

**THE PLUME MOTHS (LEPIDOPTERA: PTEROPHORIDAE)
OF EAST KAZAKHSTAN**

P. Ya. Ustjuzhanin^{1, 2)}

1) *Altai State University, Lenina str. 61, Barnaul, 656049, Russia. E-mail: petrust@mail.ru*

2) *Biological Institute, Tomsk State University, Lenina Prospekt 36, Tomsk 634050, Russia.*

Summary. An annotated list of 54 species of plume moths (Lepidoptera: Pterophoridae) of the East Kazakhstan region is given; of them 38 species are recorded for the fauna of this region for the first time.

Key words: Pterophoridae, fauna, new records, Kazakhstan.

П. Я. Устюжанин. Пальцекрылки (Lepidoptera: Pterophoridae) Восточного Казахстана // Дальневосточный энтомолог. 2019. N 392. С. 21-30.

Резюме. Приводится аннотированный список 54 видов пальцекрылок (Lepidoptera: Pterophoridae) Восточно-Казахстанской области, из них 38 впервые отмечаются для фауны данного региона.

INTRODUCTION

East Kazakhstan region is located in the eastern part of the Republic of Kazakhstan, bordering on Russia and China. The favorable geographical position of the region causes a variety of natural landscapes, where forests and mountains adjoin with deserts. Most of the territory is located in the Altai Mountains, which indicates the proximity of the fauna to the South-Siberian mountain species, on one hand, and on the other hand, there is a connection with the fauna of Central Asia. All this determines the richness and diversity of the insect fauna, including that of plume moths.

This study is a continuation of our research on Pterophoridae in the vast territory of Kazakhstan (Ustjuzhanin, 1996; Ustjuzhanin & Kovtunovich, 2007, 2008, 2014; Ustjuzhanin *et al.*, 2016; Trofimova *et al.*, 2016). The available information on plume moths of East Kazakhstan in the above works is not enough and amounts to 16 species. Due to the efforts of colleagues entomologists, who has been collecting material for many years, the species composition of the Pterophoridae of the East Kazakhstan region increased by more than 3 times and currently is 54 species. New for East Kazakhstan species are asterisked (*).

SITES EXAMINED

The present work includes the materials collected during more than 25 years by the author and other collectors in the following sites: **Ak-Baur**: 33 km SSE, Ust-Kamenogorsk, Kortau Mts., Ak-Baur, 49°40'N, 82°40'E, 480 m; **Alatai pass**: Zaisan Distr., Saur Mts., Alatai pass,

