

# Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch  
of the Russian Entomological Society  
and Laboratory of Entomology,  
Institute of Biology and Soil Sciences,  
Vladivostok

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Number 183: 1-8

ISSN 1026-051X

March 2008

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## A NEW GENUS AND TWO NEW SPECIES OF THE SHORE-FLIES (DIPTERA, EPHYDRIDAE) FROM THAILAND

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A new genus *Discostricata* **gen. n.** and two new species *Discostricata discostricata* **sp. n.** and *Discostricata vikhrevi* **sp. n.** are described from Thailand. New genus is closely related to *Discomyza* Meigen, 1830, but differs from it by having straight face, by very long antennae, almost reaching mouth opening, by strongly developed proclinate orbital seta and by position of *r-m* which is closer to the base of wing.

KEY WORDS: Diptera, Ephydriidae, new taxa, Thailand.

**М.Г. Кривошеина. Новый род и два новых вида мух-береговушек (Diptera, Ephydriidae) из Таиланда // Дальневосточный энтомолог. 2008. N 183. С. 1-8.**

Установлен новый род *Discostricata* **gen. n.** и описаны 2 новых вида *Discostricata discostricata* **sp. n.** и *Discostricata vikhrevi* **sp. n.** из Таиланда. Новый род близок к *Discomyza* Meigen, 1830, от которого отличается ровным лицом, очень длинными усиками, достигающими почти до ротового отверстия, сильно развитой направленной вперед орбитальной щетинкой и положением жилки *r-m*, которая расположена ближе к основанию крыла.

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## INTRODUCTION

One new genus and two new species were discovered among the materials of shore-flies collected by Dr. N.Vikhrev in Thailand in 2007. These flies differ remarkably from all known Ephydriidae by combination of striated body and long antennae. The descriptions of a new genus and two new species are given below. Holotypes and paratypes of the new species are deposited in the Zoological Museum, Moscow State University (ZMUM).

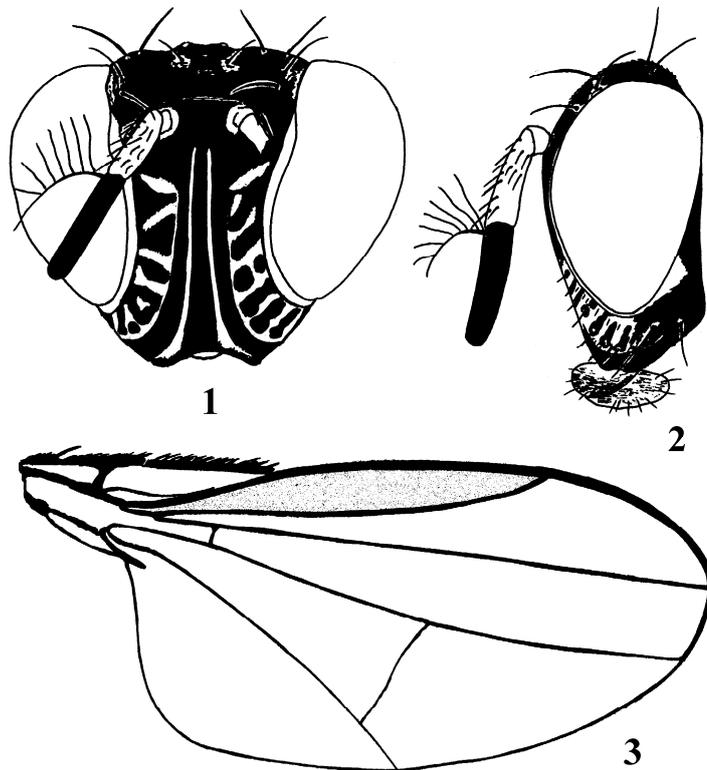
### Genus *Discostrciata* M. Krivosheina, gen. n.

Type species: *Discostrciata discostrciata* M. Krivosheina, sp. n., here designated.

DIAGNOSIS. Moderately large flies, body length 3.0-4.0 mm; generally black-colored species with surface mainly subshiny and covered with spots of silvery microtomentum; face straight; proclinate seta strong; antennae extremely elongated, almost reaching the mouth opening; position of *r-m* closer to the base of wing and placed at the level before fusion of *R<sub>1</sub>* and *C*; abdomen bicoloured.

