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## Contribution to the knowledge of fauna of the Knyszyńska Forest: longhorn beetles (Coleoptera: Cerambycidae)

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**Abstract:** The paper summarizes literature data and presents new data on the occurrence of longhorn beetles (Coleoptera: Cerambycidae) in the Knyszyńska Forest (NE Poland). The literature data document the occurrence of 47 species of longhorn beetles in the investigated area. In the present study 88 species were reported from the Knyszyńska Forest. Based on literature and new data in total 96 species of Cerambycidae have been found in this forest area. During that study some species rarely collected at the territory of Poland were also reported, such as *Evodinellus borealis*, *Nivellia sanguinosa*, *Lepturobosca virens* or *Leptura thoracica*.

**Key words:** Coleoptera, Cerambycidae, longhorn beetles, new data, Podlasie, Knyszyńska Forest, relict species.

## INTRODUCTION

Polish fauna of longhorn beetles (Cerambycidae) is moderately rich in species, so far 197 species were recorded (KURZAWA 2021). Longhorn beetles are ecologically very variable, therefore many species are rarely or very rarely collected. Apart from several regions (e.g. Podlasie) the distribution of Cerambycidae in Poland is relatively well studied.

Up today, the Knyszyńska Forest has not been subjected to a detailed entomological study. However, its location in North-Eastern part of Poland may be attractive for many interesting beetle species related to boreo-montane habitats. The largest number of longhorn beetles from the Knyszyńska Forest was reported by KUBISZ & PAWŁOWSKI (1995). The list of 25 taxa which they present includes mostly very common species that are distributed

throughout the country. Some additional data about longhorn beetles of the Knyszyńska Forest are scattered among many faunistic and ecological papers e.g.: CAPECKI 1979, GUTOWSKI 1995, GUTOWSKI *et al.* 1999, 2010, PLEWA 2010, PLEWA *et al.* 2011, 2014, PLEWA & BOROWSKI 2016, TATUR-DYTKOWSKI *et al.* 2017, KURZAWA *et al.* 2020, MOKRZYCKI *et al.* 2022. Summarizing these literature data presence of 47 Cerambycidae species are confirmed to occur in the Knyszyńska Forest so far.

## AREA AND METHODS

The Knyszyńska Forest is a vast forest area, which surrounds Białystok from the north and east. It covers the area of 114,000 ha (SOKOŁOWSKI 2006), which makes it one of the larger forest areas in Poland. Additionally, it is one of the least degraded large forest areas in the country (CZERWIŃSKI 1995).

According to the geobotanical regionalisation by MATUSZKIEWICZ (1993) this area has been included in the district of Knyszyńska Forest in North-Podlasie region, which is part of Mazursko-Białoruski Northern Divide. Due to this, a significant percentage of boreal species can be found, and the forests are characterised by the presence of spruce and the absence of beech in natural communities. The basic species for all the Forest are the scot pine (*Pinus sylvestris*), norway spruce (*Picea abies*), with a significant share of the common oak (*Quercus robur*), european hornbeam (*Carpinus betulus*), common birch (*Betula pendula*), european ash (*Fraxinus excelsior*), small-leaved linden (*Tilia cordata*), aspen (*Populus tremula*), black alder (*Alnus glutinosa*) and norway maple (*Acer platanoides*) (ŻARSKA 1993).

Knyszyńska Forest woods are strongly differentiated both in terms of habitats and species. When considering the whole forest, coniferous forest habitats make up 66.8% of its area.

A significant area is covered by fertile woods habitats, which constitute 33.2% (SOKOŁOWSKI 2006). Additionally, the forest is crisscrossed by numerous watercourses. On villages edges and on the banks of water courses open habitat enclaves, both wetlands and drylands, can be found (CZERWIŃSKI 1995).

The longhorn beetles were caught with various traps, by hand directly from the host plants or visited flowers and by beating insects off trees and bushes onto a net or an entomological umbrella. The traps used included IBL-5 type traps and yellow Moericke traps. In the case of some species specimens were obtained by rearing from the wood material sampled in the forest.

Scientific research in the reserves was conducted under the supervision of the Regional Director of Environmental Protection in Białystok.

## RESULTS

Summary of the literature and new distribution data of Cerambycidae species in the Knyszyńska Forest is listed below. For common species only locality data are provided, while for more rare species their distribution in Poland is described in more detail. The nomenclature and taxonomy was adopted from KURZAWA (2022). Each locality was additionally described in brackets, with the code of the relevant UTM square. Species new to the Podlasie region were marked with an asterisk [\*]. Specimens used for this study are deposited in the authors' collections. The following abbreviations are used: res. – reserve, **AL** – Andrzej Lasoń, **DM** – Dawid Marczak, **AK** – Adam Kwiatkowski.

During the study 88 Cerambycidae species from 6 subfamilies were recorded.

**Prioninae** LATREILLE, 1802

***Prionus coriarius*** (LINNAEUS, 1758)

Material:

- Gniła [FD39], 21.08.1987 – 1 ex., leg. AL.
- Podratowiec [FE40], 1.07-23.08.2021 – 3 exx., collected into IBL-5 trap hanging on a pine, in ecological clump in a clear-cut forest, leg. AK.
- Horodnianka [FE50], 15.07.2015 – 1 ex., on the ground, leg. AK.
- Międzyrzecze res. [FE60], 30.07.2022 – 1 ex., leg. AL.
- Woronicza res. [FE60], 30.07.2022 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

**Lepturinae** LATREILLE, 1802

***Oxymirus cursor*** (LINNAEUS, 1758)

Material:

- Forest Range Horodnianka [FE50], 21.05.2014 – 1 ex., in a trap for *Hylobius* spp., leg. AK.
- Budzisk res. [FE50], 17.06.2019 – 1 ex., on a broken spruce, leg. DM.

***Rhamnusium bicolor*** (SCHRANK, 1781)

Literature data: Czarna Białostocka [FE51] (GUTOWSKI et al. 1999).

***Rhagium (Megarhagium) sycophanta*** (SHRANK, 1781)

Literature data: Forest Ranger Dąbrowa [FE53] (MOKRZYCKI et al. 2022).

