

Sucking lice (Phthiraptera) from Mongolian mammals

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During the joint zoological expeditions of the Comenius University Bratislava and the State University Ulan Bator and the Mongolian–German expeditions extensive collections of sucking lice were obtained from different mammal species in Mongolia. In total, 21 species of the genera *Enderleinellus* (3 species), *Hoplopleura* (5 species), *Linognathus* (1 species), *Eulinognathus* (4 species), *Linognathoides* (2 species), *Neohaematopinus* (1 species) and *Polyplax* (5 species) were found. 14 species were recorded in Mongolia for the first time. Within the lice species collected in Mongolia, four species are distributed in the Holarctic region, 15 in the Palaearctic region, four among them penetrate also the Oriental region and two are cosmopolitan. A synthesis of data concerning hosts (mammals) of the lice species was also carried out.

Key words: Phthiraptera, fauna, mammals, distribution, Mongolia.

Introduction

The knowledge of the Mongolian sucking lice fauna has been based only on sporadic individual collections. Previous findings have been included in papers by DUBININ (1948), BLAGOVESHCHENSKIĀ (1965) and BEZUKLADNIKOVA (1969). KÉLER (1967) identified eight lice species belonging to four genera in the material collected during the Mongolian–German expeditions in 1962–1964. In 1974–1982, the investigation of mammalian ectoparasites was one of the main tasks of a research program directed to the exploration of natural conditions and resources of Mongolia. The research was carried out in collaboration between the Comenius University in Bratislava and the Mongolian State University in Ulan Bator (JEDLIČKA et al., 1985). The expeditions in summer months were part of the investigation program. The aim of this paper is to evaluate the

sucking lice collections gained from mammals in Mongolia.

Material and methods

Sucking lice were collected during the Slovak–Mongolian expeditions in 1974–1978 and Mongolian–German expeditions in 1977–1978 in Mongolia. Small mammals were collected into snap traps, bigger species were shot. Altogether 836 mammals of 39 species were examined. Sucking lice were only found on 20 mammal species. In total, 1,199 sucking lice belonging to 21 species were examined. Lice collected from mammals were conserved in alcohol and mounted in permanent slides in Liquido de Swan. The material is deposited in the author's collection at the Institute of Zoology SAS, Bratislava, Slovakia.

For identification of some sucking lice species the following literature was used: BEAUCOURNU & ARZAMANOV (1967), CHIN (1996), FERRIS (1919, 1922, 1923, 1932), KIM & EMERSON (1971).

**Systematic overview and notes
on geographical distribution of the species**

Family Enderleinellidae

Enderleinellus disparilis Blagoveshtchensky, 1965
Material examined: 1 ♀, 29 July, 1978, Khankh (51°18' N, 100°24' E), Khövsgöl Aymak from *Spermophilus undulatus* (Pallas, 1778).

Geographical distribution of *E. disparilis* is unknown up to present, the only known finding from the Amur territory in Russia from *S. undulatus* was published by BLAGOVESHCHENSKIĬ (1965). First record of this species from Mongolia.

Enderleinellus nitzchi Fahrenholz, 1916
Material examined: 3 ♂♂, 1 ♀, 1 nymph, 4 Aug., 1975, Egiyn gol (49°36' N, 103°24' E), Bulgan Aymak from *Sciurus vulgaris* Linnaeus, 1758.

A louse species frequently occurring on its typical host *S. vulgaris*, distributed in Eurasia (DURDEN & MUSSER, 1994). First record from Mongolia.

Enderleinellus tamiasis Fahrenholz, 1916
Material examined: 1 ♀, 23 July, 1978, Tsagaan nuur (49°33' N, 89°51' E), Bayan Ölgii Aymak from *Tamias sibiricus* (Laxmann, 1769).

The species was described based on a material obtained from the ZOO in Berlin, where the host was misidentified as *Tamias striatus* (Linnaeus, 1758), a North American species similar to the Siberian *T. sibiricus*. Up to present this louse species has been known only from *T. sibiricus* from Korea (SCANLON, 1955). First record of the species from Mongolia.

