

## Three new Afrotropical species of the Australian genus *Corindia* Bickel (Diptera: Dolichopodidae)

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*C. verschureni*, *C. danielssoni* and *C. saegeri* spp. n. from Congo (Kinshasa), Gabon and Gambia are described. A key to Afrotropical species of *Corindia* is given. *Corindia* is the third dolichopodid genus with Afro-Australian distribution.

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**Key words.** Diptera, Dolichopodidae, *Corindia*, Tropical Africa, key, new species.

### Introduction

Bickel (1986) described the genus *Corindia* for nine new species from eastern part of Australia within the subfamily Medeterinae. *Corindia* has close phylogenetic relationship with the cosmopolitan genus *Thrypticus* Gerstaecker. In this paper a key and descriptions for three new Afrotropical species of *Corindia* are given. It is the third dolichopodid genus with Afro-Australian distribution. Four species of *Dactylonotus* Parent are known from South Africa, and *D. formosus* (Parent) is described from New Zealand. Six species of the genus *Dytomyia* Bickel are known from Australia and New Guinea and four species from Madagascar.

Holotypes and paratypes of the new species are deposited in the Royal Institute for Natural Sciences, Brussels [RINS], Royal Museum for Central Africa, Tervuren [RMCA] and Lund University, Sweden [Lund].

### *Corindia verschureni* sp. n.

(Fig. 1)

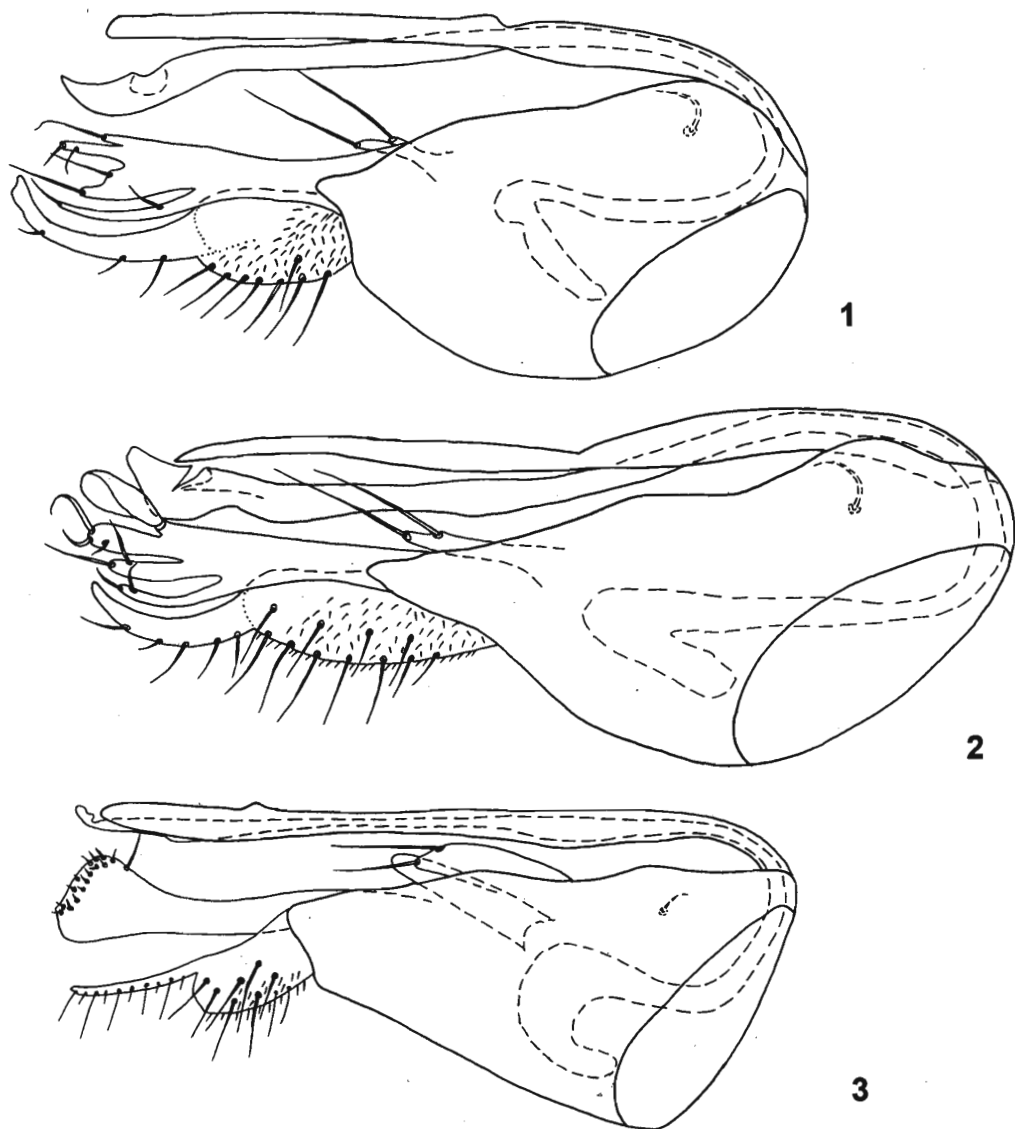
**Holotype.** Male, Congo Belge, P.N.G., Miss. De Saeger, Pp.K/55/d/8, 19-XI-1951, Rec. H. De Saeger, 2768 [RMCA].

