

Further records of Pediciidae and Limoniidae (Diptera) from Azerbaijan and Georgia

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Abstract: Records of nine Pediciidae and 80 Limoniidae species (10 Limnophilinae, 38 Chioneinae, and 32 Limoniinae) are presented. Seventeen species are recorded for the first time from Azerbaijan and 14 from Georgia, of which 12 species are new to the whole of Transcaucasia. Three species are recorded for the first time since their original descriptions. Four subspecies of the genus *Molophilus* Curtis, 1833 are elevated to species rank, namely *M. (M.) hebetatus* Savchenko, 1976, n. stat., *M. (M.) decoloratus* Savchenko, 1978, n. stat., *M. (M.) brachyurus* Savchenko, 1978, n. stat., and *M. (M.) cephaliger* Savchenko, 1978, n. stat. Two synonymies are proposed, *Gonomyia (Gonomyia) conoviensis* Barnes, 1924 = *G. (G.) oxybeles* Alexander, 1975, n. syn. and *Lipsothrix nobilis* Loew, 1873 = *L. iranica* Alexander, 1975, n. syn.

Key words: Short-palped crane flies, Transcaucasia, biodiversity, new records, elevations to species rank, new synonymies

Introduction

This is another contribution to the knowledge of the families Pediciidae and Limoniidae in Transcaucasia. Previous records from this territory were mostly summarized by Savchenko (1989). Recently, Starý *et al.* (2017) published new records from Azerbaijan, and Oboňa *et al.* (2016, 2019) provided new records from all the three countries with the first checklists of the families for Armenia, Azerbaijan, and Georgia. Starý & Oboňa (2019) described a new species of the genus *Molophilus* Curtis, 1833. All the published records were listed by Oosterbroek (2020).

Material and methods

The dipterans were collected by J. Oboňa, P. Manko, T. Kovács, D. Murányi, and G. Vinçon in three periods (IV–V.2019, VII.2019 and IX–X.2019) by net-sweeping from vegetation growing along watercourses and lakes. The captured specimens were preserved in 75% ethanol in the field. Some specimens were

dried and mounted on cardboard points in the course of the study. The male and female terminalia, if necessary, were prepared by boiling in a solution of 10% KOH and, in dry mounted specimens, preserved in glycerine in a sealed plastic tube pinned with the appropriate specimen. Classification, nomenclature, and distribution for individual species are based on Oosterbroek (2020). The material is deposited in the collection of the first author, who also identified the species.

We use the term “Transcaucasia” (Armenia, Azerbaijan and Georgia) according to the Catalogue of Palaearctic Diptera; for more details see Wagner (1990). Information on the distribution is given for the species recorded from Azerbaijan and Georgia for the first time. Full global distribution is summarized by Oosterbroek (2020)

In the List of localities, data are presented in the following order: location code (in bold), territorial unit (district, region etc.), name of the locality, nearest settlement (where appropriate), specified location and habitat, altitude, and coordinates. In the systematic

part, species within subfamilies are arranged in alphabetic order. Data for material examined are arranged in the following order: location code, date of collection (in format dd.mm.yyyy), number of males and females, and collector's name (abbreviated). Where necessary remarks are added with faunistic or taxonomic details.

Abbreviations used: J. Oboňa – JO, P. Manko – PM, T. Kovács – TK, D. Murányi – DM, G. Vinçon – GV

List of localities

Azerbaijan (Fig. 1)

Aze 01 Balakən district, Balakən, Mahamalar, open brook and marsh, 465 m a.s.l., 41°44.218'N 46°26.232'E

Aze 02 Balakən district, forest and forest brook, 320 m a.s.l., 41°40.599'N 46°29.679'E

Aze 03 Daşkəsən district, Xoşbulaq, open brook S of village, 1710 m a.s.l., 40°26.020'N 46°02.776'E

Aze 04 Daşkəsən district, Xoşbulaq, open stream and wetlands above reservoir, 1635 m a.s.l., 40°26.523'N 46°02.760'E

Aze 05 Gədəbəy district, Gədəbəy, bushy brook and seep S of village 1500 m a.s.l., 40°27.519'N 45°43.114'E

Aze 06 Gədəbəy district, Gədəbəy, forest brook S of village, 1510 m a.s.l., 40°27.370'N 45°43.123'E

Aze 07 Göygöl district, Göygöl N.P., forest brook below Maralgöl Lake, 1875 m a.s.l., 40°22.855'N 46°18.507'E

Aze 08 Göygöl district, Göygöl N.P., Göygöl Lake, 1570 m a.s.l., 40°24.887'N 46°19.660'E

Aze 09 Göygöl district, Toghanali, Kurakchay Stream, 1250 m a.s.l., 40°25.116'N 46°18.204'E

Aze 10 Oğuz district, Baş Daşağil, open brook and stream, 1210 m a.s.l., 41°10.551'N 47°24.221'E

Aze 11 Oğuz district, Baş Daşağil, waterfall and brook in deciduous forest, 1325 m a.s.l., 41°10.916'N 47°23.717'E

Aze 12 Oğuz district, Sincan, open river, 370

m a.s.l., 40°56.047'N 47°34.916'E

Aze 13 Qax district, Ilisu, Ilisu Waterfall and stream beneath, 1480 m a.s.l., 41°27.505'N 47°04.217'E

Aze 14 Qax district, Ləkit, large stream and its littoral, 530 m a.s.l., 41°29.282'N 46°51.349'E

Aze 15 Qax district, Ləkit, Mamirli Waterfall and springs, 600 m a.s.l., 41°29.567'N 46°51.535'E (Fig. 3)

Aze 16 Qax district, Qum, Ardavachay River above village, 825 m a.s.l., 41°28.158'N 46°55.879'E

Aze 17 Qax district, Qum, forest brook in village, 825 m a.s.l., 41°27.910'N 46°55.749'E

Aze 18 Qax district, Qum, forest brooks above village, 845 m a.s.l., 41°28.215'N 46°55.977'E

Aze 19 Qəbələ district, Durca, Dəmiraparanchay Stream and forest brooks, 1595 m a.s.l., 41°03.226'N 47°53.202'E

Aze 20 Qəbələ district, Durca, forest edge and brook, 1310 m a.s.l., 41°02.265'N 47°53.195'E

Aze 21 Qəbələ district, Laza, springs and brooks on opposite slope, 1435 m a.s.l., 41°02.399'N 47°55.891'E

Aze 22 Şəki district, Cuma, Ayrichay River, marsh and open woods, 200 m a.s.l., 41°14.223'N 46°54.601'E

Aze 23 Şəki district, Kiş, forest beneath Galarsan ruin, 1190 m a.s.l., 41°15.743'N 47°13.617'E

Aze 24 Şəki district, Kiş, forest brook above village, 1050 m a.s.l., 41°15.605'N 47°11.143'E

Aze 25 Şəki district, Kiş, hotel garden, 905 m a.s.l., 41°14.665'N 47°11.377'E

Aze 26 Şəki district, Kiş, karst spring and brook by Galarsan ruin, 1330 m a.s.l., 41°15.906'N 47°13.631'E

Aze 27 Şəki district, Şəki, Quirxbulaq, karst brook in deciduous forest, 595 m a.s.l., 41°08.786'N 47°15.532'E

Aze 28 Zaqatala district, Car, Talachay Stream above village, 950 m a.s.l., 41°40.678'N 46°41.965'E

