

## Annotated checklist and distribution of the true bugs (Hemiptera-Heteroptera) of Estonia

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**Abstract.** On the basis of recent fieldwork, studies of museum and private collections and faunistic literature 454 species of true bugs are listed from Estonia. Their distribution is presented by their occurrence in the 14 UTM grid 100 × 100 km squares covering Estonia. Faunistic remarks to 58 species are added. A list with comments on species erroneously published from Estonia is given. The following species are reported as new to Estonia: *Plea minutissima* (Leach), *Dicyphus epilobii* Reuter, and *Globiceps fulvicollis* Jakovlev.

**Key words:** Hemiptera, Heteroptera, checklist, Estonian fauna.

### INTRODUCTION

The investigation of the true bugs of Estonia started in the 1850s when Gustav Flor (1829–1883), a medical doctor and professor in Dorpat (= Tartu), began to collect and study the Hemiptera in Livonia (= present South Estonia and North Latvia). His collecting localities are listed with present-day names by Vilbaste (1973b) and Lukashuk (1997). Flor's studies resulted in his now classic, two-volume work *Die Rhynchoten Livlands* (Flor 1860, 1861), notable for his good descriptions. In these volumes he described 26 new species and one variety of Heteroptera, 12 of which are still valid. His collection is kept separately in the Institute of Zoology and Botany (IZB), Tartu, and it is in a very good condition.

After Flor's time nothing was published on Estonian Heteroptera until the 1920s when several articles appeared in different journals (Mühlen & Schneider 1920, Bianchi & Kiritschenko 1923, Stichel 1927). During the 1930s H. Haberman collected also Heteroptera, now in coll. IZB (Haberman 1933–1937) and several notes were published, especially on aquatic species (Mikkelsaar 1934, Sepp 1939) and also on a selection of species from Saaremaa (Kauri 1934) and Läänemaa (Haberman 1938). A very successful collector during that time was L. Voore (material in coll. IZB). She also published an interesting but much overlooked paper on the Estonian shore-bugs (Voore 1940) and compiled an unpublished list of Estonian Heteroptera, which is now in Estonian Naturalists' Society (ENS).

During the 1940s and 1950s investigations were made on the fauna of Estonian bogs and marshes resulting in papers dealing also with Heteroptera by Jüris (1940), Maavara (1957), and Vilbaste (1955, 1958). Several investigations during the 1950s–1970s on the fauna of the river system of the Emajõgi River were summarized by Ristkok (1994).

Investigations of the fauna including Heteroptera from certain parts of Estonia have been published by Vilbaste (1970, 1973a, 1979, 1985), Mäemets (1975), Rebassoo (1987), and Luig & Talvi (1993). Records of aquatic and semiaquatic Heteroptera have been published by H. Timm, T. Timm, and V. Timm (see References), Valk (1984), and Järvekülg (2001). Coulianos (1999, 2003) added 13 and 57 species, respectively, to the Estonian list. Records of some plant pest species have been reported by Leius (1940) (Miridae, Rhopalidae), Rõigas (1975), and Voolma (1992) (*Aradus cinnamomeus*).

During the last two decades much material of Heteroptera has been collected by K. Elberg, M. Kruus, M. Marits, M. Martin, A. Selin, H. Silfverberg, and the present author, all of which has been studied for the present checklist.

The following list shows the number of species of Heteroptera reported for Estonia in some published and unpublished works:

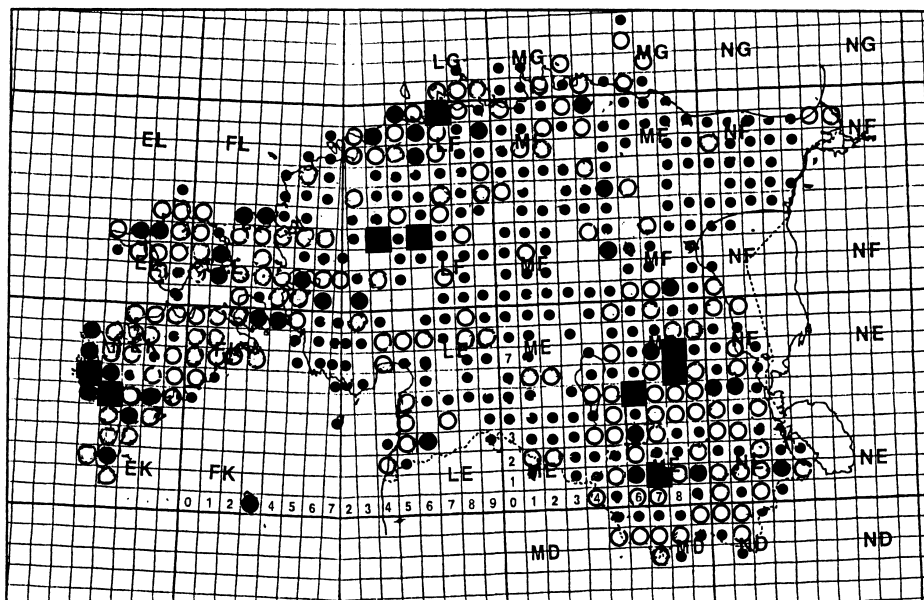
Flor (1860, 1861)	210
Voore (1940, unpublished list in ENS)	307
Remm (1966)	335
Remm & Viidalepp (1986, unpublished list in IZB)	357
Vilbaste & Viidalepp (1988, unpublished list in IZB)	365
Lukashuk (1997)	275
The present checklist	454

The numbers are corrected with regard to synonyms, wrong determination, and misinterpreted localities. The numbers from Lukashuk (1997) are not comparable with the others as he mainly used published records but omitted Remm (1966) and overlooked some later papers.

## FORMAT OF THE CHECKLIST

The checklist (Table 1) includes species with verified records in the collections studied by the present author. For five species only published, but reliable, records were available. The nomenclature within the families Ceratocombidae and Pyrrhocoridae is according to Aukema & Rieger (1998–2001) and within the remaining families according to Lukashuk (1997). Within genera the species are arranged in alphabetical order. Synonyms are given only for species group names differing from the checklist in Remm (1966). All species are sequentially numbered throughout. An asterisk (\*) before the species number refers to the corresponding number in the Remarks section. The distribution of the species in Estonia is presented as their occurrence in the 14 UTM grid system 100 × 100 km squares that covers Estonia (Fig. 1).

In the columns for the different squares the following symbols are used: + records verified by the author; ? published, unverified records; – no records.



**Fig. 1.** Contour map of Estonia with the UTM grid system ( $10 \times 10$  km). The capital letters denote the  $100 \times 100$  km squares used to present the distribution of the species in the checklist. The number of species recorded from each  $10 \times 10$  km square is shown by the following symbols: • 1–10 spp., ○ 11–50 spp., ● 51–99 spp., ■ 100– spp.

## STUDIED MATERIAL

The following collections have been studied (with abbreviations used in the text): Institute of Zoology and Botany, Tartu (IZB); coll. Flor in IZB; Zoological Museum, University of Tartu (ZMT); Institute of Plant Protection, Estonian Agricultural University, Tartu (IPP); Estonian Museum of Natural History, Tallinn (EMN); the private collections of Carl-Cedric Coulianos (Saltsjö-Boo, Sweden), Kaupo Elberg (Tartu), Märt Kruus (Tartu), Mati Marits (Tartu), Mati Martin (Tartu), Allan Selin (Tallinn), Hans Silfverberg (Helsinki), and Heino Õunap (Tartu).

The studied literature with faunistic data on Estonian Heteroptera is listed in References. A total of 26 440 specimens have been determined and 16 442 records were used by the author for the present checklist.

## SPECIES ERRONEOUSLY REPORTED FROM ESTONIA

Among the species recorded from Estonia by Kiritschenko (1951) 25 are due to misinterpretation of localities in Flor (1860, 1861) actually in Latvia. Remm (1966) included 23 of these species in his checklist and added another 13 of

which there are no published records or collection specimens collected before 1966. Of these 38 species, 1 has since been recorded by Lukashuk (1997) and 11 by Coulianos (2003). For the remaining 26 species listed below no verified records exist and they have to be excluded from the Estonian list.

- Velia caprai* Tamanini, 1947. Wrongly determined = *V. saulii* sec ex. in IZB.  
*Corixa punctata* (Illiger, 1807). Wrongly determined = *C. dentipes* sec ex. in IZB.  
*Stethoconus cyrtopeltis* (Flor, 1860). Misinterpretation of data for Latvia in Flor (1860).  
*Phytocoris varipes* Boheman, 1852. Misinterpretation of data for Latvia in Flor (1860) (as *P. ulmi*).  
Note: all specimens under the name *P. ulmi* in coll. Flor are *P. insignis* Reuter, 1876.  
*Atractotomus kolenatii* (Flor, 1860). Misinterpretation of data for Latvia in Flor (1860).  
*Parapsallus vitellinus* (Scholtz, 1847). Misinterpretation of data for Latvia in Flor (1860).  
*Psallus wagneri* Ossiannilsson, 1953. Wrongly determined = *P. perrisi* sec ex. in IZB.  
*Sthenarus rotermundi* (Scholtz, 1847). Misinterpretation of data for Latvia in Flor (1860).  
*Agramma confusum* (Puton, 1879). Recorded as *v. fallax* Horváth, 1906 by Stichel (1927). Doubtful record, refers probably to *A. femorale*.  
*Agramma laetum* (Fallén, 1807). Wrongly determined = *A. femorale* sec ex. in IZB.  
*Lasiacantha capucina* (Germar, 1837). Misinterpretation of data for Latvia in Flor (1860).  
*Acompocoris alpinus* Reuter, 1875. Based on unverified supposal that *lucorum* sensu Flor partly belongs to this species. See Lukashuk (1997).  
*Aradus brevicollis* Fallén, 1807. Misinterpretation of data for Latvia in Flor (1860).  
*Aradus pictus* auct. non Baerensprung, 1859 = *obtectus* Vasarhelyi, 1988. Misinterpretation of data for Latvia in Flor (1860).  
*Mezira tremulae* (Germar, 1822). Misinterpretation of data for Latvia in Flor (1860).  
*Tropidothorax leucopterus* (Goeze, 1778). An error by Kiritshenko (1951) due to an unlabelled specimen in coll. Gimmerthal mentioned by Flor (1860).  
*Enoplops scapha* (Fabricius, 1794). Doubtful record depending on unlabelled specimen in coll. Gimmerthal mentioned by Flor (1860).  
*Cydnus aterrimus* (Forster, 1771). Included by Remm (1966) on the basis of a specimen from the 19th century, 1♀ labelled "Est.?" in coll. IZB. A doubtful record.  
*Microporus nigrinus* (Fabricius, 1794). An error by Kiritshenko (1951), Remm (1966).  
*Canthophorus dubius* (Scopoli, 1763). Misinterpretation of data for Latvia in Flor (1860). Note: the specimens in coll. Flor from Latvia belong to *C. impressus* Horváth, 1880.  
*Sehirus morio* (Linnaeus, 1761). Wrongly determined = *S. luctuosus* sec ex. in IZB.  
*Podops inunctus* (Fabricius, 1775). Misinterpretation of data for Latvia in Flor (1860).  
*Carpocoris pudicus* (Poda, 1761). Wrongly determined = *C. purpureipennis* sec ex. in IZB.  
*Holcostethus sphacelatus* (Fabricius, 1794). Misinterpretation of data for Latvia in Flor (1860), which, however, is a doubtful record from unlabelled specimen in coll. Gimmerthal.  
*Eurydema ornatum* (Linnaeus, 1758). Wrongly determined = *E. dominulus*. All specimens from Estonia seen by me belong to the latter species.  
*Arma custos* (Fabricius, 1794). Recorded by Remm (1966) based on three specimens from Koshelki, Vasina-Gora 31.v.1938 leg. L. Voore, coll. IZB. This locality is now in Russia.

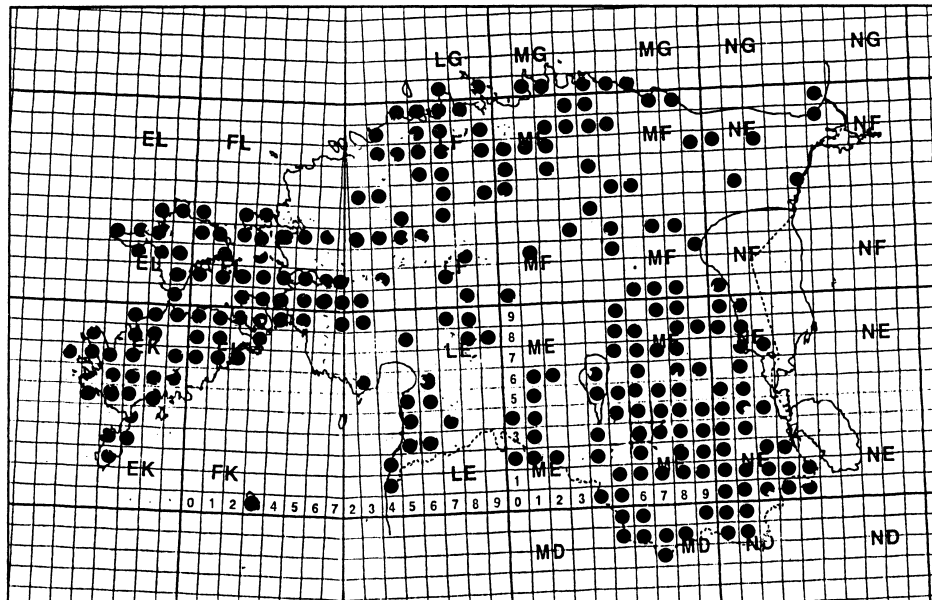
## GENERAL REMARKS

True bugs have been recorded from most parts of Estonia. There are records from 465 (82%) of the 567 10 × 10 km UTM squares falling fully or partially within the boundaries of the Estonian territory (Fig. 1). However, it is evident that

the investigation effort has been different for the various regions. This is reflected in the number of species recorded from each  $10 \times 10$  km square as well as the total number of species found in the 14  $100 \times 100$  km squares. From only nine  $10 \times 10$  km squares 100 species or more have been recorded, with a maximum of 194 species in ME 87.

