

## Types of Scathophagidae (Diptera) at the Zoological Institute of Russian Academy of Sciences, St Petersburg

### Типы двукрылых семейства Scathophagidae (Diptera) в Зоологическом институте РАН, С.-Петербург

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The data are summarized on the type specimens (holotypes, lectotypes, paratypes, paralectotypes) of 19 species in the family Scathophagidae (Diptera) kept at the Zoological Institute of Russian Academy of Sciences, St Petersburg. The lectotypes are designated for three species, *Scatophaga arctica* Becker, 1897, *S. septentrionalis* Becker, 1897, and *Scopeuma longinqua* Becker, 1915. *Acerocnema obscuripes* Becker, 1915 is transferred to the genus *Nanna* Strobl, 1894. Three new synonymies are established: *Scathophaga multisetosa* (Holmgren, 1883) = *Scatophaga arctica* Becker, 1897, **syn. nov.**; *Nanna obscuripes* (Becker, 1915) = *N. indotatum* Engelmark, 1999, **syn. nov.**; *Allomyella frigida* (Holmgren, 1883) = *Microprosopa varitibia* Becker, 1897, **syn. nov.** Both syntypes of *Ceratinostoma nudiseta* Becker, 1907 are not Scathophagidae but Muscidae possibly belonging to *Spilogona* Schnabl, 1911. A redescription of *Allomyella portenkoi* (Stackelberg, 1952) is given.

Приведены данные по типовым экземплярам (голотипы, лектотипы, паратипы, паралектотипы) 19 видов двукрылых из семейства Scathophagidae, хранящихся в коллекции Зоологического института РАН (С.-Петербург). Обозначены лектотипы трёх видов: *Scatophaga arctica* Becker, 1897, *S. septentrionalis* Becker, 1897 и *Scopeuma longinqua* Becker, 1915. *Acerocnema obscuripes* Becker, 1915 помещен в род *Nanna* Strobl, 1894. Установлены 3 новых синонима: *Scathophaga multisetosa* (Holmgren, 1883) = *Scatophaga arctica* Becker, 1897, **syn. nov.**; *Nanna obscuripes* (Becker, 1915) = *N. indotatum* Engelmark, 1999, **syn. nov.**; *Allomyella frigida* (Holmgren, 1883) = *Microprosopa varitibia* Becker, 1897, **syn. nov.** Оба изученных синтипа *Ceratinostoma nudiseta* Becker, 1907 относятся не к Scathophagidae, а к Muscidae, возможно, к роду *Spilogona* Schnabl, 1911. Дано переописание *Allomyella portenkoi* (Stackelberg, 1952).

**Key words:** dung-flies, taxonomy, type specimens, collection, Zoological Institute of Russian Academy of Sciences, Diptera, Scathophagidae, new synonyms

**Ключевые слова:** мухи-скатофагиды, таксономия, типовые экземпляры, коллекция, Зоологический институт РАН, Diptera, Scathophagidae, новые синонимы

## INTRODUCTION

The Zoological Institute of Russian Academy of Sciences in St Petersburg (ZIN) possesses the richest Diptera collection in Russia. Scathophagidae is a small family of about 350 valid species worldwide. The

present paper reviews the type specimens of Scathophagidae kept in ZIN. We have examined the types of 19 species described by the Russian dipterologists J.A. Portschinsky (1848–1916), A.A. Stackelberg (1897–1975) and K.B. Gorodkov (1932–2001), who worked in St Petersburg (Leningrad).

The famous German dipterologist Theodor Becker (1840–1928) described several new species of Scathophagidae from northern Russia in 1897–1914. We examined the types of eleven Scathophagidae species described by Becker, which were found in ZIN.

The type specimens described by Portschnsky, Stackelberg and Becker were labelled properly; hence we recognized them without difficulties. A part of types of the species described by Gorodkov were properly labelled as well. At the same time, the new species described and the lectotypes designated by him in 1974 (Gorodkov, 1974) were lacking the respective labels. Luckily, all of these specimens were found in a separate drawer. The first author labelled as the holotypes of *Cordilura sagittifera* Gorodkov, 1974 and *C. zaitzevi* Gorodkov, 1974 the only male specimen in each type series with the label consistent with that of the holotype (Gorodkov, 1974) and with the apex of abdomen cut and placed in a vial with glycerol. Apparently, Gorodkov (1974) illustrated the male genitalia from these specimens.

