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State Museum of Natural History
Issue 2 | 2024

CATALOGUE

OF THE STATE MUSEUM OF NATURAL HISTORY, NATIONAL ACADEMY OF SCIENCES OF UKRAINE DIGITIZED COLLECTIONS

(scientific-reference edition)

Herbarium, acarological & entomological collections

UDC 582.32/.998+592/599

Catalogue of the digitized collections, deposited in the State Museum of Natural History, National Academy of Sciences of Ukraine. Issue 2. Herbarium, acarological & entomological collections. – Lviv, 2024. – 128 p. [Electronic publication]

Abstract. The next issue of the catalogue, which includes moss and fern samples, specimens of oribatid mites and beetles from the collection of the State Museum of Natural History, National Academy of Sciences of Ukraine, has been published. In this catalogue we present precise information about 15 species and 202 digitized specimens of biota groups mentioned above. Two species, *Palamocladium euchloron* (Müll. Hal.) Wijk et Margad. (Hypnales, Brachytheciaceae) and *Carabus estreicheri* Fischer von Waldheim, 1822 (Coleoptera, Carabidae), have been included into the Red Data Book of Ukraine.

For botanists, acarologists, entomologists, and workers of natural history museums.

Key words: biodiversity, fauna, flora, mosses, ferns, oribatid mites, ground beetles, insects, museum, digitaized collection, catalogue.

Recommended for publication by the Scientific Council of the State Museum of Natural History, National Academy of Sciences of Ukraine

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LIST OF ABBREVIATIONS

AR – Autonomous Republic
BR – Biosphere Reserve
CrMts – Crimean Mountains
CrSL – Crimean Steppe land
CsCp – Ciscarpathians' Upland
DCBU – Data Centre "Biodiversity of Ukraine"
DnDpL – Dnister-Dnipro land
DntsL – Donets land
EBs – Eastern Beskydy
Event Date format – yyyy-mm-dd,
FSZ – Forest-Steppe zone,
FZB – Temperate broad-leaf forest zone,
Gg – Gorgany massif
IZU – I. I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine
LDpL – Dnipro left bank forest-steppe land
LN – Landmark of Nature
MrCh – Marmarosh-Chyvchyny region
NASU – National Academy of Sciences of Ukraine
NNP – National Nature Park
NR – Nature Reserve
OCVV – Outercarpathians and Vododilno-Verkhovynska oblasti
PBC – Pokutsko-Bukovynski Carpathians
PdDpL - Podillia-Dnipro forest-steppe land
PlChr – Polonynsko-Chornohirska region
ROp - Roztotsko-Opilska Upland
SMNH – State Museum of Natural History, National Academy of Sciences of Ukraine, Lviv
SMNH LWS – Herbarium of the State Museum of Natural History, National Academy of Sciences of Ukraine, Lviv
SZ – Steppe zone
SZN – Northern Steppe subzone
SZS – South Steppe subzone
TrCp – Trancarpathians Lowland
UC – Ukrainian Carpathians
Vlk - Vulkanichno-intermountaindells oblast

PREFACE

Museum collections are the important resources for scientists, studying different groups of biota and their diversity. These collections include specimens both from Ukraine and neighboring countries, and can be used to study the taxonomy, biogeography, morphology, and evolution of plants and animals. Besides, the museum collections may be useful for researches in biology and ecology of insects, as they will contribute to their conservation efforts.

State Museum of Natural History, National Academy of Sciences of Ukraine in Lviv is one of the oldest and the richest in terms of the natural scientific collections in Ukraine. On the whole, the natural collections include about 400 thousand items, and are of exceptional importance for science. By the resolution of the Cabinet of Ministers of Ukraine (2001), scientific collections and rare display cabinets of the 19th century were granted the status of National heritage. Over the past eight years the SMNH has been engaged in the introduction of an electronic collection accounting system and collections' digitization using the software and web resource Data Centre "Biodiversity of Ukraine" (DCBU) created in the Museum. The web resource Data Centre "Biodiversity of Ukraine" was created in the State Museum of Natural History, NAS of Ukraine and published on the internet on May 25, 2017.

The web portal DCBU is working with database, which contains information on scientific and vernacular names of organisms, data records of species, digitaized museum specimens, their geotagged geographical distribution, protection categories etc. The international standards (Darwin Core) to facilitate the sharing of information on biological diversity are used for the database maintenance. At present, the database contains more than 70 thousand records, over 32 thousand of which are from the collection of the SMNH. Now above 16000 items (4000 mosses and vascular plants samples and 12000 insect and mammal specimens) are digitized and the process of digitization is ongoing.

