

## Contribution to the knowledge of long-horned beetles (Coleoptera: Cerambycidae) in Latvia

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The current paper provides data on the occurrence and distribution of 48 long-horned beetle species in Latvia. One species – *Grammoptera ustulata* (Schaller, 1783) – is reported for the first time for the fauna of the Baltic states (incl. Latvia). Two species – *Agapanthia violacea* (Fabricius, 1775) and *Phytoecia pustulata* (Schrank, 1776) – are new for the Latvian fauna. New findings for a number of rare species are presented. For two species – *Stenurella bifasciata bifasciata* (O.F.Müller, 1776) and *Phytoecia virgula* (Charpentier, 1825) – the tendency to expand their range northwards is detected. This finding, possibly, indicates climate changes.

Key words: Cerambycidae, Coleoptera, fauna, Latvia

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### INTRODUCTION

The long-horned beetle family (Coleoptera: Cerambycidae) is one of the best investigated both in Latvia and all of Europe. At present, 122 long-horned beetle species are known in the Latvian fauna (Silfverberg, 2010). During the last 30 years the fauna of Cerambycidae in Latvia has been investigated intensively, but, nevertheless, new species for the Latvian fauna are regularly found. During 30 years after publication of the Latvian checklist on Cerambycidae (Spuris 1984), which includes 102 species, 20 additional long-horned beetle species were discovered and published (Barševskis 2001, 2009, Barševskis et al. 2009, 2012).

The main purpose of the present publication is to make a contribution to the knowledge of the fauna and distribution of long-horned beetles in Latvia. New data on the distribution of 49 Cerambycidae species are provided. Most species mentioned in the list are either rare or little known in Latvia, or there are some gaps in the distribution data.

### MATERIALS AND METHODS

Data for the present publication were collected in Latvia during the period of 1999-2013. Altogether, 164 specimens belonging to 48 species were checked. All specimens which are mentioned

in this paper are kept in the collection of the Coleopterological Research Center, Institute of Systematic Biology, Daugavpils University (DUBC, Ilgas, Daugavpils Distr., Latvia).

In the species list after the species name the finding place, collecting date, number of collected specimens (in brackets), and name of collector (in brackets) are given. For some species additional information about, e.g., the biotope are

provided. All finding places are shown in Fig. 1. The map was drawn up using *Arcgis* software. The main material was collected by entomological nets (sweeping or netting) and window traps (Fig. 2) in different habitats. Some specimens were obtained by light traps or malayse traps (Fig. 3). The research was carried out using the digital stereomicroscope *Nikon AZ100* and the *NIS-Elements 6D* software package. Photos of the habitats and some species of long-horned beetles

