

Biodiversity of Microlepidoptera (Lepidoptera) of the Saratov and Volgograd regions (Russia, Lower Volga)

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Abstract

Lepidoptera is one of the most diverse species in insects. Two-thirds of the families belong to the group Microlepidoptera, which occupy a significant place in the faunas of various natural landscapes, and some species are dangerous pests for agricultural and forestry crops of any country in the world. The number of invasive species is also growing, such as among mining moths, which form secondary habitats and actively introduce themselves into new ecosystems and become their components. Some species of microlepidoptera are sensitive to anthropogenic impact and are indicators of the environmental state. The research aims to describe the taxonomic composition and species diversity of the moth fauna of the Lower Volga region within the boundaries of Saratov and Volgograd Regions. The research was carried out in April-November 1979-2023. Collections were made using various methods using a net, light traps, window traps, Malaise traps, and beer traps. The coordinates of the place of finding, abundance, and dates were recorded for each observation. The dataset contains data on 983 species of microlepidoptera from 59 families. The dataset contains 82 occurrences. In total, 3471 specimens of moths have been studied. The biodiversity of microlepidoptera of the Saratov and Volgograd Regions includes 983 species from 59 families.

Keywords: dataset, Lepidoptera, moths, data paper, occurrences, Lower Volga Region

Introduction

Over the recent decades, trends of insect biodiversity research around the world have increased, while new technologies for collecting, storing information, and processing it are being used (Ball-Damerow et al., 2019; Sánchez-Bayo & Wyckhuys, 2019; Karlsson et al., 2020; Sazhnev et al.,

2022; Jayme et al., 2023). The modern composition of insects in preserved natural landscapes particularly attracts researchers. Such territories include the Lower Volga in Russia, a part of the Volga River Basin, where studies of plants and animals are being actively performed (e.g., Shinkarenko, 2022; Esin et al., 2023; Dedyukhin, 2023). The nature of the Lower Volga River region is amazing and unique. Nature is changing rapidly, and many of the constituent elements of ecosystems are also changing, being replaced by new alien species or disappearing. One species can extend its distribution range, while others can become endangered or extinct in nature due to various reasons (Rosa et al., 2024). This also happens with the fauna of Lepidoptera (MacLachlan et al., 2021; Mally et al., 2022). One of the underestimated insect groups is micro Lepidoptera, among which many rare and unique species exist.

Of course, the state of the natural landscapes of the Lower Volga region was influenced by the plowing of virgin lands of steppe landscapes, increased grazing in forest-steppe biotopes, and land reclamation in the Left Bank in the 20th century. There was a considerable preponderance of agrocenoses over natural biotopes. They directly affect the reduction of the food supply of Lepidoptera and the destruction of their habitats. As a result, a whole group of insect species, mainly steppe stenobionts, experienced a general decrease in the number and deterioration in the viability of their micropopulations. Monitoring the state of the number of species in this area is an important component in predicting the course of insect autogenesis in the steppe biome for the next 20-30 years. This database on the composition of this group inhabiting various biotopes of the Lower Volga region reflects this monitoring and is an important tool for such a forecast (Chmolowska et al., 2023; Korotyaev et al., 2016).

The Lower Volga region, occupying an intermediate position between the European and Asian southern fauna regions of the continent, is of great interest for faunal studies. Datasets on microlepidoptera in this region were not published earlier. We have only two publications where we can find information on this group in the Lower Volga region, namely “Fauna Lepidopterologica Volgo-Uralensis: from P. Pallas to present days” (Anikin et al., 2017) and “Catalogue of the Lepidoptera of Russia” (Sinev, 2019). However, these publications have little information on specific localities, collection times, names of the collectors, etc. The purpose of this study was to describe the fauna in the form of a set of modern data on the occurrence of microlepidoptera families (Lepidoptera) in the Lower Volga region in the boundaries of Saratov and Volgograd Regions and to supplement the world biodiversity database GBIF (2023) for the

universal use of this region information.

Material and methods

Study area

The Saratov and Volgograd Oblasts are located in the Lower Volga (Fig. 1). The study area includes several natural provinces. Oka-Don province includes the northwest of the Saratov Region. It is located inside the Oka-Don lowland, consisting of Paleogene and Quaternary deposits. Forests are rare, and the landscape has a typical mixed-grass steppe. Don province occupies the southeast of the Oka-Don lowland and all parts of the East Don Ridge. Ravine forests are represented on the Kalach upland. Forests cover the watershed plateaus and floodplains of the Khoher and Medveditsa rivers, while meadows cover the floodplains of their tributaries. In the south of the Don province, forest vegetation is presented by isolated forest islets. In floodplains, most of the vegetation cover is represented by meadows. Privolzhskaya province is located at the interface of the Medveditsa and Volga rivers, forming part of the Volga Upland. It differs from the Don province in higher watersheds, high fragmentation of its area, a dense ravine-girder network, outcrops of bedrock, and the absence of moraine deposits. The relief of the Volga upland is represented by ridges, undulating plateaus, domes, and hilly areas up to 345 m a.s.l. The province has many springs in river valleys, gullies, and ravines. There are more forests than in the Don province. As a rule, these are oak, birch, and aspen forests on watersheds, but pine forests can be found in river valleys and ravines in the sands. Here, ravine and valley-type forests predominate, which are associated with the peaks of the Volga upland. The main forest-forming trees are oak and linden. In addition, the vegetation cover of the province contains many forest plantations consisting of *Caragana arborescens*, *Elaeagnus angustifolia*, *Quercus* spp., and *Acer negundo*. Trans-Volga province occupies the Syrta plain and the Trans-Volga sandy ridge in the Caspian lowland. The general character of the relief is gentle-hilly. The northern slopes of the catchment areas are steep and narrow, while the southern ones are very wide and gentle. The main part of forests is concentrated only in floodplains of rivers. In the southeast of the province, forest vegetation is underrepresented; the former floodplain forests have been cut down and flooded by the waters of the reservoirs (Gribova et al., 1980).

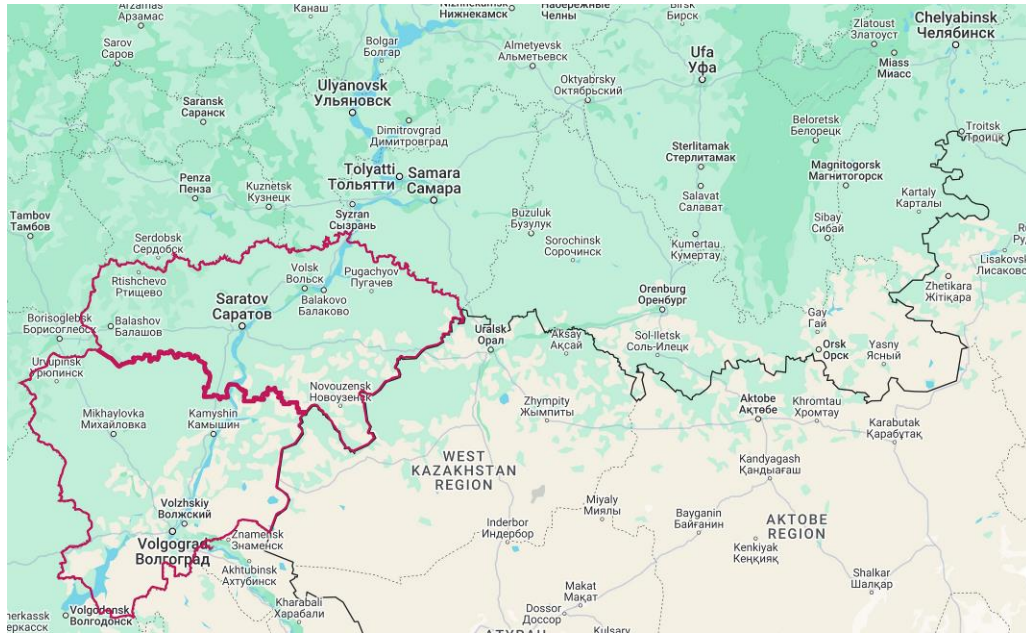


Figure 1. Study area, where dataset materials have been collected. Borders of Saratov and Volgograd Regions are marked with red lines.

Design of research, identification, and taxonomic position of samples

We used traditional collection methods. We actively used a manual collection of samples using a net, light traps, window traps, Malaise traps, and beer traps (Sones et al., 2023; Golub et al., 2012). The main part of the species was determined using the genitalia preparations, which were processed following standard techniques (Robinson, 1976). The identification has been carried out in accordance with modern specialized literature (Nieukerken et al., 2011). We followed the proposed nomenclature according to (Sinev, 2019). The following definitions were used to estimate the abundance of each species listed in Table 2. “Single individual” means that single specimens of a species were found in no more than two localities in a region. “Rare species” refers to species with an abundance of 1-2 specimens that were marked for the first time in the region or more than 50-100 years after their first location in the Lower Volga. “Common species” are species with an abundance of up to 100, found in various biotopes. “Numerous species” are moths with a total abundance of more than 100 specimens occurring in one kind of landscape localities.

Results

Data set name

Each observation includes basic information such as location (latitude/longitude), observation date, observer name, and identifier name. Coordinates were determined in the field using a GPS device or after surveys using Google Maps (Table 1). A total of 3471 specimens were studied.

Table 1. Description of the data in the dataset

Column label	Column description
eventID	An identifier for the set of information associated with an Event (occurs in one place at a time).
occurrence	An identifier for the Occurrence (as opposed to a particular digital record of the occurrence).
basis of record	The specific nature of the data record: HumanObservation
scientific name	The full scientific name, including the genus name and the lowest level of taxonomic rank with the authority
kingdom	The full scientific name of the kingdom in which the taxon is classified
phylum	The full scientific name of the phylum or division in which the taxon is classified
class	The full scientific name of the class in which the taxon is classified
order	The full scientific name of the order in which the taxon is classified
taxonRank	The taxonomic rank of the most specific name in the scientific name.
decimal latitude	The geographic latitude of location in decimal degree
decimal longitude	The geographic longitude of the location in decimal degrees
geodetic datum	The ellipsoid, geodetic datum, or spatial reference system (SRS) upon which the geographic coordinates are given in decimal latitude and decimal longitude as based. Here - WGS84.
coordinateUncertaintyInMeters	The horizontal distance (in meters) from the given decimal latitude and decimal longitude describing the smallest circle containing the whole of the Location
country	The name of the country in which the Location occurs. Here - Russia.
countryCode	The standard code for the country in which the Location occurs. Here - RU.
individual count	The number of individuals represented present at the time of the Occurrence.
event date	The date when material from the trap was collected or the range of dates during which the trap collected material
year	The integer day of the month on which the Event occurred.
month	The ordinal month in which the Event occurred.
day	The integer day of the month on which the Event occurred
recorded	A person or group responsible for recording the original Occurrence.
identified	A list of names of people, who assigned the Taxon to the subject

Dataset content

The dataset (available at <https://doi.org/10.15468/7vtqff>) presents data on 983 species of Microlepidoptera from 59 families studied during our research (Table 2).

