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LEIODIDAE FROM THE BÜKK NATIONAL PARK (COLEOPTERA)

By

F. ANGELINI, H. DAFFNER and O. MERKL

An annotated list of 54 species of Leiodidae (11 Leiodini, 19 Anisotomini, 18 Cholevinae, 5 Coloninae and 1 Leptininae) collected in the Bükk National Park (Hungary) is presented.

Leiodidae is represented by roughly 150 species in the Carpathian Basin. The family is diverse and its subgroups were considered separate families in the earlier entomological literature, e.g. Leptinidae, Cholevidae (=Catopidae), Colonidae and Leiodidae (=Liodidae) in Székessy (1961). However, the complex chemosensory apparatus named Hamann's organ (Angelini and De Marzo 1980), consisting of periarticular gutter and sensilla-filled vesicles in the penultimate antennal segments, indicate the monophyly of these groups and unite them in one family (Crowson 1980, Lawrence and Newton 1982).

The identifications were made by F. Angelini (Anisotomini), H. Daffner (Leiodini) and O. Merkl (rest).

LIST OF SPECIES

LEPTININAE

One species represents the mammal nest beetles in Hungary which is associated with rodents. Its occurrence in the Bükk Mts. was mentioned by Székessy (1961).

Leptinus testaceus Müller, 1817 – Bükkszentkereszt; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Felsőtárkány: Fekete-len; Miskolc: Kecske-lyuk; Nagyvisnyó: Ablakos-kő-völgy, Bálvány, Elza-lak; Répáshuta: Csúnya-völgy. IV-IX. – Apparently not uncommon in Hungary, yet rarely collected, it lives in the nests and burrows of field vole (*Microtus arvalis* Pallas), wood mouse (*Apodemus sylvaticus* Linnaeus), hamster (*Cricetus cricetus* Linnaeus) and mole (*Talpa europaea* Linnaeus). Specimens were collected by pitfall traps and by sifting leaf litter. In caves, it lives on guano of bats; it was encountered from gravel deposit of the limestone cave Kecske-lyuk, in the depth of 30 m from the entrance. The specimens were formerly identified by Mr. I. Rozner. Distribution: Europe, Caucasus, North America; mostly in mountainous regions.

CHOLEVINAE

This is the best known group of Leiodidae, for the species (at least several of them) are frequent on small carcasses, in decaying vegetable matter and other decomposing substances and are easy to

collect by pitfall traps. A total of 18 species was found in the Bükk National Park, 15 in the Kiskun-ság National Park (Ádám 1987).

Ptomaphagus sericatus (Chaudoir, 1845) – Béalapátfalva: Ravaszlyuk; Cserépfalu: Hór-völgy; Miskolc: Forrás-völgy; Szilvásvár: Tar-kő. III-VIII, X. – It was frequently collected by sifting various vegetable matter and by pitfall traps. Distribution: Central and Southern Europe, Caucasus.

Ptomaphagus variicornis (Rosenhauer, 1847) – Cserépfalu: Hór-völgy; Felsőtárkány: Tar-kő; Miskolc: Csipkésút. V-IX. – Three specimens were collected by pitfall traps. Distribution: Europe, Caucasus.

Nargus anisotomoides (Spence, 1813) – Cserépfalu: Hór-völgy, Ódorvári rom; Felsőtárkány: Tar-kő; Nagyvisnyó: Elza-lak. III-VI, IX. – Nine specimens were collected by pitfall traps and sifted from beneath woodstack. Distribution: Europe.

Nargus wilkini (Spence, 1813) – Cserépfalu: Hór-völgy; Nagyvisnyó: Elza-lak; Szilvásvár: Óserdő. VI, IX. – The specimens were swept and sifted. Distribution: Europe.

Choleva glauca Britten, 1918 – Béalapátfalva: Ravaszlyuk; Felsőtárkány: Imó-kői-barlang; Nagyvisnyó: Ablakos-kő-völgy, Diabáz-barlang. IV-V, VII. – Three specimens were collected by pitfall traps and 6 specimens were singled at the entrance of caves. Distribution: Northern, Central and Eastern Europe.

Choleva spadicea (Sturm, 1839) – Szilvásvár: Köves-gerinc. VII. – One specimen was collected by pitfall trap. Distribution: Central and South-Eastern Europe.

Sciodrepoides fumatus (Spence, 1813) – Nagyvisnyó: Ablakos-kő-völgy, Elza-lak. VI. – A great number of specimens were sifted and collected by pitfall traps baited with decomposing meat. Distribution: Palearctic.

Sciodrepoides watsoni (Spence, 1813) – Béalapátfalva: Ravaszlyuk; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Nagyvisnyó: Elza-lak; Szarvaskő: Tardos-hegy; Szilvásvár: Köves-gerinc, Óserdő, Tar-kő. V-IX. – A common species; a great number of specimens were collected, mainly by pitfall traps. Distribution: Palearctic.