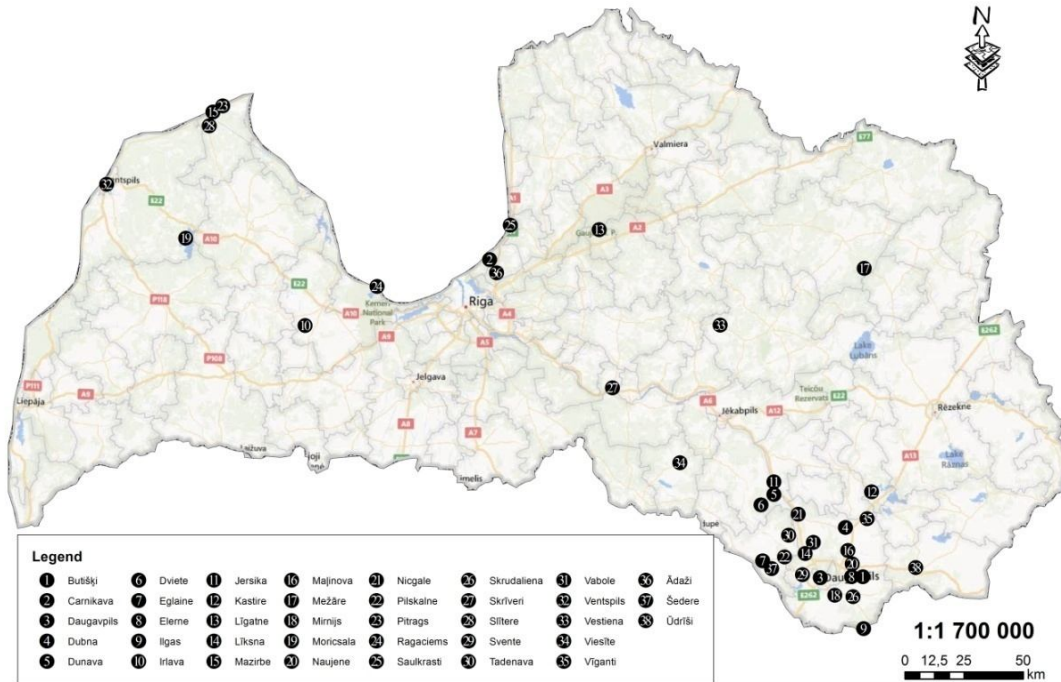


Fig. 1. Locations of material collection in Latvia



Fig. 2. Windows traps in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis



Fig. 3. Malayse traps in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis

was carried out using the camera Canon Eos 1 Mark II Ds.

## RESULTS AND DISCUSSION

New data on the distribution of 48 long-horned beetle species are presented. One species – *Grammoptera ustulata* (Schaller, 1783) – is a new species for both the Latvian and pan-Baltic fauna while two species – *Agapanthia violacea* (Fabricius, 1775) and *Phytoecia pustulata* (Schrank, 1776) – are new for the fauna of Latvia. *Grammoptera ustulata* (Schaller, 1783) was already mentioned for the Latvian fauna (vicinity of Salaspils and Zlēkas) almost 200 years ago (Precht 1818, Kawall 1868). Voucher specimens are not present in collections. During the last 150 years of investigation this species was never found in Latvia again and therefore omitted from the Latvian coleopterological fauna (Spuris 1984). *Grammoptera ustulata* (Schaller, 1783) is widespread in most parts of Europe – from the British islands and France in the west until Poland, Belarus, and central parts of Russia in the east, also in Caucasus, Transcaucasus, and the northern part of Turkey (Sama 2002). In Northern Europe it is reported for Norway, Sweden, and Denmark (Silfverberg 2010). In Latvia this species was discovered in natural meadows with solitary trees in the valley of the Pēdēze river. *Agapanthia violacea* (Fabricius, 1775) was reported by Precht (1818) without exact data of the finding. Kawall (1868) cited the information by Precht. No voucher specimens are found in collections. Because this species was never registered in Latvia again, it was omitted from the Latvian coleopterological list (Spuris 1984). *Agapanthia violacea* (Fabricius, 1775) is widely distributed in Central and Southern Europe, Asia Minor, Caucasus and Western Siberia; the northern border crosses Poland and Belarus (Sama 2002). During recent years a northward expansion was observed in Poland (J.M. Gutowski pers. com.). In Latvia, this species was discovered in the extreme south-eastern corner of the country – Ilgas (“Silene” Nature Park).

*Phytoecia pustulata* (Schrank, 1776) is reported for the Latvian fauna for the first time. In the Baltic region, it was only known from Lithuania (Tamutis 2011) whereas in the fauna of Northern Europe it is still missing (Silfverberg 2010). *Phytoecia pustulata* (Schrank, 1776) is distributed in Middle and Southern Europe, Asia Minor, Caucasus, Transcaucasus, Kazakhstan, and Western Siberia (Sama 2002). In Latvia, this species is found in the same biotope as the related species *Phytoecia virgula* (Charpentier, 1825), which also expands its range in Latvia since the 1990ies. The development of larvae takes place on different Asteraceae, especially *Achillea millefolium* (Sama 2002).

While investigating the Cerambycidae fauna of Latvia a number of very rare species were discovered. These species comprise *Brachyta interrogationis interrogationis* (Linnaeus, 1758), *Anoplodera sexguttata* (Fabricius, 1775.), *Stictoleptura scutellata* (Fabricius, 1781), *Rutpela maculata maculata* (Poda, 1761), *Obrium brunneum* (Fabricius, 1792), *Cyrtoclytus capra* (Germar, 1824), and *Exocentrus lusitanus* (Linnaeus, 1767), which were only found 1 – 5 times in Latvia until now. Despite the fact that most of them are widespread in Europe, in Latvia they reach the northern or southern range of their distribution. During recent years the authors observed a clear northward expansion of *Stenurella bifasciata bifasciata* (O.F. Müller, 1776) and *Phytoecia virgula* (Charpentier, 1825) in Latvia. This fact along with the expansion of *Agapanthia violacea* (Fabricius, 1775) and *Phytoecia pustulata* (Schrank, 1776) may indicate changes of the climate in the Baltic region. Monitoring of the Baltic distribution-border shift of the species mentioned above may provide important information for understanding global species-distribution developments in connection with climate changes.

