SILPHIDAE FROM THE BÜKK NATIONAL PARK (COLEOPTERA)

By

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The family Silphidae is represented by 15 species in the beetle fauna of the Bükk National Park (Hungary).

A total of 33 species belonging to 13 genera of the carrion beetles (Silphidae) are known to occur in the Carpathian Basin. The occurrence of 16 species of 8 genera have been revealed in the Bükk National Park. Most species are widely distributed in the Palearctic region and quite common in the Hungarian fauna – one species, *Silpha oblonga* is an exception.

Scarcely anything has hitherto been published concerning the silphid fauna of the Bükk National Park. The occurrence of Silpha oblonga has already been mentioned by Rozner (1982). Formerly, Kempelen (1868) published a list of beetles (including Silphidae) collected in the counties Heves and Külső-Szolnok of that time; it is likely that this list also includes the results of explorations in the Bökk Mts., but unfortunately, in the lack of voucher specimens, it is impossible to decide whether the speciescame from the Bükk or not. Kempelen's list comprises the following (valid names are in parentheses):

Silpha littoralis L. (*Necrodes littoralis* Linnaeus)
Silpha thoracica L. (*Oiceoptoma thoracicum* Linnaeus)
Silpha rugosa L. (*Thanatophilus rugosus* Linnaeus)
Silpha sinuata Herbst (*Thanatophilus sinuatus* Fabricius)
Silpha dispar Herbst (*Thanatophilus dispar* Herbst)
Silpha quadrimaculata L. (*Xylodrepa quadrimaculata* Linnaeus)
Silpha reticulata Ill. (*Blitophaga undata* Müller)
Silpha carinata Ill. (*Silpha carinata* Herbst)
Silpha nigrita Creutz. (*Silpha tyrolensis* Laicharting var. *nigrita* Creutz.)
Silpha obscura L. (*Silpha obscura* Linnaeus)
Silpha laevigata Fabr. (*Ablattaria laevigata* Fabricius)
Silpha atrata L. (*Phosphuga atrata* Linnaeus)
Necrophorus germanicus L. (*Nicrophorus germanicus* Linnaeus)
Necrophorus humator Fabr. (*Nicrophorus humator* Gleditsch)
Necrophorus vespillo L. (*Nicrophorus vespillo* Linnaeus)
Necrophorus fossor Er. (*Nicrophorus fossor* Erichson)
Necrophorus mortuorum F. (*Nicrophorus vespilloides* Herbst)

Three of the listed species (*Thanatophilus dispar*, *Silpha tyrolensis* and *Ablattaria laevigata*) have not been encountered in the Bükk National Park until now. The occurrence of *Ablattaria laevigata* is quite probable while the remaining two species are not excepted to be found at all.

Various methods were applied to collecte carrion beetles during the research programme. Singling from larger carcasses (e.g. fox) and uncovering of the wintering specimens were the most effective. Ten species belonging to *Silpha*, *Nicrophorus*, *Oiceoptoma*, *Xylodrepa* and *Phosphuga* were attracted by pitfall traps baited with meat or other putrescent substances. Light traps attracted *Necrodes littoralis*; *Thanatophilus rugosus* was found in sifted material; the carnivorous *Xylodrepa quadripunctata* was swept and beaten from trees and shrubs; *Phosphuga atrata* was found in debris deposited in a cave.

Besides the literature data, the list of species embraces data of all the silphid specimens housed in the Hungarian Natural History Museum (Budapes), the Mátra Museum (Gyöngyös) and a few private collections.

There has been found a species in the Bükk Mts. in the geographical sense but outside the National Park; nevertheless, its occurrence is expected within the protected area as well:

Nicrophorus (Neonecrophorus) germanicus (Linnaeus, 1758) – Eger: Ostorosi-völgy. VII. – Distribution: Europe, Asia Minor. It occurs on larger carcasses all over the country, but uncommon.

List of species

Nicrophorus (Necrocleptes) humator (Gleditsch, 1767) – Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Miskolc: Garadna-völgy, Jávorkút; Nagyvisnyó: Elza-lak, Taró-fő; Szilvásvárad: Őserdő, Szalajka-völgy. IV-X. Other localities in the Bükk Mts.: Eger: Ostorosi-völgy; Tard: Tardi-patak völgye. Distribution: Palearctic region. It is common in Hungary; widely distributed in the Bükk National Park, it was found in pitfall traps and baits with meat. The following varieties were found here: ab. *atricornis* (Meyer, 1799) from Miskolc: Garadna-völgy; ab. rubropleuralis (Delahon, 1913) from Bükkzsérc: Hosszú-völgy; Szilvásvárad: Őserő. The only Hungarian locality mentioned by Székessy (1961) of the last-mentioned variation is Ócsa in the Danube-Tisza Mid-Region.

