Moth flies (Diptera: Psychodidae) of Abkhazia (western Caucasus, Georgia) with some additional faunistic data from Armenia, Georgia, and Russia

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Abstract: This paper attempts to fill the knowledge gaps in biodiversity of non-biting moth flies in the Caucasus (especially in Abkhazia) and create a suitable basis for subsequent (not only) ecological studies. In total, records of 65 Psychodidae (Sycoracinae – one sp., Psychodinae 64 spp., altogether 33 genera) species/subspecies are presented based on specimens collected mainly in Abkhazia, with some additional data from Armenia, Georgia, and Russia (12 new records). The Psychodidae fauna of Abkhazia now comprises 57 species, 31 of which are newly listed here. The Caucasus region (including the territory of Abkhazia presented here) should be considered the most biologically rich and most endangered region in the world, with an exceptional richness of endemic and endangered species also from the point of view of psychodids biodiversity. Sixteen extremely rare species in this family (probably Caucasus or highland endemics) which need to be given increased attention, whether from the point of view of island ecology or biodiversity protection, have been herein confirmed.

Keywords: Abkhazia, biodiversity, checklist, distribution, faunistics, moth flies, new records, Palaearctic Region, Transcaucasia, western great Caucasus, zoogeography

Introduction

Taxonomy is an essential tool for understanding biodiversity. It is also essential in biodiversity conservation and in addressing many critical and current nature conservation issues (e.g. McNeely, 2002; Kociolek & Stoermer, 2001; Schlick-Steiner et al., 2010). Therefore, much recent research in ecology and biodiversity conservation has been based mainly on taxonomic and faunal works. However, the availability of these data varies considerably from a spatial, temporal, and often taxonomic point of view. This creates gaps in biodiversity information (Amano et al., 2016). Particularly large gaps in biodiversity research can be observed in the Caucasus countries (Wetzel et al., 2018), and Diptera, specifically the family Psychodidae, are a good example of this (see Oboňa et al. (2017, 2019a, b); Ježek et al. (2018, 2021a) and supplemented checklist here. In particular, the low intensity of research is the reason why part of the entomofauna of the Caucasus is still unknown.

Many papers have presented the characteristics of Caucasian mountains of Abkhazia; they are listed, e.g., in the book Priroda Abchazii (The Nature of Abkhazia) – Kuftyreva et al. (1961). Some important entomological papers (Diptera: Psychodidae) concerning the countries of Transcaucasia have been published in the last several decades: Wagner (1981, 1990); Vaillant & Joost (1983); Oboňa et al. (2017, 2019a, b); Ježek et al. (2018, 2021a) as well as some added accounts with non-western Caucasian species included, incl. neighbouring countries – Ježek (1992a, 1995b, 1999). However, the Psychodidae of Abkhazia are still rather poorly known. In particular, data on non-phlebotomine
moth flies have been scattered in various papers and never summarised. New faunistic records and new taxa from the Abkhazian mountains (Western Caucasus) and their foothills were reported in following papers: Parajungiella achazica Ježek, 1985 in Ježek (1985); Yomormia achalshenica Ježek, 1987; Y. afonensis Ježek, 1987; Y. furva (Tonnoir, 1940) and Mormia ekvitariorum Ježek, 1987 in Ježek (1987); Seoda svenatica (Ježek, 1989) in Ježek (1989); Psychodocha cinerea (Banks, 1894), P. gemina (Eaton, 1904) and Psychodula minuta (Banks, 1894) in Ježek (1990a); Paramormia (P.) polyascoidea (Krek, 1971) in Ježek (1990b); Sycorex caucasica Ježek, 1990 in Ježek (1990c); Philosepedon clouense Ježek, 1994 in Ježek (1994); Kvazbamormia pshkuensis Ježek, 1995 in Ježek (1995a); Threticus petrosus Ježek, 1997 and Tonnoriella arcuata Ježek, 1997 in Ježek (1997); Szaboiiella hibernica (Tonnoin, 1940) in Ježek (2004a); Lepimormia georgica (Wagner, 1981), Peripsychoda auriculata (Haliday in Curtis, 1839), Philosepedon (Trichosepedon) balkanicum Krek, 1971, Threticus balkanoeoalpinus Krek, 1972, T. negrovob Vaillant, 1972, Chodopsycha lobata (Tonnoin, 1940), Logisma erminea (Eaton, 1893), Pericoma (Pachypericoma) blandanula Eaton, 1893, P. (P.) fallax Eaton, 1893 and Pneumia g. gracilis (Eaton, 1893) in Ježek (2004b – balkanoeoalpinus as well in 1995c); Pneumia nubila (Meigen, 1818) and P. palustris (Meigen, 1804) in Ježek & Hájek (2007, erratum).

As it is very important to fill these knowledge gaps, the presented research is devoted to expanding knowledge (filling the knowledge gap) of the biodiversity of non-biting Psychodidae of the Caucasus (especially from Abkhazia), thus creating a suitable basis for subsequent, not only ecological, studies.

Material and methods

Moth flies (for concise characteristics and biology, see e.g. Ježek et al., 2019, 2021b) were collected by the first author in Abkhazia (Fig. 1) the summer seasons of 1983, 1985 and 1988 by sweep-netting from vegetation growing in swamps, source areas and along watercourses and water reservoirs, alpine and subalpine habitats, as well as lowland biotopes. P. Chvojka, J. Dlabola and J. Šumpich (National Museum, Prague, Department of Entomology) provided extensive additional material from Georgia, Russia and Armenia.

The captured specimens were preserved in 75% ethanol in the field, and the Psychodidae specimens (cleared in chlorophenol, treated in xylol, and mounted on glass slides in Canada balsam) were identified by J. Ježek in a laboratory and deposited at the National Museum (Natural History Museum), Department of Entomology, Prague, Czech Republic. The slides are numbered with two separate series of numbers: INS = Inventory Slide Number of the family Psychodidae, and Cat. No. = Catalogue Numbers of slides of types and historical specimens of Diptera and are included in the Diptera collection (National Museum Prague collections – NMPC, see Tkoč et al., 2014).


The List of localities section contains the following data: transcript of the site name from the site label, locality number (in parentheses), the currently used site name (if available) and country, more detailed characteristics of the collection habitat, approximate collection coordinates (found according to site descriptions), approximate altitude, habitat vegetation inventory (if available).

The Unpublished records section contains the following data: country, transcript of the site name from the site label, locality number (in parentheses), the number and sex of the samples examined, date, collector’s name and collection method (if available) and slides numbers.