The total number of long-horned beetle species in the Latvian fauna is 125.

**LIST OF SPECIES**

(Systematics: Sama 2002)

**Cerambycidae Latreille, 1802**

1. *Tetropium fuscum* (Fabricius, 1787) – Pilskalne (env. Ilūkste), “Pilskalnes Siguldiņa” Nature Park, 06.2013, (3, A. Barševskis leg.); Šlītere, “Zilie kalni” hills, Slītere National Park, 07.2011, (1, DU SBI exp. leg.). Ecologically associated with coniferous trees, mostly on *Picea* (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 4.

2. *Arhopalus rusticus* (Linnaeus, 1758) – Ilgas, “Silene” Nature Park, 30.06.2012, (1, M. Nīcīsis leg.), Jersika, “Kurpnieki”, 10-16.06.2010, (3, A. Barševskis leg.), 17-29.07.2010, (1, A. Barševskis leg.), Moricsala, 06.2010, (3, A. Barševskis leg.). Ecologically associated with *Pinus*, less frequently on other conifers (*Abies*, *Picea*, *Larix*) (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 5.

3. *Rhamnusium bicolor bicolor* (Schrank, 1781) – Šedere, “Jūneļi”, 27.04.2003, (1, R. Cibulskis leg.). Very rare species in Latvia. In Europe, this species is associated mostly with *Aesculus*, *Populus*, *Tilia*, *Ulmus*, *Acer* etc. (Sama 2002).

4. *Oxymirus cursor* (Linnaeus, 1758) – Moricsala Isl., Moricsala Nature Reserve, 16.05.2009, (1, A. Barševskis leg.), 4.06.-14.07.2009, (1, A. Barševskis, R. Cibulskis, U. Valainis, J. Ivanova leg.), 6.05.2011, (2, A. Barševskis leg.), 07.2011, (1, DU SBI exp. leg.); Nīcgale, “Nīcgales meži” Nature Protect. Area, 21.05.2010, (1, M. Janovska leg.). Polyphagous species (Sama 2002). Typical habitats of this species in Latvia as seen in Figs. 4 - 6.

5. *Stenocorus meridianus* (Linnaeus, 1758) – Mazirbe, Vīdale road, Pitragupe riv. bank, 7.05.2010, (1, A. Kārklīš leg.), 7.06.-30.06.2010, (3, A. Pankjāns leg.); Šlītere, “Zilie kalni” hills, Slītere National Park, 5.08.2009, (5, A. Barševskis leg.). Imago in flight in Slītere National Park (Fig. 7). Ecologically associated with deciduous trees,

recorded from *Ulmus*, *Quercus*, *Fagus*, *Fraxinus*, *Acer*, *Malus* etc. Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 8.

6. *Brachyta interrogationis interrogationis* (Linnaeus, 1758) – Ventspils env., Grīži, 31.05.2012, (2, A. Barševskis leg.). Very rare species in Latvia. Larvae subterranean, feeding with *Geranium sylvaticum*. Adults on flowering plants (Sama 2002).

7. *Cortodera femorata* (Fabricius, 1787) – Tadenava, forest between Dviete and Tadenava, 15.05.2011, (1, A. Barševskis leg.). Ecologically associated with older fallen cones of *Pinus*. Adults on flowers of umbellifers or stacked trunks of *Pinus sylvestris* (Sama 2002).

8. *Grammoptera ruficornis ruficornis* (Fabricius, 1781) – Mazirbe, Vīdale road, Pitragupe riv. bank, 7.05.2010, (1, A. Kārklīš leg.). Extremely polyphagous species. Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 9.

9. *Grammoptera ustulata* (Schaller, 1783) – Gulbene loc. municip., Mežāres, “Sitas un Pededzes lejtece” Protected Area, 5.06.2012, (1, K. Aksjuta leg.). New species for the fauna of Latvia and all Baltic States. Polyphagous species, larvae mostly under the bark of dead branches of *Quercus*. Adults on flowers (Sama 2002).

