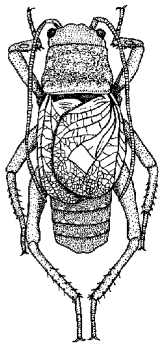

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A LIST OF THE MILLIPEDES (DIPLOPODA) OF THE RUSSIAN FAR EAST

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A list of 69 species from 28 genera, 15 families and five orders of millipedes is given; 71% species, 14.3% genera and one family are endemic to the Russian Far East. The diplopod fauna of the Russian Far East is more diverse than the fauna of Siberia (49 species), but much less diverse than the faunas of China (over 160 species) and Japan (over 230 species). The same number of species (69) is recorded in the Russian Far East and Korea.

KEY WORDS: Diplopoda, fauna, Russia.

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Приведён список 69 видов из 28 родов, 15 семейств и 5 отрядов двупарноногих многоножек; 71% видов, 14,4% родов и одно семейство эндемичны для Дальнего Востока России. Видовое разнообразие диплопод на Дальнем Востоке выше, чем в Сибири (49), но значительно ниже, чем в Китае и Японии (более 160 и более 230 видов, соответственно). Одинаковое количество видов двупарноногих многоножек (69) отмечено на Российском Дальнем Востоке и в Корее.

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INTRODUCTION

Millipedes as the primary destructors of plant debris play important roles in the processes of pedogenesis. Studies of the millipedes inhabiting the Russian Far East

have a long history with many decades of complete inactivity. Since Mikhaljova (1998a) has provided a historical account of research, only following publications are to be mentioned here. There are descriptions of new species, faunistic, taxonomic and ecological papers (Mikhaljova, 1998b; 2000; 2002; 2005; 2006a, b; 2007; 2008a, b; Mikhaljova & Korsós, 2003; Mikhaljova & Marusik, 2004; 2006; Ganin, 2000; 2006; 2008; Ganin & Manukhin, 2000; Ganin & Mikhaljova, 2008), as well as a review of the Diplopoda of the Asian part of Russia (Mikhaljova, 2004) was published.

Taking into account new data it seems reasonable to publish a list of the Diplopoda of the Russian Far East. The family-level classification is given after Shelley (2003). Genera within families and species within genera are listed alphabetically.

A TABULAR CHECK-LIST OF THE MILLIPEDES (DIPLOPODA) OF THE RUSSIAN FAR EAST

Taxa	Distribution							
	PK	KH	EA	AA	SA	KI	KP	Other regions
CLASS DIPLOPODA								
SUBCLASS PENICILLATA								
Order Polyxenida								
Family Polyxenidae								
Polyxenus sp.	+	-	-	-	-	-	-	-
SUBCLASS CHILOGNATHA								
INFRACLASS HELMINTHOMORPHA								
SUBTERCLASS COLOBOGNATHA								
Order Polyzoniida								
Family Polyzoniidae								
Angarozonium aduncum (Mikhaljova, 1995)	-	-	-	-	+	+	-	-
Angarozonium amurense (Gerstfeldt, 1859)	-	+	+	-	+	-	+	SB, NC, NM
Angarozonium bonum (Mikhaljova, 1979)	+	+	-	-	-	-	-	-
Angarozonium kurtschevae (Mikhaljova, 1983)	+	-	-	-	-	-	-	-
Angarozonium valerii (Mikhaljova, 1981)	+	-	-	-	-	-	-	-
SUBTERCLASS EUGNATHA								
Order Julida								
Family Blaniulidae								
Nopoiulus kochii (Gervais, 1847)	+	-	-	-	-	-	-	SC

