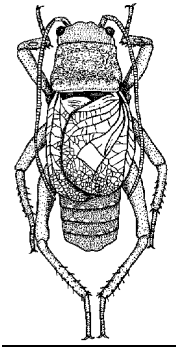

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THREE NEW GENERA OF MEDETERINAE (DIPTERA: DOLICHOPODIDAE) FROM OLD WORLD TROPICS AND AUSTRALASIA

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Three new genera of the tribe Medeterini (Diptera: Dolichopodidae: Medeterinae) are described: *Nikitella* **gen. n.** (type species – *N. vikhrevi* **sp. n.**), *Medeterella*, **gen. n.** (type species – *Medetera salomonis* Parent, 1941), and *Demetera* Grichanov, **gen. n.** (type species – *Medetera melanesiana* Bickel, 1987) from the Afrotropical, Oriental and Australasian Regions. Seventeen new combinations are proposed. An original key to Afrotropical genera of Medeterini and world "microdolichopodid" genera related to *Nikitella* is given.

KEY WORDS. Diptera, Dolichopodidae, Medeterinae, key, new genera, new species, new combinations, Afrotropical, Oriental, and Australasian Regions.

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Из Афротропической, Ориентальной и Австралийской областей описаны три новых рода трибы Medeterini (Diptera: Dolichopodidae: Medeterinae): *Nikitella* **gen. n.** (типовой вид – *N. vikhrevi* **sp. n.**), *Medeterella*, **gen. n.** (типовой вид – *Medetera salomonis* Parent, 1941) и *Demetera* Grichanov, **gen. n.** (типовой вид – *Medetera melanesiana* Bickel, 1987). Предложено 17 новых комбинаций. Составлена определительная таблица афротропических родов Medeterini и группы родов "microdolichopodidae" мировой фауны, близких к роду *Nikitella*.

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INTRODUCTION

The tribe Medeterini as a whole, and the genus *Medetera* Fischer von Waldheim, 1819 in particular, are well defined in the Holarctic Region (Negrobov & Stackelberg, 1971-1977; Bickel, 1985). The borders of both taxa become rather obscure in tropical belt of the Earth (Bickel, 1987a). Yang et al. (2006) include 17 genera into the subfamily Medeterinae, of which three ones belong to Thrypticini and Systenini. Later three more genera have been associated with the subfamily (Bickel, 2007; Zhu, Yang & Grootaert, 2007; Runyon & Robinson, 2010) in addition to three ones placed in the tribe Systenini (Grichanov, 2009a, 2010). Recently Bickel (2009) has compiled a joint key to Neotropical and Nearctic dolichopodid genera and figured male postabdomen of several "microdolichopodid" genera associated with Medeterinae. Considering the new data, I think that some of these genera are paraphyletic to Medeterini or even to Medeterinae.

The formerly Palaearctic genus *Dolichophorus* Lichtwardt, 1902 is considered as the sister taxon of the *Medetera aberrans* + *melanesiana* species groups (Bickel, 1987a). Bickel supposed that these groups could be placed within the *Dolichophorus*. Grichanov (1997b) considered the *aberrans* group as a Pantropical genus *Saccopheronta* Becker, 1914 and supposed that *melanesiana* group should be separated in an independent genus of Medeterinae. Grichanov (2009b) has found three species of *Dolichophorus* in Afrotropical Region and supposed that *M. maai* Bickel, 1987 described from Malaysia belongs to *Dolichophorus*, and Oriental *M. malaisei* Bickel, 1987, belongs to *melanesiana* species group. Both *melanesiana* and *salomonis* groups were originally defined for Australasian and Oriental species, but their representatives were later found in the Afrotropics (Grichanov, 1997a, 2009b).

A new peculiar species of Medeterinae collected by Nikita Vikhrev (Moscow) in Senegal resembles superficially species of *Medetera salomonis* group (Bickel, 1987a), but having greatly reduced abdominal segments 7 and 8 in male, simple cercus and absolutely symmetrical postabdomen as that in *Babindella* Bickel, 1987. Re-examination of an accessible material and published descriptions of tropical *Medetera* species has compelled me to describe here three new genera being quite different from the main *Medetera* species groups, especially from the typical *Medetera diadema* lineage.

MATERIAL AND METHODS

The holotype and paratypes of a new species are deposited in the Zoological Museum of Moscow State University, Russia (ZMU). 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. Male genitalia were macerated in 10% KOH. Figure showing the male genitalia in lateral view are oriented as they appear on the intact specimen, with the morphologically ventral surface of the genitalia facing up, dorsal surface down, anterior end facing right and posterior end facing left.

SYSTEMATICS

Nikitella Grichanov, gen. n.

Type species: *Nikitella vikhrevi* Grichanov, sp. n.

DESCRIPTION. MALE. Body generally metallic bluish-black, weakly grey pollinose; face black, densely white pollinose; vertex not excavated; upper occiput concave; vertical bristle strong and long, positioned on anterior slope of head; short postvertical seta as a linear continuation of postocular setal row; one pair of strong ocellar bristles with adjacent pair of hairs; single row of short simple postoculars decreasing in size upward; eyes with microscopic hairs between facets below, bare above; face under antenna about 1.5 times as wide as postpedicel height, slightly narrowing towards clypeus; facial suture distinct at eye margins only; antenna nearly as long as head height, black; scape and pedicel small, subtriangular; pedicel with ring of apical setulae of approximately equal length; postpedicel slightly larger than pedicel, semiglobular, shortly white pubescent; stylus apical, filiform, shortly haired, with its 1st segment being very short. Palpus and proboscis small, palpus with apical seta.

