

## A new flower fly from the Afrotropics (Diptera: Syrphidae)

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### ABSTRACT

A new species of syrphid, *Xanthandrus magnificus* Thompson, is described from ‘Sao Tome’, off the coast of Gabon, Africa.

Keywords: Diptera, flower flies, Syrphidae, new species, Afrotropical

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### INTRODUCTION

Flower flies as adults are common and critical pollinators (Ssymank *et al.* 2008; Ssymank & Kearns 2009; Inciye *et al.* 2015). Their immatures have diverse habits (Rotheray 1993); those of *Xanthandrus* are predators on lepidopterous caterpillars (Rotheray 1993: 91). The Afrotropical flower fly fauna has not been recently revised. Bezzi (1928) and Curran (1938a; 1938b; 1939a; 1939b) provided earlier revision and there are recent catalogues (Smith & Vockeroth 1980; Dirickx 1998; Whittington 2003).

The genus *Xanthandrus* is found world-wide and includes 27 named species and an additional six known but as of now unnamed species. One fossil species is known from the Eocene in the USA. Curran (1938b) described the first Afrotropical species. Later Kassebeer (2000) added another and erected a new genus for those species. As his genus, *Afroxanthandrus*, does not differ in any significant way from *Xanthandrus* Verrall, the type species of which is *comtus* Harris, and other species, I consider his name a junior synonym.

### MATERIAL AND METHODS

The characters and terminology used follow those of my glossary (Thompson 1999) and are largely consistent with those used in the Nearctic and Palaearctic Diptera manuals (Vockeroth & Thompson 1987; Thompson & Rotheray 1998).

The codens for collections are as follows: AMNH = American Museum of Natural History, New York; MRAC = Musée Royal de l’Afrique Centrale, Tervuren; USNM = United States National Museum, Washington; ZM = Musée zoologique, Lausanne.

***Xanthandrus magnificus*** Thompson sp. n.  
(Figs 1–11)

*Description*

♂, head (Fig. 3) black; face densely golden pollinose and pilose except for bare and shiny tubercle; gena sparsely golden pollinose, bare; lunule orange, shiny; frontal triangle golden pollinose and pilose except narrowly bare and shiny dorsad to lunule; vertical triangle shiny [pile has been rubbed off in all specimens]; occiput silvery to golden pollinose, white pilose; antenna brownish orange, black pilose; basoflagellomere brownish black; arista orange.

Thorax: black, silvery-gold pollinose, short golden pilose; mesonotum distinctly punctate; katepisternum with pile patches broadly separated; scutellum very sparsely pollinose, short golden pilose, densely punctate, with distinct premarginal sulcus, with short dense golden ventral pile fringe; plumula pale yellow; calypter pale yellow, with dorsal margin more brownish; halter pale yellow. Legs: pro- and mesocoxae yellowish orange, yellow pilose; metacoxa brownish black, yellow pilose; trochanters yellow; pro- and mesofemora yellow, with brownish tinge on apical  $\frac{1}{2}$ , yellow pilose; metafemur yellow on basal  $\frac{1}{4}$ , brownish black apically, yellow pilose except black pilose on apex; protibia yellow on basal  $\frac{3}{4}$ , brownish apically, pale pilose; mesotibia yellow, with brownish tinge on apical  $\frac{1}{2}$ , pale pilose; metatibia brownish black, black pilose; protarsus brownish black, black pilose; mesotarsus brownish orange basally to black apically, black pilose; metatarsus brownish black, black pilose. Wing (Fig. 1): hyaline, with stigma brownish, microtrichose except bare as follows: costal cell basal  $\frac{1}{2}$ ; either side of basal  $\frac{3}{4}$  of vein RS; almost all of cell R except near fork of RS; almost all of cell BM except very small patch on apical  $\frac{1}{2}$ ; basal  $\frac{1}{2}$  of cell DM, basal  $\frac{1}{4}$  of cell CuA1 and along borders on basal  $\frac{3}{4}$ ; basal  $\frac{1}{2}$  of anal lobe and basal medially on alula.

Abdomen (Fig. 2): 1st tergum yellow, yellow pilose; 2nd tergum narrowly yellow laterally and basomedially, leaving a U-shaped black macula, long yellow pilose basomedially, very sparsely and short yellow pilose elsewhere; 3rd tergum black, brownish yellow laterally, with large medial yellow oval macula, very sparsely and short pale pilose; 4th and 5th terga black except brownish orange to brown laterally, very sparsely and short pale pilose; 1st sternum black, sparsely grayish pollinose, white pilose; other sternia yellow to brownish orange, pale pilose. ♂ genitalia as figured (Figs 4–11).

♀, same as ♂ except for normal sexual dimorphism and: frons shiny except for broadly golden pollinose fascia on ventral  $\frac{1}{2}$  but narrowly separated from lunule, yellow pilose, with medial tubercle on dorsal  $\frac{1}{2}$ . 'Allotype' with trace of pale medial fasciae on 4th and 5th terga.

*Material examined*

Holotype, ♂, and paratypes (2♂♂, 2♀♀) all with same data, hand-written labels with 'I Cap Vert, Sao Tome, 16 March 1977, J. Denon.' Holotype and a paratype deposited in Musée zoologique, Lausanne; other paratypes in U.S. National Museum, Washington.