Catops fuliginosus Erichson, 1837 – Béalapátfalva: Ravaszlyuk; Cserépfalu: Hór-völgy; Felsőtárkány: Lők-völgy; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak. III-VII. – It was sifted from forest litter and found in pitfall traps. Distribution: Europe, Asia Minor.

Catops fuscus (Panzer, 1794) – Miskolc: Lillafüred. IX-X. – Only one old specimen is known from the area. Distribution: Europe, North Africa, Asia Minor, Caucasus, Siberia.

Catops neglectus Kraatz, 1852 – Béalapátfalva: Ravaszlyuk; Szarvaskő: Tardos-hegy. V, IX. – Three specimens were found in pitfall traps. Distribution: Central and Southern Europe.

Catops nigricans (Spence, 1815) – Répáshuta: Csúnya-völgy; Szilvásvár: Köves-gerinc. VII, IX. – Four specimens were collected by pitfall trapping and sifting. Distribution: Europe.

Catops nigriclavus Gerhardt, 1900 – Szilvásvár: Köves-gerinc. VII. – One specimen was found in pitfall trap. Distribution: Europe.

Catops nigrita Erichson, 1837 – Béalapátfalva: Ravaszlyuk; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Miskolc: Lyukas-gerinc; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak; Szarvaskő: Tardos-hegy; Szilvásvár: Köves-gerinc, Óserdő, Tar-kő. III-IX. – It was frequently found in pitfall traps, in garbage and in sifted material. Distribution: Northern and Central Europe.

Catops picipes (Fabricius, 1792) – Béalapátfalva: Ravaszlyuk; Bükkzentkereszt: Pénzpatak-tető; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Felsőtárkány: Lők-völgy, Tar-kő; Miskolc: Lillafüred, Nagy-mező, Nyavalyás, Ómassa; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak; Szilvásvár: Köves-gerinc, Óserdő, Tar-kő. V-X. – A great number of specimens was collected by various methods (sweeping, sifting, pitfall traps, etc.). Distribution: Europe.

Catops subfuscus Kellner, 1846 – Miskolc: Lillafüred; Nagyvisnyó: Elza-lak; Szilvásvár: Óserdő, Tar-kő. VI-VIII. – Eight specimens were collected from pitfall traps. Distribution: Europe.

Catops tristis (Panzer, 1794) – Bélapátfalva: Ravaszlyuk; Miskolc: Lyukas-gerinc; Nagyvisnyó: Elza-lak. VI, IX. – Five specimens were collected by pitfall traps. Distribution: Europe.

Catops westi Krogerus, 1931 – Bélapátfalva: Ravaszlyuk; Bükkzsérc: Hosszú-völgy; Nagyvisnyó: Elza-lak. IV-VI. – Several specimens were collected by pitfall traps. Distribution: Northern and Central Europe.

COLONINAE

As far as their habits are concerned, members of this subfamily are similar to Leiodini, i.e. associated with subterranean parts of fungi, therefore seldom collected. Five species are known to occur in the Bükk National Park while 2 species have been mentioned from the Kiskunság National Park. According to Szymczakowski (1969), the distribution of the species is unclear because a lot of earlier literature data are based on misidentifications.

Colan affine Sturm, 1839 – Miskolc: Hosszú-bérc. VI. – One specimen was swept.

Colan dentipes (Sahlberg, 1834) – Cserépfalu: Alsó-Csákány. VI. – One specimen was swept. There is another specimen from the Bükk Mts. but the locality is beyond the boundaries of the national park (Miskolc: Beller-völgy).

Colan latum Kraatz, 1850 – Felsőtárkány: Tar-kő; Nagyvisnyó: Ablakos-kő-völgy, Ágazat-bérc. VII. – Several specimens were collected by pitfall traps.

Colan rufescens Kraatz, 1850 – Cserépfalu: Alsó-Csákány. VI. – One specimen was swept.

Colan viennense Herbst, 1797 – Szilvásvár: Keskeny-rét. VII. – One specimen was swept.

ANISOTOMINI

Contrary to Leiodini, specimens belonging to Anisotomini were quite regularly taken from rotten logs, stumps and in pitfall traps. A total of 19 species have been revealed to occur in the Bükk National Park, considerably exceeding the 8 species of the Kiskunság National Park (Angelini 1987).

Anisotoma castanea (Herbst, 1792) – Miskolc: Lillafüred; Szilvásvár: Tar-kő. IX-X. – It was collected from beneath fungus-grown bark. Distribution: Europe, Siberia, Japan.

Anisotoma glabra (Fabricius, 1792) – Nagyvisnyó: Ágazat-bérc, Hármasteber. VI. – It was found in rotten log of beech. Distribution: North and Central Europe, Siberia, Japan.