Thorax with light brownish, mostly short setae; posterior third of mesonotum distinctly concave; anterior third of mesonotum haired, 1-2 hairlike humerals, 1 short sutural (su), 1 long and 1 short notopleurals, 1 hairlike and 1 short supraalar (sa), 1 long postalar (pa) setae; 6-7 pairs of weak acrostichals (ac) in two regular rows in front of posterior concavity; 1 pair of long and strong dorsocentral (dc) bristles posteriorly; penultimate dorsocentral setae half as long as last pair; 4-5 pairs of short dorsocentrals anteriorly; 2 pairs of scutellars (sc) with lateral setae being very short; 1 yellow propleural seta just above fore coxa.

Legs with all setae and setulae white; fore and mid coxae with short simple anterior cilia; hind coxa with 1 strong lateral bristle at middle; claws on all legs small and black; fore femur slightly swollen, with 2 irregular rows of ventral bristles of unequal length, mainly as long as diameter of femur, but 2-3 median bristles 1.5 times as long as diameter of femur; fore tibia and basitarsus slightly thickened; basitarsus with strong apical anterodorsal bristle, about half as long as next segment; 2nd and 3rd segments each with strong apical anterodorsal bristle, 2/3 as long as next segment; mid femur and tibia slightly swollen; mid and hind femora bare of major anterior preapical seta; mid femur with several elongate ventral setae, not longer than diameter of femur; mid tibia with strong anterodorsal bristle at 2/5, with short apicals; tarsomeres 1-4 with short apicals; hind femur with row of strong anterodorsals, slightly longer than half diameter of femur; hind tibia and tarsus simple.

Wing hyaline, with brown veins; R_{2+3} and R_{4+5} gradually diverging to wing apex; R_{4+5} and M_{1+2} gradually converging, subparallel at wing apex. M_{1+2} convex posteriorly, subapically bowed, joining costa at wing apex. Crossvein *dm-cu* straight, forming right angle with CuA_1 and with M_{1+2} longitudinal veins, about 2 times shorter than maximum distance between R_{4+5} and M_{1+2} veins. Anal vein fold-like; alula absent.

Abdomen conoid (dorsal aspect), with light hairs and setae; 2nd–6th sterna dark, distinct; 6th tergum with concave posterior margin; 7th tergum semicircular, very narrow, symmetrically lying along posterior margin of tergum 6, with short marginal setae, ending laterally with minute membranous plates (sternum 7); 8th segment reduced to a narrow flat rounded membranous plate, but with sclerotized edge, symmetrically covering basoventral side of epandrium. Epandrium flattened dorsoventrally, symmetrical, with deep basal furrow dividing proximal wall of epandrium in 2 large lateral bulbs that adjacent to 6th tergum; epandrium slightly longer than high (lateral aspect), with 3 transverse furrows on each of lateral walls and with angular posterior apex; in ventral aspect, epandrial walls diverging distad, but bridged basally by less sclerotized triangular plate bearing a pair of stublike processes distally; hypandrium fused with the latter plate, midventral, simple, long and narrow, swollen at extreme apex; aedeagus long and thin; epandrial lobe pedunculate, subquadrate at base, long and thin distally, bearing 2 very long apical and subapical setae; epandrial lobi symmetrical, curved ventrad, forming shoring for basal part of hypandrium and aedeagus; surstylus not fused to epandrium, long, bilobate, curved ventrad, with subequal in length dorsal and ventral arms; cercus small, suboval, with acute apex and simple dorsal setae, somewhat stronger at apex; cerci not fused.

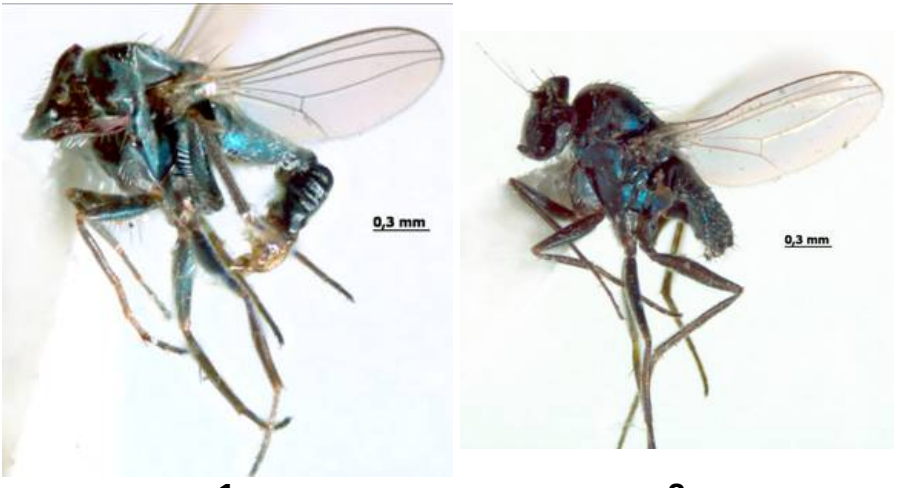
FEMALE. Similar to male except lacking male secondary sexual characters (MSSC). Legs simple, with short setae; abdomen with 5 visible segments; hemitergite with 1 long thin acanthophorite.

