

**BLOW FLIES FROM NEW CALEDONIA, WITH
DESCRIPTION OF *ONESIA GONIDECI*, NEW
SPECIES (DIPTERA: CALLIPHORIDAE)^{1,2}**

By **Hiromu Kurahashi³** and **Pierre Fauran⁴**

Abstract. Sixteen species of the genera *Calliphora*, *Onesia*, *Lucilia*, *Chrysomya* and *Stomorrhina* are recorded from New Caledonia. Eleven species are new to the locality. *Onesia gonideci*, n. sp. is described and figured. *Calliphora melinda* and *C. noumea* are newly combined with the genus *Onesia*. The blow fly fauna of New Caledonia is characterized by the dominance of the Australian and endemic forms. All 17 New Caledonian species are keyed.

The calliphorid flies collected during our expedition to New Caledonia, 12-27 February, 1978 (Tokyo Medical and Dental University Overseas Scientific Research Project, 1977) were studied. We also had a chance to examine some specimens on loan from Bishop Museum, Honolulu, and ORSTOM, Noumea. Out of a total 826 specimens, 16 species were represented. One of these species is new to science and 11 are recorded from New Caledonia for the first time.

Curran (1929) described *Calliphora melinda* from New Caledonia, which we transfer herein to the genus *Onesia*, but we failed to find it during our survey. The pronounced dominance of the Australian and endemic forms, together consisting of 69% of the species, is characteristic of the blow fly fauna in New Caledonia. The Australian elements include *Onesia minuta* (Curran), *O. pubescens* (Macquart), *Chrysomya varipes* (Macquart), *Ch. saffraneae* (Bigot), and *Ch. sp. nr. megacephala* (Fabricius). The endemic species are *Calliphora augur neocaledonensis* Kurahashi, *Ca. dichromata* (Bigot), *Onesia noumea* (Curran), new comb., *O. melinda* (Curran), new comb., and a new species of *Onesia*. It is likely that these endemic elements originated from the Australian or Indo-Australian ancestral stocks within New Caledonia. The Indo-Australian elements (3 spp.) make up about 19% of the total blow fly fauna in New Caledonia.

Abbreviations for institutions housing specimens are as follows: Bishop Museum, Honolulu (BISHOP); Centre ORSTOM de Noumea (ORSTOM); Tokyo Medical & Dental University (TMDU); British Museum (Nat. Hist.), London (BMNH).

1. A grant-in-aid to the Tokyo Medical & Dental University Overseas Scientific Research Project 1977 from the Ministry of Education, Science and Culture of Japan.
2. Materials from Bishop Museum are the partial results of fieldwork supported by grants to the Museum from the U.S. National Institutes of Health (E1723, AI-01723).
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KEY TO THE SPECIES OF NEW CALEDONIAN CALLIPHORIDAE

