

NOTES ON *ORTHELLIA* R.-D. FROM THE ORIENTAL REGION (Diptera : Muscidae)¹

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Abstract : Descriptions of a new species, *O. ruficornis* n. sp. from Viet Nam, of the ♂ of *O. fletcheri* Emden, and a redescription of *O. sperata* (Walker) are presented here. *O. fletcheri* is newly recorded from India, Nepal, Thailand, and Viet Nam.

Orthellia ruficornis Shinonaga, new species Fig. 1.

♂. Body length 6.0 mm. *Head* : Eyes bare, facets of upper 1/2 not enlarged ; frons narrow, narrowest point about 2× width of ocellus ; parafrontals and parafacials metallic black, lower part of parafrontals and upper part of parafacials with a pair of silver patches ; genae and metacephalon black with black hairs ; gena about 1/10 of eye height ; 2nd antennal segment dark brown, 3rd orange with grayish pollen and about 3× length of 2nd ; arista yellowish brown, feathered ; palpi dark brown, slender ; lateral part of occiput metallic blue-green. *Thorax* : Scutum and scutellum metallic blue-green, entirely covered with setiferous spots ; *ac* 0+0 ; *dc* 0+1 ; *ia* 0 ; *prs* 0 ; *h* 1 ; *ph* 0 ; *nt*, *sa* and *pa* 2 ; *scut* 0+2 ; *st* 0+1 ; prosternum hairy ; propleuron bare ; hypopleuron with fine hairs on upper part ; meso- and metathoracic spiracles dark brown, metathoracic spiracle with several hairs on posterior part. *Wings* : Hyaline ; basal 1/2 without setiferous spots ; veins yellowish brown ; *r*₁ bare ; *r*₄₊₅ with a row of short setae on dorsal and ventral surfaces ; *m*₁₊₂ bow-shaped, generally bending anteriorly ; *R*₅ open ; basicoستا brown ; epaulet dark brown ; subcostal sclerite yellowish brown with several black hairs ; section III of costa about 4/5 length of section V ; costal spines extending to basal 1/3 of section V ; squamae yellow with yellowish marginal cilia, lateral halves of upper squamae whitish ; halter yellow. *Legs* : Femora and tibiae dark brown, tarsi yellow : fore tibia with a row of short bristles on anterodorsal surface, several hairs on ventral surface ; mid tibia with 5 bristles on posterolateral surface, 1 bristle at distal 1/3 of posteroventral surface ; hind tibia with 3 bristles on middle part of anteroventral surface. *Abdomen* : Metallic dark bluish green ; marginal bristles weak ; 5th tergite with long hairs ; sternites dark brown with black hairs ; genital tergite metallic bluish green ; genitalia as shown in fig. 1.

♀. Body length 4.5-6.0 mm. Frons about 1/4 width of head ; frontal vitta narrow and slender, about 1/2 width of parafrontals and with grayish pollen ; parafrontals metallic black with greenish iridescence and numerous fine hairs ; frontal bristles weak ; lower part of parafrontals and upper part of parafacials with silvery rounded spots, which on the upper most part become rectangular ; 3rd antennal segment broader than that of ♂, about 1/2 as wide as long ; fronto-orbital bristles absent ; outer vertical bristles well developed ; genitalia as shown in fig. 1.