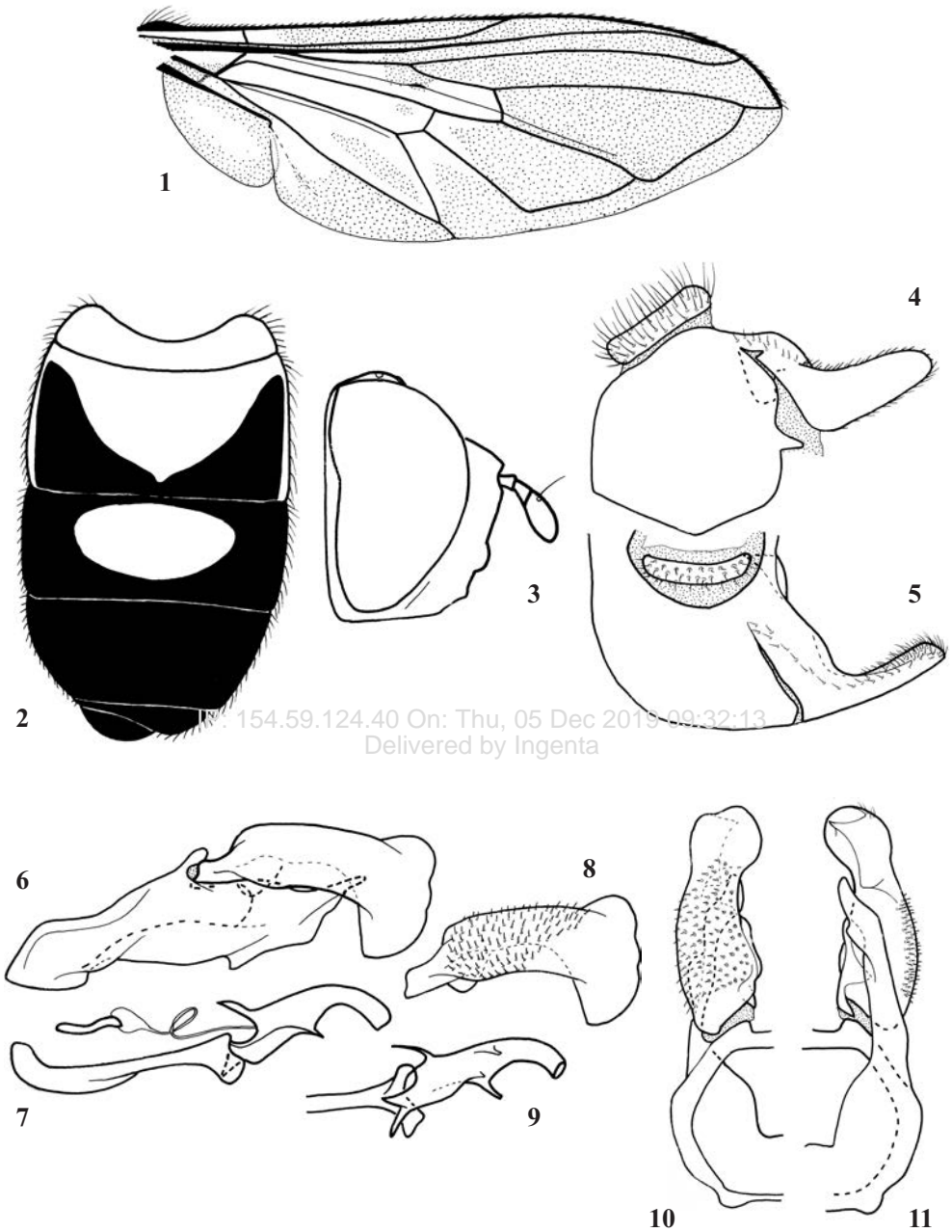
*Distribution*: This species is known only from the island of Sao Tome in the Sao Tome group off Gabon, Africa.

*Etymology*: This species is named for its splendid appearance and the epithet is to be treated as an adjective.

*Manuscript species code*: Xanthandrus 77–12.

**Key to the Afrotropical species of *Xanthandrus***

- |  |                   |
|--|-------------------|
| 1 Abdomen with large yellow maculae (Fig. 2) .....   | <i>magnificus</i> |
| – Abdomen black with grayish pollinose maculae ..... | 2                 |
| 2 Body pile short .....                              | <i>congoensis</i> |
| – Body pile long .....                               | <i>longipilus</i> |



Figs 1–11. — *Xanthandrus magnificus* Thompson sp. n., ♂: 1, wing (length *c.* 8mm); 2, abdomen, dorsal view (width *c.* 3mm); 3, head (lateral view); 4–11, genitalia: 4–5, epandrium, cercus and surstylus (4, lateral view; 5, dorsal view; length of cercus *c.* 0.3mm); 6, phallic complex: hypandrium and superior lobe ('paramere') (lateral view); 7, aedeagus apodeme, ejaculatory apodeme and aedeagus in detail; 8, superior lobe ('paramere') in detail (length *c.* 0.3mm); 9, aedeagus in detail; 10–11: right side of epandrium and surstylus (10, dorsal view, 11, ventral view; width of surstylus *c.* 0.2mm).

*Xanthandrus congensis* Curran

*Xanthandrus congensis* Curran, 1938: 19. Type-locality: Congo. Lukolela (HT ♀, AMNH). Smith & Vockeroth 1980: 494 (catalog citation); Dirickx 1998: 139 (catalog citation).  
*Afroxanthandrus congensis*. Kassebeer, 2000: 155, figs (antenna, head, ♂ genitalia) (new combination, description); Whittington 2003: 586 (citation).

*Xanthandrus longipilus* Kassebeer

*Afroxanthandrus longipilus* Kassebeer, 2000: 155, fig. (antenna, head). Type-locality: Congo, Kivu, Kapanga (HT ♀, MRAC); Whittington 2003: 586 (citation).

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I herewith apologize to my co-author for forgetting about this work for so long. May he rest in peace as this is now complete. Many thanks to Nigel Wyatt for reviewing this paper, and for discussion about the type locality of the new species.

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