10. *Gaurotes virginea virginea* (Linnaeus, 1758) – Jersika, “Kurpnieki”, 06.2013, (12, A. Barševskis & K. Barševska leg.); Moricsala Isl., Moricsala Nature Reserve, 4-30.06.2009, (1, A. Barševskis, U. Valainis leg.); Vestiena, mixed forest clearing, 07.2011. (8, A. Barševskis, U. Valainis leg.). Ecologically associated mostly with *Picea*. Adults on flowers (Sama 2002).

11. *Judolia sexmaculata* (Linnaeus, 1758) – Ilgas, “Silene” Nature Park, 6.06.2000, (1, A. Barševskis leg.). Polyphagous species, ecologically associated mostly with coniferous trees. Adults on flowers (Sama 2002).

- 12. *Anoplodera sexguttata* (Fabricius, 1775)** – Moricsala Isl., Moricsala Nature Reserve, 06.2006, (2, DU SBI leg.), 4-30.06.2009, (2, A. Barševskis, U. Valainis leg.), 4.06.-14.07.2009, (3, A. Barševskis, R. Cibuļskis, U. Valainis, J. Ivanova leg.), 07.2011, (7, DU SBI exp. leg.); Pilskalne, “Pilskalnes Siguldiņa” Nature Park, 4.07.2001, (1, R. Cibuļskis leg.). Rare species in Latvia. Polyphagous species, ecologically associated mostly with deciduous trees (*Quercus*, *Carpinus*, *Fagus*). Larvae feed in very old branches of *Quercus* etc. (Sama 2002). In Latvia, adults are collected mostly on flowers under *Tilia*. Typical habitat of this species in Latvia as seen in Fig. 10.
- 13. *Stictoleptura scutellata* (Fabricius, 1781)** – Šlītere, “Zilie kalni” hills, Slītere National Park, 5.08.2009, (7, A. Barševskis leg.). Very rare species in Latvia. Known only from Slītere National Park in NE Latvia (env. Šlītere). Polyphagous species, ecologically associated mostly with deciduous trees (*Fagus*, *Quercus* etc.). Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 8. Adult (Fig. 11).
- 14. *Lepturobosca virens* (Linnaeus, 1758)** – Ilgas, “Silene” Nature Park, 28.06.2010, (1, J. Ivanova leg.). Rare species in Latvia. Ecologically associated with coniferous trees, mostly on *Pinus*, sometimes also on deciduous trees (Sama 2002).
- 15. *Leptura annularis annularis* (Fabricius, 1801)** – Līgatne, Gauja National Park, 06.2010, (1, D. Pilate leg.). Rare species in Latvia. Polyphagous species, ecologically associated mostly with deciduous and sometimes coniferous trees. Adults on flowers (Sama 2002).
- 16. *Lepturalia nigripes* (De Geer, 1775)** – Ilgas, “Silene” Nature Park, 06.2013, (1, A. Barševskis leg.). Very rare species in Latvia. Ecologically associated mostly with *Betula* (Sama 2002).
- 17. *Rutpela maculata maculata* (Poda, 1761)** – Mazirbe, Vīdale road, Pitragupe riv. bank, 7.05.2010, (3, A. Kārklīš leg.); Šlītere, “Zilie kalni” hills, Slītere National Park, 5.08.2009, (3, A. Barševskis leg.). Very rare species in Latvia. Polyphagous species, ecologically associated mostly with deciduous and sometimes coniferous trees. Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Figs. 8, 9. Adult (Fig. 12).
- 18. *Stenurella bifasciata bifasciata* (O.F. Müller, 1776)** – Butišķi, “Daugavas loki” Nature Park, 30.07.2008, (1, U. Valainis & R. Cibuļskis leg.); Dignāja, 08.2013, (2, A. Barševskis leg.); Naujene env., Jezupova, Nature Park “Daugavas loki” Nature Park, Daugava riv. valley, 30.07.2008, (1, R. Cibuļskis leg.); Rīteri, 08.2013, (2, A. Barševskis leg.). Polyphagous species. Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 13.
- 19. *Stenurella nigra* (Linnaeus, 1758)** – Mazirbe, Vīdale road, Pitragupe riv. bank, 7.05.2010, (1, A. Kārklīš leg.). Ecologically associated with deciduous trees, recorded from *Betula*, *Corylus*, *Rosa canina*, *Ulmus*, *Quercus*, *Carpinus*, *Frangula* etc. Adults on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 9.
- 20. *Strangalia attenuata* (Linnaeus, 1758)** – Jersika, “Kurpnieki”, 06.2013, (6, A. Barševskis & K. Barševska leg.); Ragaciems, Ķemeri National Park, 13.07.2010, (3, A. Barševskis leg.); Skrudaliena, 9.07.2000, (1, R. Cibuļskis leg.); Svente, “Svente” Nature Park, 29.06.2002, (1, R. Cibuļskis leg.). Polyphagous species, mostly on deciduous trees. In Latvia, collected by windows traps mostly near dead *Betula* and *Alnus*. Adults on flowers (Sama 2002).
- 21. *Necydalis major major* Linnaeus, 1758** – Ilgas, “Silene” Nature Park, 6.06.2013, (1); Moricsala Isl., Moricsala Nature Reserve, windows traps, 07.2012, (1, A. Barševskis, A. Soldāns leg.); Carnikava, 10.07.2012, (1, N. Savenkov leg.). Ecologically associated with deciduous trees. Adults sometimes on flowers (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 14.

