South Western Journal of Horticulture, Biology and Environment
P-Issn: 2067- 9874, E-Issn: 2068-7958

Vol.16, No.1, 2025
pp. 70-79
Art.no. e25105

Liparus glabrirostris KÜSTER, 1849 (COLEOPTERA: CURCULIONIDAE) IN THE DANUBE GORGE: A LOW ALTITUDE POPULATION IN SOUTH-EASTERN EUROPE, ZOOGEOGRAPHICAL AND ECOLOGICAL CONSIDERATIONS

Lucian Alexandru TEODOR [1] *, Andreea-Maria LAZĂR [2], Alina-Florentina MUȘET [2], and Amalia-Raluca DUMBRAVĂ [3, 4]

1. Babeş-Bolyai University, Faculty of Biology and Geology, Department of Taxonomy and Ecology, 400006, Cluj-Napoca, Clinicilor 5-7, Romania.
2. University of Oradea, Faculty of Informatics and Sciences, Department of Biology, 1, Universității str., Oradea, 410087, Romania.
3. University of Oradea, Doctoral School of Biomedical Sciences; 1, Universităţii, Oradea 410087, Romania.
4. N.F.A. Romsilva, Iron Gates Natural Park Administration R.A., Nr. 2, Civic Center, Orșova, Mehedinți, Romania
* Corresponding author, L.A. Teodor, E-mail: teodorlucianalex@gmail.com

Abstract. *Liparus glabrirostris is an insect species characteristic of some mountain ranges in Europe. On 25 April 2025, we have identified 12 individuals in the Danube Gorge region, at an altitude of 400 meters, in the Mraconia valley basin. This is the first record of this species in the Danube Gorge, as it is also the southernmost distribution point in the Romanian Carpathians. The new population is located at a considerable distance from the previous records. L. glabrirostris is another mountain element recorded at low altitudes in the Danube Gorge, but in a typical habitat, on a moist, narrow, and forested valley. The population was identified in the vicinity of a forest road, as individuals were observed on Petasites sp. plants. In the region, the activity and reproduction period of L. glabrirostris started earlier than usual.*

Keywords: *Carpathians, insects, Petasites, riparian habitats, altitude, relicts, forest.*

INTRODUCTION

Although protected areas are essential for insects, they are probably still insufficient to support insect diversity (Mühlethaler et al. 2024). Thus,

supplementary measures are necessary to ensure the protection of insects (Mühlethaler et al. 2024), especially since more than 75% of insect species are not adequately represented in protected areas (Chowdhury et al. 2023). A protected area situated in an important region for biodiversity, where new insect species are permanently recorded in Romania, is the Iron Gates Natural Park - IGNP (e.g., Murgoci 1975, Ruicănescu & Dumbravă 2020, Ruicănescu et al. 2022, Dumbravă & Ruicănescu 2023). Among insects, the weevils (Coleoptera, Curculionidea) were recorded in IGNP as victims of road mortality, when a mountain species was identified at the lowest altitude in the country (Teodor et al. 2019), as the Danube Gorge is a region where other mountain species are present at low altitudes (e.g., Pașcovschi 1956, Covaciu-Marcov et al. 2009, Schneider-Binder 2016, Petruș-Vancea et al. 2024). Among weevils, the *Liparus* genus comprises species typically associated with mountain regions; however, no species from this genus have been previously mentioned in the Danube Gorge area (Teodor et al. 2024). In Romania, *L. glabrirostris* is the best-represented species of this genus, as it is generally found at high altitudes in the mountains, with only sporadic and old records in low-altitude areas (see Teodor et al. 2024). It is a European species (Pedroni & Pesarini 2005), with an Alpine-Carpathian distribution (Teodor & Teodor 2007). Its distribution range is generally mountainous, except for populations in the southern regions of the Baltic Sea (see Lachowska-Cierlik et al. 2020). Nevertheless, *L. glabrirostris* was not mentioned in the Danube Gorge, as the closest records are in Banat Mountains (Văliug and Anina), and Vulcan Mountains (Sohodol Gorge) (Teodor et al. 2024), a fact also true according to GBIF, with only one record in Banat Mountains, also in the Anina region (*Liparus glabrirostris* Küster, 1849 in GBIF Secretariat 2023). Even south of Romania, *L. glabrirostris* was recently recorded in Serbia, but in a single mountain location (Pešić 2021), as it is scarce in south-eastern Europe, in the Balkan Peninsula, where there are only four distribution records south of Romania (*Liparus glabrirostris* Küster, 1849 in GBIF Secretariat 2023). At the same time, in the Făgăraș Mountains, a genetically distinct lineage appears to be present (Lachowska-Cierlik et al. 2020), assuming that the populations from the Carpathians and Alps are genetically different (Mitrović et al. 2016). Thus, any information about the presence of this species in the southern areas of the Southern Carpathians could have multiple implications. Consequently, the present note mentions for the first time the presence of *L. glabrirostris* in the Danube Gorge, in the Iron Gates Natural Park (IGNP).

