https://doi.org/10.59893/bjc.23(2).002
Baltic J. Coleopterol. 23(2) 2023
ISSN 1407 – 8619

New additions to the fauna of the longhorn beetles in Ukraine with a new record of rare, poorly known and invasive species

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Zamoroka A.M. 2023. New additions to the fauna of the longhorn beetles in Ukraine with a new record of rare, poorly known and invasive species. *Baltic J. Coleopterol., 23(2): 159-188.*

The longhorn beetles' fauna of Ukraine has been studied fairly well. Its study began in the second quarter of the 19th century and continues for about 200 years. However, despite this, previously unknown species are regularly found on the territory of Ukraine. First of all, this is due to the very large territory of the country, as well as the high diversity of biomes. In this paper, I presented the records of three previously unknown species of Cerambycidae for Ukraine: *Enoploderes sanguineus* Faldermann, 1837, *Tetrops peterkai* Skořepa, 2020 and *Neoclytus acuminatus* (Fabricius, 1775). In addition, I provided new data on the findings of 82 species that are rare, poor-known or invasive in Ukraine. This allowed to significantly expand the information and supplement the faunal lists for most physiographic regions of Ukraine. I also found eight climate-sensitive species whose ranges have expanded dramatically northward and into the mountains. The most likely explanation for this may be the current global climate change. For two species, I found an expansion of the ranges from east to west, which, however, can be explained by their poor study in Ukraine. At least three alien invasive species and four steppe species of the longhorn beetles have become naturalized in the most of the territory of Ukraine, where they have never been found before. I also presented new records that confirm the presence of Mediterranean species of Cerambycidae in an isolated refugium in the Crimea. Resultantly, 283 species of the longhorn beetles have been reliably registered on the territory of Ukraine to date.

Key words: Cerambycidae, faunistics, new records, invasive species, biogeography, climate change

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INTRODUCTION

The longhorn beetles or Cerambycidae are the fifth most diverse family of beetles on Earth. The more diverse than Cerambycidae are only Curculionidae (83,000 species), Staphylinidae (63,000 species), Carabidae (40,000 species) and Chrysomelidae (37,000 species). The number of known species of the longhorn beetles ranges from 33,000 (Ślipiński & Escalona, 2013) to 35,000 (Švácha & Lawrence 2014; Gabriš et al., 2016; Wang 2017). Rossa & Goczał (2021) estimated the known diversity of Cerambycidae at 34,490 described species worldwide. Unfortunately, their assessment does

not include a prospective prediction of the possible diversity of Cerambycidae on Earth. According to the data of the Titan database, which contains information on 99% of the valid names of the longhorn beetles, 38,226 species and subspecies of these beetles are known today (Tavakilian & Chevillotte, 2018). However, these figures are far from final, because about 200 new species of Cerambycidae are described annually (Rossa & Goczał, 2021).

In Ukraine, the fauna of the longhorn beetles has been studied for about two centuries (Zamoroka, 2022a). However, its first generalization was carried out only at the end of the 20th century (Zahajkevych, 1991). Further, the Cerambycidae fauna was reviewed with an approximate frequency of once per decade (Bartenev, 2003, 2009; Zamoroka, 2022a). Thus, the number of known species in the fauna of Ukraine differed somewhat. In particular, Zagajkevych (1991) counted 275 species for Ukraine, Bartenev (2003) – 280 species, Bartenev (2009) – 284 species, Zamoroka (2022a) – 279 species. In the last critical revision of Cerambycidae fauna (Zamoroka, 2022a), those species that have never been found on the territory of Ukraine were excluded, although Bartenev (2011) considered them potentially possible. To date, 279 species of the longhorn beetles belonging to 114 genera, 44 tribes and 6 subfamilies have been reliably registered in Ukraine (Zamoroka, 2022a).

The main aim of this study was complementing the exsisting list of the longhorn beetles of the Ukrainian fauna, using wide circle of the sorces including own field data, institutional collections and sources of citizen science. Resultantly, the general cerambycids list of Ukraine was replenished with three previously unknown species and the regional lists were complemented with 82 species.

MATERIALS AND METHODS

The study is based on a new and unpublished data, obtained from field expeditions, institutional collections and citizen science. In this study I used data from collections deposited in Vasyl Stefanyk Precarpathian National University, Ivano Frankivsk (PUIF); State Museum of Natural History, Lviv (SMNH); The State Museum of Nature of V. N. Karazin Kharkiv National University, Kharkiv (KUMN); Kryvyi Rih State University, Kryvyi Rih (KRU); Lesya Ukrainka Volyn National University, Lutsk (VOLU); Uhzhhorod National University, Uzhhorod (UZNU); Sumy State Pedagogical University, Sumy (SDPU). Additionally, I used data from citizen science databases including 1) Ukrainian Biodiversity Information Network (UkrBIN, 2023) and 2) iNaturalist (2023).

Studied species grouped into two large blocks including 1) species that are new for Ukrainian fauna and 2) species whose records are a significant addition to the understanding of their distribution within Ukraine. Presented data on each species arranged from the newest record to the oldest. The decimal (projection WGS 84 / Pseudo-Mercator) geographic coordinates are indicated for each record. Physical and geographical regions of Ukraine are given abbreviated according to Zamoroka (2022a) and given in the caption to Fig. 1 and Table 1. The first records of the species for certain physiographic regions of Ukraine are marked by the asterisk (*). Species included to the Red data book of Ukraine labeled by the next symbols: "!RB".

Subfamilies of Cerambycidae are presented due to the phylogenetic order: Prioninae – Cerambycinae and Lepturinae (including Necydalinae) – Spondilinae – Lamiinae (Nie et al., 2020). Taxonomy of Cerambycidae accepted due to the most recent visions (de Santana Souza et al., 2020; Danilevsky,

2020; Danilevsky & Tavakilian. 2022; Zamoroka, 2021, 2022b; Zamoroka et al., 2022). Tribes and genera are arranged alphabetically within subfamilies.

Fig. 1. The scheme of the physiographic subdivision of Ukraine. Lables: n – north; e – east; c – central; s – south; w – west; AZ – Azov Highland; CC – Ciscarpathian Highland, CRM – Crimean Mountains; CRY – southmost shore of Crimean Peninsula; EC – East Carpathian Mountains; DH – Dnipro Highland; DIN – Dinets Ridge; DL – Dnipro Lowland; KER – Kerch Peninsula; MPL – Male [Small] Polissya; PA – Pannonian Plain; PD – Podillya Highland; PL – Polissya; PNT – Pontic Lowland; PT – Poltava Plain; SB – Starobilsk Plain; SR – Seredn'orus' Highland; VO – Volyn' Highland.

RESULTS

New species of longhorn beetles of Ukraine fauna

Since the last review on Cerambycidae of Ukraine has been published (Zamoroka, 2022a), it was recorded three additional species for Ukrainian fauna. These include recently described *Tetrops peterkai* Skořepa, 2020 and two recently established species: Caucasian *Enoploderes sanguineus* Faldermann, 1837 and North American *Neoclytus acuminatus* (Fabricius, 1775). List of the records is presented below.

1. ***Neoclytus acuminatus*** (Fabricius, 1775)
Examined material: 1 ex. 30.V.2022, Uzhhorod (48.635848, 22.299354), A. Shevchenko; ibidem, 1 ex. 16.V.2022, A. Vdovenko.
Current distribution in Ukraine: ePA*

2. ***Enoploderes sanguineus*** (Faldermann, 1837)
Examined material: 1 ex. 13.V.2022, Odesa (46.418261, 30.761391), M. Abey; ibidem 1 ex. 12.V.2022 (46.454327, 30.76428), V. North.
Current distribution in Ukraine: wPNT*

3. ***Tetrops peterkai*** Skořepa, 2020
Examined material: 1 ex. 16.VI.2022, Pochapy (51.269851, 24.230068), A. Zamoroka; 1 ex. 10.VI.2022, Birky (51.836247, 25.168413), A. Zamoroka; 1 ex. 10.VI.2022, Derevok (51.730716, 25.352468), A. Zamoroka; 6 ex. 09.VI.2022, Bykhiv (51.740581, 25.293560), A. Zamoroka; 1 ex. 09.VI.2022, Liubeshivska Volia (51.719326, 25.421299), A. Zamoroka; 1 ex. 04.VI.2022, Troyanivka (51.349162, 25.353527), A. Zamoroka; 5 ex. 03.VI.2022, Horodok (51.353450, 25.454666), A. Zamoroka; 1 ex. 18.V.2022, Kivertsi (50.849472, 25.472791), A. Zamoroka.
Current distribution in Ukraine: wPL*

New records of rare, invasive and poorly known species in Ukraine

In this section it is listed 81 species from 4 subfamilies.

CERAMBYCINAE
Callidiini Kirby, 1837

1. ***Callidium coriaceum*** (Paykull, 1800)
Examined material: 1 ex. 09.V.2018, 1 ex. 22.V.2015, Bohorodchany (48.833881, 24.584898), O. Varga; 1 ex. 18.V.2009, Ivano-Frankivsk (48.945173, 24.706813), A. Zamoroka.
Current distribution in Ukraine: wEC; eEC; CC; wPD

2. ***Phymatodes alni*** (Linnaeus, 1767)
Examined material: 1 ex. 26.IV.2019, Koroleve (48.160511, 23.129854), V. Hleba; 1 ex. 10.VI.2016, Mukacheve (48.457418, 22.735562), V. Mirutenko; 1 ex. 10.V.2010, Liubotyn (49.934006, 35.893322), A. Slutsky.
Current distribution in Ukraine: VO; wPL; cPL; ePL; ePA; eEC; sCC; wPD; ePD; sDL; wSR; CRM, sCRY

3. ***Phymatodes rufipes*** (Fabricius, 1776)
Examined material: 1 ex. 06.VI.2022, Dzenzelivka (48.99002, 30.261601), L. Ilminska; 2 ex. 19.V.2016, Vynohradiv (48.145197, 23.068058), O. Varga; 1 ex. 15.V.2010, Dokuchayevs'ke (49.885299, 36.441275), Yu. Skrylnik; 1 ex. 12.VI.2005, Vistova (49.015804, 24.460639), A. Zamoroka.
Current distribution in Ukraine: cPL; ePA; CC; sCC; wPD; sPD; cDH*; sDH; wSR; SB; DIN; CRM; sCRY

4. ***Pyrrhidium sanguineum*** (Linnaeus, 1758)
Examined material: 1 ex. 09.IV.2022, Chernivtsi (48.368319, 25.960758), Ya. Ivanovych; 1 ex. 01.VI.2019, Khomiakivka (48.868279, 24.798288), V. Shparyk; 1 ex. 09.IV.2017, Zolochivka (49.801729, 24.925555), R. Yurechko; 1 ex. 21.VI.2016, Onokivtsi (48.660508, 22.337384), O. Mateleshko.
Current distribution in Ukraine: VO; wPL; cPL; ePL; ePA; CC; sCC; wPD; ePD; cDH; eDH; nDL; cPT; wSR; SB; DIN; sPNT; CRM; sCRY

Cerambycini Latreille, 1804

5. ***Cerambyx cerdo*** Linnaeus, 1758 !RB
Examined material: 1 ex. 09.IX.2022, Cherkasy (49.464878, 32.019233), V. Siranskyi; 1 ex. 28.VIII.2022, Alushta (44.675097, 34.41065), M. Shumsky; 1 ex. 07.VII.2022, Shayan (48.059696, 23.350691), M.S.; 1 ex. 01.VII.2022, Rybache (44.766754, 34.594333), A. Kotov; 1 ex. 18.VI.2022, Novyi Svit (44.832307, 34.927853), A. Smirnov; 1 ex. 01.VI.2022, Cherkasy (49.462795, 32.026788), M. Havrylyuk; ibidem 1 ex. 05.VI.2018, Yu. Sokolenko.; 2 ex. 01.IX.2021, Partenit (44.568817, 34.328605), R. Chabin; 1 ex. 16.VIII.2021, Vesele (44.833778, 34.885323), Legrin; 1 ex. 01.VIII.2021, Tash-Dzhargan (44.857404, 34.078515), T. Pyrozhenko; 1 ex. 22.VII.2021, Prokhladne (44.747842, 33.990128), D. Abramov; 1 ex. 03.VII.2021, Sudak (44.838606, 34.954069), S. Petrov; 1

ex. 26.VI.2021, Sokyrna (49.545210, 31.860033), M. Havrylyuk; 1 ex. 07.VII.2020, Smila (49.266077, 31.851043), M. Havrylyuk; 1 ex. 13.III.2020, larval galleries, Rybne (48.943561, 24.589708) A. Zamoroka; 1 ex. 27.VIII.2019, (48.167810, 23.167135) Veryatsia, Vasyl Hleba; 1 ex. 29.VI.2019, Bakhchysaray (44.752239, 33.857980), O. Mamchych; 1 ex. 09.VI.2019, Oleksandrivka (48.962995, 32.243057); 1 ex. 06.VI.2019, Sudak (44.869353, 35.059323), B. Pohadayev; 1 ex. 13.VII.2017, 1 ex. 12.VII.2017, Berehove (48.196509, 22.685153), L. Pokrytiuk; 1 ex. 25.IV.2016, Putylivka (44.570472, 33.891639), D. Kucherov; 1 ex. 06.VII.2015, Bahativka (44.869855, 35.058791), B. Pohadayev; 2 ex. 12.VII.2013, Malorichens'ke (44.755404, 34.546292), Ye. Rybal'chenko; 1 ex. 19.VI.2013, Alushta (44.681077, 34.424327), S. Bohdanovych; 1 ex. 16.VIII.2011, Kurortne (44.900569, 35.161148), O. Fateryga; 1 ex. 15.VII.2011, 1 ex. 20.XII.2010, Krasnokamianka (44.922735, 35.090638); 1 ex. 26.IV.2009, Dzhuriv (48.401694, 25.300944), M Atamaniuk; 1 ex. no date, Komyny (50.207429, 26.752068), O. Mnyukh.