1. Stem vein setulose above 2
 Stem vein bare subfam. Calliphorinae ... 3
2. Thoracic squama with hairs on dorsal surface; subcostal sclerite setulose; infra-alar bulla usually setulose (if bare, then metallic blue and yellow flies as in *Eucompsomyia* Malloch)
 subfamily Chrysomyinae, genus *Chrysomya* ... 12
 Thoracic squama bare above; subcostal sclerite with fine pubescence; infra-alar bulla bare
 subfamily Rhiniinae, genus *Stomorhina* ... 16
3. Thoracic squama more or less hairy on upper surface tribe Calliphorini ... 4
 Thoracic squama quite bare tribe Luciliini, genus *Lucilia* ... 10
4. Abdomen honey yellow almost entirely, or on at least sides and venter
 genus *Calliphora* (*Paracalliphora*) ... 5
 Abdomen submetallic bronzy or metallic blue, more or less densely covered with gray dusting which is sometimes conspicuously tessellated genus *Onesia* ... 6
5. Scutellum reddish; abdomen almost entirely reddish, not tessellated, usually with metallic disc narrow **Calliphora dichromata**
 Scutellum metallic; abdomen largely metallic on disc; presutural *ac* 2, the posterior pair distinctly proximated of a transverse line drawn between the posterior pair of *dc*; 5th tergite entirely brown or almost so; sternopleura in ♂ clothed with both yellow and black hairs
 **Calliphora augur neocaledonensis**
6. Epaulet black; squamae fuscous; prothoracic spiracle fuscous, sometimes brownish on lower portion 7
 Epaulet brownish; squamae yellow or pale brown; prothoracic spiracle yellowish 8
7. Antennae almost entirely blackish except for joint of 2nd and 3rd segments; postgena with black and yellow hairs; no discal bristle developed on scutellum in ♀ **Onesia gonideci, n. sp.**
 Antennae reddish orange, darkened apically; postgena almost entirely covered with yellowish orange hairs; 1 discal bristle well developed on scutellum in ♂ and ♀; length 8.0-9.5 mm ..
 **Onesia noumea, n. comb.**
8. *Ia* 1+2; postgena with yellow hairs; antennae more or less darkened apically; ♂ frons narrow; eyes separated at narrowest point by a distance less than the width of ocellar triangle; length 5.0-6.0 mm **Onesia pubescens**
Ia 1+3; postgena largely covered with black hairs; antennae reddish orange; eyes separated at narrowest point by a distance distinctly more than the width of ocellar triangle 9
9. Male frons index 0.13; eyes at narrowest point separated by a distance almost 2× as wide as ocellar triangle; length 3.5 mm **Onesia minuta**
 Eyes in ♂ slightly more than the width of ocellar triangle; length 4.5 mm
 **Onesia melinda, n. comb.**
10. Basicosta yellow; subcostal sclerite pubescent 11
 Basicosta black; subcostal sclerite with setulose hairs apically **Lucilia calviceps**
11. Male abdomen elongate, somewhat arched in profile; sternites with tufts of long hairs; hypopygium prominent; ♀ body coppery, with dense pruinosity; occiput bearing only 1 occipital hair on each side **Lucilia cuprina**
 Male abdomen more or less oval, not arched in profile; sternites without tuft of long hairs; hypopygium inconspicuous; ♀ body green, sometimes golden, with sparse pruinosity; occiput bearing 5-8 hairs on each side **Lucilia sericata**
12. Prothoracic spiracle white 13
 Prothoracic spiracle fuscous 14
13. Legs metallic black; parafacialia fuscous, densely silver-dusted; wings hyaline in ♂ and ♀; fore femur in ♂ with no conspicuous white hairs **Chrysomya albiceps ruffacies**
 Legs testaceous yellow in part; parafacialia orange, densely yellow-dusted; fore femur in ♂ with dense erect hairs on dorsal $\frac{2}{3}$ **Chrysomya varipes**
14. Lower $\frac{1}{2}$ of alar squama white, with white hairs; epistomal margin with black setulae; jowls covered with yellowish hairs; body metallic green or dark blue 15

- Lower ½ of alar squama whitish, with fuscous black hairs; epistomal margin usually without black setulae; jowls with bright orange hairs; body usually dark blue **Chrysomya saffranae**
15. Body stout but rather elongate, submetallic dark blue; thoracic squama largely blackish; vibrissaria, medianae and facialia with black hairs **Chrysomya sp. nr megacephala**
Body stout and rounded, metallic green, thoracic squama largely brownish; vibrissaria, medianae and facialia only with yellow hairs **Chrysomya megacephala**
16. R_5 petiolate; h 2–3; sternopleura densely dusted; thoracic squama lobulate
. **Stomorhina xanthogaster**
 R_5 open in the margin; h 1; thoracic squama not lobulate, the inner margin diverging from the scutellum **Stomorhina discolor**

Calliphora (Paracalliphora) dichromata (Bigot)

Phumosa dichromata Bigot, 1887, Bull. Soc. Zool. Fr. **12**: 612.

Calliphora (Neopollenia) dichromata: Bezzi, 1927, Bull. Entomol. Res. **17**: 244.

Calliphora (Paracalliphora) dichromata: Kurahashi, 1971, Pac. Insects **13**: 176.

Length: 7.5–9.5 mm.

Specimens examined. NEW CALEDONIA: 10♂, 16♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 3♂, 8♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, 24.II.1978, Kurahashi (TMDU); 19♂, 13♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 12♂, 60♀, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU); 8♀, Col d'Amieu, 20 km SW of Canala, 20.II.1978, Kurahashi (TMDU); 5♂, 13♀, La Tontouta, 26.VIII.1955 (ORSTOM); 1♀, Forêt de Thi, Noumea, 8.II.1957 (ORSTOM); 3♂, 9♀, Sarramea, 19.XII.1967 (TMDU); 3♀, Yahoue, 2.XII.1965, 16.II.1967 (ORSTOM); 1♂, 1♀, Sarramea, VI.1968, malaise trap (ORSTOM); 1♂, Poya, IV.1966 (ORSTOM).

Bionomics. Adults are attracted to decaying meat and cow dung.

Distribution. New Caledonia.

Calliphora (Paracalliphora) augur neocaledonensis Kurahashi

Calliphora (Paracalliphora) augur neocaledonensis Kurahashi, 1971, Pac. Insects **13**: 179.

Calliphora centralis: Curran, 1929, Am. Mus. Novit. **375**: 7 (misidentification).

Length: 7.0–9.0 mm.

