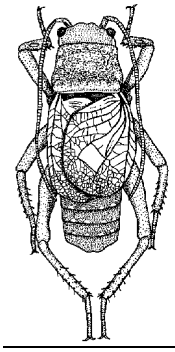

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A KEY TO THE AFROTROPICAL GENERA OF THE SUBFAMILY DOLICHOPODINAE WITH DESCRIPTIONS OF NEW TAXA (DIPTERA: DOLICHOPODIDAE)

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A key to the Afrotropical genera of the subfamily Dolichopodinae is compiled. New genus *Neohercostomus* Grichanov, **gen. n.** [type species – *Hercostomus strictilamellatus* (Parent, 1937)] and a new subgenus of this genus, *Subhercostomus* Grichanov, **subgen. n.** [type species – *Neohercostomus manningi* Grichanov **sp. n.**], are described in the tribe Dolichopodini. Fourteen species of the genus *Hercostomus* Loew, 1857 are transferred to *Neohercostomus* **gen. n.** Seven new species are described from Africa: *Neohercostomus* (s. str.) *arzanovi* Grichanov, **sp. n.**, *N.* (s. str.) *ashleyi* Grichanov, **sp. n.**, *N.* (s. str.) *rodionovae* Grichanov, **sp. n.**, *N.* (s. str.) *selivanovae* Grichanov, **sp. n.**, *N.* (s. str.) *storozhenkoi* Grichanov, **sp. n.**, *Neohercostomus* (*Subhercostomus*) *manningi* Grichanov, **sp. n.**, and *N.* (*S.*) *silvicola* Grichanov, **sp. n.** A key to species of the genus *Neohercostomus* is given.

KEY WORDS: Diptera, Dolichopodidae, Dolichopodinae, systematic, new taxa, new combinations, Africa.

И. Я. Гричанов. Определительная таблица афротропических родов подсемейства Dolichopodinae с описанием новых таксонов (Diptera: Dolichopodidae) // Дальневосточный энтомолог. 2011. N 234. С. 1-33.

Составлена определительная таблица афротропических родов подсемейства Dolichopodinae. В трибе Dolichopodini описаны новые для науки род *Neohercostomus* Grichanov, **gen. n.** [типовой вид – *Hercostomus strictilamellatus* (Parent,

1937)] и подрод этого рода *Subhercostomus* Grichanov, **subgen. n.** [типовой вид – *Neohercostomus manningi* Grichanov **sp. n.**]. Четырнадцать видов рода *Hercostomus* Loew, 1857 перенесены в род *Neohercostomus* **gen. n.** Из Африки описаны 7 новых видов: *Neohercostomus* (s. str.) *arzanovi* Grichanov, **sp. n.**, *N.* (s. str.) *ashleyi* Grichanov, **sp. n.**, *N.* (s. str.) *rodionovae* Grichanov, **sp. n.**, *N.* (s. str.) *selivanovae* Grichanov, **sp. n.**, *N.* (s. str.) *storozhenkoi* Grichanov, **sp. n.**, *Neohercostomus* (*Subhercostomus*) *manningi* Grichanov, **sp. n.** и *N.* (*S.*) *silvicola* Grichanov, **sp. n.** Дана определительная таблица видов рода *Neohercostomus*.

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INTRODUCTION

Within the genus *Hercostomus* Loew, 1857, one of the largest dolichopodid genera, three new genera have been recently established and the generic status of two former subgenera has been restored (Brooks, 2005; Brooks & Wheeler, 2005; Zhang & Yang, 2005; Grichanov, 2010). Nevertheless, *Hercostomus*, as currently recognized, is still a polyphyletic assemblage of species, sharing many characters with the closest genera (Germann et al., 2009; Pollet et al., 2010).

Grichanov (1999) divided Afrotropical species of the genus *Hercostomus* Loew, 1857 into three groups. *Hercostomus* Group I ("*Hercostomus*" *straeleni* group) was separated in a new genus *Afrohercostomus* Grichanov, 2010. Brooks (2005) and Grichanov (2010) considered Afrotropical *Hercostomus* Group II to be part of the nominotypical *Hercostomus longiventris* lineage (*Hercostomus* sensu stricto).

Treating new dolichopodid material, I have found males and/or females of seven new species collected in South Africa, DR Congo and Gabon. These species are members of the *Hercostomus* Group III (Grichanov, 1999, 2004). Their thorough examination supports the generic status of the group including now 21 species. This paper comprises diagnosis of the new genus *Neohercostomus* Grichanov, gen. n. within the subfamily Dolichopodinae (tribe Dolichopodini); three species of the new genus, all from South Africa, are separated in the subgenus *Subhercostomus* Grichanov, subgen. n. A key to the Afrotropical genera of the subfamily Dolichopodinae and a key to species of the new genus are compiled, and characters of the *Neohercostomus* and *Subhercostomus* are listed.

MATERIAL AND METHODS

Material cited in this work is housed at the Natal Museum, Pietermaritzburg, South Africa (NMSA), at the Collections of the National Museum, Bloemfontein, South Africa (BMSA) and at the Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia (ZIN).

The specimens were studied and illustrated with ZEISS Discovery V-12 stereomicroscope and AxioCam MRc5 camera. Morphological terminology follows

Grichanov (2007) and Cumming & Wood (2009). The relative lengths of the podomeres should be regarded as representative ratios and not measurements. Body length is measured from the base of the antenna to the tip of abdominal segment 7. Wing length is measured from the base to the wing apex. Figures showing the male genitalia in lateral view are oriented as they appear on the intact specimen (rotated 180° and lateroflexed to the right), with the morphologically ventral surface of the genitalia facing up, dorsal surface down, anterior end facing right and posterior end facing left.

The following abbreviations are used below: BMNH – The Natural History Museum, London, United Kingdom; IRSNB – Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium; MNHP – Museum of Natural History, Paris, France; MZLU – Zoological Museum, Lund University, Sweden; RMCA – Musee Royal de l'Afrique Centrale, Tervuren, Belgium; ZIUK – Zoological Institute, Kiel University, Germany.

SYSTEMATICS

Subfamily Dolichopodinae

NOTES. Original key to the Afrotropical genera of Dolichopodinae is given below. See also keys to genera by Brooks (2005) and Bickel (2009).

Key to the Afrotropical genera

1. Antennal scape microscopically haired dorsally 2
– Scape with setae on dorsal surface 3
2. Hind coxa without strong external bristle; frons low, antennae positioned at the top of head; hypopygium large, pedunculate; cercus large, bisegmented .... ***Katangaia* Parent**
– Hind coxa with 1 strong external seta; frons high; hypopygium small, encapsulated; cercus small, suboval ..... ***Pseudohercostomus* Stackelberg**
3. Wing vein M_{1+2} broken in middle of distal part, joining costal vein just before wing tip, having two stublike veins; R_{4+5} and distal part of M_{1+2} (M_1) nearly parallel; hind basitarsus with a distinct bristle above, sometimes short .... ***Lichtwardtia* Enderlein**
– M_{1+2} not broken as above, R_{4+5} and distal part of M_{1+2} usually converging; hind basitarsus with or without dorsal bristles..... 4
4. Hind basitarsus with 1-3 strong bristles above; M_{1+2} sigmatoid at middle of distal part, sometimes with a stublike vein M_2 ..... ***Dolichopus* Latreille**
– Hind basitarsus without setae above, rarely with 1-2 feeble dorsal setae, slightly longer than diameter of basitarsus (a few species of *Afrohercostomus*); M_{1+2} various 5
5. Several strong anterodorsal setae in apical half of the hind femur in addition to the true anterior subapical seta; face narrowed under antennae and somewhat widened towards clypeus; wing vein M_{1+2} usually with gentle curvation before the middle of distal part, then running towards R_{4+5} and reaching costa far before the tip of wing; stylus short and bare; postpedicel usually short and suboval ..... ***Tachytrechus* Haliday**

– Hind femur usually with one true anterior subapical seta; face regularly narrowed towards clypeus or parallel-sided; wing vein M_{1+2} either with curvation beyond the middle of distal part or M_{1+2} reaching costa near the tip of wing; stylus often pubescent; postpedicel usually subtriangular, asymmetric 6

6. Wing vein M_{1+2} almost straight or slightly and regularly convex anteriorly; M_{1+2} and R_{4+5} subparallel or slightly convergent..... 7

– Wing vein M_{1+2} distinctly bent in distal part with strongly convergent R_{4+5} and M_{1+2}; or M_{1+2} sinuate, with flexion at basal third or at middle of distal part and sometimes with subapical flexion, and distal parts of M_{1+2} and R_{4+5} usually distinctly convergent..... 10

7. Thorax with distinct dark spot above notopleuron; some segments of male tarsi often remarkably coloured and modified; hypandrium simple; male cercus small, simple, with a few distinct strong distal setae; postgonite narrow 8

– Thorax lacking distinct dark spot above notopleuron; male tarsi usually not remarkably coloured or modified; hypandrium often lobate; cerci and postgonite various 9

8. Pleura with cluster of fine hairs in front of posterior spiracle; hind femur with anterior preapical seta positioned far from apex, i.e. at 2/3 to 3/5 length from base; 5 dorsocentrals; arista-like stylus with long hairs; wing brown, usually with pale transverse stripe just beyond crossvein *dm-cu*; notum with dark medial longitudinal stripe and usually a dark spot in front of scutellum; lower margin of clypeus subtriangular; male mid tarsus with 1st-4th segments often clear white; male hind tarsus simple; male abdominal spiracles 7 not enlarged; hypandrium mainly free, fused to epandrium basally near basiventral epandrial lobe .... ***Afropelastoneurus* Grichanov**