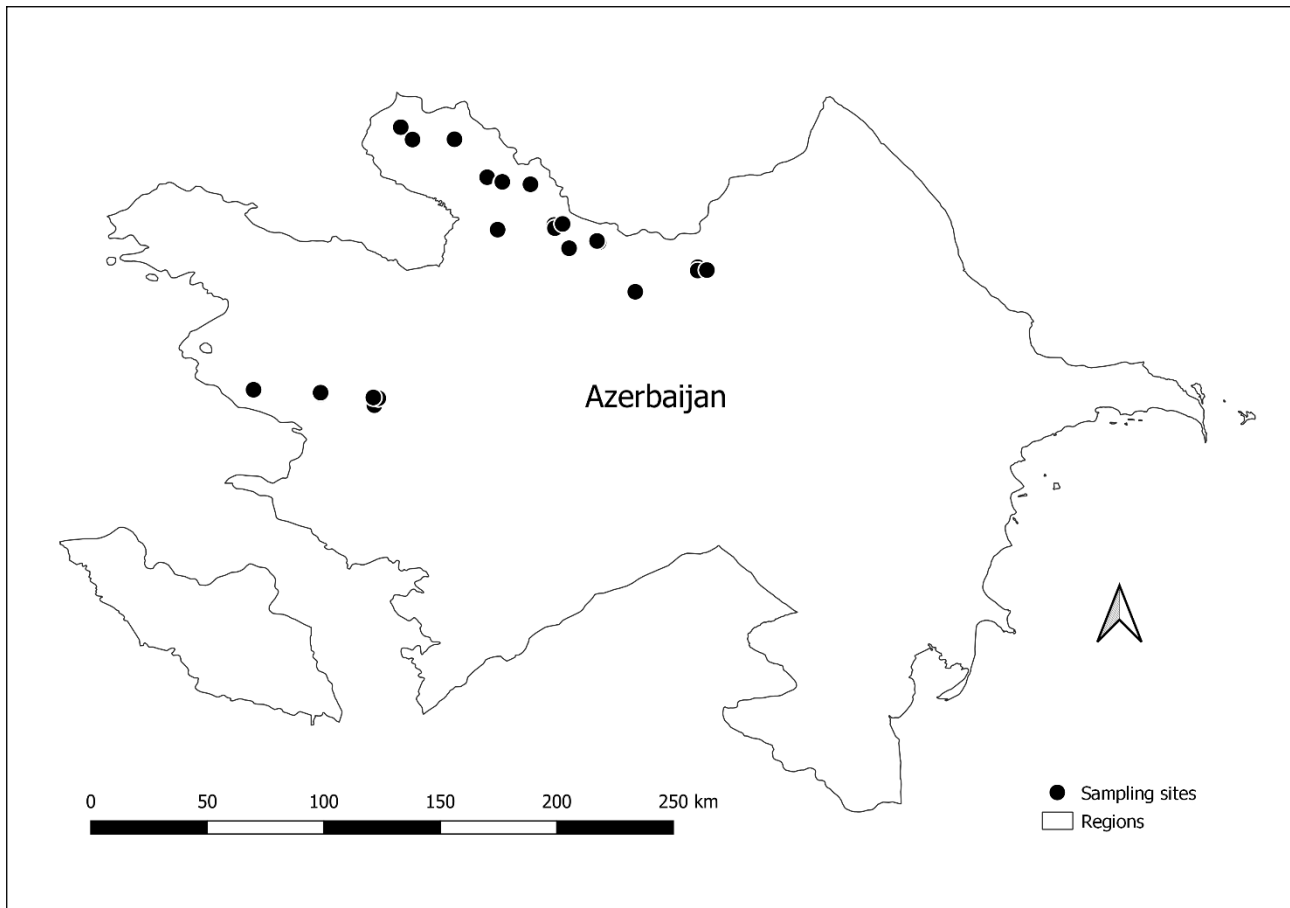


Fig. 1. The map of sampling sites from Azerbaijan.

Georgia (Fig. 2)

Geo 01 Adjara region, Beshumi, seeps, brooks and stream in open forest, 1940 m a.s.l., 41°37.356'N 42°32.329'E

Geo 02 Adjara region, Khichauri, Chvanistskali River at bridge, 350 m a.s.l., 41°38.715'N 42°07.990'E

Geo 03 Adjara region, steep brook in spruce forest E of Goderdzi Pass 1790 m a.s.l., 41°38.000'N 42°33.474'E

Geo 04 Adjara region, brook and spring, after Goderdzi Pass, after Beshumi Botanic Garden, Dzindzitskali tributary, 1970 m a.s.l., 41°37.283'N 42°32.267'E

Geo 05 Kakheti region, Alazani River above bridge of road 70, 350 m a.s.l., 41°59.510'N 45°34.675'E

Geo 06 Kakheti region, Batsara Nature Reserve, Batsara River and its sidebrook, 810 m a.s.l., 42°13.372'N 45°18.122'E (Fig. 4)

Geo 07 Kakheti region, David Gareji Monastery Complex, 465 m a.s.l., 41°30.189'N

46°05.997'E

Geo 08 Kakheti region, Gamardjeveba, open brook, 605 m a.s.l., 41°30.580'N 45°59.326'E

Geo 09 Kakheti region, Gombori Pass, NW pass, spring and muddy brook, 1560 m a.s.l., 41°52.333'N 45°16.133'E

Geo 10 Kakheti region, Gombori Pass, S pass, spring and muddy brook, 1640 m a.s.l., 41°50.866'N 45°17.050'E

Geo 11 Kakheti region, Gombori Pass, S pass, spring, pond, and muddy brook, 1610 m a.s.l., 41°50.966'N 45°17.0166'E

Geo 12 Kakheti region, Gombori River, above (EES of) Verona village, stony brook, 1200 m a.s.l., 41°50.933'N 45°14.9833'E

Geo 13 Kakheti region, Ilto River, above (N of) Chartala village., 790 m a.s.l., 42°08.300'N 45°07.533'E

Geo 14 Kakheti region, Karajala, marsh and grassland by Turdo River, 630 m a.s.l., 41°56.470'N 45°25.794'E

Geo 15 Kakheti region, Khadori Gorge, forest brook, 1040 m a.s.l., 42°16.132'N

45°20.749'E

Geo 16 Kakheti region, Khadori Gorge, forest torrent, 1090 m a.s.l., 42°16.355'N 45°20.952'E

Geo 17 Kakheti region, Khadori Gorge, Samkura River 885 m a.s.l., 42°15.180'N 45°19.918'E

Geo 18 Kakheti region, Khadori Gorge, seeps and waterfall of Samkura River, 1195 m a.s.l., 42°16.463'N 45°21.104'E

Geo 19 Kakheti region, Khornabuji, Mazovkis Tskali, spring and brook, 750 m a.s.l., 41°28.666'N 46°05.691'E

Geo 20 Kakheti region, Kisiskhevi, Kisiskhevi River, channel and ruderal grassland, 560 m a.s.l., 41°54.224'N 45°33.852'E

Geo 21 Kakheti region, Napareuli, Lopota Lake and its inlet brook, 475 m a.s.l., 42°03.407'N 45°31.636'E

Geo 22 Kakheti region, Stori River along road towards Abano (Torha) Pass, 1520 m a.s.l., 42°14.585'N 45°29.741'E

Geo 23 Kakheti region, stream and seep along road towards Abano (Torha) Pass, 1490 m a.s.l., 42°14.013'N 45°29.319'E

Geo 24 Kakheti region, Telavi, Bucha's Guest House garden, 655 m a.s.l., 41°55.073'N 45°29.387'E

Geo 25 Kakheti region, Telavi, Khrukiaskhevi River and its forest sidebrook, 775 m a.s.l., 41°53.988'N 45°29.243'E

Geo 26 Kakheti region, Tsiteli Tskaro, Koghoto Stream littoral, 465 m a.s.l., 41°30.184'N 46°05.992'E

Geo 27 Kakheti region, Stori River, 548 m a.s.l., 42°08.845'N 45°24.960'E

Geo 28 Kakheti region, Stori River, 573 m a.s.l., 42°09.135'N 45°25.028'E

Geo 29 Kakheti region, Stori River, 629 m a.s.l., 42°10.451'N 45°25.908'E

Geo 30 Kvemo Kartli region, Aiazmi, Zhamindzori Stream above (S of) village, 1755 m a.s.l., 41°33.579'N 43°54.282'E

Geo 31 Kvemo Kartli region, forest brooks and seep along Tbilisi-Tsalka main road, 1495 m a.s.l., 41°40.166'N 44°19.191'E

Geo 32 Kvemo Kartli region, Kolagiri, Khrami

River and channel, littoral forest, 420 m a.s.l., 41°28.828'N 44°41.672'E

Geo 33 Kvemo Kartli region, Poladauri (Chatakh), Lokistskali Stream and springs, 700 m a.s.l., 41°19.848'N 44°29.881'E

Geo 34 Kvemo Kartli region, Poladauri (Samtsevrissi), Bolnisisetskali (Poladauri) River, 665 m a.s.l., 41°20.287'N 44°30.271'E

Geo 35 Kvemo Kartli region, Tskhrakudaani, Algeti River above (W of) village, 1010 m a.s.l., 41°40.534'N 44°22.772'E

Geo 36 Kvemo Kartli region, Vanati (Migirlo), Bolnisisetskali River gallery forest and sidespring, 490 m a.s.l., 41°25.222'N 44°34.921'E

Geo 37 Border of Iméréthie and Samtskhé-Djavakhétie regions, brook and spring, south slope of Zekari Pass, 2050 m a.s.l., 41°49.383'N 42°51.150'E

Geo 38 Mtskheta-Mtianeti region, above Archangel Monastery complex, Khde River, 1450 m a.s.l., 42°44.133'N 44°38.316'E

Geo 39 Mtskheta-Mtianeti region, above Gveleti village, lakes above Amali/Kabakhi River, 1115 m a.s.l., 42°43.350'N 44°37.350'E

Geo 40 Mtskheta-Mtianeti region, above Juta, Chaukhistskali Valley, big lateral spring flowing from moraine, 2600 m a.s.l., 42°33.237'N 44°46.366'E

Geo 41 Mtskheta-Mtianeti region, above Juta, spring and brook in Chaukhistskali Valley, 2500 m a.s.l., 42°34.500'N 44°45.583'E

Geo 42 Mtskheta-Mtianeti region, above Juta, spring and upper section of Chaukhistskali Valley, 2900–2980 m a.s.l., 42°33.233'N 44°46.368'E

