

## **BERLIN NATURAL HISTORY MUSEUM'S MATERIALS ABOUT THE FAUNA OF LATVIA'S LADYBIRDS (COLEOPTERA: COCCINELLIDAE)**

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In this article there are a new facts about the spread of the species of ladybird beetles (Coleoptera: Coccinellidae) in Latvia. These facts are obtained by processing the materials from the collection of Berlin Museum of Natural History. Totally 180 specimens from 18 species were determined.

Key words: Coccinellidae, Coleoptera, fauna, Latvia.

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### **INTRODUCTION**

There is a new data in this article about the distribution of the species of ladybird beetle in Latvia that is based on collection of beetles in Berlin Museum of Natural History (Berlin, Germany). The aim of this article is to acquire new information about the spread of ladybird beetles in Latvia. Some species kept in collection are rare in Latvia. In the list of the species after the title of the species the data of the specimens in particular collection – BMNH - Berlin Museum of Natural History, are indicated. The collection of materials for Berlin Natural History Museum was gathered from Latvia in the early 20th century. Mostly with the collection of materials were busy T. Lackschewitz and S.V. Salchert. The data on the label includes date and place of levy, in the brackets the amount of levied specimens is indicated, and then there are initials and the surname of the collector. In the species list with square brackets noted fields with nowadays names of places in Latvian (for example, Jelowka

[Eglaine]). In particular cases the abbreviation of the collector's surname how it is written on the label is also published.

### **MATERIAL AND METHODS**

During the research the 180 specimens of ladybird beetles of 18 species from the beetles' collection of Berlin Museum of Natural History (Berlin, Germany) are identified.

The research is implemented by using the microscope *Zeiss Stereo Lumar V12*, the digital photo camera *Axiocam* and the software *Axioview 4.4*.

### **RESULTS AND DISCUSSION**

This article contains the information about 18 species which are situated in the collection of Berlin Natural History Museum. All described species are mentioned in the previously published species lists and catalogues – the Catalogue of Ladybird (Coccinellidae) of Latvia (Spuris

1990), Check-List of Latvian Beetles (D. Telnov), Catalogue of Palaearctic Coleoptera (Lobl, Smetana 2007).

In the collection of Berlin Natural History Museum the species was defined as *Chilocorus similis* (Rossi, 1790), but on the basis of current information in applied catalogue (Lobl, Smetana 2007), these species are found only in Italy. It is reasonable to consider the species found in Latvia to be *Chilocorus renipustulatus* (Scriba, 1790) (Spuris 1990, Telnov 2004), which is quite often distributed.

According to Z. Spuris (1990), in the collection certain species are divided for the incidence in Latvia:

- Very rarely - *Hyperaspis pseudopustulata* (Mulsant, 185), *Hyperaspis campestris* (Herbst, 1783), *Coccinella magnifica* (Redtenbacher, 1843).
- Quite often - *Subcoccinella vigintiquatuorpunctata* (Linnaeus, 1758), *Coccidula rufa* (Herbst, 1783), *Chilocorus renipustulatus* (Scriba, 1790), *Exochomus quadripustulatus* (Linnaeus, 1758), *Myzia oblongoguttata* (Linnaeus, 1758), *Calvia quatuordecimguttata* (Linnaeus, 1758), *Oenopia conglobata* (Linnaeus, 1758), *Scymnus suturalis* (Thunberg, 1795), *Scymnus frontalis* (Fabricius, 1787).
- Often - *Anatis ocellata* (Linnaeus, 1758), *Hippodamia variegata* (Goeze, 1777).
- Very often - *Propylaea quatuordecimpunctata* (Linnaeus, 1758), *Coccinella quinquepunctata* (Linnaeus, 1758), *Coccinella septempunctata* (Linnaeus, 1758), *Tytthaspis sedecimpunctata* (Linnaeus, 1761).

Our follow-up research has demonstrated that *Subcoccinella vigintiquatuorpunctata* (Linnaeus, 1758), *Coccidula rufa* (Herbst, 1783), *Chilocorus renipustulatus* (Scriba, 1790), *Myzia oblongoguttata* (Linnaeus, 1758), *Calvia quatuordecimguttata* (Linnaeus, 1758), and *Scymnus suturalis* (Thunberg, 1795), which in due time Z. Spuris had pointed as quite often species popularity, are very often spreading and founding in Latvia.