This catalogue contains data on 14 species: mosses (14 samples), ferns (26), oribatid mites (16 specimens), beetles (ground beetles – 132 spec.) from the collection of the SMNH. In total 188 items. Two species *Palamocladium euchloron* (Müll. Hal.) Wijk et Margad. (Hypnales, Brachytheciaceae) and *Carabus estreicheri* Fischer von Waldheim, 1822 (Coleoptera, Carabidae), have been included into the Red Data Book of Ukraine. All samples are included in the electronic databases of the museum, in particular Data Centre «Biodiversity of Ukraine» <http://dc.smnh.org/>. Each sample has a QR code that can be used to go to its page in the web resource Data Centre "Biodiversity of Ukraine".

This catalogue, in addition to ensuring additional preservation of the scientific and historical natural heritage, enables easy searching and access to specimens of the SMNH collections for researchers and other users, which can be decisive for studying biodiversity and can help to fill gaps in knowledge and to prioritize future collecting efforts in areas where little is known about the certain groups of flora and fauna.

CATALOGUE OF BRACHYCHTHONIIDAE (SARCOPTIFORMES, ORIBATIDA) SPECIMENS DEPOSITED IN THE STATE MUSEUM OF NATURAL HISTORY NASU, LVIV, UKRAINE

Kateryna HUSHTAN, Habriel HUSHTAN
State Museum of Natural History NASU, Lviv,
e-mail: katrinantonyuk@gmail.com, habrielhushtan@gmail.com
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Brachychthoniids are tiny mites, typically measuring less than 250 µm in length (Krant et al. 2009). Brachychthoniids can be distinguished from other oribatids by the fact that their notogaster is divided into 3 plates by 2 transverse furrows (Weigmann, 2006). The anteriormost plate has 6 pairs of setae (*c* and *d* rows) (Krant et al., 2009). Without extra cupules immediately lateral to mid-dorsal setae (Krant et al., 2009). The genital plates and the combined anal/peranal plates are of similar size (Krant et al., 2009). There is 1 pair of aggenital setae, 2 pairs of setae on the anal plates, and the peranal plates are present with 1 pair of setae (Krant et al., 2009).

In terms of geography and ecology, brachychthoniids may be the most extensively spread family among oribatid mites (Krant et al., 2009). Besides being varied and plentiful in damp forest soil and litter, they are frequently found in disclimax communities and newly established habitats (Norton and Palmer, 1991).

The world fauna of Brachythoniidae is represented by 163 species belonging to 12 genera (Subias, 2004). In Ukraine, 40 species of mites of this family, belonging to 9 genera (Ярошенко, 2000). Thus, the species diversity in Ukraine is 25% of the world's fauna. The collection of oribatid mites of the State Museum of Natural History of the NAS of Ukraine contains 9 species of brachychthoniids, as follows: *Liochthonius alpestris* (Forsslund, 1958), *L. hystricinus* (Forsslund, 1942), *L. muscorum* Forsslund, 1964, *L. brevis* (Michael, 1888), *L. sellnicki* (Thor, 1930), *Sellnickochthonius suecicus* (Forsslund, 1942), *S. zelawaiensis* (Sellnick, 1928), *Eobrachychthonius oudemansi* van der Hammen 1952 and *Synchthonius crenulatus* (Jacot, 1938). They have been collected in the western regions of Ukraine and are represented by 96 individuals, which make up 16 records. In particular, the collection contains samples collected from Zakarpatska, Lvivska and Ivano-Frankivska provinces. Some materials were collected in nature conservation areas: Nature Reserve Roztochchia, National Natural Park Synevyr and Carpathian Biosphere Reserve.

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Liochthonius alpestris (Forsslund, 1958)

Inventory number:	**1442**
Digital record number:	**SMNH010587**
Data Centre “Biodiversity of Ukraine”:	**ID 36761**

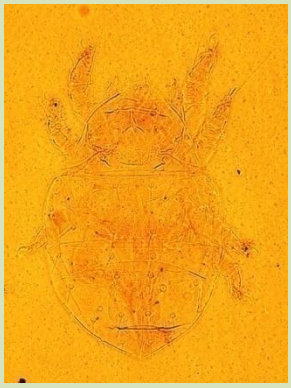
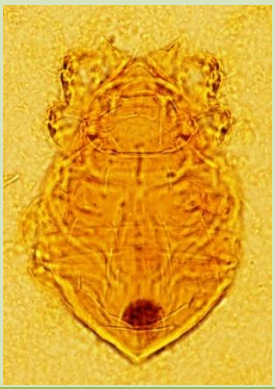