**Paratypes.** 32 males with the same label as holotype (5 of them collected by J. Verschuren), differing in the collection dates and codes as follows:

I/o/3, 31-III-1950, 352; II/ee/4, 27-IV-1951, 1625; II/gd/8, 20-VI-1951, 1947; II/lf/9, 21-III-1951, 2299; II/gd/11, 23-III-1951, 2314; II/gd/10, 25-III-1951, 2316; II/fd/15, 22-IX-1951, 2464; II/gc/9, 28-IX-1951, 2481; II/fc/6, 30-X-1951, 2699; II/fc/8, 8-XII-1951, 2876; PFSK.20/11, 16-VI-1952, 3629; II/fc/11, 25-VI-1952, 3700; II/gd/4, 26-VI-1952, 3706; II/fe/7, 4-VII-1952, 3729; II/gc/8, 10-VII-1952, 3765; II/fd/12, 5-VIII-1952, 3884; II/gd/4, 8-VIII-1952, 3923; II/gd/11, 4-IX-1952, 4036; PpK.9/g/9, 10-IX-1952, 4044.

**Description.** Male. Frons blue-violet. Face entirely shining bluish-black. One strong vertical seta laterally on frons, one fine postvertical seta present. Face widest under antennae, narrowed downward, clypeus parallel-sided. Ratio of height of epistome to its maximal width to height of clypeus, 10 : 9 : 8. Antenna 1/4 longer than head; scape and pedicel reddish-yellow, 1st flagellomere black; pedicel with a ring of short apical setulae; first flagellomere as long as high, irregularly rounded, with ovoid apex and short terminal hairs. Arista apicolateral, with short hairs, 8 times longer than antennomeres combined. Palpus and proboscis short, black-brown, palpus with one black seta.

Mesonotum flattened in posterior third, metallic blue-green, with light setae. Pleura metallic green. Five pairs of strong dorsocentral setae decreasing in size anteriorly. Acrostichal setae biseriate. One light propleural seta. Scutellum with a pair of strong and a pair of short hairlike lateral setae.



Figs 1—3. *Corindia* spp., hypopygium, lateral view.  
1, *C. verschureni* sp.n.; 2, *C. saegeri* sp.n.; 3, *C. danielssoni* sp.n.

Legs mostly yellow; fore coxa yellow-brownish, middle and hind coxae brown, last tarsomeres of all tarsi brown. Fore coxa with short hairs and several apical setae; middle coxa with hairs and one external seta; hind coxa with one strong and one fine external setae. Fore leg without setae. Middle tibia with one strong anterodorsal at basal fourth and one strong apicoventral setae. Hind femur simple. Hind tibia with short setae. All tarsi simple. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 20 : 25 : 28 : 12 : 5 : 4 : 3 : 3. Same ratio for middle leg, 13 : 34 : 30 : 15 : 7 : 5 : 4 : 4. Same ratio for hind leg, 10 : 35 : 40 : 9 : 13 : 7 : 5 : 5.