MATERIALS AND METHODS

The field activity took place on 25 April 2025, in the IGNP, Mehedinți County, southwestern Romania. During this period, we conducted studies on the fauna of the Mraconia Valley Basin, located in the eastern part of the IGNP, particularly on its tributary, the Mușchiosul Mare Valley (Figure 1). Mraconia is an important watercourse in IGNP, measuring 19 km in length (Manolache et al. 2022), as the area is part of the Almăj Mountains (Mândruț 2006). The valley is followed by a forest road that is still in use (two timber trucks passed as we walked along the forest road). In the valley, we walked a 4-km-long transect that followed the forest road and the valley. The weevils we observed accidentally, as we did not specifically target these insects, but other invertebrate and vertebrate groups. The individuals were directly observed on *Petasites* sp. leaves, located between the road and the watercourse. *L. glabrirostris* was observed and identified in the field due to its characteristic appearance. We also collected two individuals, which were subsequently determined in the laboratory using scientific literature (Kippenberg 1983, Rheinheimer & Hassler 2010, Pešić 2021) and subsequently stored in the personal collection of the first author.

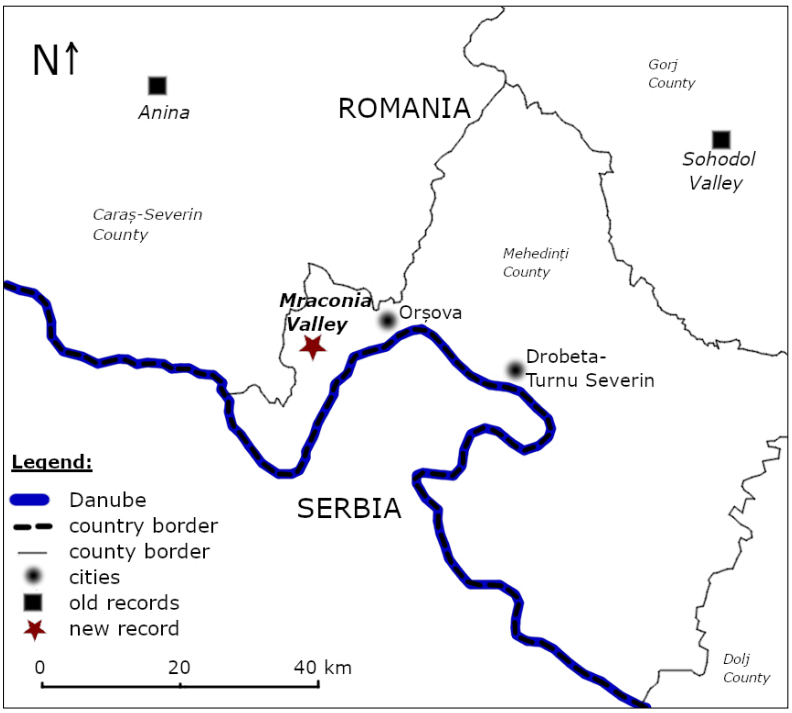

Figure 1. Distribution of *L. glabrirostris* in southwestern Romania (old records according to Teodor et al. 2024)

RESULTS

In the Mușchiosul Mare valley, located in the Mraconia basin, we have identified 12 *L. glabrirostris* individuals, in a region where the species had not been previously mentioned (Figures 1 and 2). The individuals were observed on *Petasites* sp. leaves, along the edges of the forest road that follows the valley. The valley is narrow, with steep slopes covered with forests (mainly beech forests). Thus, at least in the spring, the valley has high humidity and is shaded in many places. The habitat is situated at an altitude of approximately 400 meters (44°41’45” N, 22°11’50” E). It extends for several hundred meters along the valley because most of the valley was devoid of *Petasites* sp. plants, as the vegetation from the road edges was removed by forestry equipment during recent maintenance works. Among *L. glabrirostris* individuals observed on *Petasites* sp., some had already begun their reproductive period, as evidenced by the observation of two pairs in amplexus.