The map presented in Fig. 1 is prepared using QGIS software (version: 3.10.10-A Coruña), data derived from the USGS/NASA SRTM providing seamless continuous topography surfaces (Jarvis et al., 2008), and from Natural Earth (free vector and raster map data @ naturalearthdata.com).

List of localities (recorded species are summarised in Table 1)

1. Achalsopeli (Akhalsopeli – Georgia (Abkhazia)), wet small meadow, 43°00'N 41°06'E, 140 m a.s.l., veg.: Alnus, Alisma, Scirpus, Carex, Mentha.
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2 Achalseni (Akhalsheni – Georgia (Abkhazia)), village env. Sukhumi, farms, wet road banks, rocks, swamps near crossways, 43°07’N 41°01’E, 490 m a.s.l., veg.: Acer, Alnus, Corylus, Rubus, Hedera, Fragaria, Marchantiopsida, Musci.

3 Achalseni near Sroma (Akhalsheni near Shroma – Georgia (Abkhazia)), Sukhumi environs, Vostočnaja Gumista River, rillets near a stone crusher, 43°05’N 41°01’E, 200 m a.s.l., veg.: Alnus, Sambucus, Rubus.

4 Acigvara (Achigvara – Georgia (Abkhazia)), Gali environs, muddy brook in tea plantations, 42°41’N 41°38’E, 40 m a.s.l., veg.: Alnus, Pteris, Polygonum, Rubus, Camellia.

5 Adanga Pass (Adange – Georgia (Abkhazia)), a basin with swamps, small brook from the pass, big stones, 43°19’N 41°16’E, 2470 m a.s.l., veg.: Fagus, Picea, Rhododendron, Petasites, Caltha, Scirpus, Rumex, Luzula, Orchis, Pteropsida.

6 Adjaria (Georgia), Mširala NP, Chakvistavi ca. 20 km NE of Batumi, left and right tributaries of Chakvistskali River, brooks, streams, springs, 41°40’N 41°51’E, 250–410 m a.s.l., Chvojka leg.

7 Anaria (Anaria – Georgia (Abkhazia)), 7 km E of Ilori, spring area, 42°42’N 41°34’E, 30 m a.s.l., veg.: Alnus, Sambucus, Robinia, Polygonum, Marchantiopsida.

8 Areni (Armenia), Noravank monastery environs, rocky steppe, 39°41’N, 45°12’E, 1330 m a.s.l., Šumpich leg.

9 Azgara (Azhara – Georgia (Abkhazia)), environs of Levyj Pts, forest brook, wet road banks, Alnetum, muddy pasture near river, 43°06’N 41°42’E, 920 m a.s.l., veg.: Alnus, Carpinus, Fagus, Picea, Corylus, Rubus, Fragaria, Leonurus, Juncus, Hieracium, Urtica, Impatiens, Valeriana, Petasites, Musci, Pteropsida.
10 Azgara – Narzan (Azhar – Georgia (Abkhazia)), larger environs of Maruch Pass, wet bank or slope of a road near a river, Alnetum, marshes, tea plantations, montane stream, 43°06'N 41°42'E, 940 m a.s.l., veg.: *Alnus, Fagus, Picea, Eucalyptus, Rubus, Rumex, Inula, Scirpus, Calthta, Carex*, Pteropsida.

11 Baskacara (Georgia (Abkhazia)), Levyj Ptys environs, swamps, small forest brooks near river, Alnetum, streams below glaciers, 43°12'N 41°40'E, 3330 m a.s.l., veg.: *Alnus, Fagus, Picea, Rubus, Fragaria, Juncus, Scirpus, Trollium, Urtica, Lycopus, Inula, Petasites, Musci*, Pteropsida.

12 Below Adanga Pass (Adange Pass – Georgia (Abkhazia)), 8 km from the pass, marches, small forest brook, Azgara River, clump of alders, slope, 43°19'N 41°16'E, 2470 m a.s.l., veg.: *Alnus, Fagus, Picea, Petasites, Scirpus, Luzula, Orchis, Rumex, Carex*, Pteropsida.


14 Below Maruch Pass (Georgia (Abkhazia)), Levyj Ptys environs, spring areas, small brooks in Alnetum near river, high alder forest, fountain, marches, 43°10'N 41°43'E, 1150 m a.s.l., veg.: *Alnus, Fagus, Picea, Abies, Petasites, Asperula, Rumex, Ranunculus, Urtica, Scirpus, Alisma*, Musci, Pteropsida.

15 Below Ulm Pass (Georgia (Abkhazia)), rills of marches, 43°20'N 40°40'E, 1880 m a.s.l., veg.: *Rhododendron, Salix, Alchemilla*, Pteropsida.

16 Beslachuba (Beslakhuba – Georgia (Abkhazia)), Ocancira environs, large pools near road, swamps in the vicinity of a churchyard, 42°45'N 41°31'E, 55 m a.s.l., veg.: *Alnus, Populus, Sambucus, Rubus, Polygonum, Urtica, Scirpus, Alisma*, Musci, Pteropsida.

17 Bzyb (Bzipi – Georgia (Abkhazia)), river 2–7 km from source area, Baskacara environs, small brooks in beech wood, sometimes with mineral water, marches, clump of alders, 43°13'N 40°22'E, 30 m a.s.l., veg.: *Alnus, Fagus, Picea, Rubus, Petasites, Rumex, Asperula, Oxalis, Ranunculus, Calthta*, Pteropsida.

18 Cebelda (Tsebelda – Georgia (Abkhazia)), arable land, fields, canals of irrigation, wet meadows, dried Alnetum, 43°01'N 41°16'E, 470 m a.s.l., veg.: *Alnus, Sambucus, Salix, Rubus, Scirpus, Typha, Fragaria, Pieris, Lythrum, Urtica*.
and gamekeeper’s lodge, fallen branches, hygropetric rocky walls, small streams, 43°16′N 40°54′E, 1100 m a.s.l., veg.: Fagus-forest, Rhododendron, Alnus, Phyllitis, Asplenium, Alchemilla, Viola, Pteris, Pteropsida, Musci.

29 Dzgerda (Igerda – Georgia (Abkhazia)), Kodorskij Chrebet comb, small forest brook, pastures, impervious fences, rills, fluvials, 42°54′N 41°21′E, 176 m a.s.l., veg.: Alnus, Fraxinus, Fagus, Crrateagus, llx, Rhododendron, Rubus, Hedera, Pteris, Marchantiopsida.

30 Gagra (Gagra – Georgia (Abkhazia)), town spring areas, gardens, 43°16′N 40°16′E, 125 m a.s.l., veg.: Salix, Ficus, Sambucus, Rubus.

