

Dolichus halensis (Schaller, 1783) (Coleoptera: Carabidae) and *Mogulones abbreviatulus* (Fabricius, 1792) (Coleoptera: Curculionidae) new to Estonia

Matias Mustonen & Juha Siitonen

Mustonen, M. & Siitonen, J. 2020. *Dolichus halensis* (Schaller, 1783) (Coleoptera: Carabidae) and *Mogulones abbreviatulus* (Fabricius, 1792) (Coleoptera: Curculionidae) new to Estonia. — Sahlbergia 26(1-2): 15–17.

Two species of Coleoptera are reported as new to Estonia. Two specimens of the ground beetle *Dolichus halensis* (Schaller, 1783) were recorded in Saare County and a single specimen of the true weevil *Mogulones abbreviatulus* (Fabricius, 1792) was recorded in Pärnu County during the years 2015–2019. Both species are likely to have recently spread to Estonia from more southern regions.

Kaksi kovakuoriaislajia ilmoitetaan ensimmäistä kertaa Virosta. *Dolichus halensis* (Schaller, 1783) -maakiitäjäinen tavattiin kahdesti Saarenmaalta ja *Mogulones abbreviatulus* (Fabricius, 1792) -kärsäkäs kerran Pärnumaalta vuosina 2015–2019. Molemmat lajit ovat todennäköisesti levinneet hiljattain Vieroon etelän suunnasta.

Matias Mustonen, Mäntyläntie 12 A 4, FI-33420 Tampere, Finland. Email: mustonen.matias@gmail.com

Juha Siitonen, Natural Resources Institute Finland (Luke), PO Box 2, FI-00791 Helsinki, Finland. Email: juha.siitonen@luke.fi

After the publication of the latest checklist of Northern European Coleoptera (Silfverberg 2010), a large number of new beetle species have been reported from Estonia (particularly in Roosileht 2015, also Siitonen 2013, Silfverberg 2014, Siitonen & Salokannel 2015). Active entomologists and expanding southern and southeastern species will probably ensure that the trend will continue in the future. In this short communication, *Dolichus halensis* (Schaller, 1783) and *Mogulones abbreviatulus* (Fabricius, 1792) are reported as new species to Estonia with some further information about the records.

Dolichus halensis (Schaller, 1783)

The first Estonian specimen of *D. halensis* was found in Saare County, Saaremaa Parish, Mändjala village, 58.209 °N, 22.313 °E (WGS84), on 27th July, 2015 (J. Siitonen leg.). The specimen was found on a sandy beach under seaweed and other debris flushed to the shore by a strong southeastern wind. It seemed probable that the specimen was a drift from the mainland, Kolka cape in Latvia, or further south.

The second specimen (Fig. 1) was found in Saare County, Saaremaa Parish, Paimala village, 58.282 °N, 22.584 °E (WGS84), on 18th August, 2019 (M. Mustonen leg., ID: MMu19-608). The single specimen was found on the ground in a harvested grainfield (Fig. 2). The weather was warm and sunny and the specimen was actively running. The place of discovery was located approximately four kilometers from the seashore. An inland record from a habitat that is typical for the species may indicate that the species has an established local population.



Figure 1. *Dolichus halensis* (Schaller, 1783), 15.8 mm (specimen MMu19-608). Photo by Keijo Mattila.



Figure 2. Harvested grainfield in Paimala village, the habitat of *Dolichus halensis*. Photo by Matias Mustonen

The ground beetle (Carabidae) *D. halensis* (Schaller, 1783) is a rather large (13–19 mm) predatory beetle with a Palearctic distribution. It is the only European species of its genus and usually easily recognizable by its size, yellow slender appendages, yellow pronotal side margins and the large rufo-testaceous patch in the anterior half of its elytra. It prefers habitats with cultural influence and lives especially on open, cultivated fields (Lindroth 1944, 1986, Freude *et al.* 1976). The adults are most numerous in the breeding time in late summer. Only larvae overwinter.