Taxa	Distribution							
	PK	KH	EA	AA	SA	KI	KP	Other regions
Family Julidae								
Anaulaciulus golovatchi Mikhaljova, 1982	+	-	-	-	-	-	-	NK, SK
Cylindroiulus latestriatus (Curtis, 1845)	-	-	-	-	-	+	-	SC
Pacifiiulus amurensis (Gerstfeldt, 1895)	+	+	+	+	-	-	-	SB, NC
Family Nemasomatidae								
Orinisobates microthylax Enghoff, 1985	+	+	+	-	+	+	+	SB
Orinisobates soror Enghoff, 1985	-	-	-	-	+	+	-	-
Family Mongoliulidae								
Ansiulus aberrans Mikhaljova & Korsós, 2003	+	-	-	-	-	-	-	NK
Kopidoiulus continentalis Golovatch, 1979	+	-	-	-	-	-	-	NC
Kopidoiulus khasanicus Mikhaljova, 1997	+	-	-	-	-	-	-	-
Skleroprotopus coreanus (Pocock, 1895)	+	+	+	+	-	-	-	NK, SK
Skleroprotopus schmidti Golovatch, 1979	+	-	-	-	-	-	-	-
Ussuriiulus pilifer Golovatch, 1980	+	-	-	-	-	-	-	NK
Order Chordeumatida								
Family Golovatchiidae								
Golovatchia magda Shear, 1992	-	+	-	-	-	-	-	-
Family Hoffmaneumatidae								
Hoffmaneuma exiguum Golovatch, 1978	+	-	-	-	-	-	-	NK
Family Conotylidae								
Crassotyla amurica Golovatch, 1980	-	+	-	-	-	-	-	-
Family Diplomaragnidae								
Diplomaragna anuchino Shear, 1990	+	-	-	-	-	-	-	-
Diplomaragna dalnegorica Mikhaljova, 1993	+	-	-	-	-	-	-	-

Taxa	Distribution							
	PK	KH	EA	AA	SA	KI	KP	Other regions
Diplomaragna ganini Mikhaljova, 1993	-	+	-	-	-	-	-	-
Diplomaragna kedrovaya Mikhaljova, 1993	+	-	-	-	-	-	-	NK
Diplomaragna lysaya Shear, 1990	+	-	-	-	-	-	-	-
Diplomaragna provecta Mikhaljova, 2005	+	-	-	-	-	-	-	-
Diplomaragna terricolor (Attems, 1899)	+	-	-	-	-	-	-	-
Diplomaragna yakovlevka Shear, 1990	+	-	-	-	-	-	-	-
Diplomaragna zimoveinaya Mikhaljova, 1997	+	-	-	-	-	-	-	-
Maritimosoma antis Mikhaljova, 2008	+	-	-	-	-	-	-	-
Maritimosoma piceum (Shear, 1990)	+	-	-	-	-	-	-	-
Maritimosoma reductum (Shear, 1990)	+	-	-	-	-	-	-	-
Maritimosoma schawalleri (Mikhaljova, 1993)	-	+	-	-	-	-	-	-
Maritimosoma turova (Mikhaljova, 1997)	+	-	-	-	-	-	-	-
Orientyla bureyinskaya (Mikhaljova, 1997)	-	+	-	-	-	-	-	-
Orientyla dahurica (Gerstfeldt, 1859)	+	-	+	+	-	-	-	SB, NK
Pacifiosoma cristofer (Mikaljova, 1993)	-	+	-	-	-	-	-	-
Pacifiosoma kuruma (Mikhaljova, 1997)	+	-	-	-	-	-	-	-
Sakhalineuma basarukini (Mikhaljova, 1995)	-	-	-	-	+	-	-	-
Sakhalineuma curvatum (Mikhaljova, 1995)	-	-	-	-	+	+	-	-
Sakhalineuma globuliferum (Mikhaljova, 1995)	-	-	-	-	+	-	-	-
Sakhalineuma molodovae Golovatch, 1976	-	-	-	-	+	-	-	-