– Pleura bare in front of posterior spiracle; hind femur with anterior seta positioned at apex; 6 dorsocentrals; stylus shortly pubescent; wing evenly greyish, almost hyaline; upper notum evenly coloured; 1st-4th segments of male mid tarsus not remarkably coloured; three apical segments of male hind tarsus usually flattened and slightly widened; 1, 2 or 3 apical segments of the same tarsus usually silvery pilose on one side; male abdominal spiracles 7 enlarged; hypandrium short conical, fused to epandrium laterally .....***Afrohercostomus* Grichanov**

9. Mid tibia with at least one strong ventral seta; scape with pointed apicoventral process; male postpedicel subtriangular, with middorsal arista-like stylus .... ***Hercostomus* Loew** (part)

– Mid tibia with at most one row of few weak ventral setae; scape without pointed apicoventral process; male postpedicel securiform, with basidorsal arista-like stylus.....***Neohercostomus* Grichanov**

10. Wing vein *dm-cu* located at about basal third of wing, very short; vein M_{1+2} is distinctly bent in distal part, reaching costa near the tip of wing which has nearly parallel R_{4+5} and M_{1+2}; body non-metallic; frons black, grey or brownish pollinose, high, as high as face; male face very narrow, female face slightly wider, both almost parallel sided; antennal stylus basidorsal, bare; 5 dorsocentrals in regular rows; abdomen mostly orange-yellow with black dorsolateral spots; hind basi-tarsus of male without comma-shaped posterobasal projection..... ..... ***Pseudargyrochlamys* Grichanov**

– Venation variable, but *dm-cu* located at about half wing length; body usually metallic (non-metallic in *Argyrochlamys*), dark; face distinctly higher than frons; antennal stylus usually middorsal to subapical; 5–6 dorsocentrals, hind basitarsus of male with (*Argyrochlamys*) or without comma-shaped posterobasal projection 11

11. Body non-metallic; head grey, with whitish pollen, wider than high, with frons and face broad in both sexes; frons distinctly wider than high; thorax pale-grey to dark grey or blackish with whitish-grey pollen; antennal stylus dorsal to apical, bare; 6 dorsocentrals, fifth pair usually strongly offset medially; vein M_{1+2} beyond crossvein *dm-cu* usually with strong anterior bend and strongly convergent with R_{4+5}; abdomen yellowish brown; hind basitarsus of male with elongate comma-shaped posterobasal projection; male genitalia with proctiger brushes absent; female oviscapt usually with a pair of rod-like strong ventral lobes, exposed, if projections reduced, then setae of body and legs pale ..... ***Argyrochlamys* Lamb**

– Body usually metallic, dark; frons distinctly higher than wide; 5–6 dorsocentrals, penultimate posterior pair usually in line or weakly offset medially; hind basitarsus of male without comma-shaped posterobasal projection; female oviscapt usually hidden, simple 12

12. Hind femur with anterior seta positioned at apex, usually not or slightly flattened laterally; wing vein M_{1+2} weakly sinuate, with flexion at middle of distal part, and sometimes strongly sinuate in males; hypandrium rarely simple, usually complex..... 13

– Hind femur with anterior preapical seta positioned usually far from apex, i.e. at 2/3 to 3/5 length from base; hind femur often wide and flat; M_{1+2} distinctly bent in distal part with strongly convergent R_{4+5} and M_{1+2}, or M_{1+2} strongly sinuate, usually distinctly convergent with R_{4+5}; hypandrium usually simple 14

13. Male antennal pedicel greatly reduced; epandrial lobe well developed; hypandrium practically simple..... ***Sybistroma* Meigen**

– Antennal pedicel normal; epandrial lobe usually reduced to 1-2 setae; basiventral epandrial lobes and hypandrium forming a complex of entangled asymmetrical lobes..... ***Hercostomus* Loew** (part)

14. Antennal stylus long-pubescent, with hairs at least 1.5-2 times longer than basal diameter of stylus; hind tibia usually with strong ventral setae, if hind tibia with fine setae, then distoventral epandrial lobe stick-shaped; vein M_{1+2} various, often gently curved or sinuate; at least some species (*confusibilis* group) bearing pleural cluster of fine hairs in front of posterior spiracle ..... ***Apelastoneurus* Grichanov**

– Antennal stylus short-pubescent, with hairs shorter than basal diameter of stylus; hind tibia without strong ventral setae, usually with a row of very fine short setae; vein M_{1+2} convex posteriad, having gentle curvation towards R_{4+5} at middle of distal part (*Pseudoparaclius*) or M_{1+2} with right-angular curvation towards R_{4+5} at 2/3 of distal part, forming deep anterior arc in distal third (*Afroparaclius*); distoventral epandrial lobe never stick-shaped 15

15. Wing vein M_{1+2} convex posteriad, having gentle curvation towards R_{4+5} at middle of distal part; stylus positioned behind middle of dorsal side of postpedicel, usually at distal 2/3 or 3/4; male fore or mid legs often ornamented; epandrium large, trapezoidal, longer than high, with shorter ventral side (lateral view); hypandrium thick at base, usually with 2-3 relatively broad lobes; phallus short, concealed; distoventral epandrial lobe greatly expanded distally, often having 2 long modified setae; postgonite long, narrow; surstylus with long thin lobes; cercus well developed, often with inner lobe or fold bearing brush of hairs ..... ***Pseudoparaclius* Grichanov**

– Wing vein M_{1+2} with right-angular curvation towards R_{4+5} at 2/3 of distal part, forming deep anterior arc in distal third; stylus middorsal; male legs simple; epandrium large, suboval, nearly twice longer than high; hypandrium and phallus thin along their whole length and simple; distoventral epandrial lobe very small, immediately following epandrial seta; postgonite and surstylus relatively short; surstylus with dorsal lobe distinctly broader than ventral lobe; cercus small, simple ..... ***Afroparaclius* Grichanov**

Neohercostomus Grichanov, gen. n.

Hercostomus Group III (Grichanov, 1999, 2004).

Type species: *Hercostomus strictilamellatus* (Parent, 1937), here designated.

DIAGNOSIS. This generic diagnosis is based on males and females of 21 included species, and lists features considered to be of generic importance.

Length, 1.2 to 3.4 mm; body dark metallic; face gradually narrowed towards palpi, slightly broader in female; clypeus flat, not reaching lower margin of eyes; palpus and proboscis small; vertical setae stronger than postverticals; male antennomeres simple; male postpedicel securiform, with basidorsal stylus; arista-like stylus shortly pubescent; pleural surface in front of posterior spiracle usually bare, but *N. ashleyi* has katepisternum (above mid coxa) bearing 3 fine black setae and anepimeron (in front of posterior spiracle) bearing one fine black seta anteriorly; mesonotum without distinct dark spot above notopleuron; acrostichals, presutural and sutural bristles well developed; 5 pairs of strong dorsocentral bristles decreasing in length anteriorly with several hairs in front of the 1st pair; hind coxa with 1 strong external seta at middle; legs mostly yellow, hind femur usually black or brown in at least apical third; one strong posterior to posteroventral preapical seta on the mid femur; mid and hind femora with one subapical anterior bristle; mid and hind tibiae without strong ventral setae; male tarsi usually simple; rarely fore tarsus modified; wing usually hyaline, rarely wing apex modified in male; veins R_{4+5} and M_{1+2} nearly parallel or slightly convergent; M_{1+2} almost straight or slightly convex anteriorly; abdominal spiracle 7 invisible; hypandrium free, usually entire, but always with long thin basal lobe; postgonite distinct; surstylus bilobate; male cercus narrow, often ornamented with processes or bunches of long cilia.

COMPOSITION. The genus *Neohercostomus* comprises the two subgenera, nominotypical *Neohercostomus* and *Subhercostomus* Grichanov, subgen. n.

Subgenus *Neohercostomus* Grichanov, subgen. n.

Type species: *Hercostomus strictilamellatus* (Parent, 1937), here designated.

DIAGNOSIS. This subgeneric diagnosis is based on males and females of 18 included species, and lists features considered to be of generic importance. Similar to *Subhercostomus* subgen. n. in all respects except as noted (see also key to species below).

Legs mostly yellow with hind femur blackish or brown in at least apical third; lower postocular setae black or white; male wing simple at apex; hypopygium pedunculate, directed anterially, with elongate epandrium; epandrium with symmetrical lobes; epandrial lobe narrow, weakly to moderately projected distally, with 1-2 long ventral setae; male cercus usually narrow, often ornamented with processes or bunches of long cilia; surstylus often fused to epandrium.

Neohercostomus (*Neohercostomus*) *duviardi* (Couturier, 1978), comb. n.

Hercostomus duviardi Couturier, 1978: Bull. Soc. ent. France 82(9/10): 220 (holotype – ♂; Ivory Coast: Bouake, Foro; in MNHP); Grichanov, 1999: 30, fig. 21; Grichanov, 2004: 34.

DISTRIBUTION. Ivory Coast, D.R. Congo, Uganda, Gabon.

Neohercostomus (*Neohercostomus*) *garambensis* (Grichanov, 2004), comb. n.

Hercostomus garambensis Grichanov 2004: 36 (holotype – ♂; Congo Belge: Garamba Park; in RMCA).

DISTRIBUTION. D.R. Congo.

Neohercostomus (*Neohercostomus*) *itineris* (Grichanov, 2004), comb. n.

Hercostomus itineris Grichanov, 2004: 42 (holotype – ♂; Cameroon: N'Kolbisson; in MNHP).

DISTRIBUTION. Cameroon.

Neohercostomus (*Neohercostomus*) *krivokhatskii* (Grichanov, 1999), comb. n.

Hercostomus krivokhatskii Grichanov, 1999: 31 (holotype – ♂; Congo Belge: Eala; in IRSNB; 1 paratype; in IRSNB).

DISTRIBUTION. D.R. Congo, Central Africa.

