The Types of Lygistorrhinidae and Mycetophilidae (Diptera: Bibionomorpha) in the KwaZulu-Natal Museum, Pietermaritzburg, South Africa

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Source: African Invertebrates, 53(2) : 703-714

Published By: KwaZulu-Natal Museum

URL: https://doi.org/10.5733/afin.053.0215
The types of Lygistorrhinidae and Mycetophilidae (Diptera: Bibionomorpha) in the KwaZulu-Natal Museum, Pietermaritzburg, South Africa

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ABSTRACT

An annotated list of the type specimens of Lygistorrhinidae and Mycetophilidae (Diptera: Bibionomorpha) at the KwaZulu-Natal Museum, Pietermaritzburg, South Africa is provided. Information on 54 type specimens, three lygistorrhinids and 51 mycetophilids, with details of labels and actual preservation of the specimens is furnished. Locality data are georeferenced and habitus images of type specimens are provided.

KEY WORDS: Fungus gnats, Lygistorrhinidae, Mycetophilidae, nomenclature, taxonomy, types.

INTRODUCTION

The Lygistorrhinidae (long-beaked fungus gnats) constitute a small family of Mycetophiliformia (*sensu* Amorim & Rindal 2007), which is widely distributed in tropical and subtropical regions. It now contains eight extant genera and about 32 or 33 species (Vockeroth 2009; Pape et al. 2011). The placement of some genera from Cretaceous amber in Lygistorrhinidae is still debatable (Blagoderov & Grimaldi 2004; Hippa et al. 2005), but the monophyly of the family including only the Recent species has not been questioned (Matile 1997; Grimaldi & Blagoderov 2001; Hippa & Vilkamaa 2005).

The fungus gnat family Mycetophilidae *s.s.* is one of the largest and most diversified families of Bibionomorpha, which fossil record extends back to the Jurassic (Evenhuis 1994; Amorim & Silva 2002). The family now contains approximately 180 extant genera and almost 4500 species world-wide (Pape et al. 2011). Although the monophyly of the Mycetophilidae is a consensus (Søli 1997; Rindal et al. 2009), a robust phylogeny of this family is still to be provided.

The present paper provides a list of type specimens of Lygistorrhinidae and Mycetophilidae housed in the collection of the KwaZulu-Natal Museum (NMSA, Pietermaritzburg, South Africa), following a recommendation of the International Code of Zoological Nomenclature (ICZN 1999: 72F.4).

MATERIAL AND METHODS

The list given below is arranged in the alphabetical order of genus and species. Label data are given in double quotation marks, with placement hierarchy (from top to bottom) of the label on the pin or slide being noted in round brackets. In case of handwriting on labels, the handwritten text is reproduced in italics; printed text on labels is reproduced in regular font. For the sake of clarity, additions to some of the original information of labels, such as abbreviated collecting dates and incomplete localities,
are given in square brackets. All specimen localities were georeferenced following the point-radius method (Wieczorek et al. 2004; Chapman & Wieczorek 2006), using the MaNIS Georeferencing Calculator April 2011 version (Regents of the University of California 2011).

**TYPE LIST**

**Family Lygistorrhinidae Edwards, 1925**

*Lygistorrhina sanctaecatharinae* Thompson, 1975

Fig. 1

*Lygistorrhina sanctaecatharinae*: Thompson 1975: 442, figs 1–3 (head), figs 4–6 (thorax, head, antenna), figs 7–14 (♂ & ♀ terminalia). Type locality: United States, Georgia, Liberty County.

Paratypes (NMSA type no. 1866): 3♂ (first two labels are same for all three specimens) (1) printed on white paper: “USA, Georgia: | Liberty Co., St. [Saint] | Catherines Island [31.7106°N 81.2624°W, uncertainty 3.3 km] | April 24–28, 1972 [24–28.iv.1972] | Thompson & Picchi”; (2) printed on yellow paper: “PARATYPE | Lygistorrhina | sanctaecatharinae | Thompson 1973”.