31 Gali (Gali – Georgia (Abkhazia)), rivulet, swamps, Camellia hedgerows, 42°37′N 41°44′E, 60 m a.s.l., veg.: Alnus, Pteris, Polygonum, Scirpus, Camellia.

32 Gencvici (Gentsvishi – Georgia (Abkhazia)), river, brook, swamps in Alnetum, paludal habitats, 43°06′N 41°48′E, 895 m a.s.l., veg.: Alnus, Picea, Urtica, Polygonum, Musci.

33 GES – Sukhumi (Georgia (Abkhazia)), district town environs, hydroelectric power station, monkey farm env. River Gumista nr. Achalseni (Akhalsheni) (6 km from Sukhumi), branches of Corylus over footpath, 43°05′N 41°00′E, 90 m a.s.l., veg.: Sambucus, Rhododendron, Urtica.

34 Ilori (Ilori – Georgia (Abkhazia)), creek, turning from main flow to Pokveš (Pokvesh), marches in Alnetum, 42°55′N 41°05′E, 140 m a.s.l., veg.: Alnus, Rubus, Corylus, Sambucus, Scirpus, Hedera, Urtica.

35 Imereti (Georgia), prov., Baghdati near Saime, Tsabarastskali River, 43°16′N 40°54′E, 80 m a.s.l., veg.: Alnus, Pteris, Polygonum, Sambucus, Scirpus, Hedera, Urtica, Pteropsida.

36 Juznyj Prijut Pass (Georgia (Abkhazia)), waterfalls, hygropetric rocky walls, 43°08′N 42°03′E, 1940 m a.s.l., veg.: Alnus, Rhododendron.

37 Kaldaçhvara (Kaldakhrava – Georgia (Abkhazia)), eastern border of the settlement, town Bzyb (Bzişi) region, tunnel below road, small brook in Alnetum, 43°13′N 40°25′E, 80 m a.s.l., veg.: Alnus, Sambucus, Corylus, Hedera, Urtica, Rubus, Pteropsida, Musci.

38 Kaldaçhvara near Mjusöra (Kaldakhrava near Myusöra – Georgia (Abkhazia)), crossways, swamps in Alnetum, 43°13′N 40°26′E, 130 m a.s.l., veg.: Typha, Alisma, Juncus, Mentha.

39 Kamen (Kamani – Georgia (Abkhazia)), village env. Sukhumi, well in glade with small brook, white stones, 43°03′N 41°02′E, 230 m a.s.l., veg.: Carpinus, Sambucus, Zea, Pteropsida, Marchantiopsida, Musci.

40 Kelasuri (Kelasuri – Georgia (Abkhazia)), river and settlement env. Sukhumi, Kodorskij Chrebet comb (Kodorskiy Khrebet), Alnetum, swamps near riverbed, small brook, pastures, clough, hydrotropic rocky walls, 43°01′N 41°06′E, 200 m a.s.l., veg.: Alnus, Carpinus, Rhododendron, Sambucus, Hedera, Rubus, Phyllitis, Petasites, Alisma, Impatiens, Pteropsida, Marchantiopsida, Musci.

41 Kingdi – vicinity of Gulripiši (Gulripiši – Georgia (Abkhazia)), 3 km NW of Gali, swamps in Alnetum near road, 42°40′N 41°44′E, 140 m a.s.l., veg.: Alnus, Rhododendron, Rubus, Polygonum.

42 Kochora (Kokhora – Georgia (Abkhazia)), a pastoral community of grazing management approximately 2350 m a.s.l., Bzybskij Chrebet comb (Bzybskiy Khrebet), nr. peak Khimsa (3033 m a.s.l.), 43°19′N 40°43′E, 1880 m a.s.l., veg.: Hieracium, Alchemilla, Polygonum, Pteropsida.

43 Kot – Kot (Georgia (Abkhazia)), a pastoral community in Bzybskij Chrebet comb. (Bzybskiy Khrebet), Sukhumi distr., glade, forest zone, lakes, small brooks, pools, trickling rocky slopes, peat and swamp bogs, river, marches, beech wood, 43°18′N 40°42′E, 2070 m a.s.l., veg.: Alnus, Acer, Picea, Sambucus, Carpinus, Robinia, Sorbus, Fagus, Rhododendron, Petasites, Caltha, Juncus, Scirpus, Impatiens, Rumex, Inula, Asperula, Hieracium, Alchemilla, Polygonum, Sphagnum, Lemna, Pteropsida, Musci.

44 Kot – Kot near Cimuri (Georgia (Abkhazia)), a pastoral community in Bzybskij Chrebet comb. (Bzybskiy Khrebet), Sukhumi distr., glade, forest, lakes, small brooks, pools, trickling rocky slopes, peat and swamp bogs, river, marches, beech wood, 43°19′N 40°43′E, 1880 m a.s.l., veg.: Hieracium, Alchemilla, Polygonum, Pteropsida, Musci.

45 Kot – Kot near Ulm Pass (Georgia (Abkhazia)), Bzybskij Chrebet (Bzybskiy Khrebet) comb behind Ulm Pass, pastoral community, glades, lakes, swamps, 43°17′N 40°39′E, 1000 m a.s.l., veg.: Fagus, Alnus, Acer, Sorbus, Juncus, Rumex, Petasites, Caltha, Pteropsida.

46 Kutol Kodorskij Chrebet comb (Kodorskiy Khrebet – Georgia (Abkhazia)), village, small meadow, fountain, 42°56′N 41°51′E, 1300 m a.s.l., veg.: Alnus, Polygonum.
48 Levyj Ptys (Georgia (Abkhazia)), spring area near river, fallen branches, trickling banks of road, brook, 43°12'N 41°40'E, 3430 m a.s.l., veg.: *Alnus, Fagus, Juglans, Corylus, Polygonum, Lythrum, Fragaria, Leonurus*, Pteropsida, Marchantiopsida, Musci.

49 Macara (Machara – Georgia (Abkhazia)), Sukhumi distr., mandarin garden plantation (day as well as night collecting), walled WC, river, irrigation canal, village rill, shallow stony riverbed, almost dried ditch in building site, 42°55'N 41°32'E, 230 m a.s.l., veg.: *Alnus, Salix, Sambucus, Lythrum, Polygonum*.

50 Maruch near Adanga (Marukhi Pass Georgia (Abkhazia)), small brook near footpath in the vicinity of both passes, 43°20'N 41°22'E, 2140 m a.s.l., veg.: *Alnus, Acer, Corylus, Picea, Rumex, Petasites*.