***Neohercostomus* (*Neohercostomus*) *laanmae* (Grichanov, 1999), comb. n.**

Hercostomus laanmae Grichanov, 1999: 31 (holotype – ♂; Tanzania: Kwamgumi, Segoma; in HNHM]; 1 paratype; in IRSNB).

DISTRIBUTION. Tanzania, Gabon.

***Neohercostomus* (*Neohercostomus*) *lictor* (Parent, 1937), comb. n.**

Hercostomus lictor Parent, 1937: Bull. Mus. Hist. nat. Belg. 13(18): 1 (holotype – ♂; in IRSNB; Congo Belge: Eala; 17 paratypes; in IRSNB); Grichanov, 1999: 33, fig. 25; Grichanov, 2004: 45.

DISTRIBUTION. Nigeria, Cameroon, Ivory Coast, D.R. Congo.

***Neohercostomus* (*Neohercostomus*) *minimus* (Parent, 1937), comb. n.**

Hercostomus minimus Parent, 1937: Bull. Mus. Hist. nat. Belg. 13(18): 2 (nec Zetterstedt, 1849 [rest. nom. according to ICZN 59.4]) (holotype – ♂; Congo Belge: Eala; probably in IRSNB; not found).
Hercostomus minimixtus Dyte et Smith, 1980: Catal. Dipt. afrotrop. Reg.: 451 (nom. n. for *Hercostomus minimus* Parent, 1937, nec Zetterstedt, 1849); Grichanov, 1999: 34, fig. 26; Grichanov, 2004: 46.

DISTRIBUTION. D.R. Congo.

***Neohercostomus* (*Neohercostomus*) *ovchinnikovae* (Grichanov, 1999), comb. n.**

Hercostomus ovchinnikovae Grichanov, 1999: 33 (holotype – ♂; Congo Belge: Garamba Park; in RMCA; 37 paratypes; in RMCA; 1 paratype; in MZLU).

DISTRIBUTION. D.R. Congo, Ivory Coast.

***Neohercostomus* (*Neohercostomus*) *panteleevae* (Grichanov, 1999), comb. n.**

Hercostomus panteleevae Grichanov, 1999: 34 (holotype – ♂; Congo Belge: Kivu, Rutshuru [riv. Rutshuru]; in IRSNB).

DISTRIBUTION. D.R. Congo.

***Neohercostomus* (*Neohercostomus*) *pseudolictor* (Grichanov, 2004), comb. n.**

Hercostomus pseudolictor Grichanov, 2004: 49 (holotype – ♂; Guinea: Thuo; in IRSNB; 3 paratypes; in ZIUK).

DISTRIBUTION. Guinea, Ivory Coast.

***Neohercostomus* (*Neohercostomus*) *rezniki* (Grichanov, 2004), comb. n.**

Hercostomus rezniki Grichanov, 2004: 51 (holotype – ♂; Cameroon: Yaounde-N'Kolbisson; 2 paratypes; in MNHP).

DISTRIBUTION. Cameroon, Ivory Coast.

***Neohercostomus* (*Neohercostomus*) *strictilamellatus* (Parent, 1937), comb. n.**

Hercostomus strictilamellatus Parent, 1937: Bull. Mus. Hist. nat. Belg. 13(18): 2 (holotype – ♂; in IRSNB; Congo Belge: Eala; 154 paratypes; in IRSNB); Grichanov, 1999: 29, fig. 20; Grichanov, 2004: 53.

DISTRIBUTION. D.R. Congo.

***Neohercostomus* (*Neohercostomus*) *transitorius* (Parent, 1934), comb. n.**

Hercostomus transitorius Parent, 1934: Bull. Mus. Hist. nat. Belg. 10(33): 1 (holotype – ♀; Congo Belge: Zinti [Mayumbe]; in IRSNB); Grichanov, 1999: 34; Grichanov, 2004: 53).

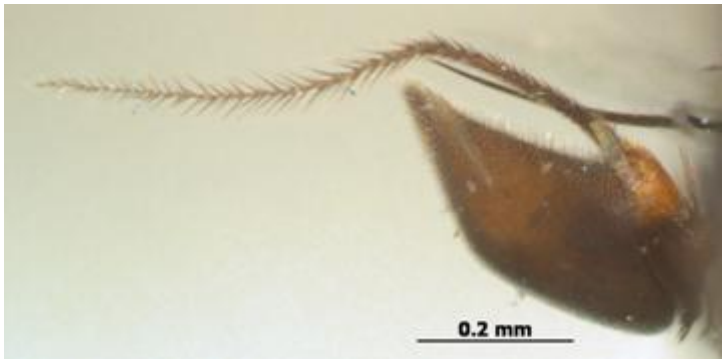
DISTRIBUTION. D.R. Congo.

***Neohercostomus* (*Neohercostomus*) *ashleyi* Grichanov, sp. n.**
Figs 1–5

MATERIAL. Holotype – ♂, **D.R. Congo**: Oriental Prov., Lieki village area at: 00°41.117'N, 24°14.362'E, 25.V–4.VI 2010, A.H. Kirk-Spriggs, Sweeping, bush paths & village environs [IRSNB]. Paratype: 1♀, same label [IRSNB].

DESCRIPTION. MALE. General coloration of body dark-blue-green. Frons metallic blue, weakly grey pollinose; face black, densely brown pollinose. One long and strong vertical at the top of head, one short postvertical, a pair of short hairs in addition to pair of long and strong ocellar setae present. Postocular setae black. Eyes with short hairs, with shallow emargination at antennal sockets; face glabrous, gradually narrowing towards clypeus, under antennae narrower than postpedicel height, very narrow at clypeus; clypeus not reaching lower margin of eyes. Antenna slightly longer than height of head, mostly black; postpedicel at base of arista-like stylus light-brown; scape angular ventrally at apex, without projection; pedicel short and high, internally convex anteriad, with short distal setulae; postpedicel flattened, asymmetric, slightly concave dorsally, convex ventrally, acute apicodorsally, about 2 times longer than high, with short hairs, longish along dorsal surface; arista-like stylus positioned at basal 1/4, black, with short hairs. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 10/8/32/19/35. Palpus and proboscis moderately small, brownish, with short hairs; palpus with 1 black seta.

Fig. 1. *Neohercostomus ashleyi* sp. n., habitus



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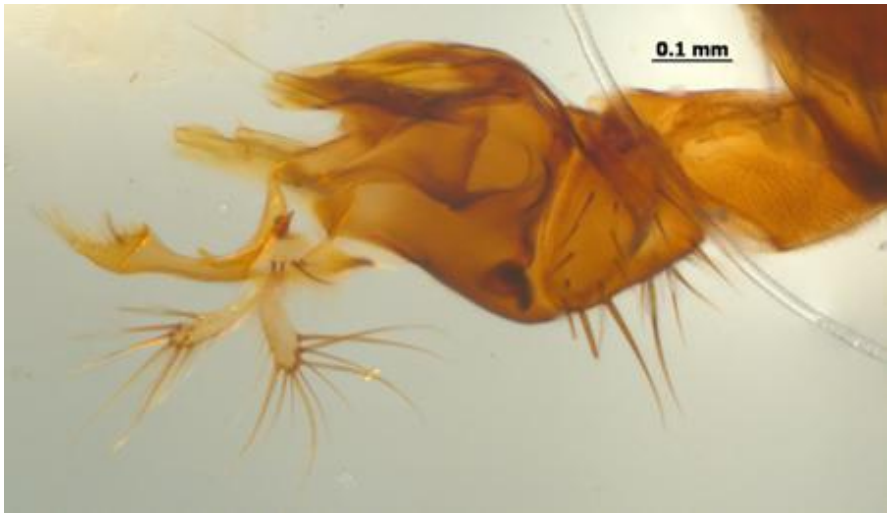

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Figs. 2-4. *Neohercostomus ashleyi* sp. n., male. 2 – antenna; 3 – wing; 4 – postabdomen in glycerol, left lateral aspect

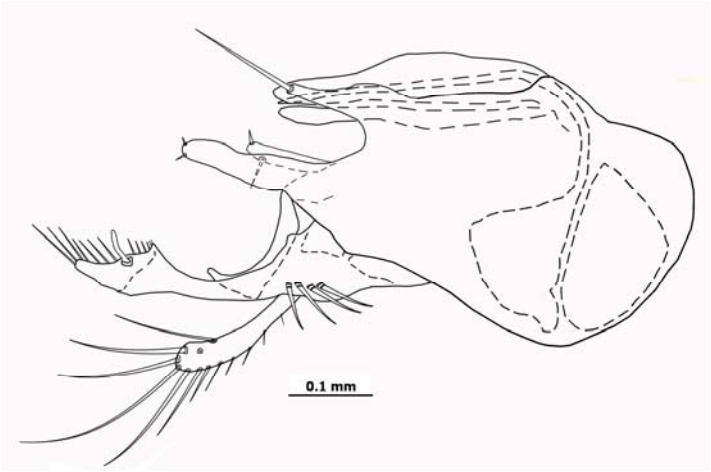


Fig. 5. *Neohercostomus ashleyi* sp. n., hypopygium, left lateral aspect

Thorax: Mostly greenish-blue-black; mesonotum metallic, weakly pollinose; pleura grey pollinose. Five pairs of strong dorsocentral bristles decreasing in length anteriorly with several hairs in front of the 1st pair; 2 rows of well developed acrostichals; 2 strong notopleural, 1 strong and 2-3 short humeral setae present; upper part of proepistenum with few hairs; propleuron with 1 strong black seta above fore coax; katepisternum (above mid coxa) with 3 fine black setae; anepimeron (in front of posterior spiracle) with 1 fine black seta anteriorly. Scutellum with 2 strong setae and 2 lateral hairs.

