

**A review of the genera *Anasillomos* Londt, 1983, *Oratostylum* Ricardo, 1925, and *Remotomyia* Londt, 1983, with description of a new genus and two new species
(Diptera: Asilidae: Stenopogoninae)**

by

Torsten Dikow¹ and Jason G. H. Londt²

(¹Mecklenburger Allee 6, 18109 Rostock, Germany; e-mail: torsten.dikow@stud.uni-rostock.de; ²Natal Museum, P. Bag 9070, Pietermaritzburg, 3200, South Africa; e-mail: jlondt@nmsa.org.za)

ABSTRACT

The afrotropical stenopogonine genera *Anasillomos* Londt, 1983, *Oratostylum* Ricardo, 1925, and *Remotomyia* Londt, 1983 are reviewed. A new genus, *Ontomyia*, is erected for *Oratostylum ricardo* Londt, 1985. Two new species are described in *Oratostylum*, *O. crenum* from Pilanesberg National Park and *O. zebra* from Mountain Zebra National Park, South Africa. Generic descriptions, and new keys to the genera and species of *Oratostylum* and *Remotomyia*, are provided. The distribution and seasonality of all species are discussed.

INTRODUCTION

A review of a distinct group of afrotropical genera within the Stenopogoninae, characterised by the presence of setose anatergites, is presented in this paper. *Anasillomos* Londt, 1983, *Oratostylum* Ricardo, 1925, and *Remotomyia* Londt, 1983 are distinguished from other stenopogonine genera with setose anatergites by the following set of character states: (1) possession of a two or three-segmented antennal style (only remnant of style in *Microstylum* Loew and *Daspletis* Loew), (2) the presence of occipital macrosetae (absent in *Dioctobroma* Hull and *Dogonia* Oldroyd), and (3) the basal postpronotal setae being almost always well-developed. *Oratostylum ricardo* Londt, 1985, is here shown to possess a number of character states which separate it from typical species of the genus, and so a new genus is established for it. A character matrix (Tables 1 & 2), including all examined species, is provided to supplement generic diagnoses. All species examined are known only from Southern Africa.

The taxonomic history of the genera treated in this paper may be briefly summarised as follows:

Ricardo (1925) – Erected *Oratostylum* with *lepidum* from ‘Matopos’, Zimbabwe, as the type species. She discussed the relationship between this genus and *Microstylum* Loew and *Daspletis* Loew.

Hull (1962) – Provided a detailed description of *Oratostylum* and drawings of antenna, palpus, wing, head, and female genitalia of the type species (*lepidum*).

Hull (1967) – Described *Daspletis albo**setatus* from the ‘Kaokoveld’, Namibia.

Oldroyd (1974) – Keyed *Daspletis albo**setatus*, giving the distribution as Namibia and Angola.

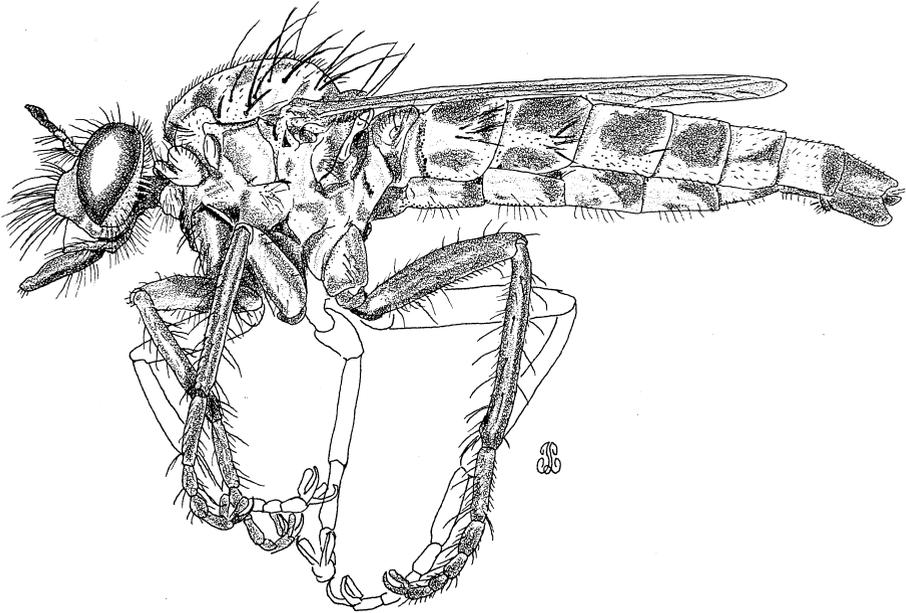


Fig. 1. Female of *Ontomyia ricardoï* (Londt, 1985).

Oldroyd (1980) – Listed *Oratostylum lepidum* (distribution Zimbabwe) and *Daspletis albosetatus* (distribution Namibia, Angolan distribution not mentioned).

Londt (1983) – Described the genera *Anasillomos* and *Remotomyia*. Monotypic *Anasillomos* was illustrated with figures of male terminalia, antenna, and head of *chrysopos*. *Remotomyia*, established for *Daspletis albosetatus* Hull, was described and three additional species added, *brunales*, *longipalpus* and *penrithae*. The male terminalia of all four species were illustrated. In addition, figures of the head and antenna were provided for the type species (*albosetatus*).

Londt (1985) – Described *Oratostylum ricardoï* from Namibia, providing drawings of the male terminalia.

MATERIAL AND METHODS

The majority of specimens studied are housed in the Natal Museum collection (NMSA). Other institutions providing material are listed below, together with the abbreviations used in the text when citing repositories and the names of people who kindly assisted.

- BMNH – The Natural History Museum, London, UK (J. Chainey)
- MZLU – Zoological Museum, University of Lund, Sweden (R. Danielsson)
- NMNW – National Museum of Namibia, Windhoek (E. Marais)
- SAMC – South African Museum, Cape Town, South Africa (M. Cochrane)

In recording label data for type material, a standard format is used, where information contained on each label is demarcated by use of single inverted commas, each line of data being separated by a slash (/). When recording data for other material, information is also given (where available) in a standard manner (place name, grid reference or co-

ordinates, altitude, date of collection with month indicated in roman numerals, collector, and additional information supplied). Square brackets are used to indicate useful additional information not found on labels. The repository is given in brackets after each entry.

