Gianni RAFFONE*

Two new species of Paralimna Loew, 1862 from Sierra Leone
(Insecta, Diptera, Ephydridae)

INTRODUCTION

While examining material of Diptera Ephydridae collected by Prof. Walter Rossi (University of L’Aquila, Italy) in Sierra Leone and stored in the Museo di Storia Naturale in Venice, I found some specimens belonging to two new species.

TAXONOMY

The taxonomy is according to Cogan (1968), Mathis & Zatwarnicki (1995, 2002).

Paralimna (Phaiosterna) grisea n. sp.

Type material: holotype ♂, 1 paratype ♂ and 1 paratype ♀ from Sierra Leone, Northern Province, near Bumbuna, 12.III.1993, Walter Rossi leg., Holotype and paratypes laterally micropinned. Abdomen and terminalia of holotype in glycerine in a microvial pinned under the specimen.

Body length: 2.81-2.82 mm.

Description: Male. Head: grayish brown; frons brown with brown microtomentum to base of antenna; parafacial gray, centrally shaded brownish; face grayish with brown, longitudinal, central stripe; occiput and gena grayish, gray microtomentum; antenna with scape and pedicel black; first flagellomere brown, bearing long fringe of brownish setulae along dorsum; setulae longer than height of first flagellomere; gena-to-eye ratio 0.27-0.28.

Thorax: entirely gray; microtomentum densely gray; mesonotum with conspicuous clear gray longitudinal medial stripe on acrostichal area; pleura gray; acrostichal setulae not very well developed, in about 8 irregular rows; 4 well developed dorsocentral setae; 1 presutural supra-alar, 1 supra-alar, 1 post-alar, 2 notopleurals well developed. Wing uniformly infuscate; costal-vein ratio 0.42-0.43; M vein ratio 0.92-0.93; halter yellow; legs gray with brownish tarsi; midfemur with 3 anterodorsal setae at apical third; mid- and hind-tibiae each with 3 anterodorsal setae (2 at basal third and 1 at apical third). Abdomen slightly lighter in color than mesonotum, mostly gray, less microtomentum, but with sparse dark hairs; anterior portion of tergites fasciate, gray to black.

Male terminalia: epandrium in posterior view with apex very narrow; arm of epandrium narrow and truncate at apex; cercus narrow and rounded; presury-

---
lus separated medially, concave at ventral margin, sub-
triangular basally; arm of hypandrium apically narrow
and acute; aedeagus narrow and apically rounded.

Comparative Remarks: Paralimna (Phaiosterna)
grisea n. sp. is similar to Paralimna (Phaiosterna) bi-
color (Macquart, 1851), in having the face grayish, the
flagellomere bearing long fringe of brownish setulae
along dorsum, the thorax with a longitudinal medial
stripe and the abdomen with anterior portion of ter-
gites fasciate. It differs from the latter species mainly
in the following characters: face grayish with a brown,
longitudinal, central stripe (uniformly grayish in P.
bicolor), 1 conspicuous clearer gray longitudinal me-
dial stripe on acrostichal area (dark-gray in P. bicolor),
the hindtibia with 3 anterodorsal setae (2 at basal third
and 1 at apical third) (absents in P. bicolor), the epan-
drium, in posterior view, with apex very narrow (broad
in P. bicolor), the arm of epandrium narrow and trun-
cate at apex (broad and rounded at apex in P. bicolor),
circus narrow and rounded (broadly and poited dor-
sally in P. bicolor), the presurstylus separated medially
and concave at ventral margin (narrowly connected
and linear at ventral margin in P. bicolor), the arm of
hypandrium apically narrow and acute (apically broad
and rounded in P. bicolor) and the aedeagus narrow
and apically rounded (broad and apically angulate in
P. bicolor) (Figs. 1-4).

Female similar to male.

Etymology: the species epithet, grisea, refers to the
general and homogeneous gray coloration.

Paralimna (Paralimna) subinvisa n. sp.