Legs: Including coxae mostly yellow, with black setae; mid coxa brown-black in basal half; hind coxa brown at base; hind femur brown in distal 1/3; apical segments of mid and hind tarsi slightly darkened. Fore coxa with black hairs anteriorly and several setae in apical half; mid coxa with 1 strong external seta in addition to anterior hairs; hind coxa with 1 strong external seta at middle. Legs including tarsi simple, but 1st-4th segments of fore tarsus bearing 2 apicoventral curved hairs and 3rd-5th segments of same tarsus bearing elongate dorsal setulae; 5th segment of fore tarsus slightly enlarged. Femora without long hairs. Fore tibia with 1 anterodorsal, 2 dorsal, 2–3 apical short setae, with anterodorsal row of slightly elongate setulae in distal half. Mid femur with 1 anterior and 1 posteroventral subapical bristles. Mid tibia with 1 dorsal seta at middle, 2-3 anterodorsal, 2-3 posterodorsal, 4–5 fine ventral and 5 apical setae. Hind femur with one subapical anterior bristle. Hind tibia with 3 anterodorsal, 3 posterodorsal, 5–6 fine ventral, 3 apical setae, posterodorsal row of elongate setulae in distal half. Hind basitarsus with 1 short basiventral seta. Length ratio of fore tibia to tarsus (segments from first to fifth), 63/30/13/9/6/8; same ratio for mid leg, 99/42/30/20/15/9; same ratio for hind leg, 115/29/42/25/15/9.

Wing: Almost hyaline, simple; veins brownish. Costa simple. R_1 reaching to first third of wing length. R_{2+3} nearly straight; R_{2+3} and R_{4+5} gradually diverging towards

apex. Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 20/10. M_{1+2} and R_{4+5} inconspicuously convex anteriorly, subparallel in distal part. Crossvein *dm-cu* nearly straight, oblique, positioned as perpendicular to M_{1+2}. Ratio of *dm-cu* to distal part of CuA_1, 19/39. Posterior wing margin evenly convex. Anal vein foldlike, disappearing in distal half; anal lobe distinct; anal angle obtuse. Lower calypter black, with black setae. Halters yellow.

Abdomen: Entirely metallic greenish-violet-black, with black hairs and marginal setae. Hypopygium big, blackish-brown, with yellow appendages. 7th segment 2/3 the length of epandrium. Epandrium elongate, nealy 2 times longer than high. Hypandrium relatively broad, with long narrow basal lobe reaching apex of main arm; both arms rounded at apex. Phallus concealed, simple. Epandrial lobe fused with epandrium, strongly projected distoventrally, swollen at base, narrowed at distal 1/3, with 1 long strong apical seta as long as lobe. Postgonite as long as surstylus, narrow, somewhat swollen subapically, weakly curved ventrally, simple. Surstylus bilobate; ventral lobe half as long as dorsal lobe, with 1 apical and 1 subapical setae; dorsal lobe of surstylus straight, thick, rounded at apex, with a few apical and subapical setulae. Cercus bilobate, with somewhat swollen base bearing several strong lateral setae, with long thin basidorsal lobe bearing several long setae at apex, half as long as cercus; main arm of cercus narrow at middle, expanded distally, with tuft of short apical setae and 1 thick subapical seta.

FEMALE. Similar to male except lacking male secondary sexual characters, otherwise as follows. Body somewhat smaller (2.6 mm); antenna somewhat lighter, brown-black; postpedicel short, slightly longer than high; arista-like stylus mid-dorsal; face at middle slightly wider; legs simple.

Length (mm): body without antennae 2.7, antenna 1.0, wing-length 2.6, wing-width 0.9, hypopygium 0.8.

DISTRIBUTION. D.R. Congo.

ETYMOLOGY. The species is named after South African dipterologist, Dr. A.H. Kirk-Spriggs.

DIAGNOSIS. The new species keys to *N. rodionovae* and *N. selivanovae* (see key below), differing in presence of long thin basidorsal cercal lobe bearing several long setae at apex.

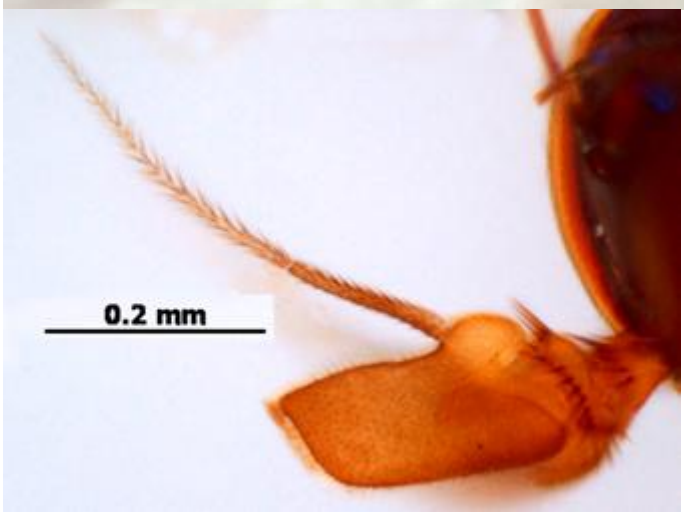
***Neohercostomus* (*Neohercostomus*) *storozhenkoi* Grichanov, sp. n.**
Figs 6–9

MATERIAL. Holotype – ♂, GAM 24349, CA1, **Gabon**: Gamba, Ogoué Maritime, 2º42' S, 10º01' E, 25 m, 8.IV 2002, Syssou, Ngoma, Moussavou [ZIN]. Paratypes: 4♂, GAM 25903, CM1, **Gabon**: Gamba, Ogoué Maritime, 2º42' S, 10º01' E, 25 m, 22.VII 2002, Tchignoumba, Tobi, Ditona [ZIN].

DESCRIPTION. MALE. Similar to *N. ashleyi* sp. n. in all respects except as noted: General coloration of body dark-brown (dried specimen), probably lightened due to long-term storage in alcohol. Frons metallic greenish-blue; face brown. Antenna mostly black-brown; scape at apex, pedicel and postpedicel at base light-brown. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 6/6/19/10/22.

Thorax: Mesonotum mostly greenish-blue-black, metallic, weakly pollinose; pleura dark-brown, grey pollinose. Pleural surface in front of posterior spiracle bare.

6



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Figs. 6, 7. *Neohercostomus storozhenkoi* sp. n. 6 – habitus in alcohol; 7 – male antenna, in alcohol.

Legs: Including coxae and hind femur yellow, with brown or black setae. Legs including tarsi simple, fore tarsus with ordinary ventral hairs. Fore tibia without distinct setae. Mid tibia with 2 fine dorsal setae at base and at middle. Length ratio of fore tibia to tarsus (segments from first to fifth), 38/16/6/5/4/5; same ratio for mid leg, 55/25/15/11/7/6; same ratio for hind leg, 66/16/21/15/10/7.

Wing: Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 19/12. Ratio of *dm-cu* to distal part of CuA_1, 10/29. Lower calypter yellow, with black setae.

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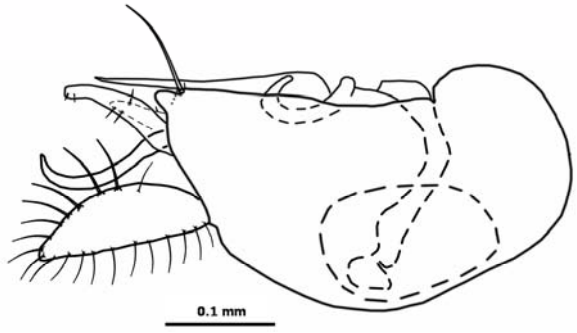

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Figs. 8, 9. *Neohercostomus storozhenkoi* sp. n. 8 – male wing; 9 – hypopygium, left lateral aspect.

Abdomen: With metallic greenish-brown terga and light brown sterna, with brown hairs and marginal setae. Hypopygium big, brown, with yellow appendages. Hypandrium narrow, pointed at apex; basal lobe of hypandrium hooked, strongly sclerotised; phallus concealed. Epandrial lobe fused with epandrium, small, weakly projected, with 1 long seta. Postgonite nearly as long as cercus, narrow, simple, curved ventrally. Surstylus bilobate; ventral lobe half as long as dorsal lobe, with 3

subapical setae; dorsal lobe of surstylus stick-shaped, rounded at apex, with 2 minute apical setae. Cercus simple, elongate-oval, regularly covered with simple setae, mainly as long as width of cercus.

FEMALE. Unknown.

Length (mm): body without antennae 1.9 (in alcohol), antenna 0.6, wing-length 1.7, wing-width 0.7, hypopygium 0.5.

DISTRIBUTION. Gabon.

ETYMOLOGY. The species is named after Russian entomologist, Dr. S.Yu. Storozhenko.

DIAGNOSIS. The new species keys to *H. minimus,* differing in narrow hooked hypandrial lobe and narrow stick-shaped dorsal surstylus (see key below).

***Neohercostomus* (*Neohercostomus*) *arzanovi* Grichanov, sp. n.**
Figs 10–11

MATERIAL. Holotype – ♂, GAM 19053, HA2, **Gabon**: Gamba, Ogoué Maritime, 2º42' S, 10º01' E, 25 m, 4.III 2002, Syssou, Ngoma, Moussavou [ZIN]. Paratype: 1♂, GAM 12513, IA2, **Gabon**: Gamba, Ogoué Maritime, 2º42' S, 10º01' E, 25 m, 21.I 2002, Syssou, Ngoma, Moussavou [ZIN].

DESCRIPTION. MALE. Similar to *N. ashleyi* sp. n. and *N. storozhenkoi* sp. n. in all respects except as noted:

General coloration of body dark-blue-green. Frons metallic blue; face black. Antenna mostly black-brown; scape at apex, pedicel and postpedicel at base light-brown. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 10/8/25/17/35.