This is also shown by Fig. 2 where the combined records of five very common, abundant and widely distributed species are mapped. These species represent four major habitats (aquatic, ground, field layer, trees and bushes). At least one of these species can be expected to occur in every  $10 \times 10$  km square in Estonia. The existence of under-collected parts of the country is quite evident. The best known parts of Estonia are in the west (including the western islands), north (the Tallinn area), and south-east (the Tartu area).

As is evident from the Introduction, the investigation effort has been different during various periods of time. The following 12 species have only been recorded before 1900: *Saldula melanoscela*, *Dicyphus stachydis*, *Deraeocoris punctulatus*, *Globiceps sphegiformis*, *Orthotylus virens*, *Conostethus roseus*, *Derephysia cristata*, *Xylocoris galactinus*, *Aradus aterrimus*, *Heterogaster urticae*, *Raglius alboacuminatus*, and *Spathocera dalmannii*. Another 52 species have only been recorded during the period 1900–1979. During the period 1980–2003 there are records of 390 species, i.e. 86% of the species known from Estonia at present. The total



**Fig. 2.** Map of the  $10 \times 10$  km UTM squares with records of one or more of the following common and widely distributed species *Gerris lacustris*, *Lygus rugulipennis*, *Anthocoris nemorum*, *Nysius thymi*, and *Dolycoris baccarum*.

number of species (454) recorded from Estonia is high in comparison with the other Baltic countries, which, however, are not sufficiently investigated. The following numbers of species are known from the neighbouring countries (with the percentage of the Estonian species known from each country): Lithuania 281 (52.2%), Latvia 384 (76.9%), Finland 486 (88.3%), Sweden 601 (94.3%). Not known from either Latvia or Lithuania are 89 species and not known from either Finland or Sweden are 14 Estonian species.

The following species recorded from Estonia are not known from any of the four countries above: *Agnocoris reclairei*, *Capsus pilifer*, *Globiceps sphegiformis*, *Heterocordylus erythrophthalmus*, *Sciocoris macrocephalus*, and *Anthemina aliena*. (See Remarks to these species.)

The fauna of true bugs of Latvia and Lithuania is still too unsatisfactorily known to permit a discussion of the Estonian fauna in a wider Baltic context. However, based on the fauna of the neighbouring countries, it can be estimated that 90–95% of the species of true bugs actually occurring in Estonia have been recorded here.

**Table 1.** Checklist and distribution of the true bugs (Hemiptera-Heteroptera) of Estonia by UTM grid 100 × 100 km squares

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>DIPSOCOROMORPHA</b>															
<b>CERATOCOMBIDAE</b> Fieber, 1860															
<i>Ceratocombus</i> Signoret, 1852															
<i>coleopratus</i> (Zetterstedt, 1819)	1	–	+	–	+	+	+	+	–	–	–	–	+	–	–
<b>DIPSOCORIDAE</b> Dohrn, 1859															
<i>Cryptostemma</i> Herrich-Schaeffer, 1835															
<i>pusillum</i> (J. Sahlberg, 1870)	2	–	+	–	+	+	+	–	–	–	+	–	+	–	–
<i>waltli</i> (Fieber, 1860)	3	–	–	–	–	–	+	–	–	–	–	+	+	–	–
<b>GERROMORPHA</b>															
<b>MESOVELIIDAE</b> Douglas & Scott, 1852															
<i>Mesovelia</i> Mulsant & Rey, 1852															
<i>furcata</i> Mulsant & Rey, 1852	4	–	–	+	+	–	+	–	–	–	–	+	–	–	–
<b>HEBRIDAE</b> Amyot & Serville, 1843															
<i>Hebrus</i> Curtis, 1833															
<i>pusillus</i> (Fallén, 1807)	5	–	–	–	+	–	–	+	+	–	+	–	–	–	–
<i>ruficeps</i> Thomson, 1871	6	–	+	–	+	+	+	+	–	+	+	–	+	–	+

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>HYDROMETRIDAE</b> Billberg, 1820															
<i>Hydrometra</i> Latreille, 1796															
<i>gracilentia</i> Horváth, 1899	7	–	–	+	–	+	+	–	+	–	–	+	+	–	–
<b>VELIIDAE</b> Brullé, 1836															
<i>Microvelia</i> Westwood, 1834															
<i>buenoi</i> Drake, 1920	*8	–	–	–	–	–	+	–	–	–	–	–	–	–	–
= <i>umbricola</i> Wroblewski, 1938															
<i>reticulata</i> (Burmeister, 1835)	9	–	–	+	–	+	+	–	+	–	+	+	+	–	–
<i>Velia</i> Latreille, 1804															
<i>saulii</i> Tamanini, 1947	10	–	+	+	+	+	+	+	+	–	+	+	+	+	–
<b>GERRIDAE</b> Leach, 1815															
<i>Aquarius</i> Schellenberg, 1800															
<i>najas</i> (DeGeer, 1773)	11	–	–	–	–	+	+	+	+	–	+	+	+	+	+
<i>paludum</i> (Fabricius, 1794)	12	–	–	+	–	–	+	+	–	–	+	+	+	+	+
<i>Gerris</i> Fabricius, 1794															
<i>argentatus</i> Schummel, 1832	13	–	–	+	+	+	+	+	+	+	+	+	+	+	–
<i>lacustris</i> (Linnaeus, 1758)	14	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>lateralis</i> Schummel, 1832	15	–	–	+	+	+	+	+	+	+	+	+	+	–	–
<i>odontogaster</i> (Zetterstedt, 1828)	16	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<i>thoracicus</i> Schummel, 1832	17	+	–	–	+	+	+	+	+	+	–	–	–	–	–
<i>Limnoporus</i> Stål, 1868															
<i>rufoscutellatus</i> (Latreille, 1807)	18	–	+	+	+	+	+	+	+	+	+	+	+	+	–
NEPOMORPHA															
<b>NEPIDAE</b> Latreille, 1802															
<i>Nepa</i> Linnaeus, 1758															
<i>cinerea</i> Linnaeus, 1758	19	–	+	+	+	+	+	+	+	–	+	+	+	+	+
<i>Ranatra</i> Fabricius, 1790															
<i>linearis</i> (Linnaeus, 1758)	20	–	–	–	–	–	–	–	–	–	+	+	–	+	–
<b>CORIXIDAE</b> Leach, 1815															
<i>Micronecta</i> Kirkaldy, 1897															
<i>griseola</i> Horváth, 1899	*21	–	–	–	–	–	–	+	–	–	–	–	–	–	–
<i>minutissima</i> (Linnaeus, 1758)	22	–	–	–	+	+	+	–	–	–	–	+	+	+	–
<i>poweri</i> (Douglas & Scott, 1869)	23	–	–	–	–	–	–	–	–	–	–	+	+	–	–
<i>Cymatia</i> Flor, 1860															
<i>bonsdorffii</i> (C. R. Sahlberg, 1819)	24	–	–	–	+	+	+	–	–	–	+	+	+	+	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<i>coleoptrata</i> (Fabricius, 1777)	25	–	–	+	–	+	–	+	+	+	–	+	+	–	–
<b><i>Glaenocoris</i></b> Thomson, 1869															
<i>cavifrons</i> (Thomson, 1869)	*26	–	–	–	–	?	–	–	–	–	–	+	–	–	–
<i>propinqua</i> (Fieber, 1860)	*27	–	–	–	–	–	–	–	–	–	+	–	–	–	–
<b><i>Callicorixa</i></b> White, 1873															
<i>praeusta</i> (Fieber, 1848)	28	–	–	–	–	+	+	–	+	–	+	+	+	+	–
<i>wollastoni</i> (Douglas & Scott, 1865)	*29	–	–	–	–	–	–	–	–	–	+	–	–	–	–
<b><i>Corixa</i></b> Geoffroy, 1762															
<i>dentipes</i> Thomson, 1869	30	–	–	–	–	–	–	–	+	+	+	+	–	–	–
<b><i>Hesperocorixa</i></b> Kirkaldy, 1908															
<i>linnaei</i> (Fieber, 1848)	31	–	–	+	+	–	–	–	+	+	+	+	–	+	–
<i>moesta</i> (Fieber, 1848)	32	–	–	+	–	–	–	–	+	–	–	–	–	–	–
<i>sahlbergi</i> (Fieber, 1848)	33	–	–	+	+	+	+	–	+	+	+	+	+	+	–
<b><i>Paracorixa</i></b> Poisson, 1957															
<i>concinna</i> (Fieber, 1848)	*34	–	–	–	–	–	–	–	–	–	+	+	–	–	–
<b><i>Sigara</i></b> Fabricius, 1775															
<i>distincta</i> (Fieber, 1848)	35	+	–	+	+	+	+	–	+	+	+	+	+	+	–
<i>falleni</i> (Fieber, 1848)	36	–	–	–	–	–	+	+	+	–	–	+	+	+	–
<i>fossarum</i> (Leach, 1817)	37	–	–	–	+	–	+	–	+	–	+	+	–	+	–
<i>hellensii</i> (C. R. Sahlberg, 1819)	38	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>lateralis</i> (Leach, 1817)	*39	–	–	–	+	–	+	–	–	+	–	+	–	–	–
<i>longipalis</i> (J. Sahlberg, 1878)	*40	–	–	–	–	+	+	–	–	–	–	–	+	–	–
<i>nigrolineata</i> (Fieber, 1848)	41	–	–	–	–	+	–	–	+	–	+	+	–	–	–
<i>scotti</i> (Douglas & Scott, 1868)	42	–	–	–	–	+	–	–	–	–	+	–	–	–	–
<i>semistriata</i> (Fieber, 1848)	43	+	+	+	+	+	+	+	+	+	+	+	+	–	–
<i>striata</i> (Linnaeus, 1758)	44	+	+	–	+	+	+	–	+	+	+	+	+	+	–
<b>NAUCORIDAE</b> Leach, 1815															
<b><i>Ilyocoris</i></b> Stål, 1861															
<i>cimicoides</i> (Linnaeus, 1758)	45	–	–	–	–	+	+	–	–	–	+	+	+	–	–
<b>APHELOCHEIRIDAE</b> Fieber, 1851															
<b><i>Aphelocheirus</i></b> Westwood, 1833															
<i>aestivalis</i> (Fabricius, 1794)	46	–	+	–	–	+	+	+	–	–	+	+	+	–	–
<b>NOTONECTIDAE</b> Latreille, 1802															
<b><i>Notonecta</i></b> Linnaeus, 1758															
<i>glaucia</i> Linnaeus, 1758	47	–	+	+	+	+	+	–	+	+	+	+	+	+	–
<i>lutea</i> Müller, 1776	48	+	–	+	+	+	+	+	–	–	+	+	+	–	–
<i>reuteri</i> Hungerford, 1928	*49	–	–	–	–	–	+	–	+	–	–	–	–	–	–