Nicrophorus (Nicrophorus) fossor (Erichson, 1837) – Cserépfalu: Hór-völgy; Miskolc: Garadna-völgy, Lillafüred, Lyukas-gerinc; Szarvaskő; Szarvaskő: Tardos-hegy; Szilvásvárad: Köves-gerinc, Őserdő, Szalajka-völgy, Tar-kő. V-IX. – Other locality in the Bükk Mts.: Tard. Distribution: Palearctic region. Very common all over Hungary. In the Bükk National Park, it was collected by pitfall traps.

Nicrophorus (Nicrophorus) vespilloides Herbst, 1784 (=*mortuorum* Fabricius, 1792) – Bélapátfalva: Ravaszlyuk; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy; Miskolc: Forrás-völgy, Garadna-völgy, Hosszú-bérc, Lyukas-gerinc; Nagyvisnyó: Elza-lak; Szarvaskő: Tardos-hegy; Szilvásvárad: Keskeny-rét, Köves-gerinc, Őserdő, Szalajka-völgy, Tar-kő. IV-IX. – Other locality in the Bükk Mts.: Tard: Tardi-patak völgye. Distribution: Palearctic region. In Hungary, it is one of the most common burying beetles, very frequent in the Bükk, too. It is found on carrions and rotten fungi both in the Bükk Plateau and in the lower regions. Pitfall traps also attracted specimens. The variety of ab. *tristis* (Portevin, 1914) was encountered in almost all localities, together with the nominate form. The ab. *subfuscatus* (Portevin, 1914) was found at Szilvásvárad: Szalajka-völgy, Tar-kő. This variety was mentioned by Székessy (1961) only from Kőszeg and Ócsa.

Nicrophorus (Nicrophorus) vespillo (Linnaeus, 1758) – Cserépfalu: Hór-völgy; Felsőtárkány: Lők-völgy; Miskolc: Garadna-völgy. IV-X. – Other locality in the Bükk Mts.: Tard. Distribution: Palearctic region. Frequent all over our faunal territory on carcasses. In the Bükk Mts. it is rarer than the preceding species. Specimens were collected in the lower regions up to 350 m above sea level. Pitfall traps also attracted it.

Necrodes (Necrodes) littoralis (Linnaeus, 1758) – Cserépfalu: Hór-völgy; Miskolc: Garadna-völgy, Lillafüred; Nagyvisnyó: Hármaskút. V-IX. – Distribution: Europe. It lives mainly on larger carrions. In the Bükk National Park the bulk of specimens was attracted by light.

Thanatophilus rugosus (Linnaeus, 1758) – Miskolc: Garadna-völgy. Hosszú-bérc, Jávorkút; Nagyvisnyó: Leány-völgy. IV-VII. – Distribution: Palearctic region. It is common and widespread in Hungary, living in carcasses, sometimes in mass. It was found on carrion of toad and fox and was sifted from a pit filled with rubbish.

Thanatophilus sinuatus (Fabricius, 1775) – Miskolc: Hosszú-bérc, Jávorkút, Ostoros-tető. IV-VI. – Other locality in the Bükk Mts.: Bogács: Hintó-völgy. Distribution: Palearctic region. It is widespread and common on carcasses all over Hungary.

Oiceoptoma thoracicum (Linnaeus, 1758) – Bükkszentkereszt: Hór-völgy; Bükkzsérc: Hosszú-völgy; Cserépfalu: Hór-völgy, Kis-Piliske, Szarba-völgy; Cserépváralja: Török-rét; Felsőtárkány: Lők-völgy; Miskolc: Garadna-völgy, Hámor, Hámori-tó, Jávorkút; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak, Leány-völgy; Szilvásvárad: Őserdő, Szalajka-völgy, Tar-kő, Virágos-sár-hegy. IV-IX. – Other locality in the Bükk Mts.: Tard: Tardi-patak völgye. Distribution: Europe, northern part of Asia. Common and widespread in Hungary, on carrions, faeces and rotten fungi. In the Bükk National Park it was collected by pitfall traps, from carrions of toad and fox as well as from dropping of deer.

Blitophaga (Aclypea) undata Müller 1776 (=Silpha reticulata Fabricius, 1787) – Nagyvisnyó: Elza-lak; Szilvásvárad. IV-VI. – Other localities in the Bükk Mts.: Balaton; Bükkszentmárton; Eger: Vár; Noszvaj: Szőlőske; Tard. Distribution: Europe, Caucasus, Asia Minor, Western Asia. In Hungary it is widespread but uncommon due to modern pesticides. Both larvae and adults are phytophagous, sometimes pests of beet.

