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Orthoptera fauna of the Ukrainian part of the Bereg Plain (Transcarpathia, Western Ukraine)

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Abstract

The Orthoptera fauna of the Bereg Plain is only partly known. While the Hungarian part of the area was intensively studied, investigations in the Ukrainian part have only just started in 2010. On the basis of published data and results of our samplings between 2010 and 2014 here we present distribution data of 52 Orthoptera species (24 Ensifera and 28 Cealifera) living in the Ukrainian part. This actual data set together with the data of the Hungarian part may serve as a basis for further biogeographical, conservation biological and faunistical studies of the whole Bereg Plain area.

Zusammenfassung

Die Orthopterenfauna der Bereger Ebene war bislang sehr ungleichmäßig erforscht. Während die ungarische Seite über mehrere Jahre systematisch erforscht wurde, haben Untersuchungen auf der ukrainischen Seite erst im Jahr 2010 begonnen. Aufgrund der schon veröffentlichten Angaben und unseren eigenen Erfassungen zwischen 2010 und 2014 haben wir das Vorkommen von 52 Orthopterenarten (24 Ensifera und 28 Caelifera) für den ukrainischen Teil nachgewiesen. Diese Datengrundlage bietet uns nun die Möglichkeit vergleichende faunistische, biogeographische und naturschutzbiologische Untersuchungen für beide Teile der Bereger Ebene durchzuführen.

Introduction

The Bereg Plain is situated at the north-eastern edge of the Hungarian Great Plain and divided by the Hungarian-Ukrainian border. This part of lowland shows a unique mosaic landscape structure due to the various land use types of the local population. Thanks to some relatively undisturbed habitats numerous species which are protected in Hungary occur in the area (VARGA 1992). Most of the forests belong to the hardwood gallery forests which are often forming an association complex with hornbeam oak-woods (FEKETE & VARGA 2006). The outstanding values of these forest types are the mountain species with relict character in lowlands. The monography of SIMON (1953) has already drawn attention to the importance of these plants. The systematic zoological research has been started in the 1980's on the Hungarian side of the plain and based on the occurrence of terrestrial snails, beetles, butterflies and moths this area can be designated to "Praecarpaticum", i.e. a transitional zone forming a dynamic, fluctuating connection between "Pannonicum" and "Carpathicum" (VARGA 1992, 1995, 2003, DELI et al. 1995, 1996, DELI & SÜMEGI 1999, KÖDÖBÖCZ & MAGURA 1999, GÁLIK et al.

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2001). According to earlier publications a similar situation was also observed in Orthopterans (GALLÉ & GAUSZ 1968, NAGY et al. 2010, NAGY et al. in press). As the habitats of the Bereg Plain continue over the country border, research should be extended to the Transcarpathian side of the lowland which has probably closer connections to the Carpathians as shown already in ground beetles by KÖDÖBÖCZ & MAGURA (1999). The first data on the Orthoptera of Transcarpathia were published in the 1950's (LIKOVITCH 1957, 1959). We started our surveys in the 2010's. The aim of this paper is to summarise the results of surveys carried out before 2010 and between 2010 and 2014 on the Transcarpathian side of the Bereg Plain.

Materials and Methods

Our research areas are mainly located on the Transcarpathian side of the historical Bereg County (Fig. 1). The region has the most continental climate and a lower annual average temperature (mean annual temperature: 8.9 °C, mean annual precipitation: 609 mm) than in other parts of the Hungarian Great-plain (SIMON 1953). The area is characterized by the presence of some island-like vulcanic hills which break the monotony of the lowland and host some characteristic Carpathian faunal elements. In this area we can find a harmonic arrangement of hard- and softwood gallery forests, a variety of semi-natural or disturbed wet, mesic or dry grasslands and agricultural fields. The different components of the vegetation are forming a heterogeneous and mosaic-like landscape structure, which also supports a high diversity of insect assemblages. During our field work we tried to map the Orthoptera fauna of the semi-natural and disturbed grasslands of this area.

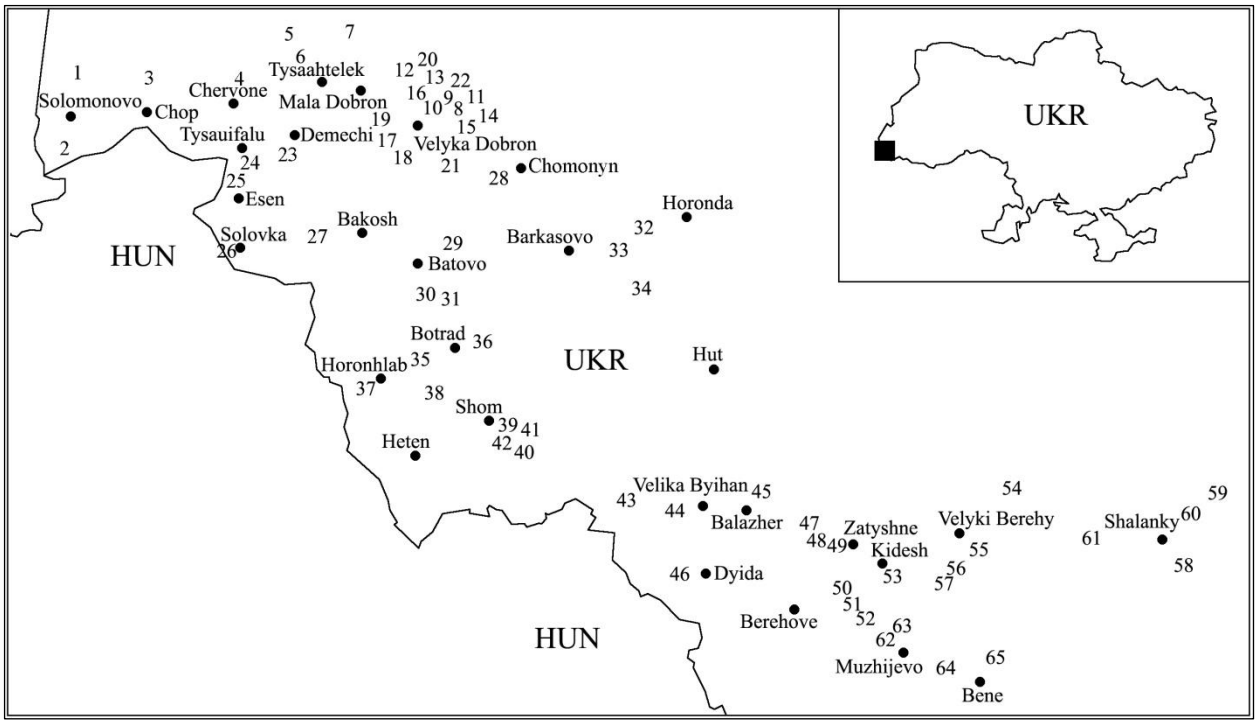

Figure 1: Geographical location of the 65 Orthoptera sampling sites of the Ukrainian part of the Bereg Plain (Nortwest Ukraine).