***Rhagium (Rhagium) inquisitor*** (LINNAEUS, 1758)

Material:

- Budzisk res. [FE50], 1-30.04.2019 – 4 exx., collected into IBL-5 traps hanging on a aspen and spruce, 1-31.05.2019 – 3 exx., collected in IBL-5 traps hanging on a aspen and spruce, leg. DM & AK.
- Jesionowe Góry res. [FE51], 1.05-4.06.2020 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. AK.
- Jałówka res. [FE50], 10.05.2021 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Rhagium (Megarhagium) mordax*** (DEGEER, 1775)

Material:

- Krasne [FD59], 11.05.2002 – 1 ex., leg. AL.
- Krzemienne Góry res. [FD69], 28.05.2020 – 1 ex., beating off the leaves, leg. AL.
- Horodnianka [FE50], 15.04-5.05.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, leg. AK. 1.06-30.06.2020 – 2 exx., collected in IBL-5 traps hanging on a ash and maple, leg. AK.
- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a linden, 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. DM & AK.

- Forest Range Budzisk [FE50], 26.05.2020 – 2 exx., on a cut trunk of the spruce, leg. DM.
- Jesionowe Góry res. [FE51], 1-31.05.2020 – 2 exx., collected in IBL-5 trap hanging on a ash; 1-30.06.2020 – 4 exx., collected in IBL-5 traps hanging on a ash (1 ex.), birch (1 ex.) and spruce (2 exx.); 1-31.07.2020 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. AK.
- Jałówka res. [FE50], 10.05.2021 – 3 exx., leg. AL.

***Stenocorus (Stenocorus) meridianus*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 6.06.1996 – 2 exx., caught in flight, leg. AL.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a hornbeam, leg. AK.

A rare species, known from few sites in various parts of the country (BURAKOWSKI *et al.* 1990, SZCZEPAŃSKI & HERCZEK 2019), connected with natural forests of low management intensity (GUTOWSKI *et al.* 2011).

**\**Pachyta quadrimaculata*** (LINNAEUS, 1758)

Material:

- Sochonie [FD49], 14.07.1996 – 1 ex., on the edge of the pine forest, leg. AL.
- Krasny Las [FD59], 18.06.2020 – 1 ex., leg. AL.
- Chraboły [FE30], 24.08.1996 – 1 ex., in a coniferous forest; 27.06.1999 – 1 ex., in a mixed forest, leg. AL.
- Horodnianka [FE50], 25.06.2020 – 1 ex., on herbaceous plants, leg. AK.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. AK.
- Knyszewicze, Wzgórza Sokólskie, [FE71], 3.07.1992 – 1 ex., leg. AL.

***Evodinellus (Evodinellus) borealis*** (GYLLENHAL, 1827) (Fot. 1A)

Material:

- Budzisk res. [FE50], 14.05.2020 – 2 exx., in a net off undergrowth plants in the mixed forest, leg. DM.

Literature data: Czarna Białostocka [FE41] (PLEWA & BOROWSKI 2016).

A species considered to be a relic of primeval forests (ECKELT *et al.* 2017). Until recently it was known only from Augustowska, Borecka and Białowieska Forests (GUTOWSKI 1995). PLEWA & BOROWSKI (2016) based on their observations, suggested it might also occur in Knyszyńska Forest on local, isolated sites.

***Carilia virginea virginea*** (LINNAEUS, 1758) (Fot. 1B)

Material:

- Dworzysk [FE60], 14.06.2020 – 1 ex., on flowers *Aegopodium podagraria*, leg. DM.
- A rare species of local occurrence in north-eastern Poland (GUTOWSKI *et al.* 2011).

***Euracmaeops septentrionis*** (C.G.THOMSON, 1866) (Fot. 1C)

Material:

- Budzisk res. [FE50], 1-31.07.2019 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. DM & AK.

Literature data: Kumiałka/Janów [FE52] (PLEWA 2010).

In Poland the species is known from scattered sites within the range of spruce, where its larvae feed on (WIŚNIEWSKI & BARAN 2016). In recent years it has been reported from a number of sites in over ten regions (PLEWA 2010).

***Dinoptera (Dinoptera) collaris*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 18.06.2020 – 5 exx., on flowers of plants of the family and, leg. AL.
- Surazkowo [FD69], 11.06.1995 – 1 ex., leg. AL.
- Budzisk res. [FE50], 11.06.1995 – 1 ex., leg. AL.
- Horodnianka [FE50], 08.06.2021 – 5 exx., on flowers *Aegopodium podagraria*, leg. AK.

***Cortodera femorata*** (FABRICIUS, 1787)

Material:

- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a spruce, 1-30.06.2019 – 2 exx., collected in IBL-5 traps hanging on a aspen and spruce, leg. DM & AK.
- Horodnianka [FE50], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a maple, leg. AK.
- Jesionowe Góry res. [FE51], 1-31.05.2020 – 1 ex., collected in IBL-5 trap hanging on a ash; 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. AK.
- Stara Dębina res. [FE61], 19.06.2020 – 2 exx., beating off the leaves, leg. AL.

**\**Nivellia sanguinosa*** (GYLLENHAL, 1827) (Fot. 1D)

Material:

- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a spruce, 1-30.06.2019 – 2 exx., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.

A species considered to be a relic of primeval forests (ECKELT *et al.* 2017). This species has boreal-montane distribution range, in North-Eastern part of Poland reported from Białowieska and Borecka Forests (PLEWA & BOROWSKI 2016).

***Grammoptera (Grammoptera) abdominalis*** (STEPHENS, 1831)

Material:

- Poczopek [FE70], 19.05.2019 – 1 ex., on flowers of plants of the family Apiaceae, leg. DM.

***Grammoptera (Grammoptera) ruficornis*** (FABRICIUS, 1781)

Material:

- Białystok-Pietrasze [FD49], 28.06.1994 – 1 ex., in a net off undergrowth plants in the mixed forest, leg. AL.
- Horodnianka [FE50], 5.05-5.06.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, leg. AK.

***Alosterna tabacicolor*** (DEGEER, 1775)

Material:

- Horodnianka [FE50], 12.07.2007 – 3 exx., on flowers of *Aegopodium podagraria*, leg. AK.

- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. DM & AK.
- Stara Dębina res. [FE61], 15.05.2020 – 2 exx., on the branches oak, leg. AL.

**\**Anoplodera (Anoplodera) rufipes*** (SCHALLER, 1783)

Material:

- Ruda Rzeczką [FE40], 30.05.2019 – 1 exx., beating off the fruit trees, leg. DM.

Although it is known from a number of sites throughout Poland, it is relatively rarely reported (BURAKOWSKI *et al.* 1990, SZCZEPAŃSKI & HERCZEK 2019).

***Anoplodera (Anoplodera) sexguttata*** (FABRICIUS, 1775)

Material:

- Dworzysk [FE60], 14.06.2020 – 1 ex., caught on *Rubus* spp., leg. DM.

A rare species, sporadically reported from scattered sites in various parts of the country (BURAKOWSKI *et al.* 1990, SZCZEPAŃSKI & HERCZEK 2019).

***Pseudovadonia livida bicarinata*** N. ARNOLD, 1869

Material:

- Krasny Las [FD59], 18.06.2020 – 5 exx., on flowers of plants of the family Apiaceae, leg. AL.
- Podsupraśl [FD59], 11.07.1993 – 2 exx., leg. AL.
- Horodnianka [FE50], 20.06.2015 – 1 exx., on flowers *Aegopodium podagraria*, leg. AK.

**\**Lepturobosca virens*** (LINNAEUS, 1758) (Fot. 1E)

Material:

- Budzisk res. [FE50], 1-30.06.2019 – 3 exx., collected in IBL-5 traps hanging on a aspen, leg. DM & AK.

***Stictoleptura (Maculileptura) maculicornis*** (DEGEER, 1775)

Material:

- Sochonie [FD49], 14.07.1996 – 1 ex., on the edge of the pine forest; 20.07.1996, 1 ex., in pine forest, leg. AL.
- Budzisk res. [FE50], 11.06.1995 – 1 ex., leg. AL.
- Jesionowe Góry [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. AK.
- Woronicza res. [FE60], 30.07.2022 – 1 ex., leg. AL.

***Stictoleptura (Aredolpona) rubra*** (LINNAEUS, 1858)

Material:

- Białystok-Pietrasze [FD49], 1.08.1992 – 1 ex., leg. AL.
- Pólko ad Supraśl [FD59], 3.07.1994 – 1 ex., in the pine sampling stand, leg. AL.
- Grzybowce [FD88], 26.07.2008 – 1 ex., in the pine forest, leg. AL.
- Podratowiec [FE40], 1.07-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine in an ecological clump in a clear-cut forest, leg. AK.

- Czarna Białostocka [FE50], 1.07-23.08.2021 – 6 exx., collected in IBL-5 trap hanging on dead pine, leg. AK.
- Forest Range Budzisk [FE50], 26.05.2020 – 1 ex., on a cut trunk of the spruce, leg. DM.
- Horodnianka [FE50], 1-31.08.2020 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. AK.
- Knyszewicze, Wzgórza Sokólskie [FE71], 12.07.1992 – 1 ex.; 24.07.1992 – 2 exx., leg. AL.
- Woronicza res. [FE60], 30.07.2022 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Anastrangalia dubia reyi*** (HEYDEN, 1889)

Material:

- Podsupraśl [FD59], 3.07.1994 – 3 exx., on the edge of the pine forest, leg. AL.

Literature data: FD58, FD69, FE40, FE50, FE60 – no specific location (GUTOWSKI 1995), Forest Range Majówka [FD58] (PLEWA *et al.* 2014).

***Anastrangalia sanguinolenta*** (LINNAEUS 1760)

Material:

- Podratowiec [FE40], 1.07-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine in an ecological clump in a clear-cut forest, leg. AK.

***Judolia sexmaculata*** (LINNAEUS, 1758)

Material:

- Horodnianka [FE50], 5.05.-5.06.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, leg. AK.

Literature data: Forest Range Nowiny [FE31] (PLEWA *et al.* 2014).

***Pachytodes cerambyciformis*** (SCHRANK, 1781)

Material:

- Krasny Las [FD59], 18.06.2020 – 2 exx., on flowers of plants of the family Apiaceae, leg. AL.
- Buksztel [FE50], 12.07.2020 – 1 ex., on flowers of plants of the family Apiaceae, leg. AK.
- Horodnianka [FE50], 18.07.2021 – 1 ex., on flowers of plants of the family Apiaceae, leg. AK.

***Strangalia attenuata*** (LINNAEUS, 1758)

Material:

- Białystok-Pietrasze [FD49], 8.08.1992 – 2 exx., leg. AL.
- Wasilków [FD49], 11.07.1988 – 1 ex., leg. AL.
- Podsupraśl [FD59], 1.08.1992 – 1 ex., leg. AL.
- Krynice [FE30], 11.08.1996 – 2 exx., leg. AL.
- Podratowiec -FE40], 1.07-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine in an ecological clump in a clear-cut forest, leg. AK.

- Czarna Białostocka [FE50], 1.07-23.08.2021 – 2 exx., collected in IBL-5 trap hanging on a dead pine, leg. AK.
- Horodnianka [FE50], 18.07.2021 – 1 ex., on flowers *Coriandrium* sp., leg. AK; 1-31.08.2020 – 1 ex., collected in IBL-5 trap hanging on a maple, leg. AK.
- Ponure [FE50], 19.07.2021 – 1 ex., on flowers *Daucus carota*, leg. AK.
- Knyszewicze, Wzgórza Soskólskie [FE71], 10.07.1992 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Etorofus (Etorofus) pubescens*** (FABRICIUS, 1787)

Literature data: FE50 – no specific location (GUTOWSKI 1995).

***Leptura annularis*** FABRICIUS, 1801

Material:

- Budzisk res. [FE50], 11.06.1995 – 1 ex., leg. AL.; 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. DM & AK.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, 3 exx., collected in IBL-5 trap hanging on a hornbeam, leg. AK.

