

THE ORTHOPTERA (INSECTA) OF LITHUANIA

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Abstract. This study summarises previously published and new faunal data on the Orthoptera of Lithuania based on recent collections and observations. The checklist comprises 45 species, of which 42 species are included based on the studied collection material; two of them (*Modicogryllus frontalis* and *Barbitistes constrictus*) are new to the Lithuanian fauna. Three species are added to the list based on the information of the Fauna Europaea online database. Two species have not been observed in Lithuania since the first half of the 20th century: *Locusta migratoria* (last collected in 1948) and *Bryodemella tuberculata* (last observed in 1924 and 1925), the latter species is considered locally extinct. Five species (*Modicogryllus frontalis*, *Gryllus campestris*, *Stenobothrus stigmaticus*, *Chorthippus pullus* and *Psophus stridulus*) are regarded as deserving protection.

Key words: faunal checklist, Orthoptera, Lithuania, species protection

INTRODUCTION

Orthoptera is considered an ecologically important insect group. Grasshoppers are primary herbivores that may consume approximately 3.5% of annual primary production in grassland ecosystems of Central Europe (Köhler *et al.* 1987). Many of them are habitat specific and have relatively low dispersal ability and, therefore, prone to local extinction due to habitat loss (Reinhardt *et al.* 2005). The abundance of Orthoptera is often used in bioindication for conservation and other purposes (Gardiner *et al.* 2005).

The knowledge on the Lithuanian fauna of Orthoptera is rather limited (see full list of references before 1980 in Jakimavičius *et al.* 1988). There are faunal checklists of the Vilnius region published in the early 20th century (Fedorowicz 1915; Szeliga-Mierzejewski 1927; Grochowska 1935), but they contain former Polish names of localities not used in contemporary maps and a nomenclature that is partly out-of-date. Only few faunal data on Orthoptera have been published in recent years (Kazlauskas 2003; Ivinskis *et al.* 2004). In addition to the faunal studies, there was one attempt to estimate the local population size of five species of open inland dune grasslands, using the mark-release-recapture method (Budrys *et al.* 2004).

A new online source of faunal data on the regional species lists of Europe is the Fauna Europaea database (Heller 2005), though more detailed data on the distribution and abundance of a species within a country are not provided there.

The goal of this study was to summarise previously published and new faunal data on the Orthoptera of Lithuania based on recent collections or observations.

MATERIAL AND METHODS

The new material was collected by D. Barčkutė (D. B.), A. Briiliūtė (A. B.), E. Budrys (E. B.), R. Ferenc (R. F.), P. Ivinskis (P. I.), A. Ivinskytė (A. I.), A. Jakimavičius (A. J.), R. Juškaitis (R. J.), R. Kilmonytė (R. K.), H. Ostrauskas (H. O.), J. Paškovska (J. P.), J. Rimšaitė (J. R.), S. Sarjonis (S. S.), J. Savickienė (J. S.), G. Švitra (G. Š.), M. Talabajeva (M. T.), S. Valušytė (S. V.). The collected material is preserved in the Institute of Ecology of Vilnius University. A large part of data on the distribution of common species was obtained by E. Budrys using registration of male sounds in the field.

The material was collected in the territories of 30 out of 60 municipalities of Lithuania that belong to all 10 counties of the country. The localities, where the material came from, their coordinates, the administrative districts, cities or municipalities of Lithuania are as follows (former Polish names of the localities, used in Fedorowicz 1915, Szeliga-Mierzejewski 1927 and Grochowska 1935, are given in brackets):

Akmena, Lake (jez. Okmiany), N54°40' E24°53', Trakai distr.

Alsakys, Lake (jez. Olsoki), N54°38' E24°50', Trakai distr.

Asiūklė forest, N54°10' E25°42', Šalčininkai distr.

- Babrungėnai, N56°0' E21°53', Plungė distr.
- Baltupiai (Trynopol), N54°44' E25°16', Vilnius city
- Baluoša, Lake (jez. Bałosie), N54°38' E24°58', Trakai distr.
- Belmontas (Belmont), N54°41' E25°20', Vilnius city
- Bernardyńskie, jez., see Luka, Lake
- Beržoras, N56°2' E21°50', Plungė distr.
- Beržynė, Viešvilė Strict Nature Reserve, N55°08' E22°30', Tauragė distr.
- Buikos (Buiki), N54°27' E25°22', Šalčininkai distr.
- Burbiszki, see Pavoverė env.
- Būtingė, N56°03' E21°05', Palanga city
- Čepkeliai Strict Nature Reserve, N54°00' E24°25', Varėna distr.
- Čižiūnai, N54°36' E24°34', Trakai distr.
- Dabrupinė, N55°18' E22°07', Tauragė distr.
- Dainavėlė (Dainówka), N54°39' E24°51', Trakai distr.
- Damija rivulet, N56°08' E22°09', Mažeikiai distr.
- Dautarai, N56°23' E22°00', Mažeikiai distr.
- Dobiliai env., Tyruliai bog, N55°45' E23°19', Radviliškis distr.
- Dūkštos env., N54°51' E24°58', Vilnius distr.
- Duobgiriai, N56°21' E22°34', Mažeikiai distr.
- Eičiai, N55°10' E22°29', Tauragė distr.
- Einoraičiai, N55°49' E23°19', Šiauliai distr.
- Galvė, Lake (jez. Galwe), N54°39' E24°56', Trakai distr.
- Gastilonys forest, N54°53' E24°10', Kaišiadorys distr.
- Gerdašiai, N53°57' E23°53', Druskininkai mun.
- Giedraičiai, N55°5' E25°15', Molėtai distr.
- Girdžiūnai env., N54°10' E25°45', Šalčininkai distr.
- Graudūšiai, N55°51' E21°05', Klaipėda distr.
- Grigaičiai, N56°1' E21°50', Plungė distr.
- Hrybiszki, see Ribiškės
- Ilgis, Lake, N55°47' E25°51', Zarasai distr.
- Jasai, N55°46' E25°52', Zarasai distr.
- Jašiūnai (Jaszuny), N54°26' E25°20', Šalčininkai distr.
- Jeruzalė (Kalwarja), N54°45' E25°17', Vilnius city
- Jockiai, N56°07' E21°51', Plungė distr.
- Jogaudai, N56°00' E21°56', Plungė distr.
- Joninės, N54°53' E25°42', Vilnius distr.
- Juodkrantė env., N55°32' E21°06', Neringa city
- Kalviai, N55°4' E23°21', Jurbarkas distr.
- Karklė, N55°49' E21°04', Klaipėda distr.
- Karoliniškės (Karolinki), N54°41' E25°13', Vilnius city
- Kaskalnis forest, N55°07' E22°25', Jurbarkas distr.
- Kaunas city, N54°54' E23°54'
- Kena (Kiena), N54°39' E25°37', Vilnius distr.
- Kliošių forest, N55°36' E21°12', Klaipėda distr.
- Landwarów, see Lentvaris
- Leipgiriai, N55°6' E22°26', Jurbarkas distr.
- Lentvaris (Landwarów), N54°39' E25°02', Trakai distr.
- Luka, Lake (Bernardinu) (jez. Bernardyńskie), N54°38' E24°57', Trakai distr.
- Lūžija Nature Reserve, N55°36' E21°11', Klaipėda distr.
- Mačiūkiai, N56°6' E21°51', Plungė distr.
- Maižiškiai env., N55°30' E23°27', Radviliškis distr.
- Marcinkonys env., N54°04' E24°22', Varėna distr.
- Margavonių forest, N55°45' E23°42', Radviliškis distr.
- Margionys forest, N54°00' E24°17', Varėna distr.
- Mažalotė env. (Nowicze), N55°04' E25°52', Švenčionys distr.
- Mažuolių forest, N55°39' E23°32', Radviliškis distr.
- Meškerinė, N55°04' E25°51', Švenčionys distr.
- Mikašiūnai env., N54°28' E25°09', Šalčininkai distr.
- Miškiniai, N55°34' E23°21', Radviliškis distr.
- Musteika env, N53°55' E24°26', Varėna distr.
- Nagliai Nature Reserve, N55°30' E21°07', Neringa city
- Naujamiestis (Zakrętowa-Strasse), N54°41' E25°15', Vilnius city
- Naujiejai Kalviai, N54°10' E24°41', Šalčininkai distr.
- Naujoji Vilnia, N54°41' E25°20', Vilnius city
- Nemėžis (Niemiež), N54°38' E25°21', Vilnius distr.
- Nowe Troki, see Trakai
- Nowicze, see Mažalotė env.
- Okmiany, jez., see Akmena, Lake
- Olsoki, jez., see Alsakys, Lake
- Opšrūtai I, N54°36' E23°41', Marijampolė distr.
- Paaliosė, N54°48' E24°53', Elektrėnai mun.
- Pabradė (Podbrodzie), N54°59' E25°47', Švenčionys distr.
- Paburgė, N56°02' E21°55', Plungė distr.
- Pagaujėnai, N54°11' E25°42', Šalčininkai distr.
- Pailgė (Podolce), N54°54' E25°34', Vilnius distr.
- Pajudynys, N55°25' E24°58', Anykščiai distr.
- Pakretuonė, N55°16' E26°05', Švenčionys distr.
- Paliminė, N55°30' E25°43', Utena distr.
- Pamedinčiai, N56°02' E21°47', Plungė distr.
- Paneriai (Ponary), N54°38' E25°12', Vilnius city
- Papiškės, N54°30' E25°09', Vilnius distr.
- Pasruojė ponds, N56°08' E22°08', Telšiai distr.
- Pavejuonis Nature Reserve, N55°04' E23°46', Kaunas distr.
- Pavoverė env. (Burbiszki), N54°58' E25°51', Švenčionys distr.
- Pilaitė (Zameczek), N54°42' E25°12', Vilnius city
- Plokštinė, N56°01' E21°55', Plungė distr.
- Plomėnų, Lake (jez. Płomiany), N54°39' E24°55', Trakai distr.
- Podbrodzie, see Pabradė
- Podolce, see Pailgė
- Ponary, see Paneriai
- Prūsgiris, Viešvilė State Reserve, N55°08' E22°27', Tauragė distr.
- Pūčkoriai (Puszkarnia), N54°41' E25°21', Vilnius city
- Pušiniškiai env., Tyruliai bog., N55°47' E23°21', Radviliškis distr.
- Puvočiai, N54°7' E24°18', Varėna distr.