## LIST OF SPECIES

### Coccinellidae Latreille, 1807

#### 1. *Subcoccinella vigintiquatuorpunctata* (Linnaeus, 1758)

Curonia [Kurzeme], (1, N.Bartau leg.); Goldingen [Kuldīga], 21.09.1938., (1, T. Lackschewitz leg.), 04.05.1939., (1, T. Lackschewitz leg.); Jelowka [Eglaine], 24-30.05.1916., (2, Salchert S.V. leg.), 5-16.05.1916., (2, Salchert S.V. leg.); Kurland [Kurzeme], (1, N.Bartau leg.), 09.06.1938., (2, T. Lackschewitz leg.), 21.03.1938., (1, T. Lackschewitz leg.); Libau [Liepāja], 19.09.1936., (1, T. Lackschewitz leg.); Livonia [Latvija], 23.05.1937., (1, Jumperniof leg.).

#### 2. *Coccidula rufa* (Herbst, 1783)

Jelowka [Eglaine], 5-16.05.1916., (1, Salchert S.V.).

#### 3. *Hyperaspis pseudopustulata* (Mulsant, 1853) [= *H. reppensis reppensis* (Herbst, 1783)]

Libau [Liepāja], 29.05.1936., (1, T. Lackschewitz leg.), 29.05.1936., (2, T. Lackschewitz leg.), 29.05.1936., (1, T. Lackschewitz leg.), 04.06.1936., (1, T. Lackschewitz leg.), 24.04.1930., (1, T. Lackschewitz leg.).

#### 4. *Hyperaspis campestris* (Herbst, 1783)

Kokenh. [Koknese], 13.07.1911., (1, T. Lackschewitz leg., R.Korschefsky 1939. det.); Libau [Liepāja], 22.05.1938., (1, T. Lackschewitz leg.).

#### 5. *Chilocorus renipustulatus* (Scriba, 1790)

Curonia [Kurzeme], 07.09.1908., (1, T. Lackschewitz leg.), 19.08.1927., (1, T. Lackschewitz leg.); Curonia, Sassmaken [Kurzeme, Sasmaka], 05.05.1934., (2, T. Lackschewitz leg.); Jelowka [Eglaine], 5-16.05.1916., (1, Salchert S.V.) – in collection of Berlin Museum of Natural History - *Chilocorus similis* (Rossi, 1790); Kurland [Kurzeme], 21.03.1938., (1, T.

Lackschewitz leg.), 09.10.1935., (1, T. Lackschewitz leg.); Kurland, Ligutten [Kurzeme, Durbe], 15.09.1936., (1, T. Lackschewitz leg.); Libau. Strand. [Liepāja], 19.05.1939., (3, T. Lackschewitz leg.), 24.04.1910., (6, T. Lackschewitz leg.), 29.09.1936., (5, T. Lackschewitz leg.); Kokenh. [Koknese], 10.07.1907., (1, T. Lackschewitz leg.), 12.07.1911., (1, T. Lackschewitz leg.), 29.07.1907., (2, T. Lackschewitz leg.); Nogallem, 12.03.1921., (4, T. Lackschewitz leg.).

**6. *Exochomus quadripustulatus* (Linnaeus, 1758)**

Kurland [Kurzeme], (1, N. Bartau leg.); Kurland, Strasden [Kurzeme, Strazde], 15.08.1936., (1, T. Lackschewitz leg.); Kokenh. [Koknese], 12.07.1911., (1, T. Lackschewitz leg.), 14.07.1911., (1, T. Lackschewitz leg.), (1, T. Lackschewitz leg.), 19.07.1911., (4, T. Lackschewitz leg.).

**7. *Myzia oblongoguttata* (Linnaeus, 1758)**

Curonia, Grobin. [Kurzeme, Grobiņa], t(1, N. Bartau leg.); Libau [Liepāja], 19.05.1907., (1, T. Lackschewitz leg.), 21.09.1908., (1, T. Lackschewitz leg.); Jelowka [Eglaine], 5-16.05.1916., (1, Salchert S.V. leg.); Kurland [Kurzeme], 22.05.1908., (1, N. Bartau leg.), 23.05.1907., (1, N. Bartau leg.); Kurland Papenhof [Kurzeme, Rubene], 08.06.1909., (1, T. Lackschewitz leg.).