Geo 43 Mtskheta-Mtianeti region, above Karkucha village, steep sidestream of Snostskali River, cascades, 1890 m a.s.l., 42°34.533'N 44°41.250'E

Geo 44 Mtskheta-Mtianeti region, above Sno village, pond at river, 1770 m a.s.l., 42°34.563'N 44°41.350'E

Geo 45 Mtskheta-Mtianeti region, above Sno village, tributary of Snostskali River, 1900 m a.s.l., 42°35.816'N 44°38.433'E

Geo 46 Mtskheta-Mtianeti region,

Arakhveti, forest stream, 1410 m a.s.l., 42°25.428'N 44°32.462'E

Geo 47 Mtskheta-Mtianeti region, below Juta village, tributary of Snostskali River., 1870 m a.s.l., 42°33.800'N 44°42.466'E

Geo 48 Mtskheta-Mtianeti region, below Tsdo village, sidestream of Terek River, 1710 m a.s.l., 42°40.933'N 44°37.966'E

Geo 49 Mtskheta-Mtianeti region, Dariali, forest brook in Khde River valley, 1590 m a.s.l., 42°43.904'N 44°38.676'E

Geo 50 Mtskheta-Mtianeti region, Dariali, lateral big resurgence, in Khde River valley above dam, 1610 m a.s.l., 42°43.900'N 44°38.666'E

Geo 51 Mtskheta-Mtianeti region, deciduous forest, 2020 m a.s.l., 42°39.866'N 44°36.650'E

Geo 52 Mtskheta-Mtianeti region, forest meadow, 2000 m a.s.l., 42°39.866'N 44°37.450'E

Geo 53 Mtskheta-Mtianeti region, Gudauri, open brook along military road, 2250 m a.s.l., 42°29.521'N 44°28.037'E

Geo 54 Mtskheta-Mtianeti region, Gudauri, temporary brook, 2045 m a.s.l., 42°28.017'N 44°28.808'E

Geo 55 Mtskheta-Mtianeti region, Gveleti, Gveleti Waterfalls, Tibistskali stream, 1570 m a.s.l., 42°42.266'N 44°37.250'E

Geo 56 Mtskheta-Mtianeti region, Gveleti, Tibistskali Stream above its mouth to Terek River, 1440 m a.s.l., 42°42.605'N 44°37.597'E

Geo 57 Mtskheta-Mtianeti region, Juta village, seeps and springs, above site No.207, SSE slope, meadow, 2430 m a.s.l., 42°35.120'N 44°44.266'E

Geo 58 Mtskheta-Mtianeti region, Juta village, steep sidebrook, tributary of Juta River, SSE slope, meadow, 2100 m a.s.l., 42°34.800'N 44°44.516'E

Geo 59 Mtskheta-Mtianeti region, Juta village., seeps and springs, SSE slope, meadow, 2430 m a.s.l., 42°35.000'N 44°44.268'E

Geo 60 Mtskheta-Mtianeti region, Juta, Chaukhistskali River above (E of) settlement, 2385 m a.s.l., 42°33.868'N 44°45.689'E

Geo 61 Mtskheta-Mtianeti region, Juta, Jutistskali River below (W of) village, 1870 m a.s.l., 42°33.43'N 44°42.36'E

Geo 62 Mtskheta-Mtianeti region, Juta, Kora River below (W of) village, 1860 m a.s.l., 42°33.817'N 44°42.447'E

Geo 63 Mtskheta-Mtianeti region, Juta, open springbrooks above (E of) village, 2340 m a.s.l., 42°34.474'N 44°45.249'E

Geo 64 Mtskheta-Mtianeti region, Juta, spring brooks in Chaukhistskali River valley, 2600 m a.s.l., 42°33.227'N 44°46.367'E

Geo 65 Mtskheta-Mtianeti region, Kharkheti (Nadibani), Aragvi River and its sidestream, 1235 m a.s.l., 42°24.961'N 44°36.254'E

Geo 66 Mtskheta-Mtianeti region, Kharkheti (Nadibani), Aragvi River and its sidestream and sidesprings, 1235 m a.s.l., 42°24.965'N 44°36.256'E

Geo 67 Mtskheta-Mtianeti region, Kharkheti (Nadibani), Aragvi River and its sidestream and sidesprings, 1235 m a.s.l., 42°24.969'N 44°36.258'E

Geo 68 Mtskheta-Mtianeti region, Kvemo Mleta, side spring and brook after bridge above village, tributary of Tetri Aragvi River, 1490 m a.s.l., 42°25.916'N 44°30.450'E

Geo 69 Mtskheta-Mtianeti region, Kvemo Mleta, spring and its outlet along military road, 1485 m a.s.l., 42°25.907'N 44°30.460'E

Geo 70 Mtskheta-Mtianeti region, Kvemo Mleta, spring and its outlet, 1485 m a.s.l., 42°25.9015'N 44°30.460'E

Geo 71 Mtskheta-Mtianeti region, lower section of Chaukhistskali Stream, 2500 m a.s.l., 42°33.469'N 44°46.026'E

Geo 72 Mtskheta-Mtianeti region, Mejilauri, forest and bushy springs and outlets, 1270 m a.s.l., 42°19.423'N 44°38.732'E

Geo 73 Mtskheta-Mtianeti region, Meneso, Aragvi River, 910 m a.s.l., 42°13.730'N 44°40.387'E

Geo 74 Mtskheta-Mtianeti region, Pansheti, Snostskali River at its confluence to Terek River, 1745 m a.s.l., 42°38.234'N 44°37.934'E

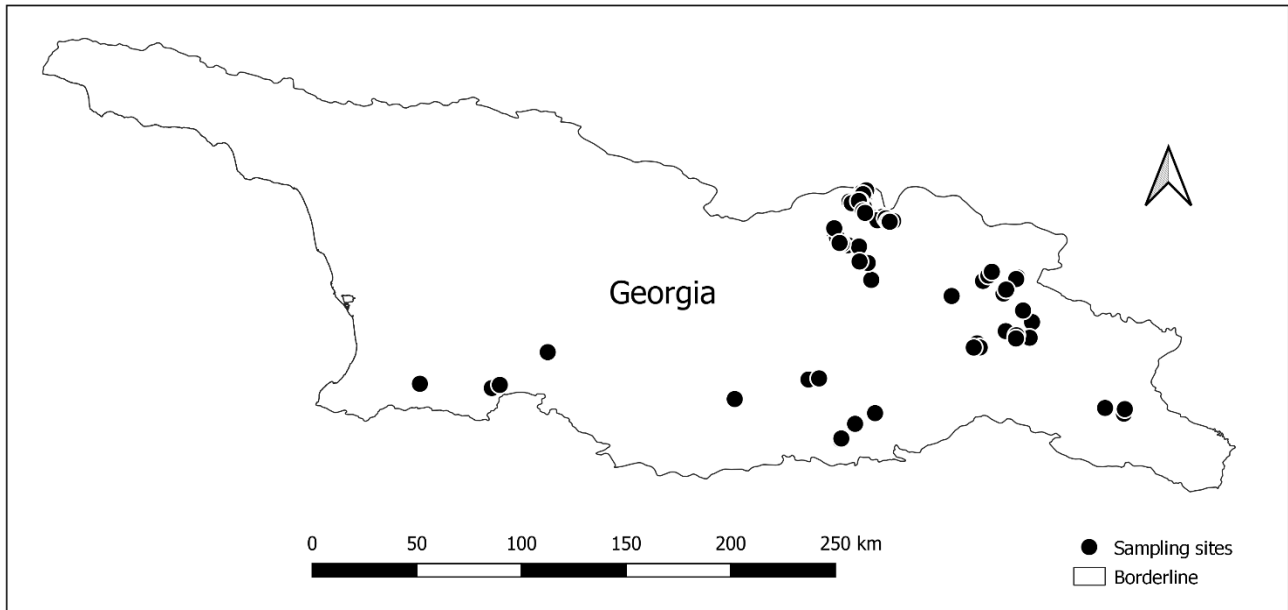


Fig. 2. The map of sampling sites from Georgia.