All taxa are listed in alphabetic order of their species names. The labels are separated from each other by oblique stroke. The label data are put in quotation marks, with translation and comments given in brackets.

The terminology follows McAlpine (1981) and Cumming et al. (2009). The following abbreviations are used: *a*, anterior; *d*, dorsal; *p*, posterior; *v*, ventral; combinations of these four abbreviations, all used for leg chaetotaxy; ALO, A.L. Ozerov.

## ANNOTATED LIST OF TYPES

### Order DIPTERA

### Family SCATHOPHAGIDAE

*albidohirta* Becker, 1907b: 254 (*Scathophaga*).

Type locality: “Kurlyk” [Lake Hurleg Hu, 37.28°N 96.89°E] (China).

*Lectotype*. Male: “Kurlyk, Baingol vost. Tsaydam. RobKozlov 21.V.95” [Kurlyk, eastern Baingol, Caidam, 21.V.1895, coll. Roborowsky et Kozlov; in Russian] (designated by Ozerov & Krivosheina, 2011: 105).

*Paralectotypes*. One male, labelled same as lectotype. Five females: (1) “r Orogyn Syrtyu yu Nan’shan, Gobi, RobKozlov 3–20.V.95” [in Russian], (2) “oz. Iche – r. Orogyn s. Tsaydam ts. Gobi RobKozlov 3 VII 95” [in Russian], (3) “r Orogyn Syrtyu yu Nan’shan, Gobi, RobKozlov 3–20 VII 95” [in Russian], (4) “Kara Tyube, na zap ot Khami, Gobi. RobKozlov 5.IX.95” [in Russian], (5) “r. Bomyn (Ichehan) sv. Tsaydam Gobi RobKozlov VI 95” [in Russian].

*Notes*. The species was described from eight specimens collected in China; seven of them, two males and five females, are kept in ZIN. The eighth specimen, male, is in Museum für Naturkunde der Humboldt-Universität, Berlin (Ozerov & Krivosheina, 2011: 106).

The lectotype is pinned; one of middle legs is glued to the geographical label and lacking tarsomeres 2–4, the other middle leg is broken, tibia and tarsi of the left hind leg are broken, as well as tarsomeres 2–4 of the right hind leg; the abdomen is cut and placed in a vial with glycerol mounted on the same pin with the specimen.

The male paralectotype in ZIN is *Scathophaga mihalyii* (Šifner, 1975). The male paralectotype in Berlin (with labels: “oz. Iche – r. Orogyn s. Tsaydam ts. Gobi RobKozlov 3 VII 95” [in Russian] / “Gobi. Asien 51896. VII” / “*albidohirta* Beck.” / “ZMU Berl” / “*Scathophaga albidohirta* Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”) is conspecific with the lectotype. This specimen was examined by ALO in 2012 and labelled as a paralectotype.

Three female paralectotypes (labels 1–3) are conspecific with the lectotype. Two female paralectotypes (labels 4–5) are *Scathophaga* species, but surely are not *S. albidohirta*.

*Identity*. A good species of the genus *Scathophaga* Meigen, 1803. It was redescribed and illustrated by Ozerov & Krivosheina (2011).

***amplipennis*** Portschinsky, 1887: 199 (*Scatophaga*).

Type locality: “[high in the upper reaches of Yellow [=Hawang] River in northeastern Tibet]” (China).

*Lectotype*. Male: “*Scatophaga amplipennis*” [handwritten by Portschinsky] (designated by Gorodkov, 1967: 446).

*Paralectotype*. Male, labelled same as lectotype.

*Notes*. The species was described from both sexes. Only two males were found in ZIN, both without geographical labels. The lectotype (designated by Gorodkov (1967), but labelled by ALO) is pinned, in very good condition. The second male was labelled by ALO as a paralectotype.

This species was transferred to the genus *Scatomyza* Fallén, 1810 (Ozerov & Krivosheina, 2011).

*Identity*. Similar to *Scatomyza magnipennis* (Portschinsky, 1887) (see below), probably is a junior synonym of this species.