Head. Normally developed, not triangular and not with bulging eyes; antenna inserted at dorsal one-fourth of head height; frons rectangular, black, transverse (wider than long), pubescent, subshining, with small orbital and ocellar patches of silvery microtomentum; vertex angulate; occiput deeply concave; interfrontal setae absent; 1 strong proclinate and 1 strong reclinate setae present, 1 significantly weaker and shorter proclinate seta inserted laterad of reclinate one; ocellar setae well developed, inserted at the level of anterior ocellus, their orientation proclinate and slightly divergent, pseudopostocellar weak; both inner and outer vertical setae well developed. Antennae: bases of antennae widely separated at the distance equal to distance between posterior ocelli, scape and pedicel dark yellow, flagellomere 1 black with whitish pubescence, antennae significantly elongated like in *Rhynchopsilopa* Hendel 1913, almost reaching the mouth opening, pedicel 4 times as long as scape, flagellomere 1 approximately 5 times as long as scape; arista bearing 7-8 dorsal rays. Eye bare, elliptical narrowed downwardly. Face narrow, black, pubescent in lower half, subshining, with 2 vertical silvery microtomentose lines medially, parafacia silvery, rest of face with irregular structure of fused silvery spots or bands. Face with vertical row of 6 setae, the upper 3 much weaker and hair-like, with a row of weak and short setulae outwardly from the former. Proboscis normally developed. Gena with 1 strong seta. Palpus dark.

Thorax. Generally black matt with irregular spots of silvery microtomentum on scutum and anepisternum, scutum and scutellum pubescent. The following setae well developed: 1 *pprn*, 1 *dc* prescutellar, 2 *npl* equidistant from notopleural suture, anterior weak and short, only posterior one strong and comparable with postalar seta, 1 *pa*, 2 *anepst*, 1 *kepst*. Scutellum black, with strong apical scutellar setae, subapical scutellar setae not developed (equal to pubescence). Halter with yellow stem and white knob. Wing variable, not shortened, without spots, *r-m* and *m-cu* not darkened, *r-m* closer to the base of wing and placed at the level before fusion of *R<sub>1</sub>-C*. Costal



Figs. 1-3. *Discostryata discostryata* sp. n., male: 1) head, frontal view; 2) head, lateral view; 3) wing.

index 1.3-1.4:1. Legs black except knees, tarsi yellow-white, apical tarsomeres black, pulvilli well developed. Fore femur with anteroventral row of short setae, their bases tuberculate, all tibiae not armed, only with apical spurs.

Abdomen. Black, subshiny, some tergites with silvery bands, tergite 5 as broad as tergite 4. Male terminalia: epandrium significantly sclerotized, presurstylus varying in shape, postsurstylus elongate, other structures: see species description.

DISCUSSION. A new genus is closely related to the *Discomyza* Meigen, 1830 (Mathis & Zatwarnicki, 2005; Zatwarnicki & Mathis, 2007), the differences of both genera are given in the key below. There are some more characters which we think to be of generic level in two new species: transverse vein *r-m* is located close to the base of wing.

**Key to the genera *Discomyza* and *Discostryata* gen. n.**

1. Face convex, conspicuously and deeply transversely rugose; only reclinate fronto-orbital setae well developed; antennae short, inserted at dorsal one-third of head height; scutellum with 4 setae; abdomen black . . . . . *Discomyza* Meigen
- Face straight, not deeply transversely rugose; proclinate and reclinate fronto-orbital setae well developed; antenna long reaching almost mouth opening, inserted at dorsal one-fourth of head; scutellum with 2 apical setae; abdomen bicoloured . . . . . *Discostryata* gen. n.