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Data collection and sampling

There are already five publications about the grasshopper fauna of this area (see below). Data of these publications were processed and completed with unpublished data from 2010 to 2014. The publications to date documented the presence of 49 species on 22 sampling sites. On 12 of these localities repeated samplings were performed. Beside them, between 2010 and 2014 the surveys were extended to 41 additional sampling areas. Total number of studied areas is 65 (Fig. 1, Table 1). Most of the sampling sites were visited only once. The number of repeatedly sampled locations was 16. Sampling was made by sweep netting and direct search. The samples were stored in 70% ethanol until identification. We used the keys of HARZ (1957, 1969, 1975) completed by the publication of HELVERSEN (1986). The check list follows the work of NAGY B. (2003).

In the case of previously published data we have given the code of publications (see below) and in the case of unpublished data the abbreviation of the name of collectors.

[K1] KRIŠTÍN, A., BALLA, M., FABRICIUSOVÁ, V., HRÚZ, V. & KAŇUCH, P. (2011): Orthoptera and Mantodea in fragments of seminatural habitats in lowlands of SE Slovakia and SW Transcarpathian Ukraine. – Articulata 26 (2): 109-121

[N1] NAGY, A., SZANYI, SZ., MOLNÁR, A., & RÁCZ, I.A. (2011): Preliminary data on the Orthoptera fauna of the Velyka Dobron' Wildlife Reserve (west Ukraine). – Articulata 26 (2): 123-130

[Sz1] SZANYI, Sz. (2011): First data to the Orthoptera fauna of the Transcarpathian part of the Bereg Plain. In. Hung. [Első adatok a Beregi-sík kárpátaljai részének egyenesszárnyú (Orthoptera) faunájához.] – Calandrella XIV., Debrecen, pp. 177-178.

[Sz2] SZANYI, SZ.& KÖDÖBÖCZ, K., (2013): First data to the Orthoptera fauna of the Somi-hill (Bereg Plain, west Ukraine). In Hung. [Első adatok a "Somi-hegy" (Beregi-sík, Nyugat-Ukrajna) egyenesszárnyú (Orthoptera) faunájához.] – Acta Academiae Beregsasiensis XII: (2) pp. 217-219

[Sz3] SZANYI, SZ., KATONA, K., & RÁCZ, I.A., (2014): Preliminary data to the Orthoptera fauna of the Berehove hills. In Hung. [Előzetes adatok a Berehovei-dombság Orthoptera faunájához (Kárpátalja, Ukrajna).] – Tájökológiai lapok 12: (1) pp. 107-115

The unpublished data were collected by Szabolcs Szanyi and Krisztián Katona which is mentioned in the text as [Sz&K].

Table 1: List of the 65 Orthoptera sampling sites of the Ukrainian part of the Bereg Plain (Nortwest Ukraine). The codes of localities are the same as used in Fig 1.

Code	Township	Location	GPS: N	GPS: E
1	Solomonovo 1			
2	Solomonovo 2			
3	Chop			
4	Chervone	pasture	48°26'41.38"	22°16'29.11"
5	Mali Heivtsi	pasture of Mali Heivtsi	48°27'47.68"	22°18'34.72"
6	Tysaahtelek		48°27'12.81"	22°18'55.12"
7	Mala Dobron’	pasture	48°27'47.44"	22°20'53.68"
8	Velyka Dobron	"Felső" (Upper) forest	48°25'45.16"	22°25'09.40"
9	Velyka Dobron	"Kis-makkos" forest	48°25'58.60"	22°24'42.71"
10	Velyka Dobron	"Körerdő" forest	48°25'49.65"	22°24'12.16"
11	Velyka Dobron	Masonca	48°25'52.73"	22°25'43.07"