Current distribution in Ukraine: VO; MPL; cPL; ePA; wEC; CC; sCC; wPD; ePD; nDH; cDH; eDH; wSR; SB; DIN; nPNT; CRM; sCRY

Chlorophorini Zamoroka 2021

6.1. ***Isotomus speciosus comptus*** (Mannerheim, 1825)
Examined material: 1 ex. 21.VII.2021, Alushta (44.672092, 34.406853), S. Bohdanovych; ibidem 17.VII.2020, M. Shumsky; 1 ex. 17.VII.2020, Levadky (44.866475, 34.049876), Ya. Ovsyannikova; 1 ex. 02.VII.2016, Bahativka (44.869901, 35.059299), B. Pohadayev; 1 ex. 18.VI.2016, Sokolyne (44.526, 34.037), I. Prystrem; 1 ex. 02.VII.2016, Sudak (44.851425, 34.972546), B. Pohadayev; 1 ex. 29.VI.2010, Shtormove (45.268134, 33.088345), N. Vynohradov; 1 ex. 00.VIII.2006, Luchyste (44.775528, 34.369691), S. Bohdanovych.
Current distribution in Ukraine: CRM; sCRY

6.2. ***Isotomus speciosus speciosus*** (Schneider, 1787)
Examined material: 1 ex. 04.V.2022 Vynohradiv (48.138784, 23.079455), V. Hleba.
Current distribution in Ukraine: ePA; wEC; ePD; sPD; sDH; DIN

7. ***Neoplagionotus bobelayei*** (Brullé, 1833)
Examined material: 2 ex. 01.VII.2021, Hromivka (44.884873, 34.778541); 1 ex. 16.VII.2006, Saryi Krym (45.003989, 35.153342), A. Nikolenko; 2 ex. 01.VII.2006, Koreyiz (44.453669, 34.0582), O. Levon.
Current distribution in Ukraine: sMP; wPNT; sCRM

8. ***Perderomaculatus sartor*** (Müller, 1766)
Examined material: 1 ex. 04.VIII.2022, Dobryans'ke (48.054717, 23.715254), A. Zamoroka; 3 ex. 30.VII.2020, Pasichna (48.578166, 24.447256), A. Zamoroka; 1 ex. 30.VII.2020, Starunya (48.672745, 24.508835), A. Zamoroka; 2 ex. 15.XI.2019, ex larva, Mezhyhirtsi (49.118395, 24.804469), A. Zamoroka; 1 ex. 16.VI.2019 Horodok (48.642178, 25.834305), A. Zamoroka; 1 ex. 13.VI.2019 Mariyampil (49.026891, 24.849393), A. Zamoroka; 1 ex. 29.X.2016 ex larva, 2 ex. 10.III.2019 ex larva, Podillya (49.266689, 24.750336), A. Zamoroka.
Current distribution in Ukraine: cPL; ePA; wEC; eEC; CC; sCC; wPD; ePD; sPD; cDH; sDH; eDH; nDL; sDL; nPT; cPT; sPT; wSR; SB; DIN; sMP; wPNT; nPNT; ePNT; sPNT; KER; CRM; sCRY

Clytini Mulsant, 1839
9. ***Clytus tropicus*** (Panzer, 1795)

Examined material: 1 ex. 19.VI.2021, Chernihiv (51.529408, 31.297323), P. Shovkovyi;
Current distribution in Ukraine: cPL*; CC; wPD; ePD; sPD; cDH; wSR; DIN

10. ***Xylotrechus antilope*** (Schönherr, 1817)
Examined material: 4 ex. 22.VI.2022, Sadzhava (48.841160, 24.462422), A. Zamoroka; 4 ex. 15.VII.2021, Kupka (48.023669, 25.816929), A. Zamoroka; 1 ex. 04.VII.2021, 1 ex. 26.VI.2021, Opishnya (49.957195, 34.628167), Ye. Rybal'chenko; 1 ex. 26.VI.2021, Rzhyschiv (49.97035, 31.047004), H. Tarasenko; 1 ex. 16.VI.2022, Kyiv (50.375439, 30.483589), I. Derlemenko; 1 ex. 16.VI.2019, Stary Krym (47.201651, 37.486304), Ye. Rybal'chenko; 1 ex. 28.VI.2013, Bahativka (44.869901, 35.059299), B. Pohadayev; 1 ex. 09.VI.2008, Pyatnychany (49.372047, 23.895765), R. Panin.
Current distribution in Ukraine: wPL; cPL; ePA; wEC; CC; sCC*; wPD; ePD; sPD; nDH*; cDH; sDH; nDL; cPT; wSR; SB; ePNT*; DIN; CRM; sCRY

11. ***Xylotrechus arvicola*** (Olivier, 1800)
Examined material: 1 ex. 09.VII.2022, Stayky (50.072984, 30.903231), O. Tomchenko; 1 ex. 28.VI.2022, Kryukivschyna (50.357024, 30.37327), I. Chernenko; 1 ex. 10.VII.2021, Rokytne (49.689766, 30.467883), V. Astrolev; 1 ex. 09.VII.2019, Krysyns'ka (50.128382, 35.596376), N. Kapystian; 7 ex. 08.VI.2019, Dache (50.833946, 25.389598), A. Zamoroka; 5 ex. 18.VIII.2018, 1 ex. 26.VII.2018, Vynohradiv (48.145197, 23.068058), O. Varga; 1 ex. 18.VI.2018, Vovchyntsi (48.976904, 24.739644), A. Zamoroka;
Current distribution in Ukraine: VO; wPL; cPL; ePL; ePA; wPD*; ePD; nDH*; nPT; cPT; wSR; SB; DIN; ePNT; CRM

12. ***Xylotrechus capricornus*** (Gebier, 1830)
Examined material: 1 ex. 06.VII.2012, Sosnove (49.096147,37.523372), B. Loboda.
Current distribution in Ukraine: ePA; wEC; wSR*

Compsocerini Thomson, 1864

13. ***Rosalia alpina*** (Linnaeus, 1758) !RB
Examined material: 1 ex. 07.VIII.2022, Verkhnya Kutuzivka (44.741605, 34.323911), M. Stefanovych; ibidem 1 ex. 16.VII.2013, S. Bohdanovych; 1 ex. 18.VII.2022, Kolochava (48.409634, 23.683742), V. Kavurka; ibidem 1 ex. 17.VII.2022; 1 ex. 16.VII.2022, Kol'chyne (48.475742, 22.757045), M. Bilanych; 2 ex. 05.VIII.2021, Tarasivka (48.294919, 23.801199), A. Zamoroka; 1 ex. 14.VII.2021, Osiy (48.403151, 23.183205), R. Zhuravchak; 1 ex. 19.VIII.2020, Mt. Parashka (49.081462, 23.43111), I. Balashov; 1 ex. 07.VII.2020, Shyroke (44.503333, 33.761398), S. Svirin; 1 ex. 12.VIII.2019, Mt. Hostra (48.826825, 22.875894), E. Witkowska; 1 ex. 22.VII.2019, Huta (48.714502, 22.366693), O. Oleynykov; 1 ex. 21.VII.2019, Hrynkiv (48.690053, 24.096422), O. Sukhorebs'ka; 1 ex. 17.VII.2019. Polyana (48.610972, 22.926361), A. Opryts; 1 ex. 12.VIII.2018, Kostryna (48.905142, 22.558740), N. Koval; ibidem 1 ex. 25.VII.2009, R. Gleb; 1 ex. 30.VII.2018, Sonyachnohirs'ke (44.805000, 34.459444), O. Prokopenko; 1 ex. 22.VII.2018, Raihorodok (48.917773, 37.736402), O. Dyakova; 1 ex. 21.VII.2018, Svaliava (48.566845, 22.996334), O. Oleynykov; 1 ex. 04.VII.2018, Malorichens'ke (44.80994, 34.469129); 1 ex. 09.VI.2018, Uzhhorod (48.641450, 22.300414), H. Popov; 1 ex. 25.VII.2016, Rakhiv (48.076596, 24.169322), R. Panin; 1 ex. 18.VI.2016, Mnohorichchya (44.525952, 34.037146), I. Prystrem; 1 ex. 06.VIII.2015, Mala Uholka (48.279098, 23.649111), O. Varga; 1 ex. 29.VII.2015, Syniak (48.577580, 22.850479), I. Derevianko; 1 ex. 11.VII.2011 Dilove (47.933055, 24.185773), O Fabiak; 1 ex. 19.VII.2007,

Svaliava (48.519835, 22.938795), O. Zykov; 2 ex. 24.VII.2006, Mala Uholka (48.258299, 23.638475), V. Pokynchereda; ibidem 1 ex. 19.VII.2005 V. Loya; 1 ex. 19.VII.2006, Khust (48.142214, 23.285473), V. Loya; 1 ex. 26.VIII.2005, Pereval'ne (44.840556, 34.455556), M. Yunakov.
Current distribution in Ukraine: VO; MPL; ePA; wEC; eEC; CC; sCC; wPD; ePD; ?sPD; ?cDH; wSR; SB; CRM; sCRY

Deilini Fairmaire, 1864

14. ***Deilus fugax*** (Olivier, 1790)
Examined material: 2 ex. 29.V.2022, Borodani (49.547821, 30.739855), A. Sorokun; 17 ex. 04.VI.2021, Budysche (51.257742, 31.78608), O. Barans'kyi; 1 ex. 12.V.2002, Kyiv (50.375981, 30.518787), D. Kurinnyi.
Current distribution in Ukraine: cPL; ePL; ?ePA; wPD; nDH; nDL; wSR

Hyboderini Linsley, 1940

15. ***Callimus angulatus*** (Schrank, 1789)
Examined material: 1 ex. 24.V.2022, Lukove (48.317301, 23.241648), A. Zamoroka; 1 ex. 19.VI.2019, Kniahynia (48.988362, 22.500156), N. Koval.
Current distribution in Ukraine: ePA; wEC, eEC; CC; sCC

16. ***Callimus femoratus*** (Germar, 1824)
Examined material: 1 ex. 19.VI.2019, Krasnokamianka (44.922735, 35.090638).
Current distribution in Ukraine: ?ePA; CRM; sCRY

Graciliini Mulsant, 1839

17. ***Axinopalpis gracilis*** (Krynicki, 1832)
Examined material: 1 ex. 08.VI.2020, 1 ex. 18.VI.2021, 1 ex. 19.VI.2021, Koroleve (48.152003,23.127915), V. Hleba; 1 ex. 20.VII.2009, Berehove (48.218910, 22.665834), Yu. Heriak; 1 ex. 07.VI.2018, Vynohradiv (48.145197, 23.068058), O. Varga.
Current distribution in Ukraine: ePA, sCC; nDH; wSR; SB; DIN; ?CRM

18. ***Gracilia minuta*** (Fabricius, 1781)
Examined material: 1 ex. 08.06.2012, Alushta (44.557865, 34.336583), B. Loboda.
Current distribution in Ukraine: CRM; sCRY

Hesperophanini Mulsant, 1839

19. ***Hesperophanes sericeus*** (Fabricius, 1787)
Examined material: 1 ex. 31.VIII.2020, Alushta (44.672053, 34.406658), S. Bohdanovych.
Current distribution in Ukraine: CRM; sCRY

20. ***Trichoferus campestris*** (Faldermann, 1835)
Examined material: 1 ex. 14.IX.2022, Leliaky (50.329825, 32.492122), Yu. Protsenko; 1 ex. 06.VIII.2022, Kyiv (50.427641, 30.494273), A. Simon; ibidem 1 ex. 29.VII.2022, O. Shynder; ibidem 1 ex. 27.VII.2022, O. Levon; ibidem 1 ex. 21.VIII.2021, O. Vasyliuk; 1 ex. 01.VIII.2022, Stayky (50.073494, 30.902619), O. Tomchenko; 1 ex. 30.VII.2022 Kramators'k (48.725534, 37.597577); 1 ex. 23.VII.2022 Koroleve (48.152003, 23.127915), V. Hleba; 1 ex. 23.VII.2022, Kryvyi Rih (47.886558, 33.383665), O. Kutsyk; 1 ex. 19.VII.2022, Pershotravens'k (48.344368, 36.409297), V. Sukhina; 1 ex. 06.VII.2022, Chernivtsi (48.308811, 25.919519); 1 ex. 12.XI.2021, Kasperivtsi (48.668777, 25.850247), A. Bachynskyi; 1 ex. 17.VII.2021, Choban-Kule (44.787647, 34.651682), M. Vladimirov; 1 ex. 11.VII.2021, Dnipro (48.420169, 35.055188); 1 ex. 16.VI.2021, Khortytsya (47.835682, 35.084255); 10 ex. 11.XI.2020 reared from *Prunus cerasus* L.,

