

**LEAF-ROLLING WEEVILS (CURCULIONOIDEA: ATTELABIDAE, RHYNCHITIDAE)
IN KAMPINOS NATIONAL PARK**

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ABSTRACT: Leaf-rolling weevils of the families Attelabidae and Rhynchitidae were studied in Kampinos National Park where 13 species were found for the first time. New localities are listed for 15 species, respectively 3 and 12 of Attelabidae and Rhynchitidae. *Neocoenorrhinus interpunctatus* (Stephens, 1831) is new for Mazovia Lowland.

KEY WORDS: Attelabidae, Rhynchitidae, Kampinos National Park, faunistic, new records, Mazovia Lowland

Introduction

Kampinos National Park is the only national park located in the central part of Poland. A large variety of habitats can be found there: dry (heathlands, grasslands, dunes, pine forests), wet (meadows, sedges, banks of canals and ditches, hornbeam and alder forests) and anthropogenic (orchards, fields, pastures). Such differences in the environment create excellent conditions for the development of a high diversity of beetles. Despite the 50-year history of the park and the proximity to research centers, coleoptera were never well studied in the area. It is still one of the least studied entomological groups

among Polish national parks (Banaszak et al. 2004). The only families studied in the last few years are Coccinellidae (Marczak 2010a) and Nitidulidae (Lasoń et al. 2011).

Leaf-rolling weevils is a relatively small group of the superfamily Curculionoidea, often considered as one and the same family (Kuschel 1995, Oberprieler et al. 2007, Bouchard et al. 2011). However, European scientists usually treat them as two distinct families: Rhynchitidae and Attelabidae. This position was adopted in the last catalog of Palaearctic beetles (Alonso-Zarazaga 2011). In Poland, the family Attelabidae is represented by three species, and the family Rhynchitidae by 24 species (Wanat and Mokrzycki 2005). In Mazovia Lowland, where Kampinos National Park lies, three species of Attelabidae were noted and 16 species for Rhynchitidae (Burakowski et al. 1992). Many reports refer to the nineteenth and first half of the twentieth century and requires confirmation with newer data.

In the area of Kampinos National Park, only two species of these families are known: *Deporaus betulae* (Linnaeus, 1758) (Kubisz et al. 2000) and *Rhynchites bacchus* (Linnaeus, 1758) (Marczak 2010b).

This paper presents new localities of leaf-rolling weevils of the families Attelabidae and Rhynchitidae from the area of Kampinos National Park. Specimens can be found in the collection of Kampinos National Park and the collections of the authors.

In the text, the following abbreviations stand for: DM – Dawid Marczak, KPN – Kampinos National Park, MM – Miłosz A. Mazur, MW – Marek Wanat, OOS – Strict Protection Area, RL – Robert Lasecki, RR – Rafał Ruta, WJ – Wojciech Jędrzykowski.

The country distribution is discussed based on the division of region taken from the Catalogue of Polish Fauna (Burakowski et al. 1992). UTM grid code is given in parentheses for each locality.

Attelabidae Billberg, 1820

***Attelabus nitens* (Scopoli, 1763)**

- Sieraków (DC89), 19.05.2010, 1 ex., in greenwood oak, leg. DM; 29.05.2010, 1 ex., leg. MM.

Rare species (Petryszak 2004) associated with oak forests. In Mazovia Lowland noted for the last time in the first half of the twentieth century (Burakowski et al. 1992). New for KPN.

***Apoderus coryli* (Linnaeus, 1758)**

- Pociecha (DC89), 5.06.2009, 1 ex., caught in flight, leg. DM; OOS Sieraków (DC89), 15.05.2010, 1 ex., 16.05.2010, 1 ex., collected on *Coryllus avellana* L., leg. DM; Sieraków (DC89), 29.05.2010, 1 ex., leg. et coll. MM, 30.05.2010, 1 ex., leg. MW; Izabelin (DC89), 29.05.2010, 3 exx., 28.05.2011, 2 exx., leg. MM; Truskaw (DC89), 29.05.2011, 1 ex., leg. MM. Długie Bagno (DC89), 29.05.1010, 1 ex., leg. MM.