51 Mercheuli (Merkheuli – Georgia (Abkhazia)), 8 km from Macara (bridge), Sukhumi district, houses, brook, marches, hills, hygropetric rocky wells, conglomerate rocks, 42°59'N 41°09'E, 60 m a.s.l., veg.: *Alnus, Rubus, Pteropsida, Marchantiopsida, Musci*.

52 Mramba – Cebelda (Tsebelda – Georgia (Abkhazia)), environs, sheer slope, pasture, well, muddy pools of domestic pigs, stream, branches of oak and hazel shrubs above water, 43°01'N 41°16'E, 450 m a.s.l., veg.: *Quercus, Corylus, Alnus, Pteris, Urtica, Mentha*.

53 Niznaja Zemo – Azara) (Azhara – Georgia (Abkhazia)), marches near village, rubbish, crocks, 43°06'N 41°41'E, 560 m a.s.l., veg.: *Alnus, Fagus, Juglans, Sambucus, Corylus, Rubus, Inula, Carex, Equisetum, Juncus, Mentha, Pteris, Hedera, Poaceae, Fragaria, Hepatica, Urtica, Impatiens, Plantago, Mentha, Alisma, Trollius, Lythrum, Pteropsida, Musci, Marchantiopsida*.

54 Novyj Afon near Anuchva (54) (Akhali Atoni – Georgia (Abkhazia)), Psycrcha River, riverbed, spring areas, fountain, small brooks, rocks, 43°06'N 41°41'E, 560 m a.s.l., veg.: *Alnus, Polygonum, Leonurus*.

55 Ocamcira (Ochamchire – Georgia (Abkhazia)), refuse in ditches, 42°43'N 41°29'E, 10 m a.s.l., veg.: *Alnus, Carpinus, Rhododendron, Rubus, Polygonum, Urtica, Pteris*.

56 Okumi (Okumi – Georgia (Abkhazia)), 2–4 km SW of the village, Tkvarceli env., S of Kodorskiy Chrebet comb (Kodorskiy Khrebet), brook, pastures, marches, tunnel in tenuous pine wood, 42°42'N 41°44'E, 170 m a.s.l., veg.: *Alnus, Pins, Larix, Robinia, Rubus, Luzula, Carex, Polygonum, Pteris, Mentha*.

57 Otap (Otapi – Georgia (Abkhazia)), Kodorskiy Chrebet comb (Kodorskiy Khrebet), slope, pasture, wet places, branches of alders above stream, swamps near way and in hillside, brook, thorny fences, 42°55'N 41°32'E, 230 m a.s.l., veg.: *Alnus, Salix, Sambucus, Lythrum, Polygonum*.

58 Pskhu (nr. Pskhus Nakrdzali – Georgia (Abkhazia)), a beautiful green valley, alluvial zone and wet places on banks of the River Bzyb (Bzipi), (2.5 km from the settlement, approximately 1400 m a.s.l. – southern and northern border), marshes, swamps, pools, pastures, clearings, tenuous alder forest, shaded sources by different plants, small forest brooks, streams, rills, (trickling southern slopes incl. regional airport), farming residents 100 m from Bzyb (Bzipi) River, small meadows, fenced gardens, branches of alders above flows, 43°20'N 40°54'E, 1830 m a.s.l., veg.: *Alnus, Fagus, Juglans, Sambucus, Corylus, Rubus, Inula, Carex, Equisetum, Juncus, Mentha, Pteris, Hedera, Poaceae, Fragaria, Hepatica, Urtica, Impatiens, Plantago, Mentha, Alisma, Trollius, Lythrum, Pteropsida, Musci, Marchantiopsida*.

59 Pskhu near Dou (nr. Pskhus Nakrdzali near Dou Pass – Georgia (Abkhazia)), southern footpath from border of the village to Dou Pass, farming residents, small brooks, spring areas, 43°18'N 40°56'E, 1900 m a.s.l., veg.: *Juglans, Corylus, Rubus, Inula, Impatiens, Urtica, Mentha*.

60 Reka near Gali – Ilori environs (Georgia (Abkhazia)), crossways, 42°41'N 41°29'E, 2 m a.s.l., veg.: *Alnus, Polygonum*.

61 Resava) (Georgia (Abkhazia)) environs, ca. 1300 m below Dou Pass, swamps in beech forest, fallen tree branches, 43°17'N 40°52'E, 1390 m a.s.l., veg.: *Fagus, Alnus, Corylus, Juncus, Carex, Pteropsida*.

62 Rica (Georgia (Abkhazia)), larger Gagra environs, dried canal with wet places, road, small rocky brook, lake, 43°19'N 40°15'E, 120 m a.s.l., veg.: *Acer, Carpinus, Picea, Betula, Urtica, Asplenium, Frangula, Sambucus, Poaceae, Fragaria, Hepatica*.

63 Sagra near Tamys (Tsagera near Tamishi – Georgia (Abkhazia)), road to Ocamcira (Sukhumi environs), arable land, fields, ditch in tea plantations, 42°47'N 41°23'E, 20 m a.s.l., veg.: *Eucalyptus, Alnus, Rubus, Juncus, Zea, Camelia*.

64 Saken (Sakeni – Georgia (Abkhazia)), 90 km from Sukhumi, river, small montane brooks with pools,
swamps in alder forest, 43°05′N 41°53′E, 990 m a.s.l., veg.: *Alnus, Corylus, Geranium, Leonurus, Urtica*, Musci.

65 Saken – Narzan (nr. Saken – Georgia (Abkhazia)), montane chalets near peaks above settlement, spring areas, small brooks, river, lush alder growth, forest marches and swamps, pasture muddy sections, slopes, glade streams, tributaries of lakes, branches of alders above water flows, fallen tree branches, collecting as well in night (22:00), 43°04′N 41°53′E, 1170 m a.s.l., veg.: *Alnus, Fagus, Acer, Picea, Corylus, Juglans, Prunus, Sambucus, Rubus, Equisetum, Juncus, Impatiens, Fragaria, Inula, Ranunculus, Trollius, Petasites, Alchemilla, Myosotis, Aquilegia, Heracleum, Rumex, Geranium, Pteropsis*, Musci.

66 Saken near Juznyj Prijut Pass (Sakeni – Georgia (Abkhazia)), marches near road (crossways), small brook, Alnetum, 43°04′N 41°57′E, 1300 m a.s.l., veg.: *Alnus, Geranium, Leonurus, Urtica*.

67 Serbista (Georgia (Abkhazia)), larger environs of the Maruch Pass, alder forest, small brooks, muddy pasture, 43°10′N 41°42′E, 1410 m a.s.l., veg.: *Alnus, Petasites, Rumex, Caltha, Inula*.