***Leptura quadrifasciata*** LINNAEUS, 1758

Material:

- Wasilków [FD49], 11.07.1988 – 1 ex., leg. AL.
- Ogrodniczki [FD59], 7.06.1991 – 1 ex., leg. AL.
- Kruszyniany [FD89], 15.08.1993 – 1 ex., leg. AL.
- Forest Range Horodnianka [FE50], 15.07.2005 – 1 ex., in a trap for *Ips typographus* (Linnaeus, 1758), leg. AK;
- Budzisk res. [FE50], 1-31.05.2019 – 2 exx., 1-30.06.2019 – 8 exx., w collected in IBL-5 traps hanging on a aspen, leg. DM & AK.
- Horodnianka [FE50], 1-31.07.2020 – 2 exx., collected in IBL-5 trap hanging on a ash, 1-31.08.2020 – 2 exx., collected in IBL-5 traps hanging on a ash and linden, 1.09-4.11.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, leg. AK.
- Czarna Białostocka [FE50], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine, leg. AK.
- Jesionowe Góry res. [FE51], 1-31.07.2020 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Leptura aethiops*** PODA, 1761

Material:

- Krasny Las [FD59], 6.06.1996 – 1 ex., caught in flight, leg. AL.
- Budzisk res. [FE50], 11.06.1995 – 2 exx., leg. AL.

**\**Leptura (Macroleptura) thoracica thoracica*** CREUTZER, 1799

Material:

- Budzisk res. [FE50], 1-31.07.2019 – 2 exx., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.



A species considered to be a relic of primeval forests (ECKELT *et al.* 2017). The species is more widely distributed in north-eastern Poland and has been reported from Augustowska Forest (PLEWA 2007) and Białowieska Forest (GUTOWSKI *et al.* 1994)

***Rutpela maculata*** (PODA, 1761)

Material:

- Dębownickie Góry [FD59], 11.07.1993 – 1 ex., leg. AL.
- Horodnianka [FE50], 18.07.2021 – 2 exx., on flowers *Coriandrium* spp., leg. AK.
- Ponure [FE50], 19.07.2021 – 1 ex., on flowers *Daucus carota*, leg. AK.

***Stenurella (Priscostenurella) bifasciata*** (MÜLLER, 1776)

Material:

- Chraboly [FE30], 24.07.1996 – 2 exx., in the pine forest, leg. AL.
- Horodnianka [FE50], 18.07.2021 – 2 exx., on flowers *Coriandrium* spp., leg. AK.
- Knyszewicze, Wzgórza Sokólskie [FE71], 18.07.1992 – 1 ex.; 24.07.1992 – 1ex., leg. AL.

***Stenurella (Stenurella) melanura*** (LINNAEUS, 1758)

Material:

- Sochonie [FD49], 20.07.1996 – 2 exx., in the pine forest, leg. AL.
- Chraboly [FE30], 24.07.1996 – 2 exx., in the pine forest, leg. AL.
- Krynice [FE30], 11.08.1996 – 2 exx., leg. AL.
- Czarna Białostocka [FE50], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine, leg. AK.
- Knyszewicze, Wzgórza Sokólskie [FE71], 6.07.1992 – 1 ex., 10.07.1992 – 2 exx., 12.07.1992 – 1 ex., 29.07.1992 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Stenurella (Nigrostenurella) nigra*** (LINNAEUS, 1758)

Material:

- Białystok-Pietrasze [FD49], 28.06.1994 – 1 ex., leg. AL.
- Dębownickie Góry [FD59], 11.07.1993 – 1 ex., leg. AL.
- Podsupraśl [FD59], 3.07.1994 – 1 ex., leg. AL.
- Krzemienne Góry res. [FD69], 2.06.1996 – 1 ex., leg. AL.
- Budzisk res. [FE50], 11.06.1995 – 2 exx., leg. AL.
- Czarna Białostocka [FE50], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead oak, leg. AK.

**Necydalinae** LATREILLE, 1825

***Necydalis major*** LINNAEUS, 1758

Material:

- Budzisk res. [FE50], 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a linden, leg. DM & AK.

- Horodnianka [FE50], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a maple, leg. AK.

Literature data: Czarna Białostocka [FE50] (GUTOWSKI *et al.* 1999).

**Spondylidinae** AUDINET-SERVILLE, 1832

***Spondylis buprestoides*** (LINNAEUS, 1758)

Material:

- Grzybowce [FD88], 26.07.2008 – 1 ex., in the pine forest, leg. AL.
- Budzisk res. [FE50], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine in a clear-cut forest, leg. AK.
- Woronicza res. [FE60], 30.07.2022 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Asemum striatum*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 18.06.1988 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Arhopalus rusticus*** (LINNAEUS, 1758)

Material:

- Gniła [FD39], 21.08.1987 – 1 ex., leg. AL.
- Knyszewicze, Wzgorza Sokólskie [FE71], 12.07.1992 – 1 ex.; 26.08.1992 – 1 ex., leg. AL.
- Czarna Białostocka [FE50], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine, leg. AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Tetropium castaneum*** (LINNAEUS, 1758)

Material:

- Krasne [FD59], 28.05.1992 – 1 ex., leg. AL.
- Krasny Las [FD59], 6.06.1996 – 4 exx., on a cut spruce trees, leg. AL.
- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a spruce, leg. DM & AK.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 8 exx., collected in IBL-5 trap hanging on a spruce, leg. AK.
- Horodnianka [FE50], 05.06.2021 – 1 ex., on a cut spruce trees, leg. AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Tetropium fuscum*** (FABRICIUS, 1787)

Material:

- Budzisk res. [FE50], 1-31.05.2019 – 7 exx., collected in IBL-5 traps hanging on a aspen and spruce, 1-30.06.2019 – 2 exx., collected in IBL-5 trap hanging on a spruce, leg. DM & AK.

