

NEW DATA ON THE CENTIPEDE (CHILOPODA) FAUNA OF EAST KAZAKHSTAN REGION

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Five species of Chilopoda from East Kazakhstan Region are recorded in Kazakhstan for the first time: *Lamyctes (Lamyctes) emarginatus* (Newport, 1844), *Lithobius (Monotarsobius) crassipes* L. Koch, 1862, *Lithobius (Monotarsobius) steppicus* Farzalieva et Zaleskaja, 2002, *Lithobius (Lithobius) forficatus* (Linnaeus, 1758) and *Scutigera coleoptrata* (Linnaeus, 1758). All records in the region are mapped.

Key words: Chilopoda, East Kazakhstan Region, new records.

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INTRODUCTION

East Kazakhstan Region is a one of the 14 regions of Kazakhstan. It occupies the easternmost part of Kazakhstan, along both sides of the Irtysh River and Lake Zaysan. The region occupies diverse range of geographic and climatic regions with Altai Mountains in the east and the eastern margins of Kazakh steppes in the west of the region (Vilesov et al., 2009).

The first data about centipede fauna of Kazakhstan published by Sselivanoff (1881). This researcher described *Lithobius loricatus* Sselivanoff, 1881 on Semipalatinsk Region (now East Kazakhstan Region). Since 1881 to 2006 have been no published date on centipedes of this territory. Last studies (2006–2010) added several new species from Altai and Tarbagatai Mountains: *L. (Monotarsobius) insolens* Dányi et Tuf, 2012, *L. (M.) tarbagataicus* Farzalieva, 2006, *L. princeps* Stuxberg, 1876, *L. proximus* Sselivanoff, 1880, *L. sulcipes* (Zaleskaja, 1978; Farzalieva, Zaleskaja, 2002; Farzalieva, 2006; Tuf, 2007; Tuf et al., 2010).

I. H. Tuf (2007) mentioned about 3 species which he preliminary determined as *Lithobius* cf. *juniperius* Zaleskaja and 1978, *L.* cf. *stejnegeri* (Bollman, 1893). Besides 3 undetermined species of *Lithobius* and 1 of *Escaryus* Cook et Collins, 1891 are recorded in this paper (Tuf et al., 2010). Later, one of undetermined species of *Lithobius* was described as *L. (M.) franciscorum* (Dányi, Tuf, 2012).

Thus, to date only 9 species of centipedes are known from East Kazakhstan Region and 3 taxa are not determined. The centipede fauna of East Kazakhstan Region is still remain insufficiently studied.

MATERIAL AND METHODS

The present paper based on material collected by senior author in June 2016. Material was collected in Zyryanovsk (number 1 on Map) and Katon-Karagay (number 2 on map) Districts of East Kazakhstan Region in different habitats: gardens and indoor, open hand-made grounds, steppe.



Figure 1. Geographical position of collecting localities in East Kazakhstan Region

The samples treated below have been deposited in the collection of the Altai State University, Barnaul, Russia (ASU, Department of Ecology, Biochemistry and Biotechnology).

NEW RECORDS

ORDER LITHOBIOMORPHA

Family HENICOPIDAE

Lamyctes (Lamyctes) emarginatus (Newport, 1844)

MATERIAL EXAMINED. 1 #, 1 juv., East Kazakhstan Region, Zyryan District, Zyryanovsk Town, about 500 m a.s.l., garden, open hand-made grounds, 24.06.2016; 3 \$\$, Katon-Karagay District, Ulken-Naryn Village, garden, open hand-made grounds, about 400 m a.s.l., 28.06.2016.

DISTRIBUTION. Presently being cosmopolitan, this species is widespread all over the world. Widespread in Europe: from France to Russia (including Siberia) and from Italy to Scandinavian countries. Also known from northern Africa (Morocco, Egypt) and Near East: from Asian Turkey to Sinai Peninsula. The North America: USA, Mexico, Newfoundland and Greenland. The South America: Brazil (Zalesskaja, 1978; Farzalieva, 2008; Zapparoli, 2013; Cupul-Magaña, 2013; Bonato et al., 2016; Nefediev et al., 2016b).

This species has hitherto been recorded in southwestern part of Siberia (Tomsk Region and Altai Province in similar habitats – open fields, hand-made grounds and flower greenhouse) (Nefediev et al., 2016b).

Family LITHOBIIDAE

Lithobius (Monotarsobius) crassipes L. Koch, 1862

MATERIAL EXAMINED. 1 #, 1 juv., East Kazakhstan Region, Katon-Karagay District, Ulken-Naryn Village, open hand-made grounds, about 400 m a.s.l., 24.06.2016; 2 \$\$, the same locality, 28.06.2016.