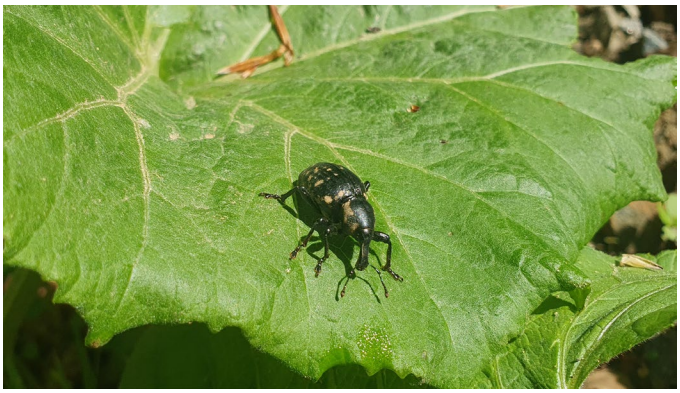

Figure 2. *Liparus glabrirostris* on *Petasites* sp. leaf in the Mușchiosul Mare Valley.

DISCUSSION

The identification of *L. glabrirostris* in IGNP is a premiere not only for the protected area, but also for the Almăj Mountains and Danube Gorge regions, as indicated in the literature (Teodor et al. 2024). At the same time, this is the distribution record closest to the Danube and the southernmost in the country, situated more than 100 km from the previous locations (Teodor et

al. 2024, *Liparus glabrirostris* Küster, 1849, in GBIF Secretariat 2023). The presence of the species on Mușchiosul Mare valley is not unusual from the perspective of its ecological requirements, as the valley is surrounded by wet, deciduous forests, riparian habitats with *Petasites* sp., thus, habitats characteristic of *L. glabrirostris* (e.g., Kuśka 2004, Pedroni & Pesarini 2005, Mazur 2002, Lotrean & Manu 2017, Teodor et al. 2024). *L. glabrirostris* is associated with forested valleys, situated along watercourses (Lachowska-Cierlik et al. 2020). In northern Poland, *Petasites* sp. is associated with shady places characterized by lower temperatures and high humidity, as well as deep valleys with forested slopes and streams (Sikora et al. 2015), similar to those found in IGNP. The altitude is nevertheless low, at only 400 meters, compared to the previous data, which included many locations in mountainous areas, as the distribution range generally follows the Carpathians (Teodor et al. 2024). *L. glabrirostris* was observed in Serbia as well, but also in a mountainous area (Pešić 2021). Mountain weevils at low altitudes have been previously encountered in Romania, in the case of another genus, in the IGNP, as road traffic victims (Teodor et al. 2019).

On the other hand, the presence of *L. glabrirostris* on the Danube Gorge at a low altitude is explained by the region's particularities; however, what is difficult to understand is the apparent isolation and distance from other distribution records. Thus, the Danube Gorge has been known for some time as sheltering at low altitudes species traditionally considered as mountainous, both in plants and animals (e.g., Pașcovschi 1956, Covaciu-Marcov et al. 2009, Schneider-Binder 2016, Teodor et al. 2019, Petruș-Vancea et al. 2024), a fact true also for the gorge's neighboring areas (Ferenți & Covaciu-Marcov 2014, 2018, Groza et al. 2021). The same is also true for Mraconia Valley, where the presence of beech at low altitudes has been known for some time (see Pașcovschi 1956, Arsene et al. 2015). However, this situation is also applicable to other plant species that are present here at the lowest altitude in the Carpathians (Schneider-Binder 2016). Additionally, in another valley located to the east (Eșelnița), low-latitude *Vaccinium myrtillus* populations, considered relicts, were recently recorded, alongside *Calluna vulgaris* (Petruș-Vancea et al. 2024). Thus, the explanation for the presence of *L. glabrirostris* is the same as in the previous cases, but it remains to be seen whether the population from IGNP is isolated from other populations. It is somewhat difficult to understand how a species as obvious as *L. glabrirostris* was not mentioned previously in IGNP, but the large surface of the park and the insufficient studies could be causes, a fact