DIAGNOSIS AND REMARKS. This generic diagnosis is based on 3 males and a female of one included species, and lists features considered to be of generic importance.

Antennal colour black; facial suture distinct at eye margins only; thoracic setae light brownish, mostly short; acrostichal setae present, biseriate; one pair of long dorsocentrals present; lateral scutellar setae present; mid and hind femora bare of major anterior preapical seta; males without subapical dorsal seta on hind tibia; males with distinctive ventral setae on fore and mid femora; hind femur with row of strong anterodorsals; wing vein M_{1+2} bowed posteriorly beyond *dm-cu*, slightly flexed just before apex; male postabdomen symmetrical and segments 7 and 8 reduced; hypopygium sessile; foramen positioned strictly basally and symmetrically in sagittal plane; surstylus not fused to epandrium; male cercus simple.

Mesonotal setation is significantly reduced in both sexes in comparison with the *Medetera* generic concept (Bickel, 1985, 1987a). Thus, *Nikitella* has 1-2 hairlike humerals, 1 short sutural, 1 long and 1 short notopleurals, 1 hairlike and 1 short supraalar setae, whereas *Medetera* have at least 1 long humeral, 1 long sutural, usually 1 long presutural, 2 long notopleurals, 2 long supraalar setae. Wing anal vein is fold-like in *Nikitella*, but distinct in *Medetera*. Vein *M* is bowed posteriorly in *Nikitella* in contrast to species of *Medetera*, being similar to *Medeterella* gen. n. and monotypic Central Asian *Asioligochaetus* Negrobov, 1966. Nevertheless, *Asioligochaetus vlasovi* (Stackelberg, 1937) is remarkable in female wing being milky-white, brownish along major veins; postpedicel short-triangular; postoculars small, not seriate, arranged in irregular lateral tuft; acrostichals absent; dorsocentrals 3 pairs; fore tibia with one and mid tibia with 3 long apical setae, one of them nearly

as long as mid basitarsus (Negrobov & Stackelberg, 1971-1977). Species of *Medeterella* differ in such MSSC, as strong subapical dorsal seta on hind tibia, surstylus fused to epandrium; cercus divided into articulating basal and often expanded distal sections; otherwise they are closer to the *Medetera* generic concept, than to *Nikitella*. *Nikitella* has postpedicel globular, rounded in anterior view, and may be keyed to Neotropical *Dominicomyia* Robinson, 1975 and *Cryptopygiella* Robinson, 1975, which differ from the former in parallel *M* and R_{4+5} veins, asymmetrical hypopygium that is partially or completely enclosed, and many other characters (Robinson, 1975; Bickel, 1987b, 2009) that place the genera near *Micromorphus* Mik, 1878. *Nikitella* male has remarkably reduced 7th and 8th segments and large free symmetrical rugose epandrium. *Micromedetera* Robinson, 1975 has basal epandrial foramen and even more reduced mesonotal setation than *Nikitella*, but having quite different wing venation and hypopygium morphology in addition to such autapomorphy as lack of acrostichals (Robinson, 1975; Bickel, 2009). It is worth noting that *Cryptopygiella* males totally lost 7th and 8th abdominal segments.

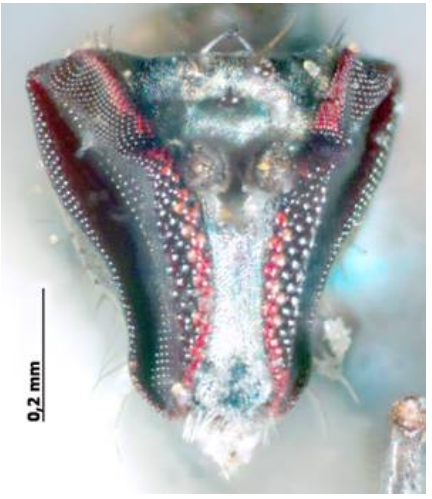


Figs 1-2. *Nikitella vikhrevi* sp. n.: 1) male; 2) female

As Bickel (1987b) noted, the secondary symmetry of male postabdomen in *Babindella* Bickel, 1987 is unique in the Dolichopodidae. Nevertheless, the *Babindella* flies are tiny yellowish, lacking acrostichals, with R_{2+3} ending in costa near wing two-thirds length; *M* and R_{4+5} veins nearly straight and subparallel at apex; lateral scutellar setae absent, 7th and 8th segments fused, but 8th segment well developed (Bickel, 1987b). Recently *Pharcoura* Bickel, 2007, *Neomedetera* Zhu, Yang et Grootaert, 2007, and *Hurleyella* Runyon et Robinson, 2010, have been described with nearly symmetrical male postabdomen, with foramen positioned basoventrally,

but having well developed 7th and/or 8th segments; they also have many other striking characters, strongly differing from both *Babindella* and *Nikitella*, representing apparently different lineages of "microdolichopodid" genera.

ETYMOLOGY. The genus and species is named after the collector, Russian dipterologist Dr. Nikita Vikhrev (Moscow). Gender feminine.