Specimens examined. NEW CALEDONIA: 5♂, 6♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Kurahashi (TMDU); 1♀, Trouver, habitation IFO, X.1966 (ORSTOM); 1♀, Montagne des Sourecs, Fauchaye, 30.XII.1963 (ORSTOM). ILE DES PINS: 1♀, Kuto, 14.XII.1955 (ORSTOM).

Bionomics. Adults are attracted to decaying meat.

Distribution. New Caledonia and Ile des Pins.

Onesia gonideci Kurahashi & Fauran, **new species**

FIG. 1

♂. *Head*: eyes bare, separated at narrowest point by slightly less than the width of ocellar triangle; frons index 0.04; frontal stripe blackish, widened anteriorly and posteriorly, reduced to a fine line at narrowest point; parafrontalia narrow, dark gray dusted, with black setulae, provided with about 10 pairs of *ori* and several fine interstitials; parafacialia dark gray, blackish setulose above; face black, dark gray

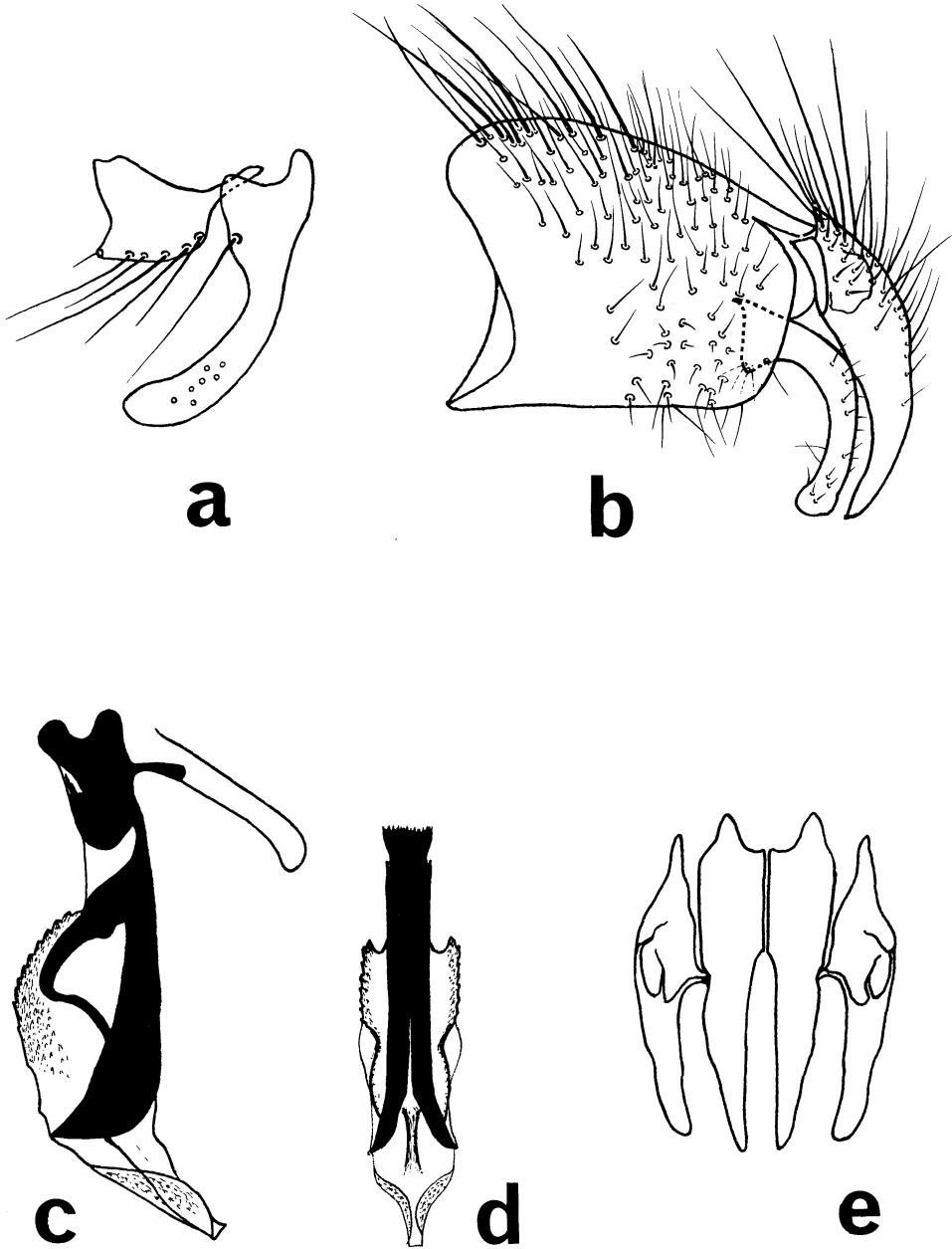


FIG. 1. *Onesia gonideci*, ♂ hypopygium: a, anterior and posterior parameres, lateral view; b, epandrium, cercus and paralobus, lateral view; c, aedeagus, lateral view; d, aedeagus without basal portion, posterior view; e, cerci and paralobi, caudal view.