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>PLEIDAE</b> Fieber, 1851															
<b>Plea</b> Leach, 1817															
<i>minutissima</i> Leach, 1817	*50	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>LEPTOPODOMORPHA</b>															
<b>SALDIDAE</b> Amyot & Serville, 1843															
<b>Chartoscirta</b> Stål, 1868															
<i>cincta</i> (Herrich-Schaeffer, 1841)	51	–	–	–	–	–	–	+	+	–	–	+	–	–	–
<i>cocksii</i> (Curtis, 1835)	52	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>elegantula</i> (Fallén, 1807)	53	–	–	–	–	–	–	+	+	+	–	+	+	–	+
<b>Halosalda</b> Reuter, 1912															
<i>lateralis</i> (Fallén, 1807)	54	–	+	+	+	–	–	–	+	+	–	–	–	–	–
<b>Macrosaldula</b> Leston & Southwood, 1964															
<i>scotica</i> (Curtis, 1835)	55	–	+	–	+	–	–	–	+	+	+	–	–	–	–
<b>Micracanthia</b> Reuter, 1912															
<i>fennica</i> (Reuter, 1884)	56	–	–	–	+	+	–	–	+	+	–	–	–	–	–
<i>marginalis</i> (Fallén, 1807)	57	–	–	–	+	–	–	–	–	–	–	+	–	–	–
<b>Saldula</b> VanDuzee, 1914															
<i>arenicola</i> (Scholtz, 1847)	58	–	–	–	–	–	–	–	+	–	–	+	+	–	–
<i>c-album</i> (Fieber, 1859)	59	–	–	–	–	–	+	+	–	–	–	–	–	–	–
<i>fucicola</i> (J. Sahlberg, 1870)	*60	–	–	–	+	–	–	–	–	–	–	–	–	–	–
<i>melanoscela</i> (Fieber, 1859)	61	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>opacula</i> (Zetterstedt, 1838)	62	–	+	+	+	+	+	+	–	+	–	+	+	–	–
<i>orthochila</i> (Fieber, 1859)	63	–	–	–	–	–	–	–	+	+	–	+	–	–	–
<i>pallipes</i> (Fabricius, 1794)	64	–	–	–	+	–	+	–	+	+	–	+	–	–	–
<i>palustris</i> (Douglas, 1874)	*65	–	–	–	+	–	–	–	+	–	–	–	–	–	–
<i>pilosella</i> (Thomson, 1871)	66	–	–	–	+	–	–	–	+	–	–	–	+	–	–
<i>salatoria</i> (Linnaeus, 1758)	67	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<b>Salda</b> Fabricius, 1803															
<i>littoralis</i> (Linnaeus, 1758)	68	+	+	–	+	+	+	–	+	+	+	+	–	–	–
<i>morio</i> Zetterstedt, 1838	*69	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>muelleri</i> (Gmelin, 1790)	*70	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>sahlbergi</i> Reuter, 1875	*71	–	–	–	?	–	–	–	–	–	–	–	–	–	–
<b>CIMICOMORPHA</b>															
<b>REDUVIIDAE</b> Latreille, 1807															
<b>Empicoris</b> Wolff, 1811															
<i>culiciformis</i> (DeGeer, 1773)	72	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>vagabundus</i> (Linnaeus, 1758)	73	–	–	–	–	–	+	–	+	–	–	+	–	–	–
<b>Phymata</b> Latreille, 1802															
<i>crassipes</i> (Fabricius, 1775)	74	–	–	–	–	+	+	+	–	+	+	+	+	–	–
<b>Reduvius</b> Fabricius, 1775															
<i>personatus</i> (Linnaeus, 1758)	75	–	–	–	–	+	–	–	–	+	–	+	+	+	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Pygolampis</i></b> Germar, 1817															
<i>bidentata</i> (Goeze, 1778)	76	–	–	–	+	–	+	–	–	+	–	+	+	–	–
<b><i>Coranus</i></b> Curtis, 1833															
<i>aethiops</i> Jakovlev, 1893	*77	–	–	–	–	+	+	+	+	–	+	–	–	–	–
<i>subapterus</i> (DeGeer, 1773)	78	+	+	+	+	+	+	–	+	+	+	+	?	+	–
<b><i>Rhynocoris</i></b> Hahn, 1834															
<i>annulatus</i> (Linnaeus, 1758)	79	–	–	–	+	+	–	–	–	–	+	+	+	–	–
<b>MICROPHYSIDAE</b> Dohrn, 1859															
<b><i>Loricula</i></b> Curtis, 1833															
<i>pselaphiformis</i> Curtis, 1833	80	–	+	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Myrmedobia</i></b> Bärensprung, 1857															
<i>coleoptrata</i> (Fallén, 1807)	81	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>distinguenda</i> Reuter, 1884	*82														
<i>exilis</i> (Fallén, 1807)	83	–	+	–	–	+	+	–	+	+	–	+	+	–	–
= <i>tenella</i> (Zetterstedt, 1828)															
<b>MIRIDAE</b> Hahn, 1833															
<b><i>Bryocoris</i></b> Fallén, 1829															
<i>pteridis</i> (Fallén, 1807)	84	–	+	–	+	–	+	–	–	–	–	+	+	+	+
<b><i>Monalocoris</i></b> Dahlbom, 1851															
<i>filicis</i> (Linnaeus, 1758)	85	–	+	+	+	+	+	–	+	+	–	+	+	–	–
<b><i>Dicyphus</i></b> Fieber, 1858															
<i>constrictus</i> (Boheman, 1852)	86	–	–	–	–	+	+	–	–	–	+	+	–	–	–
<i>epilobii</i> Reuter, 1883	*87	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>globulifer</i> (Fallén, 1829)	88	–	–	–	–	–	–	+	–	–	–	+	–	–	–
<i>stachydis</i> J. Sahlberg, 1878	89	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Bothynotus</i></b> Fieber, 1864															
<i>pilosus</i> Boheman, 1852	*90	–	–	–	–	–	–	–	–	+	–	+	+	+	–
<b><i>Alloeotomus</i></b> Fieber, 1858															
<i>germanicus</i> Wagner, 1939	91	–	–	–	–	+	–	–	+	–	+	–	+	+	–
<i>gothicus</i> (Fallén, 1807)	*92	–	–	–	–	–	–	–	–	–	+	–	+	–	–
<b><i>Deraeocoris</i></b> Kirschbaum, 1856															
<i>morio</i> (Boheman, 1852)	*93	–	–	–	+	+	+	+	–	–	+	+	+	+	–
<i>punctulatus</i> (Fallén, 1807)	94	–	–	–	–	–	–	–	+	+	–	–	–	–	–
<i>ruber</i> (Linnaeus, 1758)	95	–	–	–	–	–	–	–	–	–	–	+	+	–	–
<i>scutellaris</i> (Fabricius, 1794)	96	–	–	–	–	+	–	–	–	–	–	+	+	–	–
<i>trifasciatus</i> (Linnaeus, 1767)	*97	–	–	–	–	–	+	–	–	–	+	–	–	–	–
<b><i>Adelphocoris</i></b> Reuter, 1896															
<i>lineolatus</i> (Goeze, 1778)	98	+	–	+	+	+	+	+	+	+	+	+	+	+	–
<i>quadripunctatus</i> (Fabricius, 1794)	99	–	–	+	+	+	+	+	+	+	+	+	+	+	+
<i>seticornis</i> (Fabricius, 1775)	100	–	–	+	+	+	+	+	+	+	+	+	–	+	–
<i>ticinensis</i> (Meyer-Dür, 1843)	101	–	–	–	–	–	–	–	+	–	–	–	–	–	–

Continued overleaf

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Agnocoris</i> Reuter, 1875</b>															
<i>reclairei</i> (Wagner, 1949)	*102	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>rubicundus</i> (Fallén, 1807)	103	–	–	–	–	–	–	–	+	+	–	+	–	–	–
<b><i>Apolygus</i> China, 1941</b>															
<i>limbatus</i> (Fallén, 1807)	104	–	–	–	–	+	+	–	–	–	–	+	–	–	–
<i>lucorum</i> (Meyer-Dür, 1843)	105	–	–	+	+	+	–	–	+	+	+	+	–	–	–
<b><i>Calocoris</i> Fieber, 1848</b>															
<i>roseomaculatus</i> (DeGeer, 1773)	106	–	–	+	+	+	+	+	+	+	–	+	+	+	+
<b><i>Camptozygum</i> Reuter, 1896</b>															
<i>aequale</i> (Villers, 1789)	107	–	–	–	+	+	+	–	+	–	+	+	–	–	–
<b><i>Capsodes</i> Dahlbom, 1851</b>															
<i>gothicus</i> (Linnaeus, 1758)	108	–	+	–	–	+	+	–	+	–	–	+	+	+	–
<b><i>Capsus</i> Fabricius, 1803</b>															
<i>ater</i> (Linnaeus, 1758)	109	–	+	+	+	+	+	–	+	+	+	+	+	+	–
<i>pilifer</i> Remane, 1950	*110	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>wagneri</i> Remane, 1950	111	–	+	–	+	–	–	+	–	–	–	+	–	–	–
<b><i>Charagochilus</i> Fieber, 1858</b>															
<i>gyllenhalii</i> (Fallén, 1807)	112	+	+	+	+	+	+	+	+	+	–	+	+	+	+
<b><i>Closterotomus</i> Fieber, 1858</b>															
<i>biclavatus</i> (Herrich-Schaeffer, 1835)	113	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>fulvomaculatus</i> (DeGeer, 1773)	114	–	–	–	–	+	+	–	+	+	–	+	–	–	–
<i>norwegicus</i> (Gmelin, 1790)	115	+	+	+	+	+	+	–	+	+	+	+	–	–	–
<b><i>Dichrooscytus</i> Fieber, 1858</b>															
<i>intermedius</i> Reuter, 1885	116	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>rufipennis</i> (Fallén, 1807)	117	–	–	–	–	+	–	–	–	–	–	+	–	+	–
<b><i>Grypocoris</i> Douglas &amp; Scott, 1868</b>															
<i>sexguttatus</i> (Fabricius, 1777)	118	–	+	–	+	+	+	–	+	+	+	+	+	+	+
<b><i>Liocoris</i> Fieber, 1858</b>															
<i>tripustulatus</i> (Fabricius, 1781)	119	–	+	+	+	+	+	+	+	+	–	+	+	–	–
<b><i>Lygocoris</i> Reuter, 1875</b>															
<i>contaminatus</i> (Fallén, 1807)	120	+	–	+	+	+	+	+	+	+	+	+	+	+	–
<i>pabulinus</i> (Linnaeus, 1761)	121	–	+	+	–	+	+	–	+	+	+	+	+	–	+
<i>rugicollis</i> (Fallén, 1807)	122	–	–	–	–	–	–	–	–	+	–	+	–	–	–
<i>viridis</i> (Fallén, 1807)	123	–	+	+	+	+	+	–	+	+	–	+	–	–	–
<b><i>Lygus</i> Hahn, 1833</b>															
<i>adpersus</i> (Schilling, 1837)	*124	–	+	+	+	+	+	–	+	–	–	+	–	+	–
<i>gemellatus</i> (Herrich-Schaeffer, 1835)	*125	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>pratensis</i> (Linnaeus, 1758)	126	+	+	+	+	+	+	–	+	+	+	+	+	+	+
<i>punctatus</i> (Zetterstedt, 1838)	*127	–	–	+	–	+	+	+	+	–	+	+	+	+	+

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<i>rugulipennis</i> Poppius, 1911	128	+	+	-	+	+	+	-	+	+	+	+	+	+	-
<i>wagneri</i> Remane, 1955	129	-	+	+	+	+	+	+	-	-	+	+	+	-	+
<b>Miris</b> Fabricius, 1794															
<i>striatus</i> (Linnaeus, 1758)	130	-	+	-	-	+	+	-	+	+	-	+	-	+	-
<b>Orthops</b> Fieber, 1858															
<i>basalis</i> (A. Costa, 1853)	131	-	+	+	+	+	+	-	+	+	+	+	+	-	+
<i>campestris</i> (Linnaeus, 1758)	132	-	+	-	+	+	+	+	-	+	-	+	+	+	+
<i>kalmii</i> (Linnaeus, 1758)	133	-	+	+	+	+	+	-	+	+	-	+	+	+	-
<b>Pantilius</b> Curtis, 1833															
<i>tunicatus</i> (Fabricius, 1781)	134	-	-	-	+	+	+	-	+	+	+	+	+	+	-
<b>Phytocoris</b> Fallén, 1814															
<i>dimidiatus</i> Kirschbaum, 1856	135	-	-	-	-	-	-	-	-	+	+	+	+	+	-
<i>hirsutulus</i> Flor, 1861	136	-	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>intricatus</i> Flor, 1861	137	-	+	+	+	-	-	-	-	+	-	-	-	-	-
<i>longipennis</i> Flor, 1861	138	-	-	+	+	+	+	-	+	+	+	+	+	-	-
<i>pini</i> Kirschbaum, 1856	139	-	-	-	-	+	-	-	+	-	+	+	+	+	-
<i>populi</i> (Linnaeus, 1758)	140	-	+	-	-	-	-	-	-	+	-	-	-	-	-
<i>tiliae</i> (Fabricius, 1777)	141	-	-	-	-	+	+	-	-	-	-	-	-	-	-
<i>ulmi</i> (Linnaeus, 1758)	142	-	-	-	+	+	-	-	+	-	+	-	-	-	-
<b>Pinalitus</b> Kelton, 1955															
<i>cervinus</i> (Herrich-Schaeffer, 1841)	143	-	-	-	+	+	-	-	+	+	+	+	+	-	-
<i>rubricatus</i> (Fallén, 1807)	144	-	+	+	-	+	+	-	+	+	-	+	+	-	+
<b>Polymerus</b> Hahn, 1831															
<i>microphthalmus</i> (Wagner, 1951)	*145	-	-	-	-	+	-	-	-	-	-	+	-	-	-
<i>nigrita</i> (Fallén, 1807)	146	-	-	+	+	+	+	-	+	+	+	+	-	-	-
<i>palustris</i> (Reuter, 1907)	147	-	-	-	+	+	+	-	+	-	+	+	+	-	-
<i>tepastus</i> Rinne, 1989	*148	-	-	-	+	+	-	-	+	+	-	+	-	-	+
<i>unifasciatus</i> (Fabricius, 1794)	149	-	-	+	+	+	+	-	+	+	+	+	+	-	-
<i>vulneratus</i> (Panzer, 1806)	150	-	-	-	-	+	-	-	+	-	+	-	-	-	-
<b>Rhabdomiris</b> Wagner, 1968															
<i>striatellus</i> (Fabricius, 1794)	151	-	-	+	+	+	-	-	+	+	-	+	-	+	-
<b>Stenotus</b> Jakovlev, 1877															
<i>binotatus</i> (Fabricius, 1794)	*152	-	-	-	-	+	+	-	-	-	-	+	-	-	+
<b>Acetropis</b> Fieber, 1858															
<i>gimmerthallii</i> (Flor, 1860)	153	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<b>Leptopterna</b> Fieber, 1858															
<i>dolabrata</i> (Linnaeus, 1758)	154	-	+	+	+	+	+	-	+	+	+	+	+	+	+
<i>ferrugata</i> (Fallén, 1807)	155	-	+	+	+	-	+	-	+	+	+	+	-	-	-
<b>Megaloceroea</b> Fieber, 1858															
<i>recticornis</i> (Geoffroy, 1785)	156	-	+	-	+	+	+	-	+	+	+	+	-	+	-
<b>Myrmecoris</b> Gorski, 1852															
<i>gracilis</i> (R. F. Sahlberg, 1848)	157	-	-	-	+	+	-	-	+	-	-	+	-	-	-