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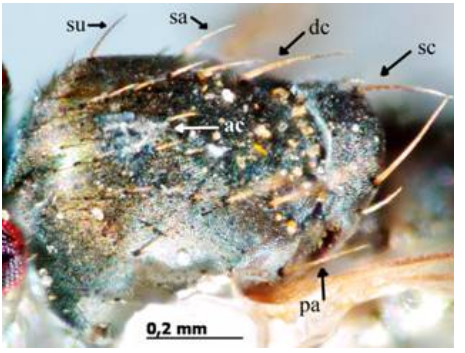

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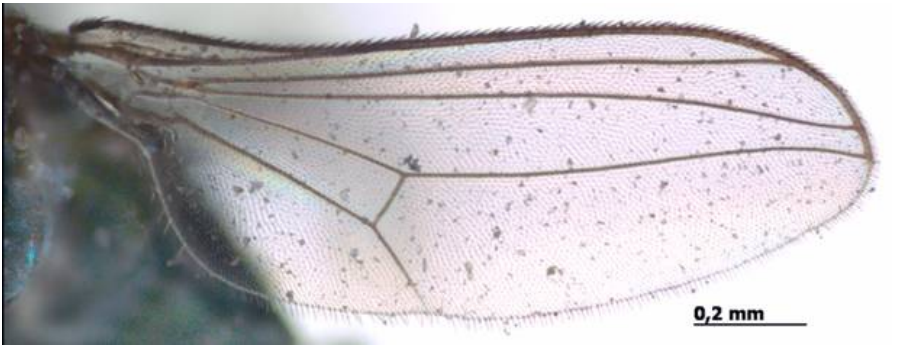
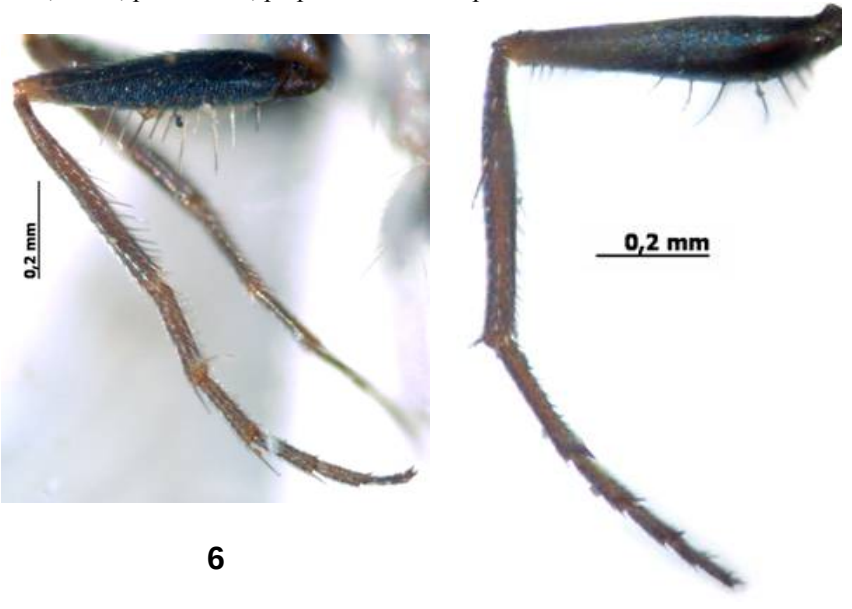


Figs 3-5. *Nikitella vikhrevi* sp. n.: 3) male head; 2) mesonotal setation (abbreviations see in the text); 5) male wing.

***Nikitella vikhrevi* Grichanov, sp. n.**
Figs 1–12

TYPE MATERIAL. Holotype – ♂, Senegal: Mbur, 14.405°N, 16.967°W, on tree trunks, 4.III 2007 (N.Vikhrev) [ZMU]. Paratypes: Mbur, 14.405°N, 16.967°W, 3.III 2007, 1♂, 1♀ (N.Vikhrev); Senegal: N'Dangane, 14.073°N, 16.693°W, on tree trunks, 6.III 2007, 1♂ (N. Vikhrev) [ZMU].

DESCRIPTION. MALE. Head: vertex and frons metallic bluish-black, weakly grey pollinose; face black, densely white pollinose; vertex not excavated; upper occiput concave; vertical bristle light-brown, strong and long, positioned on anterior slope of head; short light postvertical seta as a linear continuation of postocular setal row; one pair of strong brownish ocellar bristles with adjacent pair of hairs; single row of short white simple postoculars decreasing in size upward; eyes (shrunken in all specimens) with microscopic hairs between facets below, bare above; face under antenna about 1.5 times as wide as postpedicel height, slightly narrowing towards clypeus; facial suture distinct at eye margins only; antenna nearly as long as head height, black; scape and pedicel small, subtriangular; pedicel with ring of apical setulae of approximately equal length; postpedicel slightly larger than pedicel, semiglobular, shortly white pubescent; stylus apical, filiform, shortly haired, with its 1st segment being very short. Length ratio of scape to pedicel to postpedicel to stylus (1st and 2nd segments), 7/6/7/2/50. Palpus and proboscis black, small, pale haired, palpus with white apical seta.



Figs 6-7. *Nikitella vikhrevi* sp. n.: 6) male fore leg; 7) male mid leg.

