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NEW DATA ON TAXONOMY AND FAUNA OF THE MILLIPEDES (DIPLOPODA) FROM THE RUSSIAN FAR EAST, SIBERIA AND MONGOLIA

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Uniramidesmus lingulatus Mikhaljova, **sp. n.** is described from Primorskii krai, Russian Far East. A new synonym is proposed: *Schizoturanius tabescens* (Stuxberg, 1876) = *Turanodesmus salairicus* Gulička, 1963, **syn. n.** Order Polyzoniida, family Polyzoniidae, and genus *Angarozonium* Shelley, 1998 and *A. amurense* (Gerstfeldt, 1859) are new to the fauna of Mongolia. The records of *Julus terrestris* Linnaeus, 1758 from Russian Far East and North-East China (Gerstfeldt, 1859) are based on missidentification and belong to *Pacifiulus amurensis* (Gerstfeldt, 1859). The data on the variability of *Angarozonium bonum* (Mikhaljova, 1979) are given.

KEY WORDS: Diplopoda, Russian Far East, Siberia, Mongolia, taxonomy, new species, faunistics.

Е. В. Михалёва[1)], Ю. М. Марусик[2)]. Новые сведения по таксономии и фауне двупарноногих многоножек (Diplopoda) Дальнего Востока России, Сибири и Монголии // Дальневосточный энтомолог. 2004. N 133. С. 1-12.

Из Приморского края описан *Uniramidesmus lingulatus* Mikhaljova, **sp. n.** Установлена новая синонимия: *Schizoturanius tabescens* (Stuxberg, 1876) = *Turanodesmus salairicus* Gulička, 1963, **syn. n.** Отряд Polyzoniida, семейство

Polyzoniidae, род *Angarozonium* Shelley, 1998 и *A. amurense* (Gerstfeldt, 1859) впервые указаны для фауны Монголии. Указание *Julus terrestris* Linnaeus, 1758 с Дальнего Востока России и Северо-Восточного Китая (Gerstfeldt, 1859) ошибочно и относится к *Pacifiiulus amurensis* (Gerstfeldt, 1859). Приводятся сведения об изменчивости *Angarozonium bonum* (Mikhaljova, 1979).

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INTRODUCTION

Our knowledge on the millipedes of Siberia and Russian Far East increases considerably since middle of 1970's. The main information is summarised in two regional reviews (Mikhaljova, 1998; Mikhaljova & Golovatch, 2001), additional data have been given in recent publications (Mikhaljova, 2000, 2002a, 2002b; Mikhaljova & Nefediev, 2003; Nefediev, 2001, 2002a-d). The data on the diplopod fauna of adjacent Mongolia is very limited; hitherto six species have been reported from this country (Golovatch, 1977; Shear, 1990; Mikhaljova, 2000).

Present paper is based on the materials from Zoological Museum of Moscow State University, Russia (ZMUM), Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia (ZISP), Institute of Biology and Soil Science of the Russian Academy of Sciences, Vladivostok, Russia (IBSV) and Swedish Museum of Natural History, Stockholm, Sweden (NHMS).

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ORDER POLYZONIIDA

Family Polyzoniidae

***Angarozonium bonum* (Mikhaljova, 1979)**
Fig. 1

MATERIAL. Russia: Primorskii krai: Ussuriysk District, ca. 5 km E of Nikolo-Lvovskoe, leaved forest, near stream, litter, 22.IV 2003, 1 ♂, 1 ♀ (leg. Mikhaljova) (IBSV).

REMARKS. Gonopods of the studied male morphologically slightly differ from typical gonopod structure of *A. bonum*. Branches of coxal process of anterior gonopod are placed closely to each other (Fig. 1), while in specimens from other localities they are well separated, but these differences seem to be infraspecific variation only.

DISTRIBUTION. Russia (southern part of Khabarovskii krai and Primorskii krai).