Table 2. Biodiversity of Microlepidoptera (Lepidoptera) of the Saratov and Volgograd Regions

Family, Species	Approximate Estimate of the Species Abundance
Eriocraniidae	
<i>Eriocrania cicatricella</i> (Zetterstedt, 1839)	rare species
<i>Eriocrania semipurpurella</i> (Stephens, 1835)	common species
<i>Eriocrania sparrmannella</i> (Bosc, 1791)	single individual
<i>Eriocrania unimaculella</i> (Zetterstedt, 1839)	single individual
<i>Dyseriocrania subpurpurella</i> (Haworth, 1828)	common species
Hepialidae	
<i>Triodia sylvina</i> (Linnaeus, 1761)	common species
<i>Korscheltellus fusconebulosus</i> (De Geer, 1778)	rare species
<i>Korscheltellus lupulina</i> (Linnaeus, 1758)	single individual
Nepticulidae	
<i>Stigmella aceris</i> (Frey, 1857)	common species

<i>Stigmella kazakhstanica</i> Puplesis, 1991	rare species
<i>Stigmella malella</i> (Stainton, 1854)	common species
<i>Stigmella obliquella</i> (Heinemann, 1862)	single individual
<i>Stigmella plagicolella</i> (Stainton, 1854)	common species
<i>Stigmella ruficapitella</i> (Haworth, 1828)	single individual
<i>Trifurcula pallidella</i> (Duponchel, 1843)	single individual
<i>Zimmermannia longicaudella</i> (Klimesch, 1953)	common species
<i>Ectoedemia argyropeza</i> (Zeller, 1839)	common species
Opostegidae	
<i>Pseudopostega auritella</i> (Hübner, [1813])	common species
Heliozelidae	
<i>Heliozela sericiella</i> (Haworth, 1828)	rare species
Adelidae	
<i>Nemophora basella</i> (Eversmann, 1844)	rare species
<i>Nemophora canalella</i> (Eversmann, 1844)	common species
<i>Nemophora cupriacella</i> (Hübner, 1819)	single individual
<i>Nemophora degeerella</i> (Linnaeus, 1758)	common species
<i>Nemophora dumerilella</i> (Duponchel, 1839)	common species
<i>Nemophora metallica</i> (Poda, 1761)	numerous species
<i>Adela croesella</i> (Scopoli, 1763)	single individual
<i>Adela cuprella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Cauchas fibulella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Cauchas florella</i> (Staudinger, 1871)	common species
<i>Cauchas leucocerella</i> (Scopoli, 1763)	common species
Prodoxidae	
<i>Lampronia capitella</i> (Clerck, 1759)	common species
Incurvariidae	
<i>Incurvaria masculella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Incurvaria oehlmaniella</i> (Hübner, 1796)	single individual
<i>Incurvaria pectinea</i> Haworth, 1828	common species
Tischeriidae	
<i>Tischeria ekebladella</i> (Bjerkander, 1795)	common species
<i>Coptotriche angusticolella</i> (Duponchel, 1843)	single individual
<i>Coptotriche marginea</i> (Haworth, 1828)	common species
Psychidae	
<i>Narycia duplicella</i> (Goeze, 1783)	rare species
<i>Diplodoma laichartingella</i> (Goeze, 1783)	common species
<i>Dahlica lichenella</i> (Linnaeus, 1761)	single individual
<i>Dahlica listerella</i> (Linnaeus, 1758)	single individual
<i>Eosolenobia grisea</i> Filipjev, 1924	single individual
<i>Taleporia tubulosa</i> (Retzius, 1783)	numerous species
<i>Eumelasina ardua</i> I.Kozhantshikov, 1956	rare species
<i>Psyche casta</i> (Pallas, 1767)	single individual
<i>Proutia betulina</i> (Zeller, 1839)	common species
<i>Whittleia undulella</i> (Fischer von Rösslerstamm, 1844)	rare species
<i>Reisseronia staudingeri</i> (Heylaerts, 1879)	common species
<i>Rebelia nocturnella</i> (Alphéraky, 1876)	common species
<i>Psychocentra millierei</i> (Heylaerts, 1879)	single individual
<i>Psychidea nudella</i> (Ochsenheimer, 1810)	single individual
<i>Acentra vestalis</i> (Staudinger & Wocke, 1871)	common species
<i>Stichobasis helicinoides</i> (Heylaerts, 1879)	rare species
<i>Acanthopsyche atra</i> (Linnaeus, 1767)	single individual
<i>Acanthopsyche ecksteini</i> (Lederer, 1855)	common species
<i>Acanthopsyche senex</i> (Staudinger, 1871)	common species
<i>Palaeoacanthopsyche uralensis</i> (Freyer, 1852)	rare species
<i>Canephora hirsuta</i> (Poda, 1761)	common species

<i>Pachythelia villosella</i> (Ochsenheimer, 1810)	common species
<i>Ptilocephala muscella</i> ([Denis & schiffermüller], 1775)	single individual
<i>Ptilocephala plumifera</i> (Ochsenheimer, 1810)	common species
<i>Phalacropterix graslinella</i> (Boisduval, 1852)	common species
<i>Megalophanes viciella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Sterrhopterix fusca</i> (Haworth, 1829)	common species
<i>Apterona helicoidella</i> (Vallot, 1827)	common species
Eriocottidae	
<i>Deuterotinea casanella</i> (Eversmann, 1844)	common species
Tineidae	
<i>Pararhodobate syriacus</i> (Lederer, 1857)	rare species
<i>Myrmecozela lutosella</i> (Eversmann, 1844)	common species
<i>Ateliotum hungaricellum</i> (Zeller, 1839)	common species
<i>Haplotinea ditella</i> (Pierce & Diakonoff, 1938)	common species
<i>Haplotinea insectella</i> (Fabricius, 1794)	common species
<i>Cephimallota crassiflavella</i> Bruand, [1851]	single individual
<i>Cephimallota praetoriella</i> (Christoph, 1872)	single individual
<i>Cephitinea colonella</i> (Erschoff, 1876)	rare species
<i>Eudarcia granulata</i> (Zeller, 1852)	single individual
<i>Infurcitinea finalis</i> (Gozmány, 1959)	common species
* <i>Infurcitinea rumelicella</i> (Rebel, 1903)	rare species
<i>Montescardia tessulatella</i> (Lienig & Zeller, 1846)	single individual
<i>Scardia boletella</i> (Fabricius, 1794)	single individual
<i>Morophaga choragella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Triaxomera parasitella</i> (Hübner, 1796)	single individual
<i>Archinemapogon yilidizae</i> Koçak, 1981	common species
<i>Nemaxera betulinella</i> (Paukyll, 1785)	common species
<i>Nemapogon cloacella</i> (Haworth, 1828)	common species
<i>Nemapogon fungivorella</i> (Benander, 1939)	common species
<i>Nemapogon gliriella</i> (Heyden, 1865)	single individual
<i>Nemapogon granella</i> (Linnaeus, 1758)	common species
<i>Nemapogon inconditella</i> (D. Lucas, 1956)	common species
<i>Nemapogon nigralbella</i> (Zeller, 1839)	single individual
<i>Nemapogon orientalis</i> G.Petersen, 196	single individual
<i>Nemapogon picarella</i> (Clerck, 1759)	common species
<i>Nemapogon variatella</i> (Clemens, 1859)	common species
<i>Neurothaumasia ankerella</i> (Mann, 1867)	common species
<i>Ceratuncus danubiella</i> (Mann, 1866)	single individual
<i>Trichophaga scandinaviella</i> Zagulayev, 1960	common species
<i>Elatobia fuliginosella</i> (Lienig & Zeller, 1846)	rare species
<i>Tineola bisselliella</i> (Hummel, 1823)	numerous species
<i>Tinea bothniella</i> Svensson, 1953	common species
<i>Tinea columbariella</i> Wocke, 1857	numerous species
<i>Tinea omichlopi</i> Meyrick, 1928	single individual
<i>Tinea pellionella</i> (Linnaeus, 1758)	common species
<i>Tinea semifulvella</i> Haworth, 1828	single individual
<i>Tinea translucens</i> Meyrick, 1917	common species
<i>Tinea trinotella</i> Thunberg, 1794	single individual
<i>Niditinea fuscella</i> (Linnaeus, 1758)	common species
<i>Niditinea striolella</i> (Matsumura, 1931)	common species
<i>Tinea tugurialis</i> (Meyrick, 1932)	single individual
<i>Monopis christophi</i> G. Petersen, 1957	single individual
<i>Monopis crocicapitella</i> (Clemens, 1859)	single individual
<i>Monopis imella</i> (Hübner, [1813])	single individual
<i>Monopis laevigella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Monopis monachella</i> (Hübner, 1796)	single individual

<i>Monopis obviella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Monopis pallidella</i> Zagulayev, 1955	single individual
<i>Monopis spilotella</i> (Tengström, 1848)	single individual
<i>Wegneria panchalcella</i> (Staudinger, 1870 [1871])	single individual
<i>Oinophila v-flava</i> (Haworth, 1828)	common species
<i>Euplocamus anthracinalis</i> (Scopoli, 1763)	rare species
Roeslerstammiidae	
<i>Roeslerstammia erxlebelli</i> (Fabricius, 1787)	rare species
Bucculatricidae	
<i>Bucculatrix armeniaca</i> Deschka, 1992	single individual
<i>Bucculatrix artemisiella</i> Herrich-Schäffer, 1855	common species
<i>Bucculatrix bechsteinella</i> (Bechstein & Scharfenberg, 1805)	common species
<i>Bucculatrix cristatella</i> Zeller, 1839	common species
<i>Bucculatrix frangulella</i> (Goeze, 1783)	single individual
<i>Bucculatrix gnaphaliella</i> Treitschke, 1833	single individual
<i>Bucculatrix laciniatella</i> Benander, 1952	common species
<i>Bucculatrix noltei</i> Petry, 1912	single individual
<i>Bucculatrix ratisbonensis</i> Stainton, 1861	common species
<i>Bucculatrix thoracella</i> (Thunberg, 1794)	single individual
<i>Bucculatrix ulmella</i> Zeller, 1848	common species
<i>Bucculatrix ulmicola</i> Kuznetsov, 1962	rare species
<i>Bucculatrix ulmifoliae</i> Hering, 1931	common species
Gracillariidae	
<i>Ornixola caudulatella</i> (Zeller, 1839)	single individual
<i>Parectopa ononidis</i> (Zeller, 1839)	single individual
<i>Gracillaria syringella</i> (Fabricius, 1794)	common species
<i>Caloptilia alchimiella</i> (Scopoli, 1763)	single individual
<i>Caloptilia fidella</i> (Reutti, 1853)	common species
<i>Caloptilia flava</i> (Staudinger, 1870 [1871])	single individual
<i>Caloptilia fribergensis</i> (Fritsche, 1871)	single individual
<i>Caloptilia populetorum</i> (Zeller, 1839)	single individual
<i>Caloptilia robustella</i> Jäckh, 1972	single individual
<i>Caloptilia semifascia</i> (Haworth, 1828)	single individual
<i>Caloptilia stigmatella</i> (Fabricius, 1781)	common species
<i>Euspilapteryx auroguttella</i> Stephens, 1835	single individual
<i>Calybites phasianipenella</i> (Hübner, [1813])	common species
<i>Callisto denticulella</i> (Thunberg & Wenner, 1794)	single individual
<i>Parornix anguliferella</i> (Zeller, 1847)	single individual
<i>Parornix anglicella</i> (Stainton, 1850)	single individual
<i>Parornix devoniella</i> (Stainton, 1850)	single individual
<i>Parornix petiolella</i> (Frey, 1863)	single individual
<i>Parornix scoticella</i> (Stainton, 1850)	single individual
<i>Parornix szocsi</i> (Gozmány, 1952)	single individual
<i>Parornix torquilella</i> (Zeller, 1850)	single individual
<i>Cameraria ohridella</i> Deschka & Dimič, 1986	numerous species
<i>Macrosaccus robiniella</i> (Clemens, 1859)	common species
<i>Phyllonorycter acerifoliella</i> (Zeller, 1839)	single individual
<i>Phyllonorycter agilella</i> (Zeller, 1846)	single individual
<i>Phyllonorycter apparella</i> (Herrich-Schäffer, 1855)	common species
<i>Phyllonorycter cavella</i> (Zeller, 1846)	single individual
<i>Phyllonorycter cerasicolella</i> (Herrich-Schäffer, 1855)	common species
<i>Phyllonorycter comparella</i> (Duponchel, 1843)	common species
<i>Phyllonorycter coryli</i> (Nicelli, 1851)	common species
<i>Phyllonorycter harrisella</i> (Linnaeus, 1761)	common species
<i>Phyllonorycter insignitella</i> (Zeller, 1846)	single individual
<i>Phyllonorycter issikii</i> (Kumata, 1963)	numerous species