Anisotoma humeralis (Fabricius, 1792) – Bükkzsérc: Hosszú-völgy; Nagyvisnyó: Ablakos-kő-völgy, Bánkúti turistaház; Szilvásvár: Óserdő; Varbó: Dobrica. V, VII-IX. – It was collected from stumps of Norway spruce and from beneath bark of rotten logs of beech. The so-called forma *globosa* has also been captured. Distribution: Europe, Asia Minor, Caucasus.

Anisotoma orbicularis (Herbst, 1792) – Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Felsőtárkány: Fekete-lén, Tar-kő; Miskolc: Hosszú-bérc, Garadna-völgy, Lillafüred, Lyukas-gerinc; Nagyvisnyó: Ágazat-bérc, Elza-lak; Szilvásvár: Óserdő. V-X. – It was frequently collected from stumps, by sifting and pitfall traps. Distribution: North and Central Europe, Caucasus, Asia Minor, North Iran.

Amphicyllis globiformis (Sahlberg, 1833) – Bükkzsérc: Tábor-hegy; Cserépfalu: Alsó-Csákány; Miskolc: Bolhás, Hosszú-bérc, Nyavalyás; Nagyvisnyó: Ágazat-bérc, Elza-lak; Szilvásvár. V-VI. – Swarming specimens were swept in undergrowth. Distribution: Europe, Caucasus, Iran.

Amphicyllis globus (Fabricius, 1792) – Bélapátfalva: Felső-erdő; Cserépfalu: Alsó-Csákány; Miskolc: Garadna-völgy, Hosszú-bérc, Lyukas-gerinc, Nyavalyás. VI, IX. – It was collected by sweeping and sifting. Distribution: Europe, Caucasus, Asia Minor.

Agathidium (Agathidium) atrum (Paykull, 1798) – Bükkzsérc: Hosszú-völgy; Nagyvisnyó: Elza-lak. VI. – It was collected by sifting leaf litter. Distribution: Europe, Caucasus.

Agathidium (Agathidium) badium Erichson, 1845 – Miskolc: Csapkésút, Garadna-völgy, Lillafüred; Parasznya: Sziklakapus-víznyelő. V-VI, IX-X. – Specimens were found in moist, decayed logs. Distribution: Europe, Caucasus, Asia Minor.

Agathidium (Agathidium) laevigatum Erichson, 1845 – Nagyvisnyó: Elza-lak; Szilvásvár: Tar-kő. VI-VII. – It was collected by pitfall traps. Distribution: Europe, Siberia, North Africa, Asia Minor, Caucasus, Mongolia, Nepal.

Agathidium (Agathidium) pisanum Brisout, 1872 – Miskolc: Alabástrom-hegy, Felső-forrás; Nagyvisnyó: Ablakos-kő-völgy; Szilvásvár: Őserdő, Tar-kő, Vörös-sár-hegy; Varbó: Dobrica. IV-VI, VIII-X. – It was regularly collected from fungus-grown wood, by sifting and pitfall traps in beech forests. Distribution: South and South-eastern Europe, caucasus, Asia Minor, Siberia.

Agathidium (Agathidium) seminulum (Linnaeus, 1758) – Bükkzsérc: Hosszú-völgy; Miskolc: Lillafüred, Nyavalyás; Nagyvisnyó: Elza-lak, Hármasteber. V-VI, IX-X. – It was collected from logs and stumps of Norway spruce and beech. Distribution: Europe, Caucasus, Siberia.

Agathidium (Cyphocele) nigrinum Sturm, 1807 – Felsőtárkány; Miskolc: Lillafüred; Nagyvisnyó: Elza-lak. VI, IX-X. – Only old specimens are known from the investigated area. Distribution: Europe, Caucasus.

Agathidium (Neocele) confusum Brisout, 1863 – Miskolc: Bolhás. V. – One specimen was found under loose bark of beech. In Hungary, it was known only from the Vértes Mts. Distribution: North and Central Europe, Caucasus, Siberia, Mongolia.

Agathidium (Neocele) mandibulare Sturm, 1807 – Cserépfalu: Hór-völgy; Miskolc: Kis-Csipkés. IV. – One specimen each was sifted from leaf litter and singled from beneath bark of maple. Distribution: Europe, Caucasus.

Agathidium (Neocele) marginatum Sturm, 1807 – Miskolc: Nagy-mező. VII. – One specimen was swept. Distribution: Europe, Caucasus, Siberia, Mongolia.

Agathidium (Neocele) nigripenne (Fabricius, 1792) – Miskolc: Lillafüred; Nagyvisnyó: Ablakos-kő-völgy. IV, IX-X. – It was collected from beneath, moist bark of beech. Distribution: Europe, Caucasus.