Fig. 1. Specimen of *Liochthonius alpestris* (Forsslund, 1958) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 1; *Event Date*: 1983-09-08; *Country*: Ukraine; *State Province*: Ivano-Frankivska; *District*: Rozhniativskyi; *Municipality*: Osmoloda; *Georegion*: Outer Gorgany range; *Locality*: Grofa Mt; *Habitat*: *Pinus mugo* and *Vaccinium myrtillus*; *Leg*: Rizun V.B.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

Liochthonius brevis (Michael, 1888)

Inventory number:	**1443**
Digital record number:	**SMNH010590**
Data Centre “Biodiversity of Ukraine”:	**ID 36764**



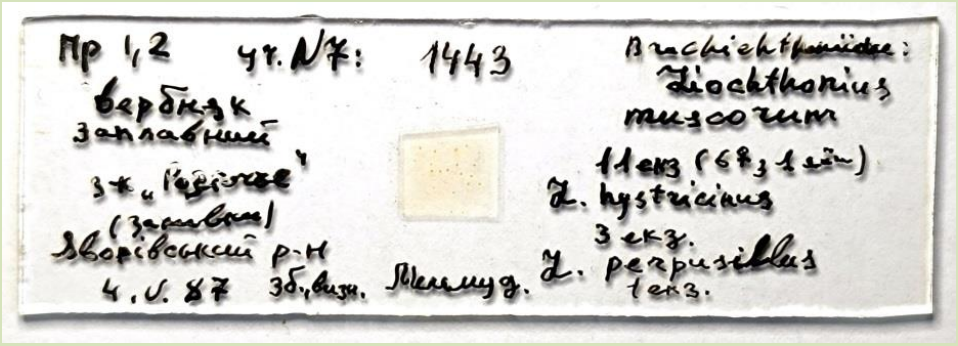
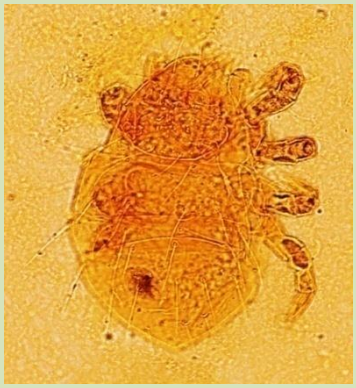


Fig. 2. Specimen of *Liochthonius brevis* (Michael, 1888) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 1; *Event Date*: 1987-05-04; *Country*: Ukraine; *State Province*: Lvivska; *District*: Yavorivskyi; *Municipality*: Ivano-Frankove; *Reserve*: NR Roztochchia; *Georegion*: FZB: ROp: Roztochchia; *Locality*: Piasetskyi’s profile, sampling plot №7; *Habitat*: floodplain willow, litter; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

Liochthonius hystricinus (Forsslund, 1942)

Inventory number:	**1443**
Digital record number:	**SMNH010588**
Data Centre “Biodiversity of Ukraine”:	**ID 36762**



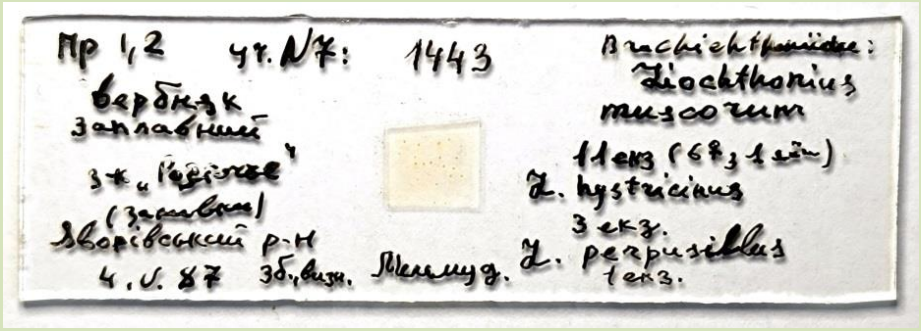


Fig. 3. Specimen of *Liochthonius hystricinus* (Forsslund, 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 3; *Event Date*: 1987-05-04; *Country*: Ukraine; *State Province*: Lvivska; *District*: Yavorivskyi; *Municipality*: Ivano-Frankove; *Reserve*: NR Roztochchia; *Georegion*: FZB: ROp: Roztochchia; *Locality*: Piasetskyi’s profile, sampling plot №7; *Habitat*: floodplain willow, litter; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

Liochthonius muscorum Forsslund, 1964

Inventory number:	**1443**
Digital record number:	**SMNH010589**
Data Centre “Biodiversity of Ukraine”:	**ID 36763**

