

# On some Diptera Hybotidae from Sierra Leone with description of *Elaphropeza plurimaculata* n. sp. and a key to the species of *Elaphropeza* Macquart, 1827 from Sierra Leone (Insecta, Diptera, Hybotidae)

Key words: Diptera, Hybotidae, new species, faunistics, Sierra Leone

## Riassunto

*Su alcuni ditteri Hybotidae della Sierra Leone con descrizione di Elaphropeza plurimaculata n. sp. e chiave delle specie di Elaphropeza Macquart, 1827 della Sierra Leone. (Insecta, Diptera, Hybotidae)*

*Drapetis capensis* (Smith, 1967), *Elaphropeza adamsi* (Smith, 1969), *E. dispar* (Adams, 1905) ed *E. plagiata* (Bezzi, 1906) vengono segnalate per la prima volta della Sierra Leone. Viene descritta *Elaphropeza plurimaculata* n. sp., che differisce da *E. secunda* (Smith, 1969) per la presenza di 3 macchie brune sul torace (1 in *E. secunda*), 4 serie di setole acrosticali (3 in *E. secunda*), 2 setole postalarari (1 in *E. secunda*), 1 anterodorsale alla tibia posteriore (2 in *E. secunda*), il periandrio sinuoso lateralmente (lineare in *E. secunda*), il surstilo sinistro lungo, stretto al centro e ricurvato all'apice (largo al centro e appuntito all'apice in *E. secunda*) e il cerco destro lungo e stretto (subtriangolare e appuntito in *E. secunda*).

## Abstract

*Drapetis capensis* (Smith, 1967), *Elaphropeza adamsi* (Smith, 1969), *E. dispar* (Adams, 1905) and *E. plagiata* (Bezzi, 1906) are reported for the first time from Sierra Leone. *Elaphropeza plurimaculata* n. sp. is described. It is similar to *E. secunda* (Smith, 1969), from which it differs in having 3 brown spots on thorax (1 in *E. secunda*), 4 rows of acrostichal setulae (3 in *E. secunda*), 2 postalar setae (1 in *E. secunda*), 1 anterodorsal seta on the hind tibia (2 in *E. secunda*), the perianthium laterally sinuous (linear in *E. secunda*), the left surstylus centrally narrow, long and curved at apex (centrally broad and pointed at apex in *E. secunda*), and the right cercus long and narrow (subtriangular and pointed in *E. secunda*).

## Introduction

While examining material of Diptera Hybotidae collected by Prof. Walter Rossi (University of L'Aquila, Italy) in Sierra Leone, I found some species previously not reported from this region and some specimens belonging to a new species.

List of the species

### ***Drapetis capensis*** (Smith, 1967)

Sierra Leone, Western Area, river near Regent, 9.IV.1996, 2 ♀♀.

Distribution: Republic of South Africa (Cape Peninsula). New to Sierra Leone.

### ***Elaphropeza adamsi*** (Smith, 1969)

Sierra Leone, Western Area, river near Regent, 9.IV.1996, 4 ♂♂, 2 ♀♀.

Distribution: Republic of South Africa (Kwazulu-Natal). New to Sierra Leone.

### ***Elaphropeza dispar*** (Adams, 1905)

Sierra Leone, Western Area, Western Area, river near Regent, 9.IV.1996, 2 ♂♂, 3 ♀♀.

Distribution: Zimbabwe. New to Sierra Leone.

### ***Elaphropeza plagiata*** (Bezzi, 1906)

Sierra Leone, Northern Province, Fadugu, 16.II.1994, 1 ♂, 1 ♀.

Distribution: Democratic Republic of Congo. New to Sierra Leone.

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***Elaphropeza secunda*** (Smith, 1969)

Sierra Leone, Northern Province, river near Regent, 9.IV.1996, 1 ♀.

Distribution: Republic of South Africa and Nigeria. New to Sierra Leone.

***Elaphropeza plurimaculata* n. sp.**

Type material:

Holotype ♂, 1 paratype ♂ and 1 paratype ♀ from Sierra Leone, Northern Province, river near Regent, 15.III.1993, all Walter Rossi leg.. Holotype and paratypes laterally micropinned. Abdomen and terminalia of the holotype in a plastic microvial, pinned with the specimen.

Holotype and paratypes are deposited in the dipterological collection of the Museo di Storia Naturale di Venezia (Venice, Italy).

The taxonomic treatment is reported according to ADAMS (1905), BECKER (1910), BECKER & DE LIEGNITZ (1909), BEZZI (1908a, 1908b), COLLART (1934), FREY (1953), JONES (1940), MELANDER (1918, 1928), RAFFONE (1990, 1994) SMITH (1967, 1980) and YANG et al. (2007).

DESCRIPTION

Body length: 2,5-2,6 mm.

ETYMOLOGY

The species epithet, *plurimaculata*, refers to the numerous brown spots on thorax.

MALE

Head shining black; postocellar, occipital and genal area brown microtomentose, with sparsely brown pubescence; 1 yellow posterior vertical seta and 1 anterior, half as long as the posterior; 1 superior ocellar, as long as the posterior vertical, and 1 curved small inferior; 3 postocellar setae; width of frons half of the ocellar area; eyes touching below antennae; clypeus subtriangular, yellowish and slightly leaned, with yellow microtomentum; palpus yellow with sparse yellow setulae; proboscis yellow with irregular brown setulae; antenna with yellow scape and pedicel, flagellomere and arista brown; scape conical, 10 times as wide as long; pedicel spherical, as long as the scape, with a regular row of yellow apical setulae; flagellomere conical, as long as scape and pedicel together, brown microtomentose; arista as long as the flagellomere.