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>Notostira</b> Fieber, 1858															
<i>elongata</i> (Geoffroy, 1758)	158	+	–	+	+	+	+	+	+	+	+	+	+	+	+
<i>erratica</i> (Linnaeus, 1758)	*159	–	–	+	?	?	–	–	–	–	–	+	–	–	–
<b>Stenodema</b> Laporte, 1832															
<i>calcarata</i> (Fallén, 1807)	160	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>holsata</i> (Fabricius, 1787)	161	+	+	+	+	+	+	–	+	–	+	+	+	–	+
<i>laevigata</i> (Linnaeus, 1758)	162	+	+	+	+	+	+	–	+	+	+	+	+	+	–
<i>trispinosa</i> Reuter, 1904	163	+	–	–	+	+	+	–	+	+	+	–	+	–	–
<i>virens</i> (Linnaeus, 1767)	164	–	–	+	–	+	+	–	+	+	+	+	+	–	–
<b>Pithanus</b> Fieber, 1858															
<i>maerkeli</i> (Herrich-Schaeffer, 1838)	165	+	+	–	+	+	+	–	+	+	–	+	+	–	–
<b>Teratocoris</b> Fieber, 1858															
<i>antennatus</i> (Boheman, 1852)	166	–	–	–	+	–	–	–	+	+	–	+	–	–	–
<i>paludum</i> J. Sahlberg, 1870	167	–	+	–	+	+	–	–	+	+	+	+	+	+	–
<i>saundersi</i> Douglas & Scott, 1869	168	+	+	–	+	–	–	–	+	+	+	+	–	–	–
<b>Trigonotylus</b> Fieber, 1858															
<i>caelestialium</i> (Kirkaldy, 1902)	169	–	+	–	+	+	+	+	–	+	–	+	+	+	–
<i>ruficornis</i> (Geoffroy, 1785)	170	+	+	+	+	+	+	–	+	+	+	+	+	+	–
<b>Euryopiocoris</b> Reuter, 1875															
<i>nitidus</i> (Meyer-Dür, 1843)	171	–	–	–	–	–	+	–	+	–	–	–	–	–	–
<b>Halticus</b> Hahn, 1833															
<i>apterus</i> (Linnaeus, 1758)	172	+	–	+	+	+	+	–	+	+	+	+	–	+	–
<b>Labops</b> Burmeister, 1835															
<i>sahlbergii</i> (Fallén, 1829)	173	–	–	–	–	–	–	–	–	–	–	+	–	+	–
<b>Orthocephalus</b> Fieber, 1858															
<i>brevis</i> (Panzer, 1798)	174	–	–	–	+	+	–	–	+	–	–	+	–	–	+
<i>coriaceus</i> (Fabricius, 1777)	175	–	+	–	–	+	–	–	+	–	+	+	–	–	–
<i>saltator</i> (Hahn, 1835)	176	–	+	+	–	+	+	–	+	+	–	+	+	–	–
<i>vittipennis</i> (Herrich-Schaeffer, 1835)	*177	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>Strongylocoris</b> Blanchard, 1840															
<i>leucocephalus</i> (Linnaeus, 1758)	178	–	–	+	+	+	+	–	+	+	+	+	–	–	+
<i>luridus</i> (Fallén, 1807)	*179	–	–	+	–	–	–	–	–	–	–	+	–	–	–
<i>niger</i> (Herrich-Schaeffer, 1835)	180	–	–	–	–	+	+	–	–	–	–	–	+	–	–
<i>steganooides</i> (J. Sahlberg, 1875)	*181	–	–	+	–	–	–	–	–	–	–	–	–	–	–
<b>Blepharidopterus</b> Kolenati, 1845															
<i>angulatus</i> (Fallén, 1807)	182	–	–	+	+	+	–	+	+	+	+	+	+	–	+
<i>diaphanus</i> (Kirschbaum, 1856)	183	–	–	–	+	–	–	–	–	–	–	+	–	–	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>Cyllecoris</b> Hahn, 1834															
<i>histrionius</i> (Linnaeus, 1767)	184	–	–	–	+	–	+	–	+	+	–	+	–	–	–
<b>Cyrtorhinus</b> Fieber, 1858															
<i>caricis</i> (Fallén, 1807)	185	–	–	–	+	–	–	–	–	–	+	+	–	+	–
<b>Dryophilocoris</b> Reuter, 1875															
<i>flavoquadrimaculatus</i> (DeGeer, 1773)	186	–	–	–	+	+	–	+	+	+	+	+	+	–	–
<b>Fieberocapsus</b> Carvalho & Southwood 1955															
<i>flaveolus</i> (Reuter, 1870)	187	–	–	–	+	–	+	–	–	–	+	–	–	–	–
<b>Globiceps</b> Lepeletier & Serville, 1825															
<i>flavomaculatus</i> (Fabricius, 1794)	188	–	+	+	–	+	+	+	+	+	+	+	+	–	–
<i>fulvicollis</i> Jakovlev, 1877	*189	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>salicicola</i> Reuter, 1880	190	–	–	–	–	–	–	–	–	–	–	+	+	–	–
<i>sphegiformis</i> (Rossi, 1790)	*191	–	–	–	–	–	–	–	+	+	–	–	–	–	–
<b>Heterocordylus</b> Fieber, 1858															
<i>erythrophthalmus</i> (Hahn, 1831)	*192	–	–	–	+	–	–	–	–	–	–	–	–	–	–
<b>Malacocoris</b> Fieber, 1858															
<i>chlorizans</i> (Panzer, 1794)	193	–	–	+	+	+	+	–	+	+	–	+	–	–	–
<b>Mecomma</b> Fieber, 1858															
<i>ambulans</i> (Fallén, 1807)	194	–	+	+	–	+	+	–	+	+	+	+	+	–	–
<i>dispar</i> (Boheman, 1852)	195	–	–	–	–	+	–	–	–	–	+	–	–	–	–
<b>Orthotylus</b> Fieber, 1858															
<i>bilineatus</i> (Fallén, 1807)	196	–	–	–	–	–	–	–	–	–	–	+	–	+	–
<i>ericetorum</i> (Fallén, 1807)	197	–	–	+	+	+	+	–	+	+	+	+	–	–	–
<i>flavosparsus</i> (C. R. Sahlberg, 1842)	198	+	+	+	+	+	+	–	+	+	+	+	+	+	–
<i>marginalis</i> Reuter, 1883	199	–	–	–	+	+	+	–	+	+	–	+	–	+	–
<i>nassatus</i> (Fabricius, 1787)	200	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<i>prasinus</i> (Fallén, 1826)	201	–	–	+	–	–	–	–	–	+	–	–	+	–	–
<i>tenellus</i> (Fallén, 1807)	202	–	–	–	+	–	–	–	–	+	–	–	–	–	–
<i>virens</i> (Fallén, 1807)	203	–	–	–	–	–	–	–	–	+	–	–	–	–	–
<i>viridinervis</i> (Kirschbaum, 1856)	*204	–	–	–	–	–	–	–	–	+	–	–	–	–	–
<b>Pilophorus</b> Hahn, 1826															
<i>cinnamopterus</i> (Kirschbaum, 1856)	205	–	–	+	–	–	–	–	+	+	–	+	–	–	–
<i>clavatus</i> (Linnaeus, 1767)	206	–	–	–	+	+	–	–	–	–	–	+	+	–	–
<i>confusus</i> (Kirschbaum, 1856)	207	–	–	–	+	+	–	–	–	–	–	+	–	–	–
<b>Hallodapus</b> Fieber, 1858															
<i>rufescens</i> (Burmeister, 1835)	208	–	+	–	+	+	–	–	+	+	–	–	–	–	–

Continued overleaf

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Systellonotus</i></b> Fieber, 1858															
<i>triguttatus</i> (Linnaeus, 1767)	209	–	+	–	+	+	–	–	+	+	–	+	–	–	+
<b><i>Amblytylus</i></b> Fieber, 1858															
<i>nasutus</i> (Kirschbaum, 1856)	210	–	–	–	+	+	–	+	–	+	–	+	–	–	–
<b><i>Atractotomus</i></b> Fieber, 1858															
<i>magnicornis</i> (Fallén, 1807)	211	–	–	–	–	–	+	–	–	–	–	+	+	–	–
<i>mali</i> (Meyer-Dür, 1843)	*212	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Brachyarthrurum</i></b> Fieber, 1858															
<i>limitatum</i> Fieber, 1858	213	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<b><i>Campylomma</i></b> Reuter, 1878															
<i>verbasci</i> (Meyer-Dür, 1843)	214	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Chlamydatus</i></b> Curtis, 1833															
<i>pulicarius</i> (Fallén, 1807)	215	+	+	+	+	+	+	–	+	+	+	+	+	+	–
<i>pullus</i> (Reuter, 1870)	216	+	+	+	–	+	+	–	+	+	–	+	–	–	–
<i>saltitans</i> (Fallén, 1807)	217	+	–	+	+	+	–	–	+	+	–	+	–	–	–
<b><i>Compsidolon</i></b> Reuter, 1899															
<i>salicellum</i> (Herrich-Schaeffer, 1841)	218	–	–	–	–	+	–	–	+	–	–	+	+	–	–
<b><i>Conostethus</i></b> Fieber, 1858															
<i>roseus</i> (Fallén, 1807)	219	–	–	–	–	–	–	–	–	–	–	+	–	+	–
<b><i>Criocoris</i></b> Fieber, 1858															
<i>crassicornis</i> (Hahn, 1834)	220	–	–	–	+	+	+	–	+	+	–	+	–	–	–
<i>quadrimaculatus</i> (Fallén, 1807)	221	–	–	–	+	+	+	+	+	+	+	+	+	–	–
<b><i>Europiella</i></b> Reuter, 1909															
<i>albipennis</i> (Fallén, 1829)	222	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>artemisiae</i> (Becker, 1864)	223	–	+	+	+	+	–	–	+	–	–	+	+	–	–
<b><i>Hoplomachus</i></b> Fieber, 1858															
<i>thunbergii</i> (Fallén, 1807)	224	–	–	–	–	+	–	–	+	–	–	+	–	–	–
<b><i>Lopus</i></b> Hahn, 1833															
<i>decolor</i> (Fallén, 1807)	225	+	+	–	–	+	+	–	+	+	–	+	–	–	–
<b><i>Megalocoleus</i></b> Reuter, 1890															
<i>molliculus</i> (Fallén, 1807)	226	–	–	–	+	+	+	–	+	+	+	+	+	+	–
<i>tanaceti</i> (Fallén, 1807)	227	–	–	–	+	+	–	–	–	–	–	+	+	–	–
= <i>pilosus</i> (Schränk, 1801)															
<b><i>Monosynamma</i></b> Scott, 1864															
<i>bohemanii</i> (Fallén, 1829)	228	–	+	–	–	–	–	–	–	+	–	+	–	–	–
= <i>nigritula</i> (Zetterstedt, 1838)															
<b><i>Oncotylus</i></b> Fieber, 1858															
<i>viridiflavus</i> (Goeze, 1778)	*229	–	–	–	–	–	+	–	–	+	–	+	+	–	–
<b><i>Orthonotus</i></b> Stephens, 1829															
<i>rufifrons</i> (Fallén, 1807)	230	–	+	–	–	+	–	–	+	+	–	+	–	–	–
<b><i>Phoenicocoris</i></b> Reuter, 1875															
<i>modestus</i> (Meyer-Dür, 1843)	231	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>obscurellus</i> (Fallén, 1829)	232	–	–	–	–	+	+	–	+	+	+	–	–	+	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Phylus</i> Hahn, 1831</b>															
<i>coryli</i> (Linnaeus, 1758)	233	–	–	–	+	+	+	–	+	+	–	+	+	–	–
<i>melanocephalus</i> (Linnaeus, 1767)	234	–	–	–	+	–	–	–	+	+	–	+	+	–	–
<b><i>Placochilus</i> Fieber, 1858</b>															
<i>seladonicus</i> (Fallén, 1807)	235	–	–	+	–	+	–	–	+	+	+	+	+	+	–
<b><i>Plagiognathus</i> Fieber, 1858</b>															
<i>arbustorum</i> (Fabricius, 1794)	236	+	+	+	+	+	+	–	+	+	+	+	+	+	+
<i>chrysanthemi</i> (Wolff, 1804)	237	–	+	+	+	+	+	–	+	+	+	+	+	+	+
<b><i>Plesiodema</i> Reuter, 1875</b>															
<i>pinetella</i> (Zetterstedt, 1828)	238	–	–	+	–	–	–	–	–	–	–	+	–	–	–
<b><i>Psallus</i> Fieber, 1858</b>															
<i>ambiguus</i> (Fallén, 1807)	239	–	+	–	+	–	+	+	+	+	+	+	–	–	+
<i>betuleti</i> (Fallén, 1826)	240	+	–	–	+	+	+	–	+	+	+	+	–	–	–
<i>confusus</i> Rieger, 1981	241	–	–	–	–	–	–	–	+	–	–	+	–	–	–
<i>falleni</i> Reuter, 1883	242	–	–	–	+	+	+	–	+	+	+	+	–	–	–
<i>haematodes</i> (Gmelin, 1790)	243	–	–	–	–	+	–	–	–	+	–	+	+	–	–
<i>lepidus</i> Fieber, 1858	244	–	–	–	+	–	–	–	+	–	–	+	–	–	–
<i>luridus</i> Reuter, 1878	245	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<i>mollis</i> (Mulsant & Rey, 1852)	246	–	–	+	+	–	–	–	–	–	–	–	–	–	–
<i>perrisi</i> (Mulsant & Rey, 1852)	247	–	–	–	+	+	–	–	+	–	–	+	–	–	–
<i>salicis</i> (Kirschbaum, 1856)	248	–	–	–	–	+	–	–	–	–	–	+	–	–	–
= <i>alnicola</i> Douglas & Scott, 1871															
= <i>scholtzi</i> Fieber, 1861															
<i>variabilis</i> (Fallén, 1807)	249	–	–	–	–	–	+	–	+	+	–	+	–	–	–
<i>varians</i> (Herrich-Schaeffer, 1841)	250	–	–	–	–	+	–	–	–	–	–	+	–	–	–
<b><i>Salicarus</i> Kerzhner, 1962</b>															
<i>roseri</i> (Herrich-Schaeffer, 1838)	251	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Tytthus</i> Fieber, 1864</b>															
<i>pubescens</i> (Knight, 1931)	252	–	–	–	+	–	–	–	+	–	–	+	–	–	–
= <i>geminus</i> (Flor, 1860)															
<i>pygmaeus</i> (Zetterstedt, 1838)	253	–	–	–	–	–	+	+	–	+	+	+	+	–	–
<b>TINGIDAE Laporte, 1832</b>															
<b><i>Acalypta</i> Westwood, 1840</b>															
<i>carinata</i> (Panzer, 1806)	254	–	+	–	+	–	+	–	–	+	–	+	+	–	–
<i>gracilis</i> (Fieber, 1844)	255	+	+	–	–	+	+	+	+	+	+	–	+	–	–
<i>marginata</i> (Wolff, 1804)	256	–	+	–	–	+	+	+	–	–	+	+	–	+	–
<i>nigrina</i> (Fallén, 1807)	257	+	+	+	+	+	+	–	+	–	–	+	–	–	–
<i>parvula</i> (Fallén, 1807)	258	–	–	–	+	+	+	–	–	+	+	–	–	–	–
<i>platycheila</i> (Fieber, 1844)	259	–	+	–	+	+	–	–	+	+	+	+	+	+	–