Radvilonių forest, N55°48' E23°44', Radviliškis distr.
 Ribiškės (Hrybiszki), N54°40' E25°19', Vilnius city
 Ringovė Nature Reserve, N55°3' E23°31', Kaunas distr.
 Rūdninkai env. (Rudniki), N54°26' E25°09', Šalčininkai distr.
 Skaistis, Lake (jez. Skajście), N54°40' E24°59', Trakai distr.
 Skirgiškės, N54°50' E25°22', Vilnius distr.
 Sodaiciai env., N55°44' E23°16', Radviliškis distr.
 Spalviškiai, N56°17' E24°55', Biržai distr.
 Spengla River, N54°21' E24°47', Varėna distr.
 Stakai env., N54°17' E25°33', Šalčininkai distr.
 Stakai forest, N54°18' E25°33', Šalčininkai distr.
 Stanuliškės, N54°32' E24°23', Prienai distr.
 Strošiūnai Nature Reserve, N54°48' E24°30', Kaišiadorys distr.
 Šakiai, N55°57' E23°03', Šakiai distr.
 Šalčia River, N54°20' E25°02', Šalčininkai distr.
 Šilėnai, N54°44' E25°04', Vilnius distr.
 Škėvonys cliff, N54°36' E24°00', Birštonas mun.
 Tataryszki, jez., see Totoriškių, Lake
 Tervydoniai, N55°02' E23°27', Šakiai distr.
 Titnagų mounds, Viešvilė State Reserve, N55°11' E22°26', Tauragė distr.
 Totoriškės, N54°40' E24°55', Trakai distr.
 Totoriškių, Lake (jez. Tataryszki), N54°38' E24°56', Trakai distr.
 Trakai (Nowe Troki) N54°40' E24°56', Trakai distr.
 Trasninkas env., N54°07' E24°16', Varėna distr.
 Tribonys, N54°16' E25°20', Šalčininkai distr.
 Trikampis, Lake, N54°05' E24°20', Varėna distr.
 Trynopol, see Baltupiai
 Tyrai bog, N55°34' E21°13', Klaipėda distr.
 Ūla River, N54°08' E24°28', Varėna distr.
 Varliškės, N54°46' E24°52', Elektrėnai mun.
 Varnikai (Worniki), N54°39' E24°57', Trakai distr.
 Varnupys, N55°24' E25°16', Anykščiai distr.
 Verkiai (Werki), N54°45' E25°18', Vilnius city
 Vidutinė, N55°01' E26°09', Švenčionys distr.
 Viešvilė, N55°4' E22°23', Jurbarkas distr.
 Vilka, N56°2' E21°58', Plungė distr.
 Vilnius (old town), N54°41' E25°20'
 Vingis park (Zakręt), N54°41' E25°14', Vilnius city
 Vištytis, N54°28' E22°47', Vilkaviškis distr.
 Werki, see Verkiai
 Worniki, see Varnikai
 Zakręt, see Vingis park
 Zakrętowa-Strasse, see Naujamiestis
 Zameczek, see Pilaitė
 Zujai, N55°17' E24°51', Ukmergė distr.
 Žadeikiai, N56°02' E24°26', Pasvalys distr.
 Žaliakalnis, N54°54' E23°54', Kaunas city
 Želsva, N54°26' E23°28', Marijampolė distr.

Žūkai (Žuki), N54°37' E24°56', Trakai distr.
 Žukiškės (Žukiszki), N54°36' E24°55', Trakai distr.
 Žydiškės (Żydziszki), N54°40' E25°00', Trakai distr.
 The specimens were identified using Coray and Thorens (2001) and Bej-Bienko (1964). The nomenclature was used according to Heller (2005).
 For each species, we provide previously published and new data on its distribution in Lithuania, as well as some comments concerning its abundance, distribution and habitats. For widespread and common species, represented by more than 30 studied specimens and by more than 20 new records, distribution data are summarised to the list of localities and the range of observation dates. The species new to the Lithuanian fauna are marked by asterisks.
 Habitat types of Community importance were identified using Rašomavičius *et al.* (2001).