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Code	Township	Location	GPS: N	GPS: E
12	Velyka Dobron	"Nyárfás" forest	48°26'46.00"	22°23'14.16"
13	Velyka Dobron	old piggery	48°26'22.58"	22°24'19.19"
14	Velyka Dobron	wildlife reserve 1.	48°25'18.06"	22°25'58.50"
15	Velyka Dobron	wildlife reserve 2.	48°25'13.33"	22°25'49.82"
16	Velyka Dobron	Szapat	48°26'06.77"	22°23'51.67"
17	Velyka Dobron	farm-stead	48°24'52.08"	22°22'22.66"
18	Velyka Dobron	brickyard	48°24'35.65"	22°22'50.98"
19	Velyka Dobron	"Körpatak" stream	48°25'25.03"	22°22'09.95"
20	Velyka Dobron		48°26'48.99"	22°23'52.36"
21	Velyka Dobron	orchards	48°24'27.93"	22°24'35.89"
22	Velyka Dobron	"Misák Zoli's" meadow	48°26'19.30"	22°24'54.82"
23	Demetchi			
24	Tysauifalu			
25	Esen			
26	Solovka			
27	Bakosh	xeric grassland	48°22'16.86"	22°19'18.26"
28	Chomonyn	pasture	48°24'04.89"	22°26'27.39"
29	Bat'ovo	pasture	48°22'06.11"	22°24'38.72"
30	Bat'ovo	bank of the lake No 5	48°20'54.32"	22°23'46.99"
31	Bat'ovo	railway embankment	48°20'36.40"	22°24'22.76"
32	Horonda	abandoned pasture	48°22'14.49"	22°32'24.30"
33	Barkasovo	pasture	48°21'40.10"	22°31'16.37"
34	Hut	roadside	48°20'40.50"	22°32'11.66"
35	Batrad'	abandoned pasture	48°18'53.78"	22°23'18.92"
36	Batrad'	farm-stead	48°19'28.22"	22°25'36.96"
37	Horonhlab	pasture	48°18'18.45"	22°21'03.43"
38	Heten	clearing	48°18'09.54"	22°23'43.46"
39	Shom	pasture	48°16'54.29"	22°26'52.02"
40	Shom	Shom Hill	48°16'44.75"	22°27'15.64"
41	Shom	Shom Hill	48°16'55.73"	22°27'14.73"
42	Shom	xeric grassland	48°16'43.45"	22°26'58.54"
43	Velyka Byihan	Byihan Hill	48°15'03.72"	22°31'11.34"
44	Velyka Byihan	pasture	48°14'42.04"	22°33'18.34"
45	Balazher	pasture	48°15'16.03"	22°36'40.02"
46	Dyida	pasture	48°12'51.26"	22°33'27.65"
47	Berehove	"Nagy" (Great) Hill (hillfoot)	48°14'09.31"	22°38'42.75"
48	Berehove	"Nagy" (Great) Hill (rocks)	48°13'56.02"	22°38'54.51"
49	Zatyshnye	querry	48°13'36.32"	22°39'40.79"
50	Berehove	"Kereszt" (Rood) Hill (abandoned vineyard)	48°12'13.91"	22°39'56.04"
51	Berehove	"Kereszt" (Rood) Hill	48°12'02.50"	22°40'10.50"
52	Berehove	abandoned vineyard	48°11'50.97"	22°40'28.81"
53	Kidesh	meadow	48°12'44.83"	22°41'47.27"
54	Velyki Berehy	Berehy lake	48°15'00.09"	22°46'47.88"
55	Velyki Berehy	hillside	48°13'24.55"	22°45'17.90"
56	Velyki Berehy	abandoned vineyard	48°12'47.46"	22°44'15.75"
57	Velyki Berehy	mesic grassland	48°12'40.14"	22°44'05.74"
58	Shalanky	aquifier	48°12'47.50"	22°53'36.35"
59	Shalanky	bank of the Borzsa stream	48°14'36.95"	22°55'00.60"
60	Shalanky	cemetery	48°14'01.48"	22°53'54.47"
61	Shalanky	"Nagy" (Great) forest	48°13'35.22"	22°49'58.56"
62	Muzhijevo	grassland	48°11'13.85"	22°41'57.58"
63	Muzhijevo	abandoned arable	48°11'17.96"	22°42'03.39"
64	Muzhijevo	abandoned mine	48°10'15.81"	22°43'42.47"
65	Bene	"Szőlős" (Vineyard) Hill	48°10'25.78"	22°45'57.40"

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Distribution data of Orthoptera species

The distribution of grasshoppers on the Transcarpathian region of the Bereg Plain is indicated by the followings: township (bold), code of the location (in italics, see also Table 1), date(s) of collection, code of the data source (article), in case of new data the abbreviated names of collectors in brackets; for instance: **Velyka Dobron'**: *8* 2012 [Sz&K]. Sampling sites belonging to the same township are drawn together separated by comma: **Velyka Dobron'**: *8* 2012 [Sz&K], *9* 2013 [Sz&K], *10* 2014 [Sz&K]. The localities were arranged by increasing code numbers. If the location was unknown only the community name was given. In case of community names the Latinized versions of the Ukrainian names were used.

Phaneroptera falcata (Poda, 1761)

Bat'ovo: *30* 2014 [Sz&K], *31* 2013 [Sz&K]; **Berehove**: *52* 2014 [Sz&K], *47* 2014 [Sz&K]; **Chervone**: *4* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012 [Sz&K]; **Muzhijevo**: *62* 2014 [Sz&K]; **Shalanky**: *59* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *56* 2013 [Sz3]; **Velyka Dobron'**: *8* 2012, 2013, 2014 [Sz&K], *9* 2013, 2014 [Sz&K], *10* 2014 [Sz&K], *11* 2012 [Sz&K], *12* 2010 [N1], *13* 2010 [N1], *14* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *15* 2010 [N1], 2014 [Sz&K], *16* 2013 [Sz&K], *17* 2010 [N1], *20* 2014 [Sz&K]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

Isophya stysi Cejchan, 1957

Velyka Byihan: *43* 2013 [Sz&K].

Leptophyes albovittata (Kollar, 1833)

Bat'ovo: *30* 2013 [Sz&K]; **Batrad':** *35* 2013 [Sz&K]; **Berehove**: *52* 2014 [Sz&K] *50* 2013 [Sz3]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Dyida**: *46* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Horonda**: *32* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut:** *34* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mali Heivtsi**: 5 2011 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011 [Sz1], *61* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3]; 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *55* [Sz3], *57* 2013 [Sz3], *56* 2013 [Sz3]; **Velyka Byihan**: *43* 2013 [Sz3]; **Velyka Dobron'**: *8* 2012, 2014 [Sz&K], *9* 2013, 2014 [Sz&K], *10* 2014 [Sz&K], *14* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *15* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *16* 2013 [Sz&K], *20* 2010 [N1], 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3].

Leptophyes discoidalis (Frivaldszky, 1867)

Berehove: *48* 2014 [Sz&K]; **Mali Heivtsi**: *5* 2014 [Sz&K]; **Shom**: *41* 2013 [Sz3]; **Solovka**: 2011 [K1].

Poecilimon schmidtii (Fieber, 1853)

Solovka: 2011 [K1].

Meconema thalassinum (DeGeer, 1773)

Solovka: 2011 [K1].

