

## AN ANNOTATED CHECKLIST OF THE SAWFLIES (HYMENOPTERA, SYMPHYTA) OF ESTONIA

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**Abstract.** As a result of faunistic work carried out in Estonia, 437 species of Symphyta are listed. The occurrence of the species in the phytogeographical districts of the country is indicated. Those species that seem to reach the western or northern limit of their distribution area in Estonia are provided with notes on their occurrence in the neighbouring countries. A seasonal dimorphism of two species of *Aprosthemina* is suggested. The lectotype of *Hylotoma brevicornis* Fallén, 1808 is designated. The type locality of *Dineura parvicornis* (Konow, 1901), "Dorpat, Livonia" (Konow, F. W. 1901. Revision der Nematiden-Gattung *Pontania* Costa (Hym.). *Zeits. Hym. Dipt.*, 1, 127–128), was found to refer to Estonia, not to Latvia as misinterpreted in the literature.

**Key words:** Hymenoptera, Symphyta, checklist, Estonian fauna, horntail, lectotype designation, sawfly, seasonal dimorphism, type locality.

### INTRODUCTION

The present paper is a faunistic list of 437 species in the form of a distribution table, provided with comments. It is part of a planned further analytical study of the distribution of the North European Symphyta.

The investigation of the Estonian Symphyta was started by Franz Sitenis (1835–1911), a grammar school teacher and curator of the zoological collections of the Estonian Naturalists' Society in Tartu (Dorpat). He was a prominent collector and the initiator of creating one of the first scientific collections of many insect groups in Estonia. The historical collection of Symphyta includes the

materials of M. v. z. Mühlen and F. Sintenis (Kauri, 1935), altogether about 3000 specimens. Sintenis sent the samples of many species to F. W. Konow (Teschendorf, Germany) for identification (Sintenis, 1895). The first published record concerning the Estonian Symphyta was the description of a new species – *Eriocampa dorpatica* Konow, 1887 – collected in Tartu by Sintenis (Konow, 1887). Until the current paper only about 70 species of Symphyta, most of them known as pests, were recorded in Estonia. The initiators of the present faunistic study of the sawflies of Estonia were K. Elberg and the late J. Vilbaste, who involved one of the authors, Matti Viitasaari, during the Estonian–Finnish symposium in 1982. Independently of this a similar study was started by M. Heidemaa in 1985. All the authors joined efforts in 1991 to carry out the current project. The graduation thesis of M. Heidemaa includes also part of faunistic data on Estonian Symphyta (except Tenthredinoidea).

The number of known sawfly species in the neighbouring territories indicates a high number of those in Estonia. The faunistic review in Latvia by Tsinovskij (1953) includes 404 species of Symphyta. In Fennoscandia the total number of the species known is high because of the richness of the subarctic and arctic species in Lapland. Viitasaari & Vikberg (1985) listed more than 700 species in Finland. The largest local lists in southern Finland are those of Pälkäne with 450 species (Kangas, 1985, with unpublished additions), and Vuohiniemi with more than 400 species (Nuorteva, 1971, with unpublished additions). The area of Belgium and Luxembourg together is even smaller than Estonia but their combined fauna includes 460 species of sawflies (Magis, 1994).

The Gulf of Finland is only 50–120 km wide but it is an efficient barrier against continuing south–north directed immigration, because the sawflies are rather poor flyers. In some cases also the absence of the host plant might prevent the immigration of a species found in Estonia into Finland. Such examples are *Pseudodineura heringi* on *Anemone silvestris* and *Pontania triandrae* on *Salix triandra* (introduced into Finland). Several species seem to reach the northern or western limit of their distribution area in Estonia.

## MATERIAL AND METHODS

The nomenclature and arrangement of the taxa are according to Liston (1995, 1996) with alterations, mentioned in the list of comments following the table. The taxonomy of the large and heterogeneous genera of the tribe Nematini is insufficiently known. In these genera parts of the Estonian material remain so far undetermined.

Several institutional and private collections as well as the literature were consulted and numerous field excursions were carried out to gather the data on Estonian Symphyta. Altogether, about 12 100 preserved specimens were examined. More than 6000 records of 437 species from 301 different UTM grid



system squares (10 × 10 km) were taken into consideration and stored in a database file. The map presented (Fig. 1) reflects the intensity of the exploration of different parts of the country. Saaremaa and the southeastern part of Estonia are relatively well investigated. At present, the largest local list is that of Tartu area, which includes 253 species.

The historical collections of F. Sintenis and M. v. z. Mühlen, which include also previously identified specimens, were reexamined. Only those earlier identifications that were confirmed or rejected and reidentified by the present authors were taken into consideration. Some species of Nematini, sent to Konow by Sintenis, are reported from Livland (= Livonia). Despite the fact that a part of the historical territory of Livonia belongs to Latvia now, almost all specimens of Symphyta collected by F. Sintenis were proved to originate from Estonia, even if the exact locality is still unknown. This is also relevant for the material of M. v. z. Mühlen, who mainly used the labels with the printed title "LIVONIA".

As the occurrence of the phytophagous insects is inseparable of that of their host plants, the generalization of the distributional data is based on the phytogeographical division of the Estonian territory (Fig. 2) of Lippmaa (1935), and given in the form of a table accompanying the list. The arrangement of the districts and subdistricts in the table follows that by Lippmaa. Every single species entered in the table includes an array of the signs (+, -) indicating whether or not the species has been recorded in the specified phytogeographical districts or subdistricts.