THORAX

Shining, golden-yellow, with a small yellow-brown stripe along the acrostichal area; dorsocentral presutural area with a small spherical yellow-brown spot; postsutural area with a small spherical spot; supralar area with a small oval yellow-brown spot; scutellum and postscutellum brown; pleura brown and hairless. Chaetotaxy of thorax: 4 regular rows of small yellow acrostichals, 1 row of dorsocentral setae and 1 strong brown prescutellar, 2 notopleurals, 2 postalar, 1 small irregular row of intralar, 1 long apical scutellar and 1 small lateral. Wing yellowish, with small yellowish pubescence; yellow-brown veins; costal ratio  $(R_1/R_{2+3}:R_{2+3}/R_{4+5}) = 2:1$ ;  $R_{4+5}$  and M parallel and diverging at apex; haltere yellow. Legs mostly yellow; tarsomeres yellow-brown; last tarsomere brown; claws brown; mid femur with a row of yellow ventral setae; hind tibia with 1 yellow anterodorsal seta, at two-third of the length.

ABDOMEN

Shining with small yellow hairs; 4th and 5th segments black.

MALE TERMINALIA

Periandrium laterally sinuous; left surstylus centrally narrow, long and curved at the apex; right cercus long and narrow (figs. 1-2).

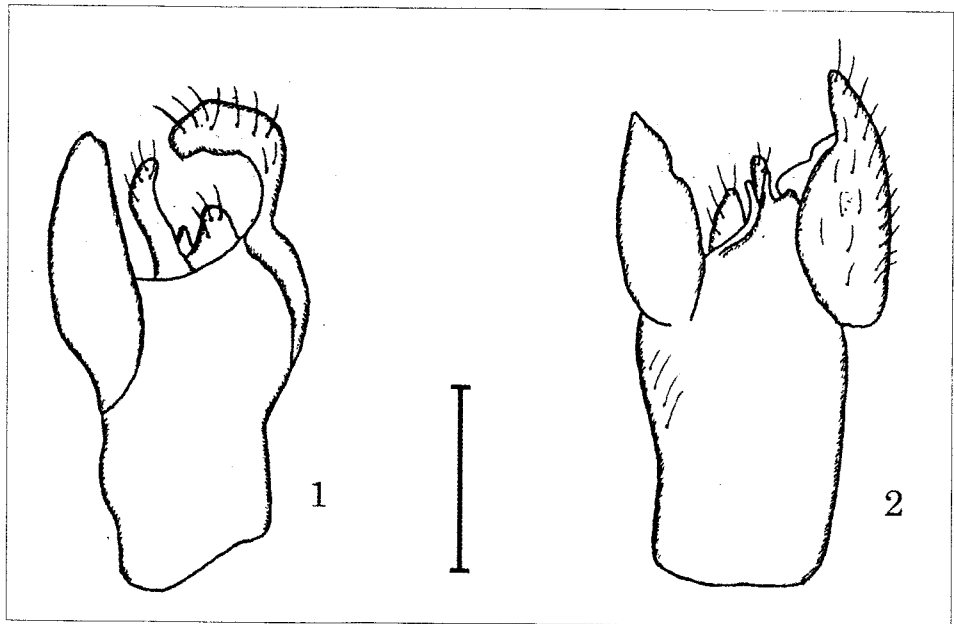
FEMALE

Similar to male, except for the usual sexual dimorphism.

Fig. 1. *Elaphropeza plurimaculata*  
n. sp. (Holotype ♂): male terminalia.

Fig. 2. *Elaphropeza secunda*  
(Smith, 1969): male terminalia.

Scale bar = 0,1 mm.



#### COMPARATIVE REMARKS

*Elaphropeza plurimaculata* n. sp. is similar to *E. secunda* (Smith, 1969) in having a brown spot at the base of the wing and eyes touching below antennae. It differs from the latter species mainly by the following characters: 3 brown spots on thorax (1 in *E. secunda*), 4 rows of acrostichals (3 rows in *E. secunda*), 2 postalar setae (1 in *E. secunda*), 1 anterodorsal seta on the hind tibia (2 in *E. secunda*), the periandrium laterally sinuous (linear in *E. secunda*), the left surstylus centrally narrow (centrally broad and pointed at apex in *E. secunda*) and the right cercus long and narrow (subtriangular and pointed in *E. secunda*).

Key to species of *Elaphropeza* Macquart, 1827 of Sierra Leone.

1. Thorax mostly black or with conspicuous black stripes or spots ..... 2
- Thorax entirely yellow or reddish-yellow; at most darkened in prescutellar and scutellar area ..... 4
2. Scutum entirely black ..... *sinikorensis* (Raffone, 1990)
- Scutum reddish-yellow with black stripes or spots ..... 3
3. Hind tibia with 2 anterodorsal setae; scutum with a black subtriangular patch on each side, at level of wing base; notopleuron dark ... *secunda* (Smith, 1969)
- Hind tibia with 1 anterodorsal seta; scutum with 1 dorsocentral, 1 supralar and 1 postalar patches; notopleuron yellow ..... *plurimaculata* n. sp.
4. Scutum with a brown stripe along acrostichal area ..... 5
- Scutum entirely yellow ..... 7
5. Hindtibia with 2 posteroventral setae ..... *plagiata* (Bezzi, 1908)
- Hindtibia without posteroventral setae ..... 6
6. Eyes contiguous above and below antennae ..... *dispar* (Adams, 1905)
- Eyes not contiguous above antennae ..... *pseudodispar* (Raffone, 1990)
7. Scutellum yellow ..... *angustifacies* (Raffone, 1994)
- Scutellum black ..... 8
8. 2 notopleural setae ..... *adamsi* (Smith 1969)
- Notopleural setae absent ..... *paucisaetosa* (Raffone, 1994)

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