Species list

Suborder Ensifera

Superfamily Grylloidea

Family Gryllidae

Gryllus campestris Linnaeus, 1758

Lentvaris, 1914 (Fedorowicz 1915, as *Liogryllus*); Rūdninkai env., 1923, Kena, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Acheta*); Lithuania (Heller 2005). Puvočiai, 13 07 2004 2♂, E. B.

Rare species, found in the southeastern part of Lithuania only. The country is at its northern distribution limit. Stenotopic species, inhabiting dry and xeric grasslands.

Acheta domestica (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Gryllus*; Szeliga-Mierzeyewski 1927, as *Gryllus*); Trakai, 1927 (Grochowska 1935, as *Gryllus*); Lithuania (Heller 2005). Vilnius, 15 07 1978 1♂, Puvočiai, 30 06 2002 1♂, both E. B.

Alien synanthropic species, earlier widespread in human buildings throughout the country, now declining and rare.

**Modicogryllus frontalis* (Fieber, 1844)

Škėvonys cliff, 04 07 1991 1♀ 1♂, E. B.; 28 05 2005 2♀ 2♂, G. Š.; 17 08 2005 1♂, R. F.

Recorded for the first time in Lithuania. The only known population inhabits a steep slope below a siliceous cliff on the Nemunas River (habitat 8220 of the Habitat Directive, Annex I). Probably, it is the northernmost known population of the species in Europe.

Family Gryllotalpidae

Gryllotalpa gryllotalpa (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915); Vilnius, 1923 (Szeliga-Mierzeyewski 1927); Žydiškės, 1927

(Grochowska 1935); Lithuania (Heller 2005). Čižiūnai, 22 06 2000 1♀, Čepkeliai Reserve, 01 05 2001 2♀, P. I.; Sodaičiai, 03 06 1996 1♂, Pušiniškiai, 20 08 1996 1♂, R. J.; Puvočiai, 29 06 1996 1♀, R. K., 30 06 2002 1♀, D. B.

Seems to be widespread throughout the country, however, rarely collected due to its cryptic life in soil. Sometimes considered as a pest. Apparently, it may be rather common in rich and wet soil habitats.

Superfamily Tettigonoidea

Family Phaneropteridae

**Barbitistes constrictus* Brunner von Wattenwyl, 1878
Gastilonys forest, 22 07 2003 1♀, R. F.; Margionys forest, 12 06 2001 1♀, J. R.; Puvočiai env., 08 07 1994 1♀, 09 08 2003 1♂, 12 07 2005 1♀; Stakai forest, 12 08 2005 1♀, all E. B.; Viešvilė, 20 07 1999 1♂, S. S.

Recorded for the first time in Lithuania. Uncommon, a possibly overlooked species. Usually it was observed on birch trees in pine and mixed forests.

Family Meconematidae

Meconema thalassinum (De Geer, 1773)

Seredžius (Kazlauskas 2003); Lithuania (Heller 2005). Ringovė Nature Reserve, 14 08 1990 1♀, H. O.; 24 09 1990 1♀, P. I.

Rare species, inhabiting broad-leaved forests and shrubs.

Family Conocephalidae

Conocephalus dorsalis (Latreille, 1804)

Lithuania (Heller 2005). Beržynė meadows, 28 07 2006 2♀, Eičiai, 31 07 2006 1♀, Jockiai, 30 07 2006 1♂, Jogaudai, 30 07 2006 1♂, Kaskalnis forest, 28 07 2006 2♀ 1♂, Lūžija Nature Reserve, 26 07 2005 1♀ 1♂, Mikašiūnai env., 04 09 1996 2♀, Paburgė, 29 07 2006 2♂, Titnagų mounds, 31 07 2006 1♀, all E. B.; Papiškės, 16 07 2002 1♀, P. I.

Stenotopic to wet meadows and mires. Rather common in suitable habitats.

Family Tettigoniidae

Tettigonia cantans (Fuessly, 1775)

Lentvaris, 1914 (Fedorowicz 1915, as *Locusta*); Kena, Pailgė, Pilaitė, Rūdninkai env., Verkiai, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Phasgonura*); Lake Totoriškių, Trakai, 1927–1928 (Grochowska 1935, as *Phasgonura*); Lithuania (Heller 2005). Babrungėnai, Beržynė meadows, Beržoras, Bilšiai, Dobiliai env., Dūkštos env., Giedraičiai, Girdžiūnai env., Grigaičiai, Jogaudai, Kaskalnis forest, Lūžija Nature Reserve, Maižiskiai env., Margavonių forest, Mažuoliai

forest, Mikašiūnai env. Miškiniai, Paburgė, Pamedinčiai, Plokštinė forest, Pūčkoriai, Pušiniškiai env., Radviloniai forest, Šalčia River, Titnagų mounds, Varnupys, all E. B.; Paliminė, G. Š.; 58 imagoes, 13 07–12 10 1996–2006.

One of the commonest species throughout the country. Typical of mesic forest and shrub habitats.

Tettigonia viridissima (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Locusta*; Szeliga-Mierzeyewski 1927, as *Phasgonura*); Lithuania (Heller 2005). Bilšiai, 20 07 2004 1♂, Pilaitė, 14 10 2006 1♂, Prūsgiris, 28 07 2006 1♂, Pūčkoriai, 17 08 2006 1♂, Rūdninkai env., 04 09 1996 3♂, Titnagų mounds, 31 07 2006 1♂, all E. B.; Skirgiškės, 01 10 1999 1♀, A. J.; Vilnius, 15 08 2002 1♀, S. V.

Widespread throughout the country. Generally less common than *T. cantans*, but may be more abundant in dry shrub and heath habitats.

Decticus verrucivorus (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Dectivus* – lapsus?); Jeruzalė, Kena, Pailgė, Pilaitė, Rūdninkai env., Vilnius 1922–1926 (Szeliga-Mierzeyewski 1927, as *Tettigonia*); Lake Akmena, Lake Galvė, Lake Totoriškių, Žūkai, 1927–1929 (Grochowska 1935, as *Tettigonia*); Lithuania (Heller 2005). Babrungėnai, Beržynė, Beržoras, Damija rivulet, Dautarai, Dobiliai env., Eičiai, Girdžiūnai env., Kaskalnis forest, Lūžija Nature Reserve, Mačiūkiai, Maižiskiai env., Miškiniai, Paburgė, Pagaujėnai, Pamedinčiai, Pasruojė ponds, Plokštinė, Prūsgiris, Pūčkoriai, Pušiniškiai env., Radvilonių forest, Rūdninkai env., Sodaičiai env., Stakai env., Varnupys, Vilka, all E. B.; Čižiūnai, A. I., P. I.; Gerdašiai, Paaliosė, H. O.; Paliminė, G. Š.; Puvočiai, A. B.; 52 imagoes, 17 06 – 04 09 1992–2006.

One of the commonest species in mesic and dry grasslands throughout the country.