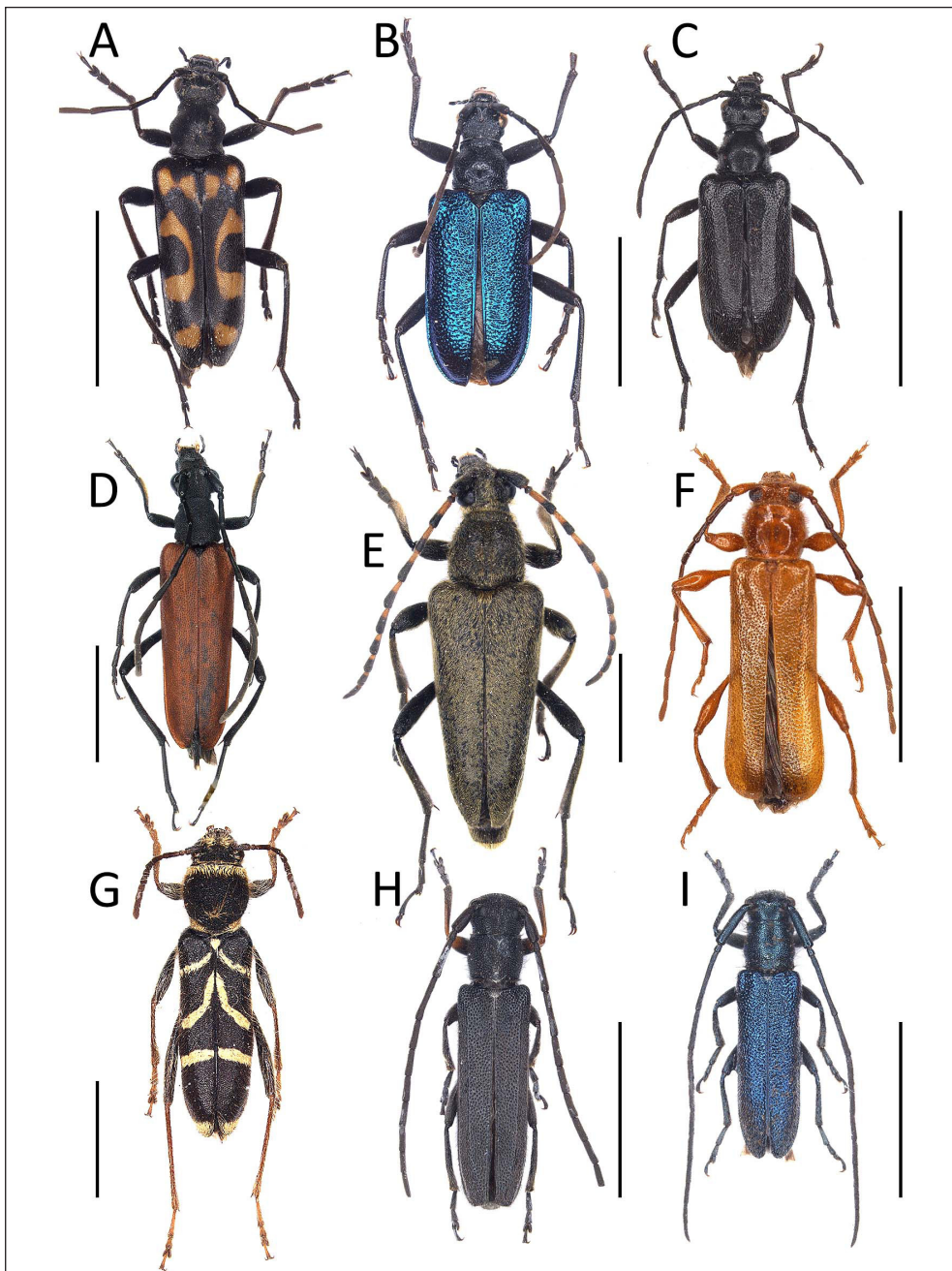


Fig. 1. Rare and interesting species Cerambycidae for the fauna of Knyszyńska Forest, were recorded in the course of this study: A – *Evodinellus borealis*, B – *Carilia virginea*, C – *Euracmaeops septentrionis*, D – *Nivellia sanguinosa*, E – *Lepturobosca virens*, F – *Leioderes kollari*, G – *Cyrtoclytus capra*, H – *Phytoecia cylindrica* and I – *Agapanthia intermedia*. Scale = 5 mm. (photos Karol Szawaryn).

Ryc. 1. Rzadkie i interesujące gatunki kózkowatych Puszczy Knyszyńskiej stwierdzone w badaniach: A – *Evodinellus borealis*, B – *Carilia virginea*, C – *Euracmaeops septentrionis*, D – *Nivellia sanguinosa*, E – *Lepturobosca virens*, F – *Leioderes kollari*, G – *Cyrtoclytus capra*, H – *Phytoecia cylindrica* and I – *Agapanthia intermedia*. Scale = 5 mm. (fot. Karol Szawaryn).

- Jesionowe Góry res. [FE51], 1-30.06.2020 – 4 exx., collected in IBL-5 trap hanging on a spruce, leg. AK.

Literature data: Czarna Białostocka [FE50], Supraśl [FD59] (CAPECKI 1979).

### **Cerambycinae** LATREILLE, 1802

#### ***Obrium brunneum*** (FABRICIUS, 1793)

Material:

- Krasny Las [FD59], 18.06.2020 – 1 ex., on flowers of plants of the family Apiaceae, leg. AL.

#### ***Obrium cantharinum*** (LINNAEUS, 1767)

Material:

- Budzisk res. [FE50], 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.
- Horodnianka [FD50], 24.06.2021 – 4 exx., on a cut aspen trees, leg. AK.

GUTOWSKI (1995) indicates it leads a secretive lifestyle, which is why imagines are extremely rarely found in the forest.

#### ***Molorchus (Caenoptera) minor*** (LINNAEUS, 1758)

Material:

- Stara Dębina res. [FE61], 15.05.2020 – 1 ex., beating off the leaves, leg. AL.
- Międzyrzecze res. [FE60], 25.03.2021 – 3 exx., ex cult. from *P. sylvestris* (imago 05.04.2021), leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

#### ***Molorchus (Molorchus) umbellatarum*** (SCHREBER, 1759)

Material:

- Budzisk res. [FE50], 1-30.06.2019 – 3 exx., collected in IBL-5 trap hanging on a linden, leg. DM & AK.