Tysmenytsya (48.902546, 24.848277), R. Volosianchuk & A. Zamoroka; 1 ex. 19.VIII.2022, Irpin' (50.514636, 30.197994), M. G.; ibidem 1 ex. 09.IX.2020, V. Shevchenko; 1 ex. 27.VIII.2020 Hrymailiv (49.333440, 26.017940), Ya. Kapeliukh; 1 ex. VIII.2020, Nova Synyavka (49.535733, 27.726279), K. Gronska; 1 ex. 21.VII.2020, Zaporizhzhia (47.849892, 35.218871); 1 ex. 02.IX.2019, Ivano-Frankivsk (48.946561, 24.703670), A. Zamoroka; 1 ex. 29.VII.2017, Uhryniv (48.953994, 24.692606), A. Zamoroka; 1 ex. 28.VII.2017, Dnipro (48.480494, 35.190721), M. Oleynykova; 1 ex. 30.VII.2014, Serafyntsi (48.654948, 25.553580), A. Zamoroka; 1 ex. 10.VIII.2015 Turiysk (51.086234, 24.526964), P. Voitko; 1 ex. 02.VIII.2015, Siverodonets'k (48.943288, 38.484524); 1 ex. 01.VIII.2015, Syrotyne (48.912322, 38.483419), S. D.; 1 ex. 06.VI.2012, Poltava (49.5952, 34.592105), Ye. Rybal'chenko; 1 ex. 27.IV.2010 Kharkiv (50.043523, 36.279209), B. Loboda; 1 ex. 05.IX.2009. Mali Dmytrovychi (50.207903, 30.520058); 1 ex. 8.VII.2007, Odesa (46.484062, 30.704796), O. Pak; ibidem 1 ex. 02.VIII.2005, O. Zolotov; 1 ex. 9.VII.2006, Simferopol' (44.964675, 34.097948), S. Mosiakyn.
Current distribution in Ukraine: VO; wPL; cPL; ePA; CC; sCC*; wPD; wPD*; nDH*; sDH*; eDH*; nDL; nPT; cPT*; sPT*; wSR; SB; DIN; wPNT; ePNT; sPNT; CRM; sCRY

21. ***Trichoferus holosericeus*** (Rossi, 1790)
Examined material: 1 ex. 11.VIII.2020, Yalta (44.506767, 34.166374); 1 ex. 28.VIII.2019, Bahativka (44.869901, 35.059299), B. Pohadayev.
Current distribution in Ukraine: CRM; sCRY

22. ***Trichoferus pallidus*** (Olivier, 1790) !RB
Examined material: 1 ex. 03.IV.2020, Vynohradiv (48.138131, 23.076624), V. Hleba; ibidem 2 ex. 03.VII.2018, O. Varga.
Current distribution in Ukraine: ePA, sCRY

Molorchini Mulsant, 1863

23. ***Molorchus kiesenwetteri*** (Mulsant et Rey, 1861)
Examined material: 1 ex. 10.VI.2022, Bahativka (44.869901, 35.059299), B. Pohadayev; 1 ex. 22.V.2020, Kherson (46.674552,32.756608), R. Mishustin; 1 ex. 18.V.2003, Kryvyi Rih (47.897596, 33.388656), A. Holovatiuk.
Current distribution in Ukraine: ?cPL; ePA; cDH; sDH; nPT; wSR; SB; DIN; nPNT; sPNT; KER; CRM

Obriini Mulsant, 1839
24. ***Obrium brunneum*** (Fabricius, 1793)
Examined material: 1 ex. 03.VI.2022, Horodok (51.353450, 25.454666), A. Zamoroka; 5 ex. 03.VI.2022, Hradys'k (51.354017, 25.419563), A. Zamoroka; 2 ex. 04.VI.2022, Troyanivka (51.349063, 25.351699), A. Zamoroka; 1 ex. 13.VI.2022, Rostan' (51.573859, 23.725880), A. Zamoroka.
Current distribution in Ukraine: MPL; wPL*; cPL; ePA; wEC; eEC; CC; wPD

Psebiini Lacordaire, 1869

25. ***Nathrius brevipennis*** (Mulsant, 1839)
Examined material: 1 ex. 24.VI.2011, Alushta (44.558610,34.340729), B. Loboda.
Current distribution in Ukraine: CRM; sCRY

Stenopterini Fairmaire, 1868

26. ***Callimoxys gracilis*** (Brülle, 1832)
Examined material: 1 ex. 21.V.2022, Alushta (44.686451, 34.408357), M. Shumsky; 1 ex. 08.VII.2009, Pereduschel'ne (44.702333,33.876194), B. Loboda; 1 ex.

26.V.2007, Kryms'ka Roza (45.028877, 34.373765), A. Zamoroka.
Current distribution in Ukraine: ?ePA; sPNT; ?KER; CRM; sCRY

27. ***Stenopterus rufus*** (Linnaeus, 1767)
Examined material: 1 ex. 16.VI.2022, 1 ex. 23.VI.2015, Bahativka (44.869901, 35.059299), B. Pohadayev; 2 ex. 02.VI.2022, 1 ex. 03.VI.2017, Vynohradiv (48.140366, 23.062614), V. Hleba; ibidem 4 ex. 08.VII.2008, R. Panin; 1 ex. 29.VI.2022, Sevastopol (44.550742, 33.583058), M. Stefanovych; 1 ex. 14.VII.2021, Osiy (48.386843,23.169505), R. Zhuravchak; 1 ex. 12.VII.2021, Malyi Mayak (44.618169, 34.346489), S. Bohdanovych; ibidem 1 ex. 07.VII.2020, M. Shumsky; 1 ex. 12.VI.2021, Luchyste (44.757247, 34.367694), S. Bohdanovych; 1 ex. 11.VII.2020, Alushta (44.690655, 34.415458), M. Shumsky; 2 ex. 09.VI.2020, Vynohradivka (45.648300, 28.586848), A. Zamoroka; 1 ex. 14.VI.2019, Izmaïl (45.344452, 28.818919), F. Bondar; 1 ex. 01.VII.2018, Lyakhivtsi (48.569346, 22.475495), O. Mateleshko; 1 ex. 21.VI.2018, Uzhhorod (48.621458, 22.323213), O. Mateleshko; 1 ex. 19.VI.2016, Mnohorichchya (44.513663, 34.075697), I. Prystrem; 1 ex. 30.VI.2010, Krasnokamianka (44.934637, 35.075275); 1 ex. 12.VI.2003, Mt. Demerdzhi (44.766624, 34.392304), A. Zamoroka.
Current distribution in Ukraine: ePA; ?wEC; sPD; sMP; wPNT; sPNT, KER; CRM; sCRY

LEPTURINAE
Cariliini Zamoroka, 2022

28. ***Acmaeops septentrionis*** (C.G. Thomson, 1866)
Examined material: 1 ex. 07.VII.2022, Pidhorodne (49.54262, 25.509045), O.I.;
Current distribution in Ukraine: ?wPL; wEC; eEC; wPD

29. ***Cortodera villosa*** Heyden, 1876
Examined material: 1ex. 06.V.2017, Peresadivka (47.090298, 32.165044), R. Stepovyi; 1ex.15.VI.2003, Kryvyi Rih (48.067270, 33.485917), A. Holovatiuk; 1ex. 08.VI.2003, Shyroke (47.689193, 33.240008), A. Holovatiuk
Current distribution in Ukraine: sDH; nPNT; eDH; SB; DIN; sPNT; KER, CRM

30. ***Brachysomida excellens*** (Brancsik, 1874) !RB
Examined material: 1 ex. 23.VI.2022, Skole (49.028446, 23.554361), R. Panin & Yu. Kanarsky.
Current distribution in Ukraine: wEC; eEC

Lepturini Latreille, 1804

31. ***Grammoptera ustulata*** (Schaller, 1873)
Examined material: 1 ex. 26.V.2022 Vynohradiv (48.154006, 23.066631), A. Zamoroka; 1 ex. 21.V.2020, Veryatsya (48.174856,23.180183), Vasyl Hleba; 1 ex. 10.V.2020, Mala Kopania (48.172075, 23.073115), A. Zamoroka.
Current distribution in Ukraine: ePA; wEC, ?eEC; CC; sCC; wPD; ePD

32. ***Leptura aurulenta*** Fabricius, 1793
Examined material: 1 ex. 24.VII.2021, Dilove (47.927446, 24.213849), V. Shparyk; 3 ex. 08.VII.2021, Berehuyfalu (48.300213, 22.804791), A. Zamoroka; 3 ex. 08.VII.2021 Kidiosh (48.211431, 22.721645), A. Zamoroka; 1 ex. 15.VII.2021, Pryborzhavske (48.377476, 23.213685), R. Zhuravchak; 1 ex. 30.VI.2021, Haivoron (48.311810, 29.884275) O. Misyuna; 1 ex. 28.VI.2021, Monastyrok (49.290616, 27.159136), P. Luhovyi; 1 ex. 29.VII.2020, Vynohradiv (48.137936, 23.079739), V. Hleba; ibidem 1 ex. 26.VII.2018, O. Varga; 1 ex. 13.VIII.2019, Kniahynia (48.993522, 22.519410), N. Koval; 1 ex. 12.VII.2018, Vikno (49.327140, 26.137252), Ya. Kapeliukh; 1 ex. 28.VI.2018, Dzenzelivka (48.957107, 30.222853), L. Ilminska; 1 ex. 06.VII.2015, Mala Uhol'ka (48.262733,

23.634433), O. Varga; 1 ex. 29.VI.2011, Haydary (49.623762, 36.328388), Yu. Benhus;
Current distribution in Ukraine: cPL; ePL; ePA; wEC; eEC; CC; sCC; wPD; ePD; cDH*; wSR

33. ***Rutpela septempunctata*** (Fabricius, 1793)
Examined material: 1 ex. 24.VII.2021, Dilove (47.927446, 24.213849), V. Shparyk; 1 ex. 08.VII.2021, Berehuyfalu (48.300213, 22.804791), A. Zamoroka; 1 ex. 07.VII.2021, Yanoshi (48.247046, 22.635705), A. Zamoroka; 1 ex. 05.VI.2017, Koroleve (48.151833,23.137822), V. Hleba.
Current distribution in Ukraine: ePA; wEC; sCC; ?sPD

34. ***Stictoleptura fulva*** (Degeer, 1775)
Examined material: 1 ex. 08.VII.2021, Odesa (46.420502, 30.751626), A. Vasylenko; ibidem 1 ex. 04.VII.2021, T. Sokolova-Yudyna; 1 ex. 06.VII.2021, Rus'ka Mokra (48.402332, 23.913457), A. Zamoroka; 1 ex. 21.VI.2014, Koroleve (48.151833,23.137822), V. Hleba;
Current distribution in Ukraine:

35. ***Stictoleptura tesserula*** (Charpentier, 1825)
Examined material: 5 ex. 07.VIII.2021, Krasna (48.276606, 23.861321), A. Zamoroka; 1 ex. 21.VII.2019, Rakhiv (48.031991, 24.17026), M. Mignini.

Current distribution in Ukraine: ePA; wEC; ?wSR

Necydalini Latreille, 1825

36. ***Necydalis major*** Linnaeus, 1758
Examined material: 1 ex. 21.VI.2022, Stayky (50.073315, 30.90263), O. Tomchenko; 1 ex. 17.VI.2022, Bila Tserkva (49.802810, 30.134760), S. Bud'ko; 1 ex. 17.VI.2022, Kaharlyk (49.864946, 30.809522); 1 ex. 23.VI.2021, Ostroh (50.329226,26.514173), Stanyslava R.; 1 ex. 19.VIII.2020, Yablunivka (48.4167, 37.671933), S. Kasay; 1 ex. 18.VII.2019, Delyatyn (48.530021, 24.634531), T.D.; 1 ex. 21.VI.2019, Dzendzelivka (48.952162, 30.236396), L. Il'mins'ka; 1 ex. 01.VII.2018, Mala Uholka (48.274576, 23.624192), V. Chumak; 1 ex. 14.VI.2018, Pryluky (50.603341, 32.372517), K. Hlukhov; 1 ex. 30.V.2018, Lviv (49.785971, 24.099013), R. Panin; 1 ex. 02.VI.2011, Dokuchayevs'ke (49.887905,36.443295), Yu. Skryl'nyk; 1 ex. 02.VI.2009, Bezlyudivka (49.852984, 36.244349), B. Loboda; 1 ex. 18.VI.2006, Dibrova (50.196567, 30.201141), M. Zayika.
Current distribution in Ukraine: VO, MPL, wPL; cPL; ePL; ePA; wEC, eEC; sCC; wPD; ePD; nDH*; cDH*; nDL*; nPT; cPT; wSR; SB; DIN; nPNT; CRM

Pidoniini Zamoroka, 2022

37. ***Pidonia lurida*** (Fabricius, 1793)
Examined material: 1ex. 5 ex. 04.VI.2021; 2 ex. 26.V.2019, Rybne (48.944550, 24.596897), A. Zamoroka; 1 ex. 10.VI.2020, Kazaniv (48.644629, 24.982345), A. Zamoroka; 24.V.2019, Lviv (49.784115, 24.106628), R. Panin; 1 ex. 05.VI.2018, Bilokrynytsya (50.121861, 25.759254), A. Zamoroka; 1 ex. 13.V.2014, Sarny (51.319966, 26.675126), R. Zhuravchak; 1 ex. 17.VI.2012, Dibrova (49.199178, 24.465901), A. Zamoroka; 3 ex. 12.VI.2005, Vistova (49.017356, 24.461676), A. Zamoroka; 2 ex. 15.VI.2004, Vyshniv (49.252378, 24.384337), A. Zamoroka.
Current distribution in Ukraine: MPL; wPL; ePA; wEC; eEC; CC; wPD, ?cDH; ?cPT
Coments: Here, I presented data on records of *P. lurida* outside of its main areal in Carpathian Mountains.