47°18'N, 85°08'E, 2010 m; **Aigaizhal Mt.**: Tarbagatai Distr., Kyzylpas Mts., Aigaizhal Mt., 47°52'N, 81°29'E, 1100-1150 m; **Aktogai**: Ayagoz Distr., 10 km SE Aktogai vil., 46°52'N, 79°45'E, 349 m; **Alekseevka**: Bukombaj Mts., 35 km SW Alekseevka (Terekty) vil., 48°16'N, 85°26'E, 650 m; **Asu-Bulak**: Ulanskoe Distr., Kok Tau Mts., env. Asu-Bulak, Sinegorsk fir grove; **Barak-Batyr**: Kurchum Distr., 26 km E, Barak-Batyr vil., 48°29'N, 84°07'E, 610 m; **Bazarka**: Zaisan Distr., Zaisan Valley (SW part), 10 km SE Bazarka vil., 48°04'N, 83°11'E, 370 m; **Bazar riv.**: Tarbagatai Distr., Tarbagatai Mts. (N slopes), 50 km S Kyzylkezek vil., Bazar riv. valley, 47°24'N, 82°01'E, 1210 m; **Berkkizyl**: Ayagoz Distr., 36 km SSE. Tarbagatai, Berkkizyl Mts., 47°29'N, 81°24'E, 1465 m; **Blagodatnoe**: Urdzhar Distr., Blagodatnoe vil., 47°15'N, 51°19'E, 900 m; **Buchtarma**: Katon: Karagai Distr., Bukhtarma river valley, between the vil. Archaty and Ust-Chindagatay, 49°20'N, 86°56'E; **Bukombai Mts.**: Kurchum Distr., Bukombai Mts., 48°13'N, 84°43'E, 550 m; **Bulag**: Tarbagatai Distr., Tarbagatai Mts., Zhagal-Baily Mts., Bulag vil., 800 m; **Burchat**: Katon-Karagai Distr., Tarbagatai Mts., Burchat Pass, 49°09'N, 86°02'E, 1278 – 2000 m; **Enbek**: Katon: Karagai Distr., 1 km SE Enbek vil., 49°11'N, 86°10'E; **Glubokoe**: Glubokovsky Distr., 23 km, NW of Glubokoe vil., 50°08'N, 82°18'E; **Kalzhir**: Kurchum Distr., 23,5 km N Kalzhir vil., 48°21'N, 85°09'E, 980 m; **Karabulak**: Saur Mts., 5 km SSW Karabulak vil., 47°24'N, 84°38'E, 800 m; **Kara-Kaba**: South Altai Mts., Kara-Kaba river valley, 48°57'N, 86°05'E, 1450 m; **Karakol'tas**: Kalba Mts., Karakol'tas Range, 48°42'N, 80°46'E, 800 m; **Karatal**: Zaisan Distr., 21,5 km NW Karatal vil., 48°47'N, 85°03'E, 422 m; **Karatogai 12 km NE**: Kurchum Distr., 12 km NE Karatogai vil., Shrubby rocky steppe slopes, 740 m; **Karatogai 34 km SE**: Kurchum Distr., 34 km SE Karatogai vil., 48°17'N, 84°55'E, 890 m; **Kenderlik**: Saur Mts., Kenderlik riv. valley (left bank), 2 km W Kenderlik vil., 47°28'N, 85°12'E, 740 m; **Kokpekty Kalba Mts.**: Kokpekty Distr., Kalba Mts., 40 km NW Kokpekty, 49°00'N, 82°00'E, 760 m; **Kokpekty Saur Mts.**: Kokpekty Distr., Saur Mts., 20 km SEE, Zaisan, Kokpekty vil., 47°22'N, 85°09' E, 1225–1250 m; **Kurchum**: Kurchum Distr., 25 km E. Kurchum vil., 48°33'N, 84°05'E, 800 m; **Kyzylkezek**: Tarbagatai Distr., Zhagalbaily Mts., 7 km NE Kyzylkezek vil., Bugaz riv. Valley, 47°55'N, 82°04'E, 700 m; **Kyzylkezek 60 km S.**: Tarbagatai Distr., Tarbagatai Mts. (N.slopes), 60 km S. Kyzylkezek vil., 47°19'N, 82°00'E, 1350 m; **Maiterek**: Kurchum Distr., Kurchum Mts., 3 km W Maiterek vil., 48°34'N, 84°46'E, 1150 m; **Manat**: Ulanskoe Distr., Manat vil., 49°26'N, 83°25'E; **Manrak**: Manrak Mts., 47°18'N, 84°36'E, 1400 m; **Matobaj**: Markakol' lake, near Matobaj vil., 48°39'N, 85°39'E, 1460 m; **Muzdy-Bulak**: Muzdy-Bulak brook under Ukok Pass, 49°21'N, 87°17'E, 2450 m; **Panteleymonovka**: Kalba Mts., 6 km NW Panteleymonovka vil., 49°12'N, 83°12'E, 1130 m; **Podgornoe**: Kokpekty Distr., Podgornoe vil., 49°15'N, 83°47'E; **Poperechnaya riv.**: Ivanovskii Range, upper streams of Poperechnaya riv., 1800-2000 m; **Ridder**: Ivanovskii Range, 20 km SE of Ridder [Leninogorsk], the left source of the Gromotukha River, 1500–1700 m; **Rulikha**: Shemonaikha Distr., 10 km SE Rulikha vil., 50°32'N, 81°56'E, 420 m; **Shargutsu**: Zaisan Distr., Saur Mts., 5 km S Shargutsu vil., 1400 m; **Sarymsacty**: Katon – Karagai Distr., Sarymsacty Mts., 49°08'N, 85°59'E, 1206 m; **Serebryansk**: Zyryan Distr., bank of riv. Irtysh, 49°41'N, 83°17'E, 583 m; **Smoljanka**: Ust-Kamenogorsk prov., Ulan Distr., prope pag. Severnoe, Smoljanka vil., 600–750 m; **Soldatovo**: Katon-Karagai Distr., Sarym-Sakty Mts., 12 km SSW Soldatovo vil., 49°07'N, 85°04'E, 1300 m; **Taky**: Kurchum Distr., 25 km of Taky vil., steppe slopes, 48°15'N, 84°40'E, 870–1000 m; **Tas Mt.**: Zaisan Distr., Saur Mts., Tas Mt., 47°15'N, 85°04'E, 2350–2600 m; **Topikha**: Glubokovsky Distr., Topikha vil., 50°11'N, 83°00'E; **Ust'Chindagatay**: Katon-Karagai Distr., Ust'Chindagatay, 49°23'N 86°98' E, 1750 m; **Ust'Kamenogorsk**: near Ust-Kamenogorsk city, 49°59'N, 82°37'E, 280 m; **Shinkozha**: Ayagoz Distr., 8 km SE Shinkozha, 47°40'N, 80°42'E, 808 m; **Verkh Katun**: Listvyaga Mts., near Verkh Katun' vil., 49°32'N,

85°32'E, 1400 m; **Yazovoe**: Katunskie Belki Mts., Yazovoe lake (NW bank), 49°33'N, 86° 17', 1624 m; **Zaisan 17 km S**: Zaisan Distr., 17 km S of Zaisan city, Saur Mts., watershed of Bolshoi Zhemenei and Uidenei riv., 1350–1600 m; **Zaisan 23 km SE**: Zaisan Distr., 23 km SE of Zaisan city, 47°15'N, 84° 54'E, 1696 m; **Zaisan 24 km S**: Zaisan Distr., 24 km S of Zaisan city, upper stream of Bolshoi Zhemenei riv., 47°14'N, 84°56'E, 1650 m; **Zaisan 30 km W**: Zaisan Distr., 30 km W of Zaisan city, Manrak Mts., 600 m; **Zaisan 56 km N**: Kurchum Distr., 56 km N of Zaisan city, Chernyi Irtysh riv. Valley, 47°57'N, 85°03'E, 400 m.