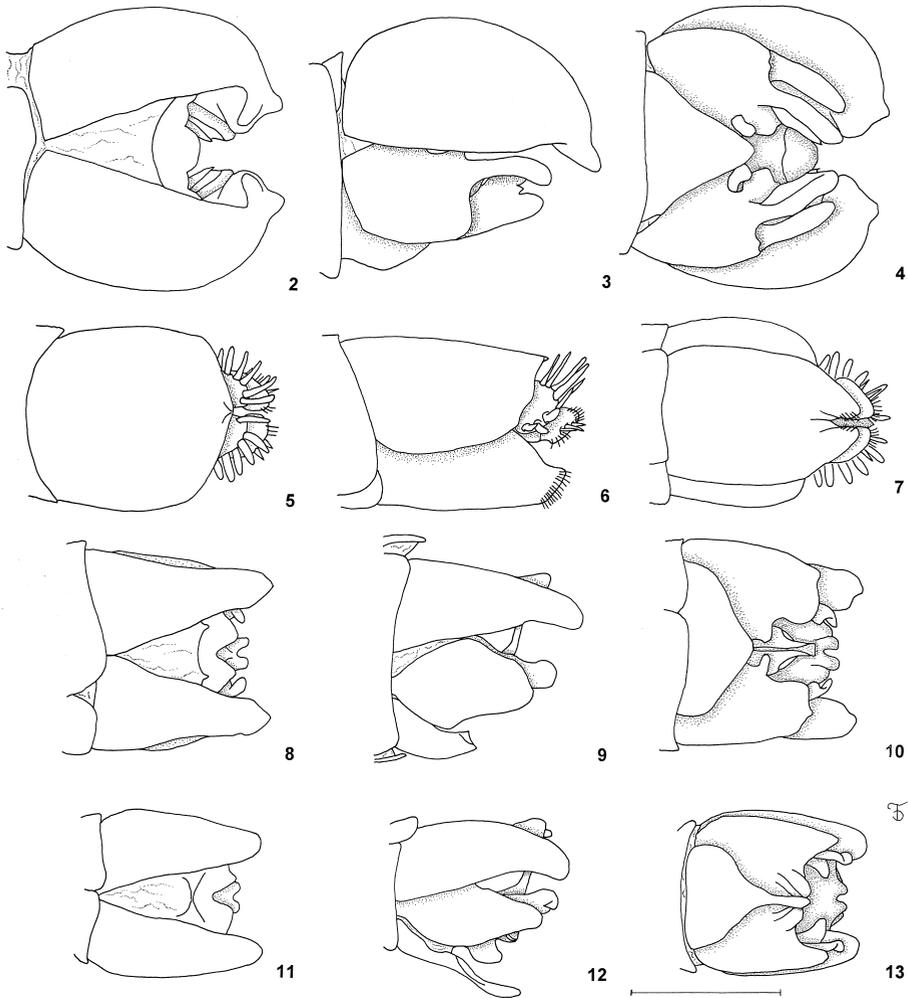
In all instances specimens were dry-mounted on pins. Drawings were made with the aid of a drawing tube, male genitalia being first excised and macerated in potassium hydroxide. Genitalia were stored temporarily in polyethylene genitalia vials, containing 70% ethanol, until the completion of the study when they were sealed in similar vials, containing a mixture of ethanol and glycerine, and attached to the specimen pins. General morphological terminology follows mainly that of McAlpine (1981) while terminology of the postpedicel follows Stuckenberg (1999). The antennal style is here considered to consist of two or three elements – one or two basal segments that are tipped with a third ‘seta-like’ sensory element (probably a remnant of the terminal segment of the style), which was called an ‘Endgriffel’ by Hennig (1972).

TAXONOMY

Key to genera of afrotropical Stenopogoninae with setose anatergites
(modified from that of Londt (1999) to include *Ontomyia* gen. n.)

- 1 Postpedicel (= third antennal segment) tipped with a small apical pit enclosing a ‘seta-like’ sensory element (remains of a style) 7
 - Postpedicel bearing a distinct style made up of two or three elements (including a terminal ‘seta-like’ sensory element); abdominal T1–4 with a group of strong dorsolateral macrosetae 2
- 2 Occiput with obvious macrosetae 4
 - Occiput lacking macrosetae (i.e. with weak setae only) 3
- 3 Eye:face width ratio <1.1:1; scape clearly longer than pedicel; hypandrium < half as long as epandrial lobes **Diocobroma** Hull
 - Eye:face width ratio >1.3:1; scape and pedicel about equal in length; hypandrium about as long as epandrial lobes **Dogonia** Oldroyd
- 4 Proepisternum with a few strong macrosetae as well as fine setae; pronotal and mesonotal macrosetae very strong (flies have bristly appearance)
 - **Anasilomos** Londt
 - Proepisternum with fine setae only (some may be stronger than others, but never as strong as mesonotal macrosetae) 5
- 5 Abdominal T1–4 with group of strong macrosetae dorsolaterally; antennal style consists of two elements (one small basal segment and a ‘seta-like’ sensory element Figs 17–18); ♂ genitalia bulbous; ♀ T7 and T8 of nearly equal length
 - **Ontomyia** gen. n.
 - Only abdominal T1 with group of strong macrosetae dorsolaterally; antennal style consists of three elements (two basal segments and a ‘seta-like’ sensory element Figs 15–16); ♂ genitalia slender, never bulbous; ♀ T8 distinctly shorter than T7 6
- 6 Facial swelling pronounced in lower and upper parts; pronotal setae only moderately developed; ♀ with T6–7 setae weak and erect, not projecting in a specific direction
 - **Oratostylum** Ricardo

- Facial swelling weak, only lower margin moderately pronounced; pronotal setae strong; ♀ T6-7 setae strong, projecting anteriorly **Remotomyia** Londt
- 7 Facial swelling occupying about three-quarters of face and entirely covered with macrosetae and setae; presutural dorsocentral setae well-developed; vein M_1 not strongly arched anteriorly; postmetacoxal membrane covered with long setae
Daspletis Loew
- Facial swelling occupying at most half of face and often with macrosetae only on lower half; dorsocentral setae present only on posterior half of mesonotum; vein M_1 usually strongly arched anteriorly; postmetacoxal membrane usually asetose
Microstylum Loew



Figs 2–13. 2–6. Terminalia of *Ontomyia ricardoii* (Londt, 1985). 2–4. Male. 2. Dorsal. 3. Lateral. 4. Ventral. 5–6. Female. 5. Dorsal. 6. Lateral. 7. Ventral. 8–10. Terminalia of male *Oratostylum crenum* sp. n. 8. Dorsal. 9. Lateral. 10. Ventral. 11–13. Terminalia of male *O. zebra* sp. n. 11. Dorsal. 12. Lateral. 13. Ventral. Scale line = 1mm.