<i>Phyllonorycter medicaginella</i> (Gerasimov, 1930)	rare species
<i>Phyllonorycter pastorella</i> (Zeller, 1846)	single individual
<i>Phyllonorycter populi</i> (Filipjev, 1931)	single individual
<i>Phyllonorycter populifoliella</i> (Treitschke, 1833)	common species
<i>Phyllonorycter pruinosa</i> (Gerasimov, 1931)	rare species
<i>Phyllonorycter pyriferella</i> (Gerasimov, 1933)	rare species
<i>Phyllonorycter quercifoliella</i> (Zeller, 1839)	common species
<i>Phyllonorycter roboris</i> (Zeller, 1839)	single individual
<i>Phyllonorycter sagittella</i> (Bjerkander, 1790)	single individual
<i>Phyllonorycter schreberella</i> (Fabricius, 1781)	single individual
<i>Phyllonorycter spinicolella</i> (Zeller, 1846)	rare species
<i>Phyllonorycter ulmifoliella</i> (Hübner, 1817)	common species
<i>Phyllocnistis extrematrix</i> Martynova, 1955	single individual
<i>Phyllocnistis unipunctella</i> (Stephens, 1834)	single individual
Yponomeutidae	
<i>Yponomeuta cagnagella</i> (Hübner, 1813)	single individual
<i>Yponomeuta evonymella</i> (Linnaeus, 1758)	single individual
<i>Yponomeuta padella</i> (Linnaeus, 1758)	common species
<i>Yponomeuta malinella</i> Zeller, 1838	common species
<i>Yponomeuta rorrella</i> (Hübner, 1796)	common species
<i>Yponomeuta irrorella</i> (Hübner, 1796)	single individual
<i>Yponomeuta plumbella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Yponomeuta vigintipunctatus</i> Retzius, 1783	single individual
<i>Pseudoswammerdamia combinella</i> (Hübner, 1786)	single individual
<i>Swammerdamia caesiella</i> (Hübner, 1796)	single individual
<i>Swammerdamia pyrella</i> (de Villers, 1789)	single individual
<i>Swammerdamia compunctella</i> (Herrich-Schäffer, 1851)	single individual
<i>Paraswammerdamia albicapitella</i> (Scharfenberg, 1805)	single individual
<i>Paraswammerdamia ornichella</i> Friese, 1960	single individual
Argyresthiidae	
<i>Argyresthia goedartella</i> (Linnaeus, 1758)	single individual
<i>Argyresthia sorbiella</i> (Treitschke, 1833)	single individual
<i>Argyresthia curvella</i> (Linnaeus, 1761)	single individual
<i>Argyresthia retinella</i> Zeller, 1839	single individual
<i>Argyresthia bonnetella</i> (Linnaeus, 1758)	common species
<i>Argyresthia conjugella</i> Zeller, 1839	single individual
<i>Argyresthia pruniella</i> (Clerck, 1759)	common species
<i>Argyresthia semifusca</i> (Haworth, 1828)	single individual
Plutellidae	
<i>Plutella xylostella</i> (Linnaeus, 1758)	numerous species
<i>Pseudoplutella porrectella</i> (Linnaeus, 1758)	rare species
Acrolepiidae	
<i>Digitivalva orientella</i> (Klimesch, 1956)	single individual
<i>Digitivalva reticulella</i> (Hübner, 1796)	single individual
<i>Digitivalva solidaginis</i> (Staudinger, 1859)	single individual
<i>Digitivalva valeriella</i> (Snellen, 1878)	single individual
<i>Acrolepiopsis assectella</i> (Zeller, 1839)	single individual
Glyphipterigidae	
<i>Orthotelia sparganella</i> (Thunberg, 1788)	single individual
<i>Glyphipterix forsterella</i> (Fabricius, 1781)	single individual
<i>Glyphipterix loricatella</i> (Treitschke, 1833)	common species
<i>Glyphipterix simpliciella</i> (Stephens, 1834)	single individual
Ypsolophidae	
<i>Ypsolopha asperella</i> (Linnaeus, 1761)	common species
<i>Ypsolopha chazariella</i> (Mann, 1866)	common species
<i>Ypsolopha dentella</i> (Fabricius, 1775)	common species

<i>Ypsolopha horridella</i> (Treitschke, 1835)	common species
* <i>Ypsolopha instabilella</i> (Mann, 1866)	rare species
<i>Ypsolopha leuconotella</i> (Snellen, 1884)	single individual
<i>Ypsolopha lucella</i> (Fabricius, 1775)	common species
<i>Ypsolopha mucronella</i> (Scopoli, 1763)	single individual
<i>Ypsolopha nebulella</i> (Staudinger, 1871)	single individual
<i>Ypsolopha persicella</i> (Fabricius, 1787)	single individual
<i>Ypsolopha sarmaticella</i> (Rebel, 1917)	common species
<i>Ypsolopha satellitella</i> (Staudinger, 1871)	single individual
<i>Ypsolopha scabrella</i> (Linnaeus, 1761)	single individual
<i>Ypsolopha sequella</i> (Clerck, 1759)	common species
<i>Ypsolopha scabrella</i> (Linnaeus, 1761)	single individual
<i>Ypsolopha sylvella</i> (Linnaeus, 1767)	single individual
<i>Ypsolopha ustella</i> (Clerck, 1759)	single individual
<i>Ypsolopha vittella</i> (Linnaeus, 1758)	common species
<i>Ochsenheimeria vacculella</i> Fischer von Röslerstamm, 1842	common species
<i>Aridomeria capella</i> (Möschler, 1860)	rare species
Heliodinidae	
<i>Heliodines rosella</i> (Linnaeus, 1758)	rare species
Lyonetiidae	
<i>Leucoptera malifoliella</i> (O. Costa, [1836])	single individual
<i>Leucoptera heringiella</i> Toll, 1938	single individual
<i>Lyonetia clerkella</i> (Linnaeus, 1758)	common species
Bedelliidae	
<i>Bedellia somnulentella</i> (Zeller, 1847)	common species
Douglasiidae	
<i>Tinagma ocnerosomellum</i> (Stainton, 1850)	single individual
Ethmiidae	
<i>Ethmia aurifluella</i> (Hübner, [1810] 1816)	single individual
<i>Ethmia bipunctella</i> (Fabricius, 1775)	common species
<i>Ethmia candidella</i> (Alphéraky, 1908)	rare species
<i>Ethmia discrepita</i> (Rebel, 1901)	single individual
<i>Ethmia dodecea</i> (Haworth, 1828)	common species
<i>Ethmia haemorrhoidella</i> (Eversmann, 1844)	rare species
<i>Ethmia quadrillella</i> (Goeze, 1783)	single individual
<i>Ethmia quadripunctella</i> (Eversmann, 1844)	rare species
<i>Ethmia pusiella</i> (Linnaeus, 1758)	common species
<i>Ethmia vittalbella</i> (Christoph, 1877)	rare species
Depressariidae	
<i>Semioscopis avellanella</i> (Hübner, 1793)	common species
<i>Semioscopis oculella</i> (Thunberg, 1794)	single individual
<i>Semioscopis steinkellneriana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Semioscopis strigulana</i> ([Denis & Schiffermüller], 1775)	common species
<i>Luquetia lobella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Exaeretia allisella</i> Stainton, 1849	single individual
<i>Exaeretia lepidella</i> (Christoph, 1872)	common species
<i>Exaeretia nebulosella</i> (Caradja, 1920)	common species
<i>Exaeretia niviferella</i> (Christoph, 1872)	rare species
<i>Exaeretia praeustella</i> (Rebel, 1917)	single individual
<i>Exaeretia stramentella</i> (Eversmann, 1844)	rare species
<i>Agonopterix alstromeriana</i> (Clerck, 1759)	single individual
<i>Agonopterix angelicella</i> (Hübner, [1813])	rare species
<i>Agonopterix arenella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Agonopterix assimilella</i> (Treitschke, 1832)	single individual
<i>Agonopterix capreolella</i> (Zeller, 1839)	common species
<i>Agonopterix ciliella</i> (Stainton, 1849)	single individual

<i>Agonopterix cnicella</i> (Treitschke, 1832).	single individual
<i>Agonopterix curvipunctosa</i> (Haworth, 1811)	common species
<i>Agonopterix ferocella</i> (Chrétien in Spuler, 1910)	single individual
<i>Agonopterix furvella</i> (Treitschke, 1832)	single individual
<i>Agonopterix heracliana</i> (Linnaeus, 1758)	single individual
<i>Agonopterix kaekeritziana</i> (Linnaeus, 1767)	single individual
<i>Agonopterix laterella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Agonopterix liturosa</i> (Haworth, 1811)	single individual
<i>Agonopterix melancholica</i> (Rebel, 1917)	rare species
<i>Agonopterix ocellana</i> (Fabricius, 1775)	single individual
<i>Agonopterix propinquella</i> (Treitschke, 1835)	common species
<i>Agonopterix pallorella</i> (Zeller, 1839)	rare species
<i>Agonopterix purpurea</i> (Haworth, 1811)	single individual
<i>Agonopterix subpropinquella</i> (Stainton, 1849)	single individual
<i>Depressaria artemisiae</i> Nickerl, 1864	single individual
<i>Depressaria depressana</i> (Fabricius, 1775)	common species
<i>Depressaria chaerophylli</i> Zeller, 1839	single individual
<i>Depressaria fuscovirgatella</i> Hannemann, 1967	single individual
<i>Depressaria hystericella</i> Möschler, 1860	rare species
<i>Depressaria olerella</i> Zeller, 1854	common species
<i>Depressaria pulcherrimella</i> Stainton, 1849	single individual
<i>Depressaria radiella</i> (Goeze, 1783)	single individual
<i>Depressaria rubricella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Depressaria ultimella</i> Stainton, 1849	rare species
<i>Orophia ferrugella</i> ([Denis & Schiffermüller], 1775)	single individual
Elachistidae	
<i>Perittia sibirica</i> Sinev, 1992	rare species
<i>Dibrachia kalki</i> (Parenti, 1978)	common species
<i>Elachista anserinella</i> Zeller, 1839	common species
<i>Elachista argentella</i> (Clerck, 1759)	single individual
<i>Elachista chrysodesmella</i> Zeller, 1850	single individual
<i>Elachista dispilella</i> Zeller, 1839	common species
<i>Elachista dispunctella</i> (Duponchel, 1843)	common species
<i>Elachista festucicolella</i> Zeller, 1853	single individual
<i>Elachista flavescens</i> Parenti, 1981	single individual
<i>Elachista hedemanni</i> Rebel, 1899	single individual
<i>Elachista maculicerusella</i> Bruand, 1859	single individual
<i>Elachista nitidulella</i> (Herrich-Schäffer, 1855)	single individual
<i>Elachista obliquella</i> Stainton, 1854	single individual
<i>Elachista pollinariella</i> Zeller, 1839	common species
<i>Elachista pollutella</i> Duponchel, 1843	single individual
<i>Elachista pullicomella</i> Zeller, 1839	common species
<i>Elachista regificella</i> Sircom, 1849	single individual
<i>Elachista rudectella</i> Stainton, 1851	single individual
<i>Biselachista utonella</i> (Frey, 1856)	single individual
Parametriotidae	
<i>Heinemannia laspeyrella</i> (Hübner, 1796)	single individual
<i>Heinemannia festivella</i> ([Denis et Schiffermüller], 1775)	single individual
<i>Blastodacna atra</i> (Haworth, 1828)	single individual
Scythrididae	
<i>Scythris anomaloptera</i> (Staudinger, 1880)	single individual
<i>Scythris bifissella</i> (Hofmann, 1889)	single individual
<i>Scythris clavella</i> (Zeller, 1855)	numerous species
<i>Scythris cycladeae</i> Jäckh, 1978	single individual
<i>Scythris gozmanyi</i> Passerin d'Entrèves, 1986	single individual
<i>Scythris emichi</i> (Anker, 1870)	rare species