If a number in bold follows the name of a species, it corresponds to that in the list of comments coming after the checklist. A species is provided with comments if: (1) there is new information concerning its biology, distribution, taxonomy, or nomenclature; (2) the species is recorded in Estonia according to the literature but strong evidence of possible misinterpretation was found; (3) the species probably reaches the northern or western limit of its distribution area in the territory of Estonia (absent in Finland, in Sweden, or in both countries), in that case an asterisk precedes the name of a species in the distribution table and the list of comments.

## THE CONSULTED COLLECTIONS

- Estonian Natural Museum (ENM), Tallinn; coll. G. Reindorff, coll. M. Kruus.
- Estonian Agricultural University (EAU), Tartu; coll. M. v. z. Mühlen, material collected by H. Õunap.
- Institute of Zoology and Botany (IZB), Tartu; material collected by E. Remm, K. Remm, and J. Viidalepp.
- Saaremaa Museum (SM), Kuressaare; coll. T. von Poll.
- Institute of Zoology and Hydrobiology, University of Tartu (IZHUT); coll. F. Sintenis.

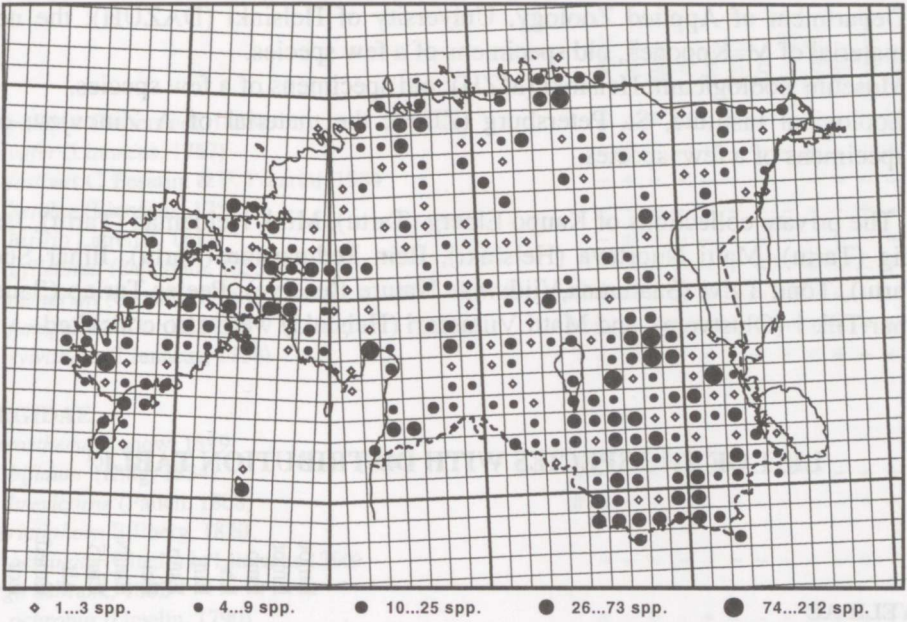


Fig. 1. Contour map of Estonia with UTM grid system (10 × 10 km). The radius of symbol inside the particular square expresses the rank corresponding to the numeric interval of Symphyta species recorded.

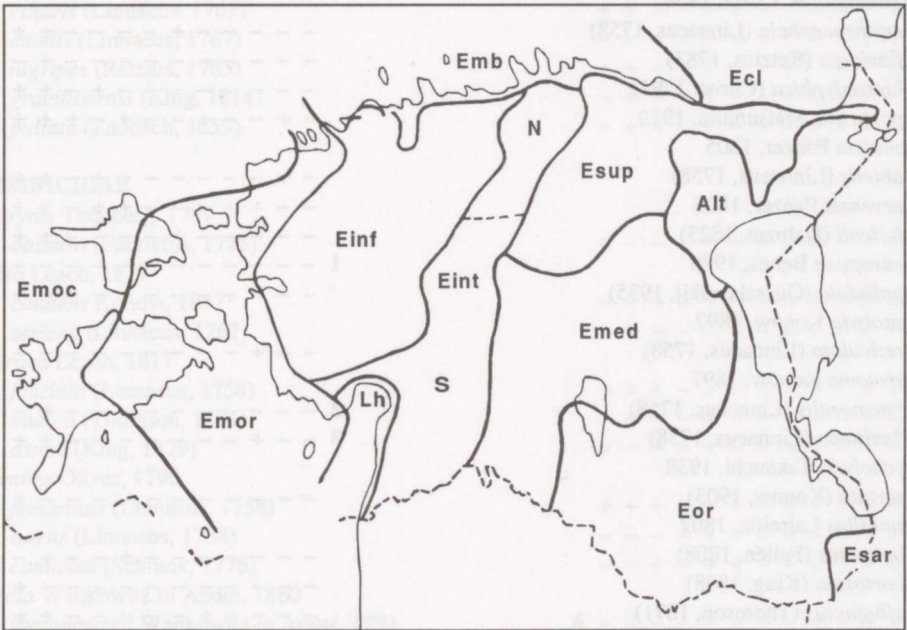


Fig. 2. The phytogeographical districts and subdistricts of Estonia (Lippmaa, 1935).



- Department of Applied Zoology, University of Helsinki (DAZUH); the new material of M. Koponen, old specimens of a few species.
- Museum Zoologicum, Helsinki (MZH); old specimens of a few species.
- Zoological Institute, St. Petersburg (ZISP); the material of A. Zinovjev; old specimens of a few species.