AN ANNOTATED LIST OF PTEROPHORIDAE OF EAST KAZAKHSTAN

Agdistis adactyla (Hübner, [1819])

MATERIAL EXAMINED. Serebryansk, 09–10.VII 1996, 2 ex. (V. Zinchenko, E. Kolkpakova); Manat, 19–22.VII 2000, 3 ex. (A. & R. Chernenko); Maiterek, 14.VII 2011, 1♂; Kyzylkezek, 23.VII 2011, 1♀; Bazar riv., 25.VII 2011, 1♂ (R. Yakovlev); Zaisan 56 km N, 15.VII 2011, 1♂ (V. Doroshkin).

DISTRIBUTION. Temperate zone of Palaearctic.

**Agdistis falkovitshi* Zagulajev, 1986

MATERIAL EXAMINED. Maiterek, 14.VII 2011, 1♀ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – Uzbekistan, Turkmenistan, Mongolia.

**Agdistis flavissima* Caradja, 1920

MATERIAL EXAMINED. Aktogai, 10–11.VI 2014, 3♂ (V. Zinchenko).

DISTRIBUTION. Kazakhstan. – Turkmenistan, Tajikistan, China (Xinjiang).

**Agdistis frankeniae* (Zeller, 1847)

MATERIAL EXAMINED. Aktogai, 10–11.VI 2014, 1♂ (V. Zinchenko); Bulag, 03.VI 2006, 1♂ (R. Yakovlev); Karakol'tas, 07.VII 2016, 1♂ (H. Sulak, E. Ott, R. & A. Yakovlev).

DISTRIBUTION. Kazakhstan. – Europe, Asia Minor, Caucasus, European part of Russia, Iran.

**Agdistis intermedia* Caradja, 1920

MATERIAL EXAMINED. Karatal, 7–8.VI 2015, 1♂, 2♀ (V. Zinchenko); Zaisan 17 km S, 7–8.VI 2013, 1♂ (M. Černila, S. Titov, A. Volynkin); Bazarka, 26.VII 2011, 1♂, 1♀ (R. Yakovlev, V. Doroshkin).

DISTRIBUTION. Kazakhstan. – Central Europe (Hungary), East Europe, south of Western Siberia.

**Gillmeria macrornis* (Meyrick, 1930)

MATERIAL EXAMINED. Bazar riv., 25.VII 2011, 1♂ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – Central Asia, South-eastern European Russia, South Siberia, the Russian Far East, Mongolia, China (Shaanxi, Sichuan).

Gillmeria miantodactyla (Zeller, 1841)

MATERIAL EXAMINED. Tas Mt., 21–23.VI 2018, 1♂, (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Transcaucasia.

***Gillmeria pallidactyla* (Haworth, 1811)**

MATERIAL EXAMINED. Zaisan 24 km S, 17–19.VII 2011, 21ex. (R. Yakovlev); Zaisan 56 km N, 08.VI 2012, 1♀; Panteleymonovka, 14.VI 2012, 1♂ (V. Doroshkin); Soldatovo, 11–13.VI 2012, 2♀ (R. Yakovlev); Kokpekty Saur Mts., 20.VI 2018, 13 ex.; Tas Mt., 21–23.VI 2018, 10 ex. (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Temperate zone of Palaearctic, North America.

****Gillmeria rhusiodactyla* (Fushs, 1903)**

MATERIAL EXAMINED. Karatogai 34 km SE, 04.VI 2015, 3♂ (V. Zinchenko); Kokpekty Kalba Mts., 19.VI 2018, 7 ex. (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov); 12 km NE Karatogai, 2–3.VI 2013, 1♂ (M. Černila, S. Titov, A. Volynkin).

DISTRIBUTION. Kazakhstan. – Armenia, south of the European part of Russia, Iran.

****Gillmeria tetradactyla* (Linnaeus, 1761)**

MATERIAL EXAMINED. Rulikha, 12.VII 2011, 2♂ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – Europe, Tajikistan, Kyrgyzstan, south of Western Siberia.

***Platyptilia calodactyla* (Denis et Schiffermüller, 1775)**

MATERIAL EXAMINED. Kokpekty Kalba Mts., 19.VI 2018, 5 ex. (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, North Africa, Asia Minor, Central Asia, Siberia, Russian Far East, Mongolia, China.