#### ***Aromia moschata*** (LINNAEUS, 1758)

Material:

- Białystok [FD48], 20.07.2002 – 2 exx., on a living trunk *Salix alba* L., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

#### ***Hylotrupes bajulus*** (LINNAEUS, 1758)

Material:

- Białystok [FD48], 18.06.2001 – 1 ex., leg. AL.
- Białystok – Dojlidy [FD48], 11.07.1992 – 1 ex., leg. AL., 16.06.1995 – 1 ex., leg. L. Sawicki.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

#### ***Leioderes kollari*** (REDTENBACHER, 1848) (Fot. 1F)

Material:

- Budzisk res. [FE50], 20.03.2020 – 1 ex. ex cult., grown from branches *Acer platanoides* collected for breeding 25.11.2019, cult. et leg. DM.

Literature data: res. Budzisk [FE50] (TATUR-DYTKOWSKI *et al.* 2017)

It is a very rare species (PLEWA & HILSZCZAŃSKI 2007) with a secretive lifestyle, which is why imagines are extremely rarely found in the forest (TATUR-DYTKOWSKI *et al.* 2017).

**\**Ropalopus macropus*** (GERMAR, 1824)

Material:

- Forest Range Budzisk [FE50], 3.06.2019 – 3 exx., on a cut oak trees, leg. DM.

***Callidium (Callidium) violaceum*** (LINNAEUS, 1758)

Material:

- Horodnianka [FE50], 27.05.2006 – 1 ex., on a cut spruce trees, leg. AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Callidium (Callidostola) aeneum*** (DEGEER, 1775)

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Callidium (Palaeocallidium) coriaceum*** (PAYKULL, 1800)

Literature data: Supraśl [FD59] (GUTOWSKI *et al.* 1999).

***Pyrrhidium sanguineum*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 8.05.2020 – 4 exx., on a cut spruce trees, leg. AL.
- Horodnianka [FE50], 10.05.2019 – 1 ex., on a cut oak trees, leg. AK.
- Jesionowe Góry res. [FE51], 1-31.05.2020 – 3 exx., collected in IBL-5 trap hanging on a ash, leg. AK.

***Phymatodes (Phymatodes) testaceus*** (LINNAEUS, 1758)

Material:

- Horodnianka [FE50], 5.06.2009 – 1 ex., on a cut hornbeam trees, leg. AK.
- Budzisk res., 1-31.05.2019 – 1 ex., 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a maple, leg. DM & AK.

***Phymatodes (Poecilium) alni*** (LINNAEUS, 1767)

Material:

- Budzisk res. [FE50], 1-31.05.2019 – 2 exx., collected in IBL-5 traps hanging on a aspen and linden, leg. DM & AK.
- Stara Dębina res. [FE61], 01.06.2021 – 1 ex., beating off the linden leaves, leg. AL.

***Plagionotus arcuatus*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 8.05.2020 – 4 exx., leg. AL.

***Plagionotus detritus*** (LINNAEUS, 1758)

Literature data: FD68 – no specific location (GUTOWSKI 1995).

***Xylotrechus (Xylotrechus) antilope*** (SCHÖNHERR, 1817)

Material:

- Forest Range Budzisk [FE50], 3.06.2019 – 1 ex., on a cut oak trees, leg. DM.

***Xylotrechus (Rusticoclytus) rusticus*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 18.06.2020 – 1 ex., on a cut birch trees, leg. AL.
- Podsupraśl [FD59], 8.06.1996 – 1 ex., in the mixed forest, leg. AL.
- Budzisk res. [FE50], 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Cyrtoclytus capra*** (GERMAR, 1824) (Fot. 1G)

Material:

- Budzisk res. [FE50], 18.06.2019 – 1 ex., on the trunk of a broken maple, leg. DM.
- Dworzysk [FE60], 3.07.2020 – 1 ex., in a net off undergrowth plants in the ecotone of the mixed forest and wet meadow, leg. DM.

The species is very rare in lowland Poland (GUTOWSKI et al. 1999).

***Clytus arietis*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 6.06.1996 – 1 ex., 18.06.2020 – 2 ex., on flowers of plants of the family Apiaceae, leg. AL
- Horodnianka [FE50], 5.06.2008 – 1 ex., on a cut hornbeam trees, leg. AK.

***Chlorophorus (Immaculatus) varius*** (MÜLLER, 1766)

Material:

- Sokołda [FE60], 17.07.2019 – 1 ex., on flowers of plants of the family Apiaceae, leg. DM.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Anaglyptus mysticus*** (LINNAEUS, 1758)

Material:

- Budzisk res. [FE50], 1-30.06.2019 – 1 ex., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.

**Lamiinae** LATREILLE, 1825

***Lamia textor*** (LINNAEUS, 1758)

Material:

- Wasilków [FD49], 3.06.2003 – 1 ex., leg. B. Sacharczuk, coll. AL.
- Dębówkie Góry [FD59], 11.07.1993 – 1 ex., leg. AL.
- Horodnianka [FE50], 2.07.2012 – 1 ex., on the ground, leg. AK.

***Monochamus galloprovincialis*** (OLIVIER, 1800)

Material:

- Białystok-Pietrasze [FD49], 1.08.1992 – 1 ex., leg. AL.
- Krasny Las [FD59], 12.06.1992 – 1 ex., leg. AL

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Monochamus sutor*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 21.07.1990 – 1 ex.; 6.06.1991 – 1 ex., leg. AL

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Monochamus sartor urussovii*** (FISCHER, 1806)

Material:

- Forest Range Budzisk [FE50], 5.07.2019 – 3 exx., on a cut spruce trees, leg. DM;
- Horodnianka [FE50], 21.06.2021 – 2 exx., on a cut spruce trees, leg. AK.

Literature data: res. Budzisk [FE50] (GUTOWSKI 1995).

***Monochamus saltuarius*** (GEBLER, 1830)

Literature data: FE60 – Kopna Góra (PLEWA *et al.* 2011).

***Acanthocinus aedilis*** (LINNAEUS, 1758)

Material:

- Supraśl [FD59], 12.04.1990 – 1 ex., leg. AL.
- Kruszyniany [FD89], 15.08.1993 – 1 ex., ex pupa, *Pinus sylvestris* L., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Acanthocinus griseus*** (FABRICIUS, 1793)

Material:

- Supraśl [FD59], 12.06.1990 – 1 ex., leg. AL.
- Horodnianka [FE50], 21.06.2021 – 2 exx., on a cut pine trees, leg. AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Leiopus punctulatus*** (PAYKULL 1800)

Material:

- Podsupraśl [FD59], 6.06.1996 – 1 ex., in the mixed forest, leg. AL.