Identification: (3) printed on white paper: “NMSA-Dip. 11277”; exemplar glued on a paper triangle; missing parts: none. (3) printed on white paper: “NMSA-Dip. 11308”; exemplar glued on a paper triangle; missing parts: none. (3) printed on white paper: “NMSA-Dip. 11266”; exemplar glued on a paper triangle; missing parts: none.

Distribution: United States (West Virginia, Virginia, North Carolina, Georgia).

*Family Mycetophilidae Newman, 1834*

*Dinempheria enigmata* Väisänen, 1994

Fig. 2

*Dinempheria enigmata*: Väisänen 1994: 14, figs 1–3 (head, thorax, wing); figs 4–9 (♂ terminalia). Type locality: South Africa, Mpumalanga.

Holotype (NMSA type no. 2155): ♂ (1) printed on white paper: “S. AFRICA: E. Transvaal [South Africa: Mpumalanga] | 9 Km nw. Sabie 2530BB | Bridal Veil Falls [25.0828°S 30.7249°E, uncertainty 0.75 km] | XII 3, 1976. R. Miller [3.xii.1976]”; (2) printed with handwriting on white paper: “Dinempheria ♂ | enigmata n.sp. | det. R. Väisänen 1992”; (3) printed with handwriting on red paper: “Holotypus ♂ | Dinempheria | enigmata n.sp. | Väisänen”; (4) printed on white paper: “NMSA-Dip. 11312”.

Preservation: Exemplar glued on paper triangle, terminalia retained in glycerine, left wing damaged on distal half, abdomen and one leg glued on paper triangle; missing parts: right wing, left leg I, and legs III.

Paratype (NMSA type no. 2155): ♀ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal [KwaZulu-Natal] | Cathedral Peak area [28°57'S 29°12'E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Dinempheria ♀ | enigmata n.sp. | det. R. Väisänen”; (3) printed on yellow paper: “PARATYPE ♀”; (4) printed on white paper: “NMSA-Dip. 11301”.

Preservation: Pinned exemplar; missing parts: right legs I and II tarsi, right leg III.

Distribution: South Africa (Mpumalanga).

*Dziedzickia peckorum* Matile, 1992

Fig. 3

*Dziedzickia peckorum*: Matile 1992: 195, figs 9, 10 (♂ terminalia). Type locality: South Africa, KwaZulu-Natal, Karkloof range near Mount Alida.

Paratype (NMSA type no. 1952): ♂ (1) printed on blue paper: “REP AFR. SUD, NATAL | 75 KM WSW ESTCOURT | CATHEDRAL PEAKS [Cathedral Peak]”; (2) printed on blue paper: “FOR STA. [Forest
Station, 29.0333°S 29.2500°E, uncertainty 0.148 km] 1760 M. | 21-31-XII-1979 [21–31.xii.1979] | S. & J. PECK”; (3) printed on red paper: “PARATYPE”; (4) printed with handwriting: “Dziedzickia peckorum n.sp. | ♂ paratype | L. Matile det. 1991”; (5) printed on white paper: “NMSA-DIP 66399”.

Preservation: Pinned exemplar; missing parts: right leg III, right II tarsi, four terminal segments.

Paratype (NMSA type no. 1952): ♀ (1) printed on blue paper: “REP AFR. SUD. NATAL | 75 KM WSW ESTCOURT | CATHEDRAL PEAKS [Cathedral Peak]”; (2) printed on blue paper: “FOR STA. [Cathedral Peak Forest Station, 29.0333°S 29.2500°E, uncertainty 0.148 km] 1760 M. [21-31-XII-1979 [21–31.xii.1979]] S. & J. PECK”; (3) printed on red paper: “PARATYPE”; (4) printed with handwriting: “Dziedzickia peckorum n.sp. | ♀ paratype | L. Matile det. 1991”; (5) printed on white paper: “NMSA-DIP 66400”.

Preservation: Pinned exemplar; missing parts: legs II.

Distribution: South Africa (KwaZulu-Natal).
Dziedzickia stuckenbergorum Matile, 1992

Fig. 4

*Dziedzickia stuckenbergorum*: Matile 1992: 197, fig. 11 (♂ terminalia). Type locality: South Africa, KwaZulu-Natal, Karkloof range near Mount Alida.