Thorax: Mostly greenish-blue-black; mesonotum metallic, weakly pollinose; pleura grey pollinose. Pleural surface in front of posterior spiracle bare.

Legs: Including coxae mostly yellow, with black setae; fore and hind coxae brown at base; mid coxa mostly brown; hind femur black-brown in distal 1/2. Fore tibia distinctly swollen in middle half, with 1 anterodorsal, 2 dorsal, 2–3 apical short setae, with anterodorsal row of elongate setulae in distal 2/3; fore basitarsus with distinct basiventral seta and 3 semierect apicoventral setulae; 5th segment of same tarsus with thick, enlarged, directed basad claws. Mid tibia with 1 dorsal seta at middle. Length ratio of fore tibia to tarsus (segments from first to fifth), 65/28/17/10/6/7; same ratio for mid leg, 100/41/28/21/15/9; same ratio for hind leg, 114/28/42/22/17/10.

Wing: Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 22/11. Ratio of *dm-cu* to distal part of CuA_1, 13/36. Lower calypter yellow, with black setae.

Abdomen: Entirely metallic greenish-violet, brown-black, with black hairs and marginal setae. Tergum 6 glabrous; sterna 5 6 weakly sclerotised. Hypopygium big, blackish-brown, with yellow appendages. Epandrium subtriangular, elongate, nealy 2 times longer than high. Hypandrium long, narrow, entire, pointed at apex. Phallus

long, narrow, rounded at apex. Phallus fine, with small dorsal hook at apex. Distoventral epandrial lobe fused with epandrium, small, weakly projected apicoventrally, with 1 long pedunculate ventral seta as long as surstylus. Postgonite half as long as cercus, narrow, simple, curved ventrally. Surstylus bilobate; ventral lobe half as long as dorsal lobe, with 4 subapical setae; dorsal lobe of surstylus stick-shaped, rounded at apex, with 1 minute apical setae. Cercus long, swollen at base and at apex, narrow at middle, with 3 strong simple lateral setae and fine dorsal hairs on basal swelling, with short apical and minute subapical setae.

FEMALE. Unknown.

Length (mm): body without antennae 3.2 (in alcohol), antenna 1.1, wing-length 2.6, wing-width 0.9, hypopygium 1.0.

DISTRIBUTION. Gabon.

ETYMOLOGY. The species is named after Russian entomologist, Dr. Yu.G. Arzanov.

DIAGNOSIS. Having modified fore leg, the new species is most close to *N. strictilamellatus*, differing in undivided cercus bearing short apical cilia (see key below).

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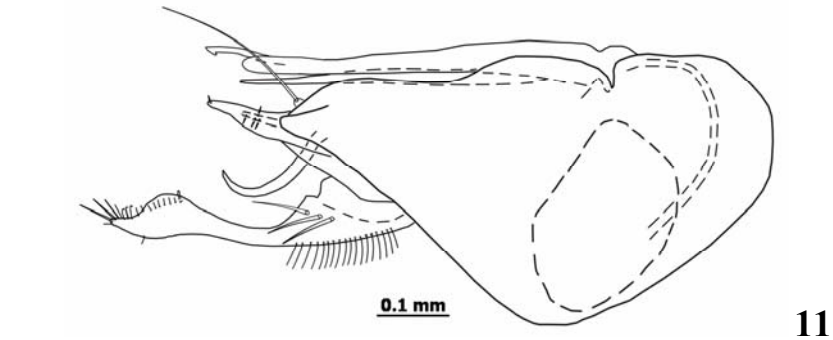

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Figs. 10, 11. *Neohercostomus arzanovi* sp. n. 10 – male fore tibia and tarsus; 11 – hypopygium, left lateral aspect.

***Neohercostomus* (*Neohercostomus*) *rodionovae* Grichanov, sp. n.**
Figs 12–14

MATERIAL. Holotype – ♂, **South Africa**: KwaZulu-[Natal], Madlangula, Kosi Bay, 21.I-6.II 1985, R. Kyle [NMSA]. Paratypes: 3♂, same label; 1♂, same label with collection date 17-22.XI 1984 [NMSA]; 3♂, 3♀ [in alcohol], same label with collection date 14.III-30.IV 1985; 14♂, 1 ♀ [in alcohol], **South Africa**: KZN, Kosi Bay (2632DD), 30.XI-12.XII [NMSA]; 1♂, **South Africa**: [KwaZulu-Natal], Dukuduko between St. Lucia & Matubatuba, Zululand, B. & P. Stuckenberg, 7-8.IV 1960 [NMSA].

DESCRIPTION. MALE. General coloration of body dark-blue-green. Frons metallic blue, weakly grey pollinose; face black, densely brown pollinose. One long and strong vertical at the top of head, one short postvertical, a pair of short hairs in addition to pair of long and strong ocellar setae present. Postocular setae black. Eyes with short hairs, with shallow emargination at antennal sockets; face glabrous, gradually narrowing towards clypeus, under antennae narrower than postpedicel height, very narrow at clypeus; clypeus not reaching lower margin of eyes. Antenna slightly longer than height of head, mostly black-brown; scape at apex, pedicel and postpedicel at base light-brown; scape angular ventrally at apex, without projection; pedicel short and high, internally convex anteriad, with short distal setulae; postpedicel flattened, asymmetric, slightly concave dorsally, convex ventrally, acute apicodorsally, about 2 times longer than high, with short hairs, longish along dorsal surface; arista-like stylus positioned at basal 1/4, black, with short hairs. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 8/6/20/15/32. Palpus and proboscis moderately small, brownish, with short hairs; palpus with 1 black seta.

Thorax: Mostly greenish-blue-black; mesonotum metallic, weakly pollinose; pleura grey pollinose. 5 pairs of strong dorsocentral bristles decreasing in length anteriorly with several hairs in front of the 1st pair; 2 rows of well developed acrostichals; 2 strong notopleural, 1 strong and 2-3 short humeral setae present; upper part of proepistenum with few hairs; propleuron with 1 strong black seta above fore coxa. Pleural surface in front of posterior spiracle bare. Scutellum with 2 strong setae and 2 lateral hairs.

Legs: Including coxae mostly yellow, with black setae; mid coxa with brownish external spot; hind femur brown in distal 1/3; apical segments of tarsi slightly darkened. Fore coxa with black hairs anteriorly and several setae in apical half; mid coxa with 1 strong external seta in addition to anterior hairs; hind coxa with 1 strong external seta at middle. Legs including tarsi simple, but fore tarsus bearing microscopic erect ventral hairs from tip of basitarsus. Femora without long hairs. Fore tibia with 1 anterodorsal, 2 dorsal, 2–3 apical short setae, with anterodorsal row of slightly elongate setulae in distal half. Mid femur with 1 anterior and 1 posteroventral subapical bristles. Mid tibia with 1 dorsal seta at middle, 2-3 anterodorsal, 2-3 posterodorsal, 4–5 fine ventral and 5 apical setae. Hind femur with one subapical anterior bristle. Hind tibia with 3 anterodorsal, 3 posterodorsal, 5–6 fine ventral, 3 apical setae, posterodorsal row of elongate setulae in distal half. Hind basitarsus with 1 short basiventral seta. Length ratio of fore tibia to tarsus (segments from first to fifth), 55/27/17/8/6/5; same ratio for mid leg, 83/38/28/21/15/6; same ratio for hind leg, 93/24/41/21/13/7.

Wing: Almost hyaline, simple; veins brownish. Costa simple. R_1 reaching to first third of wing length. R_{2+3} nearly straight; R_{2+3} and R_{4+5} gradually diverging towards apex. Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 22/11. M_{1+2} and R_{4+5} inconspicuously convex anteriorly, parallel in distal part. Crossvein *dm-cu* nearly straight, oblique, positioned as perpendicular to M_{1+2}. Ratio of *dm-cu* to distal part of CuA_1, 14/34. Posterior wing margin evenly convex. Anal vein foldlike, disappearing in distal half; anal lobe distinct; anal angle obtuse. Lower calypter yellow, with black setae. Halters yellow.

Abdomen: Entirely metallic greenish-violet-black, with black hairs and marginal setae. Hypopygium big, blackish-brown, with yellow appendages. 7th segment 2/3 the length of epandrium. Epandrium elongate, nealy 2 times longer than high. Hypandrium relatively narrow, pointed at apex, with long narrow pointed basal lobe reaching apex of main arm. Phallus narrow, simple. Epandrial lobe fused with epandrium, narrow, reduced, with 1 long apical seta. Postgonite as long as surstylus,

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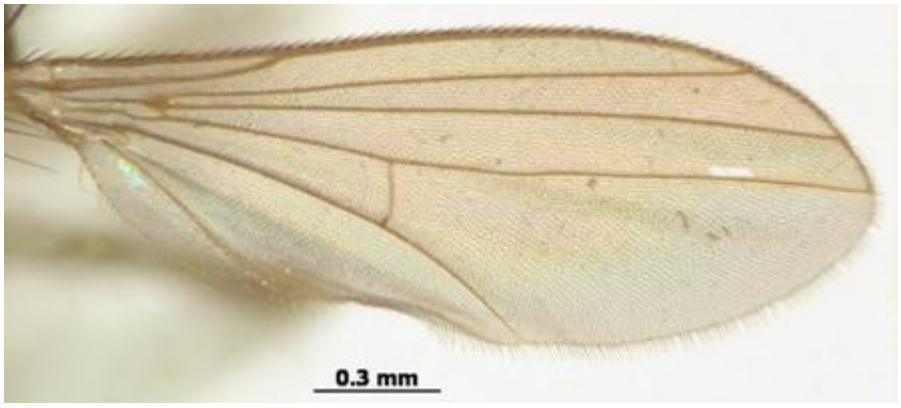

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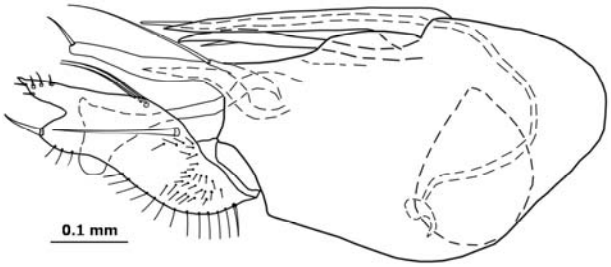


14

Figs. 12-14. *Neohercostomus rodionovae* sp. n.. 12 – male antenna; 13 – male wing; 14 – hypopygium, left lateral aspect.

narrow at base, strongly swollen distally, with short ventral beak and 2 short lateral processes (not figured). Surstylus bilobate; ventral lobe half as long as dorsal lobe, pointed; dorsal lobe of surstylus stick-shaped, with 1 apical seta. Cercus elongate, with deep distal emargination forming 2 lobes in distal quarter, with strong baso-lateral seta, nearly as long as cercus, without pair of strong middorsal setae, with pair of long midventral setae.