Family Hoplopleuridae

Hoplopleura acanthopus (Burmeister, 1839)
Material examined: 10 ♂♂, 23 ♀♀, 9 nymphs, 20 June, 1974, 18 ♂♂, 31 ♀♀, 19 nymphs, 25 June, 1974 and 47 ♂♂, 54 ♀♀, 99 nymphs, 27 June, 1974, Ulan Bator (47°57' N, 106°54' E), Töv (Central) Aymak from *Lasiopodomys brandtii* (Radde, 1861); 3 ♀♀, 14 July, 1975, Khyalgant (49°24' N, 105°12' E), Selenge Aymak from *Microtus* sp.; 44 ♂♂, 67 ♀♀, 22 July, 1977, Kharkhira uul (49°42' N, 91°48' E), Uvs Aymak (leg. M. Stubbe) from *Clethrionomys* sp.; 4 ♂♂, 7 ♀♀, 4 nymphs, 27 July, 1978, Telmen nuur (48°57' N, 97°12' E), Zavkhan Aymak from *L. brandtii*; 1 ♀, 8 Aug., 1978, Ikh-Khoroo gol (51°21' N, 100°15' E), Kvövsgöl Aymak from *Microtus* sp.

The species is known as an ectoparasite of

small mammals and is spread mainly in the Holarctic region (DURDEN & MUSSER, 1994), but it was also found in India (MISHRA, 1981). Representatives of the genera *Arvicola*, *Blanfordimys*, *Chionomys*, *Clethrionomys*, *Dicrostonyx*, *Lasiopodomys*, *Lemmiscus*, *Lemmus*, *Microtus*, *Paulomys* and *Synaptomys* (DURDEN & MUSSER, 1994) are among its typical hosts, occasionally it was also found on representatives of other small mammals genera - *Sorex*, *Crocidura*, *Apodemus*, *Micromys* (KRÍŠTOFÍK & LYSÝ, 1992). In Mongolia, the species was found on representatives of the genera *Lasiopodomys* and *Microtus* (KÉLER, 1967).

Hoplopleura affinis (Burmeister, 1839)
Material examined: 22 ♂♂, 61 ♀♀, 8 nymphs, 30 July, 1978, Zuun Gov' sum (49°54' N, 93°51' E), Uvs Aymak from *Cricetulus* sp.

Apodemus agrarius (Pallas, 1771) is the typical host of this louse, however, it occurs also on *A. chevrieri* (Milne-Edwards, 1868), *A. flavicollis* (Melchior, 1834), *A. speciosus* (Temminck, 1844), *A. sylvaticus* (Linnaeus, 1758). *H. affinis* is distributed in Eurasia (DURDEN & MUSSER, 1994). Also other small mammal species can be occasional hosts of this louse species, similarly as in our case. First record from Mongolia.

Hoplopleura edentula Fahrenholz, 1916
Material examined: 5 ♂♂, 12 ♀♀, 15 July, 1978, Khankh from *Clethrionomys* sp.

A louse species spread in Eurasia, found on *Clethrionomys glareolus* (Schreber, 1780), *C. rufocanus* (Sundevall, 1846), *C. rutilus* (Pallas, 1779), *Eothenomys melanogaster* (Milne-Edwards, 1871) (DURDEN & MUSSER, 1994). The species is morphologically very similar to *H. acanthopus*, distributed at middle and higher altitudes in European mountains (BEAUCOURNU, 1968). First record from Mongolia.

Hoplopleura meridionidis Ferris, 1921
Material examined: 1 nymph, 27 June, 1974 and 1 ♀, 16 July, 1975, Ulan Bator, from *Meriones unguiculatus* (Milne-Edwards, 1867); 5 ♂♂, 3 ♀♀, 4 Sept., 1977, Mongol Els (47°30' N, 96°30' E), Zavkhan Aymak from *Meriones meridianus* (Pallas, 1773).