Rhamnusiini Sama, 2009, nec. Danilevsky in Althoff & Danilevsky, 1997

38. ***Rhamnusium bicolor*** (Schrank, 1781)
Examined material: 1 ex. 15.VI.2022, 1 ex. 01.VI.2020, Kyiv (50.481003, 30.426676), V. Novyts'kyi; ibidem 2 ex. 09.VI.2022, A. Andriyenko; 1 ex. 22.I.2021 imago remnants, Kherson (46.704328, 32.610814), R. Mishustin; 1 ex. 13.VI.2020, Kharkiv (49.958927, 36.325267), A. Pryluts'ka; 1 ex. 31.V.2020, Chystyakove (48.029344, 38.615293); 4 ex. 15.VI.2018, Mala Uholka (48.266397, 23.622580), V. Chumak; 1 ex. 30.V.2018, Izyum (49.200050, 37.301792), A. Shekhovtsev; 1 ex. 07.VI.2017, Haydary (49.644306, 36.337028), A. Slutsky; 2 ex. 19.VI.2013, Poltava (49.5952, 34.592105), Ye. Rybal'chenko.
Current distribution in Ukraine: VO; MPL; wPL; cPL; ePL; ePA; wEC; CC; sCC; wPD; ePD; nDH; cPT*; wSR; SB; DIN; nPNT*

Stenocorini Thomson, 1861

39. ***Anisorus quercus*** (Goetz, 1783)
Examined material: 1 ex. 26.V.2022, Vynohradiv (48.145197, 23.068058), Zamoroka; ibidem 4 ex. 20.V.2018, 1 ex. 07.V.2018, 2 ex. 02.V.2018, 1 ex. 19.V.2016, O. Varga; 1 ex. 24.VI.2022, Kyiv (50.35922, 30.447538), S. Koniakin; ibidem 2 ex. 16.VI.2021, A. Didan; ibidem 1 ex. 12.VI.2021; ibidem 1 ex. 17.V.2020, A. Churilov; 1 ex. 03.V.2020, Karavan (50.057689, 36.132928), Yu. Benhus; 1 ex. 09.VI.2021, Shkarivka (49.744809, 30.150202), S. Oksenenko; 1 ex. 18.VI.2017, Rozsoshentsi (49.541023, 34.506001), Ye. Rybal'chenko; 1 ex. 24.IV.2016, Syrotyne (48.912322, 38.483419), S. D.; 1 ex. 25.V.2008, Liubotyn (49.934006, 35.893322), A. Shekhovtsov; 1 ex. 07.VI.2010, Kamplytsya (49.658509, 36.405984), A. Slutsky; 1 ex. 22.V.2010, 1 ex. 16.VI.2009, 1 ex. 25.V.2009, 2 ex. 07.VI.2008, 1 ex. 05.VI.2008, 1 ex. 07.VI.2007, Kharkiv (50.043251, 36.270611), B. Loboda; 1 ex. 03.VI.2006, Uman' (48.725292, 30.216064), A. Nikolenko; 1 ex. no date Shkarivka (49.744363, 30.150657), S. Oksenenko.
Current distribution in Ukraine: MPL; cPL; ?ePL; ePA; sCC; wPD; ePD; sPD; nDH*; cDH; sDH; nDL; cPT; wSR; SB; DIN; ePNT

SPONDYLIDINAE
Anisarthrini Mamaev & Danilevsky, 1973

40. ***Anisarthron barbipes*** (Schrank, 1781)
Examined material: 1 ex. 23.VI.2021, Kyiv (50.379368, 30.477185), V. Stashenko; 1 ex. 01.VIII.2019, Kostryna (48.923895, 22.556065), N. Koval.
Current distribution in Ukraine: wEC; wPD; cPL*

Atimiini LeConte, 1873

41. ***Oxypleurus nodieri*** Mulsant, 1839
Examined material: 1 ex. 05.IV.2011, Alupka (44.422983, 34.044799), B. Loboda.
Current distribution in Ukraine: CRM; sCRY

LAMIINAE
Acanthocinini Blanchard, 1845

42. ***Leiopus femoratus*** Fairmaire, 1859
Examined material: 1 ex. 29.VI.2022, Kyiv (50.459988, 30.338635), I. Balashov; ibidem 1 ex. 13.VI.2022, D. Kogan; ibidem 1 ex. 11.VI.2022, D. Davydov; ibidem 1 ex. 15.VI.2021, H. Ladonko; 1 ex. 28.VI.2022, Uzhhorod (48.606049, 22.233151), R. Mishustin; 1 ex. 27.VI.2022, Kerch (45.355701, 36.46618); 1 ex. 26.VI.2022, Shkarivka (49.747543, 30.159587), S. Oksenenko; 1 ex. 11.VI.2022, 1 ex. 08.VI.2022, 1 ex. 31.V.2022, Poltava (49.58308, 34.550607), Ye. Rybal'chenko; 1 ex. 10.VI.2022, 1 ex. 29.V.2022, 1 ex. 24.V.2022, 1 ex. 09.VI.2021, 1 ex. 11.IV.2020, 1 ex. 15.V.2019, 1 ex. 17.VI.2018, 1 ex. 31.V.2018, 1 ex. 11.V.2018, Dzenzelivka (48.970883, 30.24663), L. Ilminska; 1 ex. 29.V.2022, Dubliany (49.904344, 24.120326); 1 ex.

11.V.2022, Voronenka (48.289959, 24.48422); 1 ex. 21.V.2022, Odesa (46.454167, 30.755833), M. kormyzhenko; 1 ex. 11.V.2022, Antonivka (47.520568, 32.116276), R. Stepovyi; 1 ex. 10.V.2022, Kolomya (48.530492, 25.041205); 1 ex. VI.2020, Yakovenkove (45.069138, 36.266647), N. Matushkina; 1 ex. 24.V.2022, Bila Tserkva (49.802810, 30.134760), S. Bud'ko; 1 ex. 23.V.2022, Dnipro (48.466342, 35.005790), V. Voropayev; 1 ex. 18.V.2022, 1 ex. 30.VI.2021, 1 ex. 03.VI.2020, 1 ex. 12.V.2019, 1 ex. 29.V.2015, Koroleve (48.151831, 23.128075), V. Hleba; 1 ex. 19.VI.2021, Velyka Berezyna (50.036532, 27.443024), O. Hryb; 1 ex. 03.VI.2021, Kluziv (48.950415, 24.729336), A. Zamoroka; 1 ex. 26.VII.2021, Piznyky (50.229844, 33.021077), Ya. Kukhar; 1 ex. 02.VI.2021, Ostroh (50.329074, 26.515150), R. Stanyslava; 1 ex. 27.V.2021, Kherson (46.674046, 32.774581), R. Mishustin; 1 ex. 28.V.2020, Huliaipole (47.691059, 36.235859), V. Voropayev; 1 ex. 07.VI.2020, Novobobrivs'ke (44.505956, 33.9069); 1 ex. 09.VI.2018, Khomiakivka (48.865693, 24.813170), V. Shparyk; 1 ex. 22.V.2018, Kharkiv (50.042794, 36.277928), Boris Loboda; ibidem 1 ex. 03.VI.2009, O. Sluts'kyi; 1 ex. 18.V.2018, Tarashcha (49.568798, 30.526366); 2 ex. 06.VII.2017, Krylos (49.094611, 24.715435), A. Zamoroka; 29 ex. 23.III.2014 ex larva, Maydan (49.004524, 24.579446), A. Zamoroka; 14 ex. 20.III.2014 ex larva, Tsenzhiv (48.993699, 24.597895), A. Zamoroka; 262 ex. 16.III.2014, Ivano-Frankivsk (48.912398, 24.687175), A. Zamoroka; 67 ex. 10.I.2014 ex larva, Sokil (49.097897, 24.625626), A. Zamoroka; 1 ex. 27.VI.2012, Husyna Polyana (49.825022,36.269025), B. Loboda; 1 ex. 26.VI.2011, Sarny (51.320041, 26.678665), R. Zhuravchak; 1 ex. 01.V.2010, 2 ex. 19.06.2010, Bezlyudivka (49.860822, 36.248003), O. Sluts'kyi; ibidem 1 ex. 02.VI.2009, B. Loboda; 1 ex. 05.V.2003, Kryvyi Rih (47.897536, 33.390658), A. Holovatiuk.
Current distribution in Ukraine: VO*; MPL*; wPL; cPL*; ePA*; wEC; eEC; CC; wPD; ePD*; nDH*; cDH*; sDH*; eDH*; nPT*; cPT*; wSR; AZ*; wPNT*; nPNT, sPNT; KER*; CRM; CRY

43. ***Leiopus nebulosus*** (Linnaeus, 1758)
Examined material: 1 ex. 10.VI.2022, Birky (51.836247, 25.168413), A. Zamoroka; 1 ex. 17.VI.2021, Puhachivka (50.862099, 28.372758), O. Martsun; 1 ex. 13.III.2020 ex larva, Rybne (48.943561, 24.589708), A, Zamoroka; 1 ex. 08.VI.2019, Tsuman' (50.892552, 25.905758), V. Chumak.
Current distribution in Ukraine: VO; MPL; wPL; cPL*; ePL; ePA; wEC; eEC; CC; sCC; wPD; ePD; eDH; nPT; wSR; ePNT

44. ***Leiopus punctulatus*** (Paykull, 1800)
Examined material: 1 ex. 01.V.2010, Bezlyudivka, (49.860822, 36.248003), O. Sluts'kyi.
Current distribution in Ukraine: VO; wPL; cPL; ePL; wSR*

45. ***Leiopus taeniatus*** (Gmelin, 1790)
(=*Leiopus linnei* Wallin, Nylander & Kvamme, 2009)
Examined material: 1 ex. 09.VI.2022, Bykhiv (51.740581, 25.293560), A. Zamoroka; 1 ex. 26.VI.2021, Opishnya (49.957195, 34.628167), Ye. Rybal'chenko; 1 ex. 16.VI.2021, Kyiv (50.373903, 30.483525); 1 ex. 13.III.2020 ex larva, Rybne (48.943561, 24.589708), A, Zamoroka; 1 ex. 21.VI.2018, Kostryna (48.923895, 22.556065), N. Koval; 1 ex. 07.VI.2018, 1 ex. 23.VI.2016, 1 ex. 05.VI.2016, Vynohradiv (48.145197, 23.068058), O. Varga; 2 ex. 05.VI.2018, 1 ex. 04.VI.2018, Kremenets (50.095884, 25.698596), A. Zamoroka; 1 ex. 09.V.2018, Bohorodchany (48.837103, 24.586602), O. Varga; 1 ex. 17.VI.2017, Sarny (51.319966, 26.675126), R. Zhuravchak; 1 ex. 04.VI.2016, Ustechko (48.780632,

25.582993), A. Zamoroka; 6 ex. 08.VII.2015, 1 ex. 18.VII.2015, Kvasy (48.145477, 24.266293), O. Varga; 1 ex. 13.VI.2015, Haydary (49.646280,36.333975). 1 ex. 03.VI.2015, Vakalivschyna (51.036213, 34.926083), O. Hovorun; 5 ex. 05.VI.2014, Hrymayliv (49.333747, 26.018337), A. Zamoroka; 5 ex. 25.VI.2011, Mala Uholka (48.266397, 23.622580), V. Chumak; 1 ex. 28.V.2011, Hutys'ko (49.397280, 24.820511), A. Zamoroka; 1 ex. 11.VI.2004, Vyshniv (49.252378, 24.384337), A. Zamoroka; 2 ex. 06.V.2003, Kryvyi Rih (47.897596, 33.388656), A. Holovatiuk; 1 ex. 10.VI.1981, Ukrayinka (50.149147, 30.737058).
Current distribution in Ukraine: VO; MPL; wPL; cPL*; ePA; wEC; eEC; CC; wPD; ePD, nDH*; sDH*; cPT*; wSR; DIN

46. ***Exocentrus adspersus*** Mulsant, 1846
Examined material: 1 ex. 26.V.2022, Vynohradiv (48.153304, 23.051352). A. Zamoroka; ibidem 2 ex. 07.VI.2018, 1 ex. 01.V.2018, O. Varga; 1 ex. 24.VI.2021; 1 ex. 21.VI.2021, Koroleve (48.152010, 23.127907), V. Hleba; 1 ex. 12.VI.2021, Dnipro (48.465838, 35.005132), V. Voropayev; 1 ex. 30.V.2010, Husyna Polyana (49.820869, 36.280758), B. Loboda.
Current distribution in Ukraine: VO; cPL; ePL; ePA; wEC; wPD; nDH*; sDH*; nDL; wSR; SB; DIN; CRM; CRY

47. ***Exocentrus punctipennis*** Mulsant et Guillebeau, 1856
Examined material: 1 ex. 08.VI.2022, Ruzhyn (49.721495, 29.178504), V. Voropayev; 2 ex. 25.VI.2020, Koroleve (48.152003, 23.127915), V. Hleba
Current distribution in Ukraine: cPL; ePA*; wPD; nDH*; wSR; SB; DIN; nPNT, sPNT; CRM; sCRY