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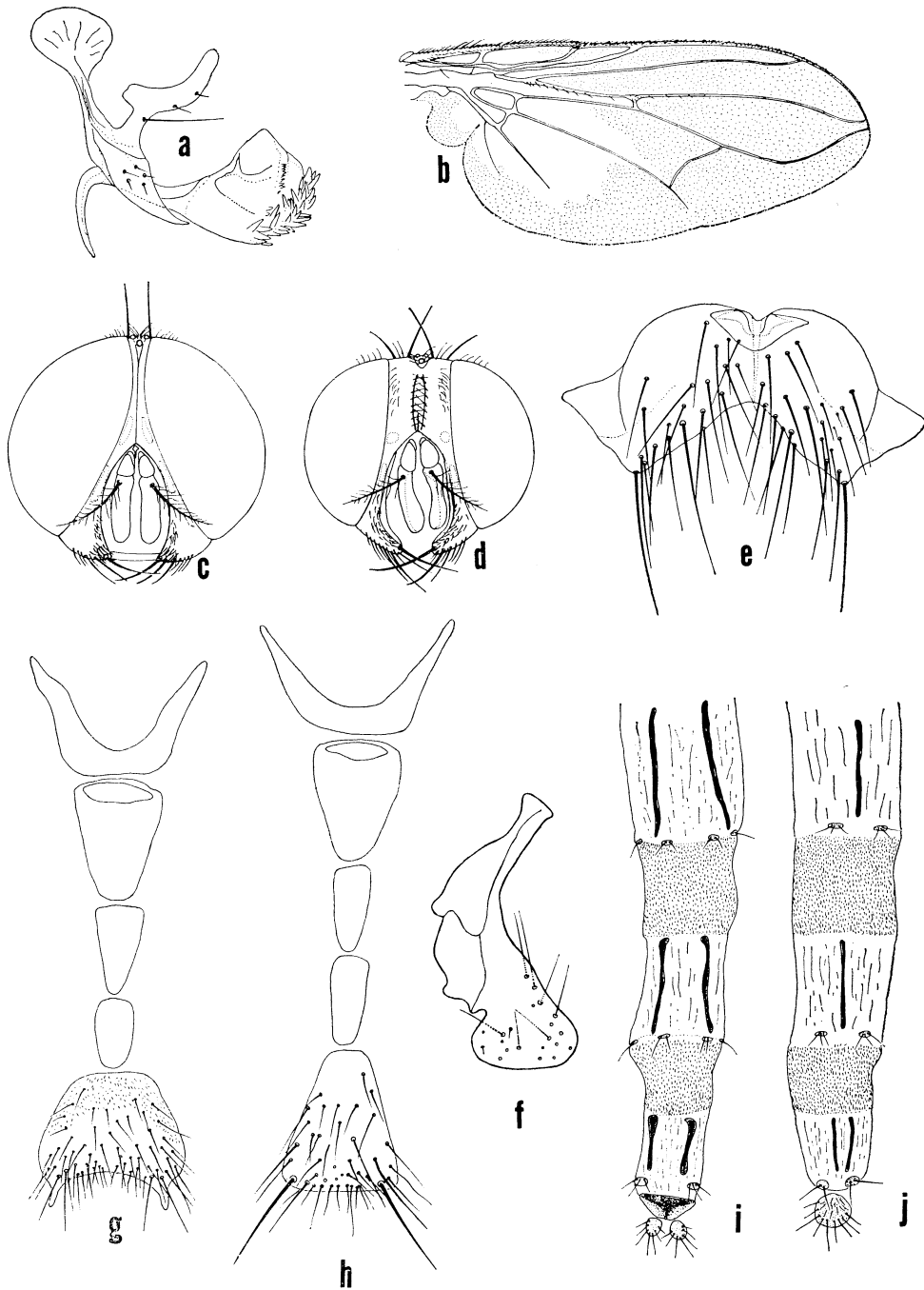


Fig. 1. *Orthellia ruficornis* n. sp.: a, phallosome; b, right wing; c, ♂ head; d, ♀ head; e, cerci; f, paralobi; g, sternites of ♂; h, sternites of ♀; i, dorsal view of ovipositor; j, ventral view of ovipositor.

Holotype ♂ (BISHOP 9156), M'drak, E of Ban Me Thout, Viet Nam, 8-19.XII.1960, C. M. Yoshimoto. Allotopotype ♀ (BISHOP), same locality as holotype, S. Quate.

Paratypes: 2 ♀♀, same data as holotype, C. M. Yoshimoto & S. Quate.

Remarks: This species is closely related to *O. claripennis* and *O. diffidens*, but it differs from them by having yellow tarsi and orange antennae. Setiferous spots on dorsum are clearer than those of the other species.

***Orthellia sperata* (Walker) Fig. 2.**

Musca sperata Walker, 1860, *Proc. Linn. Soc. Lond.* 4: 136.

Musca electa Walker, 1860, *Proc. Linn. Soc. Lond.* 4: 163.

Orthellia trispina Malloch, 1928, *Ann. Mag. Nat. Hist. ser. 10*, 1: 474.