DISTRIBUTION. From France in west to Russia (including Siberia) in east and from Italy and Sinai Peninsula in south to Scandinavian in north. This species also introduced in Mongolia, Taiwan and USA (Zalesskaja, 1978; Farzalieva, 2008; Zapparoli, 2011; Nefediev *et al.*, 2016b).

This species has hitherto been recorded in territory adjacent to Kazakhstan – Altai Province (Russia) in different kinds of habitats – *Pinus* forest, flower greenhouse, city park and greenhouse (Nefediev *et al.*, 2016b).

***Lithobius (Lithobius) forficatus* (Linnaeus, 1758)**

MATERIAL EXAMINED. 1 \$, East Kazakhstan Region, Zyryanovsk District, Zyryanovsk Town, about 500 m a.s.l., garden, open hand-made ground, 24.06.2016; 1#, Katon-Karagay District, Ulken-Naryn Village, garden, open hand-made ground, 400 m a.s.l., 28.06.2016.

DISTRIBUTION. This species is known from the Europe (from Spain to Ukraine and from Italy and Greece to Scandinavian countries). It is also known from North America, Greenland, Brazil and Mongolia, as introduced species (Zalesskaja, 1978; Zapparoli, 2013; Farzalieva, 2008; Tuf *et al.*, 2015; Nefediev *et al.*, 2016b).

***Lithobius (Monotarsobius) steppicus* Farzalieva *et* Zalesskaja, 2002**

MATERIAL EXAMINED. 4 ##, 8 \$, East Kazakhstan Region, Katon-Karagay District, 500 m N from Ulken-Naryn Village, steppe, about 400 m a.s.l., 25.06.2016.

DISTRIBUTION. The species is known only from steppes Russia, Orenburg Area (southern Ural) on the border of Aktobe region of Kazakhstan (Farzalieva, Zalesskaja, 2002).

ORDER SCUTIGEROMORPHA

Family SCUTIGERIDAE

***Scutigera coleoptrata* (Linnaeus, 1758)**

MATERIAL EXAMINED. 1 #, 8 \$\$, East Kazakhstan Region, Katon-Karagay District, Ulken-Naryn Village, garden, under stones, indoor, about 400 m a.s.l., 24.06.2016; 2 \$\$, same place, 500 m N from Ulken-Naryn Village, steppe, about 400 m a.s.l., 24.06.2016.

DISTRIBUTION. Is a common synanthropic species distributed worldwide by humans. It recorded in South and North Americas (Canada, USA, Mexico, Guatemala, Argentina and Chile, Uruguay), Africa (from Egypt to South Africa), Australia (including Tasmania), New Zealand), Europe (from Spain to Russia (including Siberia), Asia (from Georgia and Azerbaijan to Iran, from South Korea and Japan, Vietnam and Taiwan) (Lewis, 1981; Stoev & Geoffroy, 2004; Farzalieva, 2008; Faúndez, 2011; Zapparoli, 2013; Nefediev *et al.*, 2016a).

This species has hitherto been recorded in neighboring territories of southwestern Siberia, Russia (Altai Province, Altai Republic, Kemerovo and Novosibirsk Regions) (Nefediev *et al.*, 2016a).

CONCLUSIONS

As a result, at least 17 species from 3 genera and 4 families and 3 orders are known to occur in East Kazakhstan. Five species are recorded in Kazakhstan for the first time: four cosmopolitan synanthropic species: *Lamyctes (Lamyctes) emarginatus* (Newport, 1844), *Lithobius (Monotarsobius) crassipes* L. Koch, 1862, *L. (L.) forficatus* (Linnaeus, 1758), *Scutigera coleoptrata* (Linnaeus, 1758) and obviously uncommon *L. (M.) steppicus* Farzalieva *et* Zalesskaja, 2002.

The centipede fauna of most adjacent regions are less studied than East Kazakhstan Region. At example, only 4 species of centipedes are known from Altai Province and Republic of Altai; 5 species are recorded on Mongolian part of Altai (Aimaks Gobi-Altai, Khovd, Bayan-Ulgii) and 6 species are known from Xinjiang (China) (Loksa, 1965, 1978; Nefediev, 2001; Nefediev *et al.*, 2016a; Ma *et al.*, 2014).

More quantity of centipede species are known from Almaty Region of Kazakhstan (20 species) (Sselowanoff, 1881; Lignau, 1929; Titova, 1969, 1972a,b; Zalesskaja, 1978; Eason, 1997; Farzalieva *et al.*, 2004; Farzalieva, 2006).

But new findings and discoveries of new species are expected on the territory of East Kazakhstan because the natural biotopes in this area are still very poorly studied.

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