- 22. *Hylotrupes bajulus* (Linnaeus, 1758)** – Dviete, “Dvietes palienes” Nature Park, 2008, (1, J. Timšāne leg.); Ilgas, “Silene” Nature Park, 5.07.2007, (1, G. Jurševska, P. Everts-Bunders leg.). Ecologically associated with dead stumps and fallen trunks of coniferous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 5.
- 23. *Aromia moschata moschata* (Linnaeus, 1758)** – Ilgas, “Silene” Nature Park, 07.2013, (8); Jersika, “Kurpnieki”, 8.08.2011, (9, A. Barševskis leg.); Moricsala Isl., Moricsala Nature Reserve, windows traps, 06.2006, (1, DU SBI exp. leg.), 05.2009, malayse trap, (1, A. Barševskis leg.), 09.2010, (1, DU SBI exp. leg.); Ūdrīši (Krāslava env.), “Zapoļņiki”, 2-4.07.2010, (1, M. Janovska leg.). Ecologically associated with *Salix*, only occasionally with other broadleaf trees such as *Populus*, *Sorbus*, *Alnus*, *Acer*. Adults on host plants or, in Latvia very common, on flowers (Sama 2002).
- 24. *Callidium violaceum* (Linnaeus, 1758)** – Jersika, “Kurpnieki”, 2.06.2010, (1, K. Barševska leg.), 21-22.05.2011, (6, A. Barševskis leg.); Līgatne, Gauja National Park, 06.2010, (1, D. Pilāte leg.). Ecologically associated with dead coniferous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 5.
- 25. *Phymatodes testaceus* (Linnaeus, 1758)** – Moricsala Isl., Moricsala Nature Reserve, 4.06.-14.07.2009, (2, A. Barševskis, R. Cibuļskis, U. Valainis, J. Ivanova leg.). Ecologically associated with deciduous trees (Sama 2002).
- 26. *Obrium cantharinum* (Linnaeus, 1767)** – Dunava, 12-18.07.2009, (1, K. Barševska leg.). Ecologically associated with deciduous trees, preferably on *Populus tremula*, *Salix* etc. (Sama 2002). In Latvia, this species is collected mostly near sawn firewood.
- 27. *Obrium brunneum* (Fabricius, 1792)** – Šlītere, Slītere National Park, “Zilie kalni” hills, 27.06.2006, (1, A. Barševskis, U. Valainis, A. Pankjāns leg.). Very rare species in Latvia. Ecologically associated with dead coniferous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 9. Adult (Fig. 15).
- 28. *Cyrtoclytus capra* (Germar, 1824)** – Mazirbe, Vīdale road, Pitragupe riv. bank, 7.05.2010, (3, A. Kārklīņš leg.); Šlītere, “Zilie kalni” hills, Slītere National Park, 16.07.2008, (1, U. Valainis, A. Bukejs leg.). Very rare species in Latvia. Polyphagous species, ecologically associated with deciduous trees. Adults on host plants or on flowers (Sama 2002). Typical habitats of this species in Latvia as seen in Figs. 8, 9.
- 29. *Plagionotus arcuatus* (Linnaeus, 1758)** – Eglaine, 31.05.2012, (1, A. Barševskis leg.), 18.06.2012, (2, A. Barševskis leg.). Rare species in Latvia. Polyphagous species, ecologically associated with deciduous trees. In Latvia, adults are observed only on fresh or recently cut *Quercus*. Adults on host plants or on flowers (Sama 2002). Adult (Fig. 16).
- 30. *Monochamus urussovii* Fischer von Waldheim, 1805** – Ilgas, “Silene” Nature Park, 6.06.2000, (1, A. Barševskis leg.). Rare species in Latvia. Ecologically associated with dead coniferous trees (Sama 2002). In Latvia, collected only on fresh or recently cut *Picea abies*, sometimes on small stumps. In Latvia, we observed hatching *ex larva* from a tree trunk which was about 10 cm in diameter.
- 31. *Lamia textor* (Linnaeus, 1758)** – Ilgas, “Silene” Nature Park, 25-30.06.2009, (1, J. Ivanova leg.); Irlava, Pētertāle, “Kramiņi”, 1.06.-31.07.2011, (1, J. Prokopčika leg.); Jersika, “Kurpnieki”, 1-4.08.2010, (1, A. Barševskis leg.), 22-23.04.2011, (1, A. Barševskis & K. Barševska leg.), 1-6.05.2012, (3, A. Barševskis leg.); Kastire (Preiļi env.), 10.06.-1.08.2009, (1, A. Čerkasova leg.); Līksna, 9.05.2010, (1, A. Barševskis leg.); Mirnij (Daugavpils env.), 24.05.2010, (1, J. Kočmarjova leg.); Viesīte, 8 km E, “Slapjo salu purvs” Nature Protect. Area; Vīganti, 25.09.2010, (1, K. Sokolovskis leg.). Polyphagous species, ecologically associated with deciduous trees, mostly *Salix* and *Populus* (Sama 2002). Adult (Fig. 17).