dusted, with a trace of median carina at base of antennae; facialia fuscous brown, setulose on lower $\frac{1}{2}$; medianae and vibrissaria brown; vibrissae well developed; jowls and postgenae black, dark gray dusted, clothed with black hairs, but postgenae with yellow hairs posteriorly; occiput concolorous with jowls, clothed with blackish hairs except for yellow ones on central portion; antennae fuscous, reddish on bases of 3rd segment ventrally, the 3rd segment $3\times$ as long as 2nd; arista blackish, long plumose on basal $\frac{2}{3}$; palpi light brown. *Thorax*: black, with bluish tinge, rather densely covered with brownish gray dusting; scutellum, humeri and postalar calli concolorous with scutum; prosternum and propleura setulose; supraspiracular convexity bare; prothoracic and metathoracic spiracles fuscous, prothoracic one sometimes brownish on lower $\frac{1}{2}$; pleurotergite with patch of black setulae; postalar declivity with tuft of black hairs in central portion; tympanic tuft not developed, only a few black hairs are present; suprasquamal ridge bare except for a few black setulae on anterior parasquamal area. Chaetotaxy: *ac* 2+3, *dc* 3+3, *ia* 1+3, *h* 3, *ph* 3, *prs* 1, *sa* 3, *pa* 2, *st* 2+1, *sc* 4+1, prostigmatal and propleural bristles developed. *Wings*: hyaline, with brown tinge basally; veins brown; epaulet blackish; basicosta yellow; subcostal sclerite brown, pubescent; node of 2nd and 3rd longitudinal veins with several black setulae above and below; 4th longitudinal vein bent with distinct obtuse angle, section of the 4th vein from bend to wing edge slightly inflexed; squamae entirely fuscous; thoracic one lobulated, with fuscous brown hairs on upper surface. Halteres brown. *Legs*: black, with blackish hairs; front tibia with 1 *p* and 4–5 short *ad*; mid tibia with 1 long and 1 short *ad*, 2 *pd* and 1 *v*; hind tibia with 2 *ad*, 2 *pd* and 2 *av*. *Abdomen*: metallic blue, gray dusted, clothed with black hairs; tergites 4–5 with a row of marginal bristles; tergite 5 with several fine bristles on disc; hypopygium small, as shown in FIG. 1.

♀. *Head*: eyes separated at vertex by a distance equal to 0.27–0.31 of head width; frontal stripe black, reddish anteriorly, slightly narrowed posteriorly, slightly more than $2\times$ the width of 1 of parafrontalia just in front of anterior ocellus; parafrontalia provided with ca 10 pairs of *ori*; *ors* 2+1; *oc* developed; *acoc* absent; *ov* and *iv* well developed; *pod* convergent; *occ* 1. *Legs*: mid tibia with 2 strong *ad*; hind tibia with 2 *ad*, 2 *pd* and 2 *av*, and with several additional short *ad* and *pd*. *Abdomen*: metallic blue, whitish gray dusted; tergite 3 with decumbent marginals on lateral sides; tergite 4 with a row of decumbent marginals. Ovipositor short. Otherwise same as for ♂.

Length: 3.5–7.0 mm.

Holotype ♂, NEW CALEDONIA: Col d'Amieu, 20 km SW of Canala, 20.II.1978, H. Kurahashi. Paratypes: NEW CALEDONIA: 3 ♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Kurahashi; 2 ♂, Col des Roussettes, 450–550 m, 4–6.II.1963, mallee trap, J.L. Gressitt, C. Yoshimoto & N. Krauss. Holotype and several paratypes are preserved in the National Science Museum, Tokyo. Other paratypes are in the Museum National d'Histoire Naturelle, Paris and the Bishop Museum, Honolulu.

The specific name is dedicated to Dr George Le Gonidec, Director, Institut Pasteur de Noumea, who kindly helped our survey in New Caledonia.

Onesia noumea (Curran), new combination

Calliphora noumea Curran, 1929, Am. Mus. Novit. 375: 7.

Length: 7.0–10.5 mm.