The known hosts of the species are: *Meriones unguiculatus*, *M. tamariscinus* (Pallas, 1773), *M. libycus* Lichtstein, 1823, *M. crassus* Sundevall, 1842. It is distributed in Iran, Pakistan, The People's Republic of China, Russia, Tajikistan (DURDEN & MUSSER, 1994), Kazakhstan (BEZUKLADNIKOVA, 1962) and Mongolia (DUBININ, 1948).

Hoplopleura ochotonae Ferris, 1922

Material examined: 6 ♂♂, 6 ♀♀, 1 nymph, 18 July, 1974, Ulaan-Khad (50°00' N, 102°15' E), Bulgan Aymak from *Ochotona dauurica* (Pallas, 1776).

According to DURDEN & MUSSER (1994), *Ochotona cansus* Lyon, 1907, *O. hyperborea* (Pallas, 1811), *O. roylei* (Ogilby, 1839), *O. dauurica*, *O. alpina* (Pallas, 1773), *O. thibetana* (Milne-Edwards, 1871) belong to the hosts of this louse; it is distributed in Afghanistan, Kyrgyzstan, Mongolia, Nepal, The People's Republic of China, Russia - Chita Oblast, Pripolar Ural, Urkustsk Oblast and Tajikistan.

Family Linognathidae

Linognathus vituli (Linnaeus, 1758)

Material examined: 3 ♂♂, 3 ♀♀, 21 Aug., 1978, Bayan Tsogt sum (47°54' N, 106°12' E), Töv (Central) Aymak from *Bos taurus* Linnaeus, 1758.

A cosmopolitan species, *Bos taurus* is its typical host (DURDEN & MUSSER, 1994). First record from Mongolia.

Family Polyplacidae

Eulinognathus allactagae Johnson, 1957

Material examined: 2 ♂♂, 1 ♀, 2 nymphs, 9 Aug., 1974, Önzhuul sum (46°48' N, 105°36' E), Töv (Central) Aymak, 1 ♂, 3 ♀♀, 8 Aug., 1977, Chono Kharaykh gol, river between Khar nuur and Khar-Uu nuur lakes (48°15' N, 93°00' E), Khovd Aymak (leg. M. Stubbe), 1 ♂, 1 ♀, 1 nymph, 20 Aug., 1977, Orog nuur (45°03' N, 101°03' E), Bayan khongor Aymak and 1 ♂, 2 ♀♀, 6 nymphs, 31 Aug., 1977 Khayrkhan (Zuun-Garyn gov') (46°12' N, 93°48' E), Gov'-Altay Aymak from *Allactaga sibirica* (Forster, 1778); 3 ♀♀, 20 Aug., 1977, Orog nuur from *Allactaga bullata* Allen, 1925.

A. sibirica is the typical host of this louse, it occasionally occurs on other *Allactaga* species (CHIROV & OZEROVA, 1990). The species was found in Kyrgyzstan (OZEROVA, 1988), Mongolia (KÉLER, 1967), The People's Republic of China (JOHNSON, 1957; CHIN, 1984) and Ukraine (SERGIENKO, 1974).

Eulinognathus biuncatus Ferris, 1932

Material examined: 8 ♂♂, 11 ♀♀, 12 nymphs, 20 Aug., 1977, Orog nuur, 1 ♀, 2 nymphs, 26 Aug., 1977, Zuun-mod (Oasis) (43°03' N, 99°05' E), Bayan khongor Aymak and 2 ♀♀, 2 Sept., 1977, Olon bulak (Shargyn gov') (46°12' N, 95°48' E), Gov'-Altay Aymak, host: *Dipus sagitta* (Pallas, 1773); 1 ♀, 27 Aug., 1977, Bayan tsagaan sum

(45°03' N, 99°12' E), Bayan khongor Aymak from *Allactaga sibirica*.

A species found in The People's Republic of China (FERRIS, 1932; CHIN, 1984) on *Dipus sagitta* and in Uzbekistan (CAIS, 1977) on *Paradipus ctenodactylus* (Vinogradov, 1929). First record of this species from Mongolia.