Conocephalus discolor Thunberg, 1815

Bakosh: *27* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Batrad':** *35* 2013 [Sz&K]; **Bat'ovo**: *30* 2013, 2014 [Sz&K], *29* 2013 [Sz&K], *31* 2013 [Sz&K]; **Bene:** *65* [2014]; **Berehove**: *52* 2014 [Sz&K], *47* 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012, 2013, 2014 [Sz&K]; **Muzhijevo**: *63* 2014 [Sz&K], *62* 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011

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[Sz1], *60* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *54* 2012 [Sz&K], *56* 2013 [Sz3]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K]; *44* 2013 [Sz&K]; **Velyka Dobron'**: *8* 2012, 2013, 2014 [Sz&K], *9* 2010 [N1], 2012, 2013, 2014 [Sz&K], *10* 2010 [N1], *11* 2012 [Sz&K], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *14* 2011 [Sz1], *15* 2010 [N1], 2012, 2013, 2014 [Sz&K], *16* 2012, 2013, 2014 [Sz&K], *17* 2010 [N1], *19* 2014 [Sz&K], *20* 2010 [N1], 2014 [Sz&K], *22* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3].

Conocephalus dorsalis (Latreille, 1804)

Bat'ovo: *30* 2013 [Sz&K]; **Berehove**: *48* 2013 [Sz3]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2013, 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Velyki Berehy**: *55* 2013 [Sz3]; **Velyka Dobron'**: *8* 2012 [Sz&K], *11* 2012 [Sz&K].

Ruspolia nitidula (Scopoli, 1786)

Bat'ovo: *30* 2013, 2014 [Sz&K], *31* 2013 [Sz&K]; **Heten**: *38* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012, 2014 [Sz & K]; **Muzhijevo**: *63* 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1]; **Shom**: 40 2013 [Sz2], *41* 2013 [Sz3]; **Solomonovo**: Solomonovo I 2011 [K1]; **Tysaahtelek**: *6* 2011 [Sz1]; **Velyka Byihan**: *43* 2014 [Sz&K]; **Velyki Berehy**: *55* 2012 [Sz&K], *54* 2012 [Sz&K];**Velyka Dobron'**: *8* 2012, 2014 [Sz&K], *9* 2012, 2014 [Sz&K], *10* 2014 [Sz&K], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *14* 2011 [Sz1], 2013, 2014 [Sz&K], *15* 2010 [N1], 2011 [Sz1], 2012, 2014 [Sz&K], *16* 2012, 2013 [Sz&K], *17* 2010 [N1], *19* 2014 [Sz&K], *20* 2014 [Sz&K], *22* 2014 [Sz&K].

Tettigonia cantans (Fuessli, 1775)

Shom : *40* 2013 [Sz2].

Tettigonia viridissima Linnaeus, 1758

Bat'ovo: *30* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1];]; **Heten**: *38* 2013 [Sz&K]; **Shalanky**: *61* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Velyka Byihan**: *43* 2013 [Sz3]; **Velyka Dobron'**: *8* 2012 [Sz&K], *9* 2012 [Sz&K], *10* 2012 [Sz&K], *15* 2012 [Sz&K].

Decticus verrucivorus (Linnaeus, 1758)

Chop: 2011 [K1]; **Demetchi**: 2011 [K1]; **Mali Heivtsi**: *5* 2011; **Shom**: *40* 2013 [Sz2], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyka Dobron'**: *10* 2014 [Sz&K], *13* 2010 [N1], *14* 2011 [Sz1], 2012, 2014 [Sz&K].

Platycleis albopunctata (Goeze, 1778)

Berehove: *52* 2014 [Sz&K], *48* 2013 [Sz3], 2014 [Sz&K]; **Chop:** 2011 [K1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Muzhijevo**: *64* 2014 [Sz&K], *62* 2014 [Sz&K]; **Velyka Byihan**: *43* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

Metrioptera bicolor (Philippi, 1830)

Batrad': *36* 2013 [Sz&K]; **Berehove**: *47* 2014 [Sz&K]; **Chop:** 2011 [K1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *56* 2014 [Sz&K]; **Velyka Dobron'**: *13* 2014 [Sz&K].

Metrioptera roeselii (Hagenbach, 1822)

Bakosh: *27* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Batrad':** *36* 2013 [Sz&K], *35* 2013 [Sz&K]; **Bat'ovo**: *30* 2014 [Sz&K], *31* 2013 [Sz&K]; **Berehove**: *48* 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Horonda**: *32* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2012, 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *55* 2012 [Sz&K], *54* 2012 [Sz&K]; **Velyka Byihan**: *43* 2013 [Sz3], *44* 2013 [Sz&K]; **Velyka Dobron'**: *8* 2012, 2014

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[Sz&K], *9* 2010 [N1], 2012, 2014 [Sz&K], *10* 2010 [N1], 2012, 2013, 2014 [Sz&K], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *14* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *15* 2010 [N1], 2012, 2013, 2014 [Sz&K], *16* 2012, 2013 [Sz&K], *17* 2010 [N1], *18* 2010 [N1], *19* 2014 [Sz&K], *20* 2010 [N1], 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3].

Pholidoptera fallax (Fischer, 1853)
Heten: *38* 2013 [Sz&K].

Pholidoptera griseoaptera (De Geer, 1773)
Mali Heivtsi: *5* 2014 [Sz&K]; **Shalanky**: *59* 2011 [Sz1], *61* 2011 [Sz1]; **Solomonovo**: Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Velyka Dobron'**: *8* 2012, 2014 [Sz&K], *9* 2010 [N1], 2014 [Sz&K], *10* 2010 [N1], *14* 2013 [Sz&K], *15* 2010 [N1], 2012, 2014 [Sz&K].

Pachytrachis gracilis (Brunner von Wattenwyl, 1861)
Velyka Byihan: *43* 2013 [Sz3], 2014 [Sz&K].

Gryllus campestris Linnaeus, 1758
Chop: 2011 [K1]; **Demetchi**: 2011 [K1]; **Velyki Berehy**: *55* 2013 [Sz3]; **Velyka Byihan**: *43* 2014 [Sz&K].

Melanogryllus desertus (Pallas, 1771)
Solomonovo: Solomonovo I 2011 [K1]; **Solovka**: 2011 [K1]; **Zatyshnye**: *49* 2014 [Sz&K].