Fig. 4. Typical habitat of *Tetropium fuscum* (F.) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis



Fig. 7. Imago of *Stenocorus meridianus* (L.) in flight in Slītere National Park (NE Latvia). Photo: A. Barševskis



Fig. 5. Typical habitat of *Arhopalus rusticus* (L.), *Hylotrupes bajulus* (L.), *Callidium violaceum* (L.), and *Pogonocherus fasciculatus* (De G.) in env. Stende (NE Latvia). Photo: A. Barševskis



Fig. 8. Typical habitat of *Stenocorus meridianus* (L.), *Stictoleptura scutellata* (F.), *Rutpela maculata maculata* (Poda), and *Cyrtoclytus capra* (Germ.) in Slītere National Park (NE Latvia). Photo: A. Barševskis



Fig. 6. Typical habitat of *Oxymirus cursor* (L.) in Ķemeri National Park (C Latvia). Photo: A. Barševskis



Fig. 9. Typical habitat of *Grammoptera ruficornis* (F.), *Rutpela maculata maculata* (Poda), *Obrium brunneum* (F.), *Cyrtoclytus capra* (Germ.), *Pogonocherus hispidulus* (Pill. & Mitt.), and *Stenurella nigra* (L.) in Slītere National Park (NE Latvia). Photo: A. Barševskis



Fig. 10. Typical habitat of *Anoplodera sexguttata* (F.) and *Exocentrus lusitanus* (L.) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis



Fig. 13. Typical habitat of *Stenurella bifasciata bifasciata* (Muell.), *Agaphantia violacea* (F.), and *Phytoecia virgula* (Charp.) in Ilgas Nature Reserve (SE Latvia). Photo: A. Barševskis



Fig. 11. *Stictoleptura scutellata* (F.) in Slītere National Park (NE Latvia). Photo: A. Barševskis



Fig. 14. Typical habitat of *Necydalis major major* (L.) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis

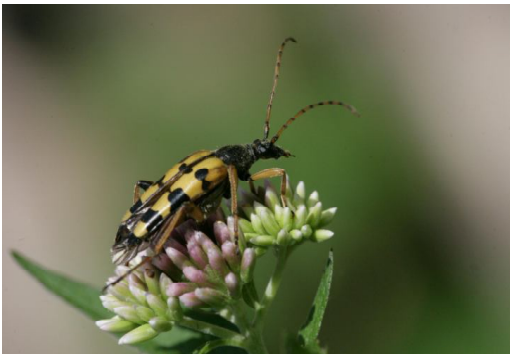


Fig. 12. *Rutpela maculata maculata* (Poda) in Slītere National Park (NE Latvia). Photo: A. Barševskis