Eulinognathus cruciformis Chin, Bai et Qiu, 1995

Material examined: 2 ♀♀, 20 Aug., 1977, Orog nuur from *Allactaga bulatta*; 7 ♂♂, 15 ♀♀, 5 nymphs, 20 Aug., 1977, Orog nuur, 1 ♀, 23 Aug., 1977, Bayan-Bulag (Shine Zhinst sum) (44°24' N, 94°24' E), Bayan khongor Aymak and 3 ♂♂, 3 ♀♀, 31 Aug., 1977, Bulgat sum (Mongol Altay) (45°33' N, 94°24' E), Gov'-Altay Aymak from *Allactaga sibirica*.

This species was described based on specimens collected from *Allactaga* sp. in People's Republic of China: Zhong Ning County, Ningxia and Hai Yuan County, Alashan (CHIN et al., 1995). First record from Mongolia.

Eulinognathus euchoreutae Cais, 1977

Material examined: 1 ♀, 1 nymph, 24 Aug., 1977, Ekhiyn-Gol (Oasis) (43°03' N, 99°06' E), Bayan khongor Aymak and 1 ♀, 26 Aug., 1977, Zuun-mod (Oasis) from *Euchoreutes naso* Sclater, 1891.

This species was previously found in People's Republic of China (CAIS, 1977; CHIN, 1984), *E. naso* is its host. First record from Mongolia.

Linognathoides laeviusculus (Grube, 1851)

Material examined: 7 ♂♂, 23 ♀♀, 12 nymphs, 26 July, 1974, 1 ♂, 2 nymphs, 19 July, 1975, 5 ♂♂, 2 ♀♀, 2 nymphs, 21 July, 1976, 1 ♀, 1 nymph, 29 July, 1976, 1 ♂, 1 ♀, 30 July, 1976, 3 ♂♂, 4 ♀♀, 4 nymphs, 31 July, 1976, Inget-Tolgoy (Selenge sum) (49°15' N, 103°36' E), Bulgan Aymak; 1 ♂, 4 ♀♀, 1 nymph, 28 July, 1975, Ulaan Khad, Bulgan Aymak; 1 ♂, 1 ♀, 11 Aug., 1975, Dood-Tsagaan nuur (51°18' N, 99°18' E); 2 ♀♀, 19 Aug., 1975, Erkhil nuur (50°06' N, 100°03' E), Kvövsgöl Aymak, 10 ♂♂, 33 ♀♀, 26 nymphs, 12 Aug., 1976, 9 ♀♀, 5 nymphs, 15 Aug., 1976, 5 ♀♀, 1 nymph, 13 July, 1978, 1 ♂, 1 ♀, 7 nymphs, 14 Aug., 1978, Khankh, Kvövsgöl Aymak; 2 ♂♂, 2 ♀♀, 4 nymphs, 31 Aug., 1977, Bugat sum (Mongol Altay) (45°33' N, 94°24' E), Gov'-Altay Aymak; 2 ♀♀, 3 nymphs, 27 July, 1978, 2 ♀♀, 2 nymphs, 28 July, 1978, 1 ♂, 1 ♀, 2 nymphs, 29 July, 1978, 1 ♂, 3 ♀♀, 30 July, 1978, 3 ♂♂, 1 ♀, 1 Aug., 1978, 1 ♂, 5 ♀♀, 3 Aug., 1978, 1 ♂, 6 Aug., 1978, 6 ♂♂, 9 ♀♀, 9 nymphs, 8 Aug., 1978, 5 ♂♂, 6 ♀♀, 2 nymphs, 9 Aug., 1978, Ikh-Khoroo gol (51°21' N, 100°15' E),

Kvövsgöl Aymak; 1 ♂, 10 ♀♀, 3 nymphs, 22 July, 1978 and 5 ♂♂, 10 ♀♀, 5 nymphs, 2 Aug., 1978, Tarialan sum (Kharkhira uul) (49°48' N, 91°54' E), Uvs Aymak from *Spermophilus undulatus*. 2 ♂♂, 3 ♀♀, 6 nymphs, 23 Aug., 1977, Bayan-Bulag (Shine Zhinst sum), Bayan khongor Aymak from *S. alasphanicus* Büchner, 1888.