Modicogryllus frontalis (Fieber, 1844)
Chop: 2011 [K1]; **Solovka**: 2011 [K1]; **Velyka Byihan**: 43 2014 [Sz&K]; **Velyka Dobron'**: *15* 2013 [Sz&K];

Pteronemobius heydenii (Fischer, 1853)
Solovka: 2011 [K1].

Oecanthus pellucens (Scopoli, 1763)
Bat'ovo: *29* 2013 [Sz&K]; **Bene:** *65* 2014 [Sz&K]; **Berehove**: *52* 2014 [Sz&K], *48* 2013 [Sz3], 2014 [Sz&K], *51* 2014 [Sz&K], *47* 2014 [Sz&K]; **Chomonyn:** *28* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Dyida:** *46* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Horonda**: *32* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Shalanky**: *59* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *57* 2013 [Sz3], *56* 2014 [Sz&K]; **Velyka Byihan**: *43* 2014 [Sz&K]; **Velyka Dobron'**: *10* 2014 [Sz&K], *13* 2010 [N1], 2014 [Sz&K], *15* 2010 [N1], *16* 2013, 2014 [Sz&K], *21* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

Gryllotalpa gryllotalpa (Linnaeus, 1758)
Solovka: 2011 [K1].

Odontopodisma rubripes Ramme, 1931
Berehove: *52* 2014 [Sz&K]; **Esen**: 2011 [K1]; **Shalanky**: *59* 2011 [Sz1], *60* 2011 [Sz1], *61* 2011 [Sz1]; **Solomonovo**: Solomonovo I 2011 [K1]; **Solovka**: 2011 [K1]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K].

Calliptamus italicus (Linnaeus, 1758)
Bene: *65* 2014 [Sz&K]; **Berehove**: *52* 2014 [Sz&K], *48* 2013 [Sz3], *50* 2013 [Sz3], *51* 2014 [Sz&K]; **Muzhijevo**: *64* 2014 [Sz&K], *62* 2014 [Sz&K]; **Shalanky**: *61* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Solovka**: 2011 [K1]; **Velyki Berehy**: *57* 2013 [Sz3]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

Oedipoda coerulescens (Linnaeus, 1758)
Berehove: *51* 2014 [Sz&K], *47* 2014 [Sz&K]; **Muzhijevo**: *64* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

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Aiolopus thalassinus (Fabricius, 1781)
Balazher: *45* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2012 [Sz & K]; **Shom**: *40* 2013 [Sz2], *39* 2013 [Sz&K], *42* 2013 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Velyki Berehy**: *55* 2012 [Sz&K], 2013 [Sz3]; **Velyka Dobron'**: *9* 2012, [Sz&K], *11* 2012 [Sz&K], *14* 2011 [Sz1], *15* 2011 [Sz1], 2013 [Sz&K], *18* 2010 [N1], *19* 2014 [Sz&K].

Stethophyma grossum (Linnaeus, 1758)
Bat'ovo: *30* 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012, 2013, 2014 [Sz & K]; **Velyka Dobron'**: *11* 2012 [Sz&K].

Mecostethus parapleurus (Germar, 1817)
Barkasovo: *33* 2013 [Sz&K]; **Bat'ovo**: *30* 2013, 2014 [Sz&K]; **Berehove**: *52* 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Heten**: *38* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012, 2013, 2014 [Sz & K]; **Shalanky**: *59* 2011 [Sz1]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Tysaahtelek**: 2011 [Sz1]; **Velyka Dobron'**: *8* 2012 [Sz&K], *9* 2013, 2014 [Sz&K], *11* 2012 [Sz&K], *13* 2010 [N1], *14* 2013, 2014 [Sz&K], *15* 2011 [Sz1], *20* 2010 [N1], 2014 [Sz&K].

Chrysochraon dispar (Germar, 1834)
Bat'ovo: *30* 2014 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2014 [Sz & K]; **Shalanky**: *58* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *54* 2012 [Sz&K], *56* 2013 [Sz3]; **Velyka Dobron'**: *8* 2012, 2013, 2014 [Sz&K], *12* 2010 [N1], *15* 2010 [N1], 2012, 2013, 2014 [Sz&K], *20* 2014 [Sz&K].

Euthistyra brachyptera (Ocskay, 1826)
Berehove: *50* 2013 [Sz3]; **Kidesh**: *53* 2013 [Sz&K]; **Velyka Dobron'**: *8* 2012 [Sz&K], *11* 2012 [Sz&K], *14* 2012 [Sz&K], *15* 2012 [Sz&K].

Stenobothrus crassipes (Charpentier, 1825)
Bakosh: *27* 2013 [Sz&K]; **Balazher:** *45* 2013 [Sz&K]; **Batrad':** *36* 2013 [Sz&K], *35* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Horonda**: *32* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Shom**: *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyka Byihan**: *44* 2013 [Sz&K]; **Velyka Dobron'**: *9* 2013 [Sz&K].

Stenobothrus lineatus (Panzer, 1796)
Heten: *38* 2013 [Sz&K]; **Horonda**: *32* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Muzhijevo**: *62* 2014 [Sz&K]; **Shalanky**: *59* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2]; **Tysauifalu**: 2011 [K1]; **Velyka Dobron'**: *15* 2014 [Sz&K].

Stenobothrus stigmaticus (Rambur, 1838)
Velyki Berehy: *55* 2012 [Sz&K].

Omocestus haemorrhoidalis (Charpentier, 1825)
Berehove: *48* 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Hut**: *34* 2013 [Sz&K]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3]; **Solomonovo**: Solomonovo II 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *55* 2013 [Sz3]; **Velyka Byihan**: *43* 2013 [Sz3]; **Velyka Dobron'**: *20* 2014 [Sz&K].