***Platyptilia farfarella* Zeller, 1867**

MATERIAL EXAMINED. Poperechnaya riv., 03.VIII 2001, 1♂ (V. Zinchenko).

DISTRIBUTION. Temperate zone of Palaearctic, Africa, Sri Lanka, Indonesia, Philippines.

****Platyptilia gonodactyla* (Denis et Schiffermüller, 1775)**

MATERIAL EXAMINED. Panteleymonovka, 14.VI 2012, 1♂ (V. Doroshkin).

DISTRIBUTION. Temperate zone of Palaearctic.

****Platyptilia nemoralis* Zeller, 1841**

MATERIAL EXAMINED. Zaisan 23 km SE, 05–07.VII 2011, 2♂ (S. Titov).

DISTRIBUTION. Kazakhstan. – Europe, European part of Russia, North Caucasus, South Siberia, Primorskii krai, Sakhalin, Kuril Islands, Japan.

***Platyptilia romanorum* Ustjuzhanin et Kovtunovich, 2017**

MATERIAL EXAMINED. Burhat, 23.VI 1997, 2♂ (R. Dudko, V. Zinchenko).

DISTRIBUTION. East Kazakhstan. – South Siberia (Altai).

****Platyptilia tesseradactyla* (Linnaeus, 1761)**

MATERIAL EXAMINED. Muzdy-Bulak, 30.VI 2012, 1♀ (O. Kosterin); Yazovoe, 06–08.VII 2018, 4 ex. (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, European part of Russia, North Caucasus, Siberia, Russian Far East, Iran, Mongolia, North America.

****Paraplatyptilia metzneri* (Zeller, 1841)**

MATERIAL EXAMINED. Taky, 09.VI 2013, 1♂ (M. Černila, S. Titov, A. Volynkin); Shargutsu, 24–26.V 2000, 6 ex.; Kurchum, 30–31.V 2000, 3 ex. (P. Ustjuzhanin); Ust'Chindagatay, 34.VII 2012, 1♀ (O. Kosterin); Zaisan 17 km S, 7–8.VI 2013, 1♂ (M. Černila, S. Titov, A. Volynkin); Enbek, 30.V 2003, 4♂; Soldatovo, 11–13.VI 2012, 1♂; Kyzylkezek, 06.VI 2012, 1♂ (R. Yakovlev); Kokpekty Kalba Mts., 19.VI 2018, 7 ex.; Kokpekty Saur Mts., 20.VI 2018, 3 ex.; Kenderlik, 24.VI 2018, 2♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov); Karatogai 34 km SE, 04.VI 2015, 1♂, 1♀ (V. Zinchenko).

DISTRIBUTION. Kazakhstan. – Europe, Asia Minor, Armenia, Azerbaijan, Iran, Kyrgyzstan, Uzbekistan, Tajikistan, NW China, South Siberia, Mongolia.

NOTES. The record of *Paraplatyptilia hedemanni* (Snellen, 1884) for East Kazakhstan (Ustjuzhanin & Kovtunovich 2007) is erroneous, in a detailed study it turned out to be *P. metzneri*.

***Paraplatyptilia terminalis* (Erschoff, 1877)**

MATERIAL EXAMINED. Muzdy-Bulak, 30.VI 2012, 2♂ (O. Kosterin); Burkhat Pass, 27.VI 2018, 1♂ (S. Knyazev); Barak-Batyr, 20.VI 2014, 1♂ (A. Volynkin, S. Titov); Verkh Katun, 03–05.VII 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Siberia, Russian Far East (Kamchatka), NE China.

***Amblyptilia grisea* Gibeaux 1996**

MATERIAL EXAMINED. Ridder, 03.VI 1996, 1♀ (R. Dudko & A. Vorontzov).

DISTRIBUTION. South and East Kazakhstan. – Kyrgyzstan, Tajikistan, South Siberia, Mongolia.

***Amblyptilia punctidactyla* Haworth, 1811**

MATERIAL EXAMINED. Barak-Batyr, 20.VI 2014, 1♂ (A. Volynkin, S. Titov); Kokpekty Kalba Mts., 20.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Temperate zone of Palaearctic.

****Cnaemidophorus rhododactylus* (Denis et Schiffermuller, 1775)**

MATERIAL EXAMINED. Ust'Kamenogorsk, 07–13.VII 1999, 3♂, 2♀ (R. Chernenko); Serebryansk, 09.VII 1996, 3♂, 2♀ (V. Zinchenko, E. Kolpakova); Rulikha, 12.VII 2011, 1♂, 3♀; Bazar riv., 25.VII 2011, 1♂; Kyzylkezek, 23.VII 2011, 1♀ (R. Yakovlev); Blagodatnoe, VII 2011, 1♀ (Fomichev); Kenderlik, 24.VI 2018, 3 ex. (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Holarctic region.

****Stenoptilia alaii* Gibeaux, 1995**

MATERIAL EXAMINED. Tas Mt., 20–22.VII 2011, 1♂ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – Kyrgyzstan, Tajikistan.