A species distributed in the Holarctic region, its hosts are: *Ammospermophilus leucurus* (Merriam, 1889), *Spermophilus beecheyi* (Richardson, 1829), *S. beldingi* Merriam, 1888, *S. citellus* (Linnaeus, 1766), *S. columbianus* (Ord, 1815), *S. dauricus* Brandt, 1843, *S. erythrogegens* Brandt, 1841, *S. franklinii* (Sabine, 1822), *S. fulvus* (Lichtenstein, 1823), *S. lateralis* (Say, 1823), *S. major* (Pallas, 1778), *S. parryii* (Richardson, 1825), *S. pygmaeus* (Pallas, 1778), *S. richardsonii* (Sabine, 1822), *S. suslicus* (Güldenstaedt, 1770), *S. townsendii* Bachman, 1839, *S. tridecemlineatus* (Mitchell, 1821) *S. undulatus*, *S. variegatus* (Erxleben, 1777), *S. washingtoni* (A. H. Howell, 1838) (DURDEN & MUSSER, 1994). In Mongolia it was previously found on *S. major* by KÉLER (1967).

Linognathoides palaeartus (Olsoufjev, 1938)

Material examined: 3 ♂♂, 5 ♀♀, 7 nymphs, 21 Aug., 1978 and 2 ♂♂, 15 ♀♀, 8 nymphs, 22 Aug., 1978, Bayan Tsogt sum Töv (Central) Aymak from *Marmota sibirica* (Radde, 1862).

Hosts of this louse species are: *Marmota baibacina* Kastschenko, 1899, *M. bobak* (Müller, 1776), *M. caudata* (Geoffroy, 1844), *M. himalayana* (Hogson, 1841), *M. sibirica*. *L. palaeartus* is distributed in Afghanistan, India: Jammu and Kashmir State, Kyrgyzstan, Pakistan, People's Republic of China, Russia: Altay, Transbaikalia, Turkmenistan (DURDEN & MUSSER, 1994). First record from Mongolia.

Neohaematopinus sciuri Jancke, 1932

Material examined: 1 nymph, 15 July, 1978, Khankh, Kvövsgöl Aymak from *Sciurus vulgaris*.

Host of this louse species are: *Sciurus carolinensis* Gmelin, 1788 and *S. vulgaris*. Originally distributed in the Holarctic region. Due to the introduction of *S. carolinensis* to Australia and South Africa it penetrated also to these two continents (DURDEN & MUSSER, 1994). First record from Mongolia.

Polyplax borealis Ferris, 1933

Material examined: 1 ♀, 29 July, 1976, Inget-Tolgoy (Selenge sum), Bulgan Aymak from *Crice-tulus* sp.; 2 ♂♂, 2 ♀♀, 22 July, 1978, Terkhiyn-Tsagaan nuur (48°12' N, 99°48' E), Arkhangay

Aymak from *Alticola* sp.

This species is distributed mainly in the northern part of the Holarctic region (DURDEN & MUSSER, 1994), but it was also found in Afghanistan (SMETANA & DANIEL, 1970) and Russia - Altay (BEZUKLADNIKOVA, 1962; SOSNINA & DUBININA, 1982). Its hosts are: *Arvicola terrestris* (Linnaeus, 1758), *Alticola argentatus* (Severtzov, 1879), *Clethrionomys centralis* Miller, 1906, *C. glareolus*, *C. rutilus*, *C. rufocanus*, *Phenacomys intermedius* Merriam, 1889 (DURDEN & MUSSER, 1994). First record from Mongolia.

Polyplax chinensis Ferris, 1923

Material examined: 1 ♂, 4 ♀♀, 19 Aug., 1977, Orog nuur, Bayan khongor Aymak from *Meriones meridianus*.