***arctica*** Becker, 1897: 398 (*Scatophaga*).

Type locality: Malye Karmakuly, Novaya Zemlya (Russia).

*Lectotype*. Male: “Mal. Karmakuly, Novaya Zemlya. 31.VII.[18]96 Jacobson” [in Russian] / “*Scatophaga arctica* Bec[ker]” [handwritten by T. Becker] / “*Scatophaga apicalis* Curtis male Gorodkov det. [19]73” (designated here).

*Paralectotype*. Female: “stoyanka u g. Chernyshova, Nov. Zem. 4.VIII.96 Jacobson” [in Russian].

*Notes*. The species was described from the specimens of both sexes collected in Novaya Zemlya. There are two specimens in ZIN, male and female. The male is in very good condition; its abdomen is dissected and placed in a vial with glycerol on the same pin with the specimen. This specimen has been labelled by ALO and is designated here as a lectotype of *Scatophaga arctica*. The lectotype is conspecific with *Scatophaga multisetosa* (Holmgren, 1883).

The female has been labelled by ALO as a paralectotype.

One male paralectotype (with labels: “Novaja Semlja mons Tschernyschew G. Jacobson 5.VIII.96” / “*arctica* Becker” /

“41956” / “*Scatophaga arctica* Beck. SYN-TYPE labelled 1954 by J.R.Vockeroth” / “*Scatophaga apicalis* Curt. Det. 1962 J.R. Vockeroth”) is kept in Museum für Naturkunde der Humboldt-Universität, Berlin. This specimen was examined by ALO in 2012 and labelled as a paralectotype; it is conspecific with *Scatophaga multisetosa* (Holmgren, 1883).

*Identity*. *Scatophaga arctica* **syn. nov.** is a junior synonym of *S. multisetosa* (Holmgren, 1883).

***infumatum*** Becker, 1907b: 256 (*Conio-sternum*).

Type locality: “Sogon-gomba” [upper reaches of the Yangtze River, ca. 33.6°N 96.4°E] (China).

*Holotype*. Male: “Sogon-gomba – r Ichu, ver Goluboy, Kozlov, kon VII.[19]00” [in Russian] / “Tibet, Kozl. VII.00” / “*infumatum* Beck.” / “5” [three labels handwritten by T. Becker].

*Notes*. The species was described from a single male. The holotype is pinned, in very good condition; left wing is partially torn; the abdomen is cut and placed in a vial with glycerol on the same pin with the specimen.

*Identity*. A good species of *Scatophaga*. It was redescribed and illustrated by Ozerov & Krivosheina (2011).

***fulvisetis*** Becker, 1915: 64 (*Pleurochaeta*).

Type locality: “aus dem Polaren Ural” (Russia).

*Holotype*. Male: dark gold circle / “Popyzrny Ural, s. Tobol’s. gub. FZaitzev 6 VII [18]09” [in Russian] / “det. Becker” [printed] “*Pleurochaeta fulvisetis* B.” [handwritten by T. Becker].

*Notes*. The species was described from a single male. The holotype is pinned, in excellent condition.

*Identity*. A junior synonym of *Pleurochaetella simplicipes* (Becker, 1900).

***longinqua*** Becker, 1915: 66 (*Scopeuma*).

Type locality: “Tundra des Fl. Kara” [tundra in environs of the Kara River, the border of Nenetskii Autonomous District and Tyumen Province] (Russia).

*Lectotype*. Male: “Karskaya tundra s. Tobol’s. gub. FZaitzev 12 VII [19]09” [in Russian] (designated here).

*Paralectotypes*. Two females: (1) dark gold circle/ "Karskaya tundra s. Tobol's. gub. FZaitsev 12 VII 09" [in Russian]/ "det. Becker" [printed] "*Scatophaga longinqua* B" [handwritten by T. Becker], (2) "Karskaya tundra s. Tobol's. gub. FZaitsev 12 VII 09" [in Russian].

*Notes*. The species was described from three specimens of both sexes. All are in ZIN, a male and two females. The male has been labelled by ALO and is designated here as a lectotype. The lectotype is pinned, in good condition; the abdomen is dissected and placed in a vial with glycerol on the same pin. The two females were labelled by ALO as paralectotypes. All three type specimens are *Scathophaga cordylurina* (Holmgren, 1883).