According to Lindroth (1986), the species is a pronounced steppe element in Swedish fauna which probably only intermittently breeds in the country, population maintenance being dependent on immigration from the south or east. During the 19th century it was a rather common species in Denmark and in the western parts of Scania but in the beginning of the 20th century it virtually disappeared from these countries (Lindroth 1944, Hallqvist *et al.* 2010). In Sweden, the species was classified as a nationally extinct in the early 21st century (Gärdenfors 2005). Some older records from Latvia and Lithuania have been reported (Ogijewicz 1933, Lindroth 1944) but the possible changes in the Baltic populations are inadequately known.

However, at present the species seems to have established populations both in southern Sweden and southern Baltic area. In Sweden, the species was rediscovered in 2003 after a long absence and since that it has been recorded in the six southernmost Swedish provinces up to Gotland (Hallqvist *et al.* 2010, ArtDataBanken 2019).

In Lithuania, the species has been regularly caught by pit-fall traps in grainfields during recent years (e.g. Tamutis *et al.* 2004, 2007, Kazlauskaitė *et al.* 2015) and it has also been found in several locations in Latvia (Telnov *et al.* 2016). There are no records from Finland or Norway, but it may be expected that the species continues its expansion further in Northern Europe.

Mogulones abbreviatulus (Fabricius, 1792)

The first Estonian specimen of *M. abbreviatulus* (Fig. 3) was found in Pärnu County, Tori Parish, Tori alevik, 58.483 °N, 24.816 °E (WGS84), on 18th June, 2018 (M. Mustonen leg., ID: MMu18-350). The specimen was found by sweep-netting on the bank of Pärnu river, under the well-known sandstone outcrops (Fig. 4). The species composition of vegetation was not recorded, but the host plant species *Symphytum officinale* was probably present.

The weevil (Curculionidae) *M. abbreviatulus* (Fabricius, 1792) is a comparatively large (4.6–5.7 mm) member of the subfamily Ceutorhynchinae. The species has a Central European distribution, from Spain in the west to the southeastern parts of European Russia in the east (Rheinheimer & Hassler 2010). It lives mainly on sandy riverbanks, feeding exclusively on comfrey, *Symphytum officinale*. It is separated from the related species especially by its large size, smooth prosternum without a rostrum furrow, and the rather indistinct white transverse band on its elytra (Dieckmann 1972, Freude *et al.* 1999).

M. abbreviatulus is already known from Lithuania (Silfverberg 2004) and Latvia where it was first recorded in 2003 (Telnov *et al.* 2005). In Germany, it is a widely distributed but rare



Figure 3. *Mogulones abbreviatulus* (Fabricius, 1792), 6.0 mm (specimen MMu18-350). Photo by Keijo Mattila.



Figure 4. The bank of Pärnu river in Tori, the habitat of *Mogulones abbreviatulus*. Photo by Matias Mustonen

species (Rheinheimer & Hassler 2010). The species has not yet been recorded in Denmark or Fennoscandia, but the beetle could be found from suitable habitats in other new regions as well as its host plant *S. officinale* is relatively common in the southern parts of the Nordic countries.

Acknowledgements

We thank Christoffer Fägerström (Lund University) and Jaakko Mattila (Natural History Museum of Helsinki) for confirming the determinations. Uno Roosileht (Estonian Museum of Natural History) and Vytautas Tamutis (Vytautas Magnus University) shared us information about the Estonian and Lithuanian records. The specimens were photographed by Keijo Mattila.