sustained by the recent identification for the first time in the region of other insect species with the same size (e.g., Ruicănescu et al. 2022, Dumbravă & Ruicănescu 2023). Those species are southern elements that reach their northern distribution limit in IGNP (Ruicănescu et al. 2022, Dumbravă & Ruicănescu 2023), and so they could advance recently from the south, but on the contrary, *L. glabrirostris* is a species present in the region at its southern distribution range limit (*Liparus glabrirostris* Küster, 1849 in GBIF Secretariat 2023). A lineage distinct from others was recently identified in the Făgăraș Mountains, necessitating further studies, as it could have originated from populations in the Dinaric Mountains (Lachowska-Cierlik et al. 2020). The population from IGNP, which is geographically intermediate between these two locations, could likely sustain the presumption mentioned above. Thus, it remains to be seen what the real distribution of the species in the region is, its possible connection with neighboring populations, and eventually, further genetic studies will clarify the status of this population. At the same time, the species had multiple glacial refuges in the Carpathians (most likely in the southern Carpathians) and the Alps, partially aligning with the concept of northern refuges in Europe (Lachowska-Cierlik et al. 2020). Thus, it is quite possible that the species survived in the Last Glacial Maximum in the Danube Gorge areas, like other species (e.g., Wielstra et al. 2015, Triest et al. 2024), moreover, because this location is near the species' southern distribution range limit (*Liparus glabrirostris* Küster, 1849 in GBIF Secretariat 2023).

In other cases, the possibility of *L. glabrirostris* distribution downstream on large watercourses has been raised (Sikora et al. 2015). In IGNP, this possibility is ruled out because to reach the Mușchiosul Mare valley, the species would have to advance upstream more than 10 km through a mountain valley with fast-flowing water. The only possibility in which the species could be introduced in the area, in case it was, although on the Danube Gorge there are plenty of mountain elements at low altitudes (e.g., Pașcovschi 1956, Covaciu-Marcov et al. 2009, Schneider-Binder 2016, Petruș-Vancea et al. 2024), is with forestry equipment, a fact that was previously indicated as possible in the case of a lizard (Maier et al. 2022). Nevertheless, in this case, the presence of other *L. glabrirostris* populations is not known in the vicinity of Mușchiosul Mare valley; thus, the introduction mediated by forestry activities is even less plausible. In northern Poland, the isolated *L. glabrirostris* populations are considered relicts, which suggests that their distribution range was once larger; alternatively, they are

considered to represent a secondary distribution facilitated by passive transport along rivers (Sikora et al. 2015). Nevertheless, the first hypothesis is probably the valid one, because in that region, other species related to mountains (*Salamandra salamandra* and *Ichthyosaura alpestris*) have been identified at low altitudes in areas south of the Baltic Sea, as they are also considered relicts (Litvinchuk 1996, Jakóbik et al. 2019). Those species are present together with *L. glabrirostris* also in other cases, as they have similar ecological requirements, a fact true also on the Danube Gorge, where both *S. salamandra* and *I. alpestris* are present at low altitudes (Pașcovschi 1956, Iftime 2005, Covaciu-Marcov et al. 2009, 2022, 2025, Cicort-Lucaciu et al. 2017).

Another relevant aspect of *L. glabrirostris'* presence in IGNP is that it was identified at the end of April, despite being reported from May in other cases (Sikora et al. 2015). Although the time difference is reduced, it still demonstrates that the species initiated its life cycle earlier in IGNP. The situation is not unique to the Danube Gorge, an area where other animals begin their activity earlier, finish it later, or remain active during the winter (e.g., Covaciu-Marcov et al. 2022, Cupșa et al. 2024).