Anasillomos Londt, 1983

Anasillomos Londt, 1983: 284; Type species: *Anasillomos chrysopos* Londt, 1983, by original designation.

Generic diagnosis (based on the original diagnosis of Londt 1983):

Antennal style with three elements (2 segments and a terminal seta-like element); postpedicel cylindrical, longer than scape and pedicel combined; palpi shorter than half length of proboscis; facial swelling pronounced on lower margin, moderately developed in upper part; proepisternum with strong macrosetae and weaker setae; pronotum with strong macrosetae; basal postpronotal setae well-developed and strong; 1–2 pairs of dorsocentral setae anterior of transverse suture; cell r_5 closed and stalked; cell m_3 narrowly open or just closed at wing margin; terga with median stripe apparently free of setae, laterally-situated setae directed posterolaterally; T6–7 of ♀ abdomen with setae strongly developed and anteriorly directed (directed posteriorly on T1–5); epandrial lobes long and curved.

Anasillomos chrysopos Londt, 1983: 284

(Fig. 19)

Material examined: BOTSWANA: 1♂ **holotype**, ‘Serowe [22°23’S 26°43’E]; Botswana / Forchhammer leg. / Date 29.8.1982 / J.No. / Day’ (NMSA); 2♂ **paratypes**, ‘Serowe; Botswana / Forchhammer leg. / Date 29.8.1982 / J.No. / Day’ (NMSA). NAMIBIA: 1♀ 1?, Windhoek, SE 2217Ca, 7–12.x.1973 (NMNW); 1♀, Windhoek, SE 2217Ca, 4–8.x.1973 (NMNW); 1? **paratype**, ‘SWA Namib Desert Park / Kuiseb R. nr. Gobabeb [23°32’S 15°00’E] / on dry river bed / 7.x.1976 A.B. Cunningham’ (NMSA); 1♀ **paratype**, ‘Sesriem 137 / Maltahoehe / SE2415Db / 15–17.ii.1973’ (NMSA); 2♂ **paratypes**, ‘Riverside 135 / Bethanien / SE2616Ca / 23–26.x.1971’ (NMSA); 1♂, Awasib, SE3615Ad, 9–10.xi.1971 (NMNW). SOUTH AFRICA: 1♀, Cape Province, 2km NE Carnarvon, 3022CC, 1350 m, 14.xi.1986, Londt & Quickelberge, flat scrubland (NMSA).

Anasillomos sp.

(Fig. 19)

Anasillomos is presently monotypic. One of us (TD) collected four females in southern Namibia, which are distinct from *A. chrysopos*. The lack of males decided us against describing the species. It is certain that more collecting in Botswana, Namibia, and western South Africa will provide additional specimens and probably increase the number of species. Apart from mapping the locality of these females in Fig. 19, no further reference to the material is made.

Material examined: NAMIBIA: 4♀, Karas Region, Ai-Ais Nature Reserve [27°30’S 17°50’E], NW of Grünau (road D601), 9.xii.1999, T. Dikow (NMSA).

Ontomyia gen. n.

Etymology: Gr. *Ontos* = that which has existence; *myia* = fly.

Type species: *Oratostylum ricardo* (Londt, 1985), **comb. n.**, by present designation.

Generic diagnosis:

Antennal style composed of 2 elements, one basal segment and a terminal ‘seta-like’

sensory element (Figs 17–18) (the length of the basal segment is variable, being neither cylindrical and distinct as in other mentioned genera nor merely a pit enclosing a ‘seta-like’ sensory element as in *Microstylum*); postpedicel as in Figs 17–18, longer than scape and pedicel combined; palpi less than half as long as proboscis, proboscis strong and long; facial swelling pronounced in lower and upper parts; proepisternal setae weak, pronotal setae well-developed and strong; basal postpronotal setae strong; dorsocentral setae well-developed, 2–4 pairs anterior of transverse suture; metathoracic coxae with row of 3–6 distinct macrosetae; cell r_5 open; cell m_3 closed with a short stalk; T1–4 with strong dorsolateral macrosetae (in groups of 2–6); T6–7 with weak and erect setae in ♀; T8 nearly as long as T7 in F; ♂ terminalia bulbous, epandrium laterally expanded, gonocoxites of complex shape, hypandrium triangular without a distal projection.

Note: Female (Figs 5–7) and male (Figs 2–4) terminalia of type species as illustrated.

Ontomyia ricardo (Londt, 1985), **comb. n.**

(Figs 1–7, 17–19)

Material examined: NAMIBIA: 1♂ **holotype**, ‘Namibia 28.iii.1984 / 43km NW Usakos. road / 1930. Spitzkop area. / 21°59'S 15°21'E / Stuckenberg & Londt / Acacias, rocky area’ (NMSA); 3♂3♀ **paratypes**, ‘Namibia 25.iii.1984 / 33km W Khorixas road / 2620, 20°26'S 14°40'E / Londt & Stuckenberg / roadside flowers in a / open dry area’ (NMSA); 2♂3♀ **paratypes**, ‘Namibia 25.iii.1984 / 49km W Khorixas road / 2620, 20°26'S 14°32'E / Stuckenberg & Londt / rocky area with woody / plants’ (NMSA); 1♂ **paratype**, ‘Namibia 25.iii.1984 / 20km SW Khorixas road / 2620, 20°27'S 14°48'E / Stuckenberg & Londt / roadside flowers in a / open dry area’ (NMSA); 1♂1♀, Brandberg, Messum Valley, 700 m, 21°13'29"S 14°30'98"E, 5–17.iv.1999, S. van Noort & S. G. Compton, Malaise trap in bushy Karoo-Namib shrubland (NMSA); 2♂2♀ **paratypes**, ‘Namibia 24.iv.1984 / 10km E Usakos 2115DC / Londt & Stuckenberg / roadside vegetation’ (NMSA); 4♂2♀ **paratypes**, ‘Namibia 28.iii.1984 / 40km NW Usakos road / 1930, Spitzkop area / 21°51'S 15°22'E / Londt & Stuckenberg / Riparian woodland’ (NMSA, 1♂1♀ BMNH); 3♂5♀ **paratypes**, ‘Namibia 28.iii.1984 / 43km NW Usakos road / 1930, Spitzkop area / 21°59'S 15°21'E / Stuckenberg & Londt / Acacias rocky area’ (NMSA); 1♀ **paratype**, ‘Namibia 27.iii.1984 / Usakos Town dump / 22°00'S 15°34'E / Stuckenberg & Londt / poor *Acacia* woodland / stony ground’ (NMSA).