The private collections of Kaupo Elberg (Tartu), Mikk Heidemaa (Tartu), Jaan Luig (Tartu), Matti Nuorteva (Helsinki), Rein Pedmanson (Tartu), Ilmar Süda (Tartu), Tõnu Talvi (Saaremaa, Viidumäe Nature Reserve), Peeter Tarlap (Saue), Ilmar Tilk † (Olustvere), and Matti Viitasaari (Helsinki) were also consulted.

## LIST OF THE SPECIES WITH DISTRIBUTION TABLE<sup>1</sup>

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<b>XYELIDAE</b>													
<i>Xyela</i> Dalman, 1819													
<i>julii</i> (Brébisson, 1818)	-	+	+	-	+	-	-	-	-	-	+	-	-
<i>piliserra</i> Thomson, 1871	-	-	-	-	-	-	-	-	-	-	+	-	-
<b>PAMPILIIDAE</b>													
<i>Acantholyda</i> A. Costa, 1894													
<i>erythrocephala</i> (Linnaeus, 1758)	-	-	-	-	-	+	-	-	-	-	+	+	-
<i>flaviceps</i> (Retzius, 1783)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>hieroglyphica</i> (Christ, 1791)	-	-	-	-	-	-	-	-	+	-	+	+	-
<i>posticalis</i> Matsumura, 1912	-	+	-	-	+	-	-	+	-	+	+	+	-
<i>Cephalcia</i> Panzer, 1805													
<i>abietis</i> (Linnaeus, 1758)	-	+	-	-	-	-	-	+	+	-	+	+	-
<i>arvensis</i> Panzer, 1805	-	-	-	-	-	-	-	+	+	-	+	+	-
<i>fallenii</i> (Dalman, 1823)	-	-	-	-	-	+	-	-	-	-	+	+	-
<i>europaea</i> Beneš, 1976	1	-	-	-	-	-	-	-	-	-	-	-	-
<i>pallidula</i> (Gussakovskij, 1935)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>Caenolyda</i> Konow, 1897													
<i>reticulata</i> (Linnaeus, 1758)	-	-	+	-	-	-	-	-	-	-	-	-	-
<i>Neurotoma</i> Konow, 1897													
* <i>nemorialis</i> (Linnaeus, 1758)	2	-	-	-	-	-	-	-	-	-	+	-	-
* <i>saltuum</i> (Linnaeus, 1758)	3	-	-	+	-	-	-	-	-	-	+	+	-
<i>Onycholyda</i> Takeuchi, 1938													
<i>sertata</i> (Konow, 1903)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>Pamphilius</i> Latreille, 1802													
<i>balteatus</i> (Fallén, 1808)	-	-	-	-	-	-	-	+	-	-	+	-	-
<i>hortorum</i> (Klug, 1808)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>albopictus</i> (Thomson, 1871)	-	-	-	-	+	-	-	-	-	-	+	+	-
<i>varius</i> (Lepeletier, 1823)	+	+	-	-	+	-	-	-	-	-	-	+	-

<sup>1</sup> Refer to Materials and Methods for key.

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>pallipes</i> (Zetterstedt, 1838)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>vafer</i> (Linnaeus, 1767)	-	+	-	-	+	-	-	-	+	-	+	+	-
<i>festivus</i> C. Pesarini & F. Pesarini, 1984	-	+	-	-	-	-	-	-	-	-	-	-	-
<i>betulae</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>histrion</i> Latreille, 1812	-	+	-	-	-	-	-	-	-	-	-	-	-
<i>gyllenhali</i> (Dahlbom, 1835)	-	-	-	-	+	-	-	+	-	-	+	-	-
<i>nemorum</i> (Gmelin, 1788)	+	-	-	-	+	-	-	-	-	-	-	-	-
<i>fumipennis</i> (Curtis, 1831)	-	-	-	-	+	-	-	-	+	-	+	+	-
<i>sylvaticus</i> (Linnaeus, 1758)	-	+	+	-	-	+	-	+	+	+	+	+	-

### ARGIDAE

<i>Aprosthemina</i> Konow, 1899													
<i>bifidum</i> (Klug, 1834)	4	-	-	-	-	-	-	-	-	-	-	+	-
<i>brevicornis</i> (Fallén, 1808)	5	+	+	-	-	-	-	-	-	-	-	+	-
<i>Sterictiphora</i> Billberg, 1820													
<i>geminata</i> (Gmelin in Linnaeus 1790)		-	-	-	-	-	-	-	-	-	+	-	-
<i>Arge</i> Schrank, 1802													
<i>ochropus</i> (Gmelin, 1790)		+	-	+	-	+	-	-	+	+	+	+	-
<i>cyanocrocea</i> (Förster, 1771)		+	+	-	-	+	+	-	-	+	-	-	+
<i>dimidiata</i> (Fallén, 1808)		+	-	-	-	+	+	-	-	+	-	+	+
<i>ustulata</i> (Linnaeus, 1758)		+	+	+	-	+	+	-	+	+	+	+	-
<i>metallica</i> (Klug, 1834)		-	-	-	-	-	-	-	-	-	-	-	+
<i>fuscipes</i> (Fallén, 1808)		+	+	-	-	+	-	-	+	+	+	+	-
<i>ciliaris</i> (Linnaeus, 1767)		+	+	+	-	+	+	-	+	+	+	+	-
<i>enodis</i> (Linnaeus, 1767)		-	-	-	-	-	-	-	+	-	+	+	-
<i>nigripes</i> (Retzius, 1783)		-	-	-	-	+	-	-	-	-	-	+	-
<i>gracilicornis</i> (Klug, 1814)		-	+	-	-	+	+	-	+	+	+	+	-
<i>pullata</i> (Zaddach, 1859)		-	+	-	-	+	-	-	+	-	+	+	-