Taxa	Distribution							
	PK	KH	EA	AA	SA	KI	KP	Other regions
Sakhalineuma sakhalinicum (Mikhaljova, 1995)	-	-	-	-	+	-	-	-
Sakhalineuma tuberculatum (Mikhaljova, 1995)	-	-	-	-	+	+	-	-
Family Megalotylidae								
Megalotyla brevichaeta Golovatch & Mikhaljova, 1978	+	-	-	-	-	-	-	-
Family Caseyidae								
Underwoodia kurtschevae Golovatch, 1980	+	+	+	+	+	+	+	NK
Order Polydesmida								
Family Xystodesmidae								
Levizonus distinctus Mikhaljova, 1990	+	-	-	-	-	-	-	-
Levizonus laqueatus Mikhaljova, 1981	+	-	-	-	-	-	-	-
Levizonus malewitschi Lokschina & Golovatch, 1977	+	-	-	-	-	-	-	-
Levizonus thaumasius Attems, 1898	+	-	-	-	-	-	-	-
Levizonus variabilis Lokschina & Golovatch, 1977	+	-	-	-	-	-	-	NK
Family Paradoxosomatidae								
Cawjeekelia koreana (Golovatch, 1980)	+	-	-	+	-	-	-	NK
Haplogonosoma implicatum Brölemann, 1916	-	-	-	-	-	+	-	HO
Oxidus gracilis (C. L. Koch, 1847)	-	+	-	-	-	-	-	SC
Sichotanus eurygaster (Attems, 1898)	+	+	+	-	-	-	-	NK, SK, NC
Family Polydesmidae								
Epanerchodus cuspidatus Mikhaljova, 1996	-	-	-	-	-	+	-	-
Epanerchodus koreanus Verhoeff, 1937	+	-	-	-	-	-	-	NK, SK, KU, TS
Epanerchodus kunashiricus Mikhaljova, 1988	-	-	-	-	-	+	-	-
Epanerchodus polymorphus Mikhaljova & Golovatch, 1981	+	-	-	-	-	-	-	NK

Taxa	Distribution							
	PK	KH	EA	AA	SA	KI	KP	Other regions
Uniramidesmus aberrans Mikhaljova, 1979	+	+	-	-	-	-	-	-
Uniramidesmus alveolatus Mikhaljova, 1979	+	-	-	-	-	-	-	-
Uniramidesmus bastakensis Mikhaljova, 2006	-	-	+	-	-	-	-	-
Uniramidesmus constrictus Mikhaljova, 1998	+	-	-	-	-	-	-	-
Uniramidesmus cornutus Mikhaljova, 1984	-	+	-	-	-	-	-	-
Uniramidesmus dentatus Mikhaljova, 1979	+	+	-	**?**	-	-	-	-
Uniramidesmus detersus Golovatch, 1979	+	-	-	-	-	-	-	-
Uniramidesmus lingulatus Mikhaljova, 2004	+	-	-	-	-	-	-	-
Uniramidesmus septimus Mikhaljova, 1990	-	+	-	-	+	+	-	-
Total:	46	18	8	5-6	12	11	3	

Abbreviations: PK – Primorskii krai; KH – Khabarovskii krai; EA – Jewish Autonomous Region; AO – Amurskaya oblast; Sakhalinskaya oblast (SA – Sakhalin Island; KI – Kuril Islands); KP – Kamchatka Peninsula; SB – Siberia; NC – Northeast China; NM – North Mongolia; SK – South Korea; NK – North Korea; Japan (HO – Honshu Island; KU – Kyusyu Island; TS – Tsushima Islands); SC – subcosmopolitan distribution. Symbols: (+) – presence; (-) – absence, (?) – needs confirmation.

DISCUSSION

At present 69 species from 28 genera, 15 families and five orders of Diplopoda occur in the Russian Far East. There are no millipedes in Magadanskaya oblast (my own collection; Yu.M. Marusik, personal information). The fauna of Diplopoda of the Russian Far East is characterized by high-level endemism. Family Golovatchiidae, four genera (*Sakhalineuma*, *Crassotyla*, *Golovatchia, Pacifiosoma*) and 49 species (or 71%) are endemic to the Russian Far East.

A list of diplopods of Siberia currently includes 49 species from 21 genera, nine families and four orders (Mikhaljova, 2004). At the species level the endemism amounts to 75.5% (37 species) of the total number of millipede species occurring in Siberia. Five Siberian genera are endemic. There are no endemic families in Siberia. But the fauna and distribution of Siberian diplopods needs in further investigation.

Sixty nine species from 31 genera, 14 families and seven orders of Diplopoda are known from Korea. However, this list is still incomplete. According to Miyosi (1959) the millipede fauna of Japan contains 180 species, 57 genera, 19 families and six orders, but now more than 230 species are known from Japan. In general the millipede fauna of China is poorly studied. Wang & Mauriès (1996) have recorded no less than 160 species from 70 genera, 26 families and 12 orders in China. However this is small portion of the millipede diversity of China. About two dozens of species and some genera have been described from China later.

Thus the diplopod fauna of the Russian Far East is more diverse than the fauna of Siberia, but much less diverse than the faunas of China and Japan. The same number of species is recorded in the Russian Far East and Korea.

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