FEMALE. Similar to male except lacking male secondary sexual characters, otherwise as follows. Antennal postpedicel short, slightly longer than high; arista-like stylus mid-dorsal; face at middle slightly wider; legs simple.

Length (mm): body without antennae 2.3–2.6, antenna 1.1, wing-length 2.4–2.6, wing-width 0.9, hypopygium 0.8.

DISTRIBUTION. South Africa.

ETYMOLOGY. The species is named after Russian dipterologist, Dr. S.Yu. Rodionova.

DIAGNOSIS. The new species keys to *H. ashleyi,* differing in cercus cleft in distal 1/4 and other fine characters of hypopygium morphology.

***Neohercostomus* (*Neohercostomus*) *selivanovae* Grichanov, sp. n.**
Figs 15–17

MATERIAL. Holotype – ♂, **South Africa**: KwaZulu-Natal, Enseleni Nature Reserve, 28°41'S, 32°03'E, 28.XI 1980, R. Miller [NMSA]. Paratypes: 2♀, same label; 1♀, same label with collection date 26.VII 1980.

DESCRIPTION. MALE. Similar to *N. rodionovae* sp. n. in all respects except as noted:

Frons metallic bluish-green. Antennal postpedicel about 1.5 times longer than high. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 10/9/20/13/32.

Legs: Length ratio of fore tibia to tarsus (segments from first to fifth), 60/30/11/8/8/7; same ratio for mid leg, 93/38/27/21/16/9; same ratio for hind leg, 110/26/35/22/15/8.

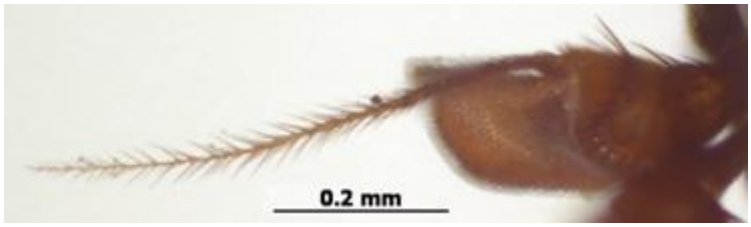
Wing: Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 25/12. Ratio of *dm-cu* to distal part of CuA_1, 15/35.

Abdomen: Entirely metallic greenish-violet-black, with black hairs and marginal setae. Hypopygium big, blackish-brown, with yellow appendages. 7th segment 3/4 the length of epandrium. Epandrium elongate, 2 times longer than high. Hypandrium relatively broad, pointed at apex, with long narrow pointed basal lobe reaching apex of main arm. Phallus concealed, simple. Epandrial lobe fused with epandrium, narrow, reduced, with 1 long apical seta. Postgonite as long as surstylus, narrow at base, strongly swollen distally, with short ventral beak and 2 short lateral processes (not figured). Surstylus bilobate; ventral lobe more than half as long as dorsal lobe, pointed; dorsal lobe of surstylus stick-shaped, with 1 long apical seta. Cercus elongate, with deep distal emargination forming 2 lobes of unequal length in

distal third, each lobe ending with strong seta, without strong basolateral seta, with pair of strong middorsal setae, without pair of long midventral setae.

FEMALE. Similar to male except lacking male secondary sexual characters, otherwise as follows. Postpedicel short, slightly longer than high; arista-like stylus mid-dorsal. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 8/7/12/8/32.

Length (mm): body without antennae 2.6, antenna 0.9, wing-length 3.0, wing-width 0.9, hypopygium 0.8.



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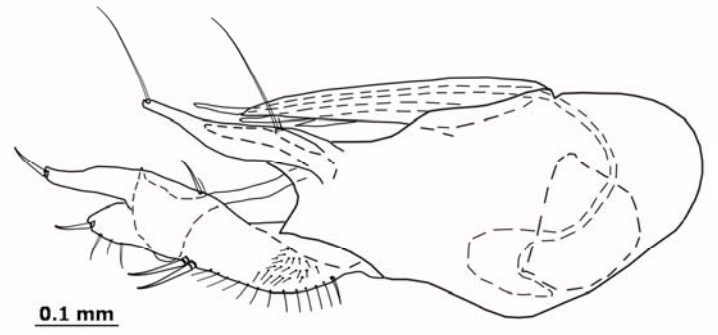

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Figs. 15-17. *Neohercostomus selivanovae* sp. n. 15 – male antenna; 16 – male wing; 17 – hypopygium, left lateral aspect.

DISTRIBUTION. South Africa.

ETYMOLOGY. The species is named after Russian dipterologist, Dr. O.V. Selivanova.

DIAGNOSIS. The new species is very close to *N. rodionovae,* differing in fine morphology of male cercus; i.e., cercus bearing no long basolateral seta, having pair of strong middorsal setae, nearly as long as width of cercus, etc. Females of the two species are probably indistinguishable.

Subgenus *Subhercostomus* Grichanov, subgen. n.

Type species: *Neohercostomus manningi* Grichanov sp. n., here designated.

DIAGNOSIS. This subgeneric diagnosis is based on males and females of 3 included species, and lists features considered to be of generic importance. Similar to *Neohercostomus* subgen. n. in all respects except as noted (see also key to species below).

Length, about 3 mm; legs mostly yellow with hind femur entirely yellow or brown at apex; lower postocular setae black; male wing modified at apex, with blackish or brownish spot or white margin at apex of M_{1+2}; hypopygium sessile, directed ventrally; epandrium rounded, with asymmetrical lobes; left epandrial lobe strongly expanded distoventrally, without long setae; male cercus small, suboval, without processes or bunches of long cilia; surstylus not fused to epandrium, arising distally or distodorsally; dorsal surstylus distinctly bilobate.

Neohercostomus (*Subhercostomus*) *turneri* (Grichanov, 1999), comb. n.

Hercostomus turneri Grichanov, 1999: 36 (holotype – ♂; South Africa: E Cape Prov., Katberg; in BMNH).

DISTRIBUTION. South Africa.

Neohercostomus (*Subhercostomus*) *manningi* Grichanov, sp. n.

Figs 18–22

MATERIAL. Holotype – ♂, **South Africa**: [KwaZulu-]Natal, Karkloof range, 2930AB, Geekie's Farm, 2000 m, mistbelt forest: sun-splashed stream, shrubs, 19.I 1983, J. Manning [NMSA]. Paratypes: 2♂, 3♀, same label [NMSA].

DESCRIPTION. MALE. General coloration of body bluish-black. Frons metallic blue, grey pollinose; face black, densely grey pollinose. One long and strong vertical at the top of head, one short postvertical, a pair of short hairs in addition to pair of long and strong ocellar setae present. Postocular setae black. Eyes with short hairs, with shallow emargination at antennal sockets; face glabrous, gradually narrowing towards clypeus, under antennae about as wide as postpedicel height, narrow at clypeus; clypeus not reaching lower margin of eyes. Antenna slightly longer than

height of head, mostly black-brown; scape at apex, pedicel and postpedicel at base light-brown; scape angular ventrally at apex, without projection; pedicel short and high, internally convex anteriad, with short distal setulae; postpedicel flattened, asymmetric, slightly concave dorsally, convex ventrally, acute apicodorsally, nearly 2.5 times longer than high, with short hairs, longish along dorsal surface; arista-like stylus positioned at basal 1/4, black, with short hairs. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 11/8/25/16/26. Palpus and proboscis moderately small, brownish, with short hairs; palpus with 1 black seta.

Fig. 18. *Neohercostomus manningi* sp. n., habitus.

Thorax: Mostly blue-black; mesonotum metallic, weakly pollinose; pleura grey pollinose. 5 pairs of strong dorsocentral bristles decreasing in length anteriorly with several hairs in front of the 1st pair; 2 rows of well developed acrostichals; 2 strong notopleural, 1 strong and 2-3 short humeral setae present; upper part of proepistenum with few hairs; propleuron with 1 strong black seta above fore coxa. Scutellum with 2 strong setae and 2 lateral hairs.

19

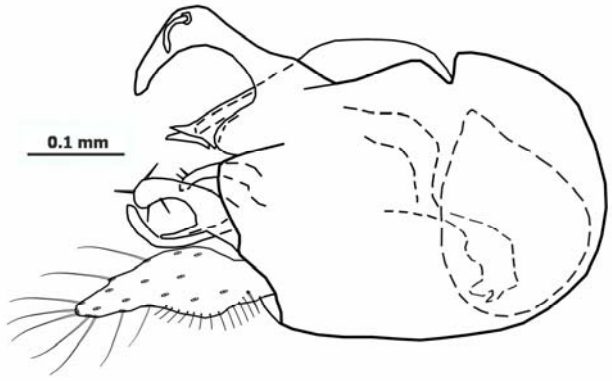
20

Figs. 19, 20. *Neohercostomus manningi* sp. n. 19 – male antenna; 20 – male wing.