****Stenoptilia bipunctidactyla* (Scopoli, 1763)**

MATERIAL EXAMINED. Ust'Kamenogorsk, 07–13.VII 1999, 2♂, 2♀ (R. Chernenko); Zaisan 24 km S., 17–19.VII 2011, 1♂ (R. Yakovlev).

DISTRIBUTION. Temperate zone of Palaearctic.

****Stenoptilia eborinodactyla* Zagulajev, 1986**

MATERIAL EXAMINED. Maiterek, 14.VII 2011, 2♂, 1♀ (R. Yakovlev); Zaisan 56 km N, 15.VII 2011, 1♂, 2♀; Bukombai Mts., 10.VI 2012, 1♀ (V. Doroshkin); Barak-Batyr, 20.VI 2014, 1♀, (A. Volynkin, S. Titov).

DISTRIBUTION. Kazakhstan. – Europe, European part of Russia, south of Western Siberia.

****Stenoptilia graphodactyla* (Treitschke, 1833)**

MATERIAL EXAMINED. Alatai pass, 23.VII 2011, 1♂; Tas Mt., 20–22.VII 2011, 1♂ (V. Doroshkin).

DISTRIBUTION. Kazakhstan. – Europe, European part of Russia, Siberia, China (Shanxi, Xinjiang).

***Stenoptilia latistriga* Rebel, 1916**

MATERIAL EXAMINED. Burchat, 22.VI 1997, 1♂ (R. Dudko & V. Zinchenko).

DISTRIBUTION. East Kazakhstan. – The mountains of Siberia (Altai, Tannu-Ola, Sayan, Khamar-Daban), Buryatia, Irkutsk Province.

***Stenoptilia nolckeni* (Tengstrom, 1869)**

MATERIAL EXAMINED. Asu-Bulak, 25.v.2006, 1 ex., (V. Zinchenko); Burkhat Pass, 09.viii.2010, 1♂, (S. Titov); Sarymsacty, 19–23.VIII 2010, 3♂, 1♀ (S. Titov, P. Egorov).

DISTRIBUTION. North Europe, Kazakhstan, Middle Asia, Siberia, Russian Far East, Korea.

****Stenoptilia pterodactyla* (Linnaeus, 1761)**

MATERIAL EXAMINED. Zaisan 17 km S, 7–8.VI 2013, 1♂ (M. Černila, S. Titov, A. Volynkin); Maiterek, 14.VII 2011, 1♀ (V. Doroshkin); Matobaj, 28.VI 2018, 1♂; Alekseevka, 28.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov); Enbek, 12–13.VIII 2013, 2♂ (S. Knyazev, S. Titov).

DISTRIBUTION. Temperate zone of Palaearctics, North America.

****Stenoptilia stigmatodactyla* (Zeller, 1852)**

MATERIAL EXAMINED. Berkkizyl, 11–12.VI 2015, 2♂; Shinkozha, 13–14.VI 2015, 1♀ (V. Zinchenko); Ust'Chindagatay, 3–4.VII 2012, 1♂ (O. Kosterin); Aigaizhal Mt., 1–2.VI 2012, 1♂ (R. Yakovlev); Kokpekty Saur Mts., 20.VI 2018, 1♀; Tas Mt., 21–23.VI 2018, 1♀ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, North Africa Asia Minor and, Transcaucasia, Iran, South Siberia, Yakutia, Magadan region.

***Stenoptilia veronicae* Karvonen, 1932**

MATERIAL EXAMINED. Buchtarma, 26–31.VII 2010, 1♂, 4♀, (O. Kosterin); Bazar riv., 25.VII 2011, 1♂; Manrak, 07.VI 2012, 1♂, (R. Yakovlev); Kokpekty Saur Mts., 20.VI 2018, 1♀; Kara-Kaba, 01.07.2018, 2♂; Verkh Katun, 03-05.VII 2018, 1♂, (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Polar Ural, Siberia, Russian Far East.

****Marasmarcha cinnamomea* (Staudinger, 1870)**

MATERIAL EXAMINED. Glubokoe, 20.VII 2001, 1♂ (V. Zinchenko); Rulikha, 12.VII 2011, 1♀ (R. Yakovlev); Ak-Baur, 19.VI 2014, 2♂ (A. Volynkin, S. Titov); Karatal, 7–8.VI 2015, 3 ex.; Shinkozha, 13–14.VI 2015, 2♂ (V. Zinchenko); Bukombai Mts., 10.VI 2012, 1♂, 1♀ (V. Doroshkin); Maiterek, 14.VII 2011, 1♂ (R. Yakovlev); Zaisan 56 km N., 15.VII 2011, 15 ex. (R. Yakovlev & V. Doroshkin); Kenderlik, 24.VI 2018, 4 ex.; Karabulak, 26.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – South of European Russia, Caucasus, South of Western Siberia, Kyrgyzstan, Tajikistan, Afghanistan, China.