Geo 75 Mtskheta-Mtianeti region, rocky area by Gergeti Glacier of Mt. Kazbek, 3235 m a.s.l., 42°40.116'N 44°33.012'E

Geo 76 Mtskheta-Mtianeti region, sidebrook of Chkheri River crossing forest road, 2050 m a.s.l., 42°40.200'N 44°36.616'E

Geo 77 Mtskheta-Mtianeti region, sidebrook of Chkheri River, 2030 m a.s.l., 42°40.283'N 44°36.483'E

Geo 78 Mtskheta-Mtianeti region, sidespring of Chkheri River beneath Altihut 3014 mountain shelter, 2940 m a.s.l., 42°39.596'N 44°33.797'E

Geo 79 Mtskheta-Mtianeti region, sidesprings and sidebrook of Chkheri River, 2090 m a.s.l., 42°40.316'N 44°36.183'E

Geo 80 Mtskheta-Mtianeti region, Sno, karst stream below (N of) village, 1765 m a.s.l., 42°36.937'N 44°37.640'E

Geo 81 Mtskheta-Mtianeti region, Sno, Snostskali River at Sno Castle, 1770 m a.s.l., 42°36.306'N 44°38.290'E

Geo 82 Mtskheta-Mtianeti region, springs and their outlet brooks N of Jvari Pass, 2380 m a.s.l., 42°31.123'N 44°27.872'E

Geo 83 Mtskheta-Mtianeti region, Tsinamkhari (Mejilaurni), forest stream and swampy sidebrook, 1180 m a.s.l., 42°19.478'N 44°38.919'E

Geo 84 Mtskheta-Mtianeti region, Tsinamkhari (Mejilaurni), stream and swampy sidebrook, 1180 m a.s.l., 42°19.478'N 44°38.919'E

Geo 85 Mtskheta-Mtianeti region, Tsinamkhari (Mejilaurni), stream, 1244 m a.s.l., 42°19.394'N 44°38.766'E

Geo 86 Mtskheta-Mtianeti region, Tsinamkhari, forest edge swamp, 1150 m a.s.l., 42°19.442'N 44°39.196'E

Geo 87 Mtskheta-Mtianeti region, Ukanamkhari, torrent, 1565 m a.s.l., 42°19.921'N 44°36.437'E

Geo 88 Mtskheta-Mtianeti region, upper brook towards Chaukhi Pass, 2900 m a.s.l., 42°33.582'N 44°47.783'E

Geo 89 Mtskheta-Mtianeti region, upper section of Chaukhistskali Stream, and its sidesep, 2645 m a.s.l., 42°33.320'N 44°46.625'E

Geo 90 Mtskheta-Mtianeti region, Zemo Mleta, brook and seeps along military road, 1565 m a.s.l., 42°26.172'N 44°29.685'E

Geo 91 Mtskheta-Mtianeti region, Zemo Mleta, waterfall and seeps, 1565 m a.s.l., 42°26.177'N 44°29.683'E

Geo 92 Samtskhe-Javakheti region, Utkisubani, waterfall towards Goderdzi Pass, 1660 m a.s.l., 41°38.345'N 42°34.976'E

Results

Systematic part

Pediciidae

Dicranota (Ludicia) iranensis (Alexander, 1975)

Material examined. Georgia: Geo 06, 02.05.2019, 1 m, JO; Geo 15, 2.5.2019, 1 m, JO; Geo 16, 02.05.2019, 1 m, JO; Geo 84, 28.04.2019, 7 m, 1 f, JO.

Dicranota (Paradicranota) candelisequa Starý, 1981

Material examined. Georgia: Geo 77, 04.07.2019, 1 m, PM.

Dicranota (Paradicranota) landrocki Czizek, 1931

Material examined. Azerbaijan: Aze 11, 06.05.2019, 1 m, JO.

Dicranota (Paradicranota) parviuncinata Savchenko, 1983

Material examined (macropterous form): Azerbaijan: Aze 12, 06.05.2019, 1 f, JO. Georgia: Geo 03, 27.09.2019, 1 m, 1 f, PM; Geo 06, 02.05.2019, 1 m, JO; Geo 18, 02.05.2019, 1 m, 1 f, JO; Geo 19, 04.05.2019, 1 m, JO; Geo 23, 03.05.2019, 1 m, JO; Geo 42, 30.09.2019, 3 m, 1 f, GV; Geo 53, 13.07.2019, 2 m, TK, PM, DM, GV. (f. *brevis*): Georgia: Geo 07, 04.05.2019, 2 m, JO; Geo 23, 03.05.2019, 3 m, JO; Geo 35, 15.07.2019, 1 m, TK, DM, GV; Geo 41, 30.09.2019, 2 m, 1 f, GV; Geo 50, 02.10.2019, 2 f, GV; Geo 53, 13.07.2019, 1 m, TK, PM, DM, GV; Geo 55, 06.07.2019, 1 m, PM; Geo 85, 28.04.2019, 1 m, JO; Geo 91, 27.04.2019, 4 m, 2 f, JO. (f. *perbrevis*): Georgia: Geo 07, 04.05.2019, 8 m, 2 f, JO; Geo 23, 03.05.2019, 3 m, 4 f, JO; Geo 46, 27.04.2019, 1 f, JO; Geo 53, 13.07.2019, 3 m, 3 f, TK, PM, DM, GV; Geo 88, 11.07.2019, 2 m, 2 f, TK, PM, DM, GV. (f. *opilionimorpha*): Georgia: Geo 23, 03.05.2019, 1 m, JO; Geo 88, 11.07.2019, 1 f, TK, PM, DM, GV.

Distribution. Only known from Russia (North Caucasus). First records for Azerbaijan, Georgia and Transcaucasia.

Remark. This species is probably widely distributed in the Caucasus (Lantsov 2012). Specimens with various degrees of wing reduction may occur at one locality, and may not correspond exactly to the forms established by Savchenko & Parkhomenko (1983).

Dicranota (Paradicranota) simulans Lackschewitz, 1940

Material examined. Georgia: Geo 58, 05.07.2019, 2 m, PM; Geo 62, 10.07.2019, 1 m, TK, PM, DM, GV.

Dicranota (Paradicranota) subtilis Loew, 1871

Material examined. Georgia: Geo 18, 02.05.2019, 1 m, JO; Geo 68, 02.10.2019, 1 m, PM; Geo 87, 28.04.2019, 1 m, JO; Geo 91, 27.04.2019, 2 m, 1 f, JO.

Pedicia (Amalopsis) occulta (Meigen, 1830)

Material examined. Azerbaijan: Aze 13, 03.10.2019, 1 m, PM. Georgia: Geo 246, 30.04.2019, 1 f, JO.

Tricyphona (Tricyphona) immaculata (Meigen, 1804)

Material examined. Azerbaijan: Aze 03, 02.10.2019, 2 m, 4 f, PM; Aze 05, 01.10.2019, 2 m, 2 f, PM; Aze 07, 30.09.2019, 2 m, 1 f, PM; Aze 13, 03.10.2019, 5 m, 4 f, PM; Aze 20, 10.05.2019, 1 f, PM; Aze 24, 08.05.2019, 1 m, 1 f, JO; Aze 27, 06.05.2019, 1 m, JO; Aze 28, 09.05.2019, 1 f, JO. Georgia: Geo 01, 27.09.2019, 1 m, PM; Geo 06, 02.05.2019, 4 m, JO; Geo 07, 04.05.2019, 1 m, 3 f, JO; Geo 19, 04.05.2019, 1 m, 1 f, JO; Geo 22, 03.05.2019, 1 f, JO; Geo 33, 29.04.2019, 1 m, JO; Geo 40, 30.09.2019, 1 m, GV; Geo 42, 30.09.2019, 2 m, 2 f, GV; Geo 46, 27.04.2019, 1 m, JO; Geo 53, 13.07.2019, 5 m, TK, PM, DM, GV; Geo 59, 05.07.2019, 1 f, PM; Geo 60, 11.07.2019, 1 m, TK, PM, DM, GV; Geo 63, 11.07.2019, 1 f, TK,

PM, DM, GV; Geo 64, 11.07.2019, 2 f, TK, PM, DM, GV; Geo 78, 10.07.2019, 9 m, 8 f, TK, PM, DM, GV; Geo 82, 09.07.2019, 4 m, TK, PM, DM, GV; Geo 86, 28.04.2019, 1 m, JO.

Ula (Ula) mollissima Haliday, 1833

Material examined. Azerbaijan: Aze 11, 06.05.2019, 1 m, JO; Aze 23, 05.05.2019, 2 m, 2 f, JO. Georgia: Geo 06, 02.05.2019, 5 m, 3 f, JO; Geo 15, 02.05.2019, 1 m, JO.

Distribution. Europe, Russia (North Caucasus, Tulskeya oblast, Altay), Georgia and Turkey. First records for Azerbaijan.

Limoniidae

Limnophilinae

Austrolimnophila (Austrolimnophila) vikhrevi Gavryushin, 2015

Material examined. Azerbaijan: Aze 02, 09.05.2019, 1 m, JO; Aze 15, 07.05.2019, 1 f, JO. Georgia: Geo 13, 08.07.2019, 1 m, PM, GV; Geo 27, 03.05.2019, 3 f, JO.

Distribution. Only known from Russia (North Caucasus) and Azerbaijan. First records for Georgia.

Dicranophragma (Brachylimnophila) nemorale (Meigen, 1818)

Material examined. Georgia: Geo 37, 17.07.2019, 3 f, GV.

Dicranophragma (Brachylimnophila) separatum (Walker, 1848)

Material examined. Azerbaijan: Aze 27, 06.05.2019, 1 m, JO. Georgia: Geo 06, 02.05.2019, 1 m, TK, PM, DM, GV; Geo 52, 04.07.2019, 2 f, PM; Geo 51, 04.07.2019, 12 m, PM; Geo 76, 04.07.2019, 1 f, PM; Geo 79, 04.07.2019, 1 m, PM; Geo 82, 09.07.2019, 2 m, PM.