♂. Body length 6.5-7.5 mm. *Head*: Eyes sparsely covered with microscopic hairs, facets of upper part not enlarged; frons slightly open, at narrowest point a little narrower than width of 3rd antennal segment; parafrontals and parafacials black with golden pruinescence, bare; genae and metacephalon black with numerous black hairs; gena about 1/6 height of eye; face dark brown with grayish pollen; 2nd antennal segment dark brown or brown, 3rd segment dark brown with grayish pollen and about 2× length of 2nd; arista dark brown, feathered; palpi dark brown, slender; occiput black. *Thorax*: Metallic green, with blue and purple iridescence; *ac* 0+1; *dc* 1+3; *ia* 0+1; *prs* 1; *h* 3; *ph* 1; *nt* 2; *sa* 3; *pa* 2; *scut* 1+2; *st* 1+3; prosternum hairy; propleuron bare; meso- and metathoracic spiracles dark brown. *Wings*: Hyaline; slightly infuscated toward base of wing; *r*₁ bare; *r*₄₊₅ with a row of short setae on dorsal and ventral surfaces; *m*₁₊₂ bow shaped, bending anteriorly; basicosta dark brown; epaulet black; subcostal sclerite brown with several hairs; squamae brown with brownish

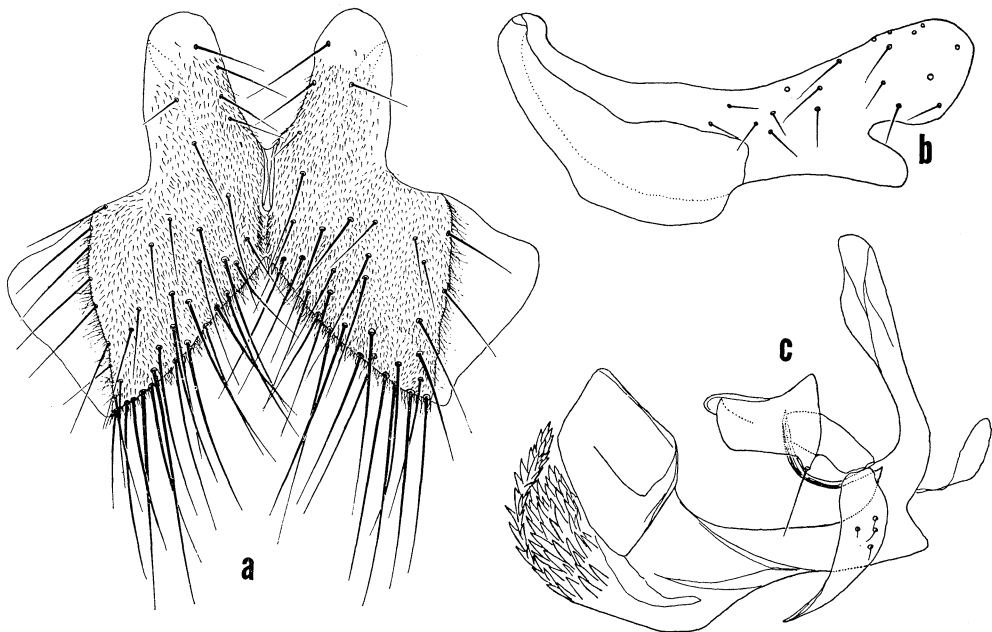


Fig. 2. *Orthellia sperata* (Walker): a, cerci; b, paralobi; c, pallosome.

marginal cilia; halter brown. *Legs*: Dark brown; fore tibia with only preapical bristles; mid tibia with 4 bristles on posterolateral surface, 1 bristle at distal 1/3 of posteroventral surface; hind tibia with a row of short bristles on anterodorsal surface, 1 bristle on distal 1/3 of dorsal surface. *Abdomen*. Metallic green or blue with golden iridescence; marginal bristles developed on 4th tergite; 2nd genital tergite greenish, with black hairs; sternites dark brown with numerous black hairs. Genitalia as shown in fig. 2.

SPECIMENS EXAMINED. BORNEO: 11 ♂♂, 72 ♀♀, Kalabakan, 10-19.XI.1958, T. C. Maa; 54 ♂♂, 17 ♀♀, Forest Camp, 19 km N of Kalabakan, IX-X.1962, Maa.

Remarks: Malloch (1928) has described *O. trispina* with the ♀ specimen. According to Aubertin (1933) and van Emden (1965), *O. trispina* is a synonym of *sperata*. Malloch's type was compared with *sperata* from North Borneo and reaffirmed that *trispina* Malloch is a synonym of *sperata*.

***Orthellia fletcheri* Emden** Fig. 3.

Orthellia fletcheri Emden, 1965, Fauna of India, Muscidae, 122.