*Identity*. A junior synonym of *Scathophaga cordylurina* (Holmgren, 1883).

***magnipennis*** Portschinsky, 1887: 198 (*Scathophaga*).

Type locality: "San Kul" [Sonkol Lake, 3160 m] (Kyrgyzstan).

*Lectotype*. Male: "San Kul" [in Russian]/ "*Scatophaga magnipennis*" [handwritten by Portschinsky] (designated by Gorodkov, 1967: 445).

*Paralectotype*. Female, labelled same as lectotype.

*Notes*. The species was described from both sexes. Two specimens, male and female, are kept in ZIN. The male lectotype (designated by Gorodkov (1967), but labelled by ALO) and the female paralectotype are pinned, in very good condition. The female was labelled by ALO as a paralectotype.

*Identity*. A good species of the genus *Scatomyza*.

***nudiseta*** Becker, 1907a: 4 (*Ceratinostoma*).

Type locality: "Neu-Sibirische Inseln, Insel Kotelnyi, Südufer beim Stan-Michailow" and "West-Taimyr-Halbinsel, Walter-Bai, Ostufer am Cap Kriwoj" (Russia).

*Syntypes*. One male: "Taimyr occ. Birulja 22 VII– 4 VIII 901" / "mukhi poym. bl. palatki (stoyanka XI)" [in Russian]/ "Polyarnaya ekspeditsiya" [in Russian]/ "det. Becker" [printed] "*Ceratinostoma nudiseta*

Beck." [handwritten by T. Becker]. One female: "Ins. Kotelnyi A. Wolossowitch 10–25 VI. 1901" / "Polyarnaya ekspeditsiya" [in Russian]/ "det. Becker" [printed] "*Ceratinostoma nudiseta* Beck." [handwritten by T. Becker].

*Notes*. This species was described from three exemplars of both sexes; two syntypes, male and female, were found in ZIN. In the male, the left postpedicel, tarsi of right fore leg, tibia and tarsi of left mid leg, right mid leg and both hind legs are broken, otherwise in good condition. The female is in good condition.

*Identity*. Both syntypes are not Scathophagidae but Muscidae probably belonging to *Spilogona* Schnabl, 1911 (A.C. Pont, pers. comm.).

***obscuripes*** Becker, 1915: 64 (*Acerocnema*).

Type locality: "Tundra des Fl. Kara" [tundra in environs of the Kara River, the border of Nenetskii Autonomous District and Tyumen Province] (Russia).

*Holotype*. Male: dark gold circle/ "Karskaya tundra s. Tobol's. gub. FZaitsev 12 VII [19]09" [in Russian]/ "det. Becker" [printed] "*Acerocnema obscuripes* B." [handwritten by T. Becker].

*Notes*. The species was described from a single male. The holotype is pinned, in very good condition. It belongs to the genus *Nanna* Strobl, 1894, not to *Acerocnema* Becker, 1894, and was repeatedly described by Engelmark (1999) as *Nanna indotatum*.

*Identity*. *Nanna obscuripes* (Becker, 1915), **comb. nov.**, with a junior synonym *N. indotatum* Engelmark, 1999, **syn. nov.**

***orbitalis*** Becker, 1915: 65 (*Scopeuma*).

Type locality: "Pe-mal" [hilly area between the northernmost parts of the Polar Urals and the Arctic sea coast] (Russia).

*Holotype*. Female: "Pe-Mal, s. Tobol's. gub. FZaitsev 15 VII [19]09" [in Russian]/ "det. Becker" [printed] "*Scatophaga orbitalis* B." [handwritten by T. Becker].

*Notes*. The species was described from a single female. The holotype is pinned, in very good condition. It is conspecific with *Scathophaga nigripalpis* (Becker, 1907)

and was correctly recognized by Gorodkov (1986: 33).

*Identity.* A junior synonym of *Scathophaga nigripalpis* (Becker, 1907).

***paradoxopyga*** Stackelberg, 1952: 405 (*Acerocnema*).

Type locality: Matochkin Shar (73.3877° N, 55.2144° E), Novaya Zemlya (Russia).