Xylodrepa quadripunctata (Linnaeus, 1758) – Bükkzsérc: Hosszú-völgy, Tábor-hegy; Cserépfalu: Derda-kaszáló, Perpác; Felsőtárkány: Hereg-rét, Tar-kő; Miskolc: Garadna-völgy, Jávorkút, Szentléleki-völgy; Nagyvisnyó: Bán-völgye, Elza-lak; Szilvásvárad: Szalajka-völgy. V-IX. – Distribution: Europe, Caucasus. Frequent and widespread in Hungary. It is carnivorous, both larvae and adults are living on deciduous trees and shrubs, mainly on oak. The prey are usually caterpillars, mostly those of oak procession moth (*Thaumatopoea processionea* Linnaeus). Most specimens were collected by sweeping and beating, but it was found in pitfall traps, too.

Silpha (Silpha) carinata Herbst, 1783 – Bélapátfalva: Ravaszlyuk; Cserépfalu: Hór-völgy; Felsőtárkány: Laci-lápa; Miskolc: Lyukas-gerinc; Parasznya: Soros-teber; Szilvásvárad: Tar-kő. III-IX. – Distribution: Northern and Central Europe, Middle Asia, Mongolia. Widespread in Hungary, it is more frequent in hilly regions. In the Bükk National Park it was collected by singling and pitfall traps.

Silpha (Silpha) oblonga Küster, 1850 – Felsőtárkány: Tar-kő; Miskolc: Kis-mező; Nagyvisnyó: Hármaskút; Szilvásvárad: Büszkés-hegy, Köves-gerinc, Keskeny-rét, Vörös-sár-hegy. IV-X. – According to Székessy (1961), the range is restricted to the submontane region of the Eastern and Southern Carpathians. Having investigated the Fodor collection (now deposited in the Hungarian Natural History Museum), Rozner (1982) found several specimens from the county Békés and the Northern Central Mountains. It is frequent in the national park, mainly in the Bükk Plateau.

Silpha (Silpha) obscura Linnaeus, 1758 – Bélapátfalva: Homonna, Ravaszlyuk; Bükkzsérc: Hosszú-völgy; Cserépfalu: BNP-research house, Hór-völgy; Kács: Rakottyás-tető; Miskolc: Garadna-völgy, Nagy-mező; Nagyvisnyó: Elza-lak, Nagy-völgy; Sály; Szilvásvárad: Szalajka-völgy. III-

VII. – Other localities in the Bükk Mts.: Balaton; Bükkszentmárton; Eger: Mész-hegy, Ostorosi-hegy, Pap-hegy, Szőlőske, Vár; Hejőbába; Maklár; Noszvaj: Síkfő; Tard. Distribution: Eurasia. Common in Hungary and in the Bükk Mts. Larvae and adults are partly carnivorous preying on snails and worms, and partly phytophagous; sometimes pests of beet.

Silpha (Silpha) tristis Illiger, 1798 – Bélapátfalva: Ravaszlyuk; "Mt. Bükk" (no other data). V-VII. – Distribution: Europe, Asia Minor, Iran. In Hungary, widespread but uncommon. Rare in the Bükk Mts.

Phosphuga atrata (Linnaeus, 1758) – Bélapátfalva: Ravaszlyuk; Bükkszentkereszt: Lófő-tisztás; Bükkzsérc: Bánya-hegy, Bocfa-lápa; Cserépfalu: Hór-völgy; Felsőtárkány: Lők-völgy, Tar-kő; Miskolc: Bolhás, Disznós-patak, Felső-Sebes-víz, Forrás-völgy, Garadna-völgy, Hollós-tető, Hosszúbérc, Jávorkút, Kecske-lyuk, Lillafüred, Lyukas-gerinc, Nagy-mező; Nagyvisnyó: Ablakos-kő-völgy, Elza-lak, Huta-rét, Nagy-völgy; Répáshuta: Csúnya-völgy; Szarvaskő: Tardos-hegy; Szilvásvárad: Keskeny-rét, Köves-gerinc, Őserdő, Pes-kő, Tar-kő; Varbó: Dobrica. III-XI. – Distribution: from Europe to the Lake Baikal. Common in the forested areas of Hungary. It preys on snails and worms; found all over the Bükk Mts. Wintering specimens are to be collected from decaying wood or leaf-litter. Pitfall traps collected many specimens. It was encountered from debris deposited in the Kecske-lyuk (cave) in the depth of 20 m from the entrance.

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