Distribution. Europe, Kazakhstan, and Russia (incl. North Caucasus). First records for Azerbaijan, Georgia and Transcaucasia.

Eloeophila lucasi Starý, 2009

Material examined. Georgia: Geo 29, 03.05.2019, 1 m, JO; Geo 67, 09.07.2019, 1 m, TK, PM, DM, GV.

Distribution. Only known from original description from Italy. First records for Georgia and Transcaucasia. First records since original description.

Epiphragma (Epiphragma) ocellare (Linnaeus, 1760)

Material examined. Azerbaijan: Aze 18, 08.05.2019, 1 m, JO.

Limnophila (Limnophila) schranki Oosterbroek, 1992

Material examined. Georgia: Geo 33, 29.04.2019, 1 f, JO; Geo 34, 29.04.2019, 1 m, JO; Geo 86, 28.04.2019, 4 m, JO.

Paradelphomyia brevifurca Savchenko, 1976

Material examined. Georgia: Geo 54, 27.04.2019, 1 m, JO.

Phylidorea (Phylidorea) ferruginea (Meigen, 1818)

Material examined. Azerbaijan: Aze 22, 07.05.2019, 2 m, JO. Georgia: Geo 03, 27.09.2019, 2 m, 2 f, PM; Geo 04, 16.07.2019, 1 m, 2 f, GV; Geo 39, 06.07.2019, 1 m, PM.

Distribution. Europa, Russia (incl. North Caucasus, West Siberia), Armenia, Azerbaijan, Turkey, Israel, Central Asia, Mongolia. First records for Georgia.

Pseudolimnophila (Pseudolimnophila) melanura Savchenko, 1984

Material examined. Azerbaijan: Aze 18, 08.05.2019, 16 m, 1 f, JO; Aze 22, 07.05.2019, 4 m, 1f, JP. Georgia: Geo 29, 03.05.2019, 2 m, JO.

Pseudolimnophila (Pseudolimnophila) sepium (Verrall, 1886)

Material examined. Azerbaijan: Aze 18,

08.05.2019, 2 m, JO; Aze 22, 07.05.2019, 2 m, JO. Georgia: Geo 83, 13.07.2019, 5 m, 4 f, TK, PM, DM, GV.

Chioneinae

Cheilotrichia (Cheilotrichia) vagans Savchenko, 1972

Material examined. Azerbaijan: Aze 02, 09.05.2019, 1 f, JO; Aze 10, 06.05.2019, 1 m, 1 f, JO; Aze 11, 06.05.2019, 10 m, 4 f, JO; Aze 21, 10.05.2019, 1 f, JO; Aze 23, 05.05.2019, 4 m, JO; Aze 24, 08.05.2019, 4 m, 3 f, JO; Aze 28, 09.05.2019, 1 f, JO. Georgia: Geo 06, 02.05.2019, 1 f, JO; Geo 15, 02.05.2019, 1 m, JO; Geo 33, 29.04.2019, 1 m, JO.

Distribution. Only known from Georgia and Russia (North Caucasus). First records for Azerbaijan.

Crypteria (Crypteria) limnophiloides Bergroth, 1913

Material examined. Azerbaijan: Aze 05, 01.10.2019, 1 f, PM.

Distribution. Europe, incl. European Russia and Georgia. First record for Azerbaijan.

Erioconopa symplectoides (Kuntze, 1914)

Material examined. Azerbaijan: Aze 03, 02.10.2019, 5 m, 3 f, PM; Aze 04, 02.10.2019, 1 m, PM; Aze 13, 03.10.2019, 14 m, 2 f, PM. Georgia: Geo 53, 13.07.2019, 2 m, 1 f, TK, PM, DM, GV; Geo 82, 09.07.2019, 2 m, TK, PM, DM, GV.

Erioptera (Erioptera) fusculeta Edwards, 1938

Material examined. Azerbaijan: Aze 8, 30.09.2019, 3 m, PM; Aze 18, 08.05.2019, 2 m, JO. Georgia: Geo 08, 04.05.2019, 1 m, JO; Geo 11, 08.07.2019, 4 m, 1 f, TK, PM, DM, GV.

Erioptera (Erioptera) gorgona Savchenko, 1981

Material examined. Georgia: Geo 12, 09.07.2019, 1 m, 1 f, PM, GV.

Distribution. Only known from original description from Georgia. First record since original description.

Erioptera (Erioptera) lutea Meigen, 1804

Material examined. Azerbaijan: Aze 03, 02.10.2019, 1 m, 2 f, PM; Aze 06, 01.10.2019, 1 f, PM; Aze 8, 30.09.2019, 1 m, PM; Aze 9, 30.09.2019, 1 m, PM; Aze 11, 06.05.2019, 1 f, JO; Aze 23, 05.05.2019, 1 m, JO. Georgia: Geo 82, 09.07.2019, 1 m, TK, PM, DM, GV.

Erioptera (Erioptera) tenuirama Savchenko, 1972

Material examined. Georgia: Geo 11, 08.07.2019, 9 m, 2 f, PM, GV; Geo 35, 15.07.2019, 1 m, 1 f, TK, DM, GV.

Gonomyia (Gonomyia) conoviensis Barnes, 1924

Material examined. Azerbaijan: Aze 06, 01.10.2019, 1 m, PM. Georgia: Geo 70, 27.04.2019, 1 m, JO.

Remark. See Discussion and conclusions: taxonomy.

Gonomyia (Gonomyia) modica Savchenko, 1972

Material examined. Georgia: Geo 72, 13.07.2019, 1 m, TK, PM, DM, GV.

Gonomyia (Gonomyia) subtenella Savchenko, 1972

Material examined. Azerbaijan: Aze 01, 09.05.2019, 1 m, JO.

Hoplolabis (Parilisia) iranica (Alexander, 1973)

Material examined. Georgia: Geo 47, 05.07.2019, 1 m, PM; Geo 74, 12.07.2019, 2 m, 1 f, TK, PM, DM, GV.

Hoplolabis (Parilisia) vicina (Tonnoir, 1920)

Material examined. Georgia: Geo 14, 02.05.2019, 1 m, JO.

Hoplolabis (Parilisia) yezoana (Alexander, 1924)

Material examined. Georgia: Geo 14, 02.05.2019, 4 m, 3 f, JO; Geo 44, 05.07.2019, 1 m, PM; Geo 74, 12.07.2019, 2 m, 1 f, TK, PM, DM, GV.

Idiocera (Idiocera) pulchripennis (Loew, 1856)

Material examined. Azerbaijan: Aze 18, 08.05.2019, 5 m, JO; Aze 22, 07.05.2019, 18 m, 8 f, JO. Georgia: Geo 08, 04.05.2019, 1 m, JO; Geo 29, 03.05.2019, 2 m, JO.

Ilisia maculata (Meigen, 1804)

Material examined. Azerbaijan: Aze 02, 09.05.2019, 2 f, JO; Aze 27, 06.05.2019, 1 m, 1 f, JO. Georgia: Geo 08, 04.05.2019, 1 f, JO; Geo 09, 09.07.2019, 1 m, 1 f, PM, GV; Geo 12, 09.07.2019, 1 m, PM, GV.

Molophilus (Molophilus) bidigitifer Savchenko, 1976

Material examined. Georgia: Geo 22, 03.05.2019, 3 m, JO.

Molophilus (Molophilus) decoloratus Savchenko, 1978, n. stat.

Material examined. Azerbaijan: Aze 24, 08.05.2019, 2 m, 1 f, JO; Aze 25, 05.05.2019, 3 m, JO; Aze 28, 09.05.2019, 1 m, JO. Georgia: Geo 66, 09.07.2019, 3 m, TK, PM, DM, GV; Geo 74, 12.07.2019, 2 m, TK, PM, DM, GV; Geo 80, 12.07.2019, 1 m, 1 f, TK, PM, DM, GV.

Remark. See Discussion and conclusions: taxonomy.

Molophilus (Molophilus) hebetatus Savchenko, 1976, n. stat.

Material examined. Azerbaijan: Aze 01, 09.05.2019, 2 m, 1 f, JO; Aze 15, 07.05.2019, 1 m, JO. Georgia: Geo 06, 02.05.2019, 1 m, JO; Geo 28, 03.05.2019, 3 m, JO.

Distribution. Only known from Russia (North Caucasus), Georgia and Armenia. First records for Azerbaijan.

Remark. See Discussion and conclusions: taxonomy.

Molophilus (Molophilus) lackschewitzianus Alexander, 1953

Material examined. Azerbaijan: Aze 17, 08.05.2019, 1 m, 1 f, JO; Aze 18, 08.05.2019, 2 m, JO; Aze 20, 10.05.2019, 2 m, JO. Georgia: Geo 06, 02.05.2019, 2 m, 1 f, JO.