<i>Scythris fallacella</i> (Schläger, 1847)	single individual
<i>Scythris flaviventrella</i> (Herrich-Schäffer, 1855)	common species
<i>Scythris inspersella</i> (Hübner, [1817])	single individual
<i>Scythris limbella</i> (Fabricius, 1775)	common species
<i>Scythris mikkolai</i> Sinev, 1993	single individual
<i>Scythris moldavicella</i> Caradja, 1905	rare species
<i>Scythris obscurella</i> (Scopoli, 1763)	single individual
<i>Scythris perlucidella</i> K. & T. Nupponen, 2000	single individual
<i>Scythris productella</i> (Zeller, 1839)	common species
<i>Scythris pudorinella</i> (Möschler, 1866)	single individual
<i>Scythris satyrella</i> (Staudinger, 1880)	single individual
<i>Scythris setiella</i> (Zeller, 1871)	single individual
<i>Scythris sinensis</i> (Felder & Rogenhofer, 1875)	common species
<i>Scythris sublamina</i> K. & T. Nupponen, 2000	single individual
<i>Scythris tributella</i> (Zeller, 1847)	single individual
<i>Eretmocera medinella</i> (Staudinger, 1859)	single individual
Chimabachidae	
<i>Diurnea fagella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Diurnea lipsiella</i> ([Denis & Schiffermüller], 1775)	common species
Cryptolechiidae	
<i>Orophia ferrugella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Hypercallia citrinalis</i> (Scopoli, 1763)	single individual
Oecophoridae	
<i>Schiffermuelleria schaefferella</i> (Linnaeus, 1758)	common species
<i>Bisigna procerella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Metalampra cinnamomea</i> (Zeller, 1839)	single individual
<i>Epicallima formosella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Denisia similella</i> (Hübner, 1796)	single individual
<i>Borkhausenia luridicomella</i> (Herrich-Schäffer, 1856)	single individual
<i>Borkhausenia fuscescens</i> (Haworth, 1828)	single individual
<i>Endrosis sarcitrella</i> (Linnaeus, 1758)	single individual
<i>Pseudocryptolechia sareptensis</i> (Möschler, 1862)	rare species
<i>Minetia crinitus</i> (Fabricius, 1798)	single individual
<i>Pleurota pyropella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Pleurota malatya</i> Back, 1973	common species
<i>Pleurota contignatella</i> Christoph, 1872	rare species
<i>Pleurota bicostella</i> (Clerck, 1759)	rare species
<i>Pleurota aorsella</i> Christoph, 1872	common species
<i>Pleurota pungitiella</i> Herrich-Schäffer, 1854	single individual
<i>Pleurota aristella</i> (Linnaeus, 1767)	common species
<i>Holoscolia huebneri</i> Kocak, 1980	single individual
<i>Aplota palpella</i> (Haworth, 1828)	single individual
Stathmopodidae	
<i>Stathmopoda pedella</i> (Linnaeus, 1761)	single individual
Batrachedridae	
<i>Batrachedra praeangusta</i> (Haworth, 1828)	common species
Coleophoridae	
<i>Augasma aeratella</i> (Zeller, 1839)	common species
<i>Augasma uljanovi</i> Anikin, 2017	rare species
<i>Casas albella</i> (Thunberg, 1788)	common species
<i>Metriotes lutarea</i> (Haworth, 1828)	common species
<i>Postvinculia lutipennella</i> (Zeller, 1838)	single individual
<i>Paravalvulia spiraeella</i> (Rebel, 1916)	rare species
<i>Frederickoenigia flavipennella</i> (Duponchel, 1843)	common species
<i>Haploptilia coracipennella</i> (Hubner, 1796)	single individual
<i>Haploptilia katunella</i> Falkovitsh, 1991	rare species

<i>Haploptilia prunifolia</i> (Doets, 1944)	single individual
<i>Haploptilia serratella</i> (Linnaeus, 1761)	common species
<i>Haploptilia spinella</i> (Schrank, 1802)	common species
<i>Cepurga hemerobiella</i> (Scopoli, 1763)	rare species
<i>Tollisia violacea</i> (Ström, 1783)	single individual
<i>Quadratia fuscocuprella</i> (Herrich-Schäffer, 1855)	single individual
<i>Rhamnia ahenella</i> (Heinemann, 1876)	single individual
<i>Kasyfia binderella</i> (Kollar, 1832)	single individual
<i>Kasyfia orbitella</i> (Zeller, 1849)	single individual
<i>Protocryptis sibiricella</i> Falkovitsh, 1972	common species
<i>Aporiptura dissecta</i> Falkovitsh, 1989	single individual
<i>Aporiptura eurasiatica</i> (Baldizzone, 1989)	common species
<i>Aporiptura klimeschiella</i> (Toll, 1952)	single individual
<i>Aporiptura lonchodes</i> Falkovitsh, 1994	single individual
<i>Aporiptura macilenta</i> Fakkovitsh, 1972	single individual
<i>Aporiptura nigradorsella</i> (Amsel, 1935)	single individual
<i>Aporiptura ochroflava</i> (Toll, 1961)	common species
<i>Aporiptura physophorae</i> Falkovitsh, 1994	single individual
<i>Systrophoeca siccifolia</i> (Stainton, 1856)	single individual
<i>Suireia badiipennella</i> (Duponchel, 1843)	single individual
<i>Suireia limosipennella</i> (Duponchel, 1842)	single individual
<i>Orghidania gryphipennella</i> (Hübner, 1796)	single individual
<i>Scleriductia ochripennella</i> (Zeller, 1849)	single individual
<i>Symphypoda parthenica</i> (Meyrick, 1891)	common species
<i>Chnoocera botaurella</i> (Herrich-Schäffer, 1861)	common species
<i>Bourgogneja pennella</i> (Denis & Schiffermüller, 1775)	common species
<i>Dumitrescumia cecidophorella</i> (Oudejans, 1972)	single individual
<i>Polystrophia calligoni</i> (Falkovitsh, 1972)	single individual
<i>Helvalbia lineolea</i> (Haworth, 1828)	single individual
<i>Argyractinia necessaria</i> (Staudinger, 1880)	single individual
<i>Argyractinia ochrea</i> (Haworth, 1828)	single individual
<i>Ascleriducta lithargyrinella</i> (Zeller, 1849)	single individual
<i>Calcomarginia ballotella</i> (Fischer von Röslerstamm, 1839)	single individual
<i>Oedicaula serinipennella</i> (Christoph, 1872)	common species
<i>Coleophora albidella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Coleophora bernoulliella</i> (Goeze, 1783)	common species
<i>Coleophora betulella</i> Heinemann, 1876	common species
<i>Coleophora currucipennella</i> Zeller, 1839	single individual
<i>Coleophora ibipennella</i> Zeller, 1849	common species
<i>Coleophora zelleriella</i> Heinemann, 1854	single individual
<i>Orthographis impalella</i> (Toll, 1961)	rare species
<i>Orthographis ptarmicia</i> (Walsingham, 1910)	rare species
<i>Orthographis serratulella</i> (Herrich-Schäffer, 1855)	single individual
<i>Orthographis uralensis</i> (Toll, 1961)	rare species
<i>Phagolamia auricella</i> (Fabricius, 1794)	single individual
<i>Phagolamia serpylletorum</i> (Hering, 1889)	common species
<i>Phagolamia virgatella</i> (Zeller, 1849)	common species
<i>Valvulongia falcigerella</i> (Christoph, 1872)	single individual
<i>Damophila alcyonipennella</i> (Kollar, 1832)	common species
<i>Damophila deauratella</i> (Lienig et Zeller, 1846)	common species
<i>Damophila frischella</i> (Linnaeus, 1758)	rare species
<i>Damophila mayrella</i> (Hubner, 1813)	common species
<i>Damophila trifolii</i> Curtis, 1832	common species
<i>Metapista stramentella</i> (Zeller, 1849)	single individual
<i>Eupista lixella</i> (Zeller, 1849)	common species
<i>Eupista ornatipennella</i> (Hübner, 1796)	common species

<i>Eupista samarensis</i> (Anikin, 2001)	single individual
<i>Tripostella argyrella</i> (Herrich-Schäffer, 1856)	single individual
<i>Tripostella machimopsis</i> (Meyrick, 1936)	single individual
<i>Multicoloria astragalella</i> (Zeller, 1849)	single individual
<i>Multicoloria berlandella</i> (Toll, 1956)	single individual
<i>Multicoloria caelebipennella</i> (Zeller, 1839)	common species
<i>Multicoloria cartilaginella</i> (Christoph, 1872)	common species
<i>Multicoloria changaica</i> Reznik, 1975	rare species
<i>Multicoloria conspicuella</i> (Zeller, 1849)	single individual
<i>Multicoloria craccella</i> (Vallot, 1835)	single individual
<i>Multicoloria ditella</i> (Zeller, 1849)	common species
<i>Multicoloria fuscociliella</i> (Zeller, 1849)	single individual
<i>Multicoloria inconstans</i> Reznik, 1975	single individual
<i>Multicoloria partitella</i> (Zeller, 1849)	single individual
<i>Multicoloria pseudoditella</i> (Baldizzone & Patzak, 1983)	rare species
<i>Multicoloria singreni</i> (Falkovitsh, 1973)	rare species
<i>Multicoloria stachi</i> (Toll, 1957)	rare species
<i>Multicoloria tshiligella</i> Reznik, 1976	single individual
<i>Multicoloria vibicella</i> (Hübner, [1813])	common species
<i>Multicoloria vibicigerella</i> (Zeller, 1839)	common species
<i>Multicoloria vicinella</i> (Zeller, 1849)	common species
<i>Klimeschja oriolella</i> (Zeller, 1849)	single individual
<i>Ardania saturatella</i> (Stainton, 1850)	single individual
<i>Ardania trifariella</i> (Zeller, 1849)	single individual
<i>Razowskia coronillae</i> (Zeller, 1849)	common species
<i>Apista dignella</i> (Toll, 1961)	single individual
<i>Apista gallipennella</i> (Hübner, 1796)	common species
<i>Apista rebeli</i> (Gerasimov, 1930)	single individual
<i>Tritemachia teredo</i> Falkovitsh, 1994	single individual
<i>Perygra adjunctella</i> (Hodgkinson, 1882)	single individual
<i>Perygra alticolella</i> (Zeller, 1849)	common species
<i>Perygra glaucicolella</i> (Wood, 1892)	common species
<i>Perygra otidipennella</i> (Hübner, 1817)	single individual
<i>Perygra taeniipennella</i> (Herrich-Schüffer, 1855)	single individual
<i>Ecebalia adpersella</i> (Benander, 1939)	common species
<i>Ecebalia anabaseos</i> (Falkovitsh, 1975)	common species
<i>Ecebalia apythana</i> (Falkovitsh, 1989)	single individual
<i>Ecebalia bagorella</i> (Falkovitsh, 1977)	single individual
<i>Ecebalia charadriella</i> (Baldizzone, 1988)	common species
<i>Ecebalia chumanensis</i> Anikin, 2005	single individual
<i>Ecebalia eichleri</i> (Patzak, 1977)	single individual
<i>Ecebalia gaviaepennella</i> (Toll, 1952)	common species
<i>Ecebalia halocnemi</i> (Falkovitsh, 1994)	single individual
<i>Ecebalia halostachydis</i> (Falkovitsh, 1994)	single individual
<i>Ecebalia hungariae</i> (Gozmány, 1955)	single individual
<i>Ecebalia kargani</i> (Falkovitsh, 1989)	single individual
<i>Ecebalia lunensis</i> (Falkovitsh, 1975)	single individual
<i>Ecebalia magyarica</i> (Baldizzone, 1983)	common species
<i>Ecebalia motacillella</i> (Zeller, 1849)	common species
<i>Ecebalia parasymi</i> Anikin, 2005	single individual
<i>Ecebalia pinii</i> Anikin, 2005	single individual
<i>Ecebalia pratella</i> (Zeller, 1871)	single individual
<i>Ecebalia pseudolinosyris</i> (Kasy, 1979)	single individual
<i>Ecebalia quadrifariella</i> (Staudinger, 1880)	single individual
<i>Ecebalia saxicolella</i> (Duponchel, 1843)	common species
<i>Ecebalia sternipennella</i> (Zetterstedt, 1839)	common species