Specimens examined. NEW CALEDONIA: 4 ♂, 1 ♀, Col d'Amieu, 20 km SW of Canala, 20.II.1978, Kurahashi (TMDU); 2 ♂, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 5 ♂, 1 ♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Shinonaga, Kurahashi & Shima (TMDU); 2 ♂, Mt Nekando, 25.V.1914, P.D. Montague (BMNH 1918-87); 8 ♂, 9 ♀, in mts up Boulair Riv, light trap, 3–4.XI.1958, C.R. Joyce (BISHOP); 2 ♀, above Plum, 29.X.1958, Joyce (BISHOP); 2 ♂, 14 ♀, Plaine des Lacs, 30.X.1958, Joyce (BISHOP); 2 ♂, 7 ♀, Col des Roussettes, 300 m & 450–550 m, ex fresh human

excrement, 4-6.II.1963, Yoshimoto & Krauss (BISHOP); 1♂, Forêt de Thi, 29.X-1.XI.1967, J. & M. Sedlacek (BISHOP); 1♀, Noumea, 10.IX.1940, FXW (BISHOP); 1♀, Yahoue, 27.VIII.1940, FXW (BISHOP); 1♀, Mts des Koghis, 400-600 m, I.1969, Krauss (BISHOP); 6♂, 1♀, Insectes recoltés à la montagne des sources, 15.II.1956, 21.II.1958, J. Rageau (ORSTOM).

Bionomics. Adults are usually found along mountain streams, especially on rocks and stones in streams.

Distribution. New Caledonia.

Onesia pubescens (Macquart)

Calliphora pubescens Macquart, 1851, Mem. Soc. Sci. Agric. Lille (1850): 134-282.

Onesia pubescens: James & Kurahashi, 1976, Steenstrupia 4: 20.

This is the first record of this species from New Caledonia.

Length: 5.0-6.0 mm.

Specimens examined. LOYALTY IS: 3♂, Lifou I, We, 30-31.I.1962, Krauss (BISHOP); 1♂, E Lifou I, Cap des Pins, 18.XI.1949-18.I.1950 (BMNH). NEW CALEDONIA: 1♀, Beach nr La Foa, 19.XI.1958, C.R. Joyce (BISHOP); 1♀, Noumea, 28.V.1940, FXW (BISHOP).

Bionomics. Unknown.

Distribution. New Caledonia, Loyalty Is, Australia, and Bismarck Arch. (James & Kurahashi 1976).

Onesia minuta (Curran)

Melinda minuta Curran, 1929, Am. Mus. Novit. 375: 9.

Onesia minuta: James & Kurahashi, 1976, Steenstrupia 4: 20.

Length: 3.5 mm.

Specimens examined. NEW CALEDONIA: 1♀, Sarramea, 12.II.1963, malaise trap, Yoshimoto & Krauss (BISHOP); 9♂, Thio, 11.IX.1958, Joyce (BISHOP); 2♂, Tao, 8.X.1963, malaise trap, Yoshimoto & Krauss (BISHOP); 15♂, Noumea, Anse Vata, IFO, 20-30.X.1958, 20.X.1967, Sedlacek & Joyce (BISHOP); 5♂, 2♀, Noumea, Anse Vata, IFO, 1.IV.1958, J. Rageau (ORSTOM); 2♂, Noumea, 20.II.1963, light trap, Yoshimoto & Krauss (BISHOP); 1♂, Noumea, 15.V.1945, H.E. Milliron (BISHOP); 1♂, Noumea, V.1950, Krauss (BISHOP); 1♀, beach nr La Foa, 28.XI.1958, Joyce (BISHOP); 24♂, Dumbea Riv, 28.X.1958, Joyce (BISHOP); 1♂, Poindimié, 26.XI.1958, Joyce (BISHOP); 1♂, Tiare, VI.1956, Krauss (BISHOP); 5♂, locality ?, 4.V.1965, I.1968, light trap and malaise trap (ORSTOM); 2♀, Yate, 22.VI.1956 (ORSTOM); 1♀, Pueblo Coast, 1500 m, 12-21.IX.1949, L.E. Cheesman (BMNH 1950-1).

Bionomics. Unknown.

Distribution. New Caledonia and Bismarck Arch. (James & Kurahashi 1976).

Onesia melinda (Curran), **new combination**

Calliphora melinda Curran, 1929, Am. Mus. Novit. **375**: 8.

No available material.

Length: 4.5 mm.

Bionomics. Unknown.

Distribution. New Caledonia.

Lucilia calviceps Bezzi

FIG. 2

Lucilia calviceps Bezzi, 1927, Bull. Entomol. Res. **17**: 238.—James, 1971, Pac. Insects **13**: 7.

Aubertin (1933) considered *L. calviceps* to be a synonym of *L. papuensis* Macquart. James (1971a) tentatively treated these 2 forms as separate taxa because of a definite distributional pattern. We follow James' treatment in the present paper. According to our material, this form closely resembles *L. bazini hainanensis* from Hainan I, China and may be included in the subspecies complex of *L. bazini* in a future study. *L. calviceps* is distinguished from *L. papuensis* by the less-produced frons and narrow parafacialia and sometimes by the strongly basicostally infuscated wings. Male genitalia characteristics as shown in FIG. 2.