A species distributed in Mongolia, Pakistan, People's Republic of China, Tajikistan and Turkmenistan. It was found on *Meriones crassus*, *M. meridianus* (DURDEN & MUSSER, 1994).

Polyplax ellobii (Sosnina, 1955).

Material examined: 6 ♂♂, 13 ♀♀, 1 nymph, 13 May, 1978, 22 ♂♂, 48 ♀♀, 15 nymphs, 22 May, 1978, 14 ♂♂, 8 ♀♀, 2 nymphs, 28 May, 1978, Bulgan gol (Yarantay) (46°06' N, 91°00' E), Khovd Aymak (leg. M. Stubbe) and 15 ♂♂, 23 ♀♀, 2 nymphs, 10 Aug., 1978. Altay (46°27' N, 96°12' E), Gov'-Altay Aymak from *Ellobius tancrei* Blasius, 1884.

A species found in Kazakhstan, Mongolia, Tajikistan on *E. tancrei* (DURDEN & MUSSER, 1994).

Polyplax qiuae Chin, 1993

Material examined: 2 ♂♂, 1 ♀, 9 Aug., 1974, Önzhuul sum, Töv (Central) Aymak from *Crice-tulus barabensis* (Pallas, 1773).

A species described based on specimens collected in People's Republic of China on *Phodopus roborovskii* (Satunin, 1903) and *P. sungorus* (Pallas, 1773) (CHIN, 1993). First record from Mongolia.

Polyplax spinulosa (Burmeister, 1839)

Material examined: 1 ♂, 2 ♀♀, 22 July, 1977, Kharkhira uul, Uvs Aymak from *Clethrionomys* sp. (leg. M. Stubbe).

A cosmopolitan species occurring on *Bandicota bengalensis* (Gray et Hardwicke, 1833), *Rattus argentiventer* (Robinson et Kloss, 1916), *R. exulans* (Peale, 1848), *R. nitidus* (Hodgson, 1845), *R. norvegicus* (Berkenhout, 1769), *R. rattus* (Linnaeus, 1758), *R. tanezumi* Temminck,

1844, *R. turkestanicus* (Satunin, 1903) (DURDEN & MUSSER, 1994). First record from Mongolia.

Discussion

Among 21 sucking lice species found in the examined material, 14 species are first findings from Mongolia. This relatively high number of first records is due to insufficient knowledge of the lice fauna of Mongolia. Except the data of KÉLER (1967), who recorded only 6 most frequent sucking lice species in Mongolia (two species were identified only up to the generic level), only sporadic data have been available from that territory.

Among the three *Enderleinellus* species found in Mongolia, *E. disparilis* seems to be relatively rare. This species is morphologically very similar to *E. propinquus* Blagoveshtchensky, 1965 which was found on *Spermophilus fulvus*, *S. suslicus* and *S. citellus*. The situation is also similar with *E. tamiasis*, an ectoparasite of *Tamias sibiricus*. *E. nitzchi* probably frequently occurs on *Sciurus vulgaris*.

Hoplopleura acanthopus was the most abundant representative of the *Hoplopleura* genus in the investigated territory. An occasional host (*Cricetulus* sp.) was found for *H. affinis*. *H. edentula*, *H. meridionidis* and *H. ochotonae* occurred in relatively low numbers. *H. meridionalis* is bound to the Asiatic representatives of the *Meriones* genus, though in Africa it has not been found on the species of this genus. Six *Hoplopleura* species were collected on the species of the genera *Tatera* Lataste, 1882 and *Gerbillus* Desmarest, 1804, however, they are not morphologically similar to *H. meridionidis* (JOHNSON, 1960). *H. uralensis* living on *Ochotona hyperborea* on the western slopes of the Polar Urals and in the Bolshaya Synya river basin (Russia) and *H. biloba* living on *O. macrotis* (Günther, 1875) in Kyrgyzstan and Tajikistan (DUBININA & SOSNINA, 1997) are morphologically similar to *H. ochotonae*.