***Discostryata discostryata* M. Krivosheina, sp. n.**

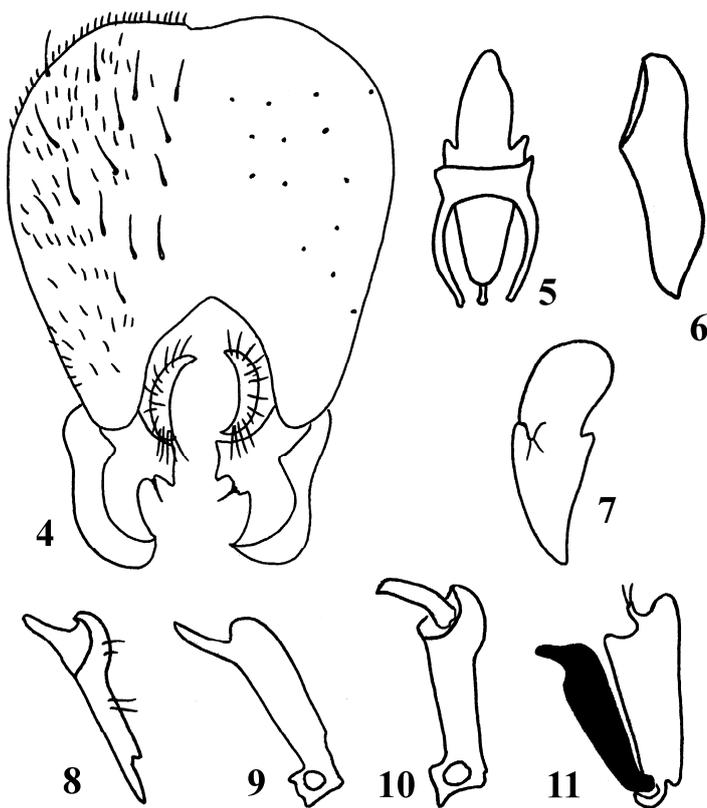
Figs 1-11

MATERIAL. Holotype – ♂, THAILAND, Rayong, KhaoChamao, 8.XII 2007, N. Vikhrev (ZMUM). Paratypes: 5 ♂, the same locality, 8-10.XII 2007, N. Vikhrev (ZMUM).

DESCRIPTION. MALE. Moderately large flies, body length varying, 3.0-4.0 mm; generally black-colored species with surface mainly subshiny and covered with spots of silvery microtomentum.

Head. Normally developed, not triangular and not with bulging eyes; antenna inserted at dorsal one-fourth of head height; frons rectangular, black, transverse (wider than long), pubescent, subshining, with small orbital and ocellar patches of silvery microtomentum, vertex angulate; occiput deeply concave; interfrontal setae absent; 1 strong proclinate and 1 strong reclinate setae present, 1 significantly weaker and shorter proclinate seta inserted lateral from reclinate one; ocellar setae well developed, inserted at the level of anterior ocellus, their orientation proclinate and slightly divergent, pseudopostocellar weak; both inner and outer vertical setae well developed. Antennae: scape and pedicel dark yellow, flagellomere 1 black with whitish pubescence, almost reaching the mouth opening, pedicel 4 times as long as scape, flagellomere 1 approximately 5 times as long as scape; arista bearing 7 dorsal rays. Eye bare, elliptical narrowed downwardly. Face narrow, black, pubescent in lower half, subshining, with 2 vertical silvery microtomentose lines medially, parafacia silvery, rest of face with irregular structure of fused silvery bands so that black areas of face form mainly bands not spots. Eye-to-gena ratio 4:1. Face with vertical row of 7 setae, the upper 3 much weaker and hair-like, with a row of weak and short setulae laterad of the former. Proboscis normally developed. Gena with 1 strong seta. Palpus dark.

Thorax. Generally black matt with irregular spots of silvery microtomentum on scutum and anepisternum, scutum and scutellum pubescent. The following setae well developed: 1 *pprn*, 1 *dc* prescutellar, 2 *npl* equidistant from notopleural suture, anterior weak and short, only posterior one strong and comparable with postalar seta, 1 *pa*, 2 *anepst*, 1 *kepst*. Scutellum black, with strong apical scutellar setae, subapical scutellar setae not developed; with indistinct varying structure of silvery



Figs. 4-11. *Discostrata discostrata* sp. n., male: 1) epandrium, cerci and presurstylus, posterior view; 2, 3) aedeagus, dorsal view; 3) aedeagus, lateral view; 4) presurstylus, lateral view; 5-8) epandrial plate, postsurstyli, oblique view.

microtomentum like indistinct interrupted medial line; apex silvery-white. Halter with yellow stem and white knob. Wing brownish, section between  $R_{2+3}$  and  $C$  darkened. Legs black except knees, tarsi yellow-white, apical tarsomeres black, preapical tarsomeres of fore tarsi darkened, brownish.