Agathidium (Neocele) nudum Hampe, 1870 – Répáshuta: Csúnya-völgy; Szilvásvár: Őserdő. IX. – It was sifted from leaf litter of beech forest and collected by peeling off bark. The only hitherto known Hungarian locality was the Mecsek Mts. Distribution: South and South-eastern Europe, Caucasus.

Agathidium (Neocele) plagiatum (Gyllenhal, 1810) – Nagyvisnyó: Ablakos-kő-völgy. VII. – One single specimen of this rare species was found in pitfall trap. Distribution: Europe, Caucasus, North Iran.

Agathidium (Neocele) varians Beck, 1817 – Bükkzsérc: Hosszú-völgy; Felsőtárkány: Fekete-lak; Miskolc: Lillafüred, Kis-Csipkés, Nagy-mező; Nagyvisnyó: Elza-lak; Szilvásvár: Tar-kő. IV-VI, IX-X. – It was frequently collected from under bark of rotten logs of various trees. Distribution: Europe, North Africa.

LEIODINI

Associated with subterranean fungi, the species of Leiodini follow a concealed way of life and most of them are difficult to capture by ordinary methods of collecting; thus in the Bükk National Park, no more than 11 species were collected, even less than in the Kiskunság National Park (13 species, Daffner 1987). Nevertheless, a few rarities are included.

Hydnobius multistriatus (Gyllenhal, 1813) – Kisgyőr: Gyertyán-völgy; Szilvásvár: Keskeny-rét. VII, IX. – Two specimens were swept from undergrowth. It is very rare in Hungary, mostly in hilly regions. Distribution: Europe, North Africa, Caucasus.

Leiodes (Leiodes) bicolor (Schmidt, 1841) – Miskolc: Nagy-mező, Soros-teber. VII-VIII. – Two specimens were swept. Not uncommon in Hungary. Distribution: Europe, North Africa, Siberia, Mongolia, Afghanistan, Pakistan.

Leiodes (Leiodes) brunnea (Sturm, 1807) – Szilvásvár: Szalajka-völgy. V. – One specimen was collected. Not uncommon in Hungary. Distribution: Western, Central and Eastern Europe.

Leiodes (Leiodes) dubia (Kugelann, 1794) – Miskolc: Hosszú-bérc. VI. – One specimen was swept. Rather rare in Hungary. Distribution: Europe, Caucasus.

Leiodes (Leiodes) ferruginea (Fabricius, 1787) – Miskolc: Bolhás, Nyavalyás; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak. V-VI. – It was swept from the grass and found beneath bark of beech. In Hungary, mostly in mountainous regions. Distribution: Europe, Caucasus.

Leiodes (Leiodes) gallica (Reitter, 1884) – Felsőtárkány: Tar-kő. X. – One specimen was found in pitfall trap. Only two other localities (Budapest and Gödöllő: Máriabesnyő) are known from Hungary. Distribution: Europe.

Leiodes (Leiodes) macropus (Rye, 1873) – Bélépátfalva: Ravaszlyuk; Miskolc: Lyukas-gerinc; Szilvásvár: Tar-kő. VII-VIII. – Seven specimens were found in pitfall traps. Rare in Hungary. Distribution: Europe.

Leiodes (Leiodes) polita (Marsham, 1802) – Bélépátfalva: Ravaszlyuk; Cserépfalu: Hór-völgy; Miskolc: Hosszú-bérc, Lyukas-gerinc; Szarvaskő: Tardos-hegy; Szilvásvár: Keskeny-rét, Kövesgerinc. V-VIII. – Most specimens were collected by pitfall traps. Common in Hungary. Distribution: Europe, North Africa, Caucasus.

Leiodes (Oosphaerula) gyllenhalii Stephens, 1829 – Nagyvisnyó: Elza-lak. VI. – Only one specimen was collected. Rather rare in Hungary. Distribution: Europe.

Leiodes (Oosphaerula) strigipenne Daffner, 1983 – Nagyvisnyó: Elza-lak, Nagy-mező. VI-VII. – The two specimens from Elza-lak are paratypes. The third specimens was swept in a hayfield. Distribution: Italy, France, Germany, Austria, Slovakia, Hungary.

Colenis immunda (Sturm, 1807) – Bélépátfalva: Felső-erdő; Bükkzsérc: Hosszú-völgy; Cserépfalu: Alsó-Csákány, Hór-völgy Perpác; Felsőtárkány: Fekete-len; Miskolc: Lillafüred; Nagyvisnyó: Gerennavár; Szarvaskő: Tardos-hegy. IV-VII, IX-X. – It was collected by sifting leaf litter, sweeping in ecotonal situations and from pitfall traps. One of the most common species of Leiodini in Hungary. Distribution: Europe, Caucasus, Iran.

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