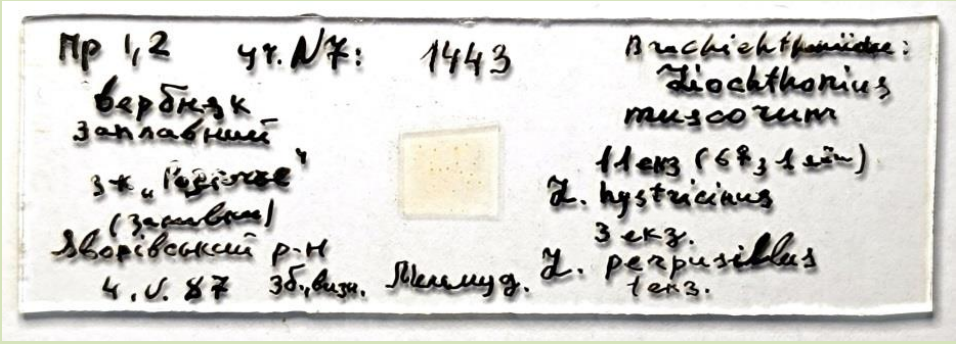


Fig. 4. Specimen of *Liochthonius muscorum* Forsslund, 1964 in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 11; *Event Date*: 1987-05-04; *Country*: Ukraine; *State Province*: Lvivska; *District*: Yavorivskyi; *Municipality*: Ivano-Frankove; *Reserve*: NR Roztochchia; *Georegion*: FZB: ROp: Roztochchia; *Locality*: Piasetskyi’s profile, sampling plot №7; *Habitat*: floodplain willow, litter; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

***Liochthonius muscorum* Forsslund, 1964**	
Inventory number:	**E1445**
Digital record number:	**SMNH010592**
Data Centre “Biodiversity of Ukraine”:	**ID 36766**

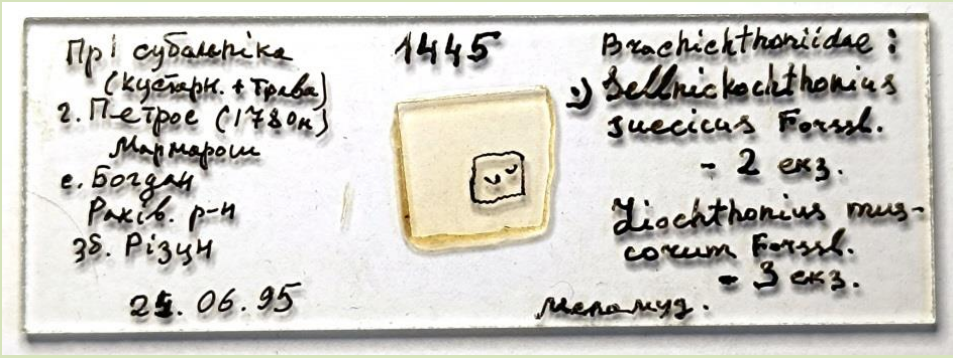


Fig. 5. Specimen of *Liochthonius muscorum* Forsslund, 1964 in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 3; *Event Date*: 1995-06-24; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Pip Ivan Mt, 1940 m a.s.l.; *Habitat*: subalpine zone (shrubs + grass); *Leg*: Rizun V.B.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

***Liochthonius muscorum* Forsslund, 1964**	
Inventory number:	**1446**
Digital record number:	**SMNH010596**
Data Centre “Biodiversity of Ukraine”:	**ID 36770**

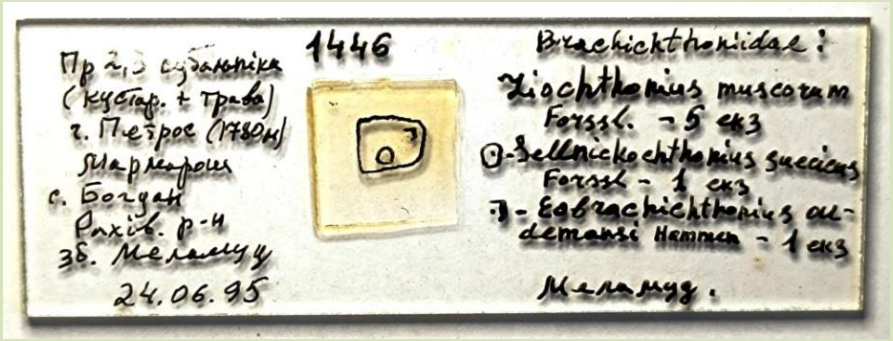


Fig. 6. Specimen of *Liochthonius muscorum* Forsslund, 1964 in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 5; *Event Date*: 1995-06-24; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Petros Mt, 1780 m a.s.l.; *Habitat*: subalpinezone (shrubs + grass); *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

Liochthonius sellnicki (Thor, 1930)

Inventory number:	**1444**
Digital record number:	**SMNH010591**
Data Centre “Biodiversity of Ukraine”:	**ID 36765**