***Angarozonium amurense* (Gerstfeldt, 1859)**

MATERIAL. Russia: Republic of Sakha (Yakutia): Yana River middle flow, Tuostakh River (right tributary of Adycha River), ca 67º40' N, 1990, 2 ♂ (leg. Potapova) (IBSV); Mirnyi, mixed forest (*Larix, Picea, Betula, Salix*), 26.VII 2001, 1♂, 2 ♀ (leg. Popova & Nogovitsina) (IBSV); Khabarovskii krai: upper reaches of Bureya River, Usammakh Spring, *Larix* forest, litter, 4.X 1999, 1♂, 1♀ (leg. Trilikauskas) (IBSV). Mongolia: Tov (=Central) Aimak: Bayantsogt Somon, environs of Ulan-Bator, 48˚07´N 106°54´E, 1700 m, 18.V 1997, 5 ♀ (leg. Marusik) (IBSV).

DISTRIBUTION. Russia: Siberia, Far East; North-East China (Heilongjiang Province); North Mongolia (new record).

REMARKS. In Palaearctic the northernmost known millipede records of *Proteroiulus fuscus* (Am Stein, 1857) lie at 66˚45'N in Finish Lapland (Palmén, 1949) and at 67˚30' N in South Yamal, just above the Polar Circle (Golovatch, 1992; Kime & Golovatch, 2000). In Nearctic northernmost diplopod records are Yakutat Bay, Alaska (*Scytonotus insulanus* Attems, 1931) and St. Elias Mountains, British Columbia (*Underwoodia tida* Chamberlin, 1925) (Shelley, 2002). Hitherto the most northern known locality for *Angarozonium amurense* was Yenisey River down flow, 66º17'N (Mikhaljova, 2002b). The above-mentioned locality at 67º40' N is the northernmost known record of Diplopoda in Northern Hemisphere.

***Angarozonium kurtschevae* (Mikhaljova, 1983)**

MATERIAL. Russia: Primorskii krai: Chuguyevka District, Verkhneussuriysky Research Station, *Ulmus* valley forest, 7.VIII 1975, 1 ♂ (leg. Mikhaljova) (IBSV); Khasan District, ca.20 km SW of Slavyanka, Sukhanovsky Pass, *Quercus* forests, litter, 18.VIII 2002, 6♂, 9♀, 1 juv. (leg. Mikhaljova) (IBSV); Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 20.VIII 2002, 4♂, 2♀, 2 juv. (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (Primorskii krai).

ORDER JULIDA

Family Julidae

***Pacifiiulus amurensis* (Gerstfeldt, 1859)**

MATERIAL. Russia: Jewish Autonomous Region , Oktyabrsky District, near Pompeevka, *Pinus koraiensis*-broadleaved forest, 27.VI 1978, 2 juv. (leg. Ursova) (ZMUM); same locality, 3.VII 1978, 1♀ (leg. Ursova) (ZMUM); same locality, 5.VII 1978, 1 juv. (leg. Ursova) (ZMUM); same locality, 29.VII 1978, 1 juv. (leg. Ursova) (ZMUM); Obluchinsky District, near Pashkovo, *Pinus koraiensis*-broadleaved forests, 21.VI 1978, 6♀, 1 juv. (leg. Ursova) (ZMUM); same locality, humid *Quercus* forest, 13.VII 1978, 3 juv. (leg. Ursova) (ZMUM); same locality, 16.VII 1978, 1 juv. (leg. Ursova) (ZMUM); some locality, *Abies nephrolepis*-broadleaved forest, 22.VII 1978, 1 ♀, 1 juv. (leg. Ursova) (ZMUM); some locality, leaved forest,

23.VII 1978, 4 ♀, 2 juv. (leg. Ursova) (ZMUM); same locality, 29.VII 1978, 2 ♀, 2 juv. (leg. Ursova) (ZMUM).

DISTRIBUTION. Russia: Siberia (southern part of Krasnoyarskii krai, Republic of Altai, Republic of Khakassia, Republic of Tuva), Far East (Primorskii krai, southern part of Khabarovskii krai, Amurskaya oblast); North-East China.