In Poland, most common species of leaf-rolling weevils. Associated with various deciduous trees, mostly hazel (*Coryllus avellana*). New for KPN.

***Compsapoderus erythropterus* (Gmelin, 1790)**

- Pociecha (DC89), 29.05.2010, 1 ex., leg. MW; OOŚ Sieraków (DC89), 18.06.2010, 1 ex., wet meadow, leg. DM; 28.05.2011, 1 ex., leg. MM; Niepust (DC89), 29.05.1010, 1 ex., leg. MM; OOŚ Żurawiowe (DC79), 28.06.2010, 2 exx., collected on *Filipendula ulmaria* (L.), leg. DM;; Truskaw (DC89), 29.04.2011, 3 exx., leg. MM; OOŚ Cyganka (DC89), 28.04.2011, 2 exx., leg. MM; Ławy (DC79), 29.05.2011, 2 exx., leg. MM.

Rare hygrophilous species (Petryszak 2004) associated with peat bogs, wet meadows and thickets. It occurs mainly in lowlands and highlands of the central part of Poland. Almost unknown in mountainous regions. It does not occur on Baltic Coast. In Mazovia Lowland it was noted last time in the 1950s (Burakowski et al. 1992). New for KPN.

Rhynchitidae Gistel, 1848***Lasiorhynchites caeruleocephalus* (Schaller, 1783)**

- Niepust (DC89), 15.07.2009, 3 exx., in Moericke trap on heathland, leg. DM.

Rare thermophilous species (Petryszak 2004). Live mainly on sandy habitats covered with scattered young pines and birches. Larval growth takes place within branches of pine, while the imagoes live on birches. In Poland, recorded in 13 regions, mostly lowland and upland. In Mazovia Lowland it was noted last time in the 50s (Burakowski et al. 1992). New for KPN.

***Temnocerus nanus* (Paykull, 1792)**

- OOŚ Sieraków (DC89), 05.06.2009, 1 ex., leg. DM; Brzozówka (DC79), 27.05.2010, 2 exx., collected on *Betula verrucosa* Ehrh., leg. DM; Truskaw (DC89), 18.06.2010, 2 exx., collected on *Betula verrucosa*, leg. DM; 29.04.2011, 1 ex., leg. MM; Niepust (DC89), 29.04.2011, 1 ex. leg. MM.

Known for almost the entire country. Found in Łomna, on the border of KPN (Burakowski et al 1992).

***Temnocerus coeruleus* (Fabricius, 1798)**

- OOŚ Sieraków (DC89), 05.06.2009, 2 exx., collected on *Salix* sp., leg. DM, 29.05.2010, 3 exx., leg. MM; Brzozówka (DC79), 13.06.2010, 1 ex., leg. DM; Truskaw (DC89), 16.06.2010, 3 exx., leg. DM, 29.05.2010, 2 exx., leg. MM.

Known for almost the entire country. Recently noted in Mazovia Lowland (Burakowski et al. 1992). New for KPN.

***Neocoenorrhinus germanicus* (Herbst, 1797)**

- OOŚ Sieraków (DC89), 17.05.2009, 1 ex., collected on *Salix* sp., leg. DM, 26.04.2011, 2 exx., leg. MM.

Species common throughout the country, apart from the Tatra Mountains. Larval development in different herbaceous plants of the Rosaceae family. In Mazovia Lowland it was noted last time in the first half of the twentieth century (Burakowski et al. 1992). New for KPN.

***Neocoenorrhinus interpunctatus* (Stephens, 1831)**

- OOŚ Sieraków (DC89), 25.04.2010, 2 exx., collected on *Quercus* sp., leg. DM.