48. ***Exocentrus stierlini*** Ganglbauer, 1883
Examined material: 1 ex. 21.VIII.2022, Kam'yanka (49.978519, 37.863757), M. Parkhomenko.
Current distribution in Ukraine: MPL; CC; sCC; wPD; cPT; wSR*

Acanthoderini Thomson, 1860

49. ***Aegomorphus clavipes*** (Schrank, 1781)
Examined material: 1 ex. 03.VIII.2022, Krasna (48.210542, 24.014817), A. Zamoroka; 6 ex. 02.VIII.2022, Rus'ka Mokra (48.405055, 23.902199), A. Zamoroka; 1 ex. 11.VIII.2021, Bilyn (48.155861, 24.225547), A. Zamoroka; 1 ex. 17.VII.2021, Kyiv (50.351762, 30.489267), D. Davydov; 1 ex. 08.VII.2021, Berehuyfalu (48.300213, 22.804791), A. Zamoroka; 1 ex. 22.VII.2020, Boyarka (50.294764, 30.332107), A. Churilov; 1 ex. 12.VII.2020, Myhalky (50.670866, 29.556599), T. Borysova; 1 ex. 07.VII.2020, Khortytsya (47.845531, 35.022219), A. Malikov; 1 ex. 28.V.2018, Kherson (46.653000, 32.560125), R. Mishustin; 4 ex. 03.VI.2007, Nyzhniozamorske (45.369690, 36.000940), Zamoroka.
Current distribution in Ukraine: wPL; cPL; ePL; ePA*; wEC; eEC; CC; wPD; ePD; sDH*; wSR; DIN; nPNT*; KER

50. ***Oplosia cinerea*** (Mulsant, 1839)
Examined material: 1 ex. 23.III.2014 ex larva, Maydan (49.004524, 24.579446), A. Zamoroka; 2 ex. 16.III.2014 ex larva, Ivano-Frankivsk (48.912398, 24.687175), A. Zamoroka
Current distribution in Ukraine: cPL; ePA; wEC; CC*; wPD; cDH; sDH; wSR; SB; DIN; CRM

Agapanthiini Mulsant, 1839

51. ***Agapanthia intermedia*** Ganglbauer, 1884
Examined material: 1 ex. 19.VI.2022, 1 ex. 01.VI.2022, 1 ex. 23.V.2022, 1 ex. 22.V.2022, Kharkiv (50.041066, 36.210573), Yu. Benhus; 2 ex. 15.VI.2022, Mashiv (51.193228, 24.158613), A. Zamoroka; 1 ex. 10.VI.2022, Ruzhyn

(49.721495,29.178504), V. Voropayev; 2 ex. 01.VI.2022, 1 ex. 24.V.2022, 1 ex. 05.VI.2021, 1 ex. 20.V.2022, Dzenzelivka (48.970883, 30.24663), L. Ilminska; 1 ex. 30.V.2022, Chernivtsi (48.310246, 25.919321); 1 ex. 26.VI.2022, Komariv (48.548334, 27.027027); 1 ex. 11.V.2022, Novostav (50.762733,25.954044), V. Finchuk; 1 ex. 08.V.2022, Sukhovolia (49.844353, 23.837231); 1 ex. 24.VI.2021, Vasyl'kiv (50.183446, 30.311821), O. Vasyliuk; 1 ex. 10.VI.2021, Bolekhiv (49.077194, 23.875130), A. Zamoroka; 1 ex. 09.VI.2021, Kyiv (50.40055, 30.655917); 2 ex. 07.VI.2021, Semenivka (48.765410, 25.333890), A. Zamoroka; 1 ex. 29.V.2021, Haivoron (48.326960, 29.872155), O. Misyuna; 2 ex. 17.V.2021, Pidluzhzha (48.949629, 24.771904), A. Zamoroka; 2 ex. 06.VI.2020, Letychiv (49.395491, 27.685947), A. Zamoroka; 1 ex. 06.VI.2020, Verbka (49.390587, 27.775031), A. Zamoroka; 1 ex. 15.V.2020, Kryvyi Rih (48.084086, 33.516376), A Holovatiuk; 1 ex. 08.V.2020, Bushtyne, (48.093650, 23.471254), A. Zamoroka; 4 ex. 08.VI.2019, Dache (50.816426, 25.400500), A. Zamoroka; 1 ex. 02.VI.2019, Ivano-Frankivsk (48.943205, 24.713396), A. Zamoroka; 1 ex. 03.IV.2019, Yunashkiv (49.321386, 24.666625), A. Zamoroka; 2 ex. 15.V.2018, Vyshniv (49.251868, 24.388044), A. Zamoroka; 1 ex. 09.V.2018, Kharkiv (50.085920, 36.310549), B. Loboda; 1 ex. 01.VI.2015, Huyva (50.208668, 28.653023), V. Finchuk; 1 ex. 13.V.2012, Husyna Polyana (49.828469, 36.280832) B. Loboda; 1 ex. 22.V.2009, Liubotyn (49.981683, 35.975459), B. Loboda; 1 ex. 12.V.1992, Pavlohrad (48.498818, 35.880895), O. Sumarokov.

Current distribution in Ukraine: VO; MPL; wPL; cPL; ePL; wEC; CC; sCC; wPD; ePD; nDH, cDH; sDH, eDH; nDL; sDL; nPT; cPT; wSR; DIN

52. ***Agapanthia maculicornis*** (Gyllenhal, 1817)

Examined material: 1 ex. 02.VI.2022, Bohdanivka (48.487635, 36.109955); 2 ex. 05.VI.2021, Zaporizhzhia (47.816705, 35.187285), O. Levon; 2 ex. 03.VI.2021, Polohy (47.472148, 36.246342); 1 ex. 24.V.2006, Kryva Luka (48.875418, 37.884899), B. Vas'ko.

Current distribution in Ukraine: eDH*; sPT*; SB; DIN; AZ*

53. ***Agapanthia violacea*** (Fabricius, 1775)

Examined material: 1 ex. 25.VI.2022, Stayky (50.073203, 30.902206), O. Tomchenko; 1 ex. 22.VI.2022, Odesa (46.471111, 30.761111), M. kormyzhenko; 1 ex. 05.VI.2022, Chaykovs'ke (44.836333, 34.338274), S. Bohdanovych; 1 ex. 24.V.2022, Bilky (48.292167, 23.136157), A. Zamoroka; 1 ex. 21.V.2022, Alushta (44.685968, 34.408614), M. Shumsky; 1 ex. 02.V.2022, Orlivka (44.718025, 33.574828), D. Safina; 1 ex. 07.VI.2021, 1 ex. 17.VI.2020, 1 ex. 04.V.2019, Chystyakove (48.020816, 38.613884); 1 ex. 22.V.2021, Mar'ivka (47.181955, 32.261305), R. Stepovyi; 2 ex. 08.VI.2020, Aktove (47.709271, 31.476804), A. Zamoroka; 1 ex. 16.V.2020, Dnipro (48.466079,35.005516), V. Voropayev; 1 ex. 15.V.2020, Kherson (46.675207,32.779474), R. Mishustin; 2 ex. 02.V.2020, 2 ex. 17.05.2020, Stari Kodaky (48.387112, 35.134952), V. Voropayev; 1 ex. 20.V.2019, Stavky (46.130348, 33.541398), H. Mykytynets'; 1 ex. 18.V.2019, Kryvyi Rih (48.101234, 33.511388), A. Troshyn; 1 ex. 07.V.2019, 1 ex. 10.V.2018, Donetsk (47.937393, 37.69192), I. Ohol; 1 ex. 07.V.2018, Davydivka (46.515102, 35.187183), H. Mykytynets'; 2 ex. 07.V.2018, Huliaipole (47.688375,36.227154), V. Voropayev; 2 ex. 19.V.2018, Kobleve (46.636604, 31.212986), R. Stepovyi; 1 ex. 03.V.2018, Peresadivka (47.117789, 32.183565), R. Stepovyi; 1 ex. 21.V.2017, 1 ex. 07.V.2016, Mykolayiv (46.986088, 31.995164), R.

Stepovyi; 1 ex. 25.V.2015, Sonyachna Dolyna (44.87126, 35.092788), B. Pohadayev; 2 ex. 01.V.2014, Burhunka (46.809751, 33.215550), R. Mishustin; 1 ex. 28.V.2013, Pokrov (47.684765, 34.103506), O. Sumarokov; 1 ex. 05.V.2013, Kinburn (46.509578, 31.681640); 2 ex. 05.V.2012, Krasnokam'yanka (44.920964, 35.086046); 2 ex. 17.V.2009, Simferopol (44.939204, 34.147604), V, Shaporyns'kyi; 1 ex. 26.V.2007, Krymska Roza (45.041853, 34.375989), A. Zamoroka; 1 ex. 10.V.2004, Kurortne (44.902693, 35.167056), V. Bludov; 1 ex. 12.VI.2001, Zolote (45.415234, 36.079052), A. Zamoroka.
Current distribution in Ukraine: ePA*; sPD; nDH*; sDH; eDH*; SB*; DIN; AZ; wPNT; nPNT; ePNT; sPNT; KER; CRM; sCRY

54. ***Agapanthia viti*** Rapuzzi & Sama, 2012
Examined material: 1 ex. 08.VII.2021, Kidiosh (48.211122, 22.717187) A. Zamoroka; 2 ex. 07.VII.2021, Yanoshi (48.266800, 22.623614) A. Zamoroka; 30.V.2021, Hudya (48.114625,23.143058), V. Hleba.
Current distribution in Ukraine: ePA

55. ***Agapanthiola leucaspis*** (Steven, 1817)
Examined material: 1 ex. 09.VI.2020, Kaïry (46.910212, 30.980163), A. Zamoroka; 2 ex. 08.VI.2020, Trykraty (47.708214, 31.391861), A. Zamoroka; 2 ex. 11.V.2020, Bene (48.173633, 22.738942), A. Zamoroka; 3 ex. 10.V.2020, Muzhiyeve (48.177770, 22.716279), A. Zamoroka; 1 ex. 23.V.2018, Zaporizhzha (47.809724, 35.168615), O. Naydenova; 1 ex. 02.VI.2008, Kyiv (50.463742, 30.541524), D. Kurinnyi; 5 ex. 30.V.2007, Karalarskyi Step (45.467012, 36.207012), A. Zamoroka; 1 ex. 05.VI.2001, Zolote (45.415234, 36.079052), A. Zamoroka.
Current distribution in Ukraine: cPL; ePA; nDH; sDH; eDH; nDL; SB; DIN; wPNT; nPNT; ePNT; sPNT; KER; CRM; CRY

56. ***Calamobius filum*** (Rossi, 1790)
Examined material: 1 ex. 12.VI.2022, Odesa (46.448611, 30.769167), M. kormyzhenko; 6 ex. 11.VI.2022, Poltava (49.563118, 34.588601), Ye. Rybal'chenko; 1 ex. 28.V.2022, Alushta (44.685968, 34.408614), M. Shumsky; 3 ex. 26.V.2022, Vynohradiv (48.145197, 23.068058) A. Zamoroka; 4 ex. 27.VI.2021, Silets (49.053296, 24.728227), A. Zamoroka; 1 ex. 23.VI.2021, Ruzhyn (49.737751, 29.200965), V. Voropayev; 2 ex. 12.VI.2020, Horoshyne (49.644893,32.763401), Z. Berest; 1 ex. 10.VI.2020, Roksolany (46.192718, 30.427954), A. Zamoroka; 11 larvae 28.IX.2019, Zabrid' (48.938649, 22.478833), A. Zamoroka; 33 larvae 28.IX.2019, Lubnya (49.010193, 22.724580), A. Zamoroka; 2 ex. 13.VI.2019 Mariyampil (49.026707, 24.848335), A. Zamoroka; 1 ex. 12.VI.2019, Ohrymivka (50.347773,37.216398), B. Loboda; 1 ex. 01.VII.2018, Lyakhivtsi (48.568610, 22.476603), O. Mateleshko; 5 larvae 28.VIII.2016, Protesy (49.183006, 24.424209), A. Zamoroka; 47 larvae 27.VIII.2016, Dibrova (49.184765, 24.449278), A. Zamoroka; 8 larvae 26.VIII.2016, Mezhyhirtsi (49.118355, 24.803146) nr. Halych, A. Zamoroka; 7 larvae 19.VIII.2016, Podillya (49.274777, 24.740144), A. Zamoroka; 4 larvae 18.VIII.2016, Khokhoniv (49.233592, 24.845642), A. Zamoroka; 5 larvae 16.VIII.2016, Tenetnyky (49.250107, 24.548290), A. Zamoroka; 5 larvae 21.VII.2016, Halych (49.096669, 24.714657), A. Zamoroka; 1 ex. 04.VII.2016, Serednye (48.543531, 22.515263), O. Mateleshko; 1 ex. 07.VII.2016, Syurte (48.502408, 22.223033), O. Mateleshko; 8 ex. 03.VII.2016, Khmeleva (48.852908, 25.465668), A. Zamoroka; 1 ex. 03.VII.2016, Nezvysko (48.781832, 25.257091), A. Zamoroka; 1 ex. 02.VII.2016, Petriv (48.844261, 25.322967), A. Zamoroka; 2 ex. 30.VI.2016,