Distribution. Europe and Russia (North Caucasus). First records for Azerbaijan, Georgia and Transcaucasia.

Remark. See Discussion and conclusions: taxonomy.

Molophilus (Molophilus) nodulifer Savchenko, 1978

Material examined. Georgia: Geo 37, 17.07.2019, 1 m, GV; Geo 72, 13.07.2019, 1 m, TK, PM, DM, GV.

Molophilus (Molophilus) palpifer Savchenko, 1976

Material examined. Georgia: Geo 53, 13.07.2019, 2 m, TK, PM, DM, GV.

Molophilus (Molophilus) pauper Savchenko, 1978

Material examined. Georgia: Geo 49, 12.07.2019, 2 m, TK, PM, DM, GV; Geo 57, 5.7.2019, 1 m, PM; Geo 58, 05.07.2019, 4 m, 1 f, PM.

Molophilus (Molophilus) pleuralis de Meijere, 1920

Material examined. Azerbaijan: Aze 22, 07.05.2019, 3 m, JO; Aze 27, 06.05.2019, 1 m, JO.

Molophilus (Molophilus) propinquus (Egger, 1863)

Material examined. Azerbaijan: Aze 18, 08.05.2019, 2 m, JO. Georgia: Geo 15, 02.05.2019, 2 m, JO; Geo 17, 02.05.2019, 1 m, JO; Geo 33, 29.04.2019, 1 m, JO; Geo 44,

05.07.2019, 2 m, PM; Geo 74, 12.07.2019, 1 m, 1 f, TK, PM, DM, GV.

Distribution. Europe, Morocco, Armenia, Georgia, Turkey, and Russia (as far east as Sakhalin and Kuril Is.). First record for Azerbaijan.

Remark. Transcaucasian specimens differ somewhat in the shape of the gonostyli from European populations, which may be a result of clinal variation.

Molophilus (Molophilus) stroblianus Nielsen, 1953

Material examined. Georgia: Geo 66, 09.07.2019, 1 m, TK, PM, DM, GV; Geo 69, 09.07.2019, 1 m, 1 f, TK, PM, DM, GV.

Distribution. Austria, Bulgaria, Czech Republic, Germany, Slovakia and Slovenia. First records for Georgia and Transcaucasia.

Remark. See Discussion and conclusions: taxonomy.

Molophilus (Molophilus) urodontus Savchenko, 1978

Material examined. Azerbaijan: Aze 02, 09.05.2019, 2 m, 3 f, JO; Aze 14, 07.05.2019, 1 m, 2 f, JO; Aze 15, 07.05.2019, 1 m, JO; Aze 24, 08.05.2019, 1 m, JO; Aze 27, 06.05.2019, 7 m, 2 f, JO. Georgia: Geo 10, 08.07.2019, 1 m, PM, GV; Geo 11, 08.07.2019, 1 m, 2 f, PM, GV.

Remark. See Discussion and conclusions: taxonomy.

Ormosia (Ormosia) cuspidata Savchenko, 1973

Material examined. Georgia: Geo 06, 02.05.2019, 2 m, JO; Geo 31, 15.07.2019, 2 m, TK, PM, DM, GV; Geo 58, 05.07.2019, 1 m, 1 f, PM; Geo 69, 09.07.2019, 1 m, 1 f, TK, PM, DM, GV.

Ormosia (Ormosia) hederæ (Curtis, 1835)

Material examined. Georgia: Geo 43, 05.07.2019, 1 m, PM; Geo 45, 05.07.2019, 1 m, PM; Geo 56, 12.07.2019, 1 m, TK, PM, DM, GV; Geo 58, 05.07.2019, 1 m, PM.

Ormosia (Ormosia) subfascipennis Savchenko, 1973

Material examined. Georgia: Geo 49, 12.07.2019, 1 f, TK, PM, DM, GV; Geo 60, 11.07.2019, 4 m, 1 f, TK, PM, DM, GV; Geo 71, 11.07.2019, 1 m, TK, PM, DM, GV; Geo 77, 04.07.2019, 1 m, 1 f, PM; Geo 75, 10.07.2019, 1 m, 1 f, TK, PM, DM, GV; Geo 82, 09.07.2019, 1 m, TK, PM, DM, GV; Geo 89, 11.07.2019, 7 m, 3 f, TK, PM, DM, GV.

Phyllolabis tjederi Savchenko, 1967

Material examined. Georgia: Geo 27, 03.05.2019, 2 m, JO; Geo 87, 28.04.2019, 1 m, 1 f, JO.

Rhabdomastix (Rhabdomastix) filata Starý, 2004

Material examined. Azerbaijan: Aze 12, 06.05.2019, 1 m, JO. Georgia: Geo 55, 06.07.2019, 1 m, 1 f, PM.

Rhabdomastix (Rhabdomastix) georgica Starý, 2004

Material examined. Georgia: Geo 44, 05.07.2019, 1 m, PM; Geo 81, 13.07.2019, 1 m, TK, PM, DM, GV.

Distribution. Only known from original description from Georgia. First records since original description.

Rhypholophus bifurcatus Goetghebuer, 1920

Material examined. Georgia: Geo 54, 27.04.2019, 1 m, JO.

Scleroprocta latiprocta Savchenko, 1973

Material examined. Azerbaijan: Aze 21, 10.05.2019, 4 m, JO; Aze 28, 09.05.2019, 1 m, 1 f, JO.

Distribution. Only known from Georgia. First records for Azerbaijan.

Symplecta (Psiloconopa) stictica (Meigen, 1818)

Material examined. Azerbaijan: Aze 22,

07.05.2019, 1 f, JO; Aze 24, 08.05.2019, 1 f, JO; Aze 25, 05.05.2019, 1 f, JO. Georgia: Geo 07, 04.05.2019, 2 f, JO.

Symplecta (Symplecta) hybrida (Meigen, 1804)

Material examined. Azerbaijan: Aze 12, 06.05.2019, 2 m, 2 f, JO; Aze 18, 08.05.2019, 1 f, JO; Georgia: Geo 14, 02.05.2019, 1 m, JO; Geo 25, 30.04.2019, 1 m, 1 f, JO; Geo 26, 04.05.2019, 1 f, JO; Geo 34, 29.04.2019, 1 f, JO; Geo 65, 27.04.2019, 1 m, JO.

Tasiocera (Dasymolophilus) fuscescens (Lackschewitz, 1940)

Material examined. Azerbaijan: Aze 17, 08.05.2019, 4 m, 1 f, JO; Aze 18, 08.05.2019, 1 m, JO.; Aze 28, 09.05.2019, 7 m, JO; Georgia: Geo 21, 01.05.2019, 1 m, JO.

Distribution. Europe. First records for Georgia, Azerbaijan and Transcaucasia.

Tasiocera (Dasymolophilus) murina (Meigen, 1818)

Material examined. Azerbaijan: Aze 01, 09.05.2019, 2 m, 1 f, JO; Aze 02, 09.05.2019, 4 m, JO. Georgia: Geo 09, 9.7.2019, 1 m, PM, GV; Geo 58, 05.07.2019, 1 m, PM; Geo 69, 09.07.2019, 1 m, TK, PM, DM, GV.

Limoniinae

Achrolimonia decemmaculata (Loew, 1873)

Material examined. Azerbaijan: Aze 15, 07.05.2019, 1 m, JO; Aze 26, 05.05.2019, 1 m, JO. Georgia: Geo 06, 02.05.2019, 4 m, 2 f, JO; Geo 15, 02.05.2019, 3 m, JO; Geo 17, 02.05.2019, 1 f, JO.

Antocha (Antocha) libanotica Lackschewitz, 1940

Material examined. Georgia: Geo 84, 28.04.2019, 3 m, 1 f, JO.

Antocha (Antocha) vitripennis (Meigen, 1830)

Material examined. Azerbaijan: Aze 9,

30.09.2019, 1 f, PM; Aze 27, 01.10.2019, 1 f, PM. Georgia: Geo 33, 29.04.2019, 7 m, 2 f, JO; Geo 34, 29.04.2019, 1 m, 1 f, JO.

Distribution. Europe, Russia (incl. North Caucasus), Armenia, Turkey, Israel and Afghanistan. First records for Azerbaijan and Georgia.

Antocha (Orimargula) alpigena (Mik, 1883)

Material examined. Georgia: Geo 18, 02.05.2019, 1 f, JO; Geo 31, 15.07.2019, 1 m, TK, DM, GV.

Atypophthalmus (Atypophthalmus) inustus (Meigen, 1818)

Material examined. Azerbaijan: Aze 02, 09.05.2019, 1 m, JO.

Dicranomyia (Dicranomyia) chorea (Meigen, 1818)

Material examined. Azerbaijan: Aze 05, 01.10.2019, 1 f, PM; Aze 23, 05.05.2019, 4 m, 2 f, JO; Aze 25, 05.05.2019, 1 f, JO; Aze 26, 05.05.2019, 3 m, JO. Georgia: Geo 21, 01.05.2019, 1 f, JO; Geo 73, 28.04.2019, 1 m, 1 f, JO.