Holotype (NMSA type no. 1951): ♂ (1) printed with handwriting on white paper: “19.XI.63 [19.xi.1963] | Geelie’s Farm | Benvie Farm, 29°15’30”S 30°20’40”E, uncertainty 4 km | 1500 m.”; (2) printed on white paper: “Karkloof range | nr. Mt Alida [near Mount Alida] | Natal [KwaZulu-Natal], S. Africa [South Africa] | B. & P. Stuckenberg”; (3) printed on red paper: “HOLOTYPE”; (4) printed with handwriting on white paper: “Dziedzickia | stuckenbergorum | n.sp. ♂ holotype | L. Matile det. 1991”; (5) printed on white paper: “NMSA-Dip. 11280”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: none.

Distribution: South Africa (KwaZulu-Natal).

Leia arsona Hutson, 1978

Fig. 5

*Leia arsona*: Hutson 1978: 123. Type locality: South Africa, Eastern Cape, Grahamstown.

Holotype (NMSA type no. 2149): ♂ (1) printed on white paper circle with red edges: “Holo- type”; (2) printed with handwriting on white paper: “Grahamstown [33.2970°S 26.5474°E, uncertainty 4 km] | South Africa | 1-x-1953 [1.x.1953] | B. Stuckenberg”; (3) printed with handwriting on white paper: “HOLOTYPE ♂ | Leia | arsona Hutson | det. A.M. Hutson, 1977.”; (4) printed on white paper: “NMSA-Dip. 11310”.

Preservation: Pinned exemplar; missing parts: right leg III.

Paratype (NMSA type no. 2149): ♂ (1) printed on white paper circle with yellow edges: “Para- type”; (2) printed with handwriting on white paper: “Grahamstown [33.2970°S 26.5474°E, uncertainty 4 km] | South Africa | 1-x-1953 [1.x.1953] | B. Stuckenberg”; (3) printed with handwriting on white paper: “PARATYPE ♂ | Leia | arsona Hutson | det. A.M. Hutson, 1977.”; (4) printed on white paper: “NMSA-Dip. 11321”.

Preservation: Pinned exemplar, abdomen glued on the micropin; missing parts: right leg III.

Paratype (NMSA type no. 2149): ♀ (1) printed on white paper circle with yellow edges: “Para- type”; (2) printed with handwriting on white paper: “Grahamstown [33.2970°S 26.5474°E, uncertainty 4 km] | South Africa | 24-x-1953 [24.x.1953] | B. Stuckenberg”; (3) printed with handwriting on white paper: “PARATYPE ♀ | Leia | arsona Hutson | det. A.M. Hutson, 1977.”; (4) printed on white paper: “NMSA-Dip. 11311”.

Preservation: Pinned exemplar; missing parts: none.

Distribution: South Africa (Eastern Cape), Kenya, Saint Helena. Widely introduced in Europe, in Mediterranean region as well as in New Zealand (Chandler & Ribeiro 1995; Chandler & Gatt 2000; Chandler 1994; Toft & Chandler 2004; Chandler & Pijnakker 2009; Väisänen 1984).

Manota natalensis Jaschhof & Mostovski, 2006

Fig. 6

*Manota natalensis*: Jaschhof & Mostovski 2006: 238, figs 1–3 (♂ & ♀ terminalia). Type locality: South Africa, KwaZulu-Natal, Karkloof Nature Reserve.

Holotype (NMSA type no. 1953): ♂ (1) printed on white paper: “det. M. JASCHHOF | Manota natalensis | JASCH. & MOST., male”; (2) printed on red paper circle: “Holo- type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: | Pietermaritzburg, Karkloof Nat. Res. [Karkloof Nature Reserve] | (29.19.1’S 30.15.5’E) [29°19’1”S 30°15’5”E, uncertainty 0.246 km]; | 1325m; mistbelt forest; | 24 Nov.-18 Dec. 2005 [24.xi–18.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”; (4) printed on white paper: “NMSA-Dip. 66401”.