68 Shvanidzor (Armenia), environs, Arevik NP, rocky steppe, 38°56′N 44°43′E, 780 m a.s.l., Šumpich leg.

69 Svanetia (Georgia), SE, N and W of Mestia, left brook (stream) tributary of Mulikhura River, and Dolra River (left tributary of) above Ushkhvan, source area, 43°02′N 42°46′E, 1370–1700 m a.s.l., Chvojka leg.

70 Sroma (Shroma – Georgia (Abkhazia)), Sukhumi distr., hills, sources near stone crusher, 43°04′N 41°01′E, 240 m a.s.l., veg.: *Alnus, Robinia, Rubus, Juncus, Mentha*.

71 Tamys (Tamishi – Georgia (Abkhazia)), vicinity of Sukhumi, alder growth near road, brook, swamps, tea plantations, 42°47′N 41°22′E, 15 m a.s.l., veg.: *Alnus, Eucalyptus, Rubus, Scirpus, Caltha, Camellia*.

72 Tkvarceli (Tkvarcheli – Georgia (Abkhazia)), 3 km E of the settlement, stream near Galidzga (Ghalidzga) river, limestone areas, branches of alders above water, 42°51′N 41°38′E, 160 m a.s.l., veg.: *Alnus, Buxus*.

73 Ubus near Bzyb (Ubusch near Bzipi – Georgia (Abkhazia)), confluen of rivers, clearings in riverbed, 43°21′N 41°06′E, 1340 m a.s.l., veg.: *Alnus, Heracleum, Caltha*.

74 Ubus near Bzyb (Ubusch near Bzipi – Georgia (Abkhazia)), river as tributary of Bzib (Bzipi) flow (in a distance 3–5 km), wet slopes and small brooks in beech wood, pasture, glade, grazing banks, 43°20′N 41°06′E, 1390 m a.s.l., veg.: *Fagus, Alnus, Picea, Petasites, Rumex, Inula, Caltha*, Pteropsis.

75 Vedi (Armenia), Goravan village environs, Goravan sands, Sanctuary sandy steppe, 39°53′N 44°43′E, 956 m a.s.l., Šumpich leg.

76 Yerevan (Armenia), 13 km SE of the town, Hatsavan nr. Azat Reservoir, steppe, 40°06′N 44°50′E, 1071 m a.s.l., Šumpich leg.

77 Zemo – Azara (Kvemo Ajarara – Georgia (Abkhazia)), swamps in Alnetum near river, brook, stream, small flows, spring area, branches of alders above flows, grazing banks, swamps, old pots, 43°06′N 41°42′E, 540 m a.s.l., veg.: *Alnus, Sambucus, Rhododendron, Corylus, Buxus, Rubus, Fragaria, Leonurus, Geranium, Polygonum, Urtica*, Marchantiopsida, Musci.

Results

List of species


*Kvazbamormia pskuensis* Ježek, 1995 – Published record: Ježek (1995a): Pskhu (58). Distribution: This species and genus are known so far only from the original description (Ježek, 1995a) from Abkhazia (single locality). See also Oboňa et al. (2019).


Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia


Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

INS 30411 and 30731. Distribution: Common European species, Transcaucasian sites represent Abkhazia and Georgia s. str. More information in detail see Ježek et al. (2021a, b).


Jan Ježek, Jozef Oboňa, Peter Manko


Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

Holarctic species, known from Azerbaijan and Georgia; see some details e. g. in Ježek et al. (2019, 2020, 2021a, b) and Oboňa et al. (2019). New for Abkhazia.


Georgia (the original description of Wagner, 1981; for the second record, see Őboňa et al., 2019). New for Abkhazia.


_Pericoma_ (Pachypericoma) fallax_ Eaton, 1893 – Published record: Ježek (2004b): Tshlou (23). Distribution: European and West-Siberian species, also known as well from Transcausia (Abkhazia, Azerbaijan and Georgia) – Őboňa et al. (2019); Ježek et al. (2021a).

Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia


Summary of the results and conclusion
Psychodids fauna, mainly from Abkhazia and rarely from adjacent countries, such as Armenia, Georgia and Russia, is presented. Altogether 65 species were found from 33 genera. The most species-rich localities include the following: site 65 – Saken – Narzan (26 species), 58 – Pskhu (22 spp.), 77 – Zemo – Azara (20 spp.), and these localities, with a large diversity of plants and interesting different landscape morphology, were the mostly frequently sampled. On the other hand, the localities with the lowest species diversity (usually with a minimum diversity of plants and almost dried former wet habitats) were sites with just one species (localities 13 – Below Chimsa Pass, 15 – Below Ulm Pass, 24 – Cerna Voda, 34 – Ilori) and with two species (sites 1 – Achalsopeli, 3 – Achalseni near Sroma, 7 – Anaria, 30 – Gagra). The
Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

Table 1. List of localities with recorded species.