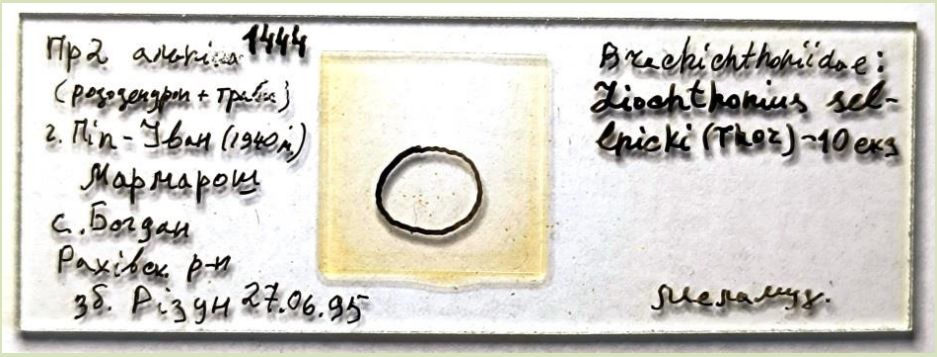
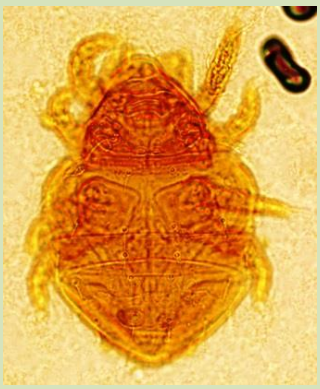


Fig. 7. Specimen of *Liochthonius sellnicki* (Thor, 1930) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 10; *Event Date*: 1995-06-27; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Pip Ivan Mt, 1940 m a.s.l.; *Habitat*: alpine zone (myrtle-leaved rhododendron + grass); *Leg*: Rizun V.B.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *Brachychthonius scalaris* Forsslund, 1942).

Eobrachychthonius oudemansi van der Hammen 1952

Inventory number:	**1446**
Digital record number:	**SMNH010595**
Data Centre “Biodiversity of Ukraine”:	**ID 36769**



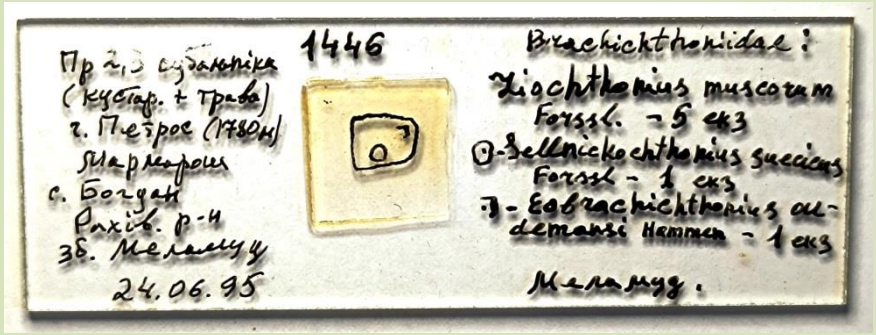
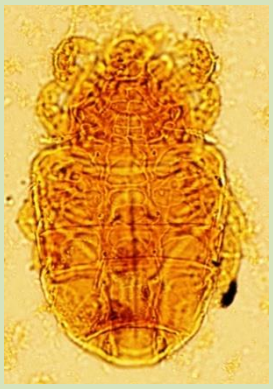


Fig. 8. Specimen of *Eobrachychthonius oudemansi* van der Hammen 1952 in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 2; *Event Date*: 1995-06-24; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Petros Mt, 1780 m a.s.l.; *Habitat*: subalpine zone (shrubs + grass); *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1445**
Digital record number:	**SMNH010593**
Data Centre “Biodiversity of Ukraine”:	**ID 36767**



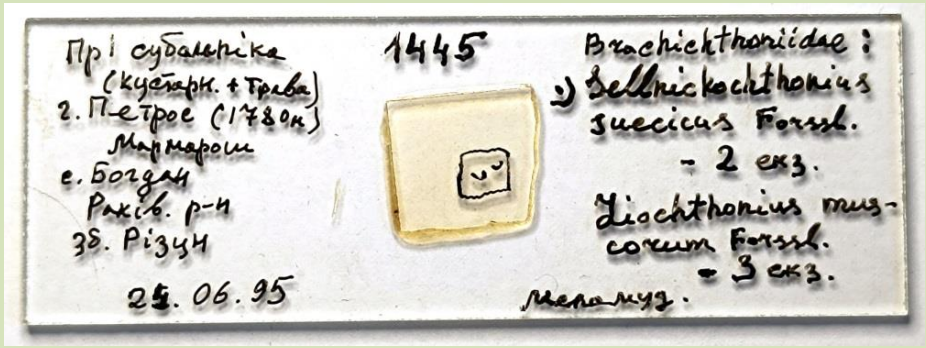
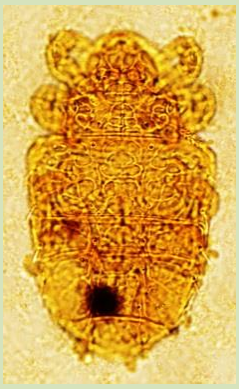