Preservation: On one slide, with terminalia and right wing separate on the slide; missing parts: three right terminal flagellar segments.
Paratypes (NMSA type no. 1953): 3♂ (1) printed on white paper: “det. M. JASCHHOF | Manota natalensis | JASCH. & MOST., male”; (2) printed on yellow paper circle: “Para- | type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: | Pietermaritzburg, Karkloof Nat. Res. [Karkloof Nature Reserve] | (29.19.1S 30.15.5E) [29°19.1'S 30°15.5'E, uncertainty 0.246 km]; | 1325m; mistbelt forest; | 24 Nov.-18 Dec. 2005 [24.xi–18.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”.

Identification: (4) printed on white paper: “NMSA-Dip. 66402”; on one slide, with terminalia, left leg II and left wing separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66403”; on one slide, with head, antenna, all right legs, right wing and terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66404”; on one slide, with terminalia separate on the slide, distal edge of both wings damaged; missing parts: none.
Paratype (NMSA type no. 1953): ♀ (1) printed on white paper: “det. M. JASCHHOF | Manota natalensis | JASCH. & MOST., female”; (2) printed on yellow paper circle: “Para- type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: Pietermaritzburg, Karkloof Nat. Res. [Karkloof Nature Reserve] | (29.19.1S 30.15.5E) [29°19.1'S 30°15.5'E, uncertainty 0.246 km]; | 1325m; mistbelt forest; | 24 Nov.-18 Dec. 2005 [24.xi–18.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”; (4) printed on white paper: “NMSA-Dip. 66405”.

Preservation: On one slide, with left leg I, left antenna, left wing and terminalia separate on the slide; missing parts: none.

Paratypes (NMSA type no. 1953): 3 ♂ (1) printed on white paper: “det. M. JASCHHOF | Manota natalensis | JASCH. & MOST., male”; (2) printed on yellow paper circle: “Para- type”; (3) RSA [South Africa]: KwaZulu-Natal: Northern Drakensberg, Royal Natal | Nat. [National] Park, Gudu Forest | (28.40.9S 28.55.8E) [28°40.9'S 28°55.8'E, uncertainty 0.245 km]; 1680-1730m; | old growth indigenous forest; | 28 Nov.-13 Dec. 2005 [28.xi–13.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”.

Identification: (4) printed on white paper: “NMSA-Dip. 66406”; on one slide, with abdomen and both wings separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66407”; on one slide, with head, antennae, both wings and terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66408”; on one slide, with terminalia separate on the slide; missing parts: none.

Paratype (NMSA type no. 1953): ♂ (1) printed on white paper: “det. M. JASCHHOF | Manota natalensis | JASCH. & MOST., male”; (2) printed on yellow paper circle: “Para- type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: Central Drakensberg, Cathedral | Peak Nat. Res. [Nature Reserve], Rainbow Gorge | (28.57.6S 29.13.6E) [28°57.6'S 29°13.6'E, uncertainty 0.246 km]; 1500m; | old-growth indigenous forest; | 3-5 Dec. 2005 [3–5.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”.

(4) printed on white paper: “NMSA-Dip. 66409”.

Preservation: On one slide, with terminalia separate on the slide; missing parts: none.

Distribution: South Africa (KwaZulu-Natal).

**Manota whiteleyi** Jaschhof & Mostovski, 2006

*Fig. 7*

*Manota whiteleyi*: Jaschhof & Mostovski 2006: 240, figs 4, 5 (♂ terminalia), Type locality: South Africa, KwaZulu-Natal, Ramsgate.

Holotype (NMSA type no. 1954): ♂ (1) printed on white paper: “det. M. JASCHHOF / MOST#7 | Manota whiteleyi | JASCH. & MOST., male”; (2) printed on red paper circle: “Holo- type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: Ramsgate Butterfly Sanctuary | (30.53.3S 30.20.4E) [30°53.1'S 30°20.4'E, uncertainty 0.244 km]; | 45m; | indigenous forest patch near | stream; 3-26 Feb 2005 [3–26.i.2005]; | Malaise trap; M. MOSTOVSKI”; (4) printed on white paper: “NMSA-Dip. 66410”.