*Holotype.* Male: "Nov. Zemlya, Matochkin Shar xxx Vakulenko 11/VII.925" [in Russian; xxx = illegible]/ "Stackelberg det." [printed] "*Acerocnema paradoxopyga* sp.n. Typ. 41" [handwritten by A. Stackelberg].

*Paratype.* Male: "O-v Vrangelya. Aternon Rodzhers 27.VI.939 Portenko" [in Russian].

*Notes.* The species was described from three males taken from Novaya Zemlya (holotype and paratype) and Wrangel Island (paratype). We have examined the holotype and the male paratype from Wrangel I.; the other paratype could not be found. The examined types are in good condition.

*Identity.* A good species of the genus *Acerocnema* Becker, 1894.

***perfecta*** Becker, 1907a: 3 (*Scatophaga*).

Type locality: "Lena-Mündung, Charaulachgebirge, Cap Elijdep", Arctic coast of Yakutia (Russia).

*Holotype.* Male: "Prijansky Tundra z-w. Lena und Jana Brusnew 8, 9 VI 1902" [tundra between the rivers Lena and Yana, leg. Brusnev, 8–9.VI.1902]/ "na tsvetakh" [in Russian]/ "det. Becker" [printed] "*Scatophaga perfecta* Beck." [handwritten by T. Becker].

*Notes.* The species was described from a single male. The holotype is in good condition; left fore leg glued on carton card; end of abdomen cut and placed in a vial with glycerol on the same pin with the specimen. It is conspecific with *Scathophaga apicalis* (Curtis in Ross, 1835) and was correctly recognized by Gorodkov (1986: 30).

*Identity.* A junior synonym of *Scathophaga apicalis*.

***portenkoi*** Stackelberg, 1952: 406 (*Microprosopa*).

Type locality: Aternon-Rogers (70.9832° N, 178.4166° E), Wrangel Island (Russia).

*Holotype.* Male: dark gold circle/ "O-v Vrangelya. Aternon Rodzhers 27.VI.939 Portenko" [in Russian]/ "Stackelberg det." [printed] "*Microprosopa portenkoi* sp.n. male Typ." [handwritten by A. Stackelberg].

*Notes.* The species was described from a single male. The holotype is minute pinned, in very good condition, only pedicel and postpedicel of both antennae are lost; the abdomen is cut and placed in a vial with glycerol on the same pin with the specimen.

This species has been incorrectly recognized by Hackman (1956: 24, 58, Figs 58, 128) and later by Gorodkov (1970: 455), therefore its redescription and the figures of the holotype sternites 4 and 5 and the genitalia are given below. Vockeroth (1965: 835) recognized this species correctly.

*Identity.* A good species of the genus *Alomyella* Malloch, 1923.

*Redescription* (Figs 1–6). Male (holotype). Length of body 4.2 mm; length of wing 3.2 mm.

Head. Frons black, reddish yellow in anterior part only, greyish microtrichose. Ocellar triangle and parafacial black, with greyish microtrichia. Face blackish, yellowish along margin of mouth only, greyish microtrichose. Gena yellow. Postcranium black, greyish microtrichose, with black setae in upper half and whitish hairs in lower part. Head with 3 orbitals, 3–4 frontals, 1 ocellar, 1 postocellar, 1 inner vertical, and 1 outer vertical setae; 1 pair of strong vibrissae and 2 pairs of short subvibrissae. Scapus and pedicel black, both postpedicels missing. Palpus yellow, with moderately long yellowish setae.

Thorax black, densely microtrichose. Scutum with 2 postpronotal, 2 notopleural, 2+2 supraalar, 1+2 intraalar, 2 postalar, and (4–5)+(3–4) dorsocentral setae; anterior presutural directed to head; acrostichals long and thin, in two rows. Proepisternum covered with hair-like setulae in middle part, with 1 seta near upper margin. Propimeron with 1 seta. Anepisternum covered with setulae along dorsal margin and in posterior part only, with 2–3 setae near

posterior margin. Katepisternum covered with setulae and with 1 seta in posterodorsal corner. Anepimeron with several hairs at middle. Postmetacoxal bridge absent. Scutellum with 2 basal and 2 apical setae, and 2 discal setulae.