Type material: holotype ♂ and 2 paratypes ♀ ♀ from
Sierra Leone, Southern Province, Tiwai Islands,
11/15.X.1989, Walter Rossi leg.. Holotype and paratype laterally micropinned. Abdomen and termi-

Figs. 1-2. Paralimna (Phaiosterna) grisea n. sp. (Holotype:
Sierra Leone, Northern Province, near Bumbuna, 12.III.1993).
1 - External male terminalia: epandrium in ventral view; 2 -
internal male terminalia: hypandrium and phallapodeme.
Scale bar: 0.1 mm.

Figs. 3-4. Paralimna (Phaiosterna) bicolor (Macquart,
1851) (Sierra Leone, Western Area, Regent, 8.III.1993).
3 - External male terminalia: epandrium in ventral view; 4 - in-
ternal male terminalia: hypandrium and phallapodeme. Scale
bar: 0.1 mm.
Two new species of Paralimna Loew, 1862 from Sierra Leone

Body length: mm 2.8-2.9.

Description: Male. Head: frons, occiput and gena dark brown, with dark brown microtomentum; face and parafacial brownish with brown microtomentum; antenna with scape and pedicel dark; flagellomere brownish, 1.5 times longer than wide; parafacial with 2 developed and 3 shorter setae; gena-to-eye ratio 0.25-0.26.

Thorax: scutum and scutellum brownish with grayish microtomentum; pleura dark brown with gray microtomentum; scutum with three dark brown median vittae, of equal width, along the dorsocentral and acrostichal area; 1 row of small acrostichal setulae and 2 developed prescutellar setae; 3 well developed dorsocentral setae; 1 lateral seta; 2 notopleural setae; scutellum with 1 apical and 1 lateral seta; legs brown, with forefemur dark; mid- and hindtibiae with 3 anterodorsal setae; wing slightly brownish with brownish veins; halter yellow; costal-vein ratio 0.62-0.64; M-vein ratio 0.44-0.45.

Abdomen: gray, with gray microtomentum; tergites with grayish stripes reduced and restricted to lateral and posterior thirds of segments.

Male genitalia: epandrium in posterior view slightly acute apically; cercus linear and very narrow; presurstylus very curvate and concave at ventral margin; hypandrium broad with arm truncate at apex; aedeagus broad and truncate apically.

Comparative Remarks: Paralimna (Paralimna) subinvisa n. sp. is similar to Paralimna (Paralimna) invis Soika, 1956 in having the face brown, the thorax unicolourous with 3 longitudinal stripes, and the wing only slightly infumated. It differs from the latter species mainly in the following characters: the paraf-
cial with 2 developed setae (1 in \textit{P. invisa}); the genato-eye ratio 0.25-0.26 (0.36-0.37 in \textit{P. invisa}) the stripes of the scutum of equal width (the central vitta two thirds larger than the lateral in \textit{P. invisa}); the costal-vein ratio 0.62-0.64 (0.58-0.60 in \textit{P. invisa}); the M-vein ratio 0.44-0.45 (0.55-0.56 in \textit{P. invisa}); the epandrium slightly acute apically (arcuate in \textit{P. invisa}); the cercus linear and narrow (broad and curved basally in \textit{P. invisa}), the pregostylus curvate and concave at ventral margin (ovoid and linear in \textit{P. invisa}); the hypandrium broad with arm truncate apically (narrow and rounded apically in \textit{P. invisa}) and the aedeagus broad and truncate apically (narrower and rounded apically in \textit{P. invisa}) (Figs. 5-8).

Female similar to male.

\textbf{Etymology}: the species epithet, \textit{subinvisa}, refers to the general similarity to the similar species \textit{invisa}.

\textbf{Acknowledgements}

I thank the Museo di Storia Naturale, Venice for allowing me to study the material subject of the present work. I also thank Dr. Lloyd Knutson (Gaeta, Italy) for critical reviewing the manuscript.

\textbf{References}