Preservation: On one slide, with left legs, head and antennae separate on the slide; missing parts: none.

Paratypes (NMSA type no. 1954): 3 ♂ (1) printed on white paper: “det. M. JASCHHOF / MOST#7 | Manota whiteleyi | JASCH. & MOST., male”; (2) printed on yellow paper circle: “Para- type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: Ramsgate Butterfly Sanctuary | (30.53.3S 30.20.4E) [30°53.1'S 30°20.4'E, uncertainty 0.244 km]; | 45m; | indigenous forest patch near | stream; 3-26 Feb 2005 [3–26.ii.2005]; | Malaise trap; M. MOSTOVSKI”.

Identification: (4) printed on white paper: “NMSA-Dip. 666412”; on one slide, with terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66413”; on one slide, with right wing and terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66414”; on one slide, with left legs, left wing and terminalia separate on the slide; missing parts: none.

Paratype: ♀ (1) printed on white paper: “det. M. JASCHHOF / MOST#7 | Manota whiteleyi | JASCH. & MOST., female”; (2) printed on yellow paper circle: “Para- type”; (3) printed on white paper: “RSA
OLIVEIRA & MULLER: TYPES OF LYGISTORRHINIDAE & MYCETOPHILIDAE

[South Africa]: KwaZulu-Natal; Ramsgate Butterfly Sanctuary | (30°53.3S 30°20.4E) [30°53.1’S 30°20.4’E, uncertainty 0.244 km]; | 45m; | indigenous forest patch near | stream; | 3-26 Feb 2005 [3–26.ii.2005]; | Malaise trap; M. MOSTOVSKI”; (4) printed on white paper: “NMSA-Dip. 66415”.

Preservation: On one slide, with right wing separate on slide; missing parts: right leg I.

Paratype (NMSA type no. 1954): ♂ (1) printed on white paper: “det. M. JASCHHOF / MOST#3 | Manota whiteleyi | JASCH. & MOST., male”; (2) printed on yellow paper circle: “Para- | type”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal; Ramsgate Butterfly Sanctuary | (30°53.3S 30°20.4E) [30°53.1’S 30°20.4’E, uncertainty 0.244 km]; | 45m; | indigenous forest patch near | stream; 9 Jan-2 Feb 2005 [9.i–2. ii.2005]; | Malaise trap; M. MOSTOVSKI”; (4) printed on white paper: “NMSA-Dip. 66411”.

Preservation: On one slide, with left legs, left wing and terminalia separate on the slide; missing parts: none.

Distribution: South Africa (KwaZulu-Natal).

Mycomya edra Väisänen, 1994

Fig. 8

Mycomya edra: Väisänen 1994: 20, fi gs 28–37 (♂ & ♀ terminalia). Type locality: South Africa, KwaZulu-Natal, Cathedral Peak.

Holotype (NMSA type no. 2152): ♂ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal | KwaZulu-Natal | Cathedral Peak area [28°57’S 29°12’E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Mycomya ♂ | edra n.sp. | det. R. Väisänen 1992”; (3) handwritten on red paper: “HOLOTYPE | Mycomya | edra | Väisänen”; (4) printed on white paper: “NMSA-Dip. 11270”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: right leg II tibia and tarsi.

Paratypes (NMSA type no. 2152): 2 ♂ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal | Cathedral Peak area [28°57’S 29°12’E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Mycomya ♂ | edra n.sp. | det. R. Väisänen 1992”; (3) printed on yellow paper: “PARATYPE ♂”.

Identification: (4) printed on white paper: “NMSA-Dip. 11293”; pinned exemplar, terminalia retained in glycerine; missing parts: head, right leg II and legs III. (4) printed on white paper: “NMSA-Dip. 59083”; pinned exemplar, terminalia retained in glycerine; missing parts: right III tarsi and left III.

Paratypes (NMSA type no. 2152): 6 ♀ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal | Cathedral Peak area [28°57’S 29°12’E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Mycomya ♀ | edra n.sp. | det. R. Väisänen 1992”; (3) printed on yellow paper: “PARATYPE ♀”.