Length: 7.0–10.5 mm.

Specimens examined. NEW CALEDONIA: 1♂, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU); 4♂, 3♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 3♂, 7♀, Col de Petchecara, 15 km W of Thio, 25.II.1978, Kurahashi & Shinonaga (TMDU); 13♀, Thio, 50 km E of Noumea, 18.II.1978, Shima & Kurahashi (TMDU); 1♂, 8♀, Col d'Amieu, 20 km SW of Canala, 7.VII.1955 (ORSTOM), 20.II.1978, Kurahashi (TMDU); 1♂, La Tontouta, 26.VIII.1955, J. Rageau (ORSTOM); 3♂, 3♀, Forêt de Thi, 8.II.1957 (ORSTOM); 1♀, light trap, 5.V.1965 (ORSTOM); 3♂, 2♀, Canala, 17.V.1956 (ORSTOM). LOYALTY IS: 2♂, 2♀, Lifou I, We, 30–31.I.1962, 16–18.II.1963, Yoshimoto & Krauss (BISHOP).

Bionomics. Adults frequent dead animals in forests.

Distribution. New Caledonia, Loyalty Is, New Hebrides (Bezzi 1927), New Ireland, New Britain and New Guinea (James 1971a).

Lucilia cuprina (Wiedemann)

Musca cuprina Wiedemann, 1830, Auss. Zweifl. Insekten **2**: 654.

Length: 5.0–10.0 mm.

Specimens examined. NEW CALEDONIA: 2♂, 2♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 1♀, Noumea, 26.II.1976 (ORSTOM).

Bionomics. Adults are found around garbage in dumps. No investigations have been done on the general biology in New Caledonia.

Distribution. Widely distributed in the temperate and tropical zones of the world.