****Marasmarcha colossa* Caradja, 1920**

MATERIAL EXAMINED. Ak-Baur, 19.VI 2014, 3♂ (A. Volynkin, S. Titov); Zaisan 56 km N, 15–16.VII 2011, 4♂, 1♀ (V. Doroshkin); Kokpekty Kalba Mts., 19.VI 2018, 1♂; Kenderlik, 24.VI 2018, 1♀, 2♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – South of European Russia, South of Western Siberia, Kyrgyzstan, Tajikistan, Uzbekistan, Afghanistan, China (Xinjiang).

****Marasmarcha rhypodactyla* (Staudinger, 1870)**

MATERIAL EXAMINED. Ak-Baur, 19.VI 2014, 2♂, 1♀ (A. Volynkin, S. Titov); Karatal, 7–8.VI 2015, 3♂ (V. Zinchenko); Shinkozha, 13–14.VI 2015, 9 ex. (V. Zinchenko); Aigaizhal Mt., 01–02.VI 2012, 1♀ (R. Yakovlev); Panteleymonovka, 14.VI 2012, 1♂ (V. Doroshkin); Karakol'tas, 07.VII 2016, 2♀ (H. Sulak, E. Ott, R. & A. Yakovlev); Kokpekty Kalba Mts., 19.VI 2018, 2♀; Tas Mt., 21–23.VI 2018, 1♂; Kenderlik, 24.VI 2018, 1♀; Alekseevka, 28.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Turkey, Lebanon, Iraq, Iran, South-East of European Russia, West Siberia, West Mongolia.

****Oxyptilus chrysodactylus* ([Denis et Schiffermüller], 1775)**

MATERIAL EXAMINED. Maiterek, 14.VII 2011, 2♂ (R. Yakovlev, V. Doroshkin).

DISTRIBUTION. Kazakhstan. – Europe, Caucasus, Siberia, Russian Far East (Amur River basin, Primorskii krai, Sakhalin), China (Heilongjiang), Japan.

****Oxyptilus parvidactyla* (Haworth, 1811)**

MATERIAL EXAMINED. Ust'Kamenogorsk, 24.V 2002, 2♂, 1♀ (M. Danilevsky); Kalzhir, 04–05.VI 2015, 1♂ (V. Zinchenko).

DISTRIBUTION. Kazakhstan. – Europe, Asia Minor, Caucasus, Iran, southern West Siberia.

****Crombrugghia distans* (Zeller, 1847)**

MATERIAL EXAMINED. Ust'Kamenogorsk, 07–13.VII 1999, 2♂ (R. Chernenko); Topikha, 03.VI 2006, 1♂ (V. Zinchenko).

DISTRIBUTION. Kazakhstan. – North Africa, Europe, Caucasus, Asia Minor, Central Asia, Iran, Afghanistan, southern Siberia, China, India, the Himalaya.

****Crombrugghia tristis* (Zeller, 1841)**

MATERIAL EXAMINED. Manat, 22.VII 2000, 1♂ (A. & R. Chernenko).

DISTRIBUTION. Kazakhstan. – Europe, Turkey, Syria, Caucasus, Iran, Central Asia, southern West Siberia, China (Shaanxi).

****Procapperia kuldschaensis* (Rebel, 1914)**

MATERIAL EXAMINED. Karatogai 12 km NE, 2–3.VI 2013, 2♂ (M. Černila, S. Titov, A. Volynkin); Ak-Baur, 19.VI 2014, 1♂ (A. Volynkin, S. Titov); Enbek, 12–13.VIII 2013, 5 ex. (S. Knyazev, S. Titov); Topikha, 03.VI 2006, 1♂; Karatogai 34 km SE, 04.VI 2015, 1♀ (V. Zinchenko); Smoljanka, 5–31.VII 2002, 6 ex. (E. Rutjan); Zaisan 30 km W, 17.V 2001, 1♂; Bulag, 03.VI 2006, 1♀; Soldatovo, 11–13.VI 2012, 2♂ (R. Yakovlev); Kokpekty Kalba Mts., 19.VI 2018, 4 ex.; Kokpekty Saur Mts., 20.VI 2018, 6 ex.; Tas Mt., 21–23.VI 2018, 1♂; Kenderlik, 24.VI 2018, 2♂; Karabulak, 26.VI 2018, 15 ex.; Matobaj, 28.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Middle Asia, Afghanistan, Pakistan, South Siberia (Altai, Kemerovo Prov., Tuva), Mongolia, China (Xinjiang).

****Capperia fusca* (Hofmann, 1898)**

MATERIAL EXAMINED. Kokpekty Kalba Mts., 19.VI 2018, 1♀ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Caucasus, Turkey, Tajikistan, southern Ural.