Legs greyish microtrichose. Coxae, trochanters and femora of all legs black; tibiae and tarsi of all legs yellow. Foretibia with rows of short spines ventrally, 1 *p* and 1 *d* at middle, and preapical *p* and *d*. Midfemur with preapical *p* and *pd*. Midtibia with 1 *ad* and 1 *p* at middle and a ring of apical setae. Hind femur with a row of *ad* and a row of *av*. Hind tibia with 2 *ad*, 2 *pd*, 1 *av*, and 1 preapical *d*.

Wing tinged with brownish. Veins brown; crossveins not darkened. Calypters, including margins, and halteres yellowish.

Abdomen black, densely microtrichose, covered with yellowish hairs. Male sternites 4 and 5 as in Figs 1–4. Epandrium, cerci and surstyli as in Figs 5, 6.

**Distribution.** Russia: Wrangel I.; USA: Alaska (Vockeroth, 1965: 835).

***sagittifera*** Gorodkov, 1974: 388 (*Cordilura*).

Type locality: 6 km E of Kyren, 700 m (ca. 51.6770°N, 102.2146°E), Khargun, Buryatia (Russia).

**Holotype.** Male: “Khargun, 6 km O Kyren, Sayany, osok. boloto, Gorodkov 11 VII 965” [Khargun, 6 km E of Kyren, Sayan Mountains, sedge bog, leg. Gorodkov 11.VII.1965; in Russian]/ “700 m”.

**Paratypes.** Six males and eight females, labelled as holotype. One male: “Okr.Irkutsk. Malashedova 4.VI.911” [In Russian]/ “sagittif.” [handwritten by Gorodkov]. One male: “oz. Tsagan, 100v. k W ot Urgi, Mong[olia]. Kozlov 28–29.VI.924” [in Russian].

**Notes.** The holotype (labelled by ALO) is pinned, in very good condition; the abdomen was cut and placed in a vial with glycerol on the same pin with the specimen (apparently, by Gorodkov). The 16 paratypes of this species mentioned by Gorodkov (1974: 388) were found in ZIN, in good condition; they were labelled by ALO as paratypes. In one of the male paratypes

from the type locality, the abdomen was cut and placed by ALO in a vial with glycerol on the same pin with the specimen; in one of the female paratypes from the type locality, the abdomen is broken. Two male paratypes (from Mongolia and from environs of Irkutsk) are with abdominal apex cut and glued on plastic rectangle on the same pin with the specimen.

**Identity.** A good species of *Cordilura* Falén, 1810, correctly recognized by recent authors.

***septentrionalis*** Becker, 1897: 397 (*Scatophaga*).

Type locality: Mt. Chernyshev, Novaya Zemlya (Russia).