Our data confirm that the distribution range of *L. glabrirostris* in Romania mainly overlaps with the Carpathians (Teodor et al. 2024). The presence of the species in the Mușchiosul Mare valley is relevant from both the perspective of a new distribution record and because its distribution range limit in Romania shifts southwards with this location, a fact related to the earlier onset of activity. Nevertheless, the population seems small; it is strictly located, and the forest road was recently upgraded, a fact that affected the plants to which the species is related. Road traffic is known to impact the weevils (Teodor et al. 2019), and *L. glabrirostris* was killed even on hiking trails (Ciach et al. 2017). Thus, there are numerous pressures on this species in IGNP. In other regions, such as northern Poland, it is considered a component of the local fauna linked to natural forests, a fact that could make *L. glabrirostris* an umbrella species, as proposed for strict protection, despite currently having no conservation status (Sikora et al. 2015). Moreover, the necessity of searching for the species in its characteristic habitat from May to July was also indicated in other regions (Sikora et al. 2015), a fact that should be considered in the future, including in IGNP. Isolated low-altitude populations are particularly vulnerable to extinction due to climate change (Lachowska-Cierlik et al. 2020). This represents an additional pressure on the populations in the Danube Gorge, as the summers of the last few years

have been increasingly warmer (see Ionita & Nagavciuc 2025), a trend that is likely to continue in the future, especially in southern Romania (Antonescu et al. 2023). The presence of *L. glabrirostris* in IGNP is not just another indication of the region's biogeographic peculiarities but also highlights the need for future studies on insect distribution in the protected area.

ACKNOWLEDGEMENTS. This study was conducted with the support and in collaboration with the Iron Gates Natural Park administration, as part of activities dedicated to investigate the park's biodiversity.

REFERENCES

Antonescu, B., Ene, D., Boldeanu, M., Andrei, S., Mărmureanu, L., Marin, C., Pîrloagă, R. (2023): Future changes in heatwaves characteristics in Romania. Theoretical and Applied Climatology 153: 525-538.

Arsene, G.-G., Imbrea, I.M., Nicolin, A.L., Neacșu, A.-G. (2015): Flora and vegetation of Romanian Banat: an overview. Research Journal of Agricultural Science 47(3): 3-14.

Chowdhury, S., Zalucki, M.P., Hanson, J.O., Tiatragul, S., Green, D., Watson, J.E.M., Fuller, R.A. (2023). Three-quarters of insect species are insufficiently represented by protected areas. One Earth 6: 1-8.

Ciach, M., Maślanka, B., Krzus, A., Wojas, T. (2017): Watch your step: insect mortality on hiking trails. Insect Conservation and Diversity 10(2): 129-149.

Cicort-Lucaciu, A.-Ș., Bondar, A., Covaciu-Marcov, S.-D. (2017): The alpine newt *Ichthyosaura alpestris* in Almăj Mountains, south-western Romania – 10 km upstream the Danube. Oltenia. Studii și Comunicări. Științele Naturii 33(1): 127-130.

Covaciu-Marcov, S.-D., Cicort-Lucaciu, A.-Şt., Gaceu, O., Sas, I., Ferenţi, S., Bogdan, H.V. (2009): The herpetofauna of the south-western part of Mehedinţi County, Romania. North Western Journal of Zoology 5(1): 142-164.

Covaciu-Marcov, S.-D., Lucaciu, B.-I., Maier, A.-R.-M., Cadar, A.-M., Ile, G.-A., Dumbravă, A.-R., Ferenți, S. (2022): Beyond the victim number: faunistic and ecological data from a road-mortality study in the Iron Gates Natural Park, Romania. Eco Mont – Journal on Protected Mountain Areas Research and Management 14(1): 4-13.

Covaciu-Marcov, S.-D., Dumbravă, A.-R., Ferenți, S. (2025): Searching for the missing newts: notes on newt distribution in the Iron Gates Natural Park, Romania. Eco.mont – Journal on Protected Mountain Areas Research and Management 17(1): 17-24.

Cupșa, D., Covaciu-Marcov, S.-D., Rengle, R.-L.-M., Dumbravă, A.-R., Ferenți, S., Petruș-Vancea, A. (2024): Can wildlife mortality on a local road tell something general? An answer from a protected area in south-western Romania. Turkish Journal of Zoology 48: 84-97.