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>Agramma</b> Stephens, 1829															
<i>femorale</i> Thomson, 1871	260	–	+	+	+	+	+	–	+	+	+	+	+	–	–
<i>tropidopterum</i> Flor, 1860	261	–	–	–	–	+	+	–	–	–	–	+	+	–	–
<b>Catoplatus</b> Spinola, 1837															
<i>fabricii</i> (Stål, 1868)	262	–	–	–	+	–	–	–	+	+	–	+	–	–	–
<b>Derephysia</b> Spinola, 1837															
<i>cristata</i> (Panzer, 1806)	263	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<i>foliacea</i> (Fallén, 1807)	264	–	+	–	+	+	+	–	+	+	–	+	–	–	–
<b>Dictyla</b> Stål, 1874															
<i>convergens</i> (Herrich-Schaeffer, 1835)	265	+	+	–	–	–	–	–	–	–	–	+	+	–	–
<i>echii</i> (Schrank, 1782)	266	–	–	+	–	–	–	–	+	–	–	+	–	–	–
<i>lupuli</i> (Herrich-Schaeffer, 1837)	267	–	–	–	–	–	–	–	–	–	–	+	+	–	–
<b>Galeatus</b> Curtis, 1833															
<i>spinifrons</i> (Fallén, 1807)	268	–	–	–	–	+	–	–	+	–	–	+	–	–	–
= <i>affinis</i> sensu Flor, 1860															
non Herrich-Schaeffer, 1835															
<b>Kalama</b> Puton, 1876															
<i>tricornis</i> (Schrank, 1801)	269	+	+	–	+	+	–	–	+	+	–	–	–	–	–
<b>Physatocheila</b> Fieber, 1844															
<i>costata</i> (Fabricius, 1794)	270	–	–	–	+	+	+	+	+	–	–	+	+	–	–
<b>Stephanitis</b> Stål, 1873															
<i>oberti</i> (Kolenati, 1856)	271	–	–	+	–	+	+	+	+	–	–	+	+	–	–
<b>Tingis</b> Fabricius, 1803															
<i>cardui</i> (Linnaeus, 1758)	272	–	+	+	+	+	+	–	+	+	–	+	–	–	–
<b>NABIDAE</b> A. Costa, 1853															
<b>Himacerus</b> Wolff, 1811															
<i>apterus</i> (Fabricius, 1798)	273	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>boops</i> (Schiodte, 1870)	274	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>Nabis</b> Latreille, 1802															
<i>brevis</i> Scholtz, 1847	275	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>ericetorum</i> Scholtz, 1847	276	–	–	+	+	+	+	–	+	+	+	+	+	–	–
<i>ferus</i> (Linnaeus, 1758)	277	+	+	–	+	+	+	+	+	+	+	+	+	–	–
<i>flavomarginatus</i> Scholtz, 1847	278	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>limbatus</i> Dahlbom, 1851	279	+	+	+	+	+	+	–	+	+	+	+	+	–	+
<i>lineatus</i> Dahlbom, 1851	280	–	–	–	+	+	+	+	+	+	–	+	–	–	–
<i>pseudoferus</i> Remane, 1949	281	–	+	+	+	–	+	–	+	–	–	–	–	–	–
<i>punctatus</i> A. Costa, 1847	*282	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>rugosus</i> (Linnaeus, 1758)	283	–	+	+	+	+	+	–	+	+	+	+	+	–	–
<b>ANTHOCORIDAE</b> Fieber, 1836															
<b>Acompocoris</b> Reuter, 1875															
<i>pygmaeus</i> (Fallén, 1807)	284	–	–	+	–	–	–	–	+	–	–	+	–	–	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Anthocoris</i></b> Fallén, 1814															
<i>confusus</i> Reuter, 1884	285	–	–	–	+	–	+	–	+	–	–	–	+	–	–
<i>gallarumulmi</i> (DeGeer, 1773)	286	–	–	–	+	–	–	–	+	–	+	+	+	–	–
<i>nemoralis</i> (Fabricius, 1794)	287	–	+	–	–	+	–	–	–	+	–	+	–	–	–
<i>nemorum</i> (Linnaeus, 1761)	288	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<i>pilosus</i> (Jakovlev, 1877)	*289	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<i>simulans</i> Reuter, 1884	290	–	–	–	–	–	–	–	+	–	–	+	–	–	+
<b><i>Elatophilus</i></b> Reuter, 1884															
<i>stigmatellus</i> (Zetterstedt, 1838)	*291	–	–	–	–	–	–	–	–	–	–	–	+	–	–
<b><i>Temnostethus</i></b> Fieber, 1860															
<i>gracilis</i> Horváth, 1907	292	+	+	–	+	+	+	–	+	+	–	+	–	–	–
<i>pusillus</i> (Herrich-Schaeffer, 1835)	293	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<b><i>Tetraphleps</i></b> Fieber, 1860															
<i>aterrimus</i> (J. Sahlberg, 1878)	294	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>bicuspis</i> (Herrich-Schaeffer, 1835)	295	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Orius</i></b> Wolff, 1811															
<i>laticollis</i> (Reuter, 1884)	296	–	–	–	–	–	–	–	–	+	–	+	–	–	–
<i>minutus</i> (Linnaeus, 1758)	297	–	+	–	–	+	+	–	–	–	–	–	+	–	–
<i>niger</i> (Wolff, 1811)	298	–	–	+	+	+	+	–	+	+	–	+	–	–	–
<b><i>Lyctocoris</i></b> Hahn, 1836															
<i>campestris</i> (Fabricius, 1794)	299	–	–	–	+	+	+	–	–	+	–	+	–	–	–
<b><i>Scoloposcelis</i></b> Fieber, 1864															
<i>obscura</i> (Zetterstedt, 1838)	300	–	–	–	–	–	–	–	–	–	–	–	+	–	–
<i>pulchella</i> (Zetterstedt, 1838)	*301	–	–	+	+	+	+	–	+	+	–	+	+	–	–
<b><i>Xylocoris</i></b> Dufour, 1831															
<i>cursitans</i> (Fallén, 1807)	302	–	–	–	–	+	–	–	+	+	–	+	–	–	–
<i>formicetorum</i> (Boheman, 1844)	*303	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<i>galactinus</i> (Fieber, 1836)	304	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b><i>Amphiareus</i></b> Distant, 1904															
<i>obscuripes</i> (Poppius, 1909)	*305	–	–	–	–	–	–	–	–	–	–	–	+	–	–
<b>CIMICIDAE</b> Latreille, 1802															
<b><i>Cimex</i></b> Linnaeus, 1758															
<i>lectularius</i> Linnaeus, 1758	306	–	–	+	–	+	–	–	–	–	–	+	+	–	–
<b><i>Oeciatus</i></b> Stål, 1873															
<i>hirundinis</i> (Lamarck, 1816)	307	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>PENTATOMOMORPHA</b>															
<b>ARADIDAE</b> Brullé, 1836															
<b><i>Aradus</i></b> Fabricius, 1803															
<i>aterrimus</i> Fieber, 1864	308	–	–	–	–	–	–	–	–	–	–	+	–	–	–

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<i>betulae</i> (Linnaeus, 1758)	309	–	–	–	–	+	–	–	+	–	–	+	+	–	–
<i>betulinus</i> Fallén, 1829	310	–	+	–	–	–	–	–	–	–	–	–	–	–	–
<i>cinnamomeus</i> (Panzer, 1806)	311	–	–	+	+	–	+	–	+	+	–	+	+	–	–
<i>corticalis</i> (Linnaeus, 1758)	312	–	–	+	–	–	–	–	+	–	–	+	+	–	–
<i>depressus</i> (Fabricius, 1794)	313	–	+	–	–	+	+	–	–	+	–	+	–	–	–
<i>lugubris</i> Fallén, 1807	314	–	–	–	–	–	–	+	–	–	–	+	–	–	–
<i>truncatus</i> Fieber, 1861	315	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<b>PIESMATIDAE</b> Amyot & Serville, 1843															
<i>Parapiesma</i> Péricart, 1974															
<i>quadratum</i> (Fieber, 1844)	316	–	+	+	+	–	+	–	+	+	–	–	–	–	–
<i>Piesma</i> Lepeletier & Serville, 1828															
<i>capitatum</i> (Wolff, 1804)	317	–	–	–	–	–	+	–	+	+	–	+	+	–	–
<i>maculatum</i> (Laporte, 1833)	318	–	+	–	+	+	+	+	–	+	+	+	+	–	–
<b>BERYTIDAE</b> Fieber, 1851															
<i>Neides</i> Latreille, 1802															
<i>tipularius</i> (Linnaeus, 1758)	*319	–	–	–	–	–	+	–	–	+	–	+	+	–	–
<i>Berytinus</i> Kirkaldy, 1900															
<i>clavipes</i> (Fabricius, 1775)	320	–	–	–	+	+	+	–	+	+	–	+	+	–	–
<i>crassipes</i> (Herrich-Schaeffer, 1835)	321	–	–	–	–	+	+	–	+	–	–	–	–	–	–
<i>minor</i> (Herrich-Schaeffer, 1835)	322	–	+	–	–	+	+	–	+	–	–	+	+	–	–
<i>montivagus</i> (Meyer-Dür, 1841)	*323	–	–	–	?	–	–	–	–	–	–	–	–	–	–
<i>signoreti</i> (Fieber, 1859)	324	–	–	–	–	–	–	–	–	+	–	–	–	–	–
<i>Metatropis</i> Fieber, 1859															
<i>rufescens</i> (Herrich-Schaeffer, 1835)	325	–	–	+	–	–	+	+	–	–	–	+	+	–	–
<b>LYGAEIDAE</b> Schilling, 1829															
<i>Lygaeus</i> Fabricius, 1794															
<i>equestris</i> (Linnaeus, 1758)	*326	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>Nithecus</i> Horváth, 1890															
<i>jacobaeae</i> (Schilling, 1829)	327	–	+	+	+	+	+	–	+	+	+	+	–	+	+
<i>Nysius</i> Dallas, 1852															
<i>ericae</i> (Schilling, 1829)	328	–	–	–	–	+	–	–	+	+	+	+	–	–	–
<i>helveticus</i> (Herrich-Schaeffer, 1850)	329	–	–	+	+	–	+	–	+	–	+	–	–	–	–
<i>thymi</i> (Wolff, 1804)	330	+	+	+	+	+	+	–	+	+	+	+	+	–	+
<i>Ortholomus</i> Stål, 1872															
<i>punctipennis</i> (Herrich-Schaeffer, 1838)	331	–	+	+	+	+	+	–	+	+	–	+	–	–	–
<i>Kleidocerys</i> Stephens, 1829															
<i>resedae</i> (Panzer, 1797)	332	+	+	–	+	+	+	+	+	+	+	+	+	+	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>Cymus</b> Hahn, 1831															
<i>aurescens</i> Distant, 1883	333	–	–	–	–	+	+	+	–	–	+	+	–	–	–
= <i>obliquus</i> Horváth, 1888															
<i>clavicularis</i> (Fallén, 1807)	334	–	+	–	+	–	–	+	+	–	+	+	–	–	–
<i>glandicolor</i> Hahn, 1832	335	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<b>Ischnodemus</b> Fieber, 1837															
<i>sabuleti</i> (Fallén, 1826)	336	+	+	+	+	+	–	–	+	+	–	–	–	–	–
<b>Geocoris</b> Fallén, 1814															
<i>ater</i> (Fabricius, 1787)	337	+	+	–	–	+	–	–	+	+	–	–	–	–	–
<i>dispar</i> (Waga, 1839)	*338	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<i>grylloides</i> (Linnaeus, 1761)	339	+	+	+	+	+	+	+	+	+	–	+	–	+	–
<i>lapponicus</i> Zetterstedt, 1838	340	–	–	–	+	+	–	–	+	–	–	–	–	–	–
<b>Chilacis</b> Fieber, 1864															
<i>typhae</i> (Perris, 1857)	*341	–	–	–	–	–	–	–	+	–	–	+	–	–	–
<b>Heterogaster</b> Schilling, 1829															
<i>urticae</i> (Fabricius, 1775)	342	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<b>Camptotelus</b> Fieber, 1860															
<i>lineolatus</i> (Schilling, 1829)	343	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<b>Macroplox</b> Fieber, 1860															
<i>preyssleri</i> (Fieber, 1837)	344	–	–	–	+	–	–	–	+	+	–	–	–	–	–
<b>Philomyrmex</b> R. F. Sahlberg, 1848															
<i>insignis</i> R. F. Sahlberg, 1848	345	–	+	+	–	–	–	–	–	–	–	–	–	–	–
<b>Tropidophlebia</b> Kerzhner, 1964															
<i>costalis</i> (Herrich-Schaeffer, 1850)	*346														
<b>Tropistethus</b> Fieber, 1860															
<i>holosericeus</i> (Scholtz, 1846)	347	–	–	–	–	–	–	–	+	–	–	–	–	–	–
<b>Drymus</b> Fieber, 1860															
<i>brunneus</i> (R. F. Sahlberg, 1848)	348	+	+	–	+	+	+	–	+	–	+	+	+	–	–
<i>pilicornis</i> (Mulsant & Rey, 1852)	349	–	–	–	–	–	–	–	–	+	–	–	–	–	–
<i>ryeii</i> Douglas & Scott, 1865	350	–	–	–	–	+	+	+	–	–	+	+	–	–	–
<i>sylvaticus</i> (Fabricius, 1775)	351	–	–	–	+	+	–	–	+	+	+	+	+	–	–
<b>Eremocoris</b> Fieber, 1860															
<i>abietis</i> (Linnaeus, 1758)	352	–	–	–	+	+	+	–	+	–	+	+	+	+	–
<i>plebejus</i> (Fallén, 1807)	353	–	+	+	+	+	+	–	+	+	–	–	–	–	–
<b>Gastrodes</b> Westwood, 1840															
<i>abietum</i> Bergroth, 1914	354	–	–	+	–	+	+	–	+	+	–	+	+	+	–
<i>grossipes</i> (DeGeer, 1773)	355	–	–	+	+	+	–	–	+	+	–	+	–	–	–
<b>Ischnocoris</b> Fieber, 1860															
<i>angustulus</i> (Boheman, 1852)	356	–	–	–	–	–	–	–	+	+	+	–	+	–	–