Dicranomyia (Dicranomyia) didyma (Meigen, 1804)

Material examined. Azerbaijan: Aze 05, 01.10.2019, 1 m, 1 f, PM; Aze 06, 01.10.2019, 2 m, PM; Aze 17, 08.05.2019, 2 m, JO. Georgia: Geo 48, 06.07.2019, 1 m, PM; Geo 53, 13.07.2019, 1 m, TK, PM, DM, GV; Geo 55, 06.07.2019, 1 m, PM; Geo 90, 09.07.2019, 1 m, TK, PM, DM, GV.

Dicranomyia (Dicranomyia) imbecilla Lackschewitz, 1941

Material examined. Georgia: Geo 49, 12.07.2019, 1 m, TK, PM, DM, GV; Geo 50, 02.10.2019, 1 m, GV.

Distribution. Europe and Russia (incl. North Caucasus). First records for Georgia and

Transcaucasia.

Dicranomyia (*Dicranomyia*) *livornica*
Lackschewitz, 1928

Material examined. Georgia: Geo 61, 11.07.2019, 1 f, GV.

Distribution. France, Greece, Italy, and Turkey. First record for Georgia and Transcaucasia.

Dicranomyia (*Dicranomyia*) *longipennis*
(Schummel, 1829)

Material examined. Azerbaijan: Aze 8, 30.09.2019, 6 m, 2 f, PM; Aze 18, 08.05.2019, 7 m, 2 f, JO.

Dicranomyia (*Dicranomyia*) *lutea* (Meigen, 1804)

Material examined. Azerbaijan: Aze 20, 10.05.2019, 2 m, 4 f, JO.

Distribution. Europe. First record for Azerbaijan and Transcaucasia.

Dicranomyia (*Dicranomyia*) *melanantha*
Savchenko, 1984

Material examined. Georgia: Geo 01, 27.09.2019, 1 f, PM; Geo 18, 02.05.2019, 1 m, JO; Geo 92, 27.9.2019, 1 m, 1 f, PM.

Dicranomyia (*Dicranomyia*) *modesta* (Meigen, 1818)

Material examined. Azerbaijan: Aze 01, 09.05.2019, 1 m, JO; Aze 02, 09.05.2019, 1 m, JO; Aze 8, 30.09.2019, 1 m, PM; Aze 14, 07.05.2019, 1 m, 1 f, JO; Aze 15, 07.05.2019, 1 m, 1 f, JO; Aze 18, 08.05.2019, 2 m, JO; Aze 20, 10.05.2019, 1 m, JO; Aze 21, 10.05.2019, 1 m, JO; Aze 23, 05.05.2019, 3 m, JO; Aze 27, 06.05.2019, 2 m, 1 f, JO. Georgia: Geo 05, 01.05.2019, 2 m, 1 f, JO; Geo 20, 30.04.2019, 1 m, 1 f, JO; Geo 21, 01.05.2019, 1 m, JO; Geo 27, 03.05.2019, 2 m, JO; Geo 28, 03.05.2019, 2 m, JO; Geo 29, 03.05.2019, 2 m, JO; Geo 32, 29.04.2019, 2 m, 2 f, JO; Geo 33, 29.04.2019, 2 m, JO; Geo 34, 29.04.2019, 1 m, JO; Geo 36,

29.04.2019, 2 m, 1 f, JO; Geo 86, 28.04.2019, 2 m, 2 f, JO.

Dicranomyia (*Dicranomyia*) *ornata* (Meigen, 1818)

Material examined. Georgia: Geo 06, 02.05.2019, 2 f, JO.

Distribution. Europe, Russia (North Caucasia) and Turkey. First record for Georgia and Transcaucasia.

Dicranomyia (*Numantia*) *fusca* (Meigen, 1804)

Material examined. Azerbaijan: Aze 01, 09.05.2019, 1 m, 1 f, JO; Aze 02, 09.05.2019, 1 m, JO; Aze 15, 07.05.2019, 1 m, 1 f, JO; Aze 17, 08.05.2019, 7 m, 1 f, JO; Aze 24, 08.05.2019, 2 m, JO; Aze 27, 06.05.2019, 2 m, JO; Aze 28, 09.05.2019, 4 m, 1 f, JO. Georgia: Geo 03, 27.09.2019, 1 f, PM; Geo 06, 02.05.2019, 6 m, 3 f, JO; Geo 04, 16.07.2019, 1 f, GV; Geo 15, 02.05.2019, 2 m, JO; Geo 28, 03.05.2019, 1 m, JO; Geo 29, 03.05.2019, 1 m, JO; Geo 30, 15.07.2019, 1 f, TK, DM, GV; Geo 33, 29.04.2019, 2 m, 1 f, JO; Geo 35, 15.07.2019, 1 m, TK, DM, GV; Geo 48, 06.07.2019, 2 m, 1 f, PM; Geo 49, 12.07.2019, 2 m, 1 f, TK, PM, DM, GV; Geo 53, 13.07.2019, 3 m, TK, PM, DM, GV; Geo 54, 27.04.2019, 2 f, JO; Geo 76, 04.07.2019, 4 m, 4 f, PM; Geo 77, 04.07.2019, 1 f, PM.

Geranomyia eugeniana Lantsov, 2015

Material examined. Azerbaijan: Aze 15, 07.05.2019, 1 m, JO. Georgia: Geo 72, 13.07.2019, 1 m, TK, PM, DM, GV.

Distribution. Only known from Russia (North Caucasus) and Georgia. First record for Azerbaijan.

Limonia eos Starý & Savchenko, 1976

Material examined. Azerbaijan: Aze 02, 09.05.2019, 4 m, JO; Aze 14, 07.05.2019, 5 m, JO; Aze 15, 07.05.2019, 1 m, 1 f, JO. Georgia: Geo 05, 01.05.2019, 9 m, 2 f, JO; Geo 20, 30.04.2019, 1 m, JO; Geo 27, 03.05.2019, 3 m, 4 f, JO; Geo 28, 03.05.2019, 1 m, JO.

Distribution. Ukraine (Crimea), Russia (North Caucasus), Georgia, Armenia and Turkey. First records for Azerbaijan.

Limonia flavipes (Fabricius, 1787)

Material examined. Georgia: Geo 38, 06.07.2019, 1 m, 1 f, PM; Geo 45, 05.07.2019, 1 m, PM; Geo 52, 04.07.2019, 1 m, PM.

Limonia hercegovinae (Strobl, 1898)

Material examined. Azerbaijan: Aze 03, 02.10.2019, 3 m, PM; Aze 06, 01.10.2019, 1 m, 1 f, PM; Aze 10, 06.05.2019, 1 m, JO; Aze 11, 06.05.2019, 4 m, 6 f, JO; Aze 13, 08.05.2019, 2 m, 1 f, JO; Aze 19, 10.05.2019, 1 m, 1 f, JO; Aze 23, 05.05.2019, 2 m, JO; Aze 24, 08.05.2019, 2 m, Aze 27, 06.05.2019, 1 m, 1 f, JO; Aze 28, 09.05.2019, 1 m, JO. Georgia: Geo 01, 27.09.2019, 4 m, PM; Geo 02, 25.09.2019, 1 m, PM; Geo 03, 27.09.2019, 1 m, PM; Geo 06, 02.05.2019, 2 m, JO; Geo 07, 04.05.2019, 1 f, JO; Geo 08, 04.05.2019, 1 m, 1 f, JO; Geo 15, 02.05.2019, 1 m, 1 f, JO; Geo 17, 02.05.2019, 2 m, JO; Geo 22, 03.05.2019, 6 m, JO; Geo 33, 29.04.2019, 3 m, JO; Geo 38, 06.07.2019, 1 m, JO.

Limonia macrostigma (Schummel, 1829)

Material examined. Georgia: Geo 35, 15.07.2019, 1 m., TK, DM, GV; Geo 80, 12.07.2019, 1 m, TK, PM, DM, GV.

Limonia nubeculosa Meigen, 1804

Material examined. Azerbaijan: Aze 16, 08.05.2019, 1 m, JO; Aze 27, 06.05.2019, 1 f, JO.

Limonia nussbaumi Starý & Freidberg, 2007

Material examined. Azerbaijan: Aze 27, 06.05.2019, 1 m, JO.

Distribution. Westpalaeartic species known from Greece, Turkey, Cyprus, Lebanon, and Israel. First records for Azerbaijan and Transcaucasia.

Limonia phragmitidis (Schrank, 1781)

Material examined. Azerbaijan: Aze 02, 09.05.2019, 5 m, 2 f, JO. Georgia: Geo 06, 02.05.2019, 1 m, 1 f, JO; Geo 33, 29.04.2019, 1 m, JO; Geo 37, 17.07.2019, 2 f, GV; Geo 53, 13.07.2019, 2 m, TK, PM, DM, GV; Geo 63, 11.07.2019, 1 m, TK, PM, DM, GV; Geo 74, 12.07.2019, 1 m, TK, PM, DM, GV.