Identification: (4) printed on white paper: “NMSA-Dip. 59084”; pinned exemplar, terminalia retained in glycerine; missing parts: none. (4) printed on white paper: “NMSA-Dip. 59085”; pinned exemplar; missing parts: right I tarsi 3 to 5, left II tarsi 2 to 5 and left III tibia and tarsi. (4) printed on white paper: “NMSA-Dip. 59086”; pinned exemplar; missing parts: right flagellar segments. (4) printed on white paper: “NMSA-Dip. 59087”; pinned exemplar, terminalia retained in glycerine; missing parts: right legs I and II. (4) printed on white paper: “NMSA-Dip. 59088”; pinned exemplar, terminalia retained in glycerine; missing parts: left flagellar segments, left I and right II and left III tibia and tarsi. (4) printed on white paper: “NMSA-Dip. 59089”; pinned exemplar, terminalia retained in glycerine, abdomen glued to micropin foam; missing parts: apical right flagellar segments and all legs.

Distribution: South Africa (KwaZulu-Natal).
Mycomya londti Väisänen, 1994

Fig. 9

Mycomya londti: Väisänen 1994: 18, figs 22–27 (♂ terminalia). Type locality: South Africa, KwaZulu-Natal, Cathedral Peak.

Holotype (NMSA type no. 2150): ♂ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal [KwaZulu-Natal] | Cathedral Peak area [28°57’S 29°12’E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Mycomya ♂ | londti n.sp. | det. R. Väisänen 1992”; (3) handwritten on red paper: “HOLOTYPE | Mycomya | londti | Väisänen”; (4) printed on white paper: “NMSA-Dip. 11340”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: legs I, all other legs have missing tarsi.

Paratype (NMSA type no. 2150): ♀ (1) printed with handwriting on white paper: “SOUTH AFRICA: Natal [KwaZulu-Natal] | Cathedral Peak area [28°57’S 29°12’E, uncertainty 2.46 km] | 2829Cc 16–18.XII.1977 | JGH Londt”; (2) printed with handwriting on white paper: “Mycomya ♀ | londti n.sp. | det. R. Väisänen 1992”; (3) printed on yellow paper: “PARATYPE ♀”; (4) printed on white paper: “NMSA-Dip. 11302”.

Preservation: Pinned exemplar; missing parts: antenna, right I tibia and tarsi, and right III tarsi.

Distribution: South Africa (KwaZulu-Natal).

Mycomya natalensis Väisänen, 1994

Fig. 10

Mycomya natalensis: Väisänen 1994: 16, figs 10–19 (♂ terminalia). Type locality: South Africa, KwaZulu-Natal, Sunwich Port.

Holotype (NMSA type no. 2151): ♂ (1) printed on white paper: “Sunwich Port [Sunwich Port, Port Shepstone, 30.6596°S 30.5083°E, uncertainty 0.8 km] | NAT. [KwaZulu-Natal] X.1951”; (2) printed on white paper: “30.35S–30.32E [30°35’S 30°32’E, uncertainty 3.44 km]”; (3) printed with handwriting on white paper: “Mycomya ♂ | natalensis n.sp. | det. R. Väisänen 1992”; (4) handwritten on red paper: “HOLOTYPE ♂”; (5) printed on white paper: “NMSA-Dip. 11278”.

Preservation: Pinned exemplar, terminalia retained in glycerine, left wing damaged distally; missing parts: right leg I and legs II, all remaining legs have missing tarsi 2–4.

Distribution: South Africa (KwaZulu-Natal).

Mycomyiella irwini Väisänen, 1994

Fig. 11

Mycomyiella irwini: Väisänen 1994: 21, figs 38–42 (♂ terminalia). Type locality: South Africa, KwaZulu-Natal, Pietermaritzburg.