Continued overleaf

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Lamproplax</i></b> Douglas & Scott, 1868															
<i>picea</i> (Flor, 1860)	357	–	–	–	+	+	–	–	–	–	–	+	+	–	–
<b><i>Scolopostethus</i></b> Fieber, 1860															
<i>affinis</i> (Schilling, 1829)	358	–	–	+	+	+	+	+	–	+	+	+	+	–	–
<i>decoratus</i> (Hahn, 1833)	359	–	+	+	+	+	+	–	+	+	+	+	+	–	–
<i>pictus</i> (Schilling, 1829)	360	–	+	–	–	+	+	–	–	–	+	–	–	–	–
<i>pilosus</i> Reuter, 1875	361	–	+	–	–	+	+	–	–	+	+	–	–	–	–
<i>thomsoni</i> Reuter, 1875	362	–	–	–	+	+	+	–	+	+	–	+	+	–	–
<b><i>Aphanus</i></b> Laporte, 1833															
<i>rolandri</i> (Linnaeus, 1758)	*363	–	–	–	–	+	–	–	–	–	–	–	–	–	–
<b><i>Emblethis</i></b> Fieber, 1860															
<i>verbasci</i> (Fabricius, 1803)	364	–	–	+	–	–	–	–	–	–	–	–	–	–	–
<b><i>Gonianotus</i></b> Fieber, 1860															
<i>marginipunctatus</i> (Wolff, 1804)	365	–	–	+	–	+	–	–	+	+	–	–	–	–	–
<b><i>Macrodema</i></b> Fieber, 1860															
<i>micropterum</i> (Curtis, 1836)	366	+	+	+	+	+	+	–	–	+	+	+	–	–	–
<b><i>Pionosomus</i></b> Fieber, 1860															
<i>varius</i> (Wolff, 1804)	367	–	+	+	–	–	–	–	+	–	–	–	–	–	–
<b><i>Pterotmetus</i></b> Amyot & Serville, 1843															
<i>staphyliniformis</i> (Schilling, 1829)	368	–	+	–	+	+	+	–	+	+	–	+	+	–	+
<b><i>Trapezonotus</i></b> Fieber, 1860															
<i>anorus</i> (Flor, 1860)	369	–	–	–	+	+	–	+	+	+	–	+	–	–	–
<i>arenarius</i> (Linnaeus, 1758)	370	+	+	+	+	+	+	+	+	+	–	+	+	–	–
<i>desertus</i> Seidenstücker, 1951	371	–	+	–	+	–	+	–	–	–	–	+	–	–	–
<b><i>Megalonotus</i></b> Fieber, 1860															
<i>antennatus</i> (Schilling, 1829)	372	–	+	–	+	+	+	–	+	+	–	+	–	–	–
<i>chiragra</i> (Fabricius, 1794)	373	+	+	–	+	+	+	+	+	–	–	+	–	–	–
<b><i>Sphragisticus</i></b> Stål, 1872															
<i>nebulosus</i> (Fallén, 1807)	374	–	+	–	–	–	+	–	–	–	–	+	–	–	–
<b><i>Ligyrocoris</i></b> Stål, 1872															
<i>sylvestris</i> (Linnaeus, 1758)	375	+	+	+	+	+	+	–	+	+	+	+	–	–	–
<b><i>Pachybrachius</i></b> Hahn, 1826															
<i>fracticollis</i> (Schilling, 1829)	376	+	–	–	+	+	+	+	+	+	+	+	+	–	–
<i>luridus</i> Hahn, 1826	377	–	–	–	–	+	+	–	–	–	–	+	+	–	–
<b><i>Plinthisus</i></b> Stephens, 1829															
<i>pusillus</i> (Scholtz, 1847)	378	–	+	–	–	+	+	–	+	–	–	–	–	–	–
<b><i>Graptopeltus</i></b> Stål, 1872															
<i>lynceus</i> (Fabricius, 1775)	379	–	–	+	–	–	–	–	+	+	–	+	–	–	–
<b><i>Peritrechus</i></b> Fieber, 1860															
<i>angusticollis</i> (R. F. Sahlberg, 1848)	380	–	–	–	+	+	–	–	+	–	–	–	–	–	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<i>convivus</i> (Stål, 1858)	381	–	+	–	+	+	–	–	+	+	+	–	–	–	–
= <i>distinguendus</i> (Flor, 1860)															
<i>geniculatus</i> (Hahn, 1832)	382	–	–	–	+	+	–	–	+	+	–	+	+	–	–
<i>nubilus</i> (Fallén, 1807)	383	+	+	–	+	+	–	–	+	+	–	–	–	–	–
<b>Raglius</b> Stål, 1872															
<i>alboacuminatus</i> (Goeze, 1778)	*384	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>Rhyparochromus</b> Hahn, 1826															
<i>pini</i> (Linnaeus, 1758)	385	–	–	+	+	+	+	–	+	+	+	+	+	–	–
<b>Acompus</b> Fieber, 1860															
<i>rufipes</i> (Wolff, 1804)	386	–	–	+	+	+	+	–	+	+	+	+	–	–	–
<b>Stygnocoris</b> Douglas & Scott, 1865															
<i>fuliginus</i> (Geoffroy, 1785)	387	–	–	+	–	+	–	–	–	–	–	+	+	–	–
<i>pygmaeus</i> (R. F. Sahlberg, 1848)	388	–	+	+	+	–	–	–	+	+	+	–	–	–	–
<i>rusticus</i> (Fallén, 1807)	389	–	–	–	+	+	+	+	+	+	+	+	+	–	–
<i>sabulosus</i> (Schilling, 1829)	390	–	+	+	+	+	+	–	+	+	+	+	+	–	–
= <i>pedestris</i> (Fallén, 1807)															
<b>PYRRHOCORIDAE</b> Amyot & Serville, 1843															
<b>Pyrhcoris</b> Fallén, 1814															
<i>apterus</i> (Linnaeus, 1758)	*391	–	–	–	–	–	–	–	–	+	+	+	+	–	–
<b>COREIDAE</b> Leach, 1815															
<b>Coreus</b> Fabricius, 1794															
<i>marginatus</i> (Linnaeus, 1758)	392	–	+	+	+	+	+	+	+	+	+	+	+	+	–
<b>Spathocera</b> Stein, 1860															
<i>dahlmannii</i> (Schilling, 1829)	*393	–	–	–	+	–	–	–	–	–	–	–	–	–	–
<i>laticornis</i> (Schilling, 1829)	*394	–	–	–	–	–	–	–	–	–	–	–	+	–	–
<b>Bathysolen</b> Fieber, 1860															
<i>nubilus</i> (Fallén, 1807)	395	–	–	–	–	+	+	–	+	–	–	+	+	–	–
<b>Ulmicola</b> Kirkaldy, 1909															
<i>spinipes</i> (Fallén, 1807)	396	–	–	–	–	+	+	–	–	–	–	+	–	–	–
<b>Nemocoris</b> R. F. Sahlberg, 1848															
<i>falleni</i> R. F. Sahlberg, 1848	397	–	–	–	–	–	–	–	–	–	–	+	–	–	–
<b>Coriomeris</b> Westwood, 1842															
<i>denticulatus</i> (Scopoli, 1763)	398	–	–	+	+	+	–	–	+	+	+	–	+	–	–
<i>scabricornis</i> (Panzer, 1809)	399	–	–	–	+	+	–	–	–	–	–	+	+	–	–
<b>RHOPALIDAE</b> Amyot & Serville, 1843															
<b>Corizus</b> Fallén, 1814															
<i>hyoscyami</i> (Linnaeus, 1758)	400	–	–	+	+	+	–	+	+	+	+	+	+	+	+
<b>Rhopalus</b> Schilling, 1827															

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Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<i>maculatus</i> (Fieber, 1837)	401	+	–	+	+	+	+	+	+	+	+	+	+	+	+
<i>parumpunctatus</i> Schilling, 1829	402	+	–	+	+	+	+	–	+	+	+	+	+	–	–
<i>subrufus</i> (Gmelin, 1790)	403	–	–	+	+	+	+	–	+	+	+	+	+	–	+
<b><i>Stictopleurus</i></b> Stål, 1872															
<i>abutylon</i> (Rossi, 1790)	404	+	–	+	+	+	+	+	+	+	+	+	+	+	+
<i>crassicornis</i> (Linnaeus, 1758)	405	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<i>punctatonervosus</i> (Goeze, 1778)	406	–	–	–	+	+	+	+	–	–	+	+	+	+	+
<b><i>Chorosoma</i></b> Curtis, 1830															
<i>schillingi</i> (Schummel, 1829)	407	–	–	+	+	–	–	–	+	+	–	–	–	–	–
<b><i>Myrmus</i></b> Hahn, 1831															
<i>miriformis</i> (Fallén, 1807)	408	–	–	+	+	+	+	+	+	+	+	+	+	–	+
<b>ALYDIDAE</b> Amyot & Serville, 1843															
<b><i>Alydus</i></b> Fabricius, 1803															
<i>calcaratus</i> (Linnaeus, 1758)	409	–	–	+	–	+	+	–	+	+	–	+	–	–	–
<b>ACANTHOSOMATIDAE</b> Signoret, 1863															
<b><i>Acanthosoma</i></b> Curtis, 1824															
<i>haemorrhoidale</i> (Linnaeus, 1758)	410	–	–	+	+	+	–	–	+	+	–	+	+	+	+
<b><i>Cyphostethus</i></b> Fieber, 1860															
<i>tristriatus</i> (Fabricius, 1787)	411	+	–	+	+	+	–	–	+	+	–	–	–	–	–
<b><i>Elasmostethus</i></b> Fieber, 1860															
<i>brevis</i> Lindberg, 1934	412	–	–	+	–	–	–	–	+	–	–	–	–	–	–
<i>interstinctus</i> (Linnaeus, 1758)	413	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>minor</i> Horváth, 1899	414	–	–	+	+	+	+	–	+	+	–	+	+	–	–
<b><i>Elasmucha</i></b> Stål, 1864															
<i>ferrugata</i> (Fabricius, 1787)	415	–	–	+	+	+	+	–	+	–	–	+	–	+	–
<i>fieberi</i> Jakovlev, 1864	416	–	+	+	+	+	+	–	+	+	+	+	+	–	–
<i>grisea</i> (Linnaeus, 1758)	417	+	+	+	+	+	+	+	+	+	+	+	+	+	–
<b>CYDNIDAE</b> Billberg, 1820															
<b><i>Legnotus</i></b> Schiodte, 1848															
<i>picipes</i> (Fallén, 1807)	418	–	–	+	+	+	–	–	+	+	–	+	–	–	–
<b><i>Adomerus</i></b> Mulsant & Rey, 1866															
<i>biguttatus</i> (Linnaeus, 1758)	419	–	+	–	–	+	+	–	+	+	–	+	+	–	–
<b><i>Sehirus</i></b> Amyot & Serville, 1843															
<i>luctuosus</i> Mulsant & Rey, 1866	420	–	+	–	+	+	–	+	–	–	–	+	+	–	–
<b><i>Tritomegas</i></b> Amyot & Serville, 1843															
<i>bicolor</i> (Linnaeus, 1758)	421	–	–	–	+	+	–	–	+	+	–	–	–	–	–

Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b>THYREOCORIDAE</b> Amyot & Serville, 1843															
<b><i>Thyreocoris</i></b> Schrank, 1801															
<i>scarabaeoides</i> (Linnaeus, 1758)	422	+	-	+	+	+	-	-	+	+	-	+	-	-	-
<b>SCUTELLERIDAE</b> Leach, 1815															
<b><i>Eurygaster</i></b> Laporte, 1832															
<i>maura</i> (Linnaeus, 1758)	423	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>testudinaria</i> (Geoffroy, 1785)	424	-	-	+	+	+	+	+	+	+	-	+	+	+	-
<b><i>Odontoscelis</i></b> Laporte, 1832															
<i>fuliginosa</i> (Linnaeus, 1761)	425	-	-	-	+	-	-	-	+	-	-	-	-	-	-
<b><i>Phimodera</i></b> Germar, 1839															
<i>humeralis</i> (Dalman, 1823)	426	-	-	+	-	+	-	-	+	-	-	-	-	-	-
<b>PENTATOMIDAE</b> Leach, 1815															
<b><i>Dybowskyia</i></b> Jakovlev, 1876															
<i>reticulata</i> Dallas, 1851	*427	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<b><i>Graphosoma</i></b> Laporte, 1832															
<i>lineatum</i> (Linnaeus, 1758)	*428	-	-	-	-	-	-	-	+	+	+	+	+	+	+
<b><i>Sciocoris</i></b> Fallén, 1829															
<i>cursitans</i> (Fabricius, 1794)	429	-	-	+	+	+	+	-	+	+	+	+	-	-	-
<i>macrocephalus</i> Fieber, 1851	*430	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>microphthalmus</i> Flor, 1860	431	-	-	-	+	+	+	-	+	+	-	+	+	-	-
<i>umbrinus</i> (Wolff, 1804)	432	-	-	-	-	-	-	-	+	+	-	+	-	-	-
<b><i>Aelia</i></b> Fabricius, 1803															
<i>acuminata</i> (Linnaeus, 1758)	433	-	+	+	+	+	+	+	+	+	+	+	+	+	-
<i>klugii</i> Hahn, 1831	434	-	-	+	-	+	+	-	+	+	-	+	+	-	-
<b><i>Neottiglossa</i></b> Kirby, 1837															
<i>pusilla</i> (Gmelin, 1790)	435	-	-	+	+	+	+	+	+	-	+	+	+	+	-
<b><i>Eysarcoris</i></b> Hahn, 1834															
<i>aeneus</i> (Scopoli, 1763)	*436	-	-	-	-	-	-	+	-	-	-	-	+	-	-
<b><i>Rubiconia</i></b> Dohrn, 1860															
<i>intermedia</i> (Wolff, 1811)	437	-	-	-	-	-	-	-	-	-	-	+	-	-	-
<b><i>Anthemina</i></b> Mulsant & Rey, 1866															
<i>aliena</i> (Reuter, 1891)	*438	-	-	-	-	+	+	-	-	-	+	+	+	-	-
<b><i>Carpocoris</i></b> Kolenati, 1846															
<i>fuscispinus</i> (Boheman, 1850)	439	-	-	-	-	-	+	-	-	-	-	+	-	-	-
<i>purpureipennis</i> (DeGeer, 1773)	440	+	+	+	+	+	+	+	+	+	+	+	+	+	-
<b><i>Chlorochroa</i></b> Stål, 1872															
<i>juniperina</i> (Linnaeus, 1758)	441	+	+	+	+	+	+	-	+	+	-	+	+	-	-
<i>pinicola</i> Mulsant & Rey, 1852	442	-	-	-	-	+	+	-	-	-	-	+	+	-	-
<b><i>Dolycoris</i></b> Mulsant & Rey, 1866															
<i>baccarum</i> (Linnaeus, 1758)	443	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Continued overleaf



Table 1. Continued

	No.	LG	MG	EL	FL	LF	MF	NF	EK	FK	LE	ME	NE	MD	ND
<b><i>Holcostethus</i></b> Fieber, 1860															
<i>vernalis</i> (Wolff, 1804)	444	+	+	+	+	+	+	+	+	+	-	+	+	+	-
<b><i>Palomena</i></b> Mulsant & Rey, 1866															
<i>prasina</i> (Linnaeus, 1761)	445	-	-	+	+	+	-	-	+	+	+	+	+	+	+
<i>viridissima</i> (Poda, 1761)	446	-	-	-	+	+	-	-	-	-	-	-	-	-	-
<b><i>Eurydema</i></b> Laporte, 1832															
<i>dominulus</i> (Scopoli, 1763)	447	-	-	-	-	+	+	+	-	+	+	+	+	+	-
<i>oleracea</i> (Linnaeus, 1758)	448	-	+	+	+	+	+	+	+	+	+	+	+	+	+
<b><i>Pentatoma</i></b> Olivier, 1789															
<i>rufipes</i> (Linnaeus, 1758)	449	-	-	+	+	+	+	+	+	+	+	+	+	+	+
<b><i>Jalla</i></b> Hahn, 1832															
<i>dumosa</i> (Linnaeus, 1758)	450	-	-	-	-	+	+	-	+	-	-	+	+	-	-
<b><i>Picromerus</i></b> Amyot & Serville, 1843															
<i>bidens</i> (Linnaeus, 1758)	451	-	-	+	+	+	+	+	+	+	+	+	+	+	-
<b><i>Rhacognathus</i></b> Fieber, 1860															
<i>punctatus</i> (Linnaeus, 1758)	452	-	-	-	+	+	+	-	+	+	+	+	+	+	-
<b><i>Troilus</i></b> Stål, 1868															
<i>luridus</i> (Fabricius, 1775)	453	+	-	-	+	+	-	+	-	-	-	+	+	-	-
<b><i>Zicrona</i></b> Amyot & Serville, 1843															
<i>caerula</i> (Linnaeus, 1758)	454	-	+	-	+	+	+	+	+	-	-	+	+	-	-
Total number of species		69	138	160	237	282	233	96	278	231	172	341	208	104	52

## Remarks to the species marked with an asterisk (\*)

- 8 *buenoi* Only recorded from MF 24 Roosna-Alliku, Allikjärve 12.v.1982, 7♂ 10 ♀ (Valk 1984).  
21 *griseola* See Coulianos (2003).  
26 *cavifrons* See Coulianos (2003).  
27 *propinqua* The only record is from LE 63 Nigula bog 28.v.2001 1♂ 1♀, 11.vi.2001 1♀ leg. M. Smits det. C.-C. Coulianos. This record will be published in full by G. A. van Duinen (in prep.).  
29 *wollastoni* The only record is from LE 63 Nigula bog 2001 8♂ 15♀ leg. M. Smits det. C.-C. Coulianos. This record will be published in full by G. A. van Duinen (in prep.).  
34 *concinna* See Coulianos (2003). Also recorded from LE 63 Nigula 3–8.x.1999 1♂ in light trap leg. M. Kruus.  
39 *lateralis* Recorded as new to Estonia by Coulianos (1999) who, however, overlooked that it had been recorded by Ristkok (1994).  
40 *longipalis* See Coulianos (2003).  
49 *reuteri* See Coulianos (2003).  
50 *minutissima* Järvekülg (2001) records “*Plea minutissima* Fabricius” from 68 localities in Estonian rivers. This certainly refers to *Micronecta minutissima* (L.). I have only seen *Plea minutissima* from ME 71 Kuldre 4.viii.1999 5 specimens leg. M. Marits. New to Estonia.  
60 *fucicola* See Lindskog (1974).  
65 *palustris* See Lindskog (1974).

- 69 *morio* I have only seen this species from ME 98 Väägvere, Amme River 1.viii.1939 1♀ leg. L. Voore coll. IZB. The record from “Estonia” 1♀ leg. G. Sumakov reported by Voore (1940) is *Salda muelleri* sec a specimen in coll. IZB.
- 70 *muelleri* Reported from Estonia by Flor (1860) (*Salda littoralis* part.) and Bianchi & Kiritschenko (1923). I have seen only 1♀ labelled “Estonia” leg. G. Sumakov, coll. IZB. No further locality is given.
- 71 *sahlbergi* Vilbaste (1955) recorded it from FL 32 Matsalu Nature Reserve (the islands of Liia and Väike-Härjamaa according to Rebassoo (1987)) 24.vi.1970. However, I have not found any specimens in coll. IZB.
- 77 *aethiops* First recorded from Estonia by Coulianos (2003), who mapped all known Estonian records.
- 82 *distinguenda* Recorded from Estonia (no localities given) by Kerzhner (1988).
- 87 *epilobii* New to Estonia. ME 87 Tiksoja bus stop 4.ix.2003, ME 87 The Dendropark at Estonian Agricultural University, Faculty of Forestry 4.x.2003 leg. C.-C. Coulianos. At both localities larvae and adults were very abundant on *Epilobium hirsutum*.
- 90 *pilosus* Recorded from ME 05 Rimmu 15.vii.1972 leg. I. M. Kerzhner (Lukashuk 1997). Additional records are MD 68 Mustjõe 17–23.vii.2000 3♂, 31.vii–6.viii.2000 2♂, FK 30 Ruhnu 20–30.vi.2002 1♂, NE 05 Võnnu 15–21.viii.2002 1♂, NE 31 Matsuri, Vorobi 20–22.ix.2002 1♂. All records in light trap and leg. et coll. A. Selin.
- 92 *gothicus* First recorded from LE 57 Pärnu 21.vii.1972 leg. I. M. Kerzhner (Lukashuk 1997). Also recorded from ME 65 Hurda 31.vii.2003 1♂, NE 41 Korela 15.vii.1999 2♂ in light traps leg. et coll. M. Kruus.
- 93 *morio* First recorded from Estonia by Coulianos (2003), who mapped all known Estonian records.
- 97 *trifasciatus* See Coulianos (2003). Also recorded from LE 47 Audru 6–11.vi.2002 1♂ in light trap leg. et coll. A. Selin.
- 102 *reclairei* Only recorded from ME 87 Tartu Botanical Garden 1998 (Coulianos 2003).
- 110 *pilifer* Recorded from EK 66 Viidumäe 8.vii.1984 1♀ leg. J. Vilbaste, EK 66 Viidumäe Nature Reserve 3.vii.1998 2♂ 1♀ on *Molinia caerulea* leg. Coulianos. See Coulianos (2003).
- 124 *adpersus* First recorded from Estonia by Coulianos (1999). All specimens in earlier collections determined as *Lygus gemellatus* belong in fact to *adpersus*.
- 125 *gemellatus* Only recorded from EK 85 Saaremaa, Nasva. See Selin (2004).
- 127 *punctatus* In most collections this species has been mixed up with *Lygus pratensis*. First recorded by Coulianos (2003), who mapped all known Estonian records.
- 145 *microphthalmus* First recorded by Coulianos (1999). Also found in LF 63 Jalase 3.vii.1999 1♀ leg. M. Marits.
- 148 *tepastus* First reported by Coulianos (2003), who mapped all known Estonian records.
- 152 *binotatus* First reported by Coulianos (2003), who mapped all known Estonian records.
- 159 *erratica* Reported from FL Matsalu Nature Reserve (Vilbaste 1985) and LF 30 Avaste mire (Vilbaste 1955) but I have seen no specimens from these localities in coll. IZB. The record from Ruhnu (Luig & Talvi 1993) belongs to *Notostira elongata* sec specimens in coll. ZMT.
- 177 *vittipennis* First recorded from Estonia, Tartu leg. Morowitz by Lukashuk (1997). Additional records are from ME 65 Vellavere 1990, 1995, Tepripalu 1996 leg. M. Marits.
- 179 *luridus* See Coulianos (2003).
- 181 *steganooides* First recorded from Estonia by Coulianos (2003).
- 189 *fulvicollis* ME 87 Tähtvere 27.vii.1952 2♂ 2♀ leg. V. Maavara coll. IZB. New to Estonia.
- 191 *sphegiformis* The only record is from Saaremaa July 1851 9♂ 5♀ leg. Flor (Flor 1860).
- 192 *erythrophthalmus* Recorded from FL 41 Puise 28.vi.1970 1♀ leg. J. Vilbaste (Vilbaste 1985).
- 204 *viridinervis* The only records are from FK 49 Puhtu 10.vii.1959 1♂, 25.vii.1959 1♂ leg. S. Veroman, 16.vii.1960 1♂ leg. J. Vilbaste, coll. IZB. All specimens were found on *Tilia cordata*.