References

- ArtDataBanken 2019: Artfakta: Åkerlöpare, *Dolichus halensis*. — <https://artfakta.se/naturvard/taxon/100847>. [Retrieved in 18.3.2020]
- Dieckmann, L. 1972: Beiträge zur Insektenfauna der DDR: Coleoptera — Curculionidae: Ceutorhynchinae. — Beiträge zur Entomologie 22: 3–128.
- Freude, H., Harde, K. W. & Lohse, G. A. 1976: Die Käfer Mitteleuropas, Band 2: Adephegata 1. — Goecke & Evers Verlag, Krefeld.
- Freude, H., Harde, K. W. & Lohse, G. A. 1999: Die Käfer Mitteleuropas, Band 2: Curculionidae 2. — Springer Spektrum, Heidelberg.
- Gärdenfors, U. (ed.) 2005: Rödlisade arter i Sverige 2005. — ArtDataBanken, Uppsala.
- Hallqvist, J., Winqvist, C. & Lindelöw, Å. 2010: Fynd av åkerlöpare *Dolichus halensis* och axlöpare *Zabrus tenebrioides* (Coleoptera, Carabidae) i södra Sverige. — Entomologisk Tidskrift 131(3): 29–33.
- Kazlauskaitė, S., Mulercikas, P., Tamutis, V., Zebrauskienė, A. & Survilioniene, E. 2015: Distribution and dynamics of the ground beetle (Coleoptera, Carabidae) and the click beetle (Coleoptera, Elateridae) species abundance in organic and intensively cultivated cereal crops. — In: Raupelienė, A. (ed.), Proceedings of the 7th International Scientific Conference Rural Development 2015. Kaunas, Lithuania, 19-20th November 2015. DOI 10.15544/

- RD.2015.061.
- Lindroth, C. H. 1944: Die Fennoskandischen Carabidae: Eine Tiergeographische Studie. — Elanders Boktryckeri AB, Göteborg.
- Lindroth, C. H. 1986: The Carabidae (Coleoptera) of Fennoscandia and Denmark. — Fauna Entomologica Scandinavica 15(2): 233–497.
- Ogijewicz, B. 1933: Przyczynek do znajomości chrząszczy (Adephaga i Palpicornia) okolic Wilna i Trok [Contribution to the knowledge of beetles (Adephaga and Palpicornia) in Vilnius and Trakai environs]. — Prace Towarzystwa Przyjaciół Nauk w Wilnie 7: 1–48.
- Rheinheimer, J. & Hassler, M. 2010: Die Rüsselkäfer Baden-Württembergs. — Verlag Regionalkultur, Karlsruhe. ISBN 9783897356085.
- Roosileht, U. 2015: Estonian additions to Silfverberg's „Enumeratio renovata Coleopterorum Fennoscandiae, Daniae et Baltiae“ Coleoptera catalog. — Sahlbergia 21(2): 6–39.
- Siitonen, J. 2013: Three beetle (Coleoptera) species new for Estonia found in Saaremaa Island. — Sahlbergia 19(1–2): 41–43.
- Siitonen, J. & Salokannel, J. 2015: Beetle (Coleoptera) species new for Estonia found in Saaremaa island 2. — Sahlbergia 21(1): 6–11.
- Silfverberg, H. 2004: Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. — Sahlbergia 9(1): 1–111.
- Silfverberg, H. 2010: Enumeratio renovata Coleopterorum Fennoscandiae, Daniae et Baltiae. — Sahlbergia 16(2): 1–144.
- Silfverberg, H. 2014: Changes and additions to Enumeratio renovata Coleopterorum Fennoscandiae, Daniae et Baltiae. — Sahlbergia 20(2): 39–53.
- Tamutis, V., Monsevicius, V. & Pekarskas, J. 2004: Ground and rove beetles (Coleoptera; Carabidae, Staphylinidae) in ecological and conventional winter wheat fields. — Baltic Journal of Coleopterology 4(1): 31–40.
- Tamutis, V., Ziogas, A., Saluchaite, A., Kazlauskaitė, S. & Amsiejus, A. 2007: Epigeic beetle (Coleoptera) communities in summer barley agrocenoses. — Baltic Journal of Coleopterology 7(1): 83–98.
- Telnov, D., Gailis, J., Kalnins, M., Napolov, A., Piterans, U., Vilks, K. & Whitehead, P. F. 2005: Contributions to the Knowledge of Latvian Coleoptera. 4. — Latvijas Entomologs 42: 18–47.
- Telnov, D., Bukejs, A., Gailis, J., Kalnins, M., Kirejtshuk, A. G., Piterans, U. & Savich, F. 2016: Contributions to the knowledge of Latvian Coleoptera. 10. — Latvijas Entomologs 53: 89–121.