Wing simple, hyaline, veins brown; posterior wing margin evenly convex; maximum wing-width at the end of  $CuA_1$ . Costa without long hairs.  $R_1$  1/3 as long as wing.  $R_{2+3}$  almost straight.  $R_{4+5}$  inconspicuously convex anteriorly. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_{1+2}$ , 18 : 6. Ratio of apical to basal part of  $M_{1+2}$ , 47 : 32.  $R_{4+5}$  and  $M_{1+2}$  parallel in apical part. Ratio of cross-vein  $m-cu$  to maximal distance between  $R_{4+5}$  and  $M_{1+2}$  to apical part of  $CuA_1$ , 7 : 6 : 18. Anal vein absent; anal lobe reduced. Alula undeveloped. Lower calypter yellow. Halter yellow-brownish.

Abdomen including epandrium metallic dark-bluish-green, with short black setae. Hypandrium, surstylus and cercus yellow-brownish. Epandrium elongate-oval, with basolateral foramen. One epandrial seta at base of hypandrium. Epandrial lobe long, thin, with 2 long setae, one apical and one middorsal. Hypandrium long and thin, with short constriction before the middle. Aedeagus thin, slightly widened before apex and narrowed at apex, with ventral excision before apex. Surstylus branched, with simple setae as figured; dorsal lobe the longest. Cercus suboval, with long dorsal setae; distolateral cercal arm longer than surstylus, longer than cercus, with 3 dorsal setae as figured.

Female unknown.

Length (mm): body without antennae 1.4–1.6, antenna 0.7, wing-length 1.5, wing-width 0.5, postabdomen 0.6.

*Distribution.* Congo (Kinshasa).

*Etymology.* The species is named for one of the collectors, J. Verschuren.

*Diagnosis.* The new species is keyed to Australian *C. cooloola* Bickel (1986), differing in longer apical part of  $CuA_1$  wing vein, longer and thinner branches of surstylus and other characters of hypopygium.

### *Corindia saegeri* sp. n.

(Fig. 2)

*Holotype.* Male, Congo Belge, P.N.G., Miss. De Saeger, II/c/10, 7-IX-1951, Rec. H. De Saeger, 2391 [RMCA].

*Paratypes.* 7 males with the same label as holotype (one of them collected by J. Verschuren), differing in the collection dates and codes as follows: II/gd/10, 25-VIII-1951, 2391; II/gd/10, 28-XII-1951, 2954; II/gd/11, 20-V-1951, 1808; II/gd/16, 26-IX-1952, 4084; II/hd/8, 26-IX-1951, 2475; Pp.K.52.g, 16.X.1951, 2614 [RMCA]. 1 male, Gabon: Ntoun, VIII.1984, P.M., A. Pauly R(c. / Coll. R.I.Sc.N.B. [RINS].

*Description.* Male. Similar to *C. verschureni* sp.n. in almost all respects except as noted. Length ratio of fore tibia to tarsus (segments from first to fifth), 30 : 13 : 6 : 4 : 4 : 3. Same ratio for middle leg, 40 : 19 : 11 : 7 : 5 : 5. Same ratio for hind leg, 45 : 10 : 15 : 8 : 6 : 5. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_{1+2}$ , 20 : 7. Ratio of cross-vein  $m-cu$  to maximal distance between  $R_{4+5}$  and  $M_{1+2}$  to apical part of  $CuA_1$ , 8 : 8 : 20.

Abdomen including epandrium metallic dark-bluish-green, with short black setae; Hypandrium, surstylus and cercus yellow-brownish. Epandrium elongate, with basolateral foramen. One epandrial seta at base of hypandrium. Epandrial lobe long, thin,

with 2 long setae, one apical and one subapical. Hypandrium long and thin, with short constriction before the middle. Aedeagus thin, strongly widened before apex, narrowed at apex, with deep ventral incision before apex. Surstylus branched, with setae as figured; ventral lobe the longest; ventral lobe with broad spoonlike midventral seta. Cercus suboval, with long dorsal setae; distolateral cercal arm shorter than surstylus, shorter than cercus, with 5 dorsal setae as figured.