- 212 *mali* Only recorded from ME 87 Tartu, Raadi 13.vii.1934 1♂ on *Malus domestica* leg. K. Leius coll. IPP.
- 229 *viridiflavus* Flor (1860: 631) reported under the name of *Capsus setulosus* a fifth instar larva of this species from Heiligensee (= ME 63 Pühajärve) but I have not found any specimen in coll. Flor in IZB. Additional records are MF 60 Kalevi, Kassnurme hills 6.viii.2000 1♂, Kalevi 9.ix.2002 1♂ leg. K. Elberg, FK 59 Vatlä, Lõo 2002 leg. A. Selin, ME 65 Hurda 2003, NE 41 Korela 1999, NE 00 Soodi 2003 leg. M. Kruus.
- 282 *punctatus* Reported from Tartu by Kerzhner (1981).
- 289 *pilosus* First recorded from Estonia by Coulianos (2003).
- 291 *stigmatellus* Recorded from NE 01 Võru by Lukashuk (1997).
- 301 *pulchella* See Voolma (1986).
- 303 *formicetorum* In Estonia according to Bianchi & Kiritshenko (1923). I have seen no specimens in Estonian collections.
- 305 *obscuripes* See Selin (2004). In 2003 also found in SE Finland (Albrecht et al. 2003).
- 319 *tipularius* Published records from FK 39 Muhu, ME 63 Pühajärve (Flor 1860), MF 96 Koolma (Voore 1998). Additional records in IZB from ME 87 Tartu 1930 (G. Sumakov) and NE 04 Kiidjärve 6.viii.1949 (J. Vilbaste).
- 323 *montivagus* Reported by Vilbaste (1985) from FL 51 Matsalu Nature Reserve, 23.v.1961 leg. V. Ahas. In the card-index in IZB the following record is noted: FL 20 Muhu, Painase 5.vii.1961 leg. A. Vilbaste. I have seen no specimens in coll. IZB.
- 326 *equestris* In coll. IZB is 1♂ labelled "Dorpat." (Dorpat = Tartu) det. G. Sumakov. This is an old and most probably accidental record as the principal food-plant of the species (*Vincetoxicum hirsutinaria*) does not occur in this part of Estonia. On eastern Saaremaa on localities where this plant is abundant I have never found *equestris*. This is notable as the species is very common and abundant on the Baltic islands of Gotland and Öland and is known as a strong flier.
- 338 *dispar* See Coulianos (2003).
- 341 *typhae* See Coulianos (2003). Also found in ME 87 Tiksoja bus stop 4.ix.2003 2♀ on *Typha latifolia* leg. C.-C. Coulianos.
- 346 *costalis* Reported from "Estonia" by Péricart (1998) according to specimens in coll. Zool. Mus. St. Petersburg. He does not report *Camptotelus lineolatus* from Estonia, a species recorded by Coulianos (1999).
- 363 *rolandri* See Selin (2004).
- 384 *alboacuminatus* The only record is from Dorpat (= ME 87 Tartu) reported by Flor (1860).
- 391 *apterus* See Elberg (2003). Also found in NE Võnnu 2002 leg. A. Selin, ME 65 Hurda 2003 leg. M. Kruus.
- 393 *dahlmannii* Only recorded from "Hapsal" (= FL 43 Haapsalu) by Jakovlev (1882).
- 394 *laticornis* See Selin (2004).
- 427 *reticulata* See Coulianos (2003). In 2001 and 2003 also found in SE Finland in sea-drift (Albrecht et al. 2003).
- 428 *lineatum* Elberg (1996) mapped the five records known up to 1989. Further records are EK 97 Saaremaa, Kaali 1997, FK 77 Tõstamaa park 2002 leg. K. Elberg, NE 15 Järvselja 2002 leg. A. Selin, NE 21 Piusa 2002 leg. G. Miländer.
- 430 *macrocephalus* Recorded from ME 86 Ihaste 3.viii.1990 3♀ 1 larva leg. M. Marits (Coulianos 2003).
- 436 *aeneus* See Selin (2004). In 2003 also found in SE Finland in seadrifted material (Albrecht et al. 2003).
- 438 *aliena* Recorded from NE 17 Virvisaare 26.v.1949 1♂ leg. J. Vilbaste, ME 87 Tähtvere 16.vi.1951, LE 58 Nurme bog 25.v.1952 3♂ leg. V. Maavara, LE 69 Suursoo 7.ix.1953 2♀, LF 55 Leidissoo 10.ix.1953 1♂, MF 05 Muraka bog 17.vi.1953 1♂ all leg. J. Vilbaste. See Vilbaste (1955).

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## REFERENCES

- Albrecht, A., Söderman, G., Rinne, V., Mattila, K., Mannerkoski, I., Karjalainen, S. & Ahlroth, P. 2003. New and interesting finds of Hemiptera in Finland. *Sahlbergia*, **8**, 64–78.
- Aukema, B. & Rieger, C. (eds.) 1998–2001. *Catalogue of the Heteroptera of the Palaearctic Region*. Vol. 1–4. Netherlands Entomological Society, Amsterdam.
- Bianchi, V. I. & Kiritschenko, A. N. 1923. *Heteropteran Insects*. Gos. Izd., Moskva & Petrograd (in Russian).
- Coulianos, C.-C. 1999. Some Hemiptera-Heteroptera new to Estonia. *Proc. XXIV Nordic Congress Entomology*, 203.
- Coulianos, C.-C. 2003. Records of true bugs (Hemiptera-Heteroptera) new to Estonia with some biological notes. *Sahlbergia*, **9**, 55–63.
- Elberg, K. 1996. Putukad Eesti lõunapiiril. *Eesti Loodus*, **7**, 262–264.
- Elberg, K. 2003. Punalutikas laiendab levilat. *Eesti Loodus*, **6**, 126.
- Flor, G. 1860. *Die Rhynchoten Livlands*. Vol. 1. Schulz, Dorpat.
- Flor, G. 1861. *Die Rhynchoten Livlands*. Vol. 2. Karow, Dorpat.
- Haberman, H. 1933a. Uue nokalise leiust Eestis. *Eesti Loodus*, **1**(1), 11–13.
- Haberman, H. 1933b. Veel nokalise *Aphelocheirus montandoni* Horv. *Eesti Loodus*, **1**(1), 67.
- Haberman, H. 1934a. Ahja jõe ülemjooksu põhjafaunast. *Eesti Loodus*, **2**(3), 49–52.
- Haberman, H. 1934b. Vellavere Külajärvest. *Eesti Loodus*, **2**(5), 103–106.
- Haberman, H. 1935. Keblaste tammik. *Eesti Loodus*, **3**(5), 127–129.
- Haberman, H. 1936a. Andmeid Pühajärve kalda- ja põhjafaunast. *Eesti Loodusuurijate Seltsi aastaraamat*, **42**, 1–22.
- Haberman, H. 1936b. Kahe huvitava veenokalise leide 1935. a. suvel. *Eesti Loodus*, **4**(2), 74.

- Haberman, H. 1937a. Treppoja. *Eesti Loodus*, **5**(1), 1–5.
- Haberman, H. 1937b. Kostivere urgete loomastikust. *Eesti Loodus*, **5**(5), 181–183.
- Haberman, H. 1938. Selgrootud. In *Läänemaa. Maateaduslik, majanduslik ja ajalooline kirjeldus* (Haberman, H., Kant, E., Kruus, H., Luha, A. & Tammekann, A., eds.), pp. 81–91. Eesti Kirjanduse Selts, Tartu.
- Jakovlev, V. E. 1882. Contributions to the fauna of the Heteropterous insects of Russia and the neighbouring countries. *Bull. Soc. Imp. Natural. Moscou*, **57**, 98–112.
- Järvekülg, A. 2001. Jõgede põhjaloomastik. In *Eesti jõed* (Järvekülg, A., ed.), pp. 158–186. EPMÜ Zooloogia ja Botaanika Instituut, Tartu.
- Jüris, A. 1940. Kõnnu raba selgrootute faunast kodumaa rabade fauna näitena. 4. In *Eesti loodusteadeaste päev. Ettekannete kokkuvõtteid*, pp. 45–46.
- Kauri, H. 1934. Selgrootud. In *Eesti. Maadeteaduslik, majanduslik ja ajalooline kirjeldus. VI. Saaremaa*, pp. 98–102. Eesti Kirjanduse Selts, Tartu.
- Kerzhner, I. M. 1981. Bugs of the family Nabidae. In *Fauna USSR Rhynchota*, **13**(2). Nauka, Leningrad (in Russian).
- Kerzhner, I. M. 1988. *New and Little Known Heteroptera from the Far East of the USSR (1987)*. Nauka, Vladivostok (in Russian).
- Kiritshenko, A. N. 1951. True bugs of the European part of the USSR (Hemiptera). In *Guides to the Fauna of the USSR*, **42**. Akad. Nauk SSSR, Moskva & Leningrad (in Russian).
- Leius, K. 1940. Kartulil esinevad nokalised ja nende tähtsus viirushaiguste ülekandmisel. *Mitt. Versuchstation für angew. Zoologie Univ. Tartu*, **43**, 1–4.
- Lindskog, P. 1974. Distributional and systematic notes on *Saldula fucicola* (J. Sahlb.) and some other shore bugs of Eastern Fennoscandia (Heteroptera, Saldidae). *Notul. Entomol.*, **54**, 33–56.
- Luig, J. & Talvi, T. 1993. Faunistilisi andmeid Ruhnu saare putukatest (Insecta). *Eesti Looduseuurijate Seltsi aastaraamat*, **73**, 101–116.
- Lukashuk, A. O. 1997. *Annotated List of the Heteroptera of Belarus and Baltia*. Russian Acad. Sci., Zool. Inst., St. Petersburg.
- Maavara, V. 1957. Endla rabade entomofauna. *Loodusuurijate Seltsi aastaraamat*, **50**, 119–140.
- Mikkelsaar, N.-Ö. 1934. *Naucoris cimicoides* L. esmasleid Eestis. *Eesti Loodus*, **2**(1), 16.
- Mühlen, M. zur & Schneider, G. 1920. Der See Wirzjerv in Livland. *Arch. Naturkunde des Ostbaltikums*, **14**(1).
- Mäemets, A. 1975. Kaitset vajavad haruldased liigid ja kooslused Eesti järvedes. In *Eesti loodus-harulduste kaitseks* (Kumari, E., ed.), pp. 53–75. Valgus, Tallinn.
- Pericart, J. 1998. Hémiptères Lygaeidae Euroméditerranéens. Vol. 2. *Faune de France*, **84 B**. Paris.
- Rebassoo, H.-E. 1987. *Biocenoses on the Islets in the Eastern Part of the Baltic Sea*. Akad. Nauk Estonskoj SSR (in Russian).
- Remm, H. 1966. *Putukate välimäärja I (Apterygota, Palaeoptera, Hemimetabola)*. Tartu Riiklik Ülikool, Tartu.
- Ristkok, J. 1994. Emajõe veestiku vooluvetest leitud hüdrobiondid. *Eesti Loodusuurijate Seltsi aastaraamat*, **75**, 97–147.
- Rõigas, P. 1975. Hiidüraski levikust ja kahjustusest. *Metsanduslikud Uurimused*, **XII**, 280–293.
- Selin, A. 2004. Uusi lutikalisi (Heteroptera) Eesti faunas. *Lepinfo*, **15**, 57–58 (in Estonian).
- Sepp, L. 1939. *Ranatra linearis*'e L. esmasleid Koiva jões. *Eesti Loodus*, **7**, 190–191.
- Stichel, W. 1927. Zur Kenntnis der estländischen Hochmoorfauna. Hemiptera-Heteroptera. *Sitzungsber. Naturforsch. Ges. Dorpat*, **33**(2) (1926), 92–97.
- Timm, H., Möls, T., Kangur, K. & Timm, T. 1999. Littoral macroinvertebrates in some small lakes in Estonia. In *Biodiversity in Benthic Ecology* (Friberg, N. & Carl, J. D., eds.), pp. 133–139. National Environmental Res. Inst. Technical Report No **266**, Denmark.
- Timm, T. 1965. Kagu-Eesti väikeste järvede põhjaloomastikust. *Eesti Loodusuurijate Seltsi aastaraamat*, **57**, 83–102.

- Timm, T., Kangur, K., Timm, H. & Timm, V. 1996. Macrobenthos of Lake Peipsi–Pihkva: taxonomical composition, abundance, biomass, and their relations to some ecological parameters. *Hydrobiologia*, **338**, 139–154.
- Timm, T., Kangur, K., Timm, H. & Timm, V. 2001. Zoobenthos. In *Lake Peipsi. Flora and Fauna* (Pihu, E. & Haberman, J., eds.), pp.82–99. Sulemees Publishers, Tartu.
- Timm, V., Kangur, A. & Timm, T. 1988. Saaremaa järvede põhjaloomastikust. *Eesti Looduseuurijate Seltsi aastaraamat*, **72**, 95–103.
- Valk, P. 1984. Liuskurlaste (Heteroptera, Gerroidea) bioloogiast ja levikust Eestis. Diploma thesis, Department of Zoology, University of Tartu.
- Vilbaste, J. 1955. Eesti NSV soode rohurinde nokaliste faunast. *Loodusuurijate Seltsi aastaraamat*, **48**, 104–121.
- Vilbaste, J. 1958. Putukatest lumel. *Eesti Loodus*, **1**, 21–25.
- Vilbaste, J. 1970. Heteroptera. In *Lääne-Eesti rannikualade loodus* (Kumari, E., ed.), pp. 179–181. Valgus, Tallinn.
- Vilbaste, J. 1973a. Heteroptera. In *Võrtsjärv* (Timm, T., ed.), p. 212. Valgus, Tallinn.
- Vilbaste, J. 1973b. Revision of the collection of G. Flor. *Eesti NSV TA Toim. Biol.*, **22**, 15–28.
- Vilbaste, J. 1979. The Hemipteroidea of the Vooremaa hardwood-spruce forest. *Estonian IBP Report*, **12**, 70–94.
- Vilbaste, J. 1985. Lutikalised (Heteroptera). In *Matsalu rahvusvahelise tähtsusega märgala* (Kumari, E., ed.), pp. 162–168. Valgus, Tallinn.
- Voolma, K. 1986. Entomophages of European spruce beetle in Estonia. *Metsanduslikud Uurimused*, **21**, 89–97 (in Russian).
- Voolma, K. 1992. Kuuse käbikahjurid seemneaastatel. *Mets ja Puu*, **34**(4), 11–15.
- Voore, L. 1940. Andmeid rannalutikatest Eestis. *Eesti Loodus*, **8**(2), 77–83.
- Voore, V. 1998. Matkal Alutaguses. *Eesti Looduseuurijate Seltsi aastaraamat*, **78**, 186–188.

## **Eesti lutikaliste (Hemiptera-Heteroptera) annoteeritud nimestik levikuandmetega**

Carl-Cedric Coulianos

Viimaste aastate välitööde, teadusasutuste ja erakollektsioonide läbitöötamise ning faunistilise kirjanduse põhjal koostatud Eesti lutikaliste nimestikus on 454 liiki; nende levik on toodud tabelis 100 × 100 km UTM-ruutude kaupa. On esitatud detailsemad kommentaarid 58 liigi leviku kohta. On lisatud kommenteeritud nimestik liikidest, mis on Eestist ekslikult publitseeritud. Järgmised liigid avaldatakse Eesti faunale uutena: *Plea minutissima* (Leach), *Dicyphus epilobii* Reuter ja *Globiceps fulvicollis* Jakovlev.