Omocestus rufipes (Zetterstedt, 1821)
Balazher: *45* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Batrad':** *36* 2013 [Sz&K]; **Bat'ovo**: *29* 2013 [Sz&K], *30* 2013, 2014 [Sz&K], *31* 2013 [Sz&K]; **Bene:** *65* [2014]; **Berehove**: *48* 2014 [Sz&K], *47* 2014 [Sz&K]; **Chomonyn:** *28* 2013 [Sz&K]; **Dyida:** *46* 2013 [Sz&K]; **Horonda**: *32* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2012, 2014 [Sz&K]; **Muzhijevo**: *62* 2014 [Sz&K]; **Velyki Berehy**: *55* 2012 [Sz&K], 2014 [Sz3], *54* 2012 [Sz&K], *56* 2013 [Sz3], 2014 [Sz&K]; **Shalanky**: *60* 2011 [Sz1], *61* [Sz1]; **Shom**: *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Velyka Byihan**: *43*

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2013 [Sz3], 2014 [Sz&K], *44* 2013 [Sz&K]; **Velyka Dobron'**: *8* 2012 [Sz&K], *9* 2010 [N1], 2014 [Sz&K], *10* 2010 [N1], 2013, 2014 [Sz&K], *11* 2012 [Sz&K], *13* 2010 [N1], 2014 [Sz&K], *15* 2010 [N1], 2013, 2014 [Sz&K], *16* 2013, 2014 [Sz&K], *17* 2010 [N1], *20* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3].

Chorthippus apricarius (Linnaeus, 1758)

Chop: 2011 [K1]; **Demetchi**: 2011 [K1]; **Solomonovo**: Solomonovo I 2011 [K1], **Tysauifalu**: 2011 [K1].

Chorthippus biguttulus (Linnaeus, 1758)

Bat'ovo: *29* 2013 [Sz&K]; **Bene:** *65* [2014]; **Berehove**: *52* 2014 [Sz&K], *48* 2013 [Sz3], *50* 2013 [Sz3], 2014 [Sz&K], *47* 2014 [Sz&K]; **Chop:** 2011 [K1]; **Hut**: *34* 2013 [Sz&K]; **Muzhijevo:** *63* 2014 [Sz&K], *62* 2014 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011 [Sz1], *60* 2011 [Sz1], *61* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *55* 2012 [Sz&K], *57* 2013 [Sz&K], *56* 2013 [Sz3], 2014 [Sz&K]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K];**Velyka Dobron'**: *8* 2012 [Sz&K]; **Zatyshnye**: *49* 2014 [Sz&K].

Chorthippus brunneus (Thunberg, 1815)

Balazher: *45* 2013 [Sz&K]; **Bene:** *65* 2014 [Sz&K]; **Berehove**: *48* 2013 [Sz3], *50* 2013 [Sz3], *47* 2014 [Sz&K]; **Bat'ovo**: *30* 2014 [Sz&K]; **Esen**: 2011 [K1]; **Kidesh**: *53* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2014 [Sz&K]; **Velyki Berehy**: *54* 2012 [Sz&K]; **Shalanky**: *59* 2011 [Sz1], *60* 2011 [Sz1], *61* 2011 [Sz1]; **Shom**: *41* 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K]; **Velyka Dobron'**: *15* 2012 [Sz&K], *21* 2014 [Sz&K]; **Zatyshnye**: *49* 2013 [Sz3], 2014 [Sz&K].

Chorthippus dorsatus (Zetterstedt, 1821)

Balazher: *45* 2013 [Sz&K]; **Bat'ovo**: *30* 2013, 2014 [Sz&K], *29* 2013 [Sz&K]; **Batrad':** *36* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Bene:** *65* [2014]; **Berehove**: *52* 2014 [Sz&K], *48* 2014 [Sz&K], Kereszt 2014 [Sz&K], 47 2014 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Chomonyn:** *28* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012 [Sz&K]; **Muzhijevo**: 64 2014 [Sz&K], 63 2014 [Sz&K], *62* 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011 [Sz1], *60* 2011 [Sz1], *61* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Velyki Berehy**: *55* 2012 [Sz&K], 2013 [Sz3], *56* 2013 [Sz3], 2014 [Sz&K]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K]; **Velyka Dobron'**: *8* 2012, 2013, 2014 [Sz&K], *9* 2010 [N1], 2013, 2014 [Sz&K], *10* 2010 [N1], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *14* 2011 [Sz1], *15* 2010 [N1], 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *16* 2014 [Sz&K], *17* 2010 [N1], *18* 2010 [N1], *20* 2010 [N1], 2014 [Sz&K], *21* 2014 [Sz&K]; **Zatyshnye**: *49* 2014 [Sz&K].

Chorthippus dichrous (Eversmann, 1895)

Esen: 2011 [K1]; **Velyka Dobron'**: *12* 2010 [N1].

Chorthippus oschei Helversen, 1986
[*Chorthippus albomarginatus* (DeGeer, 1773)]

Batrad': *36* 2013 [Sz&K]; **Chervone:** *4* 2013 [Sz&K]; **Chomonyn:** *28* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Dyida:** *46* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Horonda**: *32* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2012, 2013, 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1]; **Shom:** *40* 2013 [Sz2], *39* 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Tysaahtelek**: *6* 2011 [Sz1]; **Velyki Berehy**: *55* 2012 [Sz&K], 2013 [Sz3]; **Velyka Byihan**: *43* 2013 [Sz3]; **Velyka Dobron'**: *9* 2010 [N1], 2012, 2014 [Sz&K], *10* 2010 [N1], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *15* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *16* 2013, 2014 [Sz&K], *18* 2010 [N1], *19* 2014 [Sz&K]; *20* 2010 [N1], 2014 [Sz&K].