Bukove (48.186305, 23.066901), O. Mateleshko; 1 ex. 30.VI.2016, Nevytske (48.665241, 22.382794), O. Mateleshko; 1 ex. 27.VI.2016, Uzhhorod (48.619272, 22.271607), O. Mateleshko; 1 ex. 26.VI.2016, Dolyna (48.862962, 25.215091), A. Zamoroka; 13 ex. 25.VI.2016, 2 ex. 18.VI.2016 Luh (48.926421, 25.192808), A. Zamoroka; 6 ex. 13.VI.2016, Ivano-Frankivsk (48.943402, 24.713496), A. Zamoroka; 1 ex. 06.VI.2016, Vikno (49.343044, 26.106054), Ya. Kapelyukh; 5 ex. 04.VI.2016 Ustechko (48.780632, 25.582993), A. Zamoroka; 1 ex. 28.V.2011, Kamianka (49.952658,37.795997), O. Sluts'kyi; 1 ex. 7.VI.2014, Koroleve (48.151833, 23.137822), V. Hleba; 1 ex. 21.V.2004, Gurzuf (44.547563, 34.281415), A. Zamoroka.
Current distribution in Ukraine: cPL; ePA; wEC; CC; wPD; ePD; nDH; sDH; eDH*; nDL*; sDL*; cPT*; SR; wPNT; nPNT; sPNT; CRM; sCRY

57. ***Theophilea subcylindricollis*** Hladil, 1988
Examined material: 1 ex. 21.VI.2022, Odesa (46.454167, 30.755833), M. kormyzhenko; ibidem 1 ex. 04.VI.2022, Kharkiv (50.03812, 36.205927), Yu. Benhus; ibidem 1 ex. 21.V.2022, O. Dyatlova; 5 ex. 11.VI.2022, 1 ex. 30.V.2022, Poltava (49.563118, 34.588601), Ye. Rybal'chenko; 1 ex. 27.V.2022, 1 ex. 26.VI.2021, Shkarivka (49.760097, 30.158553), S. Oksenenko; 3 ex. 26.V.2022, Vynohradiv (48.145197, 23.068058) A. Zamoroka; 2 ex. 26.VI.2021, Opishnya (49.957195, 34.628167), Ye. Rybal'chenko; 3 ex. 19.VI.2021, Ruzhyn (49.737751,29.200965), V. Voropayev; 1 ex. 26.VI.2021, Shkarivka (49.744809, 30.150202), S. Oksenenko; 1 ex. 11.VI.2021, 1 ex. 22.VI.2019, 1 ex. 21.V.2019, 1 ex. 26.V.2018, 1 ex. 19.V.2018, Dzenzelivka (48.970883, 30.24663), L. Ilminska; 1 ex. 29.V.2021, Haivoron (48.326960,29.872155), O. Misyuna; 1 ex. 27.V.2021, Stayky (50.073315, 30.90263), O. Tomchenko; 6 ex. 25.V.2021, Serafyntsi (48.656747, 25.555666), A. Zamoroka; 2 ex. 12.VI.2020, Rus'ka Slobidka (46.844990, 30.588665), A. Zamoroka; 52 ex. 11.VI.2020, Nerushay (45.644318, 29.498523), A. Zamoroka; 32 ex. 10.VI.2020, Roksolany (46.192718, 30.427954), A. Zamoroka; 3 ex. 09.VI.2020, Kaïry (46.910658, 30.979757), A. Zamoroka; 21 ex. 08.VI.2020, Trykraty (47.722370, 31.408647), A. Zamoroka; 45 ex. 08.VI.2020, Aktove (47.720833, 31.480849), A. Zamoroka; 2 ex. 07.VI.2020, Trostianets (49.125608, 28.604347), A. Zamoroka; 2 ex. 06.VI.2020 Letychiv (49.395181, 27.685460), A. Zamoroka; 2 ex. 06.VI.2020, Verbka (49.390959, 27.773668), A. Zamoroka; 3 ex. 28.V.2020, Huliaipole (47.691059,36.235859), V. Voropayev; 3 ex. 11.V.2020, Bene (48.174097, 22.738428), A. Zamoroka; 1 ex. 10.V.2020, Muzhiyeve (48.172751, 22.723231), A. Zamoroka; 1 ex. 16.VI.2019, Horodok (48.642222, 25.831195), A. Zamoroka; 1 ex. 28.V.2019, Dnipro (48.439916,35.010198), V. Voropayev; 1 ex. 23.V.2019, Lyaschivka (49.531593,32.716915), Z. Berest; 2 ex. 18.V.2019, Kryvyi Rih (48.106050, 33.513972), A. Troshyn; 4 ex. 03.VI.2018, Nyzhniv (48.950990, 25.081334), A. Zamoroka; 1 ex. 19.V.2018, Dzendzelivka (48.971102,30.246371), L. Il'mins'ka; 1 ex. 16.V.2018, 1 ex. 23.V.2016, Mykolayiv (47.036114, 32.047243), R. Stepovyi; 10 ex. 10.VI.2017, Ostapie (49.398167, 26.078656), A. Zamoroka; 1 ex. 12.VI.2012, Rativtsi (48.526985, 22.269450), O. Meteleshko; 1 ex. 22.V.2011, Kharkiv (50.085097,36.311811), O. Sluts'kyi; ibidem 1 ex. 11.VI.2009, B. Loboda; 1 ex. 28.V.2009, Dvorichna (49.893287, 37.744327), B. Loboda; 1 ex. 20.V.2009, Bezlyudivka (49.895119,36.249059), B. Loboda; 1 ex. 24.V.2006, Kryva Luka (48.871966, 37.882332), B. Vas'ko;
Current distribution in Ukraine: cPL; ePA; wPD; ePD; sPD; nDH*; cDH*; sDH; eDH*;

nDL*; nPT; cPT*; wSR*; SB; DIN; sMP; wPNT; nPNT; ?sPNT

Lamiini Latreille, 1825

58. ***Dorcadion aethiops*** (Scopoli, 1763)
Examined material: 1 ex. 15.V.2022, Vynohradiv (48.137684, 23.075624) V. Hleba; ibidem 2 ex. 05.V.2018, O. Mateleshko; 1 ex. 05.V.2022, Barvinok (48.565602, 22.373874), L. Evergreen; 1 ex. 19.V.2020, Uzhhorod (48.607331, 22.325460), M. Kuznietsov; ibidem 1 ex. 10.V.2018, O. Mateleshko; 1 ex. 09.V.2018, Koroleve (48.126301, 23.147091), V. Hleba; 1 ex. 15.V.2009, Muzhiyeve (48.191642, 22.709390), Yu. Kanarskyi.
Current distribution in Ukraine: ePA; wEC; sPD; sMP

59. ***Dorcadion cinerarium*** (Fabricius, 1787)
Examined material: 2 ex. 03.V.2018, Nahoriany (48.525995, 26.784397), M. Hazali; 1 ex. 27.V.2016, Prut (48.274000, 26.017000), N. Smirnov;
Current distribution in Ukraine: cPL; sCC*; wPD*; sPD; nDH; cDH; sDH; eDH; nDL; sDL; nPT; cPT; wSR; SB; DIN; ?sMP sPD; wPNT nPNT ePNT sPNT; KER; sPNT; CRM; sCRY

60. ***Dorcadion ciscaucasicum mokrzeckii*** Jakovlev, 1902 !RB
Examined material: 1 ex. 22.IV.2001, Kerch (45.349221, 36.466972), D. Kurinnyi.
Current distribution in Ukraine: KER

61. ***Dorcadion elegans*** Kraatz, 1873
Examined material: 1 ex. 02.V.2022, Sevastopol (44.575884, 33.463595), M. Lukashevych; 1 ex. 03.V.2018, Peresadivka (47.091116, 32.166360), R. Stepovyi; 1 ex. 17.V.2017, 1 ex. 07.V.2017, Mykolaiv (46.984630, 31.994320), R. Stepovyi; 1 ex. 17.V.2017, Zaychivs'ke (47.043039, 32.095871), R. Stepovyi; 1 ex. 01.V.2014, Burhunka (46.803729, 33.227053); 1 ex. 26.IV.2014, Beryslav (46.842057, 33.415790);11 ex. 20.IV.2014, Vesele (49.967317, 37.334531), Yu. Skrylnyk; 1 ex. 06.V.2010 Vasylivka (48.260222, 34.987000), B. Loboda; ibidem 1 ex. 06.V.2010, Yu. Skryl'nyk & O. Dronov; 1 ex. 01.IV.2000, Simferopol (44.940066, 34.146362), V. Shaporynskyi; 1 ex. 26.VI.2000, 1 ex. 01.VI.1987, 1 ex. 20.VIII.1986, Raïvka (48.358362, 35.448663), O. Smarokov.
Current distribution in Ukraine: sDH; eDH; sPT; wSR; SB; DIN; nPNT; ePNT; sPNT; CRM*

62. ***Dorcadion sericatum*** Sahlberg, 1823
Examined material: 1 ex. 26.IV.2022, 1 ex. 10.IV.2022, 1 ex. 11.IV.2020, Bahativka (44.863032, 35.061719), B. Pohadayev; 1 ex. 18.IV.2022, Vesele (44.836565, 34.870878), M. Krylov; 1 ex. 07.IV.2022, Myndal'ne (44.862341, 35.039218), B. Pohadayev; 1 ex. 01.V.2004, Sudak (44.857575, 34.934704), S. Vaschenko.
Current distribution in Ukraine: eDH; ?nPNT; sPNT; KER; CRM; sCRY

63.1. ***Morimus asper funereus*** Mulsant, 1863 !RB
Examined material: 1 ex. 09.VI.2019, 2 ex. 26.V.2019, Dyakivtsi (48.085131, 26.219933), A. Volutsa & N. Smirnov; 1 ex. 15.IV.2018, Velyka Buda (48.146600, 26.061100), V. Shulga.
Current distribution in Ukraine: ?ePA; sCC; wPD; ?ePD; ?sPD

63.2. ***Morimus asper verecundus*** (Faldermann, 1836)
Examined material: 1 ex. 16.VI.2022, Luchyste (44.760255, 34.352789), S. Svirin; 1 ex. 12.VI.2022, Demerdzhi (44.765628, 34.363413), M. Stefanovych; ibidem 1 ex. 11.VII.2021, V. Laseniv; ibidem 1 ex. 04.VII.2019, V. Luzanov; ibidem 1 ex. 12.VI.2003, A. Zamoroka; 1 ex. 11.VI.2022, Sokolyne (44.516653, 33.984273), S. Bohdanovych; 1 ex. 10.VI.2022, Ternivka (44.56652, 33.770584), N. Loseva; 1 ex.

14.V.2022, Novobobrivs'ke (44.505956, 33.9069), K. Bobrivs'ka; 2 ex. 14.VI.2021, 1 ex. 13.VI.2021, Honcharne (44.436213, 33.674388), K. Yahina; 1 ex. 18.V.2021, 1 ex. 29.VI.2010, Verkhnya Kutuzivka (44.741605, 34.323911), S. Bohdanovych; 1 ex. 27.VI.2020, Lazurne (44.632939, 34.363743), T. Pyrozhenko; 1 ex. 04.VI.2020, Pereval'ne (44.810928, 34.346328), A. Butrim; 1 ex. 21.I.2018 in pupal chamber, Kyzylove (44.418854, 33.791836), I. Pristrem; 1 ex. 28.V.2011, Krasnokam'yanka (44.920964, 35.086046), B. Pohadayev; 1 ex. 30.IV.2011, Marmurove (44.779855, 34.257912), I. Balashov; 1 ex. 10.V.2010, Masandra (44.538738, 34.14931), O. Shynder; 1 ex. 30.IV.2008, Shebetivka (44.931509, 35.184894); 3 ex. 28.V.2007, Karabi-Yaila (44.847979, 34.588275), A. Zamoroka;
Current distribution in Ukraine: CRM; sCRY

64. ***Neodorcadion bilineatum*** (Germar, 1824)
Examined material: 1 ex. 01.VI.2006, Lisky (46.556423, 30.825635), H. Demydov.
Current distribution in Ukraine: sPD; sMP; wPNT

Parmenini Mulsant, 1839

65. ***Parmena pontocircassica*** Danilevsky et Miroshnikov, 1985
Examined material: 1 ex. 10.VIII.2013, Bahata Ushelyna (44.548284,33.868494), B. Loboda.
Current distribution in Ukraine: CRM; sCRY
Pogonocherini Mulsant, 1839

66. ***Pogonocherus ovatus*** Goeze, 1777
Examined material: 1 ex. 23.VIII.2021, Mt. Pip Ivan Marmaros'kyi (47.936115, 24.316264), A. Zamoroka
Current distribution in Ukraine: cPL; wEC*; eEC, CC; wPD; cPT; ?CRM

Mesosini Thomson, 1860

67. ***Mesosa nebulosa*** (Fabricius, 1781)
Examined material: 1 ex. 04.VIII.2022, Dubove (48.199895, 23.892287), A. Zamoroka.
Current distribution in Ukraine: wPL; cPL; ePL; ePA; wEC*; CC; wPD; ePD; cDH; sDH; nDL; nPT; wSR; CRM

68. ***Mesosa myops*** (Dalman, 1817)
Examined material: 1 ex. 24.V.2022, Lyudzha (50.485701, 35.063333), A. Nuzhnenko; 1 ex. 10.VI.2021, Starobil's'k (49.281128, 38.907261), M. Perehrym.; 2 ex. 04.V.2019, 1 ex. 16.V.2007, Voronove (48.915469, 38.628995), S.D.
Current distribution in Ukraine: wSR*; SB; DIN; ?CRM