Metrioptera bicolor (Philippi, 1830)

Lentvaris, 1914 (Fedorowicz 1915, misidentified, as *Olynthoscelis griseaptera*: see Szeliga-Mierzeyewski 1927); Puvočiai, 2002 (Budrys *et al.* 2004). Eičiai, 31 07 2006 1♂, Girdžiūnai env., 13 07 2005 1♂, 12 08 2005 1♂, Prūsgiris, 28 07 2006 2♂, Puvočiai, 11 07 1996 1♂, 08 07 – 24 08 2002 23♂ 5♀, 16 08 2005 1♂, Rūdninkai env., 04 09 1996 2♂, all E. B.; Gerdašiai, 27 08 1998 1♂, P. I.

Uncommon and restricted to suitable habitats. Stenotopic to dry meadows; a typical species of xeric sand calcareous grasslands (habitat 6120 of the Habitat Directive, Annex I).

Metrioptera brachyptera (Linnaeus, 1761)

Mažalotė env., 1926 (Szeliga-Mierzeyewski 1927); Lithuania (Heller 2005). Čepkeliai Reserve, 09 08 2003 2♂, Dobiliai env., 20 08 1996 2♂, Jogaudai, 30 07 2006 1♂, Kliošių forest, 27 07 2005 2♂, Lūžija Nature Reserve, 26 07 2005 1♂ 1♀, Mačiūkiai, 30 07 2006 1♂, Maižiškiai env., 19 08 1996 3♂, Mažuolių forest, 22 08 1996 1♂, Miškiniai, 20–21 08 1996 2♂, Paburgė, 29 07 2006 2♂, Plokštinė, 29 07 2006 2♂, Prūsgiris, 28 07 2006 1♂, Radvilonių forest, 21 08 1996 4♂, Titnagų mounds, 31 07 2006 2♂, all E. B.; Karklė, 07 09 2005 1♀, Opšrūtai I, 09 08 2000 1♀, both P. I.

Widespread throughout the country. Eurytopic species, rather common in mesic and wet poor soil habitats of various types: high bogs, *Calluna* heaths, *Molinia* meadows, open pine forests.

Metrioptera roeselii (Hagenbach, 1822)

Lithuania (Heller 2005). Beržynė, Beržoras, Dobiliai env., Dūkštos env., Eičiai, Girdžiūnai env., Jogaudai, Kaskalnis forest, Leipgiriai, Lūžija Nature Reserve, Mačiūkiai, Maižiškiai env., Mažuolių forest, Mikašiūnai env., Miškiniai, Paburgė, Pagaujėnai, Pamedinčiai, Plokštinė, Pūčkoriai, Pušiniškiai env., Puvočiai, Radvilonių forest, Šalčia River, Varnupys, Vilka, all E. B.; Dabrupinė, Gerdašiai, Spalviškiai, Želsva, P. I.; Paaliosė, Varliškės, H. O.; Pajudinys, Paliminė, Pavejuonis Nature Reserve, G. Š., P. I.; Puvočiai, A. B.; Tervydoniai, R. F. 72 imagoes, 30 06 – 04 09 1990–2006.

Widespread throughout the country. Eurytopic species; one of the commonest tettigoniids in mesic grasslands.

Platycleis albopunctata (Goeze, 1778)

Puvočiai, 2002 (Budrys *et al.* 2004); Lithuania (Heller 2005). Gerdašiai, August 2002 1♂, R. F., 20 07 2002 2♀, P. I.; Girdžiūnai env., 13 07 2005, Marcinkonys env., 29 07 2005 1♂, Puvočiai, 03 07 1996 1♀ 1♂, 10 07 2000 1♂, 08 07 – 24 08 2002, 100♀ 49♂, all E. B.; Juodkrantė env., 02 07 2005 2♀, R. F.

Stenotopic to dry open habitats; typical of successional stages of grey dunes (habitats 2130 and 2140 of the Habitat Directive, Annex I) and dry heaths (habitats 2320, 2330 and 4030). Rather common in suitable habitats of southern and eastern Lithuania, as well as along the Baltic Sea coast, however, seems to be rare or absent in other parts of the country.

Platycleis montana (Kollar, 1833)

Mažalotė env., 21–23 09 1926 3♀ (Szeliga-Mierzeyewski 1927, as *Metrioptera*). Rūdninkai env., 09 09 1996 1♀, E. B.

Extremely rare species, declining in central Europe,

considered extinct in Poland (Bazyłuk & Liana 2000) and critically endangered in Germany (Hirneisen 2003). Stenotopic to open dry habitats. A recently collected specimen was found in dry heath with *Calluna vulgaris* (habitat 4030 of the Habitat Directive, Annex I).

Pholidoptera griseoptera (DeGeer, 1773)

Lithuania (Heller 2005). Gerdašiai, 12 08 1999 1♀, Kalviai, 01 08 2000 2♂, Šilėnai, 19 09 2003 1♀, Tyrai bog, 24 07 2002 1♀, all P. I.; Lūžija Nature Reserve, 26 07 2005 numerous ♀ and ♂, Pūčkoriai, 17 08 2006 2♂, Vilnius, 27 07 2002 10♂, Žaliakalnis, 18 07 1995 1♀ 1♂, 29 07 2000 1♀ 1♂, all E. B.; Ringovė Nature Reserve, 14 08 1990 1♀, H. O., 23 08 2005 1♀, R. F.

Widespread throughout the country. Eurytopic species, rather common in wet forest and shrub habitats, particularly in alluvial woodlands.

Suborder Caelifera**Superfamily Tetrigoidea****Family Tetrigidae***Tetrix bipunctata* (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915); Jeruzalė, Mažalotė env., Pilaitė, Pūčkoriai, Rūdninkai env., Verkiai, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Acrydium bipunctatum*, *A. kraussi*); Dainavėlė, Lake Galvė, Lake Skaistis, Lake Totoriškių, Varnikai, 1927 (Grochowska 1935, as *Acrydium bipunctatum*, *A. kraussi*); Lithuania (Heller 2005). Lake Ilgis, 03 06 2004 1♀, Jasai, 31 07 2004 1♀ 1♂, all P. I.; Kliošių forest, 27 07 2005 1♀, Puvočiai env., 11 07 1995 1♀, 11 07 1996 1♀, 10 07 2000 1♀, 13 07 2004 1♀, all E. B.; Puvočiai env., 29 06 – 05 07 1996 2♀ 2♂, E. J., R. K., I. K., J. P.

The commonest among Tetrigidae species in Lithuania. Probably, a widespread, but overlooked species due to its cryptic lifestyle. Stenotopic to sandy habitats; often found in dry heaths and pine forest glades.

Tetrix subulata (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915); Baltupiai, Belmontas, Pilaitė, Pūčkoriai, Ribiškės, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Acrydium subulatum*, *A. s. var. sahlbergi*); Trakai distr. 1927–1929 (Grochowska 1935, as *Acrydium subulatum*); Lithuania (Heller 2005). Naujoji Vilnia, 10 05 1996 1♂, J. P.; Ringovė Nature Reserve, 24 09 1990 1♂, Spalviškiai, 15 08 1998 1♀ 4♂, P. I.; Trakai, 10 06 2006 1♀, E. B.