Oratostylum Ricardo, 1925

Oratostylum Ricardo, 1925: 260; Type species: *Oratostylum lepidum* Ricardo, 1925: 261, by original designation.

Generic diagnosis (based on all available material):

Antennal style with 3 elements (2 segments and a terminal seta-like element); postpedicel cylindrical to clubbed and longer than scape and pedicel combined; palpi very long, always reaching lower facial margin; facial swelling pronounced in lower and upper parts; proepisternal and pronotal setae weak; basal postpronotal setae well-developed or weak; dorsocentral setae moderately developed and at most 1 pair anterior to transverse suture; cell r_5 open; cell m_3 closed or open; T6–7 setae weak in ♀, erect and not distinctly projecting in any specific direction; ♂ terminalia with configuration as in Figs 8–13.

Key to species of *Oratostylum*

- 1 Mystax consists of white setae; femora predominantly black (distal margin orange); scape and pedicel with long white, anteriorly-directed setae; mesopleura with long, fine white setae **lepidum** Ricardo
- Mystax consists of yellow setae; femora bicoloured (orange and black); scape and pedicel with anteriorly-directed yellow setae; mesopleura with only a few weak, white setae **2**
- 2 Femora dorsally orange and ventrally black; facial swelling not ending abruptly, fading out on upper margin (Fig. 14); postpedicel clubbed (Fig. 15); hypandrium without distal projection (Figs 9–10); T6–8 of ♀ apruinose **crenum** sp. n.
- Femora dorsally black and ventrally orange; facial swelling ending abruptly, steeply on upper margin; postpedicel cylindrical (Fig. 16); hypandrium with distal projection (Figs 12–13); T7–8 of ♀ apruinose **zebra** sp. n.

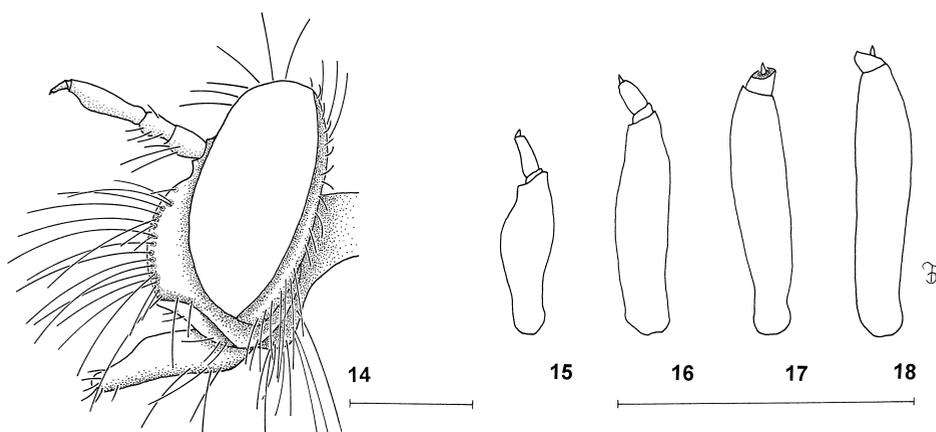
***Oratostylum crenum* sp. n.**

(Figs 8–10, 14–15, 19)

Etymology: *L. crena* = rounded projection. Refers to the rounded appearance of the facial swelling.

Description (based on all material examined):

Head: Antenna orange-brown; postpedicel clubbed (Fig. 15) and longer than scape and pedicel combined; scape and pedicel with anteriorly directed yellow setae; style cylindrical, black; face orange-brown with dense golden (♀) or silvery (♂) pruinescence; mystax yellow, some black setae on upper margin; facial swelling pronounced, not ending abruptly in upper part (Fig. 14); vertex black and silver-gold pruinose, yellow setae laterally, ocellarium prominent with 4–6 yellow setae; occiput black with silvery pruinescence, yellow and white setae; proboscis black, stout, ventrally with white setae; palpi black, longer than half length of proboscis, white setae ventrally.



Figs 14–18. Fig. 14. Head of *Oratostylum crenum* sp. n., lateral view. 15–18. Postpedicel of *Oratostylum* and *Ontomyia*. 15. *Oratostylum crenum* sp. n. 16. *Oratostylum zebra* sp. n. 17–18. *Ontomyia ricardoii* (Londt, 1985). Scale lines = 1 mm.

Thorax: Orange-brown; pronotal setae yellow and white; propleuron with white setae only; postpronotal lobe with yellowish setae of different lengths; mesonotum: ♀ brown pruinose, ♂ grey pruinose, 2 longitudinal stripes not reaching hind margin (♀ brown, ♂ black), covered with short white and brownish setae (longer in ♂), 1–2 pairs dorsocentral setae may be present anterior of transverse suture, macrosetae yellow; scutellar pruinescence similar to that of mesonotum, disc with yellow setae, margin with 6–8 yellow setae; mesopleura: ♀ dorsally brown pruinose and ventrally grey pruinose, ♂ entirely grey pruinose, white setae only; katagernal setae yellow; anatergal setae yellowish; legs: coxae orange-brown with silvery pruinescence and white setae; fore femur orange-brown, posteroventrally black, fore and hind tibiae with dense short yellow setae on inner margin which extend onto basitarsi, these setae only on distal half of hind tibia; mid and hind femora orange-brown, black ventrally, all tibiae proximally orange-brown, black distally; tarsi black; all macrosetae of legs pale yellow; claws brown basally and black distally, pointed; pulvilli large, pale yellow; empodium needle-like, black; wing: membrane transparent; veins yellow basally and on anterior margin, distally brown; r_5 open, m_3 open; halteres pale yellow.