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Chorthippus parallelus (Zetterstedt, 1821)
Bakosh: *27* 2013 [Sz&K]; **Balazher:** *45* 2013 [Sz&K]; **Barkasovo:** *33* 2013 [Sz&K]; **Batrad':** *36* 2013 [Sz&K], *35* 2013 [Sz&K]; **Bat'ovo**: *30* 2013, 2014 [Sz&K], *29* 2013 [Sz&K], *31* 2013 [Sz&K]; **Bene:** *65* [2014]; **Berehove**: *48* 2013 [Sz3], *50* 2013 [Sz3]; **Chervone:** *4* 2013 [Sz&K]; **Chomonyn:** *28* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Dyida:** *46* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Heten**: *38* 2013 [Sz&K]; **Horonhlab:** *37* 2013 [Sz&K]; **Horonda**: *32* 2013 [Sz&K]; **Hut**: *34* 2013 [Sz&K]; **Kidesh**: *53* 2013 [Sz&K]; **Mala Dobron':** *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2011, 2012, 2013, 2014 [Sz&K]; **Shalanky**: *58* 2011 [Sz1], *59* 2011 [Sz1], *60* 2011 [Sz1]; **Shom**: *40* 2013 [Sz2], *41* 2013 [Sz3], 2014 [Sz&K], *39* 2013 [Sz&K], *42* 2013 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1], Solomonovo II 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *55* 2012 [Sz&K], 2013 [Sz3], *54* 2012 [Sz&K], *57* 2013 [Sz3], *56* 2013 [Sz3], 2014 [Sz&K]; **Velyka Byihan**: *43* 2013 [Sz3], 2014 [Sz&K], *44* 2013 [Sz&K]; **Velyka Dobron'**: *8* 2012, 2014 [Sz&K], *9* 2010 [N1] 2012, 2013, 2014 [Sz&K], *10* 2010 [N1], 2012, 2013, 2014 [Sz&K], *11* 2014 [Sz&K], *12* 2010 [N1], *13* 2010 [N1], 2014 [Sz&K], *14* 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *15* 2010 [N1], 2011 [Sz1], 2012, 2013, 2014 [Sz&K], *16* 2012, 2013, 2014 [Sz&K], *17* 2010 [N1], *18* 2010 [N1], *19* [Sz&K], *20* 2010 [N1], 2014 [Sz&K], *21* 2014 [Sz&K], *22* 2014 [Sz&K].

Euchorthippus declivus (Brisout de Barneville, 1849)
Batrad': *36* 2013 [Sz&K]; **Chop:** 2011 [K1]; **Demetchi**: 2011 [K1]; **Kidesh**: *53* 2013 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyka Dobron'**: *18* 2010 [N1].

Gomphoceripus rufus (Linnaeus, 1758)
Berehove: *52* 2014 [Sz&K].

Tetrix bipunctata (Linnaeus, 1758)
Balazher: *45* 2013 [Sz&K]; **Esen**: 2011 [K1]; **Mali Heivtsi**: *5* 2014 [Sz&K]; **Solomonovo**: Solomonovo I 2011 [K1]; **Solovka**: 2011 [K1]; **Tysauifalu**: 2011 [K1]; **Velyki Berehy**: *57* 2013 [Sz3]; **Velyka Byihan**: *43* 2013 [Sz3]; **Velyka Dobron'**: *10* 2010 [N1], 2013, 2014 [Sz&K], *12 2010 [N1], 14 2012, [Sz&K], 15 2013 [Sz&K], 16 2012 [Sz&K], 20 2010 [N1].*

Tetrix bolivari Saulcy, 1901
Chop: 2011 [K1].

Tetrix subulata (Linnaeus, 1758)
Mala Dobron': *7* 2013 [Sz&K]; **Mali Heivtsi**: *5* 2012, 2013, 2014 [Sz&K]; **Velyka Dobron'**: *20* 2010 [N1];

Tetrix tenuicornis Sahlberg, 1893
Mali Heivtsi: *5* 2013 [Sz&K]; **Shalanky**: *58* 2011 [Sz1]; **Velyka Dobron'**: *19* 2014 [Sz&K].

Xya pfaendleri Harz, 1970
Chop: 2011 [K1]; **Solovka**: 2011 [K1].

Xya variegata Latreille, 1809
Chop: 2011 [K1]; **Solovka**: 2011 [K1].

Results and discussion

On the basis of published data and our samplings a total of 52 orthoptera species occur in the 65 sampling sites of the Ukrainian part of the Bereg Plain. Of these 24 species belong to Ensifera (18 Tettigonioidea and 6 Grylloidea) and 28 to Caelifera. Our dataset contains information on 4926 individuals sampled between 2010 and 2014. Additionaly *Mantis religiosa,* the only mantid species of the region, was also found in 8 studied locations. In the Hungarian part of the region 48 Orthoptera species can be found (NAGY et al. in press). The Orthoptera fauna of the Bereg Plain therefore contains totally 62 species. Compared with the species

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number of the area east to Tisza River (101 species, NAGY & RÁCZ 2007) the Bereg Plain is a species rich part of the Great Hungarian Plain. 12 species were found only in the Ukrainian part (Table 2). However, in the Hungarian part the samplings were focused on the habitats of *Odontopodisma rubripes* and conducted only by sweep-netting. Therfore some xerotherm (e.g. *Oedipoda caerulescens*, *Pachytrachys gracilis*) and fissurobiont (e.g. *Xya pfandleri*, *Xya variegata*, *Pteronemobius heydeni* and *Gryllotalpa gryllotalpa*) species lack in the checklist. There are 10 differencial species of the Hungarian part although data of *Phaneroptera nana*, *Tettigonia caudata*, *Dociostaurus maroccanus*, *Pezotettix giornae* and *Chorthippus mollis* need verification (NAGY et al. in press). Considering the conservation value of the Bereg Plain for Orthoptera, the most valuable species of the area are *Isophya stysi* and *Odontopodisma rubripes* listed in Annex II and IV of the EU Habitat Directive (European Council 1992).

The mean species richness of the studied sites was 10.52 (SD ± 5.74) and the mean number of individuals 75.78 (SD ± 79.26). On the basis of quantitative data the five most abundant species were *Chorthippus parallelus* (33.13%), *Chorthippus dorsatus* (11.69%), *Chorthippus oschei* (9.16%), *Metrioptera roeselii* (6.48%) and *Conocephalus discolor* (5.68%). These are common and abundant species in the whole Hungarian Great Plain while the local abundance and distribution of *Leptophyes discoidalis*, *Poecilimon schmidtii*, *Isophya stysi* and *Odontopodisma rubripes* show strong East Carpathian (Dacian) influence on the local fauna. The relative frequency of siberian species (Siberian, Angarian, Siberian-polycentric, etc.) is generally high (70.66% SD ± 16.00), while the ratio of Dacian species is surprisingly low (0.94% SD ± 2.81). Considering life forms the chorthobionts dominate the assemblages with average frequency of 73.42% (SD ± 17.58) and the ratio of fissurobiont life form is also remarkable (17.23% SD ± 12.42).