***Leiopus taeniatus*** GMELIN, 1790 (=linnei WALLIN, NYLANDER & KVAMME, 2009)

Material:

- Krasny Las [FD59], 2.06.1994 – 1 ex., leg. AL.
- Las Cieliczański res. [FD59], 18.06.2020 – 1 ex., beating off the leaves, leg. AL.
- Supraśl [FD59], 6.06.1991 – 1 ex., leg. AL.
- Krzemianka res. [FE40], 20.06.2020 – 1 ex., beating off the leaves, leg. AL.
- Stara Dębina res. [FE61], 8.05.2020 – 1 ex., ex pupa (imago 23 V 2020), *Quercus* spp., leg. AL.



Literature data: Forest District Żednia [FD68] (Gutowski et al. 2010), Forest District Supraśl [FE60] (GUTOWSKI *et al.* 2010).

***Leiopus nebulosus*** (LINNAEUS, 1758)

Material:

- Jesionowe Góry res. [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a hornbeam, leg. AK.

Literature data: Kopna Góra [FE60] (GUTOWSKI *et al.* 2010).

***Aegomorphus clavipes*** (SCHRANK, 1781)

Material:

- Budzisk res. [FE50], 18.06.2019 – 2 exx., on a cut aspen trees, leg. DM.

Literature data: Czarna Białostocka [FE51] (GUTOWSKI *et al.* 1999).

***Oplosia cinerea*** (MULSANT, 1839)

Material:

- Krasny Las [FD59], 18.06.2020 – 2 exx., on a cut linden trees, leg. AL.
- Woroszyły [FE40], 19.10.1997 – 1 ex., in the pine forest, leg. AL.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 1 ex., collected in IBL-5 trap hanging on a ash, leg. AK.
- Stara Dębina res. [FE61], 19.06.2020 – 2 exx., beating off the linden leaves, leg. AL.

***Pogonocherus (Pityphylus) decoratus*** FAIRMAIRE, 1855

Material:

- Knyszewicze, Wzgorza Sokólskie [FE71], 12.07.1992 – 1 ex.; 28.07.1992 – 1 ex., leg. AL.
- Woroszyły [FE40], 19.10.1997 – 1 ex., leg. AL.

***Pogonocherus (Pityphylus) fasciculatus*** (DEGEER, 1775)

Material:

- Podratowiec [FE40], 1.07.-23.08.2021 – 1 ex., collected in IBL-5 trap hanging on a dead pine, in an ecological clump in a clear-cut forest, leg. AK.
- Horodnianka [FE50], 30.04.2006 – 1 ex., on a cut pine trees, leg. AK.
- Budzisk res. [FE50], 1-31.05.2019 – 1 ex., collected in IBL-5 trap hanging on a aspen, leg. DM & AK.
- Stara Dębina res. [FE61], 19.06.2020 – 1 ex., beating off the leaves, leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Pogonocherus (Pogonocherus) hispidulus*** (PILLER & MITTERPACHER, 1783)

Material:

- Stare Biele res. [FE60], 01.06.2021 – 1 ex., beating off the leaves, leg. AL.

***Saperda (Lopezcolonia) scalaris*** (LINNAEUS, 1758)

Material:

- Las Cieliczański res. [FD59], 18.06.2020 – 1 ex., beating off the leaves, leg. AL.



- Horodnianka [FE50], 5.07.2013 – 1 ex., on a cut hornbeam trees, leg. AK.
- Jesionowe Góry res. [FE51], 1-30.06.2020 – 2 exx., collected in IBL-5 traps hanging on a ash and spruce, leg. AK.

***Saperda (Lopezcolonia) perforata* (PALLAS, 1773)**

Material:

- Budzisk res. [FE50], 1-30.04.2019 – 1 ex., collected in IBL-5 trap hanging on a maple, 1-31.05.2019 – 2 exx., 1-30.06.2019 – 1 ex., collected in IBL-5 traps hanging on a aspen, leg. DM & AK.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Saperda (Compsidia) populnea* (LINNAEUS, 1758)**

Material:

- Białystok-Pietrasze [FD49], 28.06.1994 – 1 ex.; 3.06.1996 – 1 ex., leg. AL.
- Podsupraśl [FD59], 3.07.1994 – 1 ex., in the mixed forest, leg. AL.

***Saperda carcharias* (LINNAEUS, 1758)**

Material:

- Białystok-Pietrasze [FD49], 1.08.1992 – 1 ex., leg. AL.
- Sochonie [FD49], 14.07.1996 – 1 ex., on the edge of the pine forest, leg. AL.
- Supraśl [FD59], 16.07.1990 – 1 ex., leg. AL.

Literature data: no specific location (KUBISZ & PAWŁOWSKI 1995).

***Saperda similis* (LAICHARTING, 1784)**

Literature data: Czarna Białostocka [FE50] (GUTOWSKI *et al.* 1999).

***Stenostola ferrea ferrea* (SCHRANK, 1776)**

Material:

- Krasny Las [FD59], 18.06.2020 – 1 ex., beating off the leaves *Corylus avellana* L., leg. AL.

***Menesia bipunctata* (ZOUBKOFF, 1829)**

Material:

- Krzemienne Góry res. [FD69], 2.06.1996 – 1 ex., leg. L. Sawicki, coll. AL.

Literature data: Forest District Supraśl [FE60] (GUTOWSKI 1995), res. Krzemienne Góry [FD59] (GUTOWSKI *et al.* 1999).

***Tetrops gilvipes adlbaueri* (LAZAREV, 2012)**

Material:

- Krzemienne Góry res. [FD69], 6.06.1996 – 1 ex., leg. AL.

Literature data: Knyszewicze [FE71], res. Stare Biele [FE60] (KURZAWA *et al.* 2020).