<i>Ecebalia superlonga</i> (Falkovitsh, 1989)	single individual
<i>Ecebalia therinella</i> (Tengström, 1848)	common species
<i>Ecebalia tornata</i> (Falkovitsh, 1989)	single individual
<i>Ecebalia tyrphaenica</i> (Amsel, 1951)	single individual
<i>Ecebalia uniphalli</i> Anikin, 2005	single individual
<i>Ecebalia versurella</i> (Zeller, 1849)	common species
<i>Ecebalia vestianella</i> (Linnaeus, 1758)	common species
<i>Ecebalia virgaureae</i> (Stainton, 1857)	common species
<i>Casignetella absinthii</i> (Heinemann & Wocke, 1877)	common species
<i>Casignetella albicans</i> (Zeller, 1849)	common species
<i>Casignetella amarchana</i> (Falkovitsh, 1975)	single individual
<i>Casignetella ancistron</i> (Falkovitsh, 1976)	single individual
<i>Casignetella arenifera</i> Falkovitsh, 1989	single individual
<i>Casignetella argentula</i> (Stephens, 1834)	common species
<i>Casignetella artemisicolella</i> (Bruand, 1855)	common species
<i>Casignetella bogdoensis</i> (Baldizzone & Tabell, 2007)	single individual
<i>Casignetella ciconiella</i> (Herrich-Schäffer, 1855)	common species
<i>Casignetella corsicella</i> (Walsingham, 1898)	single individual
<i>Casignetella dentatella</i> (Toll & Amsel, 1967)	single individual
<i>Casignetella deviella</i> (Zeller, 1847)	single individual
<i>Casignetella dianthi</i> (Herrich-Schäffer, 1855)	common species
<i>Casignetella directella</i> (Zeller, 1849)	common species
<i>Casignetella eltonica</i> Anikin, 2005	single individual
<i>Casignetella erratella</i> (Toll & Amsel, 1967)	single individual
<i>Casignetella galatellae</i> (M.Hering, 1942)	single individual
<i>Casignetella galbulipennella</i> (Zeller, 1838)	common species
<i>Casignetella gardesanella</i> (Toll, 1953)	single individual
<i>Casignetella genviki</i> Anikin, 2002	single individual
<i>Casignetella gnaphalii</i> (Zeller, 1839)	common species
<i>Casignetella graminicolella</i> (Heinemann, 1876)	single individual
<i>Casignetella granulata</i> (Zeller, 1849)	common species
<i>Casignetella helgada</i> (Anikin, 2005)	single individual
<i>Casignetella kyffhusana</i> (Petry, 1898)	common species
<i>Casignetella lebedella</i> Falkovitsh, 1982	single individual
<i>Casignetella niveistrigella</i> (Wocke, 1876)	single individual
<i>Casignetella occatella</i> (Staudinger, 1880)	single individual
<i>Casignetella peisoniella</i> (Kasy, 1965)	single individual
<i>Casignetella peribenanderi</i> (Toll, 1943)	single individual
<i>Casignetella pilion</i> Falkovitsh, 1992	single individual
<i>Casignetella pseudociconiella</i> (Toll, 1952)	single individual
<i>Casignetella ramosella</i> (Zeller, 1849)	single individual
<i>Casignetella remizella</i> (Baldizzone, 1983)	single individual
<i>Casignetella riffelensis</i> (Rebel, 1913)	single individual
<i>Casignetella saratovi</i> Anikin, 2005	single individual
<i>Casignetella silenella</i> (Herrich-Schäffer, 1855)	single individual
<i>Casignetella solitariella</i> (Zeller, 1849)	single individual
<i>Casignetella striatipennella</i> (Nylander, 1848)	common species
<i>Casignetella succursella</i> (Herrich-Schäffer, 1855)	common species
<i>Casignetella tanaceti</i> (Mühlig, 1865)	common species
<i>Casignetella tremula</i> Falkovitsh, 1989	single individual
<i>Casignetella tringella</i> (Baldizzone, 1988)	single individual
<i>Casignetella trochilella</i> (Duponchel, 1843)	common species
<i>Ionescumia acerosa</i> Falkovitsh, 1989	single individual
<i>Ionescumia clypeiferella</i> (Hofmann, 1871)	common species
<i>Ionescumia dilabens</i> Falkovitsh, 1982	single individual
<i>Carpochena aequalella</i> (Christoph, 1872)	single individual

<i>Carpochena armeniae</i> (Baldizzone & Patzak, 1991)	single individual
<i>Carpochena asperginella</i> (Christoph, 1872)	single individual
<i>Carpochena atlanti</i> Anikin, 2005	single individual
<i>Carpochena binotapennella</i> (Duponchel, 1843)	common species
<i>Carpochena ceratoidis</i> (Falkovitsh, 1979)	single individual
<i>Carpochena cochleata</i> Falkovitsh, 2005	single individual
<i>Carpochena crassa</i> Falkovitsh, 1989	single individual
<i>Carpochena preisseckeri</i> (Toll, 1942)	single individual
<i>Carpochena salicorniae</i> (Heinemann & Wocke, 1876)	common species
<i>Carpochena squalorella</i> (Zeller, 1849)	common species
<i>Carpochena trientella</i> (Christoph, 1872)	single individual
<i>Carpochena unipunctella</i> (Zeller, 1849)	single individual
<i>Klinzigedia phlomidella</i> (Christoph, 1862)	single individual
<i>Klinzigedia phlomidis</i> (Stainton, 1867)	single individual
<i>Goniodoma auroguttella</i> Zeller, 1849	single individual
<i>Goniodoma limoniella</i> (Stainton, 1884)	common species
Momphidae	
<i>Cyphophora idaei</i> (Zeller, 1839)	single individual
<i>Mompha subbistrigella</i> (Haworth, 1828)	single individual
<i>Mompha epilobiella</i> ([Denis et Schiffermüller], 1775)	single individual
Blastobasidae	
<i>Blastobasis pannonica</i> Šumpich & Škyva, 2011	common species
<i>Blastobasis phycidella</i> (Zeller, 1839)	single individual
<i>Hypatopa segnella</i> (Zeller, 1873)	single individual
Autostichidae	
<i>Deroxena conioleuca</i> Meyrick, 1926	single individual
<i>Deroxena venosulella</i> (Möschler, 1862)	single individual
<i>Oegoconia caradjai</i> Popescu-Gorj & Căpușe, 1965	single individual
<i>Oegoconia deauratella</i> (Herrich-Schäffer, 1854)	common species
<i>Symmoca signatella</i> Herrich-Schäffer, 1854	single individual
<i>Holcopogon adseclellus</i> (Eversmann, 1844)	common species
Lypusidae	
<i>Lypusa maurella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Agnoea josephinae</i> (Toll, 1956)	single individual
Cosmopterigidae	
<i>Pancalia leuwehoekella</i> (Linnaeus, 1761)	common species
<i>Pancalia schwarzella</i> (Fabricius, 1798)	single individual
<i>Pancalia nodosella</i> (Bruand, 1851)	common species
<i>Cosmopterix orichalcea</i> Stainton, 1861	single individual
<i>Limnaecia phragmitella</i> Stainton, 1851	common species
<i>Pyroderces argyrogrammos</i> (Zeller, 1847)	common species
<i>Eteobalea albiapicella</i> (Duponchel, 1843)	single individual
<i>Eteobalea intermediella</i> (Riedl, 1966)	single individual
<i>Eteobalea serratella</i> (Treitschke, 1833)	single individual
<i>Eteobalea tririvella</i> (Staudinger, 1871)	single individual
Chresopeleidae	
<i>Sorhagenia janiszewskae</i> Riedl, 1962	single individual
<i>Sorhagenia lophyrella</i> (Douglas, 1846)	common species
<i>Sorhagenia rhamniella</i> (Zeller, 1839)	common species
Gelechiidae	
<i>Metzneria neuropterella</i> Zeller, 1839	single individual
<i>Metzneria subflavella</i> Englert, 1974	single individual
<i>Isophrictis anthemidella</i> (Wocke, 1871)	single individual
<i>Isophrictis striatella</i> (Denis & Schiffermüller, 1775)	single individual
<i>Eulamprotes wilkella</i> (Linnaeus, 1758)	single individual
<i>Monochroa lucidella</i> (Stephens, 1834)	single individual

<i>Monochroa nomadella</i> (Zeller, 1868)	single individual
<i>Monochroa saltanella</i> (Benander, 1928)	single individual
<i>Chrysoesthia sexguttella</i> (Thunberg, 1794)	single individual
<i>Psamathocrita osseella</i> (Stainton, 1861)	single individual
<i>Caulastrocecis furfurella</i> (Staudinger, 1870 [1871])	single individual
<i>Aristotelia decurtella</i> (Hubner, [1813])	single individual
<i>Aristotelia subdecurtella</i> (Stainton, 1859)	single individual
<i>Megacraspedus argyroneurellus</i> (Staudinger, 1870 [1871])	single individual
<i>Megacraspedus attritellus</i> (Staudinger, 1870 [1871])	single individual
<i>Recurvaria leucatella</i> (Clerck, 1759)	single individual
<i>Recurvaria nanella</i> (Denis & Schiffermüller, 1775)	single individual
<i>Xenolechia scriptella</i> (Hubner, 1796)	single individual
<i>Teleiodes luculella</i> (Hubner, 1813)	common species
<i>Carpatolechia aenigma</i> Sattler, 1983	single individual
<i>Carpatolechia fugitivella</i> (Zeller, 1839)	common species
<i>Streyella anguinella</i> (Herrich-Schäffer, 1861)	single individual
<i>Pseudotelphusa paripunctella</i> (Thunberg, 1794)	single individual
<i>Teleiopsis diffinis</i> (Haworth, 1828)	single individual
<i>Bryotropha mundella</i> Douglas, 1850	single individual
<i>Bryotropha rossica</i> Anikin et Piskunov, 1996	single individual
<i>Bryotropha senectella</i> Zeller, 1839	single individual
<i>Bryotropha similis</i> (Stainton, 1854)	single individual
<i>Chionodes distinctella</i> (Zeller, 1839)	common species
<i>Prolita solutella</i> (Zeller, 1839)	single individual
<i>Mirificarma cytisella</i> Treitschke, 1833	single individual
<i>Lutilabria volgensis</i> Anikin et Piskunov, 1996	single individual
<i>Filatima djakovica</i> Anikin et Piskunov, 1996	single individual
<i>Filatima tephritidella</i> (Duponchel, 1843)	single individual
<i>Filatima zagulajevi</i> Anikin et Piskunov, 1996	single individual
<i>Gelechia jakovlevi</i> Krulikovsky, 1905	single individual
<i>Gelechia rhombella</i> (Denis & Schiffermüller, 1775)	common species
<i>Gelechia rhombelliformis</i> (Staudinger, 1871)	single individual
<i>Gelechia scotinella</i> (Herrich-Schäffer, 1854)	common species
<i>Ornathalva plutelliformis</i> (Staudinger, 1859)	common species
<i>Ornathalva heluanensis</i> (Debski, 1913)	single individual
<i>Ephysteris deserticolella</i> (Staudinger, 1870 [1871])	single individual
<i>Scrobipalpa acuminatella</i> (Sircom, 1850)	single individual
<i>Scrobipalpa atriplicella</i> (Fischer von Roeslerstamm, 1841)	common species
<i>Scrobipalpa chrysanthemella</i> (Hofmann, 1867)	single individual
<i>Scrobipalpa gallicella</i> (Constant, 1884)	single individual
<i>Scrobipalpa obsoletella</i> (Fischer von Roeslerstamm, 1841)	common species
<i>Scrobipalpa soffneri</i> Povolny, 1964	single individual
<i>Scrobipalpa salinella</i> (Zeller, 1847)	single individual
<i>Scrobipalpa selectella</i> (Caradja, 1920)	single individual
<i>Aproaerema anthyllidella</i> (Hübner, [1813])	single individual
<i>Syncopacma coronillella</i> (Treitschke, 1833)	single individual
<i>Syncopacma sangiella</i> (Stainton, 1863)	single individual
<i>Acompsia cinerella</i> (Clerck, 1759)	single individual
<i>Anacamptis temerella</i> (Lienig & Zeller, 1846)	single individual
<i>Anacamptis timidella</i> (Wocke, 1887)	single individual
<i>Metanarsia modesta</i> Staudinger, 1870 [1871]	common species
<i>Pexicopia malvella</i> (Hübner, 1805)	common species
<i>Anarsia lineatella</i> (Zeller, 1839)	common species
<i>Anarsia spartiella</i> (Schrank, 1802)	single individual
<i>Dichomeris alacella</i> (Zeller, 1839)	common species
<i>Dichomeris derasella</i> (Denis & Schiffermüller, 1775)	single individual