Abdomen: Brown; T1 with long white setae and a few pale yellow setae laterally; remaining terga with white and yellow setae; pruinescence silver-brown with silvery hind margin, apruinose diagonal stripes laterally; sterna weakly silver pruinose with white setae; T6–8 of ♀ apruinose, brown with white, erect fine setae; macrosetae of acanthophorites reddish-brown; ♂ genitalia orange with white setae, hypandrium without distal projection (Figs 8–10).

Material examined: SOUTH AFRICA: 1♂ **holotype**, 'S Africa: N-W Province / Pilanesberg National Park / Manyane Trail 15.xi.1999 / 25°15'12"S : 27°13'25"E / J.G.H. Londt 1200m' (NMSA); 3♂2♀ **paratypes**, 'S Africa: N-W Province / Pilanesberg National Park / Manyane Trail 15.xi.1999 / 25°15'12"S : 27°13'25"E / J.G.H. Londt 1200m' (NMSA); 1♀ **paratype**, 'S Africa: N-W Province / Pilanesberg National Park / Bakubung 12–19.xi.1999 / 25°20'40"S : 27°03'25"E / J.G.H. Londt 1170m camp' (NMSA); 1♂1♀ **paratypes**, 'S Africa: N-W Province / Pilanesberg National Park / Bakubung 12–19.xi.1999 / 25°20'40"S : 27°03'25"E / J.G.H. Londt 1100m gate' (NMSA).

Remarks: The sexual dimorphism displayed by this species is remarkable. The pruinescence of the mesonotum, mesopleuron, and face differs – females tend to be more golden pruinose whereas males are silver-grey pruinose.

Oratostylum lepidum Ricardo, 1925

(Fig. 19)

Oratostylum lepidum Ricardo, 1925: 261.

Material examined: BOTSWANA: 2♂1♀, 20km W of Ghanzi, [21°34'S 21°47'E], 28.viii.1983, C. Stockmann (NMSA). SOUTH AFRICA: 2♂1♀, Transvaal, 7km N Hoedspruit, 2430BD, 18.ix.1986, Stuckenberg & Londt, tracks and paths in *Acacia* grassveld (NMSA); 2♂, Natal, Lebombo foothills, 5km N Jozini, 2732AC, 28.viii.1982, B. Stuckenberg, under Fig tree (NMSA). ZIMBABWE: 1♂ **paralectotype**, 'Umguza Riv. [19°30'S 27°46'E] / S.R. / 5.VI.1923 / R. Stevenson' (SAMC); 1♂ **paralectotype**, 'Bulawayo [20°09'S 28°35'E] / 2.IX.1923 / R. Stevenson' (SAMC); 1♀ **paralectotype**, 'Bulawayo / S. Rhodesia / 12.X.1923 / Coll. R.Stevenson' (SAMC); 1♂1♀, Bulawayo,

11.ix.1923, R.Stevenson (SAMC); 1 ♀, Bulawayo, 10.ix.1923, R. Stevenson (SAMC).

Note: The holotype is in BMNH.

Oratostylum zebra sp. n.

(Figs 11–13, 16, 19)

Etymology: *Zebra* refers to the type locality, the Mountain Zebra National Park, South Africa.

Description (based on all material examined):

Head: Antenna orange-brown; postpedicel cylindrical (Fig. 16), longer than scape and pedicel combined; scape orange with anteriorly directed yellow setae; pedicel darker and with only fine setae; face orange-brown with dense silvery pruinescence, mystax yellow with some white setae on lateral lower margin, facial swelling pronounced, ending abruptly in upper part; vertex black, silver pruinose, with yellow setae laterally; ocellarium prominent with 10–13 yellow setae; occiput black with silvery pruinescence, yellow and white setae; proboscis black, stout, ventrally with white setae; palpi black and very long, about three quarters of length of proboscis, white setae ventrally.

Thorax: Orange-brown; pronotal and propleural setae white; postpronotal lobe orange-brown with silver pruinescence and yellowish setae; mesonotum with pattern of silver and brown pruinescence – 3 silver longitudinal stripes not reaching hind margin, 3 brown spots laterally, 2 brown triangular spots in posterior part, mesonotum covered with short brownish setae, dorsocentral setae weakly developed, all macrosetae yellow; scutellum silver pruinose in anterior part and with silver pruinose median longitudinal stripe, disc with white setae, 6–8 yellow apical scutellar setae; mesopleura with white setae only; katagergal setae yellow; anatergal setae yellowish; legs: coxae orange-brown with silver pruinescence and white setae; fore femur orange-brown, anterodorsally black, with only white setae; fore and hind tibiae brown with dense short yellow setae on inner margin which extend onto basitarsi, these setae only on distal half of hind tibia; mid and hind femora orange-brown, black anterodorsally, with yellow macrosetae, hind femur in distal half black; mid tibia orange-brown, hind tibia similar, but anterior part black; tarsi brown; all macrosetae pale yellow; claws proximally orange and distally black, pointed; pulvilli large, yellow; empodium needle-like, black; wing: membrane transparent; veins basally yellow, distally brown; r_5 open, m_3 open; halteres pale yellow.

Abdomen: orange-brown; T1 with long white setae, a few pale yellow setae laterally; T2 with white and yellow setae; remaining terga with yellow setae; tergal pruinescence silver-brown in proximal part and silver in distal quarter, only silver triangles laterally on distal terga; sterna silver pruinose with white setae; T7–8 apruinose in ♀, brown with erect fine setae; macrosetae of acanthophorites reddish-brown; ♂ genitalia orange-brown with white and pale yellow setae (Figs 11–13).

Material examined: SOUTH AFRICA: 1♂ **holotype**, ‘STH AFRICA Cape Prov / Mountain Zebra Nat. P. / 24km W. of Cradock / 3225AB 21.i.1984 / D. & C. Barraclough / rocky hillside’ (NMSA); 3♂1♀ **paratypes**, ‘STH AFRICA Cape Prov / Mountain Zebra Nat. P. / 24km W. of Cradock / 3225AB 21.i.1984 / D. & C. Barraclough / rocky hillside’ (NMSA).