REMARKS. The European species *Julus terrestris* Linnaeus, 1758 was recorded from bank of Shilka River (Chitinskaya oblast) and North-East China and/or Khabarovskii krai (Amur River, a little downstream from the mouth of Songari River) (Gerstfeldt, 1859). It was already suggested that these records are based on misidentification (Mikhaljova, 1993). According to published data three more or less habitually similar with *J. terrestris* juliform species were recorded from the Malyi Khingan Mt. Range near mouth of Songari River: *Anaulaciulus* sp. (Ursova, 1983), *A. golovatchi* Mikhaljova, 1982 (Ganin, 1997), and *Pacifiiulus amurensis* (Ganin, 1997; Mikhaljova, 1998). First co-author re-examined the julid material from Malyi Khingan Mt. Range, collected and published by O.A. Ursova (1983). Among the material the specimens belong to both *Anaulaciulus* sp. and *J. terrestris* not be found; only *P. amurensis* has been identified. G. Ganin (1997) recorded *A. golovatchi* from Malyi Khingan based on Ursova's error without examination of material. Wherefore all records of *J. terrestris*, *Anaulaciulus* sp. and *A. golovatchi* from Malyi Khingan Mt. Range are result of missidentification and belongs to *P. amurensis*. The true identity of julid from Chitinskaya oblast can be ascertained only upon examination of specimens from type locality.

***Anaulaciulus golovatchi* Mikhaljova, 1982**

MATERIAL. Russia: Primorskii krai: Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 16-17.VI 2003, 7 ♀, 8 juv. (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (Primorskii krai); Korea.

REMARKS. This species is rather variable morphologically (Mikhaljova & Korsós, 2003).

Family Mongoliulidae

***Skleroprotopus coreanus* (Pocock, 1895)**

MATERIAL. Russia: Primorskii krai: Ussuriysk District, ca. 5 km E of Nikolo-Lvovskoe, leaved forest, near stream, litter, 16-17.VIII 2002, 1 ♂ (leg. Mikhaljova) (IBSV); same locality, 22.IV 2003, 17 ♂, 19 ♀, 6 juv. (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia: Far East (Primorskii krai, southern part of Khabarovskii krai including Jewish Autonomous Region, Amurskaya oblast); Korea.

REMARKS. *S. coreanus* can be used as indicator of soil pollution with heavy metals in the southern part of Khabarovskii krai; in addition, this species is one of the most active millipedes-consumers of litter (Ganin, 1997).

***Kopidoiulus khasanicus* Mikhaljova, 1997**

MATERIAL. Russia: Primorskii krai: Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 20.VIII 2002, 6 ♂, 3 ♀ (leg. Mikhaljova) (IBSV); same locality, 21.VIII 2002, 5♂, 2 ♀ (leg. Mikhaljova) (IBSV); same locality, 17.VI 2003, 1 ♀ (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (the most south part of Primorskii krai).

Family Nemasomatidae

***Orinisobates microthylax* Enghoff, 1985**

MATERIAL. Russia: Khabarovskii krai: Verkhnebureyinsky (=Sofiysk) District, mouth of Usammakh Spring, *Picea* forest, litter, 7-10.X 1999, 1 ♀ (leg. Trilikauskas) (IBSV).

DISTRIBUTION. Russia: Siberia (Buryatia), Far East (Kamchatka Peninsula, Sakhalin Island, southern Kuriles, Primorskii krai, Khabarovskii krai).

ORDER CHORDEUMATIDA

Family Diplomaragnidae

***Orientyla bureyinskaya* (Mikhaljova, 1997)**

MATERIAL. Russia: Khabarovskii krai: Verkhnebureyinsky (=Sofiysk) District, valley of Bureya River, 3 km downstream from the confluence of Right and Left Bureya rivers, 5.VI 1999, 1 ♂ (leg. Blyummer and Trilikauskas) (IBSV); valley of Bureya River, 5 km downstream from the confluence of Right and Left Bureya rivers, under bark of *Picea ajanensis*, 7.VII 1999, 1♀ (leg. Blyummer) (IBSV); Bureyinsky Nature Reserve, ca. 60 km SE of Sofiysk, upper Right Bureya River, between Medvezhy and Lednikovyi springs, valley *Larix* stand, moss, 26-30.VI 2000, 4 ♀ (leg. Trilikauskas) (IBSV); same locality, 29.VI-3.VII 2000, 3 ♀ (leg. Trilikauskas) (IBSV); same locality, 4-9.VII 2000, 1 ♂, 2 ♀ (leg. Trilikauskas) (IBSV); upper Right Bureya River, environs of mouth of Lednikovyi Spring, *Picea* forest, pitfall traps, 29.VI 2000, 1 juv. (leg. Trilikauskas) (IBSV).