♂. Body length 7.0-9.0 mm. *Head*: Eyes with sparsely microscopic hairs, facets of upper 1/2 remarkably enlarged; frons narrow, narrowest part closed each other; parafrontals narrow and upper part of parafacials black or reddish brown with fine hairs; genae and metacephalon black with greenish pollen and numerous black hairs; gena about 1/4 of eye height; face and epistoma black with grayish pollen; vibrissae inserted above mouth margin; 2nd antennal segment dark brown, 3rd segment reddish brown with grayish pollen and about 3× 2nd segment; arista brown, feathered; palpi dark brown, slender; lateral part of postocular margin metallic blue-green; postocular setae black; occipital hairs black. *Thorax*: Scutum metallic dark green with bluish dust with 2 dark obscure longitudinal stripes; scutellum purplish without pollen; *ac* 0+1; *dc* 2+4; *ia* 0+2; *prs* 1; *h* 3; *ph* 1; *nt* 2, *sa* 2; *pa* 2; *scut* 1+2; *st* 1+2-3; prosternum hairy; upper part of propleuron bare; pteropleuron with numerous hairs; hypopleuron with numerous fine hairs; suprasquamal ridge with numerous hairs; supraspiracular convexity with brownish cilia; tympanic tuft of hairs present; postalar declivity bare; meso- and metathoracic spiracles dark brown; metathoracic spiracles with black bristles on posterior

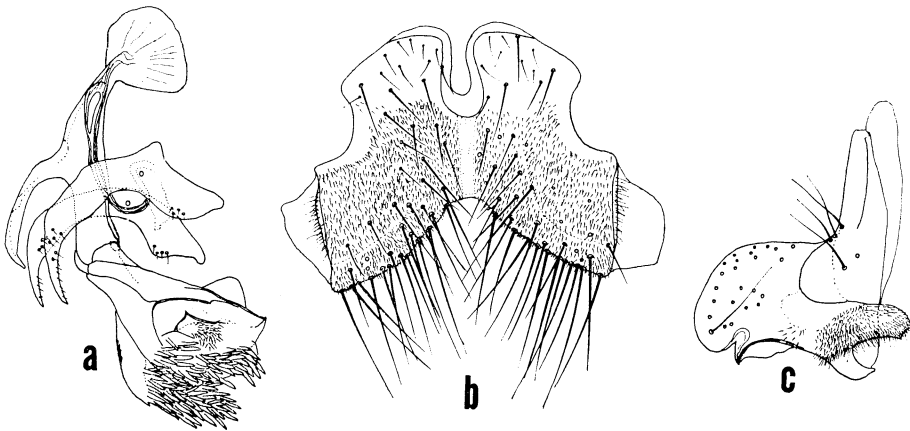


Fig. 3. *Orthellia fletcheri* Emden: a, phallosome; b, cerci; c, paralobi.

parts. *Wings*: Hyaline; veins dark brown; r_1 bare; r_{4+5} with a row of short setae on the dorsal and ventral surfaces; m_{1+2} rather sharply bending forward; basicosta and epaulet black; subcostal sclerite brown with black hairs; R_5 open; squamae blackish brown, lateral parts of upper squamae grayish, marginal cilia dark brown, lower squamae broad posteriorly; halter yellowish brown, apical part darker. *Legs*: Femora black or dark brown; fore tibia with a row of short bristles on anterodorsal surface; mid tibia with 4 bristles on posterolateral surface, 1 bristle at distal 1/3 of posterolateral surface; hind tibia with 2 or 3 bristles on anteroventral surface, a row of short bristles on anterodorsal and posterodorsal surface. *Abdomen*. Metallic blue-green with purplish reflection; marginal bristles weak; 5th tergite with numerous long hairs; sternites black with greenish pollen and black hairs; genital tergite metallic blue-green. Genitalia as shown in fig. 3.

SPECIMENS EXAMINED. INDIA : 10 ♂♂, 13 ♀♀, Cinchona, Anamalai Hills, X.1955; 1 ♂, 3 ♀♀, Kodaikanal, Pulney Hills, IV.1953; 1 ♀, Coimbatore, X.1951; 1 ♀, 1 ♂, Ammatti, S. Coorg, X.1952. NEPAL : 2 ♂♂, Godavari, Kathmandu, 15.IV.1967; 1 ♂, 1 ♀, 4.VII.1964, and 1 ♀, 23.V.1964, same locality, R. Kano. THAILAND : 1 ♂, Chiangmai, Doi Suthep, 14. XI.1957; 2 ♂♂, Chiangmai, Chiangdao, 5-11.IV.1958. VIET NAM : 1 ♀, 17 km N of Dilinh, 6-13.X.1960; 1 ♀, Dalat, 9.VI-7.VII.1961; 1 ♀, Ap Hung-Lam, 21 km NW of Dilinh, 29.IX-5.X.1960.

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