Holotype (NMSA type no. 2153): ♂ (1) printed with handwriting on white paper: “South Africa, Natal [KwaZulu-Natal] | Pietermaritzburg | Belfort [29.5540°S 30.3823°E, uncertainty 1.1 km] | 15.V.73 [15.v.1973] | ME Irwin; (2930Cb)”; (2) printed with handwriting on white paper: “Mycomyiella ♂ | irwini n.sp. | det. R. Väisänen 1992”; (3) handwritten on red paper: “HOLOTYPE | Mycomyiella | irwini | Väisänen”; (4) printed on white paper: “NMSA-Dip. 11258”.

Preservation: Exemplar glued on paper triangle, terminalia retained in glycerine; missing parts: right legs.

Paratype (NMSA type no. 2153): ♂ (1) printed on white paper: “SOUTH AFRICA: NATAL | Pietermaritzburg | Belfort [29.5540°S 30.3823°E, uncertainty 1.1 km] | XII.26-27.1977 [26–27.xii.1977], 2829CC | R.M. Miller. indigenous for [forest]”; (2) printed with handwriting on white paper: “Mycomyiella ♂ | irwini n.sp. 1992 | det R. Väisänen”; (3) printed on yellow paper: “PARATYPE ♂”; (4) printed on white paper: “NMSA-Dip. 11262”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: all legs.
Paratype (NMSA type no. 2153): ♂ (1) printed on white paper: “SOUTH AFRICA: NATAL [KwaZulu-Natal] | Cathedral Peak area [28°57'S 29°12'E, uncertainty 2.46 km] | XII.26-27.1977 [26–27.xii.1977]. 2829CC | R.M. Miller. indigenous | for [forest]”; (2) printed with handwriting on white paper: “Mycomyiella ♂ | irwini n.sp. 1992 | det R. Väisänen”; (3) printed on yellow paper: “PARATYPE ♂”; (4) printed on white paper: “NMSA-Dip. 59209”.

Preservation: Pinned exemplar; missing parts: none.

Distribution: South Africa (KwaZulu-Natal).
**Neoempheria transvaalensis** Väisänen, 1994

*Fig. 12*

*Neoempheria transvaalensis*: Väisänen 1994: 22, figs 43–47 (♂ terminalia). Type locality: South Africa, Mpumalanga, near Barberton.

Holotype (NMSA type no. 2154): ♂ (1) printed on white paper: “STH AFRICA [South Africa]: Transvaal [Mpumalanga] | 8 Km NW Barbeton on | Badplass Rd SE 2530 DD [R38 road, 25.7408°S 30.99923°E, uncertainty 2 km] | 6–8.iv.1985 J.Londt | Bushveld long grass”; (2) printed with handwriting on white paper: “Neoempheria ♂ transvaalensis n.sp. | det. R. Väisänen 1992”; (3) handwritten on red paper: “HOLOTYPE | Neoempheria | transvaalensis | Väisänen”; (4) printed on white paper: “NMSA-Dip. 11319”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: right III, left III tarsi 2–5.

Paratype (NMSA type no. 2154): ♂ (1) printed on white paper: “SOUTH AFRICA 2428CD | Transvaal [Limpopo] Nyl Rivier [River] | 8 Km SW of Nylstroom [Modimolle, 24.7608°S 28.3502°E, uncertainty 0.2 km] | 29–31.1.78 [29–31.i.1978] J.Londt | Bushveld near river | Malaise trap coll. ”; (2) printed with handwriting on white paper: “Neoempheria ♂ transvaalensis n.sp. | det. R. Väisänen 1992”; (3) printed on yellow paper: “PARATYPE ♂”; (4) printed on white paper: “NMSA-Dip. 11330”.

Preservation: Pinned exemplar, right III and abdomen glued on card; missing parts: right I and legs III.

Distribution: South Africa (Limpopo, Mpumalanga).

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**Paradoxa paradoxa** Jaschhof, 2006

*Fig. 13*

*Paradoxa paradoxa*: Jaschhof 2006: 230, figs 1–9 (♂ terminalia and ♀ flagellomeres). Type locality: South Africa, KwaZulu-Natal, Northern Drakensberg, Royal Natal National Park, Gudu Forest.