DISTRIBUTION. Russia (Khabarovskii krai: Verkhnebureyinsky District).

***Orientyla dahurica* (Gerstfeldt, 1859)**

MATERIAL. Russia: Primorskii krai: Yakovlevka District, upper Left Roslavka River SE of Limonnik Station, ca. 800 m a.s.l., Sinyaya Mts, under log, 4.VIII 2001, 1 ♂(leg. Maslova) (IBSV).

DISTRIBUTION. Russia: Siberia (eastern part of Chitinskaya oblast), Far East (Primorskii krai, Amurskaya oblast); North Korea.

***Diplomaragna terricolor* (Attems, 1899)**

MATERIAL. Russia: Primorskii krai: Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 20.VIII 2002, 5 juv. (leg. Mikhaljova) (IBSV); same locality, 16.VI 2003, 2 juv. (leg. Mikhaljova) (IBSV); same locality, 17.VI 2003, 1 ♂, 1 juv. (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (Primorskii krai).

Family Golovatchiidae

***Golovatchia magda* Shear, 1992**

MATERIAL. Russia: Khabarovskii krai: Bureyinsky Nature Reserve, upper Right Bureya, environs of mouth of Lednikovyi Spring, *Picea* forest, pitfall traps, 29.VI 2000, 4 ♂ (leg. Trilikauskas) (IBSV).

DISTRIBUTION. Russia (Khabarovskii krai: Verkhnebureyinsky District).

Family Caseyidae

***Underwoodia kurtschevae* Golovatch, 1980**

MATERIAL. Russia: Primorskii krai: Gamova Peninsula, near Telyakovskogo Cape, leaved forest, litter, 21.VIII 2002, 2 ♀ (leg. Mikhaljova); Ussuriysk District, ca. 5km E of Nikolo-Lvovskoe, leaved forests, near stream, litter, 22.IV 2003, 3 ♀ (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia: Far East (Primorskii krai, south part of Khabarovskii krai including Jewish Autonomous Regin, Amurskaya oblast, Sakhalin, Kuril Islands, Kamchatka Peninsula).