****Capperia trichodactyla* ([Denis et Shiffermüller], 1775)**

MATERIAL EXAMINED. Karatal, 7–8.VI 2015, 1♂; Serebryansk, 06.VII 1998, 1♀; Glubokoe, 09.VII 1998, 1♂ (V. Zinchenko); Rulikha, 12.VII 2011, 1♀; Zaisan 56 km N, 1♀ (R. Yakovlev); Ust'Kamenogorsk, 07–13.VII 1999, 1♂, 1♀ (R. Chernenko); Manat, 19–26.VII 2000, 3 ex. (A. & R. Chernenko).

DISTRIBUTION. Kazakhstan. – Europe, Kyrgyzstan, Southern Siberia, South of Russian Far East, Japan, China (Heilongjiang).

***Oidaematophorus lithodactylus* (Treitschke, 1833)**

MATERIAL EXAMINED. Topikha, 05.VIII 1997, 1♀ (R. Dudko & V. Zinchenko).

DISTRIBUTION. Kazakhstan. – Europe, Asia Minor, Caucasus, Central Asia, Siberia, Russian Far East, China (Xinjiang), Japan.

****Hellinsia carphodactyla* (Hübner, [1813])**

MATERIAL EXAMINED. Aigaizhal Mt., 01–02.VI 2012, 4♂ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – North Africa, Europe, the Caucasus, Central Asia, Southern West Siberia.

****Hellinsia chrysocomae* (Ragonot, 1875)**

MATERIAL EXAMINED. Bazar riv., 25.VII 2011, 1♀ (R. Yakovlev); Karakol'tas, 07.VII 2016, 1♂ (H. Sulak, E. Ott, R. & A. Yakovlev).

DISTRIBUTION. Kazakhstan. – Europe, Caucasus, Central Asia, South Siberia, Russian Far East, Mongolia, China.

****Hellinsia didactylites* (Ström, 1783)**

MATERIAL EXAMINED. Zaisan 56 km N, 08.VI 2012, 1♂ (V. Doroshkin); Karatal, 7–8.VI 2015, 1♂ (V. Zinchenko); Matobaj, 28.VI 2018, 1♀ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Central Asia, Siberia, Russian Far East, China (Jilin, Shaanxi).

****Hellinsia distincta* (Herrich-Schäffer, 1855)**

MATERIAL EXAMINED. Bazar riv., 25.VII 2011, 1♂ (R. Yakovlev); Zaisan 23 km SE, 5–7.VII 2011, 1♀ (S. Titov).

DISTRIBUTION. Kazakhstan. – Europe, Armenia, Central Asia, Siberia, Russian Far East, China (Heilongjiang, Jilin), Japan.

****Hellinsia inulae* (Zeller, 1852)**

MATERIAL EXAMINED. Rulikha, 12.VII 2011, 1♂ (R. Yakovlev); Maiterek, 14.VII 2011, 1♂; Zaisan 56 km N, 16.VII 2011, 1♀; Bazar riv., 25–26.VII 2011, 4♂, 1♀; Kyzylkezek 60 km S, 3–5.VI 2012, 2♂; Bukombai Mts., 10.VI 2012, 1♂ (V. Doroshkin).

DISTRIBUTION. Kazakhstan. – Europe, North Africa, Middle Asia, Siberia, Russian Far East, China (Heilongjiang, Jilin), Japan.

****Hellinsia lienigiana* (Zeller, 1852)**

MATERIAL EXAMINED. Verkh Katun, 03–05.VII 2018, 1♀ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Siberia, Russian Far East, China (Shaanxi, Zhejiang, Fujian, Jiangxi, Shandong, Hunan, Guizhou, Taiwan), Korea, Japan.

****Hellinsia osteodactyla* (Zeller, 1841)**

MATERIAL EXAMINED. Topikha, 26–31.VII 2001, 2♀, 1♂; Shinkozha, 13–14.VI 2015, 1♀ (V. Zinchenko); Zaisan 23 km SE, 05–07.VII 2011, 1♀ (S. Titov).

DISTRIBUTION. Kazakhstan. – Europe, Middle Asia, Caucasus, Siberia, Russian Far East, Mongolia, China (Heilongjiang, Shandong, Shanxi, Xinjiang, Yunnan, Ningxia), Japan.

****Hellinsia trimmatodactyla* (Christoph, 1872)**

MATERIAL EXAMINED. Bazarka, 26.VI 2011, 1♂ (V. Doroshkin).

DISTRIBUTION. Kazakhstan. – South-east of European Russia, southern West Siberia, Altai, Tuva, West Mongolia.

****Tabulaephorus marptys* (Christoph, 1873)**

MATERIAL EXAMINED. Kyzylkezek, 06.VI 2012, 2♂ (R. Yakovlev).

DISTRIBUTION. Kazakhstan. – South-east of European Russia, Altai, Tuva, Mongolia, China.

***Emmelina monodactyla* (Linnaeus, 1758)**

MATERIAL EXAMINED. Topikha, 25.VIII 1989, 1♂; Glubokoe, 20–21.VII 2001, 2 ex.; Serebryansk, 09.VII 1996, 1♂ (V. Zinchenko & E. Kolpakova); Ust'Kamenogorsk, 07–13.VII 1999, 1♂ (R. Chernenko); Blagodatnoe, VII 2011, 3 ex. (A. Fomichev).

