

CONTRIBUTION TO THE STUDY OF ORTHOPTERA AND DERMAPTERA (INSECTA) OF THE CZECH REPUBLIC

A.B. Ruchin

*Joint Directorate of the Mordovia State Nature Reserve and National Park «Smolny», Russia
e-mail: ruchin.alexander@gmail.com*

The article shows the results of short-term studies on Orthoptera and Dermaptera from several biotopes within the Czech Republic. The studies were conducted in 2019. In total, 16 species of Orthoptera (4 species of Tettigoniidae, 2 species of Tetrigidae, 10 species of Acrididae) and 2 species of Dermaptera (Forficulidae) were recorded. A town of Karlovy Vary had the greatest biodiversity.

Key words: biodiversity, Czech Republic, new findings, Orthopteroidea

Orthoptera is an extensive order, including more than 24.000 species. Dermaptera is a small, relatively ancient order, including about 2000 species (Zhang, 2011). Despite the small species diversity of these insects, they attract the attention of scientists due to their biological features, the possibilities of their use in monitoring ecosystems, their place in natural ecosystems and agrocenoses (Haas, Henderickx, 2002; Ruchin, Mikhailenko, 2018; Quarrell et al., 2018; Miskelly, Paiero, 2019; Kirstová et al., 2019; Karmazina et al., 2020).

In the Czech Republic, studies of these insect groups have been conducted since the middle of the XIX century. During this time, more than 400 publications were released. Mařan and Čejchan (1977) completed the main and first complete list of Czech species. Subsequently, the list of species was constantly updated (Kočárek et al., 1999; Holuša, Kočárek 2000; Holuša et al. 2007, 2012, 2013; Kočárek et al., 2008; Holuša, 2012; Mückstein, Vlk, 2015).

The material was collected in 2019 with the use of traditional methods of data collection (Fasulati, 1971; Ruchin et al., 2020). Collections were carried out in various biotopes (more than 250 specimens were studied). Fig.1 illustrates biotopes. A.B. Ruchin, collected the material, A.P. Mikhailenko identified it.

List of species

Order ORTHOPTERA

Tettigoniidae

Leptophyes albobittata (Kollar, 1833)

Material. Karlovy Vary, Svahová str., 14.08.2019, 3 spec. Praha, botanic garden, 13.08.2019, 1 spec.

Metrioptera roeselii (Hagenbach, 1822)

Material. Karlovy Vary, Svahová str., 14.08.2019, 1 spec.

Platycleis albopunctata (Goeze, 1778)

Material. Praha, botanic garden, 13.08.2019, 3 spec.



Fig. 1. Photos of the studied biotopes: 1 – Karlovy Vary, Doubí; 2 – Locket; 3 – Karlovy Vary, at the bus station; 4 – Karlovy Vary, Svahová str.; 5 – Karlovy Vary, Svatošské skály; 6 – Praha, botanic garden.

Tettigonia viridissima (Linnaeus, 1758)

Material. Karlovy Vary, Svahová str., 14.08.2019, 1 spec.

Tetrigidae

Tetrix subulata (Linnaeus, 1758)

Material. Karlovy Vary, Doubí, 16.08.2019, 20 spec.

Tetrix tenuicornis (Sahlberg, 1893)

Material. Karlovy Vary, Svatošské skály, 16.08.2019, 1 spec.

Acrididae

Chorthippus albomarginatus (Degeer, 1773)

Material. Karlovy Vary, Svahová str., 14.08.2019, 1 spec. Karlovy Vary, at the bus station, 15.08.2019, 3 spec. Karlovy Vary, Svatošské skály, 16.08.2019, 1 spec. Locket, 12.08.2019, 1 spec.

Note. Identification was performed by morphological features. No acoustic analysis was performed.

Chorthippus apricarius (Linnaeus, 1758)

Material. Karlovy Vary, Svahová str. 14.08.2019, 1 spec. Karlovy Vary, Doubí 16.08.2019, 1 spec.

Chorthippus biguttulus (Linnaeus, 1758)

Material. Locket, 12.08.2019, 9 spec. Praha, botanic garden, 13.08.2019, 2 spec. Karlovy Vary, Svahová str., 14.08.2019, 44 spec. Karlovy Vary, at the bus station, 15.08.2019, 9 spec. Karlovy Vary, Doubí, 16.08.2019, 21 spec. Karlovy Vary, Svatošské skály, 16.08.2019, 11 spec.

Note. Identification was performed by morphological features. No acoustic analysis was performed.

Chorthippus dorsatus (Zetterstedt, 1821)

Material. Karlovy Vary, Svahová str. 14.08.2019, 9 spec.

Chorthippus montanus (Charpentier, 1825) f. *macroptera*

Material. Karlovy Vary, Svatošské skály, 16.08.2019, 5 spec. Locket, 12.08.2019, 7 spec.

Chorthippus parallelus (Zetterstedt, 1821)

Material. Praha, botanic garden, 13.08.2019, 4 spec. Karlovy Vary, Svahová str., 14.08.2019, 37 spec. Karlovy Vary, Svatošské skály, 16.08.2019, 4 spec.

Omocestus haemorrhoidalis (Charpentier, 1825)

Material. Karlovy Vary, at the bus station, 15.08.2019, 6 spec.

Omocestus viridulus (Linnaeus, 1758)

Material. Karlovy Vary, Svahová str. 14.08.2019, 2 spec.

Sphingonotus caerulans (Linnaeus, 1767)

Material. Karlovy Vary, at the bus station, 15.08.2019, 22 spec.

Stenobothrus lineatus (Panzer, 1796)

Material. Praha, botanic garden, 13.08.2019, 1 spec. Karlovy Vary, Svahová str., 14.08.2019, 3 spec.

ОТРЯД DERMAPTERA

Forficulidae

Apterygida media (Hagenbach, 1822)

Material. Karlovy Vary, Svahová str., 16.08.2019, 2 spec.

Forficula auricularia Linnaeus, 1758

Material. Karlovy Vary, Svahová str., 16.08.2019, 2 spec., Locket, 12.08.2019, 2 spec.

In total of 16 Orthoptera species (4 Tettigoniidae, 2 Tetrigidae, 10 Acrididae) and 2 Dermaptera (Forficulidae) were found during a short period of studies. The town of Karlovy Vary, Svahová str. had the greatest biodiversity. Due to the combination of high and low vegetation, 10 Orthoptera species out of 16 were present in this biotope. In addition, both species of Dermaptera were caught in the same place with the help of beer traps.

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К ПОЗНАНИЮ ORTHOPTERA И DERMAPTERA (INSECTA) ЧЕШСКОЙ РЕСПУБЛИКИ

А.Б. Ручин

ФГБУ «Заповедная Мордовия», Россия
e-mail: ruchin.alexander@gmail.com

В статье приведены результаты кратковременных исследований Orthoptera and Dermaptera из нескольких биотопов в пределах Чехии. Исследования проводились в 2019 году. Зарегистрировано в общей сложности 16 видов Orthoptera (4 вида Tettigoniidae, 2 вида Tetrigidae, 10 видов Acrididae) и 2 вида Dermaptera (Forficulidae). Наибольшим биоразнообразием характеризовалась небольшая поляна вблизи города Karlovy Vary.

Ключевые слова: Orthopteroidea, биоразнообразие, новые находки, Чехия