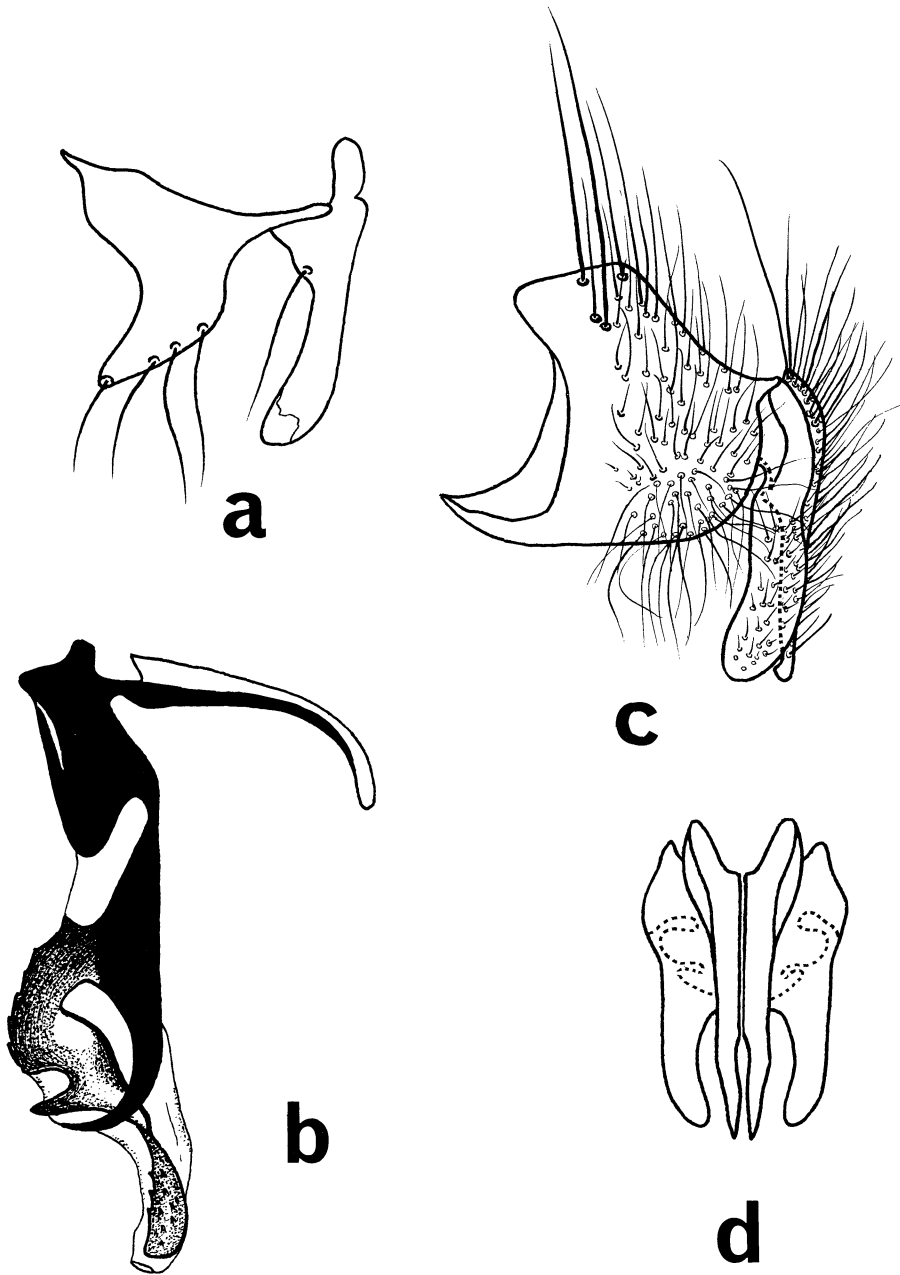


FIG. 2. *Lucilia calviceps*, ♂ hypopygium: a, anterior and posterior parameres, lateral view; b, aedeagus, lateral view; c, epandrium, cercus and parolobus, lateral view; d, cerci and paralobi, caudal view.

Lucilia sericata (Meigen)

Musca sericata Meigen, 1826, Syst. Besch. 5: 53.

Length: 5.0–10.0 mm.

Specimens examined. NEW CALEDONIA: ILES CHESTERFIELD: 1 ♀, IX.1957, F. Cahic (BISHOP).

Bionomics. No investigations have been done on the general biology in New Caledonia.

Distribution. Cosmopolitan except for tropical regions.

Chrysomya albiceps ruffacies Macquart

Lucilia ruffacies Macquart, 1843, Mem. Soc. Sci. Agric. Lille (1842): 303 (1843: 146).

Length: 7.0–10.0 mm.

Specimens examined. NEW CALEDONIA: 1 ♂, 12 ♀, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU); 3 ♂, 2 ♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 2 ♂, 2 ♀, Hienghene to Bourail, 23.II.1978, Kurahashi (TMDU); 7 ♂, 3 ♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, 25.II.1978, Kurahashi (TMDU); 2 ♀, Col d'Amieu, 20 km SW of Canala, 20.II.1978, Kurahashi (TMDU); 1 ♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 1 ♀, Mata-utu, Wallis I, 26.X.1958, Rageau (ORSTOM); 1 ♂, 3 ♀, La Tontouta, 26.VIII.1955, Rageau (ORSTOM); 1 ♂, 2 ♀, light trap, 5.V.1965 (ORSTOM); 1 ♂, 4 ♀, Canala, 17.V.1956 (ORSTOM); 1 ♂, Plaine des Lacs, 13.III.1959 (ORSTOM); 2 ♀, Forêt de Thi, 8.II.1957 (ORSTOM); 1 ♀, Noumea, Anse Vata, 13–15.V.1955, Rageau (ORSTOM).

Bionomics. Larvae are predacious and attack other larvae of Calliphoridae, Sarcophagidae and Muscidae found in the same breeding place. *Ch. a. ruffacies* is known to be involved in secondary myiasis and may even be a primary cause under certain circumstances.

Distribution. Widely distributed in the Oriental and Australasian regions.

Chrysomya varipes (Macquart)

Lucilia varipes Macquart, 1850, Dipt. Exot., Suppl. 4: 259.

Length: 4.0–6.5 mm.

Specimens examined. NEW CALEDONIA: 9 ♂, 7 ♀, Hienghene to Bourail, 23.II.1978, Kurahashi (TMDU); 3 ♂, 3 ♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 1 ♂, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 2 ♂, Col d'Amieu, 20 km SW of Canala, 20.II.1978, Kurahashi (TMDU); 12 ♂, 8 ♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Kurahashi, 25.II.1978, Shima & Kurahashi (TMDU); 4 ♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 3 ♀, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU); 1 ♂, Noumea, Anse Vata, 13.V.1955 (ORSTOM); 1 ♀, light trap, 5.V.1965 (ORSTOM).

Bionomics. Adults are commonly found in forests and are attracted to decaying meat.

Distribution. New Caledonia, New Guinea (James 1971b), Fiji, Australia (Queensland: Bezzi 1927; New South Wales: Malloch 1927).

Chrysomya saffrana (Bigot)

Somomya saffrana Bigot, 1877, Ann. Soc. Entomol. Fr. (1877): 257.

Somomya micropogon Bigot, 1887, Bull. Soc. Zool. Fr. (1887): 601.