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Achalsopeli (Abkhazia)</td>
<td>abchazica, auriculata</td>
</tr>
<tr>
<td>2</td>
<td>Achalseni (Abkhazia)</td>
<td>achalshenicica, cvitariorum, gemina, nubila, trinodulosa</td>
</tr>
<tr>
<td>3</td>
<td>Achalseni near Sroma (Abkhazia)</td>
<td>abchazica, blandula</td>
</tr>
<tr>
<td>4</td>
<td>Acigvara (Abkhazia)</td>
<td>abchazica, nubila, trinodulosa</td>
</tr>
<tr>
<td>5</td>
<td>Adanga Pass (Abkhazia)</td>
<td>cognata, phalaenoides, schumpkanica</td>
</tr>
<tr>
<td>6</td>
<td>Adjaria (Georgia)</td>
<td>ambigua, arcuata, balkaneoalpinus, balkanicum, blandula, caucasica (S.), cognata, furva, grusinicus, minuta, m. motasi, nubila, pseudexquisita, satchelli, silesiensis</td>
</tr>
<tr>
<td>7</td>
<td>Anaria (Abkhazia)</td>
<td>abchazica, nubila</td>
</tr>
<tr>
<td>8</td>
<td>Areni (Armenia)</td>
<td>albipennis, alternata, bunae, lativentris, pannonica, pilularia, satchelli, ustulata</td>
</tr>
<tr>
<td>9</td>
<td>Azgara (Abkhazia)</td>
<td>abchazica, arcuata, balkaneoalpinus, caucasica (S.), furva, grusinicus, lobata, nubila, resli, rotunda, setigera, vaillanti</td>
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<td>10</td>
<td>Azgara – Narzan (Abkhazia)</td>
<td>alternata, arcuata, balkaneoalpinus, blandula, buxtoni, caucasica (S.), cognata, furva, grusinicus, lobata, nubila, polyascoidea, resli, rotunda, satchelli, trinodulosa</td>
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<td>11</td>
<td>Baskacara (Abkhazia)</td>
<td>albipennis, alticola, arcuata, balkaneoalpinus, clouense, cognata, furva, gemina, grusinicus, hibernica, lobata, minuta, montana, petrosus, phalaenoides, pseudexquisita, resli, schumpkanica, setigera, svanetica</td>
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<td>12</td>
<td>Below Adanga Pass (Abkhazia)</td>
<td>albipennis, alticola, arcuata, balkaneoalpinus, grisescens, hibernica, nubila, petrosus, phalaenoides, resli, satchelli</td>
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<tr>
<td>13</td>
<td>Below Chimsa Pass (Abkhazia)</td>
<td>schumpkanica</td>
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<tr>
<td>14</td>
<td>Below Maruch Pass (Abkhazia)</td>
<td>abchazica, albipennis, arcuata, balkaneoalpinus, gemina, lobata, phalaenoides, pilularia, satchelli, svanetica, trinodulosa, zetterstedti</td>
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<tr>
<td>15</td>
<td>Below Ulm Pass (Abkhazia)</td>
<td>schumpkanica</td>
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<tr>
<td>16</td>
<td>Beslachuba (Abkhazia)</td>
<td>abchazica, erminea, nubila</td>
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<td>17</td>
<td>Bzyb (Abkhazia)</td>
<td>arcuata, balkaneoalpinus, cognata, compta, g. gracilis, lobata, nubila, palustris, phalaenoides</td>
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<td>Cebelda (Abkhazia)</td>
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<td>19</td>
<td>Chimsa near Ulm (Abkhazia)</td>
<td>resli, schumpkanica</td>
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<td>Cimuri (Abkhazia)</td>
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<td>21</td>
<td>Cimuri near Achalseni (Abkhazia)</td>
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<td>24</td>
<td>Cerna Voda (Abkhazia)</td>
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<td>Dagomys (Russia)</td>
<td>cinerea</td>
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<td>Dou Pass (Abkhazia)</td>
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<td>27</td>
<td>Dou near Bzyb (Abkhazia)</td>
<td>caucasica (S.)</td>
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<td>Dvurecje near Dou (Abkhazia)</td>
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<td>Dzgerda (Abkhazia)</td>
<td>abchazica, buxtoni, nubila</td>
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<td>No.</td>
<td>Location (Abkhazia)</td>
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<td>Gagra (Abkhazia)</td>
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<td>GES – Sukhumi (Abkhazia)</td>
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<td>Imereli (Georgia)</td>
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<td>36</td>
<td>Juznyj Prijut Pass (Abkhazia)</td>
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<td>37</td>
<td>Kaldachvara (Abkhazia)</td>
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<td>Kaldachvara near Mjusoera (Abkhazia)</td>
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<td>Kaman (Abkhazia)</td>
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<td>Kingdi (Abkhazia)</td>
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<td>Kochora (Abkhazia)</td>
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<td>Kot – Kot (Abkhazia)</td>
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<td>Kot – Kot near Cimuri (Abkhazia)</td>
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<td>Kot – Kot near Ulm Pass (Abkhazia)</td>
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<td>Kutol (Abkhazia)</td>
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<td>Lehvaz (Armenia)</td>
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<td>48</td>
<td>Levyj Ptys (Abkhazia)</td>
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<td>Macara (Abkhazia)</td>
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<td>50</td>
<td>Maruch near Adanga (Abkhazia)</td>
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<td>51</td>
<td>Mercheuli (Abkhazia)</td>
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<td>Mramba (Abkhazia)</td>
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<td>Niznaja Zemo – Azara (Abkhazia)</td>
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<td>Novyj Afon near Anuchva (Abkhazia)</td>
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<td>Okumi (Abkhazia)</td>
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<td>57</td>
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</tr>
</tbody>
</table>
Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

Table 1 continued…

<table>
<thead>
<tr>
<th>No.</th>
<th>Location (Abkhazia)</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>Pskhu near Dou (Abkhazia)</td>
<td>abchazica, arcuata, balkaneoalpinus, erminea, g. gracilis, grusinicus, nubila, palustris, polyascoidea, trinodulosa, uniformata</td>
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<td>Reka near Gali (Abkhazia)</td>
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<td>Resava (Abkhazia)</td>
<td>arcuata, balkaneoalpinus, caucasica (S.), ressli</td>
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<td>62</td>
<td>Rica (Abkhazia)</td>
<td>albipennis, balkaneoalpinus, balkanicum, gemina, lobata, negrobovi</td>
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<td>63</td>
<td>Sagra near Tamys (Abkhazia)</td>
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<td>64</td>
<td>Saken (Abkhazia)</td>
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<td>Saken – Narzan (Abkhazia)</td>
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</tr>
<tr>
<td>66</td>
<td>Saken near Juznyj Prijut Pass (Abkhazia)</td>
<td>abchazica, furva, nubila, polyascoidea</td>
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<td>67</td>
<td>Serbista (Abkhazia)</td>
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<td>68</td>
<td>Shvanidzor (Armenia)</td>
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<td>69</td>
<td>Svanetia (Georgia)</td>
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<td>70</td>
<td>Sroma (Abkhazia)</td>
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<td>Tamys (Abkhazia)</td>
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<td>72</td>
<td>Tkvarceli (Abkhazia)</td>
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<tr>
<td>73</td>
<td>Ubys (Abkhazia)</td>
<td>abchazica, albipennis, alticola, arcuata, balkaneoalpinus, caucasica (B), cognata, grisescens, lobata, petrosus, phalaenoides, schumpanica, setigera</td>
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<tr>
<td>74</td>
<td>Ubys near Bzyb (Abkhazia)</td>
<td>schumpanica</td>
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<tr>
<td>75</td>
<td>Vedi (Armenia)</td>
<td>acharshenica</td>
</tr>
<tr>
<td>76</td>
<td>Yerevan (Armenia)</td>
<td>albipennis, alternata, ustulata</td>
</tr>
<tr>
<td>77</td>
<td>Zemo – Azara (Abkhazia)</td>
<td>abchazica, acharshenica, arcuata, balkaneoalpinus, blandula, caucasica (B), caucasica (S), erminea, furva, g. gracilis, grusinicus, inopinata, m. motasi, nubila, phalaenoides, polyascoidea, pseudexquisita, ressli, schumpanica, trinodulosa</td>
</tr>
</tbody>
</table>