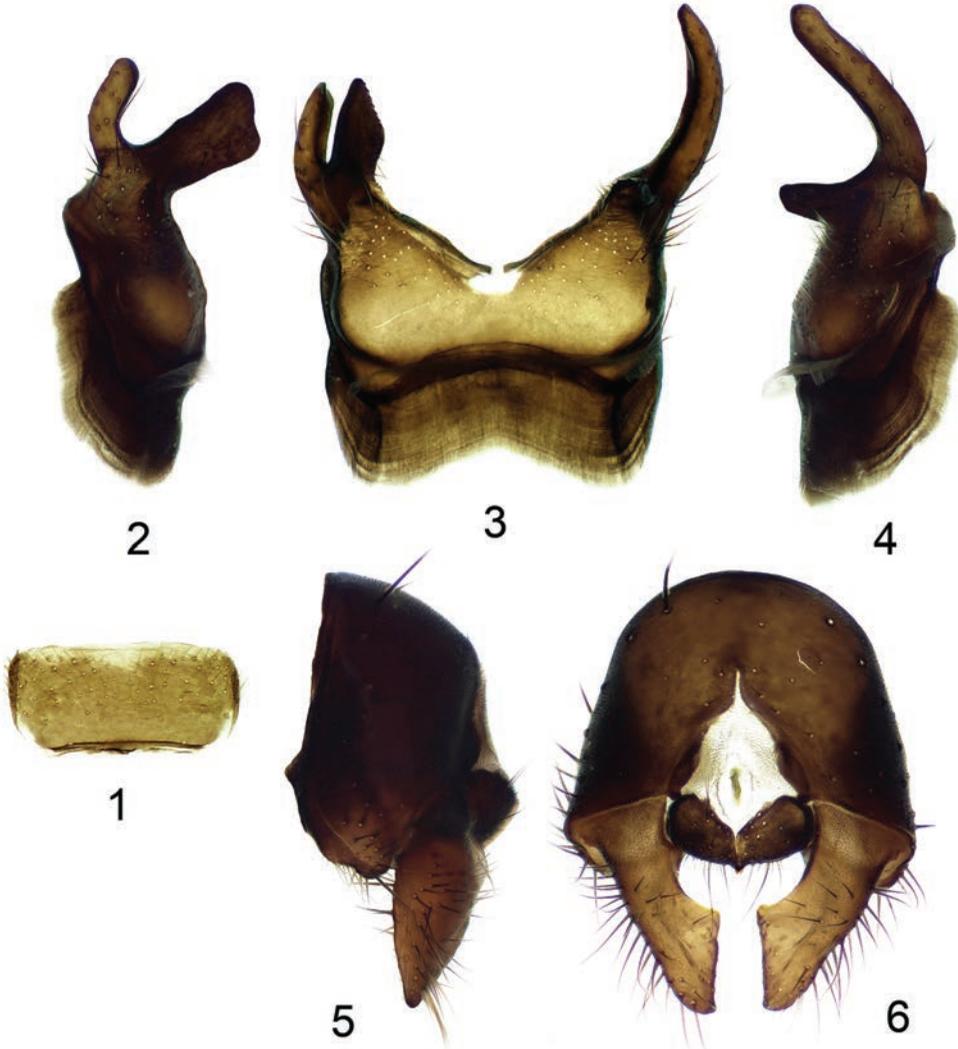
**Lectotype** (designated here). Male: “stoyanka u g. Chernysheva, Nov. Zem. 5.VIII.[18]96 Jacobson” [in Russian]/ “*Scatophaga septentrionalis* Becker” [handwritten by T. Becker]/ “*Scatophaga varipes* (Holmgren) male Gorodkov det. 1972”.

**Paralectotypes.** Two males, with same geographical labels as in lectotype.

**Notes.** The species was described from five specimens of both sexes. Three male syntypes were found in ZIN. The male in good condition has been labelled by ALO and is designated here as a lectotype of *Scatophaga septentrionalis*. Two other males were labelled by ALO as paralectotypes.

The other two syntypes (male and female) were kept in Museum für Naturkunde der Humboldt-Universität, Berlin. The male has the labels: “Novaja Semlja mons Tschernyschewi G. Jacobson 5.VIII.96”/ “41955”/ “*Scatophaga septentrionalis* Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”/ “*Scopeuma varipes* Holm. Det. 1954 J.R. Vockeroth”. The female has the labels: “Novaja Semlja mons Tschernyschewi G. Jacobson 5.VIII.96”/ “*septentrionalis* Beck.”/ “41955”/ “*Scatophaga septentrionalis* Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”/ “*Scopeuma varipes* Holm. Det. 1954 J.R. Vockeroth”. Both specimens were examined by ALO in 2012 and labelled as paralectotypes.

**Identity.** A junior synonym of *Scatophaga varipes* (Holmgren, 1883), correctly recognized by recent authors.



**Figs 1–6.** *Allomyella portenkoi* (Stackelberg), male (holotype): 1, sternite IV; 2, sternite V, left side; 3, sternite V, dorsal view; 4, sternite V, right side; 5, epandrium, cerci and surstyli, lateral view; 6, epandrium, cerci and surstyli, dorsal view.



**Fig. 7.** Abdominal sternites of *Microprosopa varitibia* Becker, female (holotype).

**sibirica** Gorodkov, 1974: 388 (*Cordilura*).

Type locality: 6 km E of Kyren, 700 m (ca. 51.6770°N, 102.2146°E), Khargun, Buryatia (Russia).

*Holotype*. Male: "Khargun, 6 km O Kyren, Sayany, osok. boloto, Gorodkov 11 VII 965" [Khargun, 6 km E of Kyren, Sayan Mountains, sedge bog, leg. Gorodkov 11.VII.1965; in Russian]/ "700 m".