Among the *Eulinognathus* species parasitizing on jerboas, the finding of *E. cruciformis* (described from *Allactaga* sp.) is of a special interest as it was found on *A. bulatta* and *A. sibirica*. This shows *A. sibirica* to be the host of more *Eulinognathus* species than it has been known so far (CHIROV & OZEROVA, 1990). Except *E. biuncatus*, *E. dipodis* also was described from *Dipus sagitta* (BLAGOVESHCHENSKIĬ, 1965). The description of *E. dipodis* was found to be insufficient because of the lacking differential diagnosis of *E. biuncatus* and *E. dipodis*. CHIROV & OZEROVA (1990) published a review of the distribu-

tion of 15 sucking lice species of the genus *Eulinognathus*, with descriptions of new species. The authors characterised the differences between *E. biuncatus* and *E. dipodis* based on an examination of the lice collection in the Zoological Institute of the Russian Academy of Sciences (St. Petersburg). However, I consider the redescription of the two species given by the above authors to be insufficient, too. A depiction of morphological differences between *E. biuncatus* and *E. dipodis* would be more useful, because the differences in characteristics (head description, form of sternal plate, size of aedeagus parameres) presented by CHIROV & OZEROVA (1990) are hard to be expressed verbally. For example, CHIROV & OZEROVA (1990) stated that the sternal plate of *E. biuncatus* has an irregularly hexagonal form, although this characterisation corresponds more with the description of the sternal plate of *E. dipodis* given by BLAGOVESHCHENSKIĬ (1965). That is why a redescription of the two species would be advisable.

Among the representatives of the *Linognathoides* genus, *L. laeviusculus* relatively frequently occurred on *Spermophilus undulatus* in Mongolia, but the species was also found on a new host, *S. alasphanicus*.

Among the *Polyplax* genus, the finding of *P. qiuae*, originally described from representatives of the *Phodopus* genus, is of special interest as there is another morphologically similar congener, *P. cricetulis* (CHIN, 1995), which was found on *Cricetulus longicaudatus* (Milne-Edwards, 1867). EWIG (1935) described *P. dentaticornis* from *C. longicaudatus*. JOHNSON (1958) concluded that the holotype (male) of *P. dentaticornis* was very similar to *P. serrata* and that this holotype could only be an aberrant individual of *P. serrata*. In my opinion *C. longicaudatus* cannot be the main host of the two above listed congeneric lice species. In future, new findings of the representatives of the *Polyplax* genus also will show, whether *C. barabensis*, which our specimens of *P. qiuae* were found on, was only an occasional host of this lice or whether *P. qiuae* has more hosts. *P. chinensis* parasitising on *Meriones* species has not been found in North African gerbils. According to the present knowledge *P. ellobii* is a specific parasite of *Ellobius tancrei*. KÉLER (1967) listed a *Polyplax* species from *E. talpinus* from Mongolia and considered it to be a new species. However, according to WILSON & REEDER (1993) only *E. tancrei* has been found to occur in Mongolia. Just for this reason I suppose Kéler's specimens to belong to *P. ellobii*.

The species *Linognathoides vituli* and *Poly-*

plax spinulosa are cosmopolitan. The species *L. laeviusculus*, *P. borealis*, *Neohaematopinus sciuri*, and *Hoplopleura acanthopus* are distributed in the Holarctic region. *H. acanthopus* also occurs in the Oriental region (India). *Enderleinellus nitzchi* is spread in the Palaearctic region (except N Africa), while the species *E. disparilis*, *E. tamiasis*, *Hoplopleura ochotonae*, *H. meridionidis*, *Eulinognathus allactagae*, *E. biuncatus*, *E. euchoreutae*, *E. cruciformis*, *Linognathoides palaeartus* (also distributed on the Oriental region - N India), *Polyplax ellobii*, *P. chinensis* and *P. quuae* occur in the Asiatic part of Palaearctic region. The species *Hoplopleura affinis* and *H. edentula* are distributed in both the Palaearctic and in the Oriental regions.

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