Dumbravă, A.-R., Ruicănescu, A. (2023): Large, but hard to see: first record of a large European hoverfly *Milesia crabroniformis* (Diptera, Syrphidae) in Romania. South-Western Journal of Horticulture, Biology and Environment 14(1): 51-56.

Ferenţi, S., Covaciu-Marcov, S.-D. (2014): Relict populations of *Hyloniscus transsilvanicus*

and *Ligidium germanicum* in the Blahnița Plain, south-western Romania. Spixiana 37(1): 69-72.

Ferenți, S., Covaciu-Marcov, S.-D. (2018): Beyond the rule: a mountainous cave species, *Mesoniscus graniger* (Isopoda, Oniscidea) on a plain of south-western Romania. Oltenia. Studii și Comunicări. Științele Naturii 34(1): 89-92.

Groza, M.-I., Cupșa, D., Lovrenčić, L., Maguire, I. (2021): First record of the stone crayfish in the Romanian lowlands. Knowledge & Management of Aquatic Ecosystems 422: 27.

Iftime, A. (2005): New observations on the herpetofauna from Domogled-Valea Cernei National Park and Porțile de Fier Natural Park (Romania). Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa» 48: 327-337.

Ionita, M., Nagavciuc, V. (2025): 2024: The year with too much summer in the eastern part of Europe. Weather, https//doi.org/10.1002/wea.7696.

Jakóbik, J., Janowski, P., Błażuk, J., Narczyński, T., Pabijan, M. (2019): An alpine newt (*Ichthyosaura alpestris*) population on the Baltic coast of Poland. Herpetology Notes 12: 923-930.

Kippenberg, H. (1983): Unterfamilie Hylobiinae pp. 121-154. In: Freude, H., Harde, K.W., Lohse, G.A. (eds.), Die Käfer Mitteleuropas, 11, Goecke & Evers, Krefeld, 342 pp. [in German].

Kuśka, A. (2004): Kierunki zmian w faunie chrząszczy (*Coleoptera*) Ojcowskiego PN w wyniku sukcesji ekologicznej. (Directions of changes in the beetle fauna (*Coleoptera*) of the Ojców National Park as the result of ecological succession. Wiadomości Entomologiczne 23 suppl.2: 167-169. [in Polish].

Lachowska-Cierlik, D., Zając, K., Mazur, M.A., Sikora, A., Kubisz, D., Kajtoch, Ł. (2020): The Origin of Isolated Populations of the Mountain Weevil, Liparus glabrirostris—The Flagship Species for Riparian Habitats. Journal of Heredity, 111(4): 357-370.

Liparus glabrirostris Küster, 1849 in GBIF Secretariat (2023). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2025-07-03.

Litvinchuk, S.N. (1996): On records of *Salamandra salamandra* in the south-eastern part of the Baltic region. Russian Journal of Herpetology 3(2): 196-198.

Lotrean, N., & Manu, M. (2017): Data on the coleopteran (Insecta: Coleoptera) fauna from the Leaota Mountains (Romania). Argesis - Studii şi comunicări - seria Ştiinţele Naturii 25: 77-100.

Maier, A.-R.-M., Cupșa, D., Ferenți, S., Cadar, A.-M. (2022): New records of *Darevskia praticola* at the northern limits of its distribution range in Romania. Herpetozoa 35: 45-50.

Manolache, S., Rozylowicz, L., Pătroescu, M., Dumbravă, A.R. (2022): Iron Gates Natural Park biodiversity. In: Iron Gates Natural Park Monograph. Coordonatori: Rozylowicz, L., Pătroescu, M., Jiplea, M.C., Ed. Culturae Hereditatem, pp: 85-125. [in Romanian].

Mazur, M. (2002): The distribution and ecology of weevils (Coleoptera: Nemonychidae, Attelabidae, Apionidae, Curculionidae) in western Ukraine. Acta zoologica cracoviensia, 45(3): 213-244.

Mândruţ, O. (2006): Mic Atlas de Geografie a României. Ed. Corint, Bucharest, 1-48. [in Romanian].