Further studies may discover some species already known only from the Hungarian part (e.g. *Pholidoptera transsylvanica*) and can be the basis for implications for conservation and management of these vulnerable habitats.

Table 2: Orthoptera species of the Ukranian part of the Bereg Plain with their geographical range, faunal type and life forms (Rácz, 1998). Af = African, An = Angarian, As = Asian, C = Central, Ca = Caspian, Car = Carpathian, Ch = Chortobiont, Cos = Cosmopolitan, Da = Dacian, E = East, En = Endemic, Eu = European, Fi = Fissuribiont, G = Geobiont, Ho = Holarctic, Ma = Manchurian, Med = Mediterranean, N = North, Pa = Palearctic, Pc = Policentric, Po = Pontic, S = South, Si = Siberian, Th = Thamnobiont, W = West; * species found only in the Ukrainian part of the Bereg Plain.

Species	**Geographical range**	**Faunal type**	**Life form**
Phaneroptera falcata (Poda, 1761)	Eu-Si	Si-Pc	Th
Isophya stysi Cejchan, 1957	Da	Da	Ch-Th
Leptophyes albovittata (Kollar, 1833)	Eu	Po-Med	Th
Leptophyes discoidalis (Frivaldszky, 1867)	C-E-Eu	Da	Th
Poecilimon schmidtii (Fieber, 1853)	E-Se-Eu	Po-Med	Ch-Th
Meconema thalassinum (DeGeer, 1773)	Eu	Extra-Med	Th
Conocephalus discolor Thunberg, 1815	Eu-Si	Si-Pc	Th
Conocephalus dorsalis (Latreille, 1804)	Eu-W-As	Po-Ca	Th

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Species	Geographical range	Faunal type	Life form
Ruspolia nitidula (Scopoli, 1786)	Af-Eu-Si	Af	Th
Tettigonia cantans (Fuessli, 1775)*	Eu-Si	Si	Ch-Th
Tettigonia viridissima Linnaeus, 1758	Eu-Si	Si-Pc	Th
Decticus verrucivorus (Linnaeus, 1758)	Eu-Si	An	Ch-Th
Platycleis albopunctata (Goeze, 1778)	SE-Eu	Po-Ca	Ch-Th
Metrioptera bicolor (Philippi, 1830)	Eu-Si	An	Ch
Metrioptera roeselii (Hagenbach, 1822)	Eu	Po-Ca	Ch
Pholidoptera fallax (Fischer, 1853)	S-Eu	Po-Med	Ch
Pholidoptera griseoaptera (De Geer, 1773)	Eu	Po-Ca	Th
Pachytrachis gracilis (Brunner v. W., 1861)*	SE-Eu	Po-Med	Th
Gryllus campestris Linnaeus, 1758	Af-Eu, W-As	Af	Fi
Melanogryllus desertus (Pallas, 1771)*	Eu-Si	Po-Med	Fi
Modicogryllus frontalis (Fieber, 1844)*	E-C-Eu, W-As	Po-Med	Fi
Pteronemobius heydenii (Fisher, 1853)*	Eu-C-As	Med	Fi
Oecanthus pellucens (Scopoli, 1763)	S-Eu	Po-Med	Ch
Gryllotalpa gryllotalpa (Linnaeus, 1758)*	Eu-W-As	Eu-Pc	Fi
Odontopodisma rubripes Ramme, 1931	N-E-Car	Da	Th
Calliptamus italicus (Linnaeus, 1758)	Eu-Si	An	G-Ch
Oedipoda caerulescens (Linnaeus, 1758)*	Eu-As	Pc	G
Aiolopus thalassinus (Fabricius, 1781)	Cos	Af	G-Ch
Stetophyma grossum (Linnaeus, 1758)	Eu-Si	Ma	Ch
Mecostethus parapleurus (Hagenbach, 1822)	Eu-Si	Ma	Ch
Chrysochraon dispar (Germar, 1834)	Eu-Si	An	Ch
Euthistyra brachyptera (Ocskay, 1826)*	Eu-Si	An	Ch
Stenobothrus crassipes (Charpentier, 1825)	Eu-Si	Po-Med	Ch
Stenobothrus lineatus (Panzer, 1796)	Eu-Si	An	Ch
Stenobothrus stigmaticus (Rambur, 1838)*	S-SE-Eu	Po-Ca	Ch
Omocestus haemorrhoidalis (Charpentier, 1825)	Eu-Si	An	Ch
Omocestus rufipes (Zetterstedt, 1821)	Eu-Si	An	Ch
Chorthippus apricarius (Linnaeus, 1758)*	Eu-Si	An	Ch
Chorthippus biguttulus (Linnaeus, 1758)	Eu	Po-Ca	Ch
Chorthippus brunneus (Thunberg, 1815)	Eu-Si	An	Ch
Chorthippus dorsatus (Zetterstedt, 1821)	Eu-Si	Si-Pc	Ch
Chorthippus dichrous (Eversmann, 1895)	Eu-Si	An	Ch
Chorthippus oschei Helversen, 1986	Eu-Si	Si-Pc	Ch
Chorthippus parallelus (Zetterstedt, 1821)	Eu-Si	An	Ch
Euchorthippus declivus (Brisout de Barneville, 1849)	Se-Eu	N-Med-Pc	G-Ch
Gomphoceripus rufus (Linnaeus, 1758)	Eu-Si	An	Ch
Tetrix bipunctata (Linnaeus, 1758)	Pa	Si-Pc	Ch
Tetrix bolivari Saulcy, 1901*			Ch
Tetrix subulata (Linnaeus, 1758)	Ho	Eu-Pc	Ch
Tetrix tenuicornis Shalberg, 1893	Pa	Si-Pc	Ch
Xya pfaendleri (Harz, 1970)	Af-S-C-Eu	Pc	Fi
Xya variegata Latreille, 1809	Af-EuAs-Indom	Pc	Fi

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