 2 rows at suture. Dorsocentrals 1+3. Postpronotal lobes with none of the setulae spinulose; inner seta minute. 1 postsutural intraalar. 2 proepisternal setae. Lower katepisternal shorter than anterior one. Scutellum with the usual apical and sub-basal lateral setae; disc sparsely setulose. - *Legs*. Mostly black; trochanters and knees yellow, tibiae brown. Tarsomeres not modified. Fore femur without anteroventrals, posteroventral row sparse, long. Fore tibia with a strong submedian posterior seta. Mid femur without anteroventrals, with 2 long fine posteroventrals in basal half; anterior surface with several setae in basal half; 1 anterior and 2 posterior preapicals. Mid tibia with 1 long anterodorsal and 1 short submedian posterior seta. Hind femur with 2 anteroventrals in apical half, and 2 posteroventrals; anterodorsal row complete; 0 dorsal and 2 posterodorsal preapicals. Hind tibia without posterodorsals or anteroventrals; 1 long anterodorsal and 1 slightly shorter anterior seta at the same level; with strong dorsal and anterodorsal preapical setae. - *Wing*. Clear, veins yellowish-brown. Tegula and basicosta yellow. Veins bare except for costa. Costal spine inconspicuous. Cross-vein r-m slightly beyond the point where  $R_1$  enters costa; cross-vein dm-cu straight. Vein  $A_1+CuA_2$  very short, not reaching halfway from its base to wing-margin. Calypters white; lower calypter long, projecting beyond upper one by almost length of upper one. Haltere yellow. - *Abdomen*. Ground-colour black, light grey dusted and with a *Limnophora*-like pattern of black markings as follows: syntergite 1+2 mostly black; tergites 3-5 each with a complete black median vitta; tergites 3 and 4 each

with a pair of large quadrate spots, separated from the median vitta and the fore-margin by dust; tergite 5 with a pair of paramedian spots occupying posterior half of tergite; sides of tergites light grey dusted. Visible post-abdominal tergites light grey dusted. Tergite 3 with a pair of strong lateral marginals; tergites 4 and 5 each with 2 pairs of strong marginals. Sternite 1 bare. - *Measurements*. Length of body, 3.0 mm. Length of wing, 2.5 mm.

### Differential diagnosis

A small species belonging to the *semifumosa*-group of Emden (1940: 234), but immediately distinguished by the black-and-grey, “*Limnophora*” pattern of markings on scutum and abdomen.

*Coenosia extincta* can be incorporated into the key to Seychelles Muscidae given by Pont (2009) by the following couplets:

- |     |  |                          |
|-----|--|--------------------------|
| 14. | Arista long plumose  | 14a                      |
|     | Arista almost bare   | 16                       |
| 14a | Hind tibia with 1 anterodorsal and 0 posterodorsal seta. Frons with only 1 pair of reclinate orbital setae | <i>Coenosia extincta</i> |
|     | Hind tibia with 2 anterodorsal and 2 posterodorsal setae. Frons with 2 pairs of reclinate orbital setae    | 15                       |

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