Holotype (NMSA type no. 1955): ♂ (1) printed on white paper: “det. M. JASCHHOF | Paradoxa paradoxa | JASCHHOF, male”; (2) printed on red paper circle: “Holotype”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: | Northern Drakensberg; Royal Natal | Nat. [National] Park, Gudu Forest | (28°40.9'S 28°55.8'E, uncertainty 0.245 km]; 1680-1730m; | old growth indigenous forest; | 28 Nov.-13 Dec. 2005 [28.xi–13.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”; (4) printed on white paper: “NMSA-Dip. 66416”.

Preservation: On one slide, with left legs, left wing and terminalia separate on the slide; missing parts: none.

Paratypes (NMSA type no. 1955): 3 ♂ (1) printed on white paper: “det. M. JASCHHOF | Paradoxa paradoxa | JASCHHOF, male”; (2) printed on yellow paper circle: “Paratype”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: | Northern Drakensberg; Royal Natal | Nat. [National] Park, Gudu Forest | (28°40.9’S 28°55.8’E, uncertainty 0.245 km]; 1680-1730m; | old growth indigenous forest; | 28 Nov.-13 Dec. 2005 [28.xi–13.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”.

Identification: (4) printed on white paper: “NMSA-Dip. 66417”; on one slide, with terminalia, left leg I, both legs II and wings separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66418”; on one slide, with head and terminalia separate on the slide; missing parts: left leg II. (4) printed on white paper: “NMSA-Dip. 66419”; on one slide, with left antenna, left wing and terminalia separate on the slide; missing parts: none.

Paratypes (NMSA type no. 1955): 5 ♀ (1) printed on white paper: “det. M. JASCHHOF | Paradoxa paradoxa | JASCHHOF, male”; (2) printed on yellow paper circle: “Paratype”; (3) printed on white paper: “RSA [South Africa]: KwaZulu-Natal: | Northern Drakensberg; Royal Natal | Nat. [National] Park, Gudu Forest | (28°40.9’S 28°55.8’E, uncertainty 0.245 km]; 1680-1730m; | old growth indigenous forest; | 28 Nov.-13 Dec. 2005 [28.xi–13.xii.2005]; Malaise trap; | M. MOSTOVSKI, M. & C. JASCHHOF”.

Identification: (4) printed on white paper: “NMSA-Dip. 66420”; on one slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66421”; on one slide, with ter-
minalia separate on the slide; missing parts: right leg III. (4) printed on white paper: “NMSA-Dip. 66422”; on one slide, with left legs, left wing and terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66423”; on one slide, with right legs, right wing, head and terminalia separate on the slide; missing parts: none. (4) printed on white paper: “NMSA-Dip. 66424”; on one slide, with abdomen, head, terminalia and both wings separate on the slide; missing parts: distal part of right wing missing.

Distribution: South Africa (KwaZulu-Natal).

Sciophila atrigaster Matile, 1979

Fig. 14

Sciophila atrigaster: Matile 1979: 269, figs 31, 32 (♂ terminalia). Type locality: Comoro Islands.

Paratype (NMSA type no. 2129): ♂ (1) printed on white paper: “Madagascar Nord | Montagne d’Ambre [Amber Mountain National Park, 12.5894°S 49.1652°E, uncertainty 14.8 km] 1000 m | dct Diégo-Suárez | 23.XI–4.XII.57 [23.xi–4.xii.1957] B. Stuckenberg”; (2) printed with handwriting on white paper: “Sciophila | atrigaster n.sp. | ♂ paratype | L. Matile det. 1976”; (3) printed on red paper: “PARATYPE”; (4) printed on white paper: “NMSA-Dip. 11261”.

Preservation: Pinned exemplar, terminalia retained in glycerine; missing parts: none.

Distribution: Comoro Islands, Madagascar.

ACKNOWLEDGEMENTS

The authors are deeply thankful to Peter Chandler (Melksham, UK) for the excellent insights, suggestions and criticisms on an early draft of the manuscript. We also thank Vladimir Blagoderov and an anonymous referee, who provided useful criticisms and suggestions on the manuscript. During the preparation of this paper, the first author received financial support from FAPESP grant 2008/52324-6.
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