**8. *Anatis ocellata* (Linnaeus, 1758)**

Curonia [Kurzeme], 01.11.1936., (1, T. Lackschewitz leg.), 07.06.1920., (1, T. Lackschewitz leg.); Libau [Liepāja], 10.05.1910., (1, T. Lackschewitz leg.), 19.05.1909., (1, T. Lackschewitz leg.), 21.05.1925., (1, T. Lackschewitz leg.), 24.04.1910., (1, T. Lackschewitz leg.); Kurland [Kurzeme], 22.05.1908., (2, N. Bartau leg.); Kokenh. [Koknese], 19.07.1909., (1, T. Lackschewitz leg.).

[*Anatis biocellata* (Weise, 1879)] Curonia [Kurzeme], 09.1909., (1, T. Lackschewitz leg.); Libau [Liepāja], 30.05.1939., (1, T. Lackschewitz leg.).

[*Anatis 15-punctata*] Libau [Liepāja], 10.05.1910., (1, T. Lackschewitz leg.).

**9. *Propylaea quatuordecimpunctata* (Linnaeus, 1758)**

Dunaburg [Daugavpils], 16.06.1916., (1, Salchert S.V. leg.); Jelowka [Eglaine], 24-30.05.1916., (12, Salchert S.V. leg.), 5-16.05.1916., (15, Salchert S.V. leg.).

**10. *Coccinella quinquepunctata* (Linnaeus, 1758)**

Dunaburg [Daugavpils], 16.06.1916., (1, Salchert S.V. leg.), 16.06.1916., (2, Salchert S.V. leg.); Jelowka [Eglaine], 1-30.04.1916., (1, Salchert S.V. leg.), 24-30.05.1916., (1, Salchert S.V. leg.), 5-16.05.1916., (1, Salchert S.V. leg.); Livland, d. Duna [Latvija, Daugava], 1-20.05.1917., (1, Salchert S.V. leg.).

**11. *Coccinella septempunctata* (Linnaeus, 1758)**

Jelowka [Eglaine], 5-16.05.1916., (5, Salchert S.V. leg.).

**12. *Coccinella magnifica* (Redtenbacher, 1843)**

Jelowka [Eglaine], 24-30.05.1916., (3, Salchert S.V. leg.).

**13. *Calvia quatuordecimguttata* (Linnaeus, 1758)**

Dunaburg [Daugavpils], 16.06.1916., (1, Salchert S.V. leg.), 16.06.1916., (2, Salchert S.V. leg.); Jelowka [Eglaine], 24-30.05.1916., (3, Salchert S.V. leg.), 5-16.05.1916., (3, Salchert S.V. leg.).

**14. *Hippodamia variegata* (Goeze, 1777)**

Jelowka [Eglaine], 5-16.05.1916., (7, Salchert S.V. leg.).

**15. *Oenopia congoblata* (Linnaeus, 1758)**

Dunaburg [Daugavpils], 16.06.1916., (1, Salchert

S.V. leg.); Livland, d. Duna [Latvija, Daugava], 1-20.05.1917., (1, Salchert S.V. leg.).

**16. *Tytthaspis sedecimpunctata* (Linnaeus, 1761)**

Curonia [Kurzeme], 01.08.1908., (1, T. Lackschewitz leg.), 20.05.1907., (1, T. Lackschewitz leg.), 23.08.1909., (1, T. Lackschewitz leg.), 24.07.1909., (1, T. Lackschewitz leg.), 29.08.1909., (1, T. Lackschewitz leg.); Curonia Grobin. [Kurzeme, Grobiņa], 06.09.1909., (2, T. Lackschewitz leg.); Libau. [Liepāja], 02.05.1910., (2, T. Lackschewitz leg.), Kurland [Kurzeme], 12-15.04.1917., (1, Salchert S.V. leg.)

**17. *Scymnus suturalis* (Thunberg, 1795)**

Friedrichstadt [Jaunjelgava], 15.11 – 10.12.1916., (2, Salchert S.V. leg.).

**18. *Scymnus frontalis* (Fabricius, 1787)**

Friedrichstadt [Jaunjelgava], 15.11 – 10.12.1916., (1, Salchert S.V. leg.)

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