Abdomen. Black, subshiny, tergites 2-3 silvery with narrow black anterior bands and black triangular lateral spots; tergites 4 and 5 equal in width. Male terminalia: epandrium in posterior view longer than wide with relatively small cercal cavity, setulose and pubescent; cercus in posterior view lunate, bearing long setulae; presurstylus in posterior view with wide base and tapered and curved apex, bearing 2 subbasal setae; presurstylus in lateral view with basal part bean-like and apex angulate; aedeagus in ventral view with base approximately as wide as apex, in lateral view elongated; postsurstyli asymmetrical with group of setae; subepandrial plate concave; phallopodeme small, sclerotized; pregonite very small with 2 setae.

FEMALE: unknown.

DIAGNOSIS. Body length variable, 3-4 mm in males; face: black areas not covered with silvery microtomentum form more bands than spots; antennae: flagellomere 1 rounded apically; scutellum: with indistinct varying structure of silvery microtomentum, in holotype like indistinct interrupted medial line, apex silvery-white; wings: hyaline, brownish, with brownish veins, section between  $R_{2+3}$ -C darkened; abdomen: tergites 1, 4 and 5 black, tergites 2 and 3 silvery with narrow black basal band and lateral triangular areas; tarsi: apical tarsomeres black, besides fore tarsi with preapical tarsomere partly darkened.

***Discostrata vikhrevi* M. Krivosheina, sp. n.**

Figs 12-19

MATERIAL. Holotype – ♂, THAILAND, Pattaya, Jomtien, 15.XII 2007, N. Vikrev (ZMUM). Paratype: ♂, THAILAND, near Pattaya, Sai-Kaew, 17.XII 2007, N. Vikrev (ZMUM).

DESCRIPTION. MALE. Moderately small flies, body length about 3.0 mm; generally black-colored species with surface mainly subshiny and covered with spots of silvery microtomentum.

Head. Normally developed, not triangular and not with bulging eyes; antenna inserted at dorsal one-fourth of head height; frons rectangular, black, transverse (wider than long), pubescent, subshining, with small orbital and ocellar patches of silvery microtomentum, vertex angulate; occiput deeply concave; interfrontal setae absent; 1 strong proclinate and 1 strong reclinate setae present, 1 significantly weaker and shorter proclinate seta inserted laterad from reclinate one; ocellar setae well developed, inserted at the level of anterior ocellus, their orientation proclinate and slightly divergent, pseudopostocellar weak; both inner and outer vertical setae well developed. Antennae: scape and pedicel dark yellow, flagellomere 1 black with whitish pubescence, antennae significantly elongated, almost reaching the mouth opening, pedicel 4 times as long as scape, flagellomere 1 approximately 5 times as long as scape; arista bearing 8 dorsal rays. Eye bare, elliptical narrowed downwardly. Face narrow, black, pubescent in lower half, subshining, with 2 vertical silvery microtomentose lines medially, parafacia silvery, rest of face with irregular structure of fused silvery bands so that black areas of face form mainly spots not bands. Eye-to-gena ratio 4:1. Face with vertical row of 7 setae, the upper 3 much weaker and hair-like, with a row of weak and short setulae laterad of the former. Proboscis normally developed. Gena with 1 strong seta. Palpus dark.

Thorax. Generally black matt with irregular spots of silvery microtomentum on scutum and anepisternum, scutum and scutellum pubescent. The following setae well developed: 1 *pprn*, 1 *dc* prescutellar, 2 *npl* equidistant from notopleural suture, anterior weak and short, only posterior one strong and comparable with postalar seta, 1 *pa*, 2 *anepst*, 1 *kepst*. Scutellum black with strong apical scutellar setae, subapical scutellar setae not developed (equal to pubescence). Halter with yellow stem and white knob. Wing white, veins yellow and white. Legs black except knees, tarsi yellow-white, apical tarsomeres black, preapical tarsomeres of fore tarsi black.