<i>Brachmia blandella</i> (Fabricius, 1798)	single individual
<i>Helcystogramma albinervis</i> (Gerasimov, 1929)	single individual
Alucitidae	
<i>Alucita grammodactyla</i> Zeller, 1841	rare species
Pterophoridae	
<i>Agdistis adactyla</i> (Hübner, [1823])	common species
<i>Agdistis frankeniae</i> (Zeller, 1847)	single individual
<i>Agdistis ingens</i> Christoph, 1887	single individual
<i>Agdistis intermedia</i> Caradja, 1920	single individual
<i>Gillmeria miantodactyla</i> (Zeller, 1841)	single individual
<i>Gillmeria rhusiodactyla</i> (Fuchs, 1903)	common species
<i>Gillmeria ochrodactyla</i> [Denis & Schiffermüller], 1775	common species
<i>Platyptilia gonodactyla</i> ([Denis et Schiffermüller], 1775)	single individual
<i>Stenoptilia bipunctidactyla</i> (Scopoli, 1763)	common species
<i>Stenoptilia coprodactyla</i> (Stainton, 1851)	common species
<i>Stenoptilia eborinodactyla</i> Zagulajev, 1986	common species
<i>Stenoptilia manni</i> (Zeller, 1852)	single individual
<i>Stenoptilia pterodactyla</i> (Linnaeus, 1761)	common species
<i>Cnaemidophorus rhododactyla</i> ([Denis et Schiffermüller], 1775)	single individual
<i>Marasmarcha cinnamomea</i> (Staudinger, 1870)	single individual
<i>Marasmarcha rhypodactyla</i> (Staudinger, 1870 [1871])	single individual
<i>Oxyptilus chrysodactyla</i> ([Denis et Schiffermüller], 1775)	single individual
<i>Oxyptilus parvidactyla</i> (Haworth, 1811)	common species
<i>Crombrugghia distans</i> (Zeller, 1847)	common species
<i>Crombrugghia kollari</i> (Stainton, 1851)	single individual
<i>Crombrugghia laetus</i> (Zeller, 1847)	common species
<i>Crombrugghia tristis</i> (Zeller, 1841)	common species
<i>Geina didactyla</i> (Linnaeus, 1758)	common species
<i>Capperia trichodactyla</i> ([Denis et Schiffermüller], 1775)	common species
<i>Pterophorus pentadactyla</i> (Linnaeus, 1758)	common species
<i>Porrittia galactodactyla</i> (Denis & Schiffermüller, 1775)	single individual
<i>Tabulaephorus marptys</i> (Christoph, 1872)	common species
<i>Merrifieldia baliodactylus</i> (Zeller, 1841)	common species
<i>Merrifieldia tridactyla</i> (Linnaeus, 1758)	single individual
<i>Oidaematophorus lithodactyla</i> (Treitschke, 1833)	single individual
<i>Hellinsia carphodactyla</i> (Hübner, [1813])	single individual
<i>Hellinsia chrysocomae</i> (Ragonot, 1875)	single individual
<i>Hellinsia inulae</i> (Zeller, 1852)	single individual
<i>Hellinsia lienigianus</i> (Zeller, 1852)	single individual
<i>Hellinsia osteodactylus</i> (Zeller, 1841)	single individual
<i>Hellinsia tephradactyla</i> (Hübner, [1813])	single individual
<i>Hellinsia trimmatodactylus</i> (Christoph, 1872)	single individual
<i>Adaina microdactyla</i> (Hübner, 1813)	common species
<i>Emmelina monodactyla</i> (Linnaeus, 1758)	rare species
	numerous species
Schreckensteniidae	
<i>Schreckensteinia festaliella</i> (Hübner, [1819])	single individual
Epermeniidae	
<i>Phaulernis dentella</i> (Zeller, 1839)	single individual
<i>Epermenia chaerophyllella</i> (Goeze, 1783)	common species
<i>Epermenia devotella</i> (Heyden, 1863)	single individual
<i>Epermenia insecurella</i> (Stainton, 1849)	single individual
<i>Epermenia ochreomaculella</i> (Millière, 1854)	single individual
<i>Epermenia pontificella</i> (Hübner, [1796])	single individual
<i>Epermenia profugella</i> (Stainton, 1856)	single individual
<i>Epermenia strictella</i> (Wocke, 1867)	single individual
<i>Ochromolopis zagulajevi</i> Budashkin & Satschkov, 1991	common species

Choreutidae

<i>Millieria dolosalis</i> (Heydenreich, 1851)	single individual
<i>Anthophila fabriciana</i> (Linnaeus, 1767)	single individual
<i>Choreutis pariana</i> (Clerck, 1759)	single individual

Galacticidae

<i>Galactica walsinghami</i> (Caradja, 1920)	single individual
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Tortricidae

<i>Tortrix viridana</i> (Linnaeus, 1758)	common species
<i>Aleimma loeflingiana</i> (Linnaeus, 1758)	single individual
<i>Acleris abietana</i> (Hübner, 1822)	single individual
<i>Acleris forsskaleana</i> (Linnaeus, 1758)	common species
<i>Acleris logiana</i> (Clerck, 1759)	single individual
<i>Acleris rhombana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Phtheochroa inopiana</i> (Haworth, 1811)	single individual
<i>Phtheochroa pulvillana</i> (Herrich-schäffer, [1851])	single individual
<i>Phtheochroa subfumida</i> (Falkovitsh, 1963)	single individual
<i>Phtheochroa unionana</i> (Kennel, 1900)	single individual
<i>Cochylimorpha alternana</i> (Stephens, 1834)	single individual
<i>Cochylimorpha clathrana</i> (Staudinger, 1871)	single individual
<i>Cochylimorpha meridiana</i> (Staudinger, 1859)	single individual
<i>Cochylimorpha pyramidana</i> (Staudinger, 1871)	single individual
<i>Cochylimorpha subwoliana</i> (Danilevsky, 1962)	single individual
<i>Phalonidia contractana</i> (Zeller, 1847)	common species
<i>Ceratoxanthia argentomixtana</i> (Staudinger, 1871)	single individual
<i>Fulvoclysia rjabovi</i> Kuznetzov, 1976	single individual
<i>Agapeta hamana</i> (Linnaeus, 1758)	common species
<i>Agapeta zoegana</i> (Linnaeus, 1767)	single individual
<i>Eugnosta lathoniana</i> (Hübner, [1799–1800])	single individual
<i>Eugnosta magnificana</i> (Rebel, 1914)	single individual
<i>Eupoecilia angustana</i> (Hübner, [1799])	single individual
<i>Aethes dilucidana</i> (Stephens, 1852)	single individual
<i>Aethes kindermanniana</i> (Treitschke, 1830)	single individual
<i>Aethes margaritana</i> (Haworth, 1811)	common species
<i>Aethes nefandana</i> (Kennel, 1899)	single individual
<i>Aethes obscurana</i> (Caradja, 1917)	single individual
<i>Aethes tesserana</i> ([Denis & Schiffermüller], 1775)	common species
<i>Cochylidia atricapitana</i> (Stephens, 1852)	single individual
<i>Cochylidia epilina</i> Duponchel, 1842	single individual
<i>Cochylidia implicitana</i> (Wocke, 1856)	single individual
<i>Cochylis nana</i> (Haworth, 1811)	single individual
<i>Cochylis pallidana</i> (Zeller, 1847)	single individual
<i>Cochylis posterana</i> (Zeller, 1847)	common species
<i>Cochylidia subroseana</i> (Haworth, 1811)	single individual
<i>Falseuncaria degreyana</i> (McLachlan, 1869)	single individual
<i>Oporopsamma wertheimsteini</i> (Rebel, 1913)	single individual
<i>Eulia ministrana</i> (Linnaeus, 1758)	single individual
<i>Doloploca punctulana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Eana argentana</i> (Clerck, 1759)	single individual
<i>Eana incanana</i> (Stephens, 1852)	common species
<i>Eana penziana</i> (Thunberg, 1791)	single individual
<i>Exapate congelatella</i> (Clerck, 1759)	single individual
<i>Cnephasia alticolana</i> (Herrich-schäffer, [1851])	single individual
<i>Cnephasia asseclana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Cnephasia stephensia</i> (Doubleday, 1849)	single individual
<i>Epagoge grotiana</i> (Fabricius, 1781)	single individual
<i>Paramesia gnomana</i> (Clerck, 1759)	single individual

<i>Periclepsis cinctana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Archips podana</i> (Scopoli, 1763)	single individual
<i>Archips rosana</i> (Linnaeus, 1758)	single individual
<i>Archips xylosteana</i> (Linnaeus, 1758)	common species
<i>Choristoneura diversana</i> (Hübner, [1814–1817])	single individual
<i>Ptycholoma lecheana</i> (Linnaeus, 1758)	common species
<i>Pandemis corylana</i> (Fabricius, 1794)	single individual
<i>Pandemis heparana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Aphelia ferugana</i> (Hübner, 1793)	common species
<i>Clepsis neglectana</i> (Herrich-Schäffer, 1851)	single individual
<i>Clepsis pallidana</i> (Fabricius, 1776)	single individual
<i>Clepsis spectrana</i> (Treitschke, 1830)	single individual
<i>Periclepsis cinctana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Epagoge grotiana</i> (Fabricius, 1781)	single individual
<i>Endothenia quadrimaculana</i> (Haworth, [1811])	common species
<i>Lobesiodes euphorbiana</i> (Freyer, [1840])	single individual
<i>Orthotaenia undulana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Hedya dimidioalba</i> (Retzius, 1783)	single individual
<i>Hedya nubiferana</i> (Haworth, [1811])	single individual
<i>Hedya ochroleucana</i> (Frölich, 1828)	single individual
<i>Hedya pruniana</i> (Hübner, [1799])	common species
<i>Hedya salicella</i> (Linnaeus, 1758)	single individual
<i>Phiaris turfosana</i> (Herrich-Schäffer, 1851)	single individual
<i>Celypha flavipalpana</i> (Herrich-Schäffer, 1851)	single individual
<i>Celypha rosaceana</i> (Schläger, 1847)	single individual
<i>Celypha striana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Piniphila bifasciana</i> (Haworth, [1811])	single individual
<i>Pelatea verucha</i> Nedoshivina & Zolotuhin, 2005	rare species
<i>Apotomis inundana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Ancylis comptana</i> (Frölich, 1828)	single individual
<i>Ancylis laetana</i> (Fabricius, 1775)	single individual
<i>Ancylis mitterbacheriana</i> ([Denis & Schiffermüller], 1775)	common species
<i>Thiodia citrana</i> (Hübner, [1799])	single individual
<i>Spilonota ocellana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Pelochrista metria</i> Falkovitsh, 1964	single individual
<i>Pelochrista mollitana</i> (Zeller, 1847)	single individual
<i>Eucosma albidulana</i> (Herrich-Schäffer, 1851)	single individual
<i>Eucosma fuscida</i> Kuznetzov, 1966	single individual
<i>Eucosma pupillana</i> (Clerck, 1759)	single individual
<i>Epiblema grandaevana</i> (Lienig & Zeller, 1846)	single individual
<i>Epiblema graphana</i> (Treitschke, 1835)	single individual
<i>Epiblema foenella</i> (Linnaeus, 1758)	single individual
<i>Epiblema scutulana</i> ([Denis & Schiffermüller], 1775)	common species
<i>Epiblema trimaculana</i> (Haworth, 1811))	single individual
<i>Epinotia immundana</i> (Fischer von Röslerstamm, 1839)	single individual
<i>Epinotia nisella</i> (Clerck, 1759)	single individual
<i>Epinotia thapsiana</i> (Zeller, 1847)	single individual
<i>Zeiraphera isertana</i> (Fabricius, 1794)	single individual
<i>Notocelia cynosbatella</i> (Linnaeus, 1758)	single individual
<i>Notocelia roborana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Notocelia rosaecolana</i> (Doubleday, 1850)	common species
<i>Notocelia uddmanniana</i> (Linnaeus, 1758)	common species
<i>Rhyacionia buoliana</i> ([Denis & Schiffermüller], 1775)	common species
<i>Rhyacionia pinivorana</i> (Lienig & Zeller, 1846)	common species
<i>Pammene argyrana</i> (Hübner, [1799])	single individual
<i>Pammene splendidulana</i> (Guenée, 1845)	single individual