Tetraopini Thomson, 1860

69. ***Tetrops gilvipes efetovi*** Lazarev, 2012
Examined material: 1 ex. 03.V.2008, Perevalne (44.810336, 34.338956), V. Shaporynskyi.
Current distribution in Ukraine: ?VO, wPD; sPNT; CRM; sCRY

70. ***Tetrops starkii*** Chevrolat, 1859
Examined material: 1 ex. 26.VI.2021, Opishnya (49.957195, 34.628167), Ye. Rybal'chenko; 1 ex. 27.V.2003, Kryvyi Rih (48.084086,33.516376), A. Holovatiuk
Current distribution in Ukraine: wPL; wEC; sDH*; cPT*
Saperdini Mulsant, 1839

71. ***Menesia bipunctata*** (Zoubkoff, 1829)
Examined material: 1 ex. 16.VI.2022, Cheremoshna Volia (51.394214, 24.187006), A. Zamoroka; 4 ex. 14.VI.2022, Mosyr (51.054638, 24.098424), A. Zamoroka; 3 ex. 10.VI.2022, Birky (51.836247, 25.168413), A. Zamoroka; 1 ex. 10.VI.2022, Derevok (51.730716, 25.352468), A. Zamoroka; 1 ex. 09.VI.2022, Bykhiv (51.740581, 25.293560), A. Zamoroka; 1 ex. 04.VI.2022,

Troyanivka (51.349063, 25.351699), A. Zamoroka; 1 ex. 03.VI.2022, Hradys'k (51.354017, 25.419563), A. Zamoroka; 1 ex. 03.VI.2022, Horodok (51.353450, 25.454666), A. Zamoroka; 1 ex. 24.V.2010, Pyatnychany (49.373145, 23.886074), R. Panin.
Current distribution in Ukraine: wPL; cPL; ePL; wEC; CC*; wPD; wSR

72. ***Phytoecia hirsutula*** (Fröelich, 1793)
Examined material: 2 ex. 07.V.2021, Huliaipole (47.702803,36.240475), V. Voropayev; 1 ex. 03.V.2021, Zaychivs'ke (47.059503, 32.087882), R. Stepovyi; 6 ex. 08.VI.2020, Aktove (47.720833, 31.480849), A. Zamoroka; 2 ex. 09.VI.2020, Kaïry (46.910658, 30.979757), A. Zamoroka; 3 ex. 12.VI.2020, Rus'ka Slobidka (46.844990, 30.588665), A. Zamoroka; 1ex 19.V.2019, Peresadivka (47.091116, 32.166360), R. Stepovyi; 1ex 11.V.2015, Ivanivka (46.971159, 30.462401), R. Stepovyi; 2 ex. 24.VI.2011, Samsonove (47.285245, 38.185799), O. Kravchenko.
Current distribution in Ukraine: sPD; cDH; sDH; eDH; wSR; DIN; AZ; wPNT; nPNT*; ePNT*; sPNT; KER; CRM; sCRY

73. ***Phytoecia millefolii*** (Adams, 1817)
Examined material: 1 ex. 30.IV.2010, Chornomorske (45.479973, 32.592130), B. Loboda; 1 ex. 28.IV.2008, Feodosiya (45.012770, 35.361122), collector unknown.
Current distribution in Ukraine: ?eDH; ?nPNT; sPNT; KER; CRM; sCRY

74. ***Phytoecia molybdaena*** (Dalman, 1817)
Examined material: 2 ex. 08.VI.2020, Aktove (47.709271, 31.476804), A. Zamoroka.
Current distribution in Ukraine: sCC; wPD; sDH; nPNT

75. ***Phytoecia praetextata*** (Steven, 1817)
Examined material: 1 ex. 30.04.2008, Shebetivka (44.931509, 35.184894).
Current distribution in Ukraine: ?cDH; CRM; sCRY

76. ***Phytoecia pustulata*** (Schrank 1776)
Examined material: 1 ex. 20.VI.2020, Ruzhyn (49.733137, 29.189847), V. Voropayev; 5 ex. 08.VI.2020, Aktove (47.709271, 31.476804), A. Zamoroka; 1 ex. 09.V.2020, Vynohradiv (48.154006, 23.066631), A. Zamoroka; 1 ex. 18.V.2019, Dzenzelivka (48.970883, 30.24663), L. Ilminska; 1 ex. 23.VI.2017, Krasnokutsk (50.055306,35.199289), B. Loboda; 1 ex. 10.VI.2017, Vikno (49.356659, 26.077141), A. Zamoroka; 1 ex. 22.VI.2014, Ivano-Frankivsk (48.942789, 24.712261), A. Zamoroka; 1 ex. 28.V.2014, Bezlyudivka (49.858161,36.242503), B. Loboda; 1 ex. 10.V.2012, Poltava (49.5952, 34.592105), Ye. Rybal'chenko; 1 ex. 27.V.2010, Dvorichna (49.905116,37.759721), B. Loboda; 1 ex. 10.V.2010, Kharkiv (50.085097,36.311811), O. Sluts'kyi; 4 ex. 07.V.2010, Rayivka (48.359859, 35.429577), O. Sumarokov; 2 ex. 23.IV.2003, Kryvyi Rih (48.084086,33.516376), A. Holovatiuk.
Current distribution in Ukraine: VO; MPL; wPL; cPL; ePA; wEC; eEC; CC; sCC; wPD; ePD; cDH*; sDH*; eDH*; nDL; nPT; cPT; wSR; SB; DIN; AZ; nPNT; ePNT; CRM

77. ***Phytoecia scutellata*** (Fabricius, 1793)
Examined material: 1 ex. 10.V.2019, 1 ex. 01.V.2019, Kryvyi Rih (48.106050, 33.513972), A. Troshyn; 1 ex. 07.V.2019, Chystyakove (48.020816, 38.613884); 1 ex. 27.IV.2014, Vesele (49.965083, 37.318111), A. Shekhovtsov; 1 ex. 30.IV.2017, Troyits'ke (47.069319, 35.404397), A. Shehovtsov; 1 ex. 10.VI.2003, Kryvyi Rih (48.084086, 33.516376), A. Holovatiuk.
Current distribution in Ukraine: ePA; nDH; sDH*; wSR; SB; DIN; nPNT; ePNT*; sPNT; KER; CRM

78. ***Phytoecia tigrina*** (Mulsant, 1851) !RB
Examined material: 10 ex. 26.V.2022, Vynohradiv (48.145197, 23.068058), A. Zamoroka; ibidem 1 ex. 04.05.2022, V. Hleba;

ibidem 3 ex. 9.V.2020, A. Zamoroka; 10 ex. 07.VI.2021 Semenivka (48.765410, 25.333890), A. Zamoroka; 2 ex. 03.VI.2019, Yunashkiv (49.322819, 24.664360), A. Zamoroka; 3 ex. 17.V.2021, Pidpechary (48.942240, 24.791777), A. Zamoroka; 4 ex. 22.V.2021, Oleshiv (48.926812, 24.989219), A. Zamoroka; 30 ex. 09.V.2019, 3 ex. 07.V.2009, 1 ex. 09.V.2019, Burshtyn (49.226603, 24.696230), A. Zamoroka.
Current distribution in Ukraine: ePA; wPD; ?ePD; ?sPD; ?sMP

79. ***Phytoecia uncinata*** (Redtenbacher, 1842)
Examined material: 2 ex. 18.VI.2021, Dzenzelivka (48.954209, 30.288914), L. Ilminska; 3 ex. 22.V.2021, Oleshiv (48.926812, 24.989219), A. Zamoroka; 1 ex. 25.VI.2018, Ruzhyn (49.721567, 29.182111), V. Voropayev.
Current distribution in Ukraine: VO; MPL; wPL; ePA; sCC; wPD; ePD; nDH*; cDH*; sDH*

80. ***Phytoecia virgula*** (Charpentier, 1825)
Examined material: 1 ex. 16.VI.2019, Haydary (49.623762, 36.328388), Yu. Benhus; 3 ex. 06.V.2016, Ruzhyn (51.161550, 24.548979), P. Voytko.
Current distribution in Ukraine: VO, wPL; cPL; ePL; ePA; ?wEC, wPD; sDH; eDH; nDL; wSR; nPNT; sPNT; CRM

81. ***Stenostola dubia*** (Laicharting, 1784)
Examined material: 1 ex. 04.VI.2021, Rybne (48.944594, 24.597946), A. Zamoroka.
Current distribution in Ukraine: wEC; eEC; CC, ?wPD; ?wSR; CRM

82. ***Stenostola ferrea*** (Schrank, 1776)
Examined material: 1 ex. 21.VI.2018, Kostryna (48.921166, 22.562142), N. Koval; 1 ex. 17.V.2018, Bohorodchany (48.837103, 24.586602), O. Varga; 4 ex. 28.II.2014 ex larva, Maydan (49.004524, 24.579446), A. Zamoroka; 1 ex. 05.V.2013, Lyubotyn (49.906677, 35.921853), B. Loboda; 1 ex. 01.VI.2008, Krasnokuts'k (50.056961, 35.195355), Yu. Skryl'nyk; 1 ex. 12.VI.2005, Vistova (49.014143, 24.463160), A. Zamoroka; 3 ex. 30.V.2004, Dokuchaevske (49.885690, 36.436040), Yu. Skrylnyk;
Current distribution in Ukraine: VO; wPL; cPL; ePL; ePA; wEC; eEC; CC; sCC; wPD; wSR; CRM

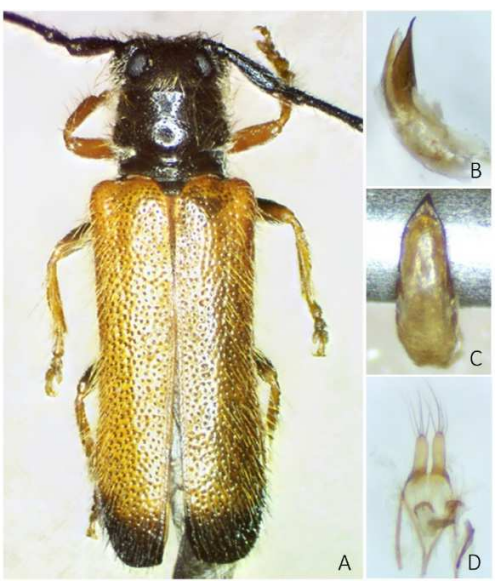

Fig. 2. Habitus (A) and terminalia (B-D) of *Tetrops peterkai*, Horodok, Volyn Region, Ukraine. Photo credit: A. Zamoroka

Table 1. Addition to the longhorn beetles' fauna of physiographic regions of Ukraine

Physiographic region	**Abbreviation**	**Number of species**		
		Zamoroka, 2022a	**Current study**	**Total**
Volyn Highland	VO	68	1	69
Male [Small] Polissya Lowland	MPL	69	1	70
West of Polissya Lowland	wPL	109	2	111
Center of Polissya Lowland	cPL	131	5	136
East of Polissya Lowland	ePL	87	–	87
East of Pannonian Lowland	ePA	153	5	158
West of East Carpathin Mountaims	wEC	122	2	124
East of East Carpathian Mountains	eEC	97	–	97
North of Ciscarpathian Highland	CC	97	2	99
South of Ciscarpathian Highland	sCC	97	3	100
West of Podillya Highland	wPD	142	2	144
East of Podillya Highland	ePD	108	2	110
South of Podillya Highland	sPD	62	–	62
North of Dnipro Highland	nDH	43	16	59
Center of Dnipro Highland	cDH	79	10	89
South of Dnipro Highland	sDH	72	9	81
East of Dnipro Highland	eDH	54	7	61
North of Dnipro Lowland	nDL	72	3	75
South of Dnipro Lowland	sDL	32	1	33
North of Poltava Plane	nPT	74	1	75
Center of Poltava Plane	cPT	70	7	77
South of Poltava Plane	sPT	19	2	21
West of Seredniorus' Highland	wSR	126	6	132
Starobil'sk Lowland	SB	107	1	108
Dinets' Ridge	DIN	97	–	97
Azov Highland	AZ	16	2	18
South of Moldavian Plateau	sMP	32	–	32
West of the Pontic Lowland	wPNT	38	3	38
North of the Pontic Lowland	nPNT	73	4	77
East of the Pontic Lowland	ePNT	46	3	49
South of the Pontic Lowland	sPNT	54	–	54
Kerch Peninsula	KER	37	1	39
Crimean Mountains	CRM	104	2	106
Southmost shore of Crimean Peninsula	sCRY	102	2	104
Ukraine in total	**UA**	**279**	**3**	**282**

Fig. 3. *Neoclytus acuminatus* (A-B), Uzhhorod, Zakarpattya Region, Ukraine; *Enoploderes sanguineus* (C-D), Odesa, Odesa Region, Ukraine. Photo credit: A. Vdovenko (A); A. Shevchenko (B); M. Abey (C); V. North (D)

DISCUSSION

The latest revision of the fauna of Ukrainian Cerambycidae (Zamoroka, 2022a) showed that 279 species are reliably known in the country. The previous list (Bartenev, 2011) comprised 284 species, including such species as *Evodinus borealis* (Gyllenhal, 1827), *Dorcadion sulcipenne caucasicum* Küster, 1847, *Parmena balteus* (Linnaeus, 1767), *Saphanus piceus* (Laicharting, 1784), *Vadonia bisignata bisignata* (Brülle, 1832). However, these species have never been found on the territory of Ukraine. Lastly, they had to be excluded from the list of the longhorn beetles of Ukraine (Zamoroka, 2022a). Instead, the current study presents three previously unknown species for

Ukraine. These include *Enoploderes sanguineus*, *Tetrops peterkai* and *Neoclytus acuminatus*. While *T. peterkai* is a native species for Ukraine, then *E. sanguineus* and *N. acuminatus* are alien invasive species.