***Tetrops praeustus* (LINNAEUS, 1758)**

Literature data: Forest District Żednia [FD68], res. Karczmysko [FE40], ad Czarna Białostocka [FE41], res. Toboły [FE50] (KURZAWA *et al.* 2020).

**\**Tetrops starkii*** CHEVROLAT, 1859

Material:

- Białystok-Pietrasze [FD49], 28.06.1994 – 1 ex., leg. AL.

A rare species, reported from individual sites (BURAKOWSKI et al. 1990, SZCZEPAŃSKI & HERCZEK 2019).

***Oberea (Oberea) oculata*** (LINNAEUS, 1758)

Material:

- Krasny Las [FD59], 13.08.1987 – 1 ex., leg. AL

***Oberea (Oberea) pupillata*** (GYLLENHAL, 1817)

Material:

- Podsołoda [FE60], 3.06.2005 – 1 ex., leg. L. Sawicki, coll. AL.

Literature data: Kopna Góra [FE60] (GUTOWSKI 1995).

**\**Phytoecia cylindrica*** (LINNAEUS, 1758) (Fot. 1H)

Material:

- Ruda Rzeczka [FE40], 11.06.2020 – 1 ex., in a net off undergrowth plants in the dry meadow, leg. DM.

***Phytoecia virgula*** (CHARPENTIER, 1825)

Material:

- Ogrodniczki [FD59], 11.05.1997 – 1 ex., on the edge of the pine forest, caught in flight, leg. AL.

Literature data: Białystok-Pietrasze [FD49], Ogrodniczki [FD59] (GUTOWSKI et al. 1999).

***Agapanthia (Epopetes) villosoviridescens*** (DEGEER, 1775)

Material:

- Krasny Las [FD59], 18.06.2020 – 1 ex., in a net off undergrowth plants in the mixed forest, leg. AL.
- Dębownicze Góry [FD59], 11.07.1993 – 1 ex., leg. AL.
- Ruda Rzeczka [FE40], 10.06.2019 – 1 ex., in a net off undergrowth plants, leg. DM.
- Budzisk res. [FE50], 11.06.1995 – 1 ex., leg. AL.

**\**Agapanthia (Smaragdula) intermedia*** GANGLBAUER, 1884 (Fot. 1I)

Material:

- Ruda Rzeczka [FE40], 10.06.2019 – 4 ex., on flowers *Knautia arvensis*, leg. DM.
- Horodnianka [FE50], 22.07.2019 – 1 ex., in a net off undergrowth plants, leg. AK;
- Dworzysk [FE60], 26.05.2020 – 3 ex., on flowers *Knautia arvensis*, leg. DM.

A species known mainly from the Western and South-Western Poland (HOFMAŃSKI & KARG 2011, BUNALSKI et al. 2021). Recently also reported from the central part of the country – Mazowiecki Landscape Park (GÓRSKI & TATUR-DYTKOWSKI 2015) and the Radom area (MIŁKOWSKI & GUTOWSKI 2021).

## DISCUSSION

Based on the collected specimens presented above and literature data it can be stated that so far 96 Cerambycidae species have been reported from Knyszyńska Forest out of 197 species reported from the country (KURZAWA 2022), which constitutes nearly 50% of domestic fauna. Obviously the list is not complete and the presented results concern mainly the observations conducted along other studies, and not the results of studies focusing only on longhorn representatives. The list certainly lacks forest species of the genera such as *Pogonocherus*, *Exocentrus* or *Phymatodes*. Most of them can be obtained mainly by breeding insects from tree and bush fragments infested by larvae. Nevertheless, the number of species reported does not significantly differ from the species lists of other areas in Poland of a similar protection regime. By way of example: in Suwalski Landscape Park only 44 species were found (GUTOWSKI *et al.* 2020), in the General Dezydery Chłapowski Park – 69 species were found (HOFMAŃSKI & KARG 2011), in Romincka Forest during 30-year research – 71 species were found (GUTOWSKI *et al.* 2011), in Pilicka Forest – 73 species (KURZAWA 2002), in Kozienicka Forest – 114 species (MILKOWSKI 2021).

Knyszyńska Forest, influenced by continental climate, constitutes a suitable development habitat for many boreal-montane or Siberian range species, which do not occur in western or central Poland. The examples of such species which occur in the analysed area certainly include *Evodinellus borealis*, *Nivellia sanguinosa*, *Lepturobosca virens* or *Leptura thoracica*. However, thanks to a high diversity and a mosaic character of forest, shrub and non-forest habitats, southern, often thermophile species enter Knyszyńska Forest and find there favourable conditions to live and develop. The examples of such species are *Anoplodera rufipes*, *A. sexguttata*, *Tetrops starkii*, *Phytoecia cylindrica* or *Agapanthia intermedia*. It is worth remembering that Knyszyńska forest, which includes many managed timberlands with more or less intensive forest management, also has many fragments of natural character. Thanks to sustainable forest management many species considered relics of primaeval forests have been preserved in Knyszyńska Forest, namely *Evodinellus borealis*, *Leptura thoracica* or *Nivellia sanguinosa*. A comparatively natural character of Knyszyńska Forest woodstands and a relic character of its entomofauna were already noted by other authors (KWIATKOWSKI & MARCZAK 2020a, b).

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## Streszczenie

### **Materiały do poznania fauny Puszczy Knyszyńskiej: kózkowate (Coleoptera: Cerambycidae)**

Praca przedstawia zestawienie danych literaturowych i nowych danych o występowaniu kózkowatych (Coleoptera: Cerambycidae) na obszarze Puszczy Knyszyńskiej (północno-wschodnia Polska). Dotychczas publikowane dane literaturowe wskazywały na występowanie 48 gatunków tych chrząszczy na analizowanym obszarze. Podczas przeprowadzonych badań udało się stwierdzić na obszarze Puszczy Knyszyńskiej 84 gatunki, w tym potwierdzić większość danych literaturowych. Do chwili obecnej na terenie tego kompleksu leśnego udokumentowano występowanie 94 gatunków Cerambycidae. Wśród nich znajdują się gatunki bardzo rzadkie w skali kraju takie jak *Evodinellus borealis*, *Nivellia sanguinosa*, *Lepturobosca virens* czy *Leptura thoracica*.

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