Female unknown.

Length (mm): body without antennae 1.6–1.8, wing-length 1.5–1.6, wing-width 0.6, hypopygium 0.5.

*Distribution.* Congo (Kinshasa), Gabon.

*Etymology.* The species is named for one of the collectors, H. De Saeger.

*Diagnosis.* The new species is similar to *C. verschureni* sp.n., differing in cercus not longer than surstylus; dorsal lobe of surstylus shorter than ventral lobe; ventral lobe having short flat spoonlike apical seta.

### *Corindia danielssoni* sp. n.

(Fig. 3)

*Holotype.* Male, Gambia, at road junction to Situ Sinjang, about 2.5 km SE Kafuta, 1.III.1977, Loc. No. 11, UTM 28PCK41-57 / Lund Univ., Syst. Dept., Sweden Gambia/Senegal. Febr.-March 1977, Cederholm - Danielsson - Larsson - Mirestrom -Norling - Samuelsson.

*Paratypes.* Female with the same label; 1 male, Congo Belge, P.N.G., Miss. H. De Saeger, II/gc/11, 5-X-1951, Rec. H. De Saeger, 2521 [RMCA].

*Description.* Male. Similar to *C. verschureni* sp.n. in almost all respects except as noted. Ratio of height of epistome to its maximal width to height of clypeus, 11 : 7 : 8. Legs light-yellow; fore coxa yellow, middle and hind coxae brown with yellow apex, tarsi yellow. Length ratio of fore tibia to tarsus (segments from first to fifth), 28 : 13 : 5 : 3 : 3 : 3. Same ratio for middle leg, 35 : 15 : 10 : 7 : 4 : 4. Same ratio for hind leg, 45 : 9 : 16 : 6 : 5 : 5. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_{1+2}$ , 24 : 5. Ratio of cross-vein  $m-cu$  to maximal distance between  $R_{4+5}$  and  $M_{1+2}$  to apical part of  $CuA_1$ , 8 : 6 : 20.

Abdomen including epandrium metallic dark-bluish-green, with short black setae; Hypandrium, surstylus and cercus yellow-brownish. Epandrium elongate-triangular, with basolateral foramen. One epandrial seta at base of hypandrium. Epandrial lobe long, broad, with 2 long setae at apex. Long simple sclerite (9th sternite?) positioned between epandrial lobes. Hypandrium long and thin, swollen in apical third

(ventral view), strongly narrowed at apex. Aedeagus thin, with ventral excision before apex. Surstylus simple, with about 14 short apical spinules and 1 subapical ventral seta. Cercus subrectangular; cercus and thin distolateral cercal arm with long dorsal setae as figured.

Female. Similar to male except lacking male secondary sexual characters.

Length (mm): body without antennae 1.5—1.6, antenna 0.7, wing-length 1.5, wing-width 0.5, postabdomen 0.6.

*Distribution.* Gambia, Congo (Kinshasa).

*Etymology.* The species is named for one of the collectors, R. Danielsson.

*Diagnosis.* The new species is similar to *C. verschureni* sp.n., differing in lighter legs, longer distance between apices of  $R_{2+3}$  and  $R_{4+5}$ , simple surstylus and other characters of hypopygium.

## Key to Afrotropical species of *Corindia* Bickel

(males)

1. Part of costa between  $R_{2+3}$  and  $R_{4+5}$  about 5 times longer than this between  $R_{4+5}$  and  $M_{1+2}$ ; surstylus simple, knoblike ..... *danielssoni*

- Part of costa between  $R_{2+3}$  and  $R_{4+5}$  approximately 2.5—3 times longer than this between  $R_{4+5}$  and  $M_{1+2}$ ; surstylus branched ..... 2
- 2. Cercus longer than surstylus; dorsal lobe of surstylus longer than ventral lobi; ventral lobe with simple setae ..... *verschureni*
- Cercus not longer than surstylus; dorsal lobe of surstylus shorter than ventral lobi; ventral lobe with broad spoonlike ventral seta ..... *saegeri*

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## Reference

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