Tetrops peterkai is a new species for fauna of Ukraine, previously considered as *Tetrops praeustus* (Zahajkevych, 1963). Several males' specimens were dissected for study of terminalia (fig. 2) and comparison with those published in paper with original description of *T. peterkai* (Skořepa, 2020) as well as with data published in Kurzawa et al. (2020). Studied male terminalia completely coinciding with *T. peterkai*. It is special interest, the male terminalia labeled "*T. praeustus* s.l." in the paper of Kurzawa et al. (2020: fig. 4) are completely match with *T. peterkai* and differ from those of *T. praeustus* in Skořepa (2020) and in this study. Thus, it needs re-examination of *T. praeustus* not only in Ukraine but also in Poland for identification of *T. peterkai.* The studied specimens of *T. peterkai* was collected in several localities during four expeditions (2022) within Volyn Region (North-West Ukraine). Specimens were observed on twigs of *Frangula alnus* Mill., the food plant for *Tetrops peterkai*. Adult beetles usually spotted together with *Menesia bipunctata*. The range of *Tetrops peterkai* remains completely unknown. It is absent within PUIF collection from Carpathians and forest steppe of Ukraine. Other collections are not studied yet.

The original range of *E. sanguineus* occupies the macroregion of the Caucasus and neighbor territories of Iran and Turkey (Miroshnikov, 2000). Miroshnikov (2000) also included Albania to the range of *E. sanguineus*. However, there is no other data confirming his statement. It is the special interest that Danilevsky included *E. sanguineus* into the fauna of Ukraine (in Lobl & Smetana, 2010) and these data were duplicated in several papers without any confirmation (Özdikmen, 2014; Danilevsky, 2020). Danilevsky's suggestion based on the Miroshnikov's (2000) record of *E. sanguineus* in Russia 50 km east from Ukrainian border. This meant that the probability of the species present in Ukraine is likely highly. However, the certain records of *E. sanguineus* from Ukraine were completely unknown (Zahajkevych, 1991; Bartenev, 2004, 2009; Bartenev, & Terekhova, 2011; Zamoroka, 2022a). This situation was emphasized by Bartenev (2009) and in fact, this species newer recorded in Ukraine till now (Zamoroka, 2022a). Due to citizen science data from iNaturalist, *Enoploderes sanguineus* was twice recorded in Odesa in 2022, almost 800 km west from Miroshnikov's record. These records indicate the presence of the viable population of *E. sanguineus* in Odesa. Both specimens of *E. sanguineus* were found in the city parks with old trees of *Populus alba* L., *Aesculus hippocastanum* L. and *Platanus orientalis* L. The larvae feed in dead wood in the microhabitats of the trees' hollows. The current range and the further expansion of *E. sanguineus* remains unclear in Ukraine. While Odesa is the largest sea port of Ukraine and current records are isolated from original range, I believe that the species was introduced here with timber or wooden packages from the Caucasus. Georgia is a likely most country of the species origin.

Neoclytus acuminatus is new invasive cerambycid species in Ukraine. Naturally, *Neoclytus acuminatus* spreads within east of the North America (Keszthelyi, 2021). In Europe it was introduced in middle of XIX century and multiple times reintroduced during the XX century (Cocquempot & Lindelöw, 2010; Keszthelyi, 2021). *N. acuminatus* was naturalized in Mediterranean till the middle of XX century. Since then, it has been gradually expanding its range to the east and north. This species was unknown in Ukraine till now (Zamoroka, 2022a). However, its appearance was expected, since the

species have been registered in many locations in neighboring countries. These include Slovakia (Sabol et all, 2020), Romania (Hănceanu et all, 2021) and Hungary (Kesztheliyi, 2021). Now *Neoclytus acuminatus* also was found in the westmost part of Ukraine.

In addition to species of Cerambycidae that are new for the fauna of Ukraine, I also managed to significantly supplement the faunal lists of the number of physiographic regions of Ukraine (Table 1). In total, new records are presented for 81 species, including rare, invasive and poorly known species.

In this study, I provided new data on the records of seven of the 13 species (Zamoroka, 2022c) of the longhorn beetles, listed in the IV edition of Red Book of Ukraine. In particular, these include *Trichoferus pallidus*, *Cerambyx cerdo*, *Rosalia alpina*, *Brachysomida excellens*, *Morimus asper funereus*, *Dorcadion ciscaucasicum mokrzeckii* and *Phytoecia tigrina*.

It is also interesting current records of 27 poorly-known species of Cerambycidae for Ukraine. Most of them have a very limited distribution and are mostly relicts of past geological times or are on the margin of their natural range or are very poorly studied. The special attention is drawn to new records of Mediterranean species of the longhorn beetles from the Crimean Mountains and the southern coast of the Crimean Peninsula. These include *Hesperophanes sericeus*, *Trichoferus holosericeus*, *T. pallidus*, *Gracilia minuta*, *Callimoxys gracilis*, *Nathrius brevipennis*, *Callimus femoratus*, *Oxypleurus nodieri*, *Parmena pontocircassica*, *Phytoecia praetextata*, *Ph. millefolii*. Most of these species are known from old and sole finds (Zahajkevych, 1991; Bartenev, 2009; Zamoroka, 2022d). It should be noted that the mentioned region of Ukraine is actually a recent refugium of Mediterranean fauna, isolated from its nearest range in the Caucasus and the Balkans. Obviously, this refugium had been originated as a result of the northward expansion of the thermophilic Caucasian fauna of Cerambycidae most likely during Atlantic time (7.9-5.0 ka), the warmest post-glacial period. This event had to take place before the rise of the level of the Black Sea, which is believed to have occurred between 7 and 6 ka (Marret et al., 2019; Lericolais et al., 2007). At that time, the Southern Crimea was connected by a land bridge from the east with the Western Caucasus, and from the west – with the Danube-Dnipro plain. As noted by Marret et al. (2019) during this period, the temperate broad-leaved forests were dominated in the Northern and Eastern Black Sea coasts.

A number of the newly recorded species of Cerambycidae in Ukraine are poorly known. In particular these include *Neoplagionotus bobelayei*, *Callimus angulatus*, *Xylotrechus capricornus*, *Clytus tropicus*, *Pseudogaurotina excellens*, *Anisarthron barbipes*, *Neodorcadion bilineatum*, *Pogonocherus ovatus*, *Oplosia cinerea*, *Leiopus punctulatus*, *Menesia bipunctata*, *Exocentrus stierlini*, *Phytoecia tigrina*, *Ph. molybdaena*. Almost all of them are known from solitary ancient and scattered records, and knowledge on their ranges are very fragmented.

The special interest are the new records of *Agapanthia maculicornis* and *Mesosa myops*, which are located far to the west of their previously known range. Both species were previously found in a very limited region of the Siverskyi Dinets basin in the easternmost Ukraine (Martynov & Pysarenko, 2003). The above findings of *A. maculicornis* and *M. myops* extend the western limits of their known ranges in Ukraine up to the Dnipro River. To date, it is difficult to determine whether this is evidence of the westward expansion of both species, or whether it is evidence of their poor study.

New data on *Agapanthia intermedia* and *A. violacea* made it possible to clarify their current ranges. Until 2010, all published data on *A. violacea* in Ukraine also included data on *A. intermedia* (Zamoroka & Panin, 2011; Zamoroka, 2021b; 2022a). The presence of *A. intermedia* in Ukraine was confirmed only a decade ago (Zamoroka 2010; Zamoroka & Panin, 2011). Since that time the species was recorded from multiple locations in Ukraine and rediscovered in many entomological collections. Revision of collections and their comparison with published data allowed me to reveal the general range of *A. intermedia* in Ukraine (Zamoroka, 2021b; 2022a). However, in the current paper, I presented the first record of *A. violacea* for the north and east parts of Dnipro Highland and the first recent confirmation of the species presence in east part of Pannonian Lowland after over 90 years (Roubal, 1930). This indicates that the ranges of both species overlap at least within the boundaries of the Pannonian plain and the Dnipro basin.

In addition, I identified eight climate-sensitive species whose ranges have expanded dramatically due to climate change over the past two decades. These include *Agapanthiola leucaspis*, *Calamobius filum*, *Dorcadion cinerarium*, *Leiopus femoratus*, *Leptura aurulenta*, *Perderomaculatus sartor*, *Theophilea subcylindricollis*, *Trichoferus campestris*.

Agapanthiola leucaspis has rapidly spread northward in the two last decades (Zamoroka & Hleba, 2019; Zamoroka, 2022a). Its original range has occupied Pontic steppes and Crimean Mountains on the south of Ukraine (Zahajkevych, 1991; Bartenev, 2009).

Calamobius filum is one of the many steppe Cerambycidae that is rapidly expanding its range northward (Zamoroka & Mateleshko, 2016; Boichuk & Zamoroka, 2020; Zamoroka, 2022a). The original range of *C. filum* has occupied Crimea Peninsula and coastal plains of the Black Sea in Ukraine (Zahajkevych, 1961; Bartenev, 2009). In the last two decades, it has spread at least 500 km to the north and reached at least 51°N latitude. At the present *C. filum* occupies the most territory of Ukraine Except the boreal zones of Carpathian Mountains and Polissya Lowland (Zamoroka, 2022a). It should be emphasized that *C. filum* occupies the most wet localities in the southern steppes and prefers the mesoxerophilous conditions in the recently colonized territories. In a new territories *C. filum* predominantly infests stems of *Dactylis glomerata* L. and *Phalaris arundinacea* L. and *Calamagrostis canescens* (Web.) Roth. The last two are a new food plant for *C. filum*.

Dorcadion cinerarium is common in the southern and eastern steppes of Ukraine. Records presented in the current paper are very unusual due to their location far west and north from the main range of the species. Previously, *D. cinerarium* was unknown from West Podillya Highland and south of Ciscarpathian Highland (Zamoroka et al, 2012; Zamoroka, 2022a). It is highly likely *D. cinerarium* expands its range northward and westward due to the current climatic changes. For my opinion, the species recently migrated northward along Prut-Dniester watershed from the territory of Moldova and Romania.

Original range of *Leiopus femoratus* have occupied Crimean Peninsula (Zahaykevych, 1960, Bartenev, 2009; Zamoroka & Kapelyukh, 2012). Since the beginning of XXI century, the range of *L. femoratus* was rapidly shifted northward and occupied all territory of Ukraine (Zamoroka & Kapelyukh, 2012; Zamoroka, 2022a). However, its presence in many physiographic regions of Ukraine remained unknown (Zamoroka, 2022a). The records presented in the current paper include the first findings of *L. femo-*

ratus within number of physiographic regions of Ukraine. Additionally, I reared 372 individuals of *L. femoratus* from stems of *Viscum album* L. during long lasting experiment (since 2013) on North Ciscarpathian Highland. Thus, *Viscum album* is a new food plant for *L. femoratus*, which was unknown previously. The most likely *L. femoratus* spreads within Europe along fields and roads hedgerows intensively infested by *Viscum album*.

Leptura aurulenta was known as rare and sporadically spotted species in Ukraine (Zahajkevych, 1961; Bartenev, 2009). However, in the recent decade it is became more abundant and locally very common species. It seems that the current climatic changes influence positively on *L. aurulenta* populations.

Perderomaculatus sartor is very common in the southern steppes of Ukraine (Zamoroka, 2022a). In the current paper I presented its records outside of known range. These include the first records for East Carpathians and Northern part of Ciscarpathian Highland and new records for West Podillya Highland. Previously, this species was unknown for these physiographic regions due to unsuitable climatic conditions (Zamoroka et al., 2012; Zamoroka, 2018). It is highly likely that *P. sartor* expands its range northward and invade mountains due to current climate changes.

Before XXI century, *Theophilea subcylindricollis* was known only from Black Sea coast and Crimean Peninsula in Ukraine (Zahajkevych, 1960; 1961). However, during the last two decades it rapidly spreads within large territories in Ukraine, Moldova, Romania and Russia. The main reason for such range expanding is present days climatic changes (Zamoroka, 2017).

Trichoferus campestris is an invasive species widely distributed in Ukraine (Zamoroka, 2022a). Since its early records (Bartenev & Terekhova, 2006; Zamoroka, 2009) it is spread within all territory of Ukraine (Zamoroka & Korytnianska, 2018). The early most hypothesis of its natural range expanding from Caucasus (Zamoroka, 2009) was not confirmed. In the light of the recent studies (Keszthelyi et al, 2019), probably, the species was repeatedly imported to Ukraine with wooden packages. It is the special interest, I reared *T. campestris* from *Prunus cerasus* logs in the first time. Thus, *P. cerasus* is a new food plant for *T. campestris*.

CONCLUSION

In summary, three previously unknown species of the longhorn beetles was added to the fauna of Ukraine. Thus, the number of reliably registered species of Cerambycidae in Ukraine is 283. In addition, it was significantly supplemented the lists of species for most physiographic regions of Ukraine. The present changes in spreading have been recorded in eight species of the longhorn beetles, which are most likely related to climate change. It was specified ranges for several species, which turned out to be much larger than previously thought. Further research should be aimed at the regional study of the fauna of the longhorn beetles, the expansion of their ranges due to climate change, and the study of invasive species.

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Received:25.01.2023.
Accepted: 08.12.2023.