Fig. 15. *Obrium brunneum* (F.) in Slītere National Park (NE Latvia). Photo: A. Barševskis



- 32. *Acanthocinus griseus* (Fabricius, 1792)** – Skrīveri, dendrarium, 20.07.2010, (1, A. Barševskis leg.); Žīdu Lake env. near Daugavpils, pine forest, 9.06.2010, (1, K. Barševska leg.). Ecologically associated with dead coniferous trees (Sama 2002). In Latvia, collected only on fresh or recently cut *Picea abies*, sometimes on small stumps.
- 33. *Pogonocherus hispidulus* (Piller & Mitterpacher, 1781)** – Moricsala Isl., Moricsla Nature Reserve, 10.06.2005, (1, A. Barševskis leg.); Vestiena, mixed forest clearing, 29.06.2010, (1, A. Barševskis, U. Valainis leg.). Rare species in Latvia. Polyphagous species, ecologically associated with deciduous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 9.
- 34. *Pogonocherus fasciculatus* (De Geer, 1775)** – Daugavpils, Sporta Str. 6, 29.04.2009, (1, J. Staskeviča leg.); Ilgas, “Silene” Nature Park, 6.06.2000, (1, A. Barševskis leg.); Jersika, “Kurpnieki”, 2-5.05.2010, (1, A. Barševskis leg.); Moricsala Isl., Moricsla Nature Reserve, 18.09.2007, (1, A. Pankjāns, G. Jurševska, K. Aksjuta leg.). Ecologically associated with coniferous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 5.
- 35. *Pogonocherus decoratus* Fairmaire, 1855** – Ūdrīši (Krāslava env.), Užinkalns, “Daugavas loki” Nature Park, 24.07.2002, (1, R. Cibulskis leg.). Rare species in Latvia. Ecologically associated mostly with coniferous trees (Sama 2002).
- 36. *Exocentrus lusitans* (Linnaeus, 1767)** – Dubna, “Lielie Stradišķi”, 8.07.2006, (1, A. Pankjāns leg.). Very rare species in Latvia. Monophagous on *Tilia* (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 10.
- 37. *Leiopus punctulatus* (Paykull, 1800)** – Moricsala, 07.2012. (1, A. Barševskis leg.), Pitrags, 09.2010, (1, DU SBI exp. leg.). Rare species in Latvia, observed as monophagous species on *Populus tremula*. Typical habitat of this species in Latvia as seen in Fig. 18.
- 38. *Leiopus nebulosus* (Linnaeus, 1758)** – Maļinova (Daugavpils env.), 30.06.2001, (1, R. Cibulskis leg.); Moricsala Isl., Moricsala Nature Reserve, 9.06.2004, (2, A. Barševskis, U. Valainis leg.), 4-30.06.2009, (1, A. Barševskis & U. Valainis leg.), 4.06.-30.07.2009, (1, A. Barševskis, R. Cibulskis, U. Valainis, J. Ivanova leg.); Saulkrasti SW env., beach coast, 19.07.2008, (1, M. Balalajkins leg.); Šedere, “Straumēni”, 25.06.2010, (6, M. Janovska leg.). Polyphagous species, ecologically associated with deciduous trees (Gutowski et al 2010, Wallin et al 2009). All males of this species underwent genital dissection. The study of male genitalia confirmed species identity for all specimens.
- 39. *Agapanthia violacea* (Fabricius, 1775)** – Ilgas, “Silene” Nature Park, 6.06.2013, (1, N. Savenkov leg.), 12.06.2013, (1, A. Barševskis leg.). New species for the fauna of Latvia. Polyphagous on herbaceous plants (Sama 2002). In recent years a northward spreading has been observed (J.M. Gutowski pers. com. about the situation in Poland). Perhaps this is due to climate change. Typical habitat of this species in Latvia as seen in Fig. 13.
- 40. *Aegomorphus clavipes* (Schrank, 1781)** – Dunava, 6-7.08.2010, (1, A. Barševskis leg.); Ilgas, “Silene” Nature Park, 6.06.2000, (1, A. Barševskis leg.); Ūdrīši, “Zapoļņiki”, 2-4.07.2010, (1, M. Janovska leg.). Polyphagous species, ecologically associated with deciduous trees (Sama 2002). In Latvia, associated mostly with *Populus tremula*. Typical habitat of this species in Latvia as seen in Fig. 18. Adult (Fig. 19).
- 41. *Saperda perforata* (Pallas, 1773)** – Šedere, “Straumēni”, 25.06.2010, (2, M. Janovska leg.). Oligophagous species on *Populus* trees (Sama 2002). In Latvia, associated mostly with *Populus tremula*. Typical habitat of this species in Latvia as seen in Fig. 18.
- 42. *Saperda scalaris scalaris* (Linnaeus, 1758)** – Šedere, “Juncēji”, 27.06.2003, (R. Cibulskis leg.); Šedere, “Straumēni”, 25.06.2010, (1, M. Janovska leg.); Vestiena, mixed forest clearing, 29.06.2010, (1, A. Barševskis, U. Valainis leg.).