Probably, a widespread, but overlooked species due to its cryptic lifestyle. Usually found in mesic and wet habitats.

Tetrix tenuicornis (Sahlberg, 1893)

Lithuania (Heller 2005). Varnupys, 14 07 1996 1♀, E. B. According to the general species distribution, it may be widespread in Lithuania, but overlooked due to its cryptic lifestyle and similarity to the more common *T. bipunctata*. Found in dry habitats.

Tetrix undulata (Sowerby, 1806)

Rūdninkai env., Pilaitė, 1923–1925 (Szeliga-Mierzeyewski 1927, as *Acrydium kiefferi*); Dainavėlė, Lake Luka, Lake Totoriškių, 1927–1928 (Grochowska 1935, as *Acrydium kiefferi*); Lithuania (Heller 2005). Einoraičiai, 15 07 1998 1♂, P. I.; Trasninkas env., 26 06 1997 1♂, E. B.

According to the general species distribution, it may be widespread, but overlooked due to its cryptic lifestyle. Found in mesic and wet grasslands.

Superfamily Acridoidea**Family Acrididae****Subfamily Catantopinae***Podisma pedestris* (Linnaeus, 1764)

Mažalotė env., Pabradė, Pailgė, Rūdninkai env., 1922–1926 (Szeliga-Mierzeyewski 1927). Rūdninkai env., 04 09 1996 2♂, E. B.

Rare species with a boreo-montane distribution in Europe. Currently known from a single locality in Lithuania. Protected by law (included in the national Red List). In Lithuania, the species seems to be stenotopic to dry heaths with *Calluna vulgaris* (habitat 4030 of the Habitat Directive, Annex I).

Subfamily Gomphocerinae*Gomphocerippus rufus* (Linnaeus, 1758)

Lithuania (Heller 2005).

Eurytopic species with a boreo-montane distribution in Europe. Except for the record of the Fauna Europaea database, we have no documented evidence of its presence in Lithuania.

Myrmeleotettix maculatus (Thunberg, 1815)

Mažalotė env., Pabradė, Pailgė, Pilaitė, Rūdninkai env., Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Gomphocerus*); Lake Totoriškių, Varnikai, 1927–1929 (Grochowska 1935, as *Gomphocerus*); Lithuania (Heller 2005). Asiūklė forest, 13 07 2005 1♂, Girdžiūnai env., 21 06 2005 2♂, 13 07 2005 1♂, Leipgiriai, 28 07 2006 1♀ 2♂, Pagaujėnai, 13 07 2005 1♂, 12 08 2005 1♀, Prūsgiris, 28 07 2006 1♀ 3♂, Puvočiai, 30 06 – 04 07 1995 5♀ 3♂, Rūdninkai env., 04 09 1996 3♂, Titnagų mounds, 31 07 2006 2♂, all E. B.; Juodkrantė env., 05 07 2005 1♂, Nagliai Nature Reserve, 04 07 2005 1♀ 1♂, all R. F.; Zujai, 27 08

1988 1♀, G. Š.

Stenotopic to dry sandy habitats. Common in southern and eastern Lithuania and along the Baltic Sea coast. Abundant in dry grasslands and heaths surrounded by pine forest.

Omocestus haemorrhoidalis (Charpentier, 1825)

Pilaitė, Ribiškės, Vilnius, 1922–1925 (Szeliga-Mierzeyewski 1927); Lake Luka 1927–1928 (Grochowska 1935); Lithuania (Heller 2005). Girdžiūnai env., 13 07 2005 1♀ 1♂, Pagaujėnai, 13 07 2005 1♂, 12 08 2005 2♀, Puvočiai, 07 07 2004 1♂, Šalčia River, 04 09 1996 1♀ 1♂, all E. B.

Stenotopic to dry sandy habitats. Uncommon, the known populations are restricted to the southeastern part of the country.

Omocestus rufipes (Zetterstedt, 1821)

Lithuania (Heller 2005).

Except for the Fauna Europaea database, we have no documented evidence of the presence of this species in Lithuania.

Omocestus viridulus (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus*); Buikos, Kena, Mažalotė env., Pabradė, Paneriai, Pilaitė, Ribiškės, Verkiai, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927); Trakai env., 1927–1928 (Grochowska 1935); Lithuania (Heller 2005). Beržynė, Beržoras, Dobiliai env., Duobgiriai, Eičiai, Girdžiūnai env., Jogaudai, Kaskalnis forest, Leipgiriai, Lūžija Nature Reserve, Mačiūkiai, Maižiškiai env., Margavonių forest, Mažuolių forest, Mikašiūnai env., Naujieji Kalviai, Paburgė, Pagaujėnai, Plokštinė, Prūsgiris, Pušiniškiai env., Puvočiai, Radvilonių forest, Šalčia River, Titnagų mounds, Trasninkas env., Užkaniaviai, all E. B.; Čižiūnai, A. I.; Gerdašiai, Pakretuonė, Spengla River, H. O.; Pavejuonis Nature Reserve, G. Š.; 97 imagoes, 14 06 – 09 09 1990–2006.

Widespread throughout the country. One of the commonest orthopterans in mesic meadows.

Stenobothrus lineatus (Panzer, 1796)

Lithuania (Heller 2005). Kliošių forest, 27 07 2005 1♀, Lūžija Nature Resarch, 26–27 07 2005 3♀ 2♂, all E. B. Known from western Lithuania only. A rare species, found in dry meadows.

Stenobothrus stigmaticus (Rambur, 1839)

Pailgė, Pilaitė, Verkiai, 1922–1926 (Szeliga-Mierzeyewski 1927); Lake Luka, Lake Skaistis, Lake Totoriškių, Varnikai, 1927–1928 (Grochowska 1935); Lithuania (Heller 2005). Girdžiūnai env., 13 07 2005

1 ♀, 12 08 2005 2 ♀, Pagaujėnai, 12 08 2005 1 ♀ 2 ♂, all E. B.

Known from southeastern Lithuania only. Uncommon, stenotopic to dry grasslands including xeric sand calcareous grasslands (habitat 6120 of the Habitat Directive, Annex I).

Chorthippus albomarginatus (De Geer, 1773)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus*); Kena, Nemėžis, Pilaitė, Vilnius, Vingis park, 1923–1924 (Szeliga-Mierzeyewski 1927); Trakai env., 1927–1929 (Grochowska 1935); Lithuania (Heller 2005). Maižiškiai env., 19 08 1996 1 ♀, Mažuolių forest, 22 08 1996 1 ♀ 1 ♂, 23 08 1996 1 ♂, Puvočiai, 01 07 1995 1 ♀ 1 ♂, Radvilonių forest, 21–22 08 1996 3 ♀ 3 ♂, all E. B.

Rather common species in medium wet grasslands.

Chorthippus apricarius (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus*); Belmontas, Karoliniškės, Pabradė, Paneriai, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Stauroderus*); Trakai env., 1927–1929 (Grochowska 1935, as *Stauroderus*); Lithuania (Heller 2005). Čižiūnai, P. I.; Eičiai, Girdžiūnai env., Jogaudai, Kaunas, Kaskalnis forest, Lūžija Nature Reserve, Maižiškiai env., Miškiniai, Paburgė, Pagaujėnai, Plokštinė, Pūčkoriai, Puvočiai, Stakai env., Varnupys, Vilka, Vilnius, all E. B.; Gerdašiai, Joninės, H. O.; 39 imagoes, 21 06 – 27 08 1991–2006.