Limonia stigma (Meigen, 1818)

Material examined. Georgia: Geo 53, 13.07.2019, 1 m, 1 f, TK, PM, DM, GV.

Distribution. Europe, Russia (incl. North Caucasus) and Armenia. First record for Georgia.

Limonia subaequalis Savchenko, 1979

Material examined. Azerbaijan: Aze 11, 06.05.2019, 7 m, 2 f, JO; Aze 15, 07.05.2019, 2 f, JO; Aze 17, 08.05.2019, 1 m, JO; Aze 21, 10.05.2019, 1 f, JO; Aze 23, 05.05.2019, 1 m, 1 f, JO; Aze 26, 08.05.2019, 1 f, JO; Aze 29, 06.05.2019, 2 m, JO. Georgia: Geo 06, 02.05.2019, 4 m, 1 f, JO; Geo 08, 04.05.2019, 2 m, 3 f, JO; Geo 24, 30.04.2019, 2 m, JO; Geo 27, 03.05.2019, 9 m, 1 f, JO.

Limonia trivittata (Schummel, 1829)

Material examined. Georgia: Geo 09, 09.07.2019, 1 f, PM, GV.

Lipsothrix nobilis Loew, 1873

Material examined. Azerbaijan: Aze 02, 09.05.2019, 1 f, JO; Aze 15, 07.05.2019, 1 f, JO. Georgia: Geo 16, 02.05.2019, 1 f, JO; Geo 28, 03.05.2019, 1 f, JO; Geo 33, 29.04.2019, 1 m, 1 f, JO; Geo 76, 04.07.2019, 2 m, PM.

Remark. See Discussion and conclusions: taxonomy.

Metalimnobia (Metalimnobia) quadrimaculata (Linnaeus, 1760)

Material examined. Georgia: Geo 06, 02.05.2019, 1 m, JO.

Metalimnobia (Metalimnobia) quadrinotata (Meigen, 1818)

Material examined. Georgia: Geo 76, 04.07.2019, 1 m, PM.

Distribution. Europe, Russia (incl. North Caucasus, as far east as Yakutia), Armenia, Kyrgyzstan, Kazakhstan, Mongolia, North Korea, South Korea and China. First record for Georgia.

Neolimonia dumetorum (Meigen, 1804)

Material examined. Azerbaijan: Aze 27, 06.05.2019, 1 f, JO.

Rhipidia (Rhipidia) punctiplena Mik, 1887

Material examined. Azerbaijan: Aze 18, 08.05.2019, 1 f, JO.

Distribution. Europe, Russia (incl. North Caucasus, as far east as Primorskiy Krai), Kazakhstan and Mongolia. First record for Azerbaijan and Transcaucasia.

Thaumastoptera (Thaumastoptera) intermixta Savchenko, 1974

Material examined. Azerbaijan: Aze 15, 07.05.2019, 3 m, 1 f, JO. Georgia: Geo 72, 13.07.2019, 4 m, 2 f, TK, PM, DM, GV.

Distribution. Only known from Russia (North Caucasus) and Georgia. First record for Azerbaijan.

Discussion and conclusions

Faunistics

A total of nine species of the family Pediciidae and 80 species of the family Limoniidae (10 Limnophilinae, 38 Chioneinae, 32 Limoniinae) are presented in this paper. Seventeen species are recorded for the first time from Azerbaijan, namely *Dicranota (Paradicranota) parviuncinata*, *Ula (Ula) mollissima*, *Dicranophragma (Brachylimnophila) separatum*, *Cheilotrichia (Cheilotrichia) vagans*, *Crypteria (Crypteria)*

limnophiloides, *Molophilus (Molophilus) hebetatus* n. stat., *M. (M.) lackschewitzianus*, *M. (M.) propinquus*, *Scleroprocta latiprocta*, *Tasiocera (Dasymolophilus) fuscescens*, *Antocha (Antocha) vitripennis*, *Dicranomyia (Dicranomyia) lutea*, *Geranomyia eugeniana*, *Limonia eos*, *L. nussbaumi*, *Rhipidia (Rhipidia) punctiplena*, and *Thaumastoptera (Thaumastoptera) intermixta*. Fourteen species are recorded for the first time from Georgia, namely *Dicranota (Paradicranota) parviuncinata*, *Austrolimnophila (Austrolimnophila) vikhrevi*, *Dicranophragma (Brachylimnophila) separatum*, *Eloeophila lucasi*, *Phylidorea (Phylidorea) ferruginea*, *Molophilus (Molophilus) lackschewitzianus*, *M. (M.) stroblianus*, *Tasiocera (Dasymolophilus) fuscescens*, *Antocha (Antocha) vitripennis*, *Dicranomyia (Dicranomyia) imbecilla*, *D. (D.) livornica*, *D. (D.) ornata*, *Limonia stigma*, and *Metalimnobia (Metalimnobia) quadrinotata*. For the whole of Transcaucasia, the following twelve species are new: *Dicranophrygma (Brachylimnophila) separatum*, *Dicranota (Paradicranota) parviuncinata*, *Eloeophila lucasi*, *Limonia nussbaumi*, *Molophilus (Molophilus) lackschewitzianus*, *M. (M.) stroblianus*, *Tasiocera (Dasymolophilus) fuscescens*, *Dicranomyia (Dicranomyia) imbecilla*, *D. (D.) livornica*, *D. (D.) lutea*, *D. (D.) ornata*, and *Rhipidia (Rhipidia) punctiplena*.

Records of three species represent the first findings since their original descriptions, namely *Eloeophila lucasi*, *Erioptera (Erioptera) gorgona*, and *Rhabdomastix (Rhabdomastix) georgica*. One of the most species-rich locality in Azerbaijan is Aze 15 with 11 species (Fig. 3) and in Georgia is Geo 06 with 16 species (Fig. 4).

The species richness of the family Pediciidae is increased by this paper to nine species for Azerbaijan, to 16 species for Georgia, and six species for Armenia (Oosterbroek 2020). The fauna of the family Limoniidae is increased by this paper to 114 species for Azerbaijan, to 141 species for Georgia, and 77 species are known from Armenia (Oosterbroek 2020).



Fig. 3. One of the most species-rich locality in Azerbaijan. Aze 15, Ləkit, Mamirli Waterfall and springs (600 m a.s.l., 41°29.567'N 46°51.535'E).

Taxonomy

During our research of the families Pediciidae and Limoniidae in Transcaucasia an extensive material has accumulated, which made possible a more detailed taxonomic assessment. Savchenko, in his two highly contributive papers dealing with the genus *Molophilus* (Savchenko 1976, 1978), described several subspecies apparently under belief that if a species-group taxon only slightly differs in the structure of the male terminalia from its close relative, it should be considered a “small species”, hence a subspecies. Based on our recent material we have found that, in two cases, representatives of Savchenko’s subspecies do occur not only sympatrically in Transcaucasia with their nominotypical

counterparts, but even syntopically at one locality (locality Geo 06 for *M. lackschewitzianus* and *hebetatus*, and locality Geo 66 for *stroblianus* and *decoloratus*). Therefore the subspecies are elevated here to species rank.

- *Molophilus* (*Molophilus*) *hebetatus* Savchenko, 1976, n. stat.
Molophilus (s. str.) *lackschewitzianus hebetatus* Savchenko, 1976: 446, Figs 6/1–3 (male terminalia).
- *Molophilus* (*Molophilus*) *decoloratus* Savchenko, 1978, n. stat.
Molophilus (s. str.) *stroblianus decoloratus* Savchenko, 1978: 409, Figs 8/1–3 (male terminalia).



Fig. 4. Sampling sites with highest species diversity in Georgia. Geo 06, Batsara Nature Reserve, Batsara River and its tributary (810 m a.s.l., 42°13.372'N 45°18.122'E).

By analogy, although not based on actual material, the following subspecies are elevated to species rank:

- *Molophilus* (*Molophilus*) *brachyurus* Savchenko, 1978, n. stat.

Molophilus (s. str.) *urodontus brachyurus* Savchenko, 1978: 406, Figs 5/1–3 (male terminalia).

- *Molophilus* (*Molophilus*) *cephaliger* Savchenko, 1978, n. stat.

Molophilus (s. str.) *urodontus cephaliger* Savchenko, 1978: 407, Figs 6/1–3 (male terminalia).

An extensive material also made it possible for two new synonymies to be proposed here:

- *Gonomyia* (*Gonomyia*) *conoviensis* Barnes, 1924 = *G. (G.) oxybeles* Alexander, 1975, n. syn.

The synonymy of the above two names was established based on Fig. 8 of Alexander (1975a).

- *Lipsothrix nobilis* Loew, 1873 = *L. iranica* Alexander, 1975b, n. syn.

In Transcaucasia, both forms occur that correspond in body colouration to *L. nobilis* and *L. iranica*. Their male terminalia are identical.

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