Mitrović, M., Tomanović, Ž., Jacovljević, M., Radović, D., Havelka, J., Stary, P. (2016): Genetic differentiation of *Liparus glabrirostris* (Curculionidae: Molytinae) populations from the fragmented habitats of the Alps and Carpathian Mountains. Bulletin of Entomological Research 106: 651-661.

Murgoci, A. (1975): *Trichoptera*. În Grupul de Cercetări Complexe Porțile de Fier, seria monografică, Fauna, 101-107. [in Romanian].

Mühlethaler, R., Köthe, S., Hörren, T., Sorg, M., Eichler, L., Lehmann, G.U.C. (2024): No recovery in the biomass of flying insects over the last decade in German nature protected areas. Ecology and Evolution 14: e11182.

Paşcovschi, S. (1956): Câteva consideraţii biogeografice asupra Munţilor Banatului. Ocrotirea Naturii 2: 111-134. [in Romanian].

Pedroni, G., Pesarini, C. (2005): Coleotteri Apionidae e Curculionidae oltre il limite altitudinale del bosco nell'apennino Tusco-Emiliano (Coleoptera, Apionidae, Curculionidae). Redia 58: 67-78.

Pešić, S. (2021): *Liparus (Liparus) glabrirostris* Küst. and *Hylobius (Callirus) abietis* (L.) (Coleoptera: Curculionidae) first records for Serbia. Kragujevac Journal of Science 43: 157-165.

Petruș-Vancea, A., Cupșa, D., Ferenți, S., Dumbravă, A.-R., Covaciu-Marcov, S.-D. (2024): Low altitude *Vaccinium myrtillus* L. populations in the Eșelnița Valley (Danube Gorge, Carpathian Mountains, Romania). Journal for Nature Conservation 82: 126730.

Rheinheimer, J., Hassler, M. (2010): Die Rüsselkäfer Baden-Württembergs: Naturschutz-Spectrum, Themen 99, Verlag Regionalkultur Heidelberg, Basel, 944 S. [auf Deutsch].

Ruicănescu, A., Dumbravă, A.-R. (2020): First record of *Kisanthobia ariasi* (Coleoptera: Buprestidae) in Romania. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa" 63(2): 189-194.

Ruicănescu, A., Dumbravă, A.-R., Drăghici, A.-C. (2022): *Capnodis cariosa* (Pallas, 1776) found in a new Romanian location at the northern limit of its distribution range (Coleoptera: Buprestidae). Fragmenta Entomologica 54(1): 155-158.

Schneider-Binder, E. (2016): Riparian vegetation on the left tributaries of the Danube along the "Clisura" cross valley. Transylvanian Review of Systematical and Ecological Research 18(3): 15-30.

Sikora, A., Zieliński, S., Giłka, W. (2015): Rozpucz lepiężnikowiek *Liparus glabrirostris* (Coleoptera: Curculionidae) na północy Posky – wistępowanie i propozycje ochrony. (*Liparus glabrirostris* (Coleoptera: Curculionidae) in northern Poland – occurrence and protection proposals). Chrońmy Przyrodę Ojczystą 71(5): 388-395. [in Polish].

Teodor, L.A., Teodor, B. (2007): Curculionidele (Coleoptera: Curculionidae) din zona Rimetea (Munții Apuseni, România). Buletin de Informare Entomologică 18: 79-90. [in Romanian].

Teodor, L.A., Ferenţi, S., Covaciu-Marcov, S.D. (2019): Weevils die in vain? Understanding messages from road-killed weevils (Coleoptera: Curculionoidea). Coleopterists Bulletin 73(2): 359-368.

Teodor, L.A., Bec, E., Crișan, A. (2024): The distribution of weevils from the genus *Liparus* Olivier, 1807 (Coleoptera, Curculionidae, Molytinae) in Romania. WEEVIL News 119: 10 pp.

Triest, L., Van Rossum, F., Sramkó, G., Sierens, T., Volkova, P. (2024): Over the hills and far away: phylogeography and demographic migration history of a dispersal-restricted primrose (*Primula vulgaris*). Frontiers in Ecology and Evolution 12: 1333726.

Wielstra, B., Babik, W., Arntzen, J.W. (2015): The crested newt *Triturus cristatus* recolonized temperate Eurasia from an extra-Mediterranean glacial refugium. Biological Journal of the Linnean Society 114: 574-587.