Eurytopic species, widespread throughout Lithuania. Common in mesic grasslands, including those of urban environments.

Chorthippus biguttulus (Linnaeus 1758)

Belmontas, Kena, Mažalotė env., Pabradė, Pailgė, Pilaitė, Ribiškės, Rūdinkai env., Verkiai, Vilnius, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Stauroderus*); Trakai env., 1927–1929 (Grochowska 1935, as *Stauroderus*); Lithuania (Heller 2005). Babrungėnai, Beržynė, Dobiliai env., Eičiai, Giedraičiai, Girdžiūnai env., Jogaudai, Kaskalnis forest, Leipgiriai, Lūžija Nature Reserve, Maižiškiai env., Margavonių forest, Mažuolių forest, Miškiniai, Paburgė, Pagaujėnai, Pamedinčiai, Plokštinė, Prūsgiris, Pūčkoriai, Pušiniškiai env. Puvočiai, Radvilonių forest, Rūdinkai env., Šalčia River, Titnagų mounds, Varnupys, Vilka, Vilnius, all E. B.; Būtingė, Karklė, P. I.; Gerdašiai, Spengla River, Varliškės, Vištytis, H. O.; Pajudinys, Paliminė, G. Š.; 94 imagoes, 29 06 – 09 10 1991–2006.

Eurytopic species, widespread in Lithuania. One of the commonest orthopterans in dry and semi-dry grasslands of various types, including those of urban environments.

Chorthippus brunneus (Thunberg, 1815)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus bicolor*); Pabradė, Pailgė, Pilaitė, Vingis park, 1925–1926 (Szeliga-Mierzeyewski 1927, as *Stauroderus bicolor*); Trakai env., 1927–1929 (Grochowska 1935, as *Stauroderus bicolor*); Lithuania (Heller 2005). Asiūklė forest, Babrungėnai, Dobiliai env., Girdžiūnai env., Lūžija Nature Reserve, Maižiškiai env., Margavonių forest, Mažuolių forest, Pagaujėnai, Plokštinė, Prūsgiris, Pūčkoriai, Pušiniškiai env. Radvilonių forest, Rūdinkai env., Šalčia River, Varnupys, Vilka, all E. B.; Gerdašiai, Joninės, Paaliosė, Pakretuonė, Varliškės, all H. O.; Nagliai Nature Reserve, R. F.; Spalviškiai, P. I.; Vidutinė, J. S.; 47 imagoes, 03 07 – 04 09 1991–2006.

Widespread in Lithuania; stenotopic to dry open grasslands. Common in suitable habitats, including those of urban areas.

Chorthippus mollis (Charpentier, 1825)

Lithuania (Heller 2005). Girdžiūnai env., 12 08 2005 1 ♂, Pilaitė, 30 08 2004 1 ♂, 25 08 2005 1 ♂, 18 09 2006 1 ♂, Pūčkoriai, 17 08 2006 2 ♂, all E. B.; Zujai, 27 08 1988 1 ♀ 1 ♂, G. Š.

Stenotopic to dry open grasslands. Probably, as widely distributed as *Ch. brunneus*, however, overlooked due to its similarity to the previous two species. Common in urban environments.

Chorthippus dorsatus (Zetterstedt, 1821)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus*); Belmontas, Buikos, Mažalotė env., Pabradė, Pailgė, Pilaitė, Ribiškės, Verkiai, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927); Trakai env., 1927–1929 (Grochowska 1935); Lithuania (Heller 2005). Beržynė, Beržoras, Eičiai, Kaskalnis forest, Mažuolių forest, Mikašiūnai env., Pagaujėnai, Pūčkoriai, Puvočiai, Šalčia River, Titnagų mounds, all E. B.; Gerdašiai, Spalviškiai, P. I.; Joninės, Spengla River, H. O.; 84 imagoes, 28 07 – 09 09 1991–2006.

Widespread in Lithuania. Eurytopic species, common in mesic and wet grasslands.

Chorthippus montanus (Charpentier, 1825)

Belmontas, Kena, Mažalotė env., Pilaitė, Ribiškės, Verkiai, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *Ch. longicornis*); Lake Alsakys, Lake Baluoša, Lake Luka, Totoriškės, 1927–1929 (Grochowska 1935, as *Ch. longicornis*, a full-winged female is described as *Ch. l. var. montana*, var. nov.); Lithuania (Heller 2005). Beržynė, 28 07 2006 1 ♀ 1 ♂, Eičiai, 31 07 2006 3 ♀ 4 ♂, Jogaudai, 30 07 2006 1 ♀ 1 ♂, Kaskalnis forest, 28 07 2006 2 ♀ 1 ♂, Mačiūkiai,

30 07 2006 1♂, Mikašiūnai env., 04 09 1996 1♀ 2♂, Paburgė, 29 07 2006 4♀ 3♂, Šalčia River, 04 09 1996 2♀ 1♂, all E. B.; Stanuliškės, 14 09 1997 1♀, P. I. Widespread in Lithuania, however, seems to be less common than *Ch. dorsatus* and *Ch. parallelus*. Stenotopic to wet meadows and mires.

Chorthippus parallelus (Zetterstedt, 1821)

Belmontas, Karoliniškės, Kena, Paneriai, Ribiškės, Verkiai, 1922–1926 (Szeliga-Mierzeyewski 1927); Trakai, 1927–1929 (Grochowska 1935); Lithuania (Heller 2005). Beržoras, Dobiliai env., Dūkštos env., Girdžiūnai env., Jogaudai, Kaskalnis forest, Lūžija Nature Reserve, Mažuolių forest, Mikašiūnai env., Pagaujėnai, Pamedinčiai, Plokštinė, Pūčkoriai, Puvočiai, Puvočiai, Radvilonių forest, Šalčia River, Varnupys, all E. B.; Pajudynys, Pavejuonis Nature Reserve, G. Š.; Pakretuonė, Spengla River, H. O.; 98 imagoes, 04 07 – 06 10 1990–2006.

Eurytopic species, widespread in Lithuania. One of the commonest acridids in mesic grassland habitats.

Chorthippus pullus (Philippi, 1830)

Lentvaris, 1914 (Fedorowicz 1915, as *Stenobothrus*). Kaskalnis forest, 28 07 2006 1♀, Leipgiriai, 28 07 2006 5♀ 4♂, E. B.

Rare species, inhabiting dry coniferous forest glades and dry river banks.

Chrysochraon dispar (Germar, 1834)

Lithuania (Heller 2005). Beržynė, Beržoras, Dobiliai env., Eičiai, Jockiai, Jogaudai, Kaskalnis forest, Leipgiriai, Lūžija Nature Reserve, Mačiūkiai, Maižiškiai env., Margavonių forest, Mažuolių forest, Mikašiūnai env., Miškiniai, Paburgė, Prūsgiris, Radvilonių forest, Titnagų mounds, E. B.; 53 imagoes, 26 07 – 04 09 1996–2006.