### CIMBICIDAE

<i>Corynis</i> Thunberg, 1789													
<i>obscura</i> (Fabricius, 1775)		+	-	-	-	+	+	-	-	-	-	-	-
<i>Abia</i> Leach, 1817													
<i>candens</i> Konow, 1887		-	-	-	-	+	-	-	-	+	-	-	+
<i>sericea</i> (Linnaeus, 1767)		-	+	-	-	-	+	-	-	+	-	+	-
<i>Zaraea</i> Leach, 1817													
<i>fasciata</i> (Linnaeus, 1758)		+	+	+	-	+	+	-	-	+	-	+	+
<i>mutica</i> (Thomson, 1871)		-	+	-	-	+	-	-	-	-	+	-	-
<i>aenea</i> (Klug, 1829)		+	-	-	-	+	-	-	-	-	-	-	+
<i>Cimbex</i> Oliver, 1790													
<i>femoratus</i> (Linnaeus, 1758)		+	+	+	-	+	+	-	+	+	+	+	-
<i>luteus</i> (Linnaeus, 1758)		-	-	-	-	+	-	-	+	-	-	+	+
<i>connatus</i> (Schrank, 1776)		-	-	+	-	+	+	-	+	+	+	+	+
<i>Praia</i> Wankowitz in André, 1880													
<i>taczanowskii</i> Wankowitz in André, 1881	6	-	-	-	-	+	-	-	-	-	-	+	-
<i>Trichiosoma</i> Leach, 1817	7												
<i>lucorum</i> (Linnaeus, 1758)		-	+	+	-	+	-	-	-	-	+	+	+
<i>malaisei</i> Saarinen, 1950		-	-	-	-	+	-	-	+	-	-	-	+



	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>tibiale</i> Stephens, 1835	-	-	-	-	+	+	-	+	+	-	-	+	-
<i>villosum</i> (Motschulskij, 1859)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>sorbi</i> Hartig, 1840	-	+	-	-	+	-	-	-	-	-	+	+	-
<i>aenescens</i> Gussakovskij, 1947	-	+	-	-	+	+	-	-	+	+	+	+	-
<i>laterale</i> Leach, 1817	-	-	-	-	+	+	-	-	-	-	+	+	-
<i>sibiricum</i> (Gussakovskij, 1947)	-	+	-	-	+	+	-	-	+	-	+	+	-
<i>vitellinae</i> (Linnaeus, 1761)	-	+	-	-	-	-	-	-	+	-	+	-	-
<i>kontuniemii</i> Saarinen, 1950	-	-	-	-	-	-	-	-	+	-	+	+	-
<i>Pseudoclavellaria</i> Schultz, 1906													
<i>amerinae</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	-	+	-	-

**DIPRIONIDAE**

<i>Monoctenus</i> Dahlbom, 1835													
<i>juniperi</i> (Linnaeus, 1758)	+	+	+	-	-	-	-	-	-	-	+	-	-
<i>obscuratus</i> (Hartig, 1837)	+	+	-	-	-	-	-	+	-	-	+	-	-
<i>Microdiprion</i> Enslin, 1917													
<i>pallipes</i> (Fallén, 1808)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Neodiprion</i> Rohwer, 1918													
<i>sertifer</i> (Geoffroy, 1785)	-	+	+	+	-	-	-	-	-	-	+	+	-
<i>Macrodiprion</i> Enslin, 1917													
<i>nemoralis</i> (Enslin, 1917)	8	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diprion</i> Schrank, 1802													
<i>pini</i> (Linnaeus, 1758)	+	-	-	-	-	-	-	+	-	-	+	-	-
<i>similis</i> (Hartig, 1837)	+	-	+	-	-	-	-	+	-	-	+	-	-
<i>Gilpinia</i> Benson, 1939													
<i>polytoma</i> (Hartig, 1837)	-	+	-	-	-	-	-	-	-	-	-	+	-
<i>abieticola</i> (Dalla Torre, 1894)	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>hercyniae</i> (Hartig, 1837)	-	+	-	-	-	-	-	-	-	-	+	+	-
<i>pallida</i> (Klug, 1812)	-	-	-	-	-	-	-	-	+	-	-	+	-
<i>virens</i> (Klug, 1812)	+	+	-	-	-	-	-	+	-	-	-	-	-
<i>frutetorum</i> (Fabricius, 1793)	+	+	-	-	+	+	-	+	+	-	+	+	-
<i>socia</i> (Klug, 1812)	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>laricis</i> (Jurine, 1807)	-	+	-	-	-	-	-	-	-	-	-	-	-
<i>variegata</i> (Hartig, 1837)	9	-	-	-	-	-	-	-	-	-	-	-	-