Fig. 9. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 2; *Event Date*: 1995-06-25; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Petros Mt, 1780 m a.s.l.; *Habitat*: subalpine zone (shrubs + grass); *Leg*: Rizun V.B.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (=*Brachychthonius jugatus* v. *suecicus* Forsslund; *B. jacoti* Evans; *B. jugatus* Jacot sensu Niedbala, 1972).

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1446**
Digital record number:	**SMNH010594**
Data Centre “Biodiversity of Ukraine”:	**ID 36768**



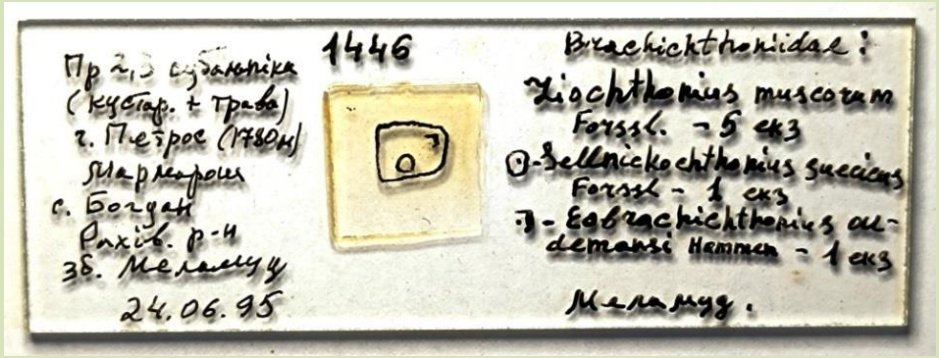


Fig. 10. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 2; *Event Date*: 1995-06-24; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Reserve*: BR Carpathian: Marmarosh protected massif; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Petros Mt, 1780 m a.s.l.; *Habitat*: subalpine zone (shrubs + grass); *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1447**
Digital record number:	**SMNH010597**
Data Centre “Biodiversity of Ukraine”:	**ID 36771**

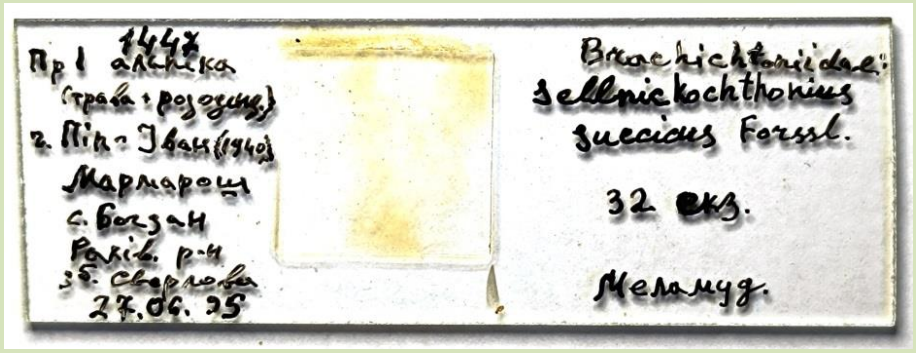
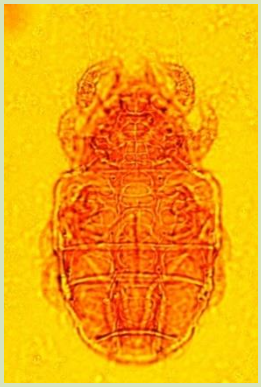


Fig. 11. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 32; *Event Date*: 1995-06-27; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Pip Ivan Mt, 1940 m a.s.l.; *Habitat*: alpine zone (myrtle-leaved rhododendron + grass); *Leg*: Sverlova N.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *Brachychthonius jugatus* v. *suecicus* Forsslund; *B. jacoti* Evans; *B. jugatus* Jacot sensu Niedbala, 1972).