Common in mesic meadows and mires of central and western Lithuania, however, seems to be rare in south-eastern and eastern parts of the country.

Euthystira brachyptera (Ocskay, 1826)

Lithuania (Heller 2005).

Eurytopic species of wet meadows and mires, has a boreo-montane distribution in Europe. According to its general distribution, the species may be present in Lithuania, however, we have no documented evidence of that except for the record of the Fauna Europaea database.

Subfamily Oedipodinae

Stethophyma grossum (Linnaeus, 1758)

Lentvaris, 1914 (Fedorowicz 1915, as *Mecosthetus*);

Mažalotė env., Pailgė, Pilaitė, Ribiškės, Verkiai, 1922–1926 (Szeliga-Mierzeyewski 1927); Lake Skaistis, Lake Totoriškių, 1927–1929 (Grochowska 1935); Lithuania (Heller 2005). Babrungėnai, Beržynė, Beržoras, Eičiai, Jockiai, Jogaudai, Kaskalnis forest, Kliošių forest, Mačiūkiai, Mažuolių forest, Mikašiūnai env., Miškiniai, Paburgė, Pūčkoriai, Titnagų mounds, Lake Trikampis, all E. B.; Šakiai, M. T.; Strošiūnai Nature Reserve, P. I.; 33 imagoes, 27 07 – 01 10 1996–2006.

Widespread throughout the country. Stenotopic to mires with large sedges (*Carex* sp.), common in suitable habitats.

Locusta migratoria (Linnaeus, 1758)

Verkiai, 28 08 1923 (Szeliga-Mierzeyewski 1927); Naujamiestis, 26 10 1929 (Szeliga-Mierzeyewski 1929); Kaunas env., 1948 (Mastauskis 1958); Lithuania (Heller 2005). Kaunas, 23 07 1937 1♂, Žadeikiai, 16 08 1937 1♂ (the latter two specimens are in the museum of the Zoological Department of Vilnius University). Migratory species that reached Lithuania several times during the last two centuries (references: see Mastauskis 1958; Jakimavičius *et al.* 1988). Not observed in Lithuania for the last 60 years.

Psophus stridulus (Linnaeus, 1758)

Kena, Mažalotė env., Pabradė, Pailgė, Pilaitė, Rūdninkai env., 1922–1926 (Szeliga-Mierzeyewski 1927); Puvočiai, 2002 (Budrys *et al.* 2004); Lithuania (Heller 2005). Meškerinė, 01 08 1998 1♂, Ūla River, 11 08 2000 1♀, both P. I.; Musteika env., 15 08 2005 1♀, Puvočiai, 08 07 – 24 08 2002 13♀ 85♂, Rūdninkai env., 04 09 1996 2♂ 1♀, all E. B.

Stenotopic to dry open habitats. A typical species of dry heaths (habitat 4030 of the Habitat Directive, Annex I). A few known populations exist in southeastern Lithuania; the species seems to be absent in other parts of the country.

Oedipoda caerulescens (Linnaeus, 1758)

Mažalotė env., Pabradė, Pailgė, Rūdninkai env., Verkiai, Vingis park, 1922–1926 (Szeliga-Mierzeyewski 1927, as *O. coerulescens*); Trakai, Varnikai, 1927–1929 (Grochowska 1935, as *O. coerulescens*); Puvočiai, 2002 (Budrys *et al.* 2004); Lithuania (Heller 2005). Giedraičiai, 15 07 2001 1♀, Girdžiūnai env., 13 07 2005, 12 08 2005, Lūžija Nature Reserve, 27 07 2005 1♂, Marcinkonys env., 29 07 2005 1♀, Prūsgiris, 28 07 2006 1♀, Puvočiai, 08 07 – 24 08 2002 147♀ 98♂, Rūdninkai env., 04–09 09 1996 1♀ 1♂, all E. B.; Graudūšiai, 28 07 2004 1♀ 1♂, Stanuliškės, 30 07 1998 1♀, P. I.

Stenotopic to dry sandy habitats, including those of

Community interest (habitats 2320, 2330 and 4030). Rather common in suitable habitats of southern and eastern Lithuania, and along the Baltic Sea coast, sometimes even found in urban areas, however, seems to be rare or absent in other parts of the country.

Bryodemella tuberculata (Fabricius, 1775)

Mažalotė env., 18–20 07 1924 4♀ (the latter specimens collected by Prof. Jan Prüffer are in the museum of the Zoological Department of Vilnius University); 20–30 09 1924 2♀ 2♂; Pavoverė env., 12 07 1925 1♀ (Szeliga-Mierzeyewski 1927, as *Bryodema*); Lithuania (Heller 2005).

Stenotopic to open dry grasslands. Not observed in Lithuania for 80 years.

Sphingonotus caerulans (Linnaeus, 1767)

Mažalotė env., 1924–1925 (Szeliga-Mierzeyewski 1927, as *S. cyanopterus*); Puvočiai, 2002 (Budrys *et al.* 2004); Gerdašiai, Meškerinė, Tribonys, 2002 (Ivinskis *et al.* 2004); Lithuania (Heller 2005). Juodkrantė env., 02 07 1979 1♀ 1♂, Marcinkonys env., 29 07 2005 1♂, Puvočiai, 08 07 – 24 08 2002 184♀ 133♂, 15 07 2004 1♀, 17 07 2005 2♀ 1♂, Rūdninkai env., 09 09 1996 1♂, all E. B.

Uncommon species, stenotopic to open sandy grasslands and heaths. A typical species of grey dunes of the Curonian Spit (habitat 2130 of the Habitat Directive, Annex I) and of inland dunes of southeastern Lithuania (same, habitat 2330). Protected by law (included in the national Red List).

DISCUSSION

The checklist of the Orthoptera of Lithuania contains 45 species, two of them (*Modicogryllus frontalis* and *Barbitistes constrictus*) have been recorded for the first time. We have no documented data on the three species (*Gomphocerippus rufus*, *Omocestus rufipes* and *Euthystira brachyptera*) that are distributed in Lithuania according to the Fauna Europaea online database (Heller 2005). However, the general distribution of these species and their presence in northern and northeastern Poland, close to the border of Lithuania (Bazyluk & Liana 2000), supports the possibility of their presence in Lithuania.

Six species seem to be at or close to their northern distribution limit in Lithuania: *Gryllus campestris*, *Modicogryllus frontalis*, *Meconema thalassinum*, *Platycleis montana*, *Stenobothrus lineatus*, and *S. stigmaticus*. Particularly interesting is the presence of *M. frontalis*, the nearest known finding sites of which

are in central Poland (Bazyluk & Liana 2000), at a distance of several hundred kilometres to the south. Poor ability to fly and multiple records from the same site prove that this species has a stable local population in Lithuania. Another interesting finding is *Platycleis montana*, which is considered a southern species declining in central Europe (Bazyluk & Liana 2000; Reinhardt *et al.* 2005). The species flies well, and the site of the recent finding is close to the border of Belarus, thus the presence of a permanent population of this species in Lithuania needs confirmation.