Legs: Including coxae mostly yellow; mid coxa with brownish external spot; apical segments of fore tarsus darkened; mid and hind tarsi dark from tip of basitarsus. Fore coxa with black hairs anteriorly and several setae in apical half; mid coxa with 1 strong external seta in addition to anterior hairs; hind coxa with 1 strong external seta at middle. Legs including tarsi simple, but fore tarsus bearing microscopic erect ventral hairs from tip of basitarsus. Femora without long hairs. Fore tibia with 2 short dorsal, 2–3 short apical setae, anterodorsal row of slightly elongate setulae in distal half. Mid femur with 1 anterior and 1 posteroventral subapical bristles. Mid tibia with 2-3 anterodorsal, 2 posterodorsal, 3–4 fine ventral and 4–5 apical setae. Hind femur with one subapical anterior bristle. Hind tibia with 2 anterodorsal, 2–3 posterodorsal, 5–6 fine ventral, 3 apical setae, posterodorsal row of elongate setulae in distal half. Hind basitarsus with 1 very short basiventral seta. Length ratio of fore tibia to tarsus (segments from first to fifth), 65/29/10/8/6/7; same ratio for mid leg, 91/45/45/18/11/8; same ratio for hind leg, 108/26/35/22/14/10.

Wing: Almost hyaline, without distinct distal projection just behind apex of M_{1+2}; hardly darkened, but with clear white margin and snow-white marginal hairs just behind apex of M_{1+2} strongly contrasting with adjacent dark hairs; veins brownish. Costa simple. R_1 reaching to first third of wing length. R_{2+3} nearly straight; R_{2+3} and R_{4+5} gradually diverging towards apex. Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 36/14. M_{1+2} and R_{4+5} weakly convex anteriorly, inconspicuously convergent in distal part. Crossvein *dm-cu* straight, oblique, positioned as perpendicular to CuA_1. Ratio of *dm-cu* to distal part of CuA_1, 20/48. Posterior wing margin evenly convex. Anal vein foldlike, disappearing in distal half; anal lobe narrow; anal angle almost absent. Lower calypter yellow, with black setae. Halters yellow.

21



22

Figs. 21, 22. *Neohercostomus manningi* sp. n. 21 – postabdomen in glycerol, left lateral aspect; 22 – hypopygium, left lateral aspect.

Abdomen: Entirely metallic greenish-black, with mainly black hairs and marginal setae, with few light setae ventrally at base. Hypopygium small, black, sessile, with brown-black appendages. 7th segment 2/3 the length of epandrium. Epandrium rounded, slightly longer than high, asymmetric. Hypandrium broad, split at apex. Phallus concealed. Left epandrial lobe fused with epandrium, large, strongly projected apicoventrally, swollen at base, narrow and elbow-like distally, with short thick epandrial seta at bend; right epandrial lobe half as large as left lobe, narrow at apex, with 1 long thick midventral seta. Postgonite as long as surstylus, narrow, weakly curved ventrally, simple. Surstylus bilobate; ventral lobe half as long as dorsal lobe, with minute subapical setae; dorsal lobe of surstylus narrowed in middle, rounded at apex, with 4 apical and subapical setae and long middorsal process directed distally. Cercus simple, elongate-oval, with short hairs and strong simple lateral and apical setae.

Fig. 23. *Neohercostomus silvicola* Grichanov, sp. n., habitus.

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25

Figs. 24, 25. *Neohercostomus silvicola* sp. n. 24 – male antenna; 25 – male wing.

FEMALE. Similar to male except lacking male secondary sexual characters, otherwise as follows.

Face slightly wider at clypeus; postpedicel short, slightly longer than wide at base, with rounded apex; hemitergite 9+10 with 4 thick black setae; cercus yellow, narrow, pointed, with few short setae. One of the female paratypes larger than males and two other females, with body length 3.2 mm, antenna length 0.9 mm, wing length 3.5 mm.

Length (mm): body without antennae 2.7, antenna 0.8, wing-length 3.1, wing-width 1.1, hypopygium 0.5.

DISTRIBUTION. South Africa.

ETYMOLOGY. The species is named after J. Manning, who collected the type series.

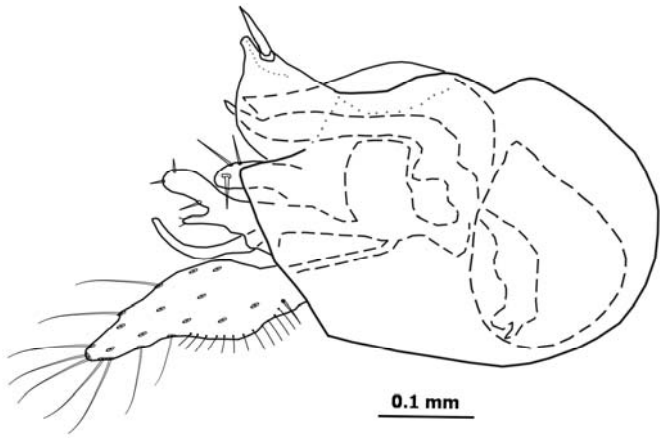
DIAGNOSIS. The new species is close to *N. turneri,* differing in lacking subtriangular projection behind apex of M_{1+2}, in presence or clear white margin and snow-white marginal hairs just behind apex of M_{1+2} strongly contrasting with adjacent dark hairs, and in hypopygium morphology.

***Neohercostomus* (*Subhercostomus*) *silvicola* Grichanov, sp. n.**
Figs 23–27

MATERIAL. Holotype – ♂, **South Africa**: [Eastern] Cape Prov., Hogsback, 3226DB, 13-16.XII 1985, J. & B. Londt, Forest & forest margins [NMSA].

DESCRIPTION. MALE. Similar to *M. manningi* sp. n. in all respects except as noted. Head somewhat depressed from shrinkage. Postpedicel 2.75 times longer than high. Length ratio of scape to pedicel to postpedicel to arista-like stylus (1st and 2nd stylomeres), 12/7/33/22/26.

26



27

Figs. 26, 27. *Neohercostomus silvicola* sp. n. 26 – postabdomen in glycerol, right lateral aspect; 27 – hypopygium, left lateral aspect.

Legs: Including coxae mostly yellow; mid coxa with brown external spot; hind femur brown at apex; apical segments of mid and hind tarsi darkened. Length ratio of fore tibia to tarsus (segments from first to fifth), 71/32/11/10/6/6; same ratio for mid leg, 122/50/35/26/17/10; same ratio for hind leg, 130/29/45/27/18/11.

Wing: Almost hyaline, with small rounded brown distal projection just behind apex of M_{1+2}; veins brown. Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2}, 35/15. M_{1+2} and R_{4+5} weakly convex anteriorly, slightly convergent in distal part. Ratio of *dm-cu* to distal part of CuA_1, 14/32. Anal vein distinct, disappearing in distal half; anal lobe pronounced; anal angle obtuse.

Abdomen: Entirely metallic greenish-black, with mainly black hairs and marginal setae, with few light setae ventrally at base. Hypopygium small, black, sessile, with brown-black appendages. 7th segment half as long as epandrium. Epandrium rounded, slightly longer than high, asymmetric. Hypandrium broad, split at extreme apex. Phallus concealed. Left epandrial lobe fused with epandrium, large, strongly projected apicoventrally, subtriangular, with 1 short thick epandrial seta at apex; right epandrial lobe large, swollen at base, narrow in distal half, with 1 long and strong ventral seta as long as lobe. Postgonite as long as surstylus, narrow, weakly curved ventrally, simple. Surstylus bilobate; ventral lobe half as long as and as wide as dorsal lobe, thick, with 3 subapical setae; dorsal lobe of surstylus stick-shaped, rounded at apex, with 2 apical setae and short middorsal process bearing 2 setulae. Cercus simple, elongate-oval, with short ventral hairs and strong simple lateral and apical setae.

FEMALE. Unknown.

Length (mm): body without antennae 2.8, antenna 0.9, wing-length 3.2, wing-width 1.1, hypopygium 0.5.

DISTRIBUTION. South Africa.

ETYMOLOGY. Lat. *silvicola* – inhabiting woods.