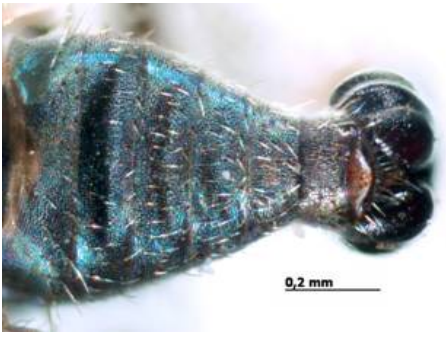
Thorax with light brownish, mostly short setae, metallic bluish-black; posterior third of mesonotum distinctly concave; anterior third of mesonotum haired, 1-2 hairlike humerals, 1 short sutural (su), 1 long and 1 short notopleurals, 1 hairlike and 1 short supraalar (sa), 1 long postalar (pa) setae; 6-7 pairs of weak acrostichals (ac) in two regular rows in front of posterior concavity; 1 pair of long and strong dorsocentral (dc) bristles posteriorly; penultimate dorsocentral setae half as long as last pair; 4-5 pairs of short dorsocentrals anteriorly; 2 pairs of scutellars with lateral setae being very short; 1 yellow propleural seta just above fore coxa.

Legs including coxa black, with anterior four knees and all basitarsi brown; all setae and setulae white; fore and mid coxae with short simple pale anterior cilia; hind coxa with 1 strong white lateral bristle at middle; claws on all legs small and black, pulvilli white; fore femur slightly swollen, with 2 irregular rows of ventral bristles of unequal length, mainly as long as diameter of femur, but 2-3 median bristles 1.5 times as long as diameter of femur; fore tibia slightly thickened, with elongate ventral setulae; fore basitarsus slightly thickened, ventrally with row of elongated setulae and row of short erect hairs. also with strong apical anterodorsal bristle, about half as long as next segment; 2nd and 3rd segments each with strong apical anterodorsal bristle, 2/3 as long as next segment; mid femur and tibia slightly swollen; mid femur with several elongate ventral setae, not longer than diameter of femur; mid tibia with strong anterodorsal bristle at 2/5, with short apicals; tarsomeres 1-4 with short apicals; hind femur with row of strong anterodorsals, slightly longer than half diameter of femur; hind tibia and tarsus simple, with short apicals; fore leg length ratio (from femur to tarsomere 5): 40/36/15/11/10/7/7, mid leg: 40/38/22/10/7/5/5, hind leg: 45/50/10/17/10/6/6.

Fig. 8. *Nikitella vikhrevi* sp. n., postabdomen laterally.

Wing hyaline, with brown veins; R_{2+3} and R_{4+5} gradually diverging to wing apex; R_{4+5} and M_{1+2} gradually converging, subparallel at wing apex. M_{1+2} convex posteriorly, subapically bowed, joining costa at wing apex. Ratio of part of costa between R_{2+3} and R_{4+5} to this between R_{4+5} and M_{1+2} to *dm-cu* to distal part of CuA_1, 11/3/6/15. Crossvein *dm-cu* straight, forming right angles with CuA_1 and with M_{1+2} longitudinal veins, about 2 times shorter than maximum distance between R_{4+5} and M_{1+2} veins. Anal vein fold-like; narrow anal lobe present; alula absent. Lower calypter light brownish, with light setae. Halter greyish.

Abdomen conoid (dorsal aspect), metallic bluish-black, with light hairs and short light setae along tergal margins; 1st tergum with longish setae laterally; 2nd–6th sterna dark, distinct; 6th tergum with concave posterior margin; 7th tergum semicircular, very narrow, symmetrically lying along posterior margin of tergum 6, with short marginal setae, ending laterally with minute membranous plates (sternum 7); 8th segment reduced to a narrow flat rounded membranous plate, but with sclerotized edge, symmetrically covering basoventral side of epandrium, with sub-triangular posterior projection covered with setulae. Epandrium entirely black, hypandrium and surstylus yellow-brown, cercus brown, with light cilia; epandrium



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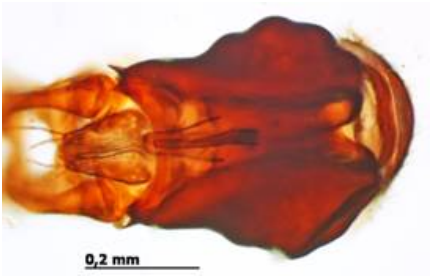

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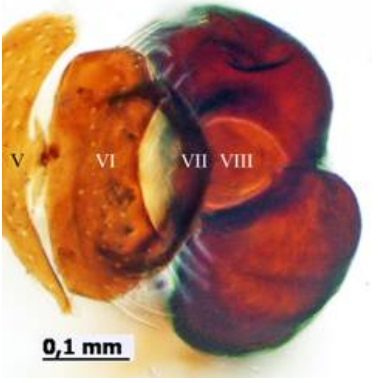

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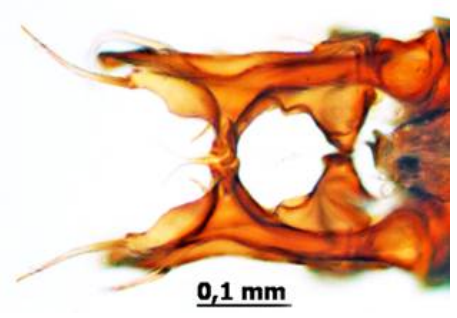

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Figs 9-12. *Nikitella vikhrevi* sp. n.: 9) abdomen dorsally; 10) epandrium and cerci dorsally; 11) segments V□VIII and epandrium, posterior view; 12) surstyli dorsally.