**TENTHREDINIDAE**

<i>Dolerus</i> Panzer, 1801													
<i>aericeps</i> Thomson, 1871	+	+	+	-	+	-	-	+	+	+	+	+	-
<i>bimaculatus</i> (Geoffroy, 1785)	+	+	+	-	+	-	-	+	+	+	+	+	-
<i>pratensis</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	+	-	-	+	-	-
<i>gessneri labiosus</i> Konow, 1897	+	-	+	+	+	+	-	+	-	-	+	+	-
<i>yukonensis</i> Norton, 1872	-	-	-	-	-	-	-	-	-	-	-	+	+
<i>germanicus</i> (Fabricius, 1775)	+	+	+	+	+	+	-	+	+	+	+	+	-
<i>cothurnatus</i> Lepeletier, 1823	+	-	-	+	-	-	+	+	-	+	+	+	+
<i>pratorum</i> (Fallén, 1808)	-	+	-	+	-	-	-	+	+	-	+	+	-
<i>gilvipes</i> (Klug, 1818)	+	+	-	-	+	-	-	+	+	+	+	+	-
<i>vestigialis</i> (Klug, 1818)	+	+	+	-	+	-	-	+	+	+	+	+	-
<i>genucinctus</i> Zaddach, 1859	+	+	+	-	-	-	-	-	-	-	-	+	+

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>eversmanni</i> (Kirby, 1882)	+	+	+	+	+	-	-	+	+	-	+	+	-
<i>ferrugatus</i> Lepeletier, 1823	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>madidus</i> (Klug, 1818)	-	-	-	-	-	-	-	+	-	-	+	+	-
<i>pachycerus</i> Hartig, 1837	-	+	-	-	-	-	-	-	-	-	+	-	-
<i>haematodes</i> (Schränk, 1781)	+	+	+	+	+	-	-	+	-	+	+	+	+
<i>sanguinicollis</i> (Klug, 1818)	+	+	+	-	-	-	-	+	+	-	+	+	-
* <i>blanki</i> Liston, 1995	10	-	-	-	-	-	-	-	-	-	+	+	-
<i>aeneus</i> Hartig, 1837	+	+	+	-	+	+	-	+	-	-	+	+	-
* <i>anthracinus</i> (Klug, 1818)	11	-	+	-	-	-	-	-	-	-	+	+	-
<i>asper</i> Zaddach, 1859 coll.	12	-	+	+	-	+	-	-	-	-	+	+	-
* <i>coracinus</i> (Klug, 1818)	13	-	-	-	-	-	-	-	-	-	+	-	-
<i>gonager</i> (Fabricius, 1781)	+	+	+	-	+	+	-	+	+	+	+	+	-
<i>harwoodi</i> Benson, 1947	+	+	-	-	+	-	-	-	-	-	-	+	-
<i>liogaster</i> Thomson, 1871	+	+	+	+	-	-	-	-	+	+	+	+	-
<i>schmidti</i> Konow, 1884	+	-	-	-	+	-	-	+	-	+	+	+	-
* <i>varispinus</i> Hartig, 1837	14	-	-	-	-	+	+	-	-	-	+	+	-
<i>megapterus</i> Cameron, 1881	-	+	-	-	-	-	-	-	-	-	-	+	-
<i>niger</i> (Linnaeus, 1767)	+	-	-	-	+	-	-	+	+	+	+	+	-
<i>nigratus</i> (Müller, 1776)	+	+	-	+	+	+	-	+	-	+	+	+	-
<i>nitens</i> Zaddach, 1859	-	+	+	-	+	-	-	-	-	+	+	+	-
<i>picipes</i> (Klug, 1818)	+	+	+	+	+	+	-	-	+	+	+	+	-
<i>puncticollis</i> Thomson, 1871	-	-	-	-	+	-	-	-	-	-	+	+	-
<i>gibbosus</i> auctt. nec Hartig	15	-	-	-	-	-	-	-	-	-	+	-	-
* <i>gibbosus</i> Hartig, 1837	16	-	-	-	-	-	-	-	-	-	+	+	-
* <i>vulneratus</i> Mocsáry, 1879	17	-	-	-	-	-	-	-	-	-	+	-	-
<i>Heptamelus</i> Haliday, 1855													
<i>ochroleucus</i> (Stephens, 1835)	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>Strombocerina</i> Malaise, 1942													
<i>delicatula</i> (Fallén, 1808)	-	-	+	-	+	-	-	-	+	+	-	+	-
<i>Thrinax</i> Konow, 1885													
<i>filicis</i> (Klug, 1817)	+	-	-	-	-	+	-	-	-	-	+	+	-
<i>macula</i> (Klug, 1817)	+	-	-	-	-	-	-	-	-	-	+	-	-
<i>mixta</i> (Klug, 1817)	-	-	-	-	-	-	-	-	-	-	+	+	-
<i>Strongylogaster</i> Dahlbom, 1835													
<i>lineata lineata</i> (Christ, 1791)	+	-	-	-	-	-	-	+	-	-	+	+	-
<i>xanthoceros</i> (Stephens, 1835)	+	-	-	-	-	-	-	-	-	-	+	+	-
<i>Aneugmenus</i> Hartig, 1837													
<i>padi</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>coronatus</i> (Klug, 1818)	+	-	-	-	-	-	-	-	-	-	-	+	-
<i>temporalis</i> (Thomson, 1871)	-	-	-	-	-	-	-	+	+	-	+	+	-
<i>fuerstenbergensis</i> (Konow, 1885)	+	-	-	-	-	-	-	-	-	-	-	+	-
<i>Birka</i> Malaise, 1944													
<i>cinereipes</i> (Klug, 1816)	-	-	-	+	-	-	-	+	+	-	+	+	-
<i>Nesoselandria</i> Rohwer, 1910													
<i>morio</i> (Fabricius, 1781)	+	+	+	-	+	+	-	+	+	+	+	+	-
<i>Selandria</i> Leach, 1817													
<i>serva</i> (Fabricius, 1793)	+	+	+	-	+	+	-	+	+	-	+	+	-
<i>sixii</i> Vollenhoven, 1858	-	-	-	-	+	-	-	-	-	-	+	+	-