Rare species (Petryszak 2004), known in 10 regions, mainly south (Burakowski et al. 1992). Occurs on oaks in warm and sunny places. New for Mazovia Lowland and KPN.

***Neocoenorrhinus pauxillus* (Germar, 1824)**

- Lipków (DC89), 29.04.2004, 1 ex., leg. DM, det. WJ; OOŚ Sieraków (DC89), 25.04.2010, 1 ex., collected on *Sorbus aucuparia* L., leg. DM; Izabelin (DC89), 29.05.2010, 3 exx., leg. MM.

Common species living on different rosaceous trees and shrubs. Known from many places in Poland. In Mazovia Lowland noted for the last time in the first half of the twentieth century (Burakowski et al. 1992). New for KPN.

***Tatianaerhynchites aequatus* (Linnaeus, 1767)**

- OOŚ Sieraków (DC89), 17.05.2009, 1 ex., leg. DM; Niepust (DC89), 28.05.2010, 2 exx., collected on *Crataegus* sp. growing on heathlands, leg. DM; Pociecha (DC89), 29.05.2010, 3 exx., leg. MW.

Species characteristic of warm plant communities and xerothermic shrub. Particularly often caught on *Crataegus* sp. In Mazovia Lowland noted for the last time in the 1980s (Burakowski et al. 1992). New for KPN.

***Involulus (Involulus) cupreus* (Linnaeus, 1758)**

- Lipków (DC89), 29.04.2004, 2 exx., leg. DM, det. WJ; OOŚ Sieraków (DC89), 17.05.2009, 1 ex., 25.04.2010, 1 ex., 05.08.2010, 1 ex., leg. DM; 28.04.2011, 2 exx., leg. MM; Izabelin (DC89), 28.04.2011, 2 exx., leg. MM

Common species known in all the regions. In Mazovia Lowland noted only once in the nineteenth century (Burakowski et al. 1992). New for KPN.

***Involulus (Teretriorhynchites) caeruleus* (De Geer, 1775)**

- Lipków (DC89), 29.04.2004, 2 exx., leg. DM, det. WJ, OOŚ Sieraków (DC89), 05.06.2009, 1 ex., 19.04.2010, 1 ex., 16.05.2010, 1 ex., leg. DM; Izabelin (DC89), 28.04.2011, 2 exx., leg. MM; OOŚ Cyganka (DC89), 28.04.2011, 2 exx., leg. MM.

In Poland found locally in 15 regions. In Mazovia Lowland noted for the last time in the first half of the twentieth century (Burakowski et al. 1992). New for KPN.

***Byctiscus betulae* (Linnaeus, 1758)**

- Pociecha (DC89), 5.06.2009, 1 ex., collected on *Betula pendula* Roth, leg. DM, 29.05.2010, 1 ex., leg. MW.

Common species, found in almost the entire country except for higher mountains. Several times found in Mazovia Lowland (Burakowski et al. 1992). New for KPN.

***Byctiscus populi* (Linnaeus, 1758)**

- Pociecha (DC89), 5.06.2009, 1 ex., collected on *Populus tremula* L., leg. DM;
Truskaw (DC89), 16.06.2010, 1 ex., leg. DM.

Common species, found in almost the entire country. Several times recorded from Mazovia Lowland (Burakowski et al. 1992). New for KPN.

***Deporaus betulae* (Linnaeus, 1758)**

- OOŚ Sieraków (DC89), 14.05.2009, 1 ex., 16.05.2009, 1 ex., 17.05.2009, 1 ex.,
5.06.2009, 1 ex., leg. DM.

Common species, found in all regions, including several times in Mazovia Lowland (Burakowski et al. 1992). Known for KPN (Kubisz et al. 2000).