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1448**
Digital record number:	**SMNH010598**
Data Centre “Biodiversity of Ukraine”:	**ID 36772**



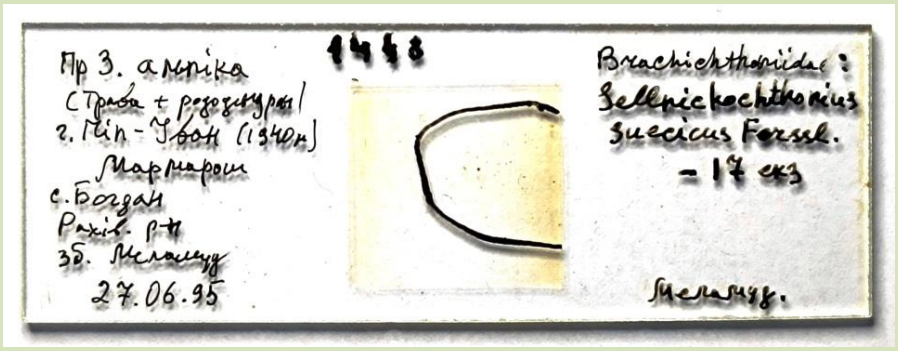


Fig. 12. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 17; *Event Date*: 1995-06-27; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Rakhivskyi; *Municipality*: Bohdan; *Georegion*: UC: MrCh: Marmarosh massif; *Locality*: Pip Ivan Mt, 1940 m a.s.l.; *Habitat*: alpine zone (myrtle-leaved rhododendron + grass); *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *Brachychthonius jugatus* v. *suecicus* Forsslund; *B. jacoti* Evans; *B. jugatus* Jacot sensu Niedbala, 1972).

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1449**
Digital record number:	**SMNH010599**
Data Centre “Biodiversity of Ukraine”:	**ID 36773**

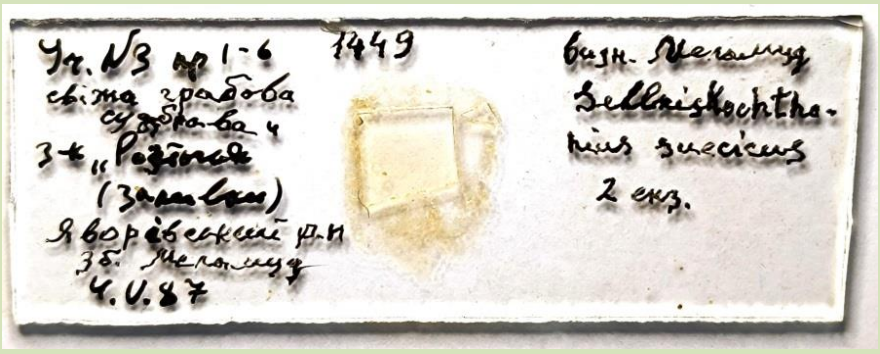
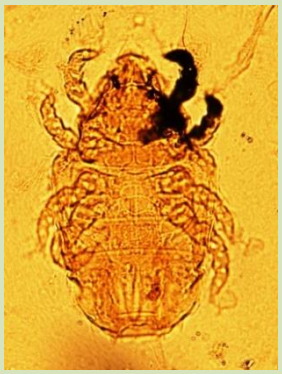


Fig. 13. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 2; *Event Date*: 1987-05-04; *Country*: Ukraine; *State Province*: Lvivska; *District*: Yavorivskyi; *Municipality*: Ivano-Frankove; *Reserve*: NR Roztochchia; *Georegion*: FZB: ROp: Roztochchia; *Locality*: Zalyvky locality; *Habitat*: fresh hornbeam-oak forest; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *Brachychthonius jugatus* v. *suecicus* Forsslund; *B. jacoti* Evans; *B. jugatus* Jacot sensu Niedbala, 1972).

***Sellnickochthonius suecicus* (Forsslund 1942)**	
Inventory number:	**1450**
Digital record number:	**SMNH010600**
Data Centre “Biodiversity of Ukraine”:	**ID 36774**