	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>Brachythops</i> Haliday, 1839													
<i>flavens</i> (Klug, 1816)	+	+	-	-	+	-	-	-	+	-	+	+	-
<i>Heterarthrus</i> Stephens, 1835													
<i>ochropoda</i> (Klug, 1818)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>microcephalus</i> (Klug, 1818)	+	-	-	-	-	-	-	-	-	-	+	-	-
<i>vagans</i> (Fallén, 1808)	+	-	-	-	+	-	-	+	-	+	+	+	-
<i>nemoratus</i> (Fallén, 1808)	+	-	+	+	+	-	-	-	-	-	+	+	-
<i>Hoplocampoides</i> Enslin, 1914													
<i>xylostei</i> (Giraud, 1863)	-	+	-	-	-	-	-	-	+	-	-	+	-
<i>Tomostethus</i> Konow, 1886													
<i>nigritus nigritus</i> (Fabricius, 1804)	+	+	-	-	+	-	-	-	-	-	+	-	-
<i>Paracharactus</i> MacGillivray, 1908													
<i>gracilicornis</i> (Zaddach, 1859)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Phymatocera</i> Dahlbom, 1835													
<i>aterrima</i> (Klug, 1816)	+	+	+	-	-	-	-	-	-	-	+	-	-
<i>Monophadnus</i> Hartig, 1837													
<i>pallescens</i> (Gmelin in Linnaeus, 1790)	+	+	+	-	+	-	-	+	+	+	+	+	-
<i>monticola</i> (Hartig, 1837)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Stethomostus</i> Benson, 1939													
<i>fuliginosus</i> (Schrank, 1781)	+	-	-	-	-	-	-	-	+	-	+	+	-
<i>funereus</i> (Klug, 1816)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Eutomostethus</i> Enslin, 1914													
<i>ephippium</i> (Panzer, 1798)	+	-	+	+	+	+	-	+	+	+	+	+	-
<i>gagathinus</i> (Klug, 1816)	+	+	-	+	-	-	-	-	-	-	+	+	-
<i>luteiventris</i> (Klug, 1816)	+	-	+	+	-	-	+	+	+	+	+	+	-
<i>punctatus</i> (Konow, 1887)	18	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cladardis</i> Benson, 1952													
<i>hartigi</i> Liston, 1995	-	-	-	-	-	-	-	-	-	-	+	+	-
<i>Monardis</i> Enslin, 1914													
<i>plana</i> (Klug, 1817)	19	-	-	-	-	-	-	-	-	-	-	-	-
<i>Periclista</i> Konow, 1886													
<i>lineolata</i> (Klug, 1816)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Ardis</i> Konow, 1886													
<i>brunniventris</i> (Hartig, 1837)	-	-	-	-	+	-	-	-	-	-	-	-	-
<i>Blennocampa</i> Hartig, 1837													
<i>phyllocolpa</i> Viitasaari & Vikberg, 1985	+	-	-	-	+	-	-	-	-	-	+	-	-
<i>Monophadnoides</i> Ashmead, 1898													
<i>rubi</i> (Harris, 1845)	+	-	+	+	+	+	-	+	-	+	+	+	-
<i>Claremontia</i> Rohwer, 1909													
<i>alternipes</i> (Klug, 1816)	-	+	+	-	+	+	-	+	-	-	+	+	-
<i>confusa</i> (Konow, 1886)	+	-	+	+	+	+	-	+	-	+	+	+	-
<i>tenuicornis</i> (Klug, 1816)	+	+	+	+	+	+	-	+	+	+	+	+	-
<i>waldheimii</i> (Gimmerthal, 1847)	+	+	-	+	-	-	-	-	+	+	+	+	-
<i>uncta</i> (Klug, 1816)	-	+	+	-	+	-	-	+	-	-	+	+	-
<i>Halidamia</i> Benson, 1939													
<i>affinis</i> (Fallén, 1807)	-	-	-	-	+	-	-	-	-	-	+	-	-
<i>Profenus</i> MacGillivray, 1914													
<i>pygmaea</i> (Klug, 1816)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>thomsoni</i> (Konow, 1886)	+	+	-	-	-	-	-	-	-	-	-	-	-