ORDER POLYDESMIDA

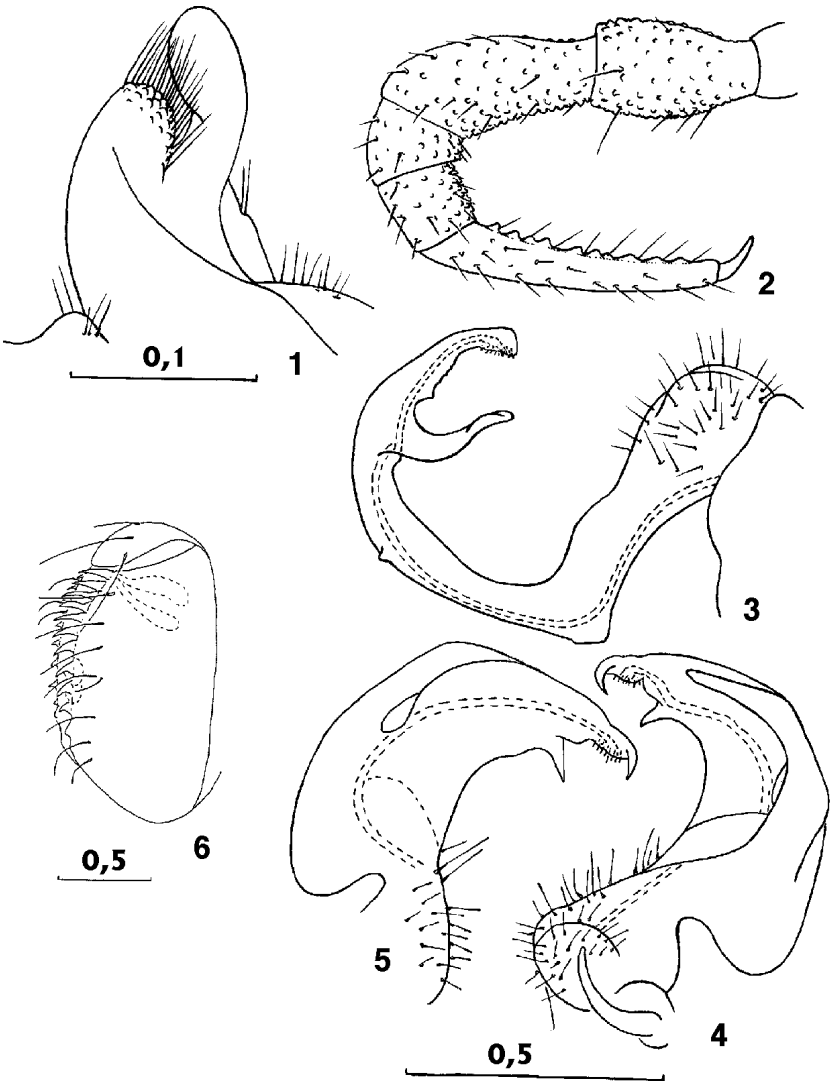
Family Polydesmidae

***Uniramidesmus lingulatus* Mikhaljova, sp. n.**
Figs 2-3

MATERIAL. Holotype: ♂, Russia: Primorskii krai, Ussuriysk District, 5 km E of Nikolo-Lvovskoe, leaved forest, near stream, litter, 22.IV 2003 (leg. Mikhaljova) (IBSV). Paratypes: 4♀, together with holotype, 22.IV 2003 (leg. Mikhaljova) (IBSV).

DIAGNOSIS. This species differs from congeners by the gonopod telopodite bearing a long process sublaterally and one tine denticle ventrally as well as by a very low projection on the gonopod femorite.

DESCRIPTION. Male. Holotype ca. 9.0 mm long, 1.0 mm wide. Coloration dark pink. Head covered with dense minute pubescence. Antennae relatively short, clavate. Distodorsal parts of antennomeres 5-7 each with a group of short baton-shaped sensilla. Length ratios of antennomeres 2-7 as 1.3:2.3:1.7:1.7:2.7:1, width



Figs. 1-6. Diplopoda. 1) *Angarozonium bonum*, ♂: coxal process of anterior gonopods, frontal view; 2, 3) *Uniramidesmus lingulatus* sp. n., holotype, ♂: 2) leg of body middle, 3) gonopod, lateral view; 4-6) *Schizoturanius tabescens*: 4) ♂, gonopod, mesal view; 5) ♂, gonopod, lateral view; 6) lectotype, ♀, vulva, mesal view. Scale in mm.

ratios as 1.25:1.3:1.3:1.4:1.8:1. Collum oval, narrower than head with genae. Metazonites 3 and 4 somewhat shorter than other. Metatergal polygonal sculpture distinct, as three transverse rows of setigerous bosses as usual. Lateral boss of 3rd row inconspicuous. Metatergal setae pointed. Paraterga narrow, weakly rounded laterally, caudolateral corners blunt. Paraterga of somites 2-4 broader. Somital microsculpture microreticulate throughout.

Legs somewhat incrassate compared to female ones. Tarsus with sphaerotrichs ventrally; preceding segments covered with tiny tubercles except in coxa; claws normal (Fig. 2). Each coxa 2 with a sparsely setose projection of vas deferens.

Gonopods (Fig. 3) falcate, in situ crossing each other. Coxae large, nearly completely retractile inside somite 7, each with two setae ventrally. Gonopod opening subcordate. Prefemur setose as usually, femorite with a very low, posterior subtriangular projection. Entire telopodite = solenomere with a long tongue-shaped process sublaterally and one tiny denticle ventrally; subterminal orifice of seminal groove opening on a very low, micropilose pulvillus.

Female. Length ca. 9.0 mm, width 0.8-0.9 mm. Epigynal ridge behind coxae 2 absents.

ETYMOLOGY. The specific name originates from Latin adjective *lingulatus* with reference to the tongue-shaped process of the gonopod telopodite.

***Uniramidesmus perplexus* Mikhaljova, 1984**

MATERIAL. Russia: Irkutskaya oblast, Slyudyanka District, Baikalsk, 17.VII 2001, 3 ♂, 1 ♀, 7 juv. (leg. Nemkova) (IBSV).