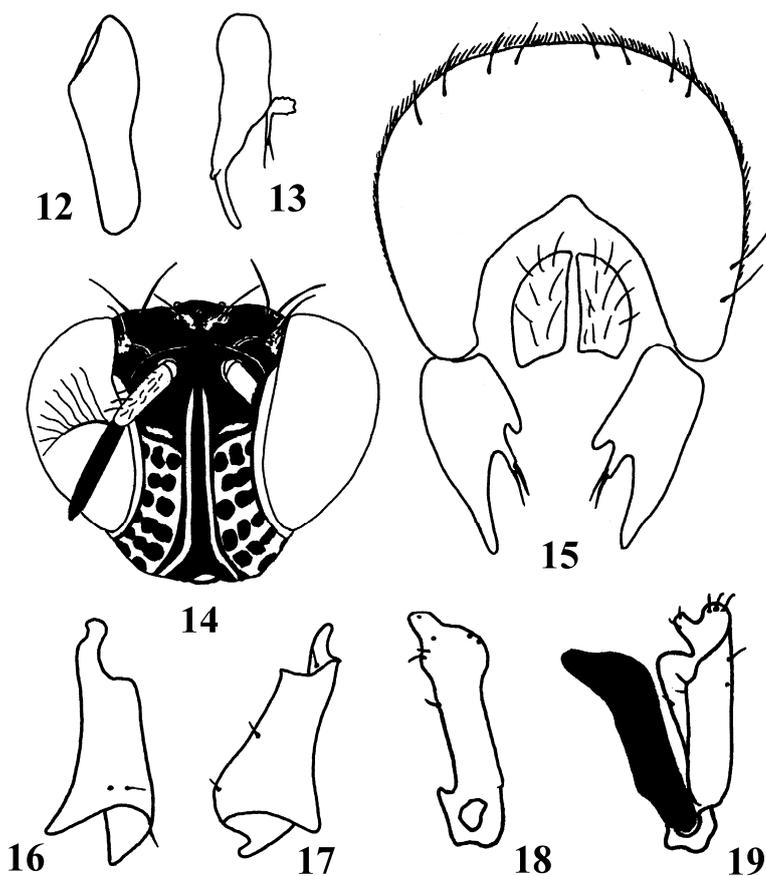


Fig. 3. *Discostryata vikhrevi* sp. n., male: 1) aedeagus, lateral view; 2) presurstylus, lateral view; 3) head, frontal view; 4) epandrium, cerci and presurstylus, posterior view; 5-8) epandrial plate, postsurstyli, oblique views.

Abdomen. Black, subshiny, tergites 2-4 silvery with black triangular lateral spots; tergites 4 and 5 equal in width. Male terminalia: epandrium significantly sclerotized, epandrium in posterior view wider than long with relatively large cercal cavity, setulose and pubescent; cercus in posterior view ovate, bearing long setulae; presurstylus in posterior view with rectangular base and tapered apex, bearing 3 subbasal setae; presurstylus in lateral view with basal part bean-like and apex tapered; aedeagus in ventral view with base approximately as wide as apex, in lateral view elongated; postsurstyli asymmetrical with group of setae; subepandrial plate concave; phallapodeme small, sclerotized; pregonite very small with 2 setae.

FEMALE: unknown.

DIAGNOSIS. Body length about 3 mm; face: black areas not covered with silvery microtomentum form more spots than bands; antennae: flagellomere 1 a little narrowed apically; scutellum black; wings hyaline, whitish, veins light yellow and white; abdomen: tergites 1 and 5 black, tergites 2-4 silvery with black triangular lateral spots; tarsi: apical tarsomeres black, besides preapical tarsomeres of fore tarsi distinctly black.

#### Key to species of the genus *Discostryata* gen. n.

1. Wing brownish with brown veins and section between  $R_{2+3}$  and  $C$  darkened; abdominal segments 2-3 with silvery pattern; black areas of face forming mainly bands not spots . . . . . *D. discostryata* sp. n.
- Wing whitish with yellow and white veins; abdominal segments 2-4 with silvery pattern; black areas of face forming mainly spots not bands . . . . .  
. . . . . *D. vikhrevi* sp. n.

#### ACKNOWLEDGEMENTS

I gratefully acknowledge the help of Dr. W.N. Mathis (Smithsonian Institution, Washington, D.C., USA), Dr. A.L. Ozerov (Zoological Museum, Moscow, Russia) and Dr. T. Zatwarnicki (Opole University, Poland) during the preparation of this work.

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