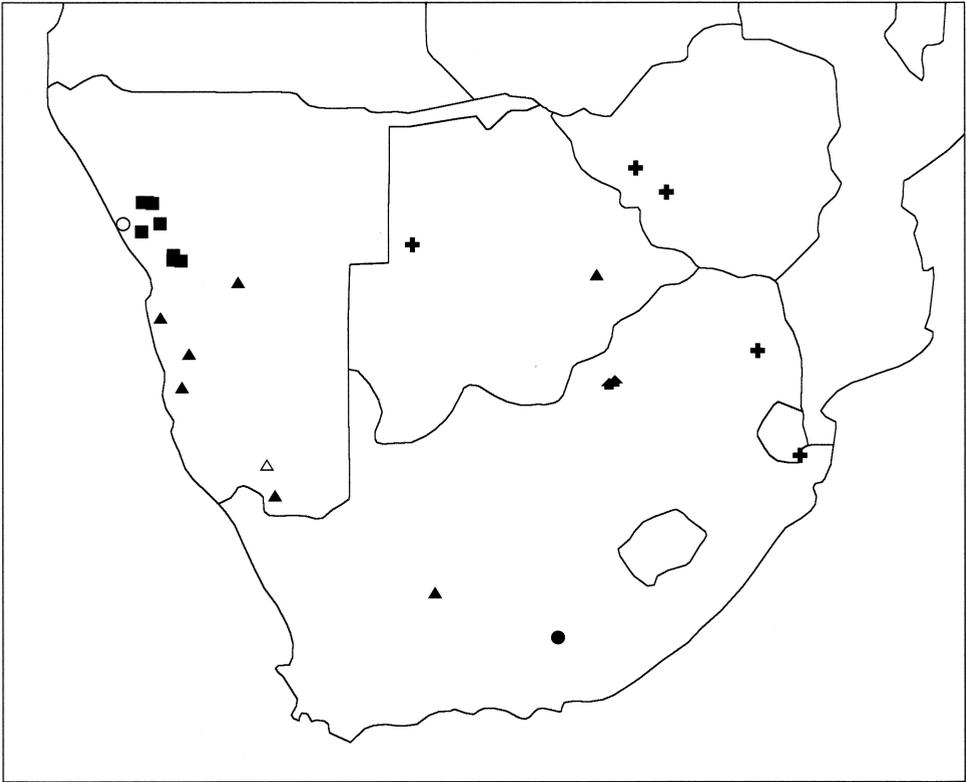


Fig. 19. Distribution of *Anasillomos*, *Ontomyia*, and *Oratostylum*. *A. chrysopos*, solid triangles; *A. sp.*, open triangle; *Ontomyia ricardoi* (Londt, 1985), solid squares; *Oratostylum crenum* sp. n., arrow heads; *O. lepidum*, solid crosses; *O. zebra*, sp. n. solid circle; *O. sp.*, open circle.

Oratostylum sp.

(Fig. 19)

The specimen listed below is an undescribed species. Additional material is necessary for formal description. The locality of the specimen is plotted in Fig. 19 to provide additional distributional information for the genus.

Material examined: NAMIBIA: 1 ♀ Damaraland, Okombahe area, 22km W Uis Mine, 2114Bc, 830 m, 6.ii.1974, M. E. Irwin, gravel plain (NMSA).

Remotomyia Londt, 1983

Remotomyia Londt, 1983: 301; Type species: *Daspletis albosetatus* Hull, 1967: 240–241, by original designation.

Generic diagnosis (based on the original by Londt 1983):

Antennal style composed of 3 elements (2 segments and a terminal seta-like sensory element); postpedicel cylindrical or clubbed and longer than scape and pedicel combined; palpi short, less than half as long as proboscis (except in *longipalpus* which has long palpi); facial swelling moderately pronounced on lower margin and weak in upper part; proepisternal setae weak; pronotum and postpronotal lobe with strong macrosetae; dorsocentral setae poorly or well developed anterior to transverse suture;

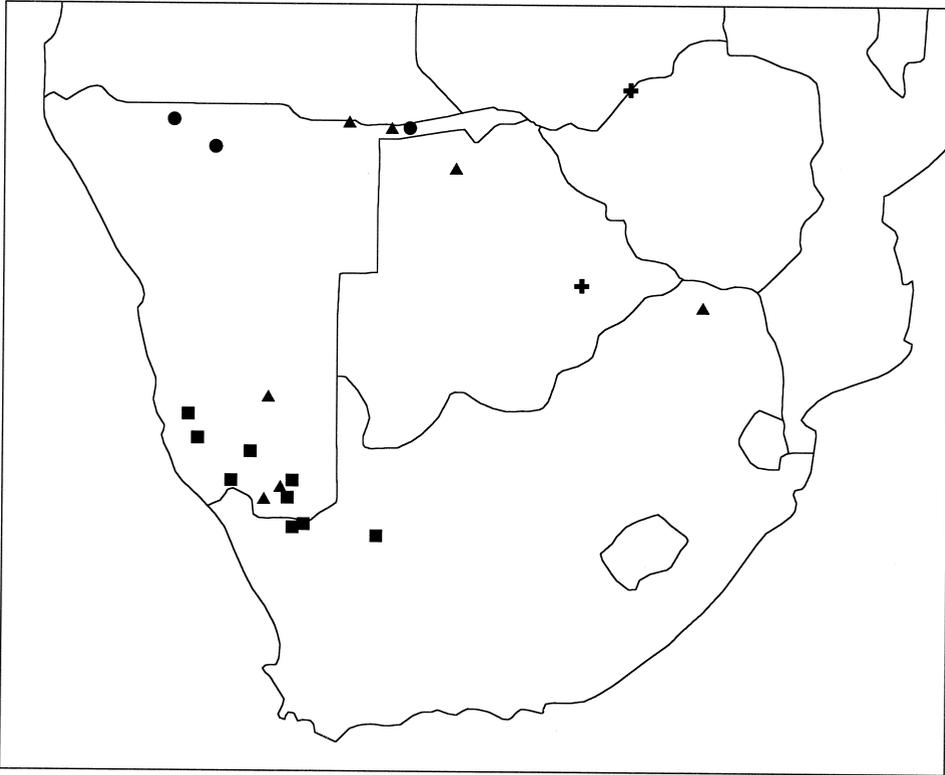


Fig. 20. Distribution of *Remotomyia* species. *R. albosetatus*, circles; *R. brunales*, squares; *R. longipalpus*, crosses; *R. penrithae*, triangles.

cells r_5 and m_3 closed and stalked or open; terga with median stripe apparently free of setae, laterally situated setae directed posterolaterally; T6–7 of ♀ with setae moderately to strongly developed and directed anteriorly (directed posteriorly on T1–5).