DISTRIBUTION. Russia (Irkutskaya oblast).

***Schizoturanius tabescens* (Stuxberg, 1876)**
Figs 4-6

Polydesmus tabescens Stuxberg, 1876a: 35, Figs (lectotype – ♀; Russia: Siberia: Krasnoyarskii krai, near Alinskoe (63˚30´ N); in Swedish Museum of Natural History, Stockholm; here designated). Lectotype designated in order to ensure the name proper and consistent use.

Polydesmus tabescens: Stuxberg, 1876b: 316; Lokšina & Golovatch, 1979: 385.

Schizoturanius tabescens: Mikhaljova, 1993: 31; Mikhaljova & Golovatch, 2001: 116; Vorobiova et al., 2002: 62; Rybalov, 2002.

Turanodesmus salairicus Gulička, 1963: 523, 522, Figs (holotype - ♂, Russia: Kemerovskaya oblast, Prokopievsk; in Zoological Institute, St. Petersburg; studied), **syn. n.**

Schizoturanius salairicus: Lokšina & Golovatch, 1979: 384; Mikhaljova, 1993: 31; Mikhaljova & Golovatch, 2001: 116; Mikhaljova & Nefediev, 2003: 83; Nefediev, 2001: 84, 2002a: 40, 2002b: 35, 2002c: 138, 2002d: 30.

MATERIAL. Russia: Russia: Siberia, Yenisey, 63°30´ N, Alinskoe, 17.IX 1875 (leg. Nordenskiöld and Stuxberg) [= "Jenissej: lat. 63˚30´, Sg. Aninskoj, 17.9.1875, Nd & Sg.", "*Polydesmus tabescens*"], 10 ♀, 4 fragments, lectotype and paralectotypes of *Polydesmus tabescens* (NHMS); Yeniseysk, 2.X 1875, 1 ♀ (leg. Stuxberg) (NHMS); Kemerovskaya oblast, Prokopievsk, Salair Mt. Ridge, hydro-construction,

forest, V-VI 1960, 1 ♂, holotype of *Turanodesmus salairicus* (leg. Byzova & Chadaeva) (ZISP); Krasnoyarskii krai, Evenk Autonomous Region, Sulomai, 1-3.X 1989, 1 ♂ (single gonopod is mounted as temporary micropreparation; second gonopod is lost), 14 ♀ (leg. Ryvkin) (ZMUM); Khakassian Republic, near Kommunar, ca. 4 km upstream of Bolnichnyi Stream, *Betula* & *Larix* grove, hill top, 1.VIII 1999, 1 ♂, 1 ♀ (leg. Nefediev) (IBSV).

DISTRIBUTION. Russia: Siberia (Kemerovskaya oblast, Tomskaya oblast, Novosibirskaya oblast, Altaiskii krai, Krasnoyarskii krai, Khakassian Republic).

REDESCRIPTION. Male. Length 7-9 mm, width 0.8-1.0 mm. Coloration in alcohol entirely from white to pinkish yellowish.

Head covered with dense and short setae. Genae rectangular in dorsal view. Antennae clavate, relatively slender. Distodorsal parts of antennomeres 5-7 each with a group of short baton-shaped sensilla. Collum ovoid, setose. Body strongilosomoid, growing in width toward segment 5(6), onward parallel-sided until segment 16(17), further tapering caudally. Head considerably broader than collum, subequal to somite 2. Metazonites 2-4 shorter than subsequent ones. Metatergal polygonal sculpture relatively poorly expressed, bosses best developed in anterior and posterior parts of body. Lateral boss of caudal row undistinguishable. Paraterga narrow, set low (at about midheight of midbody segments), weakly rounded laterally, caudal corners obtuse. Metatergal setae blunt apically. Somital microsculpture microreticulate throughout, excluding metatergites.

Telson densely covered with relatively long setae. Tail subconical. Subanal scale subtriangular with two subapical long setae each surmounting a knob.

Legs moderately long, incrassate dorsally; tarsus with sphaerotrichs on ventral surface; tibia with a few sphaerotrichs only. Claws normal, without additional claws. Legs growing increasingly slender toward telson. Legs 1 and 2 as usual somewhat reduced, legs 1 more strongly so.