most common species in this study include Parajungiella abchazica Ježek, 1985 (41 sites), Pneumia nubila (Meigen, 1818) (36), Tomnoiriella arcuata Ježek, 1997 (24), and Threticus balkaneoalpinus Krek, 1972 (22). Some species are known so far, unfortunately, from only the holotype locality – one specimen (Kvabamormia pskhuensis Ježek, 1995) in contrast to species with a generally large distribution and registered here infrequently by accident: e.g. Seoda carthusiana (Vaillant, 1972), Pneumia compta (Eaton, 1893), Pericoma (Pachypterygota) fallax Eaton, 1893, Trichopsychoda hirtella (Tonnoir, 1919), Berdeniella manicata (Tonnoir, 1920), Pneumia trivialis (Eaton, 1893) and Psychomormia vaillanti (Wagner, 1977). New records for Abkhazia (31 species) were ascertained: Logima albipennis (Zetterstedt, 1850), Tinearia alternata (Say, 1824), Psychoda alticola Vaillant, 1973, Copropsychoda brevicornis (Tonnoir, 1940), Chodopsycha buxtoni (Withers, 1988), Seoda carthusiana (Vaillant, 1972), Berdeniella caucasica Wagner, 1981, Ulomyia cognata (Eaton, 1893), Pneumia compta (Eaton, 1893), Psychoda crassipennis Tonnoir, 1940, Pericoma (Pericoma) exquisita Eaton, 1893, Psycha grisescens (Tonnoir, 1922), Clytocerus (Boreoclytocerus) grusinicus Wagner,
Several species from neighbouring countries were identified in this paper, e.g. Tsonoiriella arcuata Ježek, 1997, Clytocerus (Boreoclytocerus) grusinicus Wagner, 1981, Threticus balkanealpinus Krek, 1972, Thornburighiella montana Ježek, Oboňa & Manko, 2021, Pericoma (Pericoma) motasi motasi Vaillant, 1978, Pneumia nubila (Meigen, 1818), Psychoda phalaenoides (Linnaeus, 1758) and Pericoma (Pericoma) pseudexquisita Tonnoir, 1940, however, all mentioned species were published already from Georgia (Wagner 1981, Oboňa et al., 2019 and Ježek et al., 2021c), from territory other than Abkhazia. For all that, Seoda ambigua (Eaton, 1893), Philosepedon (Trichosepedon) balkanicum Krek, 1971, Yormormia furva (Tonnoir, 1940), Psychodula minuta (Banks, 1894), Berdeniella schumpkanica (Vaillant & Joost, 1983) and Promormia silesiensis Ježek, 1983, are new for Georgia.

Logima albipennis (Zetterstedt, 1850), Tinearia alternata (Say, 1824), Paramormia (Duckhousiella) ustulata (Walker, 1856) and Pneumia pilularia (Tonnoir, 1940) were published from Armenia (Ježek et al., 2018), however, Yormormia achalshenica Ježek, 1987, Pericoma (Pericoma) bunae Krek, 1979, Tinearia lativentris (Berdén, 1952) and Pericoma (Pericoma) pannonica Szabó, 1960, are new for Armenia.

Pericoma (Pachypericoma) blandula Eaton, 1893, was registered from Georgia and Armenia (Ježek et al., 2018, 2021a), nevertheless, Logima satelli (Quate, 1955) represents a new record for both Georgia and Armenia.

Psychodochachinerea (Banks, 1894) was published from Russia (Siberia – Ježek, 1992b) and Berdeniella schumpkanica Vaillant & Joost, 1983, is also known from Russia (see Vaillant & Joost, 1983: Terskol + stream Schumka).

The Caucasus region (Armenia, Azerbaijan, and Georgia) is considered to be the most biologically rich and most endangered region in the world, a so-called “Biodiversity hotspot” with an exceptional richness of endemic and endangered species (Myers et al., 2000; Krever et al., 2001; Williams et al., 2011; Mumladze et al., 2020). But there was only scarce information about the Psychodidae family from here. As there are also many, extremely rare species in this family in the Caucasus (probably Caucasus or highland endemics) (e.g. Sycorax caucasica, Kvazbasormoria pskuensis, Lepimormia georgica, Mormia ekvitariorum, Yormormia achalshenica, Yormormia afonensis, Parajungiella abchazica, Seoda svanetica, Philosepedon (Trichosepedon) clouense, Threticus petrosus, Berdeniella caucasica, Berdeniella schumpkanica, Clytocerus (Boreoclytocerus) grusinicus, Pericoma (Pericoma) pseudexquisita, Saraella ressli, Thornburighiella montana), it is appropriate to perceive this area as being the most biologically rich and most endangered region in the world also in terms of biodiversity of the Psychodidae family. However, it needs to be given increased attention not only for these rare species, but, for example, from the point of view of island ecology or biodiversity protection.

Research in this area can also contribute to understanding the spread of different species and may contribute to the understanding of the factors that limit this spread.

Knowledge about the biodiversity of the Caucasus is crucial for the protection not only of local nature, but also insects, especially Diptera; extremely “unaesthetic” epidemiological/economic groups are unimportant and given only marginal attention. Also, the ecological significance of insects is often overlooked. Their main ecological functions and ecosystem services in ecosystems include nutrient cycling, pollination, predation/parasitism and decomposition of biological material (Samways, 1993; Kim, 1993; Naeem et al., 2021).

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Ježek J. 2007 New records of moth flies (Diptera, Psychodidae) from Poland with description of
Jan Ježek, Jozef Oboňa, Peter Manko


Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

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Checklist of species of the family Psychodidae from selected areas of Transcaucasia

Species new for country are marked with an asterisk (*). Abbreviations: Arm – Armenia, Aze – Azerbaijan, Geo – Georgia, (Abk) – Abkhazia (see in Ježek et al., 2018, 2021 and Oboňa et al., 2019).