All 16 species mentioned in this paper (3 Attelabidae and 13 Rhynchitidae) were recently recorded in Kampinos National Park and added to its fauna. Considering the previously reported species *Rhynchites bacchus* (Marczak 2010b), the fauna of Kampinos National Park now counts 17 species of these two families of leaf-rolling weevils, while altogether 27 species are included in the Polish fauna (Wanat and Mokrzycki 2005). In our opinion, this list is certainly not complete. Further studies will undoubtedly uncover more new species for the area of KPN, especially those which have already been reported for Mazovian Lowland such as: *Auletobius sanguisorbae* (Schrank, 1798) or *Rhynchites auratus* (Scopoli, 1763) (Burakowski et al. 1992). Besides, given the presence of suitable peat forests in KPN, it is highly probable that *Temnocerus longiceps* (Thomson, 1888) and *Caenorhinus mannerheimii* (Hummel, 1823) also occur in the area.

Bibliography

- Alonso-Zarazaga M. A. 2011. Rhynchitidae, Attelabidae, pp. 109-141. In: Löbl I. & Smetana A. (eds), Catalogue of Palaearctic Coleoptera. Volume 7. Curculionoidea I. Apollo Books, Stenstrup, 373 pp.
- Banaszak J., Buszko J., Czachorowski S., Czechowska W., Hebda G., Liana A., Pawłowski J., Szeptycki A., Trojan P., Węgierek P. 2004. Przegląd badań inwentaryzacyjnych nad owadami w parkach narodowych Polski. Wiad. entomol., 23, Suppl. 2: 5–56.
- Bouchard P., Bousquet Y., Davies A. E., Alonso-Zarazaga M. A., Lawrence J. F., Lyal C. H.C., Newton A. F., Reid C. A. M., Schmitt M., Ślipiński S. A., Smith A. B. T. 2011. Family-group names in Coleoptera (Insecta). ZooKeys, 88: 1–972. (doi: 10.3897/zookeys.88.807)
- Burakowski B., Mroczkowski M., Stefańska J. 1992. Chrząszcze *Coleoptera* – Ryjkowcowate prócz ryjkowców – *Curculionoidea* prócz *Curculionidae*. Katalog Fauny Polski, Warszawa, 23(18): 1–324.

- Kubisz D., Hilszczański J., Garbaliński P. 2000. Chrzążcze (*Coleoptera*) rezerwatów Czerwińskie Góry I i II i ich otuliny w Puszczy Kampinoskiej. *Parki nar. Rez. Przyr.*, 19(4): 83–89.
- Kuschel G. 1995. A phylogenetic classification of Curculionoidea to families and subfamilies. *Memoir Entomol. Soc. Wash.*, 14: 5-33.
- Lasoń A., Marczak D., Kubisz D., Tykarski P. 2011. Kateretidae and Nitidulidae (Coleoptera) of the Mazovia Lowland. *Pol. Pism. Ent.*, 80: 299-320.
- Marczak D. 2010a. Stan poznania biedronek (Coleoptera: Coccinellidae) Kampinoskiego Parku Narodowego. *Wiad. entomol.* 29, Supl.: 135-139.
- Marczak D. 2010b. Rzadkie gatunki chrząszczy (Insecta: Coleoptera) Kampinoskiego Parku Narodowego. *Parki nar. Rez. Przyr.*, 29(2): 81 – 91.
- Oberprieler R. G., Marvaldi A. E., Anderson R. S. 2007. Weevils, weevils, weevils everywhere, pp. 491-520. In: Zhang Z.-Q. & Shear W. A. (eds). *Linnaeus Tercentenary: Progress in Invertebrate Taxonomy*. *Zootaxa*, 1668: 1-766.
- Petryszak B. 2004. *Rhynchitidae*. In: W. Bogdanowicz, E. Chudzicka, I. Pilipiuk, E. Skibińska (eds). *MiIZ PAN*, Warszawa, 71, 108.
- Wanat M., Mokrzycki T. 2005. A new checklist of the weevils of Poland (Coleoptera: Curculionoidea). *Genus*, 16 (1): 69-117.