DISTRIBUTION. Kazakhstan. – North Africa, Europe, Caucasus, Central Asia, southern Siberia eastward to Tuva, Mongolia, China, India, Philippines, North and South America.

***Merrifieldia baliodactyla* (Zeller, 1841)**

MATERIAL EXAMINED. Zaisan 23 km SE, 05–07.VII 2011, 1♂ (S. Titov); Rulikha, 12.VII 2011, 3♂, 2♀; Maiterek, 14.VII 2011, 1♂ (R. Yakovlev); Kyzylkezek, 06.VI 2012, 2♂ (V. Doroshkin); Kenderlik, 24.VI 2018, 1♀ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov).

DISTRIBUTION. Kazakhstan. – Europe, Caucasus, West Siberia, China (Xinjiang).

****Merrifieldia tridactyla* (Linnaeus, 1758)**

MATERIAL EXAMINED. Ust’Kamenogorsk, 21.VI 2002, 1♀ (M. Danilevsky); Shinkozha, 13–14.VI 2015, 2♂, 1♀ (V. Zinchenko); Karakol’tas, 07.VII 2016, 2♂ (H. Sulak, E. Ott, R. & A. Yakovlev); Kokpekty Kalba Mts., 19.VI 2018, 1♀; Kokpekty Saur Mts., 20.VI 2018, 1♂ (R. Yakovlev, V. Doroshkin, V. Rudoj, A. Naydenov); Ak-Baur, 19.VI 2014, 1♂ (A. Volynrin, S. Titov).

DISTRIBUTION. Kazakhstan. – Europe, European part of Russia, Caucasus, Turkey, Iran, Southern Ural, South of Western Siberia, Western Yakutia.

***Pterophorus pentadactylus* (Linnaeus, 1758)**

MATERIAL EXAMINED. Serebryansk, 09.VII 1996, 1♂ (V. Zinchenko, E. Kolpakova); Ust’Kamenogorsk, 16.VI 2010, 1♂ (R. Artemyev).

DISTRIBUTION. Kazakhstan. – Europe, Asia Minor, Caucasus, Iran, Central Asia, West Siberia, South of Russian Far East, China (Jilin, Sichuan, Yunnan, Xinjiang, Taiwan).

ACKNOWLEDGMENTS

The authors are grateful to R. & A. Yakovlev, A. Volynkin, V. Rudoj, A. Naydenov (Barnaul, Russia), V. Zinchenko, E. Kolpakova, O. Kosterin, R. Dudko, A. & R. Chernenko, A. Fomichev, R. Artemyev (Novosibirsk, Russia), V. Doroshkin (Chelyabinsk, Russia), S. Knyazev (Omsk, Russia), S. Titov (Pavlodar, Kazakhstan), E. Rutjan (Kiev, Ukraine), M. Černila (Kamnik, Slovenia), H. Sulak, E. Ott (Munich, Germany) for their assistance in collecting Pterophoridae on the territory of East Kazakhstan.

The results were obtained within the framework of the state task No. 6.2884.2017/4.6 Ministry of Education and Science of Russian Federation.

REFERENCES

- Trofimova, T, Shovkun, D. & Ustjuzhanin, P. 2016. The distribution of Pterophoridae (Lepidoptera) in the Uralo-Caspian region. *Entomologist's Gazette*, 67: 287–298.
- Ustjuzhanin, P.Ya. 1996. Plume moths (Pterophoridae, Lepidoptera) of Siberia and the Russian Far East. *Atalanta*, 27(1/2): 345–409.
- Ustjuzhanin, P.Ya. & Kovtunovich, V.N. 2007. Fauna of Plume Moths (Lepidoptera, Pterophoridae) of the Altai Mts. within the limits of Russia and Kazakhstan. *Altai Zoological Journal*, 1: 43–51.
- Ustjuzhanin, P.Ya. & Kovtunovich, V.N. 2008. Additions and corrections to the paper “Fauna of Plume Moths (Lepidoptera, Pterophoridae) of the Altai Mts., within the limits of Russia and Kazakhstan” by P. Ya. Ustjuzhanin and V.N. Kovtunovich. *Altai Zoological Journal*, 2: 87–95.
- Ustjuzhanin, P.Ya. & Kovtunovich, V.N. 2014. A new species of *Agdistis* Hübner, 1825 (Lepidoptera: Pterophoridae) from Kazakhstan. *Entomologist's Gazette*, 65: 242–244.
- Ustjuzhanin, P., Titov, S., Kovtunovich, V., & Akhmetov, K. 2016. The Pterophoridae fauna (Lepidoptera) of Pavlodar Region. *Biological Bulletin of Bogdan Chmelnytskyi Melitopol State Pedagogical University*, 6(3): 73–79. DOI: <http://dx.doi.org/10.15421/201675>