Gonopods (Fig. 4-5) falcate, curved caudad. Femorite with a front lobe-like projection. Telopodite bifid distally. A curved, relatively broad solenomere well-developed, with both a hook-shaped apex and a tooth in distal part. A subapical orifice of seminal groove opening on a setigerous pulvillus.

Female. Length 7-7.5 mm, width 0.9 mm. Legs slender throughout, without sphaerotrichs. Each claw of leg pairs 1 and 2 with an accessory slender claw ventrally. Epigynal ridge behind leg pair 2 very low, straight along ventral margin. Vulvae as in Fig. 5.

REMARKS. The examination of the types of *Polydesmus tabescens* and *Turanodesmus salairicus*, and additional specimens from Siberia showed the almost complete lack of morphological differences between them, but the individuals from northernmost part of the distribution area are distinguished by somewhat slenderer body. The vulvae of *S. tabescens* supply with receptaculum seminis somewhat smaller than in *S. salairicus.* Also, the color differences (yellowish or pinkish) can be conditioned by alcohol discoloration. Therefore a new synonymy is proposed: *Schizoturanius tabescens* (Stuxberg, 1876) = *Turanodesmus salairicus* Gulič̆hka, 1963, syn. n.

Males of *S. tabescens* are extremely rare in the Evenkiya and Yenisey River valley (among numerous samples only a single male has been collected), whereas in the Salair, Gornaya Shoriya and Kuznetsky Alatau Mts., the sex ratio is close to 50: 50. Thus, *S. tabescens* proved to show geographical parthenogenesis.

***Epanerchodus koreanus* Verhoeff, 1937**

MATERIAL. Russia: Primorskii krai: Gamova Peninsula, near Telyakovskogo Cape, leaved forest, litter, 20.VIII 2002, 2 ♀ (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (south part of Primorskii krai); Korean Peninsula, Japan (Tsushima, Kyushu).

***Epanerchodus polymorphus* Mikhaljova et Golovatch, 1981**

MATERIAL. Russia: Primorskii krai: Khasan District, 20 km SW of Slavyanka, Sukhanovskii Pass, leaved forest, litter, 18.VIII 2002, 1 ♀, 3 juv. (leg. Mikhaljova) (IBSV); Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 20-21.VIII 2002, 1 ♂, 3 ♀(forma *digitata*) (leg. Mikhaljova) (IBSV); same locality, leaved forest, near stream, rotten wood, 17.VI 2003, 2 ♀, 49 juv. (leg. Mikhaljova) (IBSV); same locality, *Betula* forest, seacoast, litter, 20.VIII 2002, 1 ♀ (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (Primorskii krai); North Korea.

***Sichotanus eurygaster* (Attems, 1898)**

MATERIAL. Russia: Primorskii krai: Khasan District, 20 km SW of Slavyanka, Sukhanovskii Pass, leaved forest, litter, 18.VIII 2002, 2 juv. (leg. Mikhaljova) (IBSV); Gamova Peninsula, environs of Telyakovskogo Cape, leaved forest, near stream, litter, 21.VIII 2002, 3 juv. (leg. Mikhaljova) (IBSV); same locality, 16.VI 2003, 3 juv. (leg. Mikhaljova) (IBSV); same locality, 17.VI 2003, 1 ♀ (leg. Mikhaljova) (IBSV).

DISTRIBUTION. Russia (Primorskii krai, southern part of Khabarovskii krai); Korean Peninsula; North-East China.

REMARKS. *S. eurygaster* is one of the most active destructors of plant debris in the forests of the southern part of Khabarovskii krai; this species is a potential indicator of environmental pollutions with heavy metals (Ganin, 1997).

***Cawjeekelia koreana* (Golovatch, 1980)**

MATERIAL. Russia: Primorskii krai: Oblachnaya Mountain, 1,100 m a. s. l., 43˚34´N, 134˚12´E, mountainous tundra, 3.VIII 1998, 1 ♂ (leg. Marusik) (IBSV).

DISTRIBUTION. Russia: (Primorskii krai, Amurskaya oblast); North Korea.

REMARKS. Hitherto this species was reported in forests habitat only.

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