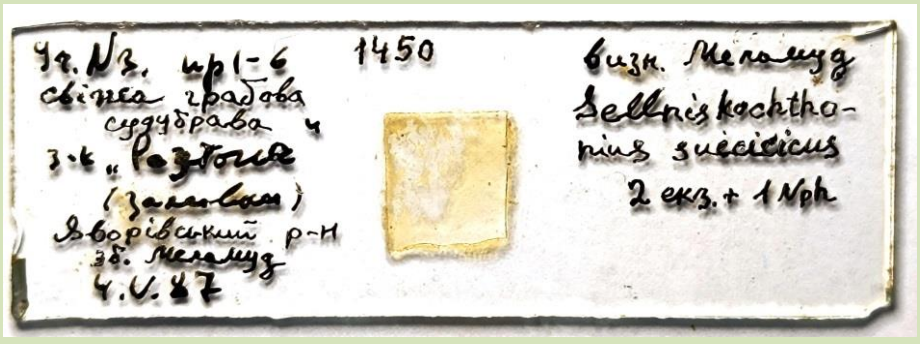


Fig. 14. Specimen of *Sellnickochthonius suecicus* (Forsslund 1942) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 3; *Event Date*: 1987-05-04; *Country*: Ukraine; *State Province*: Lvivska; *District*: Yavorivskyi; *Municipality*: Ivano-Frankove; *Reserve*: NR Roztochchia; *Georegion*: FZB: ROp: Roztochchia; *Locality*: Zalyvky locality; *Habitat*: fresh hornbeam-oak forest; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *Brachychthonius jugatus* v. *suecicus* Forsslund; *B. jacoti* Evans; *B. jugatus* Jacot sensu Niedbala, 1972).

Sellnickochthonius zelawaiensis (Sellnick, 1928)

Inventory number:	**1451**
Digital record number:	**SMNH010601**
Data Centre “Biodiversity of Ukraine”:	**ID 36775**

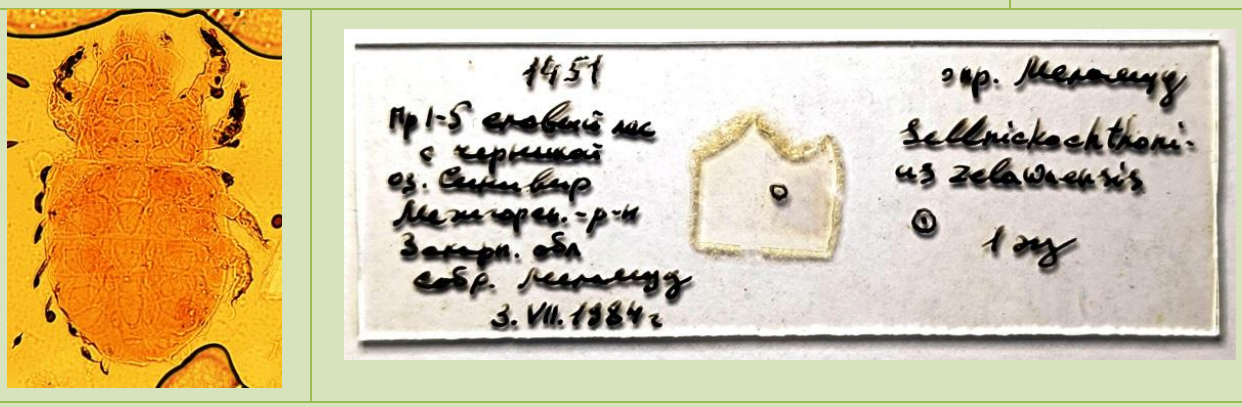


Fig. 15. Specimen of *Sellnickochthonius zelawaiensis* (Sellnick, 1928) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 1; *Event Date*: 1984-07-03; *Country*: Ukraine; *State Province*: Zakarpatska; *District*: Mizhhirskyi; *Municipality*: Synevyrska Poliana; *Reserve*: NNP Synevyr; *Georegion*: UC: OCVV: Gg: Inner Gorgany range; *Locality*: Synevyr lake; *Habitat*: spruce forest + blueberry; *Leg*: Melamud V.V.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: - .

Synchthonius crenulatus (Jacot, 1938)

Inventory number:	**1452**
Digital record number:	**SMNH010604**
Data Centre “Biodiversity of Ukraine”:	**ID 36776**

Fig. 16. Specimen of *Synchthonius crenulatus* (Jacot, 1938) in the SMNH collection.

Collection Type: MuseumCollection/Specimen; *Count*: 1; *Event Date*: 1984-07-30; *Country*: Ukraine; *State Province*: Ivano-Frankivska; *District*: Rozhniativskyi; *Municipality*: Osmoloda; *Reserve*: NNP Syniohora; *Georegion*: UC: OCVV: Gg: Outer Gorgany range; *Locality*: Syvulia Mt; *Habitat*: *Nardus* sp.; *Leg*: Susulovskyi A.S.; *Det*: Melamud V.V.; *Institution Code*: SMNH; *Citation*: - ; *Remarks*: (= *S. boschmai* v.d. Hammen, 1952).

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Випуск 2
ГЕРБАРІЙ, АКАРОЛОГІЧНА ТА ЕНТОМОЛОГІЧНА КОЛЕКЦІЇ

Гуштан Габріел Гаврилович, Гуштан Катерина Валеріївна, Кузярін Олександр Тимофійович, Питель-Гута Софія Романівна, Різун Володимир Богданович, Савицька Анастасія Григорівна

Адреса редакції:
79008 Львів, вул. Театральна, 18
Державний природознавчий музей НАН України
Телефон / факс +38032-235-69-17

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