Subfamily Phlebotominae

*Phlebotomus* (Adlerius) *balcanicus* Theodor, 1958  Aze, Geo
*Phlebotomus* (Adlerius) *brevis* Theodor et Mesghali, 1964  Aze, Geo
*Phlebotomus* (Adlerius) *chinensis tauriae*Perfiliew, 1966  Geo
*Phlebotomus* (Adlerius) *halepensis* Theodor, 1958  Arm, Aze, Geo
*Phlebotomus* (Adlerius) *longiductus*Parrot, 1928  Geo
*Phlebotomus* (Adlerius) *simici* Nitzulescu, 1931  Arm, Aze, Geo
*Phlebotomus* (Larroussius) *kandelaki* Shurenkova, 1929  Arm, Aze, Geo
*Phlebotomus* (Larroussius) *majorsyriacus* Adler et Theodor, 1931  Arm, Aze, Geo
*Phlebotomus* (Larroussius) *perfiliewiperfiliewi* Parrot, 1930  Geo
*Phlebotomus* (Larroussius) *perfiliewitranscaucasicus*Perfiliew, 1937  Azetobbi, theodor in Adler, theodor et Lourie, 1930  Arm, Aze, Geo
*Phlebotomus* (Larroussius) *wenyoni* Adler et Theodor in Adler, theodor et Lourie, 1930  Geo
*Phlebotomus* (Paraphlebotomus) *alexandri* Sinton, 1928  Arm Aze, Geo
*Phlebotomus* (Paraphlebotomus) *caucasicus* Marzinovsky, 1917  Arm, Aze, Geo
*Phlebotomus* (Paraphlebotomus) *jacusieli* Theodor, 1947  Aze, Geo
*Phlebotomus* (Paraphlebotomus) *mongolensis* Sinton, 1928  Aze, Geo
*Phlebotomus* (Paraphlebotomus) *sergenti* Parrot, 1917  Aze, Geo
*Phlebotomus* (Paraphlebotomus) *similis*Perfiliew, 1963 sensu Artemiev et Neronov, 1984  Arm, Aze, Geo
*Phlebotomus* (Phlebotomus) *papatasi* (Scopoli, 1786)  Arm, Aze, Geo
*Sergentomyia* (Neophlebotomus) *pawlowskyi* (Perfiliew, 1933)  Arm, Aze, Geo
*Sergentomyia* (Parrotomyia) *palestinensis* (Adler et Theodor, 1927)  Arm, Aze, Geo
*Sergentomyia* (Sergentomyia) *dentata* (Sinton, 1933)  Aze, Geo

Subfamily Sycoracinae

*Sycorax* *caucasica* Ježek, 1990  Geo (Abk)

Subfamily Trichomyiinae

*Trichomyia* *urbica* Haliday in Curtis, 1839  Aze

Subfamily Psychodinae

*Apsyche* *pusilla* (Tonnoir, 1922)  Aze
*Bazarella* *centretinacula* Wagner, 1981  Geo
*Berdeniella* *manicata* (Tonnoir, 1920)  Geo (Abk*)
*Berdeniella caucasica* Wagner, 1981  Geo (Abk*)
*Berdeniella schumpkanica* Vaillant & Joost, 1983  Geo* (Abk*)
*Copropsycha* *brevicornis* (Tonnoir, 1940)  Geo (Abk*)
*Feuerborniella* *obscura* (Tonnoir, 1919)  Geo
*Chodopsycha* *lobata* (Tonnoir, 1940)  Geo (Abk)
*Chodopsycha* *buxtoni* (Withers, 1988)  Geo (Abk*)
*Clogmia* *albipunctata* (Williston, 1893)  Arm, Aze, Geo
*Clytocerus* (Boreoclytocerus) *grusinicus* Wagner, 1981  Aze, Geo (Abk*)
*Joostiella* *caucasica* Vaillant, 1983  Arm
*Kvazbamormia* *pskhensis* Ježek, 1994  Geo (Abk)
*Lepimormia* *georgica* (Wagner, 1981)  Geo (Abk)
Moth flies of Abkhazia with some additional faunistic data from Armenia, Georgia, and Russia

Logima albipennis (Zetterstedt, 1850)  
Logima erminea (Eaton, 1893)  
Logima satchelli (Quate, 1955)  
Logima sigma (Kincaid, 1899)  
Logima zetterstedi Ježek, 1983  
Mormia cvitariorum Ježek, 1987  
Mormia malickyi Vaillant, 1974  
Parajungiella abchazica Ježek, 1985  
Parajungiella serbica (Krek, 1985)  
Parajungiella monikae (Wagner & Joost, 1986)  
Panumeris denticulatus Krek, 1971  
Paramormia (Duckhousiella) ustulata (Walker, 1856)  
Paramormia (Paramormia) fratercula (Eaton, 1893)  
Paramormia (Paramormia) polyascoidea (Krek, 1971)  
Parabazarella joosti lalezharica Ježek, 1990  
Pericoma (Pachypericoma) blandula Eaton, 1893  
Pericoma (Pachypericoma) fallax Eaton, 1893  
Pericoma (Pachypericoma) nielseni Kvifte, 2010  
Pericoma (Pericoma) hosniaca Krek, 1966  
Pericoma (Pericoma) bunae Krek, 1979  
Pericoma (Pericoma) exquisita Eaton, 1893  
Pericoma inopinata Ježek, Oboňa & Manko 2021  
Pericoma (Pericoma) kariana Vaillant, 1978  
Pericoma (Pericoma) motasi motasi Vaillant, 1978  
Pericoma (Pericoma) pannonica Szabó, 1960  
Pericoma (Pericoma) pseudexquisita Tonnoir, 1940  
Pericoma platystyla Wagner, 1986  
Peripsychoda auriculata (Haliday in Curtis, 1839)  
? Philosepedon (Philosepedon) wagneri Omelková et Ježek, 2012  
? Philosepedon (Trichosepedon) aschitariicum Vaillant et Joost, 1983  
Philosepedon (Trichosepedon) balkanicum Krek, 1971  
Philosepedon (Trichosepedon) clouense Ježek, 1994  
Pneumia canescens (Meigen, 1804)  
Pneumia compata (Eaton, 1893)  
Pneumia fuehzulii Ježek, Oboňa & Manko 2022  
Pneumia gracilis gracilis (Eaton, 1893)  
Pneumia gracilis kandavanica (Ježek 1990)  
Pneumia nubila (Meigen, 1818)  
Pneumia joosti (Wagner, 1981)  
Pneumia palustris (Meigen, 1804)  
Pneumia pilularia (Tonnio, 1940)  
Pneumia trivialis (Eaton, 1893)  
Promormia silesiensis (Ježek, 1983)  
Psyche griscenscens (Tonnio, 1922)  
Psychoda alticola Vaillant, 1973  
Psychoda crassipennis Tonnio, 1940  
Psychoda phalaenoides (Linné, 1758)  
Psychoda uniformata Haseman, 1907  
Psychodocha cinerea (Banks, 1894)  
Psychodocha gemina (Eaton, 1904)  
Psychodula minuta (Banks, 1894)  
Psychomora mycophila (Vaillant, 1988)  
Psychomora trinodulosa (Tonnio, 1922)  
Psychomormia vaillanti (Wagner, 1977)
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<td>Saraiella reselli</td>
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Summary: Arm (36 + 5*), Aze (61), Geo (88 + 7*) (Abk) (26 + 31*).