Key to *Remotomyia* species

- 1 Palpal segment two exceptionally long, longer than segment one and projecting beyond lower facial margin; cell m_3 open **longipalpus** Londt
- Palpal segment two short, shorter than segment one and not projecting beyond lower facial margin; cell m_3 closed and stalked 2
- 2 Dorsocentral setae not occurring anterior to transverse suture, 3–4 pairs posterior to transverse suture; abdomen not markedly projecting beyond tip of wings; cell r_5 closed **brunales** Londt
- Distinct dorsocentral setae anterior to transverse suture; abdomen always projecting beyond tip of wings; cell r_5 open or closed 3
- 3 Dorsocentral setae strongly developed from posterior to anterior margin of mesonotum; cell r_5 closed **albosetatus** (Hull)
- Dorsocentral setae with only 3–5 pairs anterior to transverse suture; cell r_5 open **penrithae** Londt

Remotomyia albosetatus (Hull, 1967)

(Fig. 20)

Daspletis albosetatus Hull, 1967: 240–241.*Remotomyia albosetatus*, Londt, 1983: 301.

Material examined: NAMIBIA: 1♂, Oshikango, [17°52'S 15°34'E], C. Koch (NMSA); 1♀, Bagani, Kavango, SE1821Ba (NMSA); 1♀, Etosha Pan, Etosha Nat. Park, 18°36'S 16°41'E, 1.vi.1987, J. Irish & E. Marais (NMNW).

Note: Holotype housed in MZLU.

Remotomyia brunales Londt, 1983

(Fig. 20)

Remotomyia brunales Londt, 1983: 303.

Material examined: NAMIBIA: 1♂ **holotype**, 'Vogelstrauskluft 87 / Bethanien / SE 2717Ba / 24–29 Sept 1974' (NMNW); 1♀, Naus 27, Bethanien, SE2516Cd, 6.x.1972 (NMNW); 1♀, Kanaan 104, Luederitz, SE2516Cc, 6–7.x.1972 (NMNW); 2♂3♀, 60 km S Aus, 2716AB, 1.ix.1983, Londt & Stuckenberg, broken veld at base of small hill (NMSA); 2?, 60 km S Aus, 2716AB, 1.xi.1983, Londt & Stuckenberg, broken veld at base of small hill (NMNW); 1♂1? **paratypes**, 'Vogelstrauskluft 87 / Bethanien / SE2717Ba / 24–29 Sept 1974' (NMSA NMNW); 1♂, Huns 106, Bethanien, SE2717Ac, 29.ix–4.x.1974 (NMNW); 1♀, Gt Karas Mtns [27°50'S 18°50'E], xi.1936, museum staff (SAMC); 1♂6♀, Ortmanbaum 120, Warmbad, SE2818Bd, 18–21.x.1971 (NMNW). SOUTH AFRICA: 1♀, Maib, Btw Springbok and Pella [29°02'S 19°09'E], x.1939, museum staff (SAMC); 1♂, Aggenys [29°12'S 18°51'E] or Bushmanland, Btw Springbok and Pella, x.1939, museum staff (SAMC); 2♂2♀, Kenhardt area, [29°21'S 21°09'E], x.1939, museum staff (SAMC).

Remarks: This species is variable in a number of morphological features. Londt (1983) named the species after the brown-stained wings, but new material shows this character state to be inconsistent, and only the holotype and two paratypes from southern Namibia show this feature (all these specimens are greasy). Leg coloration and abdominal pruinescence are also variable. The hypandrium has a remarkably long and curved median distal projection. The following brief description of *brunales* supplements the original description and treats variable features.

Head: Antenna orange-brown; postpedicel clubbed; face orange-brown with lower facial margin darker, white pruinose; mystax composed of pale yellow or white macrosetae; vertex black with silver-gold pruinescence; occiput silver pruinose.

Thorax: Orange-brown or black; mesopleura silver pruinose; postpronotal lobe orange or black. Legs: orange-brown with femora normally darker than other parts (some specimens with legs entirely orange-brown). Wing: membrane transparent or brown-stained; cells r_5 and m_3 closed and stalked.

Abdomen: Black (in some specimens orange-brown); not markedly projecting beyond tip of wings; silver pruinose posterior stripe on proximal terga, distal terga more extensively pruinose; long white setae on posterior margin where pruinescence is well-developed; hypandrium with very long, curved distal projection.

Remotomyia longipalpus Londt, 1983

(Fig. 20)

Remotomyia longipalpus Londt, 1983: 304–305.

Material examined: BOTSWANA: 1♂ **holotype**, 'Plantation / Serowe [22°23'S 26°43'E]; Botswana / Forchhammer leg. / Date: 6.9.1982 / J.No. / day' (NMSA); 1♀, Serowe, 25.xi.1983, Forchhammer, Plantation, day (NMSA). ZIMBABWE: 3♂3♀, Lake Kariba Pimple Island, 1620DB, ix–x. 1985, M.I.R. Hall, *Colophospermum Mopane* rocky hilltop style terrain (NMSA).

Remarks: This species is variable. All specimens from northern Zimbabwe have cell r_5 widely open, whereas this cell is closed in the material from Botswana. The very long maxillary palpi are a good character for identification of the species. There are certain similarities to *Oratostylum*, for example the elongated palpi and the well pronounced facial swelling, but we treat *longipalpus* as a species of *Remotomyia* because of the strong macrosetae on the pronotum and postpronotal lobes, and the strong anteriorly directed setae on T6–7 in females.

Remotomyia penrithae Londt, 1983

(Fig. 20)

Remotomyia penrithae Londt, 1983: 306.