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>Metallus</i> Forbes, 1885													
<i>albipes</i> (Cameron, 1875)	-	-	-	-	-	-	-	-	+	-	-	+	-
<i>lanceolatus</i> (Thomson, 1871)	-	-	-	-	+	-	-	-	+	-	+	+	-
<i>pumilus</i> (Klug, 1814)	-	+	-	-	-	-	-	-	-	-	+	+	-
<i>Parna</i> Benson, 1936													
<i>tenella</i> (Klug, 1816)	-	+	-	-	-	-	-	-	+	-	-	+	-
<i>reseri</i> Liston, 1993	20	-	-	-	-	-	-	-	-	-	+	-	-
<i>Scolioneura</i> Konow, 1890													
<i>betuleti</i> (Klug, 1816)	-	+	-	-	-	-	-	-	-	-	+	+	-
<i>Fenusia</i> Leach, 1817													
<i>pumila</i> Leach, 1817	-	-	-	-	-	-	-	-	-	-	+	+	-
<i>dohrnii</i> (Tischbein, 1846)	+	+	-	-	+	-	-	+	+	-	+	+	-
<i>Kaliofenusa</i> Viereck, 1910													
<i>ulmi ulmi</i> (Sundevall, 1847)	+	+	-	-	-	-	-	+	-	-	+	-	-
<i>Fenella</i> Westwood, 1840													
<i>nigrita</i> Westwood, 1840	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>monilicornis</i> (Dahlbom, 1835)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>Hinatara</i> Benson, 1936													
* <i>recta</i> (Thomson, 1871)	21	+	-	-	-	-	-	-	-	-	-	-	-
<i>Athalia</i> Leach, 1817													
<i>scutellariae</i> Cameron, 1880	-	-	-	-	-	-	-	+	-	-	-	+	-
<i>glabricollis</i> Thomson, 1870	-	+	-	-	-	-	-	+	+	-	+	+	-
<i>bicolor</i> Lepeletier, 1823	+	+	-	-	+	-	-	-	-	-	+	+	-
<i>lugens lugens</i> (Klug, 1815)	-	-	-	-	-	-	-	-	+	-	+	+	-
<i>rosae</i> (Linnaeus, 1758)	+	+	+	-	-	+	-	+	+	+	+	+	-
<i>liberta</i> (Klug, 1815)	-	+	+	-	-	-	-	-	-	-	+	-	-
<i>cordata</i> Lepeletier, 1823	+	+	-	-	-	-	-	-	-	-	-	-	-
<i>circularis</i> (Klug, 1815)	+	+	-	-	+	+	-	+	+	+	+	+	-
<i>cordatoides</i> Priesner, 1928	-	-	+	-	-	-	-	-	-	-	-	+	-
<i>Endelomyia</i> Ashmead, 1898													
<i>aethiops</i> (Fabricius, 1781)	+	+	-	-	+	-	-	-	+	+	+	+	-
<i>Caliroa</i> A. Costa, 1859													
<i>tremulae</i> Chevin, 1974	+	+	-	-	-	-	-	-	-	-	-	-	-
<i>cinxia</i> (Klug, 1816)	+	+	-	-	-	-	-	-	-	-	-	-	-
<i>annulipes</i> (Klug, 1816)	-	+	+	-	-	-	-	-	+	-	+	+	-
<i>cerasi</i> (Linnaeus, 1758)	+	-	-	-	-	-	-	-	-	-	-	+	-
sp.	22	-	-	-	-	-	-	+	-	-	-	-	-
<i>Taxonus</i> Hartig, 1837													
<i>agrorum</i> (Fallén, 1808)	+	+	+	-	+	-	-	+	+	-	+	+	-
<i>Apethymus</i> Benson, 1939													
<i>apicalis</i> (Klug, 1818)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>filiformis</i> (Klug, 1818)	+	-	-	-	-	-	-	-	-	-	+	-	-
<i>serotinus</i> (O. F. Müller, 1776)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Allantus</i> Panzer, 1801													
<i>cingillum</i> (Klug, 1818)	-	-	-	-	-	-	-	-	-	-	-	+	+
<i>truncatus</i> (Klug, 1818)	+	-	-	-	+	-	-	+	-	-	+	-	-
<i>cinctus</i> (Linnaeus, 1758)	+	-	-	+	+	-	-	+	-	-	+	+	-
<i>basalis</i> (Klug, 1818)	-	-	-	-	-	-	-	+	-	+	+	+	-