*Notes*. The species was described from a single male. The holotype is pinned, in very good condition; the end of abdomen is cut and placed in a vial with glycerol on the same pin with the specimen.

*Identity*. A good species of *Cordilura*.

**stackelbergi** Gorodkov, 1967: 448 (*Okeniella*).

Type locality: "[North of Mondy, Tunkinskie Mountains (2500 m), East Sayan]" (Russia).

*Holotype*. Male: "okr. Mondy, Sayany, Tunkinskie gol'tsy, Gorodkov 22 VII 965" [in Russian]/ "r. Khulugayma, 2500 m, golets, boloto" [in Russian]/ "Holotypus ♂ *Okeniella stackelbergi* Gorodkov, 1967".

*Paratypes*. Two males and two females, with geographical labels same as in holotype. Nine males and eight females: "okr. Mondy, Sayany, Tunkinskie gol'tsy, Gorodkov 28 VII 965" [in Russian]/ "Verkh r. Ikhe-Ukhgun', gol'tsovyj poyas, boloto, 2200 m" [in Russian].

*Notes*. The holotype is minute pinned, in excellent condition. There are 21 more specimens of this species in ZIN (11 males, 10 females), all in good condition and labelled by Gorodkov as paratypes. In one of the male paratypes collected on 28 July 1965, the abdomen is cut and placed in a vial with glycerol on the same pin with the specimen.

*Identity*. A good species of the genus *Okeniella* Hendel, 1907.

**varitibia** Becker, 1897: 400 (*Microprosopa*).

Type locality: "Malija-Karmakuly, Nowaja-Semlja" [Malye Karmakuly (72.371409°N 52.741517°E), Novaya Zemlya] (Russia).

*Holotype*. Female: "Mal. Karmakuly, Novaya Zemlya. 16.VII.[18]96 Jacobson" [in Russian] /

"*Microprosopa varitibia* B[ecker]" [handwritten by T. Becker].

*Notes*. The species was described from a single specimen, incorrectly indicated as male. The holotype is pinned; left foreleg, right mid- and hind legs are missing; the abdomen is cut and placed in a vial with glycerol on the same pin with the specimen. Sternites (Fig. 7) are conspecific with those of *Allomyella frigida* (Holmgren, 1883).

*Identity*. *Microprosopa varitibia* **syn. nov.** is a junior synonym of *Allomyella frigida* (Holmgren, 1883).

**zaitzevi** Gorodkov, 1974: 386 (*Cordilura*).

Type locality: Songino, 1300 m, Central Aymag (Mongolia).

*Holotype*. Male: "Mongoliya, Tsentralnyy Aymak, Songino, poyma i stepnye sklony, Zaitzev, 3-4.IX.969" [in Russian]/ "*zaitzevi* sp. n. Gorodkov det."

*Paratypes*. Three females, with geographical labels as in holotype. Three males: "Mongoliya, Tsentr. Aymak, Songino, Nartshuk, 7.VII.970" [in Russian]. Two males: "Mongoliya, Tsentr. Aymak, r. Kerulen, 40 km ZYuZ Bayan-Obo, Kerzhner, 28.VII.971" [in Russian]. Two females: "Khargun, 6 km O Kyren, Sayany, osok. boloto, Gorodkov 11 VII 965" [in Russian]/ "700 m". One female: "Nicol'skaya slobodka, Namsk. ul., Herz 26 VI [19]01" [in Russian]. One male: "Malokrasnoyarsk. na Irtyshe Semip, Vereshchagin 27 VII 926" [in Russian]. Two males and one female: "Yakutsk, Moskvina 30.VII.927" [in Russian]. One male: "Novopokrovskoe, pr. b. Amgi Yakut., Pripuzov 22.VII.928" [in Russian].

*Notes*. The holotype (labelled by ALO) is pinned, in very good condition; the end of abdomen is cut and placed in a vial with glycerol on the same pin with the specimen. All 16 specimens of this species mentioned by Gorodkov (1974) (9 males, 7 females) were found in ZIN in good condition and labelled by ALO as paratypes. In two of the male paratypes (those collected by Kerzhner and Moskvina), the end of abdomen is cut and glued on plastic rectangle on the same pin with the specimen.

*Identity*. A good species of *Cordilura*.

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