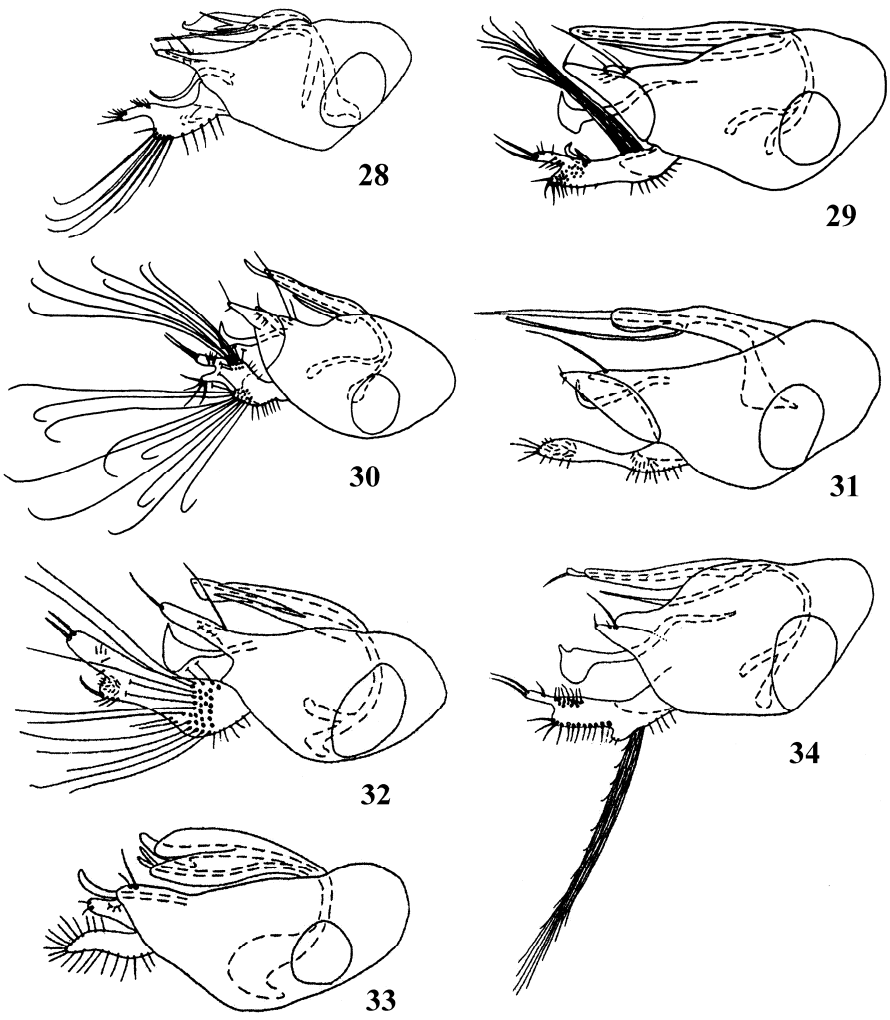
DIAGNOSIS. The new species is close to *N. manningi* and *N. turneri,* differing in brown apex of hind femur, brown distal spot located before and behind M_{1+2}, in rounded projection just behind apex of M_{1+2} and in hypopygium morphology.

Key to the species of *Neohercostomus* (males)

NOTES. *Neohercostomus transitorius* is known by a female only and not included in the key.

1. Legs mostly yellow with hind femur entirely yellow or darkened at apex; lower postocular setae black; male wing modified at apex, with blackish or brownish spot or with white margin at apex of M_{1+2}; hypopygium sessile, directed ventrally, with rounded epandrium; epandrium with asymmetrical lobes; left epandrial lobe strongly expanded distoventrally, without long setae; male cercus small, suboval, without processes or bunches of long cilia; surstylus not fused to epandrium (subgenus *Subhercostomus*)..... 2

– Legs mostly yellow with hind femur blackish or brown in at least apical third; lower postocular setae black or white; male wing simple at apex; hypopygium pedunculate, directed anterially, with elongate epandrium; epandrium with symmetrical lobes; epandrial lobe narrow, weakly to moderately projected distally, with 1-2 long ventral setae; male cercus usually narrow, often ornamented with processes or bunches of long cilia; surstylus often fused to epandrium (subgenus *Neohercostomus*) 4



Figs. 28-34. *Neohercostomus* spp., hypopygium, left lateral aspect. 28 – *N. duviardi*; 29 – *N. garambensis*; 30 – *N. itineris*; 31 – *N. krivokhatskii*; 32 – *N. laanmae*; 33 – *N. minimus*; 34 – *N. lictor*.

2. Hind femur brown at apex; wing with rounded projection just behind apex of M_{1+2}, with brown distal spot located before and behind M_{1+2}; (Fig. 25) 2.8–3.2 mm ..... ***N. silvicola***
– Femora entirely yellow; wing either with subtriangular blackish projection just behind apex of M_{1+2} or without projection but with white margin at apex of M_{1+2} 3
3. Wing without projection behind apex of M_{1+2}, with clear white margin and snow-white marginal hairs just behind apex of M_{1+2} strongly contrasting with adjacent dark hairs (Fig. 20); 2.7–3.1 mm ..... ***N. manningi***
– Wing with subtriangular blackish projection just behind apex of M_{1+2}, with dark marginal hairs (Fig. 40); 2.8–3.4 ..... ***N. turneri***
4. Fore tibia distinctly swollen in middle half, fusiform; fore basitarsus with distinct basiventral seta; 5th segment of same tarsus with enlarged claws 5
– Fore tibia simple; fore basitarsus without distinct basiventral seta; 5th segment of same tarsus with simple claws 6
5. Cercus divided from base, with narrow lobes, with apical brush of long cilia on both lobes (Fig. 39); 2.0–2.4 mm ..... ***N. strictilamellatus***
– Cercus not lobate, with short apical cilia (Fig. 11); 2.6–3.2 mm ..... ***N. arzanovi***
6. Cercus with brush or fan of long cilia, longer than cercus 7
– Cercus with cilia, at most half as long as cercus 12
7. Cercus with basal fan of cilia directed distally 8
– Cercus with brush of cilia directed either dorsally or ventrally 9
8. Cercus with two short narrow subequal apical processes (Fig. 30); 1.9–2.0 mm.... .....***N. itineris***
– Cercus with single broad fingerlike apical projection (Fig. 32); 1.9–2.4 mm .... ***N. laanmae***
9. Cercus with basidorsal brush of glued cilia, twice longer than cercus 10
– Cercus with middorsal or basiventral brush of cilia, slightly longer than cercus 11
10. Cercus with long ventral lobe (Fig. 36); 2.1–2.2 mm..... ***N. pseudolictor***
– Cercus without ventral lobe (Fig. 34); 2.0 mm ..... ***N. lictor***
11. Cercus with middorsal brush of four cilia (Fig. 28); 2.75–3.0 mm ....***N. duviardi***
– Cercus with basiventral brush of glued cilia (Fig. 29); 2.1–2.2 mm..... .....***N. garambensis***
12. Cercus bilobate 13
– Cercus simple 15
13. Cercus with long thin basidorsal lobe bearing several long setae at apex (Fig. 5); 2.6–2.7 mm ..... ***N. ashleyi***
– Cercus cleft in distal 1/4 or 1/3..... 14
14. Cercus with strong basilateral seta, nearly as long as cercus, without pair of strong middorsal setae (Fig. 14); 2.3–2.6 mm ..... ***N. rodionovae***
– Cercus without basolateral seta, with pair of strong middorsal setae, nearly as long as width of cercus (Fig. 17); 2.6–3.0 mm ..... ***N. selivanovae***
15. Cercus short, at most 3 times longer than wide, slightly longer than surstylus, half as long as height of epandrium 16

– Cercus at least 5 times longer than wide, approximately equal in length to height of epandrium 17

16. Hypandrium broad, bilobate; dorsal surstylus with broad base (Fig. 33); 1.25 mm ..... ***N. minimus***

– Hypandrium narrow, simple, hooked; dorsal surstylus narrow, stick-shaped (Fig. 9); 1.7–1.9 mm ..... ***N. storozhenkoi***

17. Cercus yellow, bare in middle third; surstylus large, at least half as long as cercus 18

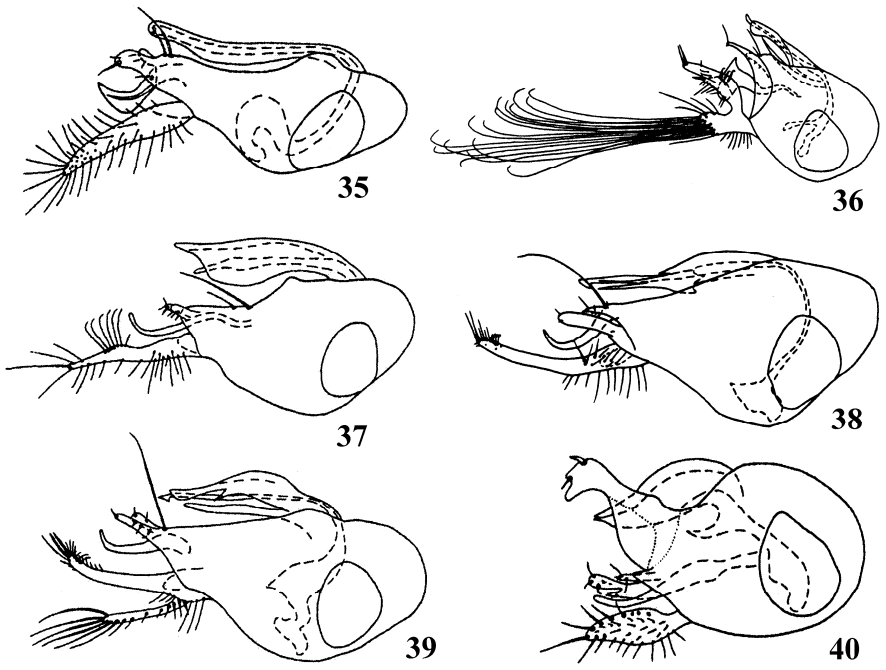
– Cercus brown, densely covered with long hairs; surstylus reduced 19

18. Cercus covered with hairs distinctly longer than width of cercus; surstylus narrow, half as long as cercus (Fig. 38); 2.1–2.6 mm ..... ***N. rezniki***

– Cercus covered with hairs not longer than width of cercus; surstylus nearly reaching to apex of cercus, massive, broader than cercus (Fig. 31); 2.2–2.6 mm . ..... ***N. krivokhatskii***

19. Cercus beyond middle with ventral swelling bearing group of long cilia in addition to long cilia at apex and at base of cercus (Fig. 37); 2.4 mm .... ***N. panteleevae***

– Cercus gradually narrowed distally and evenly covered with long cilia (Fig. 35); 2.0–2.1 mm ..... ***N. ovchinnikovae***



Figs. 35-40. *Neohercostomus* spp., hypopygium, left lateral aspect. 35 – *N. ovchinnikovae*; 36 – *N. pseudolictor*; 37 – *N. panteleevae*; 38 – *N. rezniki*; 39 – *N. strictilamellatus*; 40 – *N. turneri*.

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