Material examined: NAMIBIA: 1♂ **holotype** & ♀ **paratype** in *copulo*, 'Blinkoog / Warmbad / SE2719Ca / 14–17 Oct 1971' (NMNW). BOTSWANA: 1♂1♀ 1♀, Mboma Island Moremi Reserve, 19°11'S 23°17'E, 12.ix.1977, A. Russell-Smith, in sparse *Acacia nigrens* woodland on game tracks, sandy soil (NMSA). NAMIBIA: 1♀ **paratype**, 'Takuasa / SE1720Cd / Kavango / 14–19 Aug 1971' (NMNW); 1♀ **paratype**, 'Mukorob 14 / Keetmannshop / SE2518Ca / 13 Oct 1971' (NMNW); 1♀ **paratype**, 'Riverside 135 / Bethanie / SE2616Ca / 23–26 Oct 1971' (NMNW); 1♂1♀ **paratypes**, 'Blinkoog / Warmbad / SE2719CA / 14–17 Oct 1971' (NMSA); 1♂2♀ **paratypes**, 'Blinkoog / Warmbad / SE2719CA / 14–17 Oct 1971' (NMNW); 1♀ **paratype**, 'Bagani / SE1521Ba / Kavango' (NMNW). SOUTH AFRICA: 1♂2♀, Vastval, Zoutpansberg, [23°S 30°E], 6.ix.1978, ground midday (NMSA).

DISCUSSION

Distribution

The distribution of all species is within Southern Africa (Figs 19–20). The undescribed species in *Anasillomos* and *Oratostylum* are plotted with open symbols on the maps to give additional distributional data for the genera. The following brief comments on generic distributions can be made:

Anasillomos is distributed in arid areas of Southern Africa (eastern Botswana, western South Africa, and southern Namibia) (Fig. 19).

Ontomyia is apparently limited to the arid areas around Usakos, Khorixas, and the Brandberg in north-western Namibia (Fig. 19).

Oratostylum is distributed within the eastern parts of South Africa, western Botswana, north-western Namibia and south-western Zimbabwe (Fig. 19).

Remotomyia is found widely within the drier areas of Southern Africa, with the largest diversity in Namibia (three of the four species occur there) (Fig. 20).

Seasonal incidence

Table 3 shows the seasonality of all species. *Oratostylum lepidum*, *Remotomyia brunales*, *R. longipalpus*, and *R. penrithae* seem to be spring-active. *Anasilomom chrysopos* occurs during a period from winter to summer. *Ontomyia ricardo* has been collected only in late summer.

TABLE 1

List of characters used in comparative character matrix.

- 1 Distinct macrosetae on proepisternum (+) or setae only (-).
- 2 Group of macrosetae on T1-4 (+) or only on T1 (-).
- 3 Style of antennae composed of two segments (one basal segment and a 'seta-like' sensory element Figs 17, 18) (+) or style three-segmented (two basal segments and a 'seta-like' sensory element Figs 15, 16) (-).
- 4 Epandrial lobes expanded laterally (+) or not (-).
- 5 Hypandrium with a distal projection (+) or no projection (-).
- 6 ♀ T8 nearly as long as T7 (+) or distinctively shorter (-).
- 7 Maxillary palpi half or at least half as long as proboscis (+) or palpi always shorter than half the length of proboscis (-).
- 8 Macrosetae on ♀ T6-7 strong and anteriorly directed (+) or these setae weak and erect (-).
- 9 Facial swelling well-developed in lower and upper part (+) or swelling only developed in lower part (-).
- 10 Postpronotal lobe with stout macrosetae (+) or with setae only (-).
- 11 Row of macrosetae on metacoxa (+) or setae only (-).
- 12 Pronotum with strong macrosetae (+) or with setae only (-).
- 13 Distinct dorsocentral setae anterior of transverse suture (+) or only posterior (-).
- 14 Wing cell r_5 open (+) or closed (-).
- 15 Wing cell m_3 open (+) or closed (-).

TABLE 2

Comparative character matrix for taxa included in this study (characters numbered along top row as in Table 1).

Characters

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<i>A. chrysopos</i>	+	-	-	-	-	-	-	+	+	+	+	+	+	-	-/+
<i>Ontomyia ricardo</i>	-	+	+	+	-	+	-	-	+	+	+	+	+	+	-
<i>Oratostylum crenum</i>	-	-	-	-	-	-	+	-	+	-	-	-	-	+	-/+
<i>O. lepidum</i>	-	-	-	-	+	-	+	-	+	+	-	-	-	+	-/+
<i>O. zebra</i>	-	-	-	-	+	-	+	-	+	-	-	-	-	+	-/+
<i>R. albosetatus</i>	-	-	-	-	+	-	-	+	-	+	+	+	+	-	-
<i>R. brunales</i>	-	-	-	-	+	-	-	+	-	+	-	+	-	-	-
<i>R. longipalpus</i>	-	-	-	-	+	-	+	+	+	+	+	+	-	-/+	+
<i>R. penrithae</i>	-	-	-	-	+	-	-	+	-	+	+	+	+	+	-

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TABLE 3
Seasonal incidence of species.

Species	J	A	S	O	N	D	J	F	M	A	M	J
<i>A. chrysopos</i>	–	•	–	•	•	–	–	•	–	–	–	–
<i>Ontomyia ricardoii</i>	–	–	–	–	–	–	–	–	•	•	–	–
<i>Oratostylum crenum</i>	–	–	–	–	•	–	–	–	–	–	–	–
<i>O. lepidum</i>	–	•	•	•	–	–	–	–	–	–	–	•
<i>O. zebra</i>	–	–	–	–	–	–	•	–	–	–	–	–
<i>R. albosetatus</i>	–	–	–	–	–	–	–	–	–	–	–	•
<i>R. brunales</i>	–	–	•	•	•	–	–	–	–	–	–	–
<i>R. longipalpus</i>	–	–	•	•	•	–	–	–	–	–	–	–
<i>R. penrithae</i>	–	•	•	•	–	–	–	–	–	–	–	–
<i>Anasillomos</i> sp.	–	–	–	–	–	•	–	–	–	–	–	–
<i>Oratostylum</i> sp.	–	–	–	–	–	–	–	•	–	–	–	–

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