flattened dorsoventrally, symmetrical, with deep basal furrow dividing basal wall of epandrium in 2 large lateral bulbs that adjacent to 6th tergum; epandrium slightly longer than high (lateral aspect), with 3 transverse furrows on each of lateral walls and with angular posterior apex; in ventral aspect, epandrial walls diverging distad, but bridged basally by less sclerotized triangular plate bearing a pair of stublike processes distally; hypandrium fused with the latter plate, midventral, simple, long

and narrow, swollen at extreme apex; aedeagus simple, long and thin; epandrial lobe pedunculate, subquadrate at base, long and thin distally, bearing 2 very long apical and subapical setae; epandrial lobi symmetrical, curved ventrad, forming a shoring for basal part of hypandrium and aedeagus; surstylus not fused to epandrium, long, bilobate, curved ventrad, with subequal in length dorsal and ventral arms; dorsal arm bearing subapical process and long apical setae; ventral arm with a ventral lobe at base and a ventral seta at middle as figured; cercus small, suboval, with acute apex and simple dorsal setae, somewhat stronger at apex; cerci not fused.

FEMALE. Similar to male except lacking MSSC. Legs simple, with short setae; abdomen with 5 visible segments; hemitergite with 1 long thin acanthophorite; cercus black, projected, with 1 basal and 1 apical long setae.

LENGTH (mm): body without antennae 1.6 (♀) – 2.0 (♂), antenna 0.7, wing 1.6/0.5, hypopygium 0.8.

***Medeterella* Grichanov, gen. n.**

Type species: *Medetera salomonis* Parent, 1941.

DIAGNOSIS. This generic diagnosis is based on published descriptions of nine species included formerly in the *Medetera salomonis* group of species (Bickel, 1987a; Grichanov, 1997a), and lists features considered to be of generic importance. The new genus resembles superficially *Nikitella* gen. n., strongly differing in male postabdomen morphology and other characters (see key below).

Antennal colour either all black or with scape and pedicel yellow; thoracic setae black; acrostichal setae present, biseriate; either 4-6 dorsocentrals present, or with 2-3 strong dorsocentrals bordering mesoscutal depression and only short setulae present anteriorly; lateral scutellar setae present; mid and hind femora bare of major anterior preapical seta; males with subapical dorsal seta on hind tibia (MSSC); males sometimes with distinctive ventral setae on mid and/or hind femora, or with orientated silvery pruinosity (MSSC); wing vein M_{1+2} bowed posteriorly beyond *dm-cu*, slightly flexed just before apex; surstylus usually fused into single arm (except *M. olivacea*), with membranous attachment to epandrium or fused to the latter; cercus secondarily segmented, with distal section of cercus articulated with basal section; tendency for distal section of cercus to become enlarged and expanded, sometimes with corresponding decrease in strength of surstylus. As noted by Bickel (1987a), the secondary segmentation and articulation of the cercus is an unusual character, possibly unique in the Diptera Brachycera.

ETYMOLOGY. Diminished of *Medetera*, gender feminine.

SPECIES INCLUDED. Nine species from the Afrotropical (Ghana), Oriental (Indonesia, Malaysia, Philippines) and Australasian regions:

Medeterella austrofemoralis (Bickel, 1987), **comb. n.** (= *Medetera austrofemoralis* Bickel, 1987: 236); Australasian: Australia (Queensland);

Medeterella femoralis (Becker, 1922), **comb. n.** (= *Medetera femoralis* Becker, 1922: 52; Bickel, 1987: 238); Australasian: Papua New Guinea;

Medeterella malayensis (Bickel, 1987), **comb. n.** (= *Medetera malayensis* Bickel, 1987: 235); Oriental: Malaysia;

Medeterella mooneyensis (Bickel, 1987), **comb. n.** (= *Medetera mooneyensis* Bickel, 1987: 233); Australasian: Australia (New South Wales);

Medeterella nigrohalterata (Parent, 1932), **comb. n.** (= *Medetera nigrohalterata* Parent, 1932: 175; Bickel, 1987: 235); Australasian: Australia (Australian Capital Territory);

Medeterella olivacea (De Meijere, 1916), **comb. n.** (= *Medetera olivacea* De Meijere, 1916: 260 [*Medeterus*]; Bickel, 1987: 232); Oriental: Indonesia, Malaysia, Philippines; Australasian: Indonesia (Irian Jaya), Papua New Guinea;

Medeterella pospelovi (Grichanov, 1997), **comb. n.** (= *Medetera pospelovi* Grichanov, 1997: 182); Afrotropical: Ghana;

Medeterella pseudofemoralis (Bickel, 1987), **comb. n.** (= *Medetera pseudofemoralis* Bickel, 1987: 239); Australasian: Australia, Papua New Guinea, Indonesia (Irian Jaya), Solomon Is.;

Medeterella salomonis (Parent, 1941), **comb. nov.** (= *Medetera salomonis* Parent, 1941: 233; Bickel, 1987: 236); Oriental: Philippines; Australasian: northern and eastern coastal Australia, Solomon Is., American Samoa, Fiji, French Polynesia, Indonesia (Irian Jaya), Marshall Is., Micronesia, Papua New Guinea, Tokelau Is., Vanuatu, Western Samoa, Guam, Palau.

Demetera Grichanov, gen. n.

Type species. *Medetera melanesiana* Bickel, 1987

DIAGNOSIS. This generic diagnosis is based on published descriptions of eight species included formerly in the *Medetera melanesiana* group of species (Bickel, 1987a; Grichanov, 1997b, 2009b), and lists features considered to be of generic importance. The new genus is the closest to *Saccopheronta* Becker, 1914 (see key below).