Two species have not been observed in Lithuania since the first half of the 20th century. *Bryodemella tuberculata* was last recorded eight decades ago and it is probably extinct. *Locusta migratoria* is a rare visitor, migrating far from its breeding sites and occasionally reaching Lithuania, it was last observed six decades ago.

Two rare species, *Podisma pedestris* and *Sphingonotus caerulans*, are included in the national Red List and protected by law. These species seem to be declining in other parts of central Europe: a study in Germany (Reinhardt *et al.* 2005) has revealed that the distribution of *P. pedestris*, as compared to the records before 1980, has reduced by 63% and that of *S. caerulans* by 48%. As no regular monitoring of Orthoptera has been performed in Lithuania, we currently cannot assess the degree of a recent decline in the national populations of these and other species. However, based on the available distribution and abundance data we suggest that the Lithuanian populations of some Orthoptera species require protection, because they are (1) considerably rarer than the others, (2) stenotopic to vulnerable, thus protected habitats of the Habitat Directive, Annex I, and (3) they are declining in the neighbouring countries due to habitat loss. The distribution of these species should be additionally studied, their population sizes assessed and they should be included in the new edition of the national Red List.

Among such species, we should first mention *Modicogryllus frontalis*, which is considered rare and declining in whole central Europe. The distribution of *M. frontalis* e.g. in Germany has recently reduced by 60% (Reinhardt *et al.* 2005). This species is considered critically endangered (Red List category 1) in Germany (Hirneisen 2003) and endangered in Poland (Liana 2004a). The species is absent from Scandinavia and Latvia.

The second rare and probably declining species is *Gryllus campestris*. It was rather common in southeastern Lithuania at the beginning of the 20th century (Fedorowicz 1915; Szeliga-Mierzeyewski 1927). However, recent records of the species are very few. Most probably, the species is declining due to abandonment,

natural succession or afforestation of suitable habitats, dry and xeric grasslands.

The next endangered species is *Stenobothrus stigmaticus*, the distribution of which in Germany has recently reduced by 43% (Reinhardt *et al.* 2005) and which belongs to category 3 (vulnerable) in the Red List of that country. The species was rather common in the first half of the 20th century in the Vilnius area (Szeliga-Mierzeyewski 1927; Grochowska 1935), however, during the recent studies, it has been found in only two sites of Dieveniškės Regional Park.

Chorthippus pullus is another rare and declining species in central Europe. Its distribution has recently reduced by 73% in Germany (Reinhardt *et al.* 2005) and it is regarded as critically endangered (Red List category 1) there. In Lithuania, the only known population has been found in Viešvilė Strict Nature Reserve. *Psophus stridulus* has been relatively numerous in a few areas of southeastern Lithuania with suitable habitats, particularly the former Soviet Army training grounds. Currently it declines due to natural succession in dry heaths, the lack of new successional habitats following forest fires, and afforestation of heaths. The distribution of the species has recently reduced by 55% in Germany (Reinhardt *et al.* 2005) and by 50% in Poland (Liana 2004c). It is regarded as endangered (Red List category 2) in Germany (Hirneisen 2003) and Poland (Liana 2004c), and has the status of a rare species (Red List category 3) in Latvia (Spuris 1998).

Finally, *Bryodemella tuberculata* is considered a rapidly declining and critically endangered species in central Europe. Its distribution has recently decreased by 78% in Germany (Reinhardt *et al.* 2005), thus it is currently listed as critically endangered (category 1) there. The species has not been observed since the 1950s in Poland (Liana 2004b), whereas its last records from Latvia (Spuris 1998) and Lithuania (Szeliga-Mierzeyewski 1927) belong to the 1920s. Most probably, it is extinct in Lithuania and must be ascribed to category 0 (locally extinct) in the next edition of the national Red List.

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LIETUVOS TIESIASPARNIAI (INSECTA: ORTHOPTERA)

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SANTRAUKA

Straipsnyje apibendrinti anksčiau žinomi ir pateikiami nauji duomenys apie Lietuvos tiesiasparnių fauną. Šiuo metu Lietuvoje aptiktos 42 šių vabzdžių rūšys: dirvoninis (*Gryllus campestris*), naminis (*Acheta domestica*) ir juostakaktis (*Modicogryllus frontalis*) svirpliai, kurklys (*Gryllotalpa gryllotalpa*), šilinis pjūklis (*Barbitistes constrictus*), girinis siūlaūsis (*Meconema thalassinum*), pelkinis smailialgalvis (*Conocephalus dorsalis*), žiogas giesmininkas (*Tettigonia cantans*), žaliasis (*T. viridissima*), margasis (*Decticus verrucivorus*) ir keršasis (*Pholidoptera griseoptera*) žiogai, dvispalvis (*Metrioptera bicolor*), raistinis (*M. brachyptera*), paprastasis (*M. roeselii*), baltataškis (*Platycleis albopunctata*) ir kalninis (*P. montana*) spragtukai, dvitaškis (*Tetrix bipunctata*), lieknasis (*T. subulata*), ilgaūsis (*T. tenuicornis*) ir pelkinis (*T. undulata*) šokliukai, besparnis skėriukas (*Podisma pedestris*), margasis ietinukas (*Myrmeleotettix maculatus*), raudonpilvis (*Omocestus haemorrhoidalis*), žaliasis (*O. viridulus*), didžiaagalvis (*Stenobothrus lineatus*), sauspievinis (*S. stigmaticus*), baltajuostis (*Chorthippus albomarginatus*), dirvoninis (*Ch. apricarius*), paprastasis (*Ch. biguttulus*), rusvasis (*Ch. brunneus*), vėlyvasis (*Ch. mollis*), ganyklinis (*Ch. dorsatus*), pelkinis (*Ch. montanus*), pievinis (*Ch. parallelus*), raudonkojis (*Ch. pullus*) ir neporinis (*Chrysochraon dispar*) skėriukai, viksvinis skėrys (*Stethophyma grossum*), skėrys keleivis (*Locusta migratoria*), raudonsparnis (*Psophus stridulus*), mėlynsparnis (*Oedipoda caerulea*), margasis (*Bryodemella tuberculata*) ir kopinis (*Sphingonotus caerulea*) tarkšliai. Iš jų juostakaktis svirplys ir pušyninis pjūklis pirmą kartą rasti Lietuvoje. Dar 3 rūšys, kurių radimo Lietuvoje patvirtinimų kol kas neturime, nurodomos Fauna Europaea duomenų bazėje kaip gyvenančios mūsų šalyje: rudasis ietinukas (*Gomphocerippus rufus*), margapilvis (*Omocestus rufipes*) ir trumpasparnis (*Euthystira brachyptera*) skėriukai. Skėrys keleivis yra Pietų Europos rūšis, retkarčiais aplankanti Lietuvą migracijų metu; paskutinį kartą mūsų šalyje ji stebėta 1948 m. Margasis tarkšlys Lietuvoje paskutinį kartą stebėtas 1925 m., šiuo metu jis greičiausiai išnykęs. Pateikiamas siūlymas suteikti apsaugos statusą 5 rūšims – dirvoniniui ir juostakakčiui svirpliams, sauspieviniui ir raudonkojiui skėriukams bei raudonsparniui tarkšliui.

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