<i>Cydia fagiglandana</i> (Zeller, 1841)	common species
<i>Cydia pomonella</i> (Linnaeus, 1758)	common species
<i>Cydia splendana</i> (Hübner, [1799])	single individual
<i>Cydia succedana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Cydia strobilella</i> (Linnaeus, 1758)	single individual
<i>Cydia turionella</i> (Linnaeus, 1758)	single individual
<i>Grapholita caecana</i> (Schläger, 1847)	common species
<i>Grapholita compositella</i> (Fabricius, 1775)	common species
<i>Grapholita coronillana</i> (Lienig & Zeller, 1846)	single individual
<i>Grapholita nebritana</i> (Treitschke, 1830)	single individual
<i>Grapholita pallifrontana</i> (Lienig & Zeller, 1846)	single individual
<i>Pammene argyrana</i> (Hübner, [1799])	single individual
<i>Dichrorampha petiverella</i> (Linnaeus, 1758)	single individual
<i>Dichrorampha plumbana</i> (Scopoli, 1763)	single individual
<i>Dichrorampha simpliciana</i> (Haworth, [1811])	single individual
Brachodidae	
<i>Brachodes appendiculata</i> (Esper, 1783)	common species
<i>Brachodes dispar</i> (Herrich-Schäffer, 1854)	single individual
<i>Brachodes pumila</i> (Ochsenheimer, 1808)	common species
Cossidae	
<i>Cossus cossus</i> (Linnaeus, 1758)	common species
<i>Acossus terebra</i> ([Denis & Schiffermüller], 1775)	common species
<i>Deserticossus sareptensis</i> (Rothschild, 1912)	rare species
<i>Parahypopta caestrum</i> (Hübner, 1818)	common species
<i>Paracossulus thrips</i> (Hübner, 1818)	common species
<i>Dyspessa salicicola</i> (Eversmann, 1848)	common species
<i>Dyspessa ulula</i> (Borkhausen, 1790)	single individual
<i>Stygoides tricolor</i> (Lederer, 1858)	rare species
<i>Zeuzera pyrina</i> (Linnaeus, 1761)	single individual
<i>Phragmataecia castaneae</i> (Hübner, 1790)	common species
Sesiidae	
<i>Sesia apiformis</i> (Clerck, 1759)	common species
<i>Sesia melanocephala</i> Dalman, 1816	single individual
<i>Paranthrene tabaniformis</i> (Rottemburg, 1775)	single individual
<i>Synanthedon culiciforme</i> (Linnaeus, 1758)	single individual
<i>Synanthedon myopaeforme</i> (Borkhausen, 1789)	single individual
<i>Synanthedon scoliaeforme</i> (Borkhausen, 1789)	single individual
<i>Synanthedon spheciforme</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Synanthedon tipuliforme</i> (Clerck, 1759)	single individual
<i>Synanthedon vespiforme</i> (Linnaeus, 1761)	single individual
<i>Bembecia ichneumoniformis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Bembecia megillaeformis</i> (Hübner, 1813)	single individual
<i>Bembecia volgensis</i> Gorbunov, 1995	rare species
<i>Chamaesphecia astatifomis</i> (Herrich-Schäffer, 1846)	common species
<i>Chamaesphecia bibioniformis</i> (Esper, 1800)	single individual
<i>Chamaesphecia chalciformis</i> (Esper, 1804)	single individual
<i>Chamaesphecia crassicornis</i> (Bartel, 1912)	single individual
<i>Chamaesphecia dumonti</i> (le Cerf, 1922)	common species
<i>Chamaesphecia efetovi</i> Gorbunov, 2019	rare species
<i>Chamaesphecia leucopsiformis</i> (Esper, 1783)	single individual
<i>Chamaesphecia masariformis</i> (Ochsenheimer, 1808)	single individual
<i>Chamaesphecia tenthrediniformis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Weismanniola agdistiformis</i> (Staudinger, 1866)	single individual
Limacodidae	
<i>Apoda limacodes</i> (Hufnagel, 1766)	common species
<i>Heterogenea asella</i> ([Denis & Schiffermüller], 1775)	common species

Zygaenidae

<i>Rhagades pruni</i> ([Denis & Schiffermüller], 1775)	common species
<i>Adscita albanica</i> (Naufock, 1926)	rare species
<i>Adscita geryon</i> (Hübner, 1813)	rare species
<i>Adscita statices</i> (Linnaeus, 1758)	common species
<i>Jordanita budensis</i> (Speyer & Speyer, 1858)	rare species
<i>Jordanita paupera</i> (Christoph, 1887)	rare species
<i>Jordanita volgensis</i> (Möschler, 1862)	rare species
<i>Jordanita chloros</i> (Hübner, 1813)	common species
<i>Jordanita globulariae</i> (Hübner, 1793)	common species
<i>Jordanita graeca</i> (Jordan, 1907)	rare species
<i>Jordanita subsolana</i> (Staudinger, 1862)	common species
<i>Zygaena brizae</i> (Esper, 1800)	common species
<i>Zygaena centaureae</i> Fischer von Waldheim, 1832	common species
<i>Zygaena cynarae</i> Esper, 1789	rare species
<i>Zygaena minos</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Zygaena punctum</i> Ochsenheimer, 1808	single individual
<i>Zygaena purpuralis</i> (Brünnich, 1763)	common species
<i>Zygaena carniolica</i> (Scopoli, 1763)	common species
<i>Zygaena sedi</i> (Fabricius, 1787)	common species
<i>Zygaena viciae</i> ([Denis & Schiffermüller], 1775)	common species
<i>Zygaena loti</i> ([Denis & Schiffermüller], 1775)	common species
<i>Zygaena angelicae</i> (Ochsenheimer, 1808)	single individual
<i>Zygaena ephialtes</i> (Linnaeus, 1767)	common species
<i>Zygaena filipendulae</i> (Linnaeus, 1758)	common species
<i>Zygaena loniceriae</i> (Scheven, 1777)	common species
<i>Zygaena osterodensis</i> Reiss, 1921	common species

Thyrididae

<i>Thyris fenestrella</i> (Scopoli, 1763)	rare species
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Pyralidae

<i>Aphomia sociella</i> (Linnaeus, 1758)	common species
<i>Lamoria anella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Lamoria zelleri</i> (Joannis, 1932)	common species
<i>Galleria mellonella</i> (Linnaeus, 1758)	single individual
<i>Endotricha flammealis</i> ([Denis & Schiffermüller], 1975)	common species
<i>Hypotia massiliensis</i> (Duponchel, [1833])	common species
<i>Synaphe bombycalis</i> ([Denis & Schiffermüller], 1775)	common species
<i>Hypsopygia costalis</i> (Fabricius, 1775)	single individual
<i>Hypsopygia glaucinalis</i> (Linnaeus, 1758)	single individual
<i>Hypsopygia rubidalis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Pyralis farinalis</i> (Linnaeus, 1758)	single individual
<i>Pyralis regalis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Aglossa pinguinalis</i> (Linnaeus, 1758)	single individual
<i>Elegia similella</i> (Zincken, 1818)	single individual
<i>Ortholepis betulae</i> (Goeze, 1778)	single individual
<i>Insalebria serraticornella</i> (Zeller, 1839)	single individual
<i>Sciota hostilis</i> (Stephens, 1834)	single individual
<i>Selagia spadicella</i> (Hübner, 1796)	single individual
<i>Pima boisduvaliella</i> (Guenée, 1845)	single individual
<i>Etiella zinckenella</i> (Treitschke, 1832)	common species
<i>Oncocera semirubella</i> (Scopoli, 1763)	common species
<i>Laodamia faecella</i> (Zeller, 1839)	single individual
<i>Moitrelia obductella</i> (Zeller, 1839)	single individual
<i>Hypochalcia ahenella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Nephoterix angustella</i> (Hübner, 1796)	single individual
<i>Acrobasis advenella</i> (Zincken, 1818)	single individual

<i>Acrobasis suavella</i> (Zincken, 1818)	single individual
<i>Acrobasis tumidana</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Glyptoteles leucacrinella</i> Zeller, 1848	single individual
<i>Episcythrastis tabidella</i> (Mann, 1864)	single individual
<i>Eurhodope rosella</i> (Scopoli, 1763)	common species
<i>Pterothrixidia squalidella</i> (Eversmann, 1842)	single individual
<i>Bazaria gilvella</i> (Ragonot, 1887)	single individual
<i>Megasis rippertella</i> (Zeller, 1839)	common species
<i>Izauria dilucidella</i> (Duponchel, 1836)	single individual
<i>Ratasa alienalis</i> (Eversmann, 1844)	rare species
<i>Euzophera bigella</i> (Zeller, 1848)	single individual
<i>Nyctegretis lineana</i> (Scopoli, 1786)	common species
<i>Nyctegretis triangulella</i> Ragonot, 1901	single individual
<i>Ancylosis cinnamomella</i> (Duponchel, 1836)	
<i>Ancylosis pallida</i> (Staudinger, 1870)	single individual
<i>Ancylosis roscidella</i> (Eversmann, 1844)	single individual
<i>Ancylosis sareptalla</i> (Herrich-Schäffer, 1861)	rare species
<i>Homoeosoma nebulellum</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Phycitodes albatella</i> (Ragonot, 1887)	single individual
<i>Phycitodes binaevella</i> (Hübner, [1813])	single individual
<i>Phycitodes lacteella</i> (Rothschild, 1915)	single individual
<i>Phycitodes maritima</i> (Tengström, 1848)	single individual
<i>Ephestia elutella</i> (Hübner, 1796)	single individual
<i>Ephestia parasitella</i> Staudinger, 1859	rare species
Crambidae	
<i>Chilo luteellus</i> (Motschulsky, 1866)	single individual
<i>Chilo phragmitella</i> (Hübner, 1805)	common species
<i>Calamotropha paludella</i> (Hübner, [1824])	single individual
<i>Chrysoteuchia culmella</i> (Linnaeus, 1758)	common species
<i>Crambus pascuella</i> (Linnaeus, 1758)	single individual
<i>Crambus perlella</i> (Scopoli, 1763)	common species
<i>Crambus pratella</i> (Linnaeus, 1758)	common species
<i>Agriphila aeneociliella</i> (Eversmann, 1844)	single individual
<i>Agriphila poliellus</i> (Treitschke, 1832)	common species
<i>Agriphila tristella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Catoptria lythargyrella</i> (Hübner, 1796)	single individual
<i>Catoptria pinella</i> (Linnaeus, 1758)	common species
<i>Catoptria verellus</i> (Zincken, 1817)	common species
<i>Metacrambus carectellus</i> (Zeller, 1847)	single individual
<i>Chrysocrambus craterellus</i> (Scopoli, 1763)	common species
<i>Thisanotia chrysonuchella</i> (Scopoli, 1763)	common species
<i>Pediasia kuldjaensis</i> (Caradja, 1917)	single individual
<i>Pediasia epineura</i> (Meyrick, 1883)	single individual
<i>Pediasia luteella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Pediasia persellus</i> (Toll, 1947)	single individual
<i>Pediasia pudibundellus</i> (Herrich-Schäffer, 1852)	single individual
<i>Platytes alpinella</i> (Hübner, [1813])	single individual
<i>Talis quercella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Schoenobius gigantella</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Scoparia pyralella</i> ([Denis & Schiffermüller], 1775)	common species
<i>Scoparia subfusca</i> Haworth, [1811]	common species
<i>Eudonia lacustrata</i> (Panzer, 1804)	single individual
<i>Parapoynx stratiotata</i> (Linnaeus, 1758)	single individual
<i>Nymphula nitidulata</i> (Hufnagel, 1767)	single individual
<i>Aporodes floralis</i> (Hübner, [1809])	single individual
<i>Evergestis desertalis</i> (Hübner, [1813])	single individual

<i>Evergestis limbata</i> (Linnaeus, 1767)	single individual
<i>Loxostege deliblatica</i> Szent-Ivány & Uhrík-Mészáros, 1942	rare species
<i>Loxostege sticticalis</i> (Linnaeus, 1761)	numerous species
<i>Loxostege turbidalis</i> (Treitschke, 1829)	single individual
<i>Ecpirrhorrhoe rubiginalis</i> (Hübner, 1796)	single individual
<i>Paratalanta hyalinalis</i> (Hübner, 1796)	single individual
<i>Pyrausta aerealis</i> (Hübner, 1793)	single individual
<i>Pyrausta aurata</i> (Scopoli, 1763)	single individual
<i>Pyrausta despicata</i> (Scopoli, 1763)	single individual
<i>Pyrausta purpuralis</i> (Linnaeus, 1758)	common species
<i>Pyrausta sanguinalis</i> (Linnaeus, 1767)	single individual
<i>Uresiphita gilvata</i> (Fabricius, 1794)	common species
<i>Psammotis pulveralis</i> (Hübner, 1796)	single individual
<i>Ostrinia quadripunctalis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Ostrinia nubilalis</i> (Hubner, [1796])	common species
<i>Anania coronata</i> (Hufnagel, 1767)	single individual
<i>Anania fuscalis</i> ([Denis & Schiffermüller], 1775)	single individual
<i>Patania ruralis</i> (Scopoli, 1763)	single individual
<i>Mecyna flavalis</i> ([Denis & Schiffermüller], 1775)	common species
<i>Udea languidalis</i> (Eversmann, 1842)	rare species
<i>Udea prunalis</i> ([Denis & Schiffermüller], 1775)	common species

* – new species for the Lower Volga region.