Antenna black; face and clypeus usually shiny metallic blue-violet; dorsocentrals strong, prominent, usually 4-5 present; acrostichals well developed, biseriate; lateral scutellar setae present; mid and hind femora bare of major anterior preapical seta; male fore leg normal, without flattened tarsomeres; male hind femur with rows of long anterior and anteroventral setae (MSSC); M_{1+2} not strongly arched, but lies almost subparallel to R_{4+5}; tendency in some species for the distal half of male abdominal segment 6, all of segments 7 and 8, and basal portion of epandrium to be pale cream and weakly sclerotized, in contrast with metallic green of anterior segments (MSSC); tendency for hypopygial foramen to become dorsobasal in position; epandrium strongly flattened dorsoventrally; only single (dorsal) surstylar arm present, and tending towards prolongation (ventral surstylar arm totally absent or present only as seta-bearing mound); surstylus fused to epandrium, without evidence of suture; aedeagus sometimes with internal appendix; cerci fused medially, usually with elongate ventrolateral arm, separated by furrow from the more dorsobasal portion.

ETYMOLOGY. Anagram of *Medetera*, gender feminine.

SPECIES INCLUDED. Eight species from the Afrotropical (Ethiopia), Oriental (Myanmar) and Australasian regions (from New Guinea to the Solomons and Queensland):

Demetera demeteri (Grichanov, 1997), **comb. n.** (= *Saccopheronta demeteri* Grichanov, 1997: 126; = *Medetera demeteri* (Grichanov, 1997): Grichanov, 2009: 4); Afrotropical: Ethiopia;

Demetera kokodensis (Bickel, 1987). **comb. n.** (= *Medetera kokodensis* Bickel, 1987: 212); Australasian: Papua New Guinea;

Demetera macalpinei (Bickel, 1987), **comb. n.** (= *Medetera macalpinei* Bickel, 1987: 214); Australasian: Papua New Guinea, Australia;

Demetera malaisei (Bickel, 1987), **comb. n.** (= *Medetera malaisei* Bickel, 1987: 250); Oriental: Myanmar;

Demetera melanesiana (Bickel, 1987), **comb. n.** (= *Medetera melanesiana* Bickel, 1987: 212); Australasian: Australia, Solomon Is., Indonesia (Irian Jaya), Papua New Guinea;

Demetera morobensis (Bickel, 1987), **comb. n.** (= *Medetera morobensis* Bickel, 1987: 212); Australasian: Papua New Guinea, Indonesia (Irian Jaya);

Demetera niuginiensis (Bickel, 1987), **comb. n.** (= *Medetera niuginiensis* Bickel, 1987: 214); Australasian: Papua New Guinea;

Demetera rhetheura (Bickel, 1987), **comb. n.** (= *Medetera rhetheura* Bickel, 1987: 215); Australasian: Papua New Guinea, Indonesia (Irian Jaya).

Key to Afrotropical genera of Medeterini and World "microdolichopodid" genera related to *Nikitella* gen. n.

1. Mid and hind femora with distinct anterior preapical seta; male postabdomen nearly symmetrical, with foramen positioned basoventrally, having well developed 7th segment …… ***Neomedetera* Zhu, Yang et Grootaert**
– Mid and hind femora bare of major anterior preapical seta ……..…… 2
2. Acrostichal setae absent 3
– Acrostichal setae present, usually biseriate 11
3. Lateral scutellar setae present as short hairs; wing length greater than 2.0 mm; hypopygium large, subrectangular, with lateral longitudinal striations, nearly symmetrical, with left basal foramen and well developed 7th segment …. ……..… ***Pharcoura* Bickel**
– Lateral scutellar setae absent; wing length usually less than 1.5 mm; hypopygium various 4
4. R_{2+3} ending in costa just beyond wing midlength; only one long notopleural seta and one long posterior supraalar seta present …… 5
– R_{2+3} ending in costa near wing two-thirds length or at wing apex; usually two notopleural setae and posterior supraalar setae present ……. 7
5. Male face tapering ventrally, with eyes distinctly separated; hypopygium nearly symmetrical, with left basal foramen and well developed 7th segment, and lacks the distinct projections from one side …….. ***Hurleyella* Runyon et Robinson**

– Male face tapering ventrally, with eyes almost contiguous ……. 6

6. Wing hyaline; male fore tarsus simple; hypopygium with short cerci and asymmetrical ventral row of fingerlike appendages ... ***Micromedetera*** **Robinson**

– Wing with transverse grey spot at middle; basal three tarsomeres of male foreleg laterally flattened; hypopygium with symmetrical appendages …… …….... ***Microchrysotus*** **Robinson**

7. R_{4+5} parallel with M_{1+2} beyond *dm-cu*, curving and converging with M_{1+2} at wing apex; vein *A* absent; arista-like stylus distinctly longer than head height; male face narrowest in middle, wider above and below ……. ***Microcyrtura*** **Robinson**

– R_{4+5} straight or slightly convex beyond *dm-cu*, parallel with M_{1+2} at wing apex; vein *A* present as fold (absent in *Cyrturella*); arista-like stylus shorter (but longer in *Babindella*) than head height; male face gradually tapering ventrally, sometimes eyes almost contiguous ……. 8