Chrysomya mallochii Theowald, 1959, Nova Guinea **10**: 95.

Length: 8.0–10.5 mm.

Specimens examined. NEW CALEDONIA: 13♂, 18♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 2♂, 8♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Kurahashi (TMDU); 1♂, 7♀, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU); 7♂, 8♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 11♂, 16♀, Col d'Amieu, 20 km SW of Canala, 1.VI.1955, 20.II.1978, Kurahashi (TMDU, ORSTOM); 1♂, 2♀, Hienghene to Bourail, 23.II.1978, Kurahashi (TMDU); 2♂, 1♀, Plaine des Lacs, 13.III.1954 (ORSTOM); 3♀, Col d'Amieu, 1.VI.1955 (ORSTOM).

Bionomics. Unknown.

Distribution. New Caledonia, New Guinea (James 1971b) and Australia (Queensland: Bezzi 1927, Malloch 1927; New South Wales: Malloch 1927).

Chrysomya sp. nr **megacephala** (Fabricius)

This species is probably new to science, but we refrain from describing it because no males are available.

Length: 8.5–10.0 mm.

Specimens examined. NEW CALEDONIA: 2♀, Yate, 50 km E of Noumea, 17.II.1978, Kurahashi (TMDU).

Bionomics. Adults are found in forests.

Distribution. New Caledonia.

Chrysomya megacephala (Fabricius)

Musca megacephala Fabricius, 1794, Entomol. Syst. **4**: 317.

Length: 10.0 mm.

Specimens examined. NEW CALEDONIA: 2♂, 2♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, Kurahashi (TMDU); 12♂, 6♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 6♂, 4♀, Hienghene to Bourail, 23.II.1978, Kurahashi (TMDU); 1♂, 3♀, Hienghene, 21–22.II.1978, Kurahashi (TMDU); 3♂, 3♀, Fauchage, IFO, 18.VI.1964 (ORSTOM); 5♂, light trap, 5.V.1965 (ORSTOM); 2♂, Canala, 17.V.1956 (ORSTOM); 1♀, Plaine des Lacs, 13.III.1959 (ORSTOM); 1♀, Ouen Toro, 2.XII.1962 (ORSTOM); 1♀, Col d'Amieu, 1.VI.1955 (ORSTOM).

Bionomics. This is a common scavenger and sometimes produces myiasis of man and domestic animals. Adults are commonly found on garbage in dumps.

Distribution. Widely distributed in the Oriental and Australasian regions.

***Stomorhina xanthogaster* (Wiedemann)**

Idia xanthogaster Wiedemann, 1820, Nova Dipt. Gen.: 21.

One male and 1 female specimen from the Loyalty Is have a submetallic fuscous abdomen which seems to be somewhat different from that of Oriental typical specimens. Male genitalia also show some differences from typical ones. These specimens may be treated as a new subspecies or species in a future study.

Length: 8.0–9.0 mm.

Specimens examined. LOYALTY IS: 1♂, 1♀, Lifou I, We, II.1962, Krauss (BISHOP). NEW CALEDONIA: 1♀, Forêt de Thi, Noumea, 8.II.1957 (ORSTOM).

Bionomics. Unknown.

Distribution. New Caledonia and Loyalty Is, Oriental and Australasian, from Nepal to New Hebrides and Australia (Queensland and Northern Territory: Dear 1977).

***Stomorhina discolor* (Fabricius)**

Musca discolor Fabricius, 1794, Entomol. Syst. 4: 320.

Length: 5.5–7.0 mm.

Specimens examined. NEW CALEDONIA: 80♂, 1♀, Hienghene to Bourail, 23.II.1978, Shinonaga & Kurahashi (TMDU); 2♂, 2♀, Col d'Amieu, 20 km SW of Canala, 20.II.1978, Shinonaga (TMDU); 5♂, 1♀, Col de Petchecara, 15 km W of Thio, 19.II.1978, 25.II.1978, Kurahashi & Shinonaga (TMDU); 1♂, 1♀, Thio, 50 km E of Noumea, 18.II.1978, Kurahashi (TMDU); 1♀, Yahoue, 5.VIII.1965 (ORSTOM); 1♂, light trap, IV.1965 (ORSTOM); 1♂, Noumea, III.1958, P. Hogt (ORSTOM).

Bionomics. Adults are on the wing throughout the year in Australia (Dear 1977). Larvae seem to be predacious. We observed a female that deposited eggs on a rearing vessel where house flies were breeding; the hatched larvae grew and attacked the house fly larvae in the vessel. Several adults emerged.

Distribution. Widely distributed in the Oriental, Australasian and Pacific regions, from Sri Lanka to Marquesas Is and Australia (Queensland and New South Wales: Dear 1977), and New Caledonia.

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