Fig. 16. *Plagionotus arcuatus* (L.) in Eglaine env. (SE Latvia). Photo: A. Barševskis



Fig. 19. *Aegomorphus clavipes* (Schrank) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis



Fig. 17. *Lamia textor* (L.) in Ilgas env. (SE Latvia). Photo: A. Barševskis



Fig. 20. Typical habitat of *Stenostola dubia* (Laich.) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis



Fig. 18. Typical habitat of *Leioptus punctulatus* (Pk.), *Aegomorphus clavipes* (Schrank), *Saperda perforata* (Pallas), and *Sapeda scalaris scalaris* (L.) in Moricsala Strict Nature Reserve (NE Latvia). Photo: A. Barševskis

Polyphagous species, ecologically associated with deciduous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 18.

**43. *Stenostola dubia* (Laicharting, 1784)** – Moricsala Isl., Moricsala Nature Reserve, 24.05.2012, (2, A. Barševskis leg.). Polyphagous species, ecologically associated with deciduous trees (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 20.

**44. *Oberea oculata* (Linnaeus, 1758)** – Vabole, 19.06.1999, (1, R. Cibuļskis leg.). Oligophagous on *Salix*.

**45. *Phytoecia pustulata* (Schrank, 1776)** – Elerne, “Muravki”, “Daugavas loki” Nature Park, 25.05.2011, (3, on *Achillea millefolium*, A.

Barševskis leg.). New species for the fauna of Latvia. Polyphagous on herbaceous plants. Preferably on Asteraceae (*Achillea millefolium* etc.) (Sama 2002).

**46. *Phytoecia virgula* (Charpentier, 1825)** – Ilgas, “Silene” Nature Park, 6.06.2013, (1, A. Barševskis leg.), 12.06.2013, (1, A. Barševskis leg.). Rare species in Latvia. Polyphagous on herbaceous plants (Sama 2002). Typical habitat of this species in Latvia as seen in Fig. 13.

**47. *Phytoecia nigricornis* (Fabricius, 1781)** – Daugavpils env., Kalkūni loc. munic., Birķeneļi, 06.2012, (4, A. Barševskis leg.); Ādaži, Siguļi, 27.05.2013, (1, N. Savenkov leg.). Polyphagous on herbaceous plants (Sama 2002).

**48. *Tetrops praeusta* (Linnaeus, 1758)** – Dunava, 18.05.2008., (1, A. Barševskis leg.); Ilgas, “Silene” Nature Park, 18.06.2008, (1, R. Cibulskis leg.); Jersika, “Kurpnieki”, 12.07.2013, (3, K. Barševska leg.), Moricsala Isl., Moricsala Nature Reserve, 06.2011, (1, DU SBI exp. leg.). Polyphagous species, ecologically associated with deciduous trees and shrubs. Preferably on dead twigs of Rosaceae (*Prunus*, *Crataegus*, *Pyrus*, *Malus* etc.) (Sama 2002).

## CONCLUSIONS

The present publication provides data on 48 long-horned beetle species, new findings in Latvia. Among them 1 species – *Grammoptera ustulata* (Schaller, 1783) – is registered as new for the Latvian and pan-Baltic fauna, 2 species – *Agapanthia violacea* (Fabricius, 1775) and *Phytoecia pustulata* (Schrank, 1776) – as new for the Latvian fauna. Several species were previously known in Latvia from only 1-5 findings. For a number of species an expansion tendency is detected, which may indicate climate changes. These species should become the object of future monitoring.

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