8. Arista-like stylus dorsal; male 1st tergite with a pair of dorsal bulbs; female with several strong bristles at the same place; 5 dorsocentral setae of approximately equal length ..... ***Craterophorus*** **Lamb**

– Arista-like stylus apical or apicolateral; male and female 1st tergite unmodified; usually 4 dorsocentral setae of approximately equal length 9

9. Legs entirely devoid of strong setae; hind basitarsus nearly as long as next segment; body size about 1 mm ……..……. ***Cyrturella*** **Collin**

– At least mid tibia with some strong setae; rarely only short apicals present; hind basitarsus usually much shorter than next segment; body size usually larger than 1.5 mm …….. 10

10. Arista-like stylus apicolateral; distal sectors of R_{4+5} and M_{1+2} straight and parallel; male 7th abdominal segment forming pedicel; hypopygium symmetrical; foramen basolateral; hypandrial lobes present; aedeagus without lateral lobes .... ***Paramedetera*** **Grootaert et Meuffels**

– Arista-like stylus apical; distal sectors of R_{4+5} and M_{1+2} parallel, weakly arched anteriorly; 7th abdominal segment semicircular, narrow; hypopygium sessile, asymmetrical; foramen dorsolateral; hypandrial lobes absent; aedeagus with large lateral lobes ..... ***Grootaertia*** **Grichanov**

– Arista-like stylus apical; distal sectors of R_{4+5} and M_{1+2} nearly straight and subparallel; male 7th segment fused with 8th segment, reduced; hypopygium sessile; foramen positioned basally and symmetrical; aedeagus reduced, with small distal projections ..... ***Babindella*** **Bickel**

11. R_{4+5} and M_{1+2} straight and parallel beyond *dm-cu*; hypopygium partially or completely enclosed by abdomen …….. 12

– R_{4+5} and M_{1+2} at least weakly curving and convergent beyond *dm-cu*, at most subparallel at apex; hypopygium usually pedunculate, not enclosed by abdomen …….. 13

12. Abdomen cylindrical; hypopygium at least half exposed, with long curved surstyli and short cercus, with left lateral foramen; pedicel with only short setae; wing length greater than 1.8 mm; crossvein *dm-cu* almost half length of distal CuA_1 …… ***Dominicomyia*** **Robinson**

– Abdomen dorsoventrally flattened; hypopygium almost completely enclosed at abdominal apex, and with highly reduced appendages, with basoventral foramen; pedicel with long ventral seta; wing length 1.3 mm; crossvein *dm-cu* about one-quarter length of distal CuA_1 ……...……. ***Cryptopygiella*** **Robinson**

13. Wing vein M_{1+2} bowed posteriorly beyond *dm-cu*, slightly flexed just before apex; if vein M straight, then male cercus secondarily segmented, with distal section of cercus articulated with basal section …….. 14

– Vein M_{1+2} bowed anteriorly beyond *dm-cu*, rarely straight; cercus never bisegmented ……. 15

14. Facial suture distinct at eye margins only; male with ventral spine-like setae on fore and mid femora; male postabdomen symmetrical and 7th and 8th segments reduced; hypopygium sessile; foramen positioned strictly basally; male cercus simple ..... ***Nikitella*** **gen. n.**

– Facial suture distinctly separating clypeus; males with or without distinctive ventral setae on mid and hind femora; abdominal segments 7 and 8 developed, asymmetrical; epandrial foramen positioned left laterally; cercus bisegmented ..……. ***Medeterella*** **gen. n.**

15. Fore coxa with long anteroapical spine or hook of cilia, shorter in females; at least fore and hind coxae yellow; male fore tarsomeres 1 and 3 usually modified, with remarkable apical setae or processes, rarely simple, but with slightly thickened tarsomeres 1-4; body usually shining, weakly pollinose; R_{4+5} and M_{1+2} weakly convergent, almost subparallel .... ***Dolichophorus*** **Lichtwardt**

– Fore coxa with short anteroapical setae not forming spine or hook; all coxae dark or only fore coxa yellow, rarely fore and hind coxae yellow; male fore tarsus differently modified or simple; body rarely shining 16

16. R_{4+5} and M_{1+2} strongly convergent; *dm-cu* distinctly shorter than or (rarely) equal to maximum distance between R_{4+5} and M_{1+2}; apical part of CuA_1 usually less than 2.5 times longer than *dm-cu*; male anterior tarsus simple, rarely with elongate hairs; if R_{4+5} and M_{1+2} weakly convergent, then *dm-cu* distinctly shorter than maximum distance between R_{4+5} and M_{1+2} .... ***Medetera*** **Fischer von Waldheim**

– R_{4+5} and M_{1+2} weakly convergent, almost subparallel; *dm-cu* about as long as or longer than maximum distance between R_{4+5} and M_{1+2}; apical part of CuA_1 usually 2-4 times longer than *dm-cu*; male tarsomeres 2 and 3 of fore leg thickened or enlarged and flattened (*Saccopheronta*) or simple …….. 17

17. Face and clypeus usually with pruinosity; male tarsomeres 2 and 3 of fore leg thickened or enlarged and flattened; epandrium cylindrical, elongate, more than twice as long as high; hypopygial foramen always dorsolateral in position with tendency to becoming median ……..… ***Saccopheronta*** **Becker**

– Face and clypeus shining blue-violet, with no pruinosity; male fore leg normal; epandrium dorsoventrally flattened; hypopygial foramen usually basal in position ……...……. ***Demetera*** **gen. n.**

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