Thus, the identified fauna of microlepidoptera of the Saratov Region and Volgograd Region includes 983 species of 59 families. This is equal to 42% of the known Lepidoptera fauna of Lower Volga region (Anikin et al., 2017) and 33% of the entire Volga River Region (Sinev, 2019). The high number of species and various studied landscapes, a variety of collection methods and the duration of the study make it possible to characterise the microlepidoptera fauna of Lower Volga region. A number of families are represented by one species (Opostegidae, Heliozelidae, Prodoxidae, Eriocotidae, Roeslerstrammidae, Heliodinidae, Bedelliidae, Douglasiidae, Stathmopodidae, Batrachedridae, Alucitidae, Schreckensteiniidae, Galacticidae, Thyrididae). Such low taxonomic indicators are typical features for these families in the fauna of the region. The highest rates of species taxonomic composition (≥ 50 species for Tineidae, Coleophoridae, Gelechiidae, Tortricidae, Pyralidae, Crambidae) are typical for the dominant Lepidoptera families in steppe landscapes of the south-eastern part of European Russia (Anikin, 1997, 1999).

In collected materials, the group of single individuals was dominated. It includes more than half of the entire list of species included in the dataset (583 out of 983 species). There are various reasons for their low frequency of occurrences. Some species, due to their biological peculiarities, are rarely caught in light traps; they have activity only at the day time (for example, *Heliodines rosella*, *Chamaesphecia efetovi*, *Thyris fenestrella*). Some species represent the group of stenobionts, which are highly attached to certain habitats, such as dry steppes (for example,

Pleurota aorsella, *Filatima zagulajevi*) or salt marshes (*Aporiptura lonchodes*, *Goniodoma limoniella*). The second largest microlepidoptera group is common species (included 320 out of 983 species) that occur in various habitat types, ecologically valent organisms, as a rule, polyphages, having 2-3 generations per season. Certain species that feel good in agrocenoses and can produce a high number of individuals in some years cause considerable damage to agricultural crops in the study area (Hof & Bright, 2010). Among these species, is *Loxostege sticticalis*. The mass release of its imago occurred in the regions almost "simultaneously" in all areas with steppe open landscapes and occurred in mid-August (Anikin, 2021). These days, the number of moths can reach 20-60 individuals per 1 m² of the vegetation cover in the surveyed areas.

For forest species, we also noted the fact when they turn from ordinary ones into potentially dangerous pests of forest crops. So, in 2014, *Archips xylosteana* acted as a species that gave rise to massive outbreak in the National Park "Khvalynsky" on the north of the Saratov Region. At mid-May 2014, visible damage to oak, hawthorn, and linden leaves by caterpillars of this species was observed in the studied area. Linden trees suffered particularly severe damage, which were damaged by two thirds of their upper crowns and consisted of leafless branches with remnants of twisted leaves with pupae inside. By the mid-June, the output of the imago of *Archips xylosteana* occurred, with its peak at the early July. In active evening time of summer (20.00–24.00), imago accounting using light traps showed capturing of imago at 20-32 individuals per 1 minute (GBIF, 2023). The summer decline occurred at the late July, and by early August there were only isolated individuals of females. This indicates the end of egg laying in the season. Repeated temperature fluctuations from negative to low positive in 2014–2015 winter, with wet snow precipitations sharply reduced the number of overwintered eggs of this species, and already in the next season such a high density of the species has not been observed.

The group of rare species is of greatest interest for characteristics. Most of them are found in various parts of the region in suitable habitats. However, some species, according to the data obtained, have geographically limited distribution in the region (Fig. 1). For example, *Scythris moldavicella* is found only in the steppe habitats on chalk hills in the places of Don Basin in Volgograd Region. In the landscapes of the Medveditsa River in Saratov Region, *Adaina microdactyla* and *Alucita grammodactyla* have been found, being known only from this locality in Volga-Urals region (Anikin et al., 2017). *Stygoides tricolor*, a very rare species, noted before only in the beginning 20th century in Lower Volga (Kumakov & Korshunov, 1979), has been found

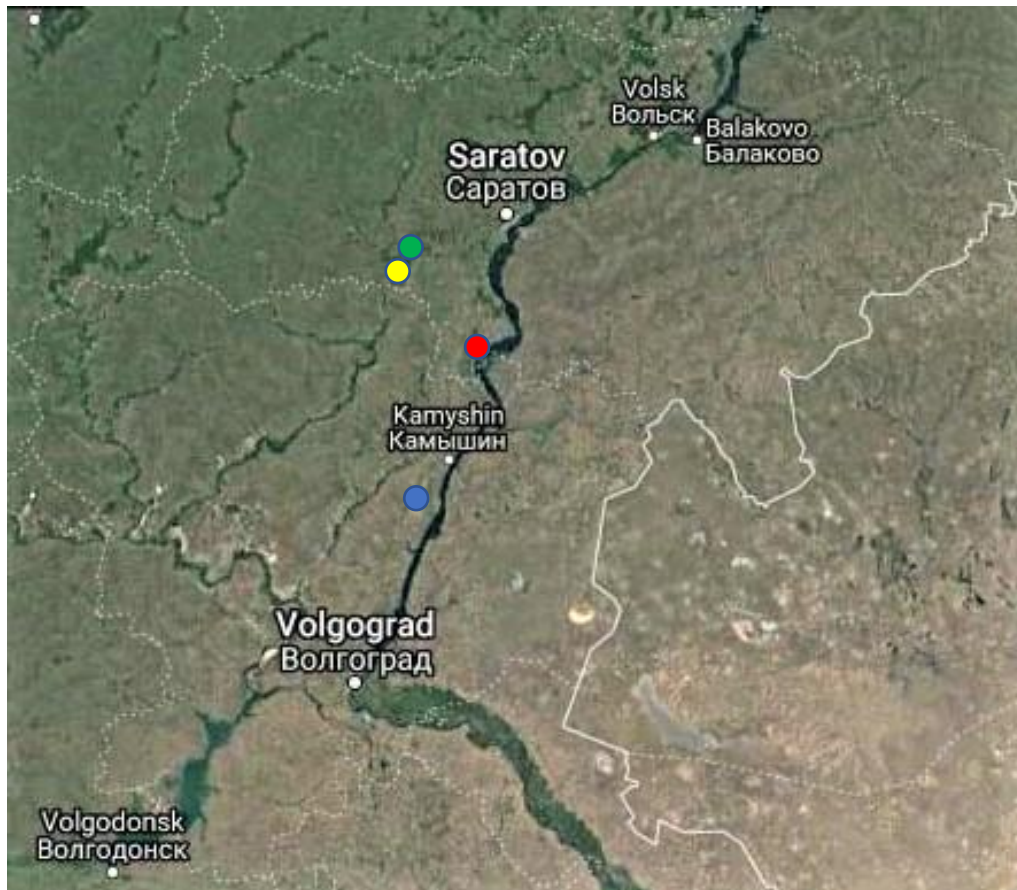
in dry steppes on chalk hills of the Volga River in Saratov Region (Anikin, 2022). Other rare species are represented in our database (e.g., *Eosolenobia grisea*, *Palaeoacanthopsyche uralensis*, *Ypsolopha instabilella*, *Ethmia dodecea*, *Agonopterix ferocella*, *Epermenia pontificella*, *Dolicharthria punctalis*). The data obtained can be used to clarify the configuration of the ranges of moth species. For a number of species, the northern boundary of the distribution of a number of species passes through the territories of the Volgograd and Saratov regions, including *Nemophora basella*, *Nemophora canalella*, *Eumelasina ardua*, *Whittleia undulella*, *Reisseronia staudingeri*, *Psychocentra millierei*, *Pleurota aorsella*, *Haploptilia katunella*, *Multicolor tshiligella*, *Ecebalia eichleri*, *Ecebalia halocnemi*, *Apterona helicoidella*, *Pararhodobate syriacus*, *Carpoचना ceratoidis*, *Klinzigedia phlomidella*, *Bryotropha rossica*, *Galactica walsinghami*, *Deserticossus sareptensis*, *Stygoides tricolor*, *Chamaesphecia efetovi*.

The southern limit of distribution is located within Volgograd and Saratov regions for a number of species (e.g., *Dyseriocrania subpurpurella*, *Eriocrania semipurpurella*, *Euplocamus anthracinalis*), *Cephitinea colonella*, *Scardia boletella*, *Heliodines rosella*, *Augasma uljanovi*, *Pelatea verucha*, *Bembecia volgensis*, *Adscita geryon*, *Jordanita globulariae*).

The studied microlepidoptera fauna also includes narrow-range species, such as *Nemophora basella*, *Apterona helicoidella*, *Ypsolopha instabilella*, *Aridomeria capella*, *Ethmia vittalbella*, *Exaeretia stramentella*, *Scythris emichi*, *Minetia crinitus*, *Ecebalia chumanensis*, *Ecebalia pinii*, *Ecebalia tornata*, *Ecebalia uniphalli*, *Casignetella bogdoensis*, *Casignetella helgada*, *Blastobasis pannonica*, *Holcopogon adseclellus*, *Lutilabria volgensis*, *Filatima zagulajevi*, *Helcystogramma albinervis*, *Cochylimorpha subwolniana*, *Jordanita paupera*, *Jordanita volgensis*, *Zygaena sedi*, *Pterothrixidia squalidella*, *Loxostege deliblatica*, *Udea languidalis*.

The database contains alien species that have penetrated into the region over the past 5-10 years. They are included in the group of numerous species, such as *Caloptilia fidella*, *Cameraria ohridella*, *Phyllonorycter issikii*, *Phyllonorycter populifoliella*. These species cause considerable damage to natural components in Eastern Europe (Walczak et al., 2017; Kirichenko et al., 2019; Hulme, 2021), expanding their secondary range to the east, and now they reached the Volga River. For example, *Cameraria ohridella* turned out to be the most destructive for tree species in Lower Volga Region (Anikin, 2019; Kirichenko et al., 2023). This species was able to settle in the Lower Volga region in five years and occupied all sites where there is a park culture – Horse chestnut (Mosolova et al., 2020; Melnikov, 2020; Melnikov & Kondratyev, 2021; Anikin & Anikin,

2021). *Phyllonorycter issikii* is another alien species, as one of the most widespread and entrenched since late 1980s in Russia. This moth develops in 2 or 3 generations (from May to September), with habitat preferences for urban parks rather than in forests. Forage plants are linden trees (*Tilia*), in the region, namely native *Tilia cordata*, and *Tilia platyphyllos*, *T. tomentosa*, *T. mandshurica*, *T. maximowicziana* and *T. japonica*, cultivated in the urban parks (Anikin et al., 2016). This species is common in the Volga-Urals region, with the exception of the Astrakhan region and the Republic of Kalmykia, where warm winters are detrimental to the wintering caterpillars.



Scythris moldavicella, ● *Adaina microdactyla*, ● *Alucita grammodactyla*, ●
Stygoides tricolor ●

Figure 1. Distribution of some rare species in the Lower Volga Region.

Conclusions

The presented database on the biodiversity of microlepidoptera in the Saratov and Volgograd Regions includes 983 species from 59 families. Over the past 50 years, agrocenoses have considerably dominated natural biotopes. This has directly affected the reduction of the food

supply of lepidoptera and the destruction of their habitats. As a result, a whole group of microlepidoptera species experienced a general decrease in the number and deterioration in the viability of their micro populations. This is especially noticeable in the change in species composition in recent decades. Compiling databases on insect faunas and, in particular, on Lepidoptera is one of the options for monitoring the state of the number of species in the study area showed that significant changes have occurred in the composition of individuals Lepidoptera groups. A number of newly invaded alien species have appeared, some of which are potential pests of agriculture and forestry in the Lower Volga region. It is likely that alien species can completely switch to native vegetation species and cause significant damage to ecosystems. In the near future, we expect new events in the fauna affections based on new investigations and literature compilations for the Volga-Ural region and the entire European Russia. Compiling and maintaining electronic databases and datasets are necessary elements of biodiversity investigation and conservation.

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