	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>calceatus</i> (Klug, 1818)	+	+	+	-	+	-	-	-	+	+	+	+	-
<i>melanarius</i> (Klug, 1818)	+	-	-	-	+	-	-	-	-	-	-	-	-
<i>togatus</i> (Panzer, 1801)	-	-	-	-	-	+	-	-	-	-	-	+	-
<i>Monostegia</i> A. Costa, 1859													
<i>abdominalis</i> (Fabricius, 1798)	+	+	-	-	+	-	-	+	+	-	+	+	-
<i>Harpiphorus</i> Hartig, 1837													
* <i>lepidus</i> (Klug, 1818)	23	-	+	-	-	-	-	-	-	-	-	-	-
<i>Monosoma</i> MacGillivray, 1908													
<i>pulveratum</i> (Retzius in Degeer, 1783)	-	+	-	+	+	-	-	-	+	-	+	+	-
<i>Empria</i> Lepeletier & Serville, 1828													
<i>candidata</i> (Fallén, 1807)	-	-	-	-	+	-	-	-	-	-	+	-	-
<i>alector</i> Benson, 1938	+	+	-	-	+	-	-	-	+	+	+	+	-
<i>baltica</i> Conde, 1940	+	+	+	-	+	+	-	+	+	+	+	+	-
<i>excisa</i> (Thomson, 1871)	+	-	-	-	-	-	-	-	-	-	-	+	-
<i>immersa</i> (Klug, 1818)	-	-	-	-	+	-	-	-	-	+	-	+	-
<i>klugii</i> (Stephens, 1835)	+	+	+	-	+	-	-	+	+	+	+	+	-
<i>laturata</i> (Gmelin in Linnaeus, 1790)	+	+	-	-	+	+	-	+	-	+	+	+	-
<i>longicornis</i> (Thomson, 1871)	+	+	-	-	+	+	-	+	+	-	+	+	-
<i>parvula</i> (Konow, 1891)	+	-	-	-	-	-	-	-	+	-	+	-	-
<i>pumila</i> (Konow, 1896)	+	-	-	-	+	-	-	-	-	-	+	+	-
<i>tridens</i> (Konow, 1896)	-	+	-	-	-	-	-	-	-	-	+	+	-
* <i>hungarica</i> (Konow, 1895)	24	+	-	-	-	-	-	-	-	-	-	-	-
<i>basalis</i> Lindqvist, 1968	-	-	-	-	+	+	-	-	-	-	+	+	-
<i>Ametastegia</i> A. Costa, 1882													
<i>albipes</i> (Thomson, 1871)	-	-	-	-	-	-	-	-	-	-	+	+	-
<i>equiseti</i> (Fallén, 1808)	-	-	-	-	-	-	-	-	+	-	+	+	-
<i>glabrata</i> (Fallén, 1808)	+	-	-	-	-	+	-	-	+	-	+	+	-
<i>carpini</i> (Hartig, 1837)	+	+	-	-	+	-	-	-	+	-	+	+	-
<i>pallipes</i> (Spinola, 1808)	-	+	-	-	-	-	-	-	+	-	+	+	-
<i>tener</i> (Fallén, 1808)	+	+	+	-	+	-	-	-	-	+	+	+	-
<i>Eriocampa</i> Hartig, 1837													
<i>ovata</i> (Linnaeus, 1761)	+	+	+	+	+	+	-	+	-	+	+	+	-
<i>umbratica</i> (Klug, 1816)	+	-	-	-	-	-	-	-	-	-	+	+	-
<i>dorpatica</i> Konow, 1887	-	-	-	-	-	-	-	-	+	-	+	+	-
<i>Siobla</i> Cameron, 1877													
* <i>sturmii</i> (Klug, 1817)	25	-	-	-	-	-	-	-	+	-	+	+	-
<i>Aglaostigma</i> Kirby, 1882													
<i>aucupariae</i> (Klug, 1817)	+	-	+	-	+	+	-	+	-	+	+	+	-
<i>fulvipes</i> (Scopoli, 1763)	+	+	+	-	+	+	-	-	+	-	+	+	-
* <i>nebulosum</i> (André, 1881)	26	-	-	-	-	-	-	-	-	-	+	-	-
<i>Tenthredopsis</i> A. Costa in O. Costa, 1859													
<i>litterata</i> (Geoffroy, 1785)	-	+	-	-	-	-	-	-	+	-	+	+	-
<i>nassata</i> (Linnaeus, 1767) coll.	27	+	+	-	+	+	+	-	+	+	+	+	-
<i>stigma</i> (Fabricius, 1798)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>excisa</i> (Thomson, 1871)	+	+	-	-	+	-	-	+	-	+	+	+	-
<i>pavida</i> (Fabricius, 1775)	+	+	-	-	-	-	-	-	-	-	+	+	-
<i>auriculata</i> (Thomson, 1870)	-	-	-	-	-	-	-	-	+	-	+	-	-
<i>inornata</i> Cameron, 1881	+	-	-	-	+	+	-	-	-	-	-	+	-

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>Perineura</i> Hartig, 1837													
<i>rubi</i> (Panzer, 1805)	28	-	-	-	+	-	-	-	-	-	+	+	-
<i>Pachyprotasis</i> Hartig, 1837													
<i>antennata</i> (Klug, 1817)		+	+	-	-	-	+	-	-	-	-	+	-
<i>simulans</i> (Klug, 1817)		+	-	-	-	+	-	-	-	-	-	+	-
<i>rapae</i> (Linnaeus, 1767)		+	+	+	-	+	+	+	+	+	+	+	-
<i>variegata</i> (Fallén, 1808)		-	+	-	-	-	-	-	-	-	-	+	-
<i>Macrophya</i> Dahlbom, 1835													
<i>annulata</i> (Geoffroy, 1785)		+	+	+	-	+	+	+	+	-	+	+	+
<i>duodecimpunctata</i> (Linnaeus, 1758)		+	+	+	Lh	+	-	-	-	+	+	+	+
<i>rufipes rufipes</i> (Linnaeus, 1758)		+	-	-	-	-	-	-	-	-	-	-	-
* <i>erythrocnema</i> A. Costa, 1860	29	-	-	-	-	-	-	-	-	-	+	+	-
<i>carinthiaca</i> (Klug, 1817)		+	+	-	-	-	-	-	-	-	+	+	-
<i>sanguinolenta</i> (Gmelin, 1790)		+	+	-	-	+	+	+	+	+	+	+	-
* <i>ribis</i> (Schrank, 1781)	30	-	-	-	-	-	-	-	-	-	+	+	-
<i>albipuncta</i> (Fallén, 1808)		+	+	-	-	+	+	-	+	-	+	+	-
<i>albicincta</i> (Schrank, 1776)		+	+	-	-	-	-	-	+	-	+	+	-
<i>punctumalbum</i> (Linnaeus, 1758)		-	+	+	-	-	-	-	-	-	+	+	-
<i>Tenthredo</i> Linnaeus, 1758													
* <i>schaefferi</i> Klug, 1817	31	-	+	-	-	+	-	-	-	-	-	+	-
<i>brevicornis</i> Konow, 1886		-	-	-	-	-	-	-	-	-	-	+	-
<i>arcuata</i> Förster, 1771		-	-	+	-	+	-	+	-	+	+	+	-
<i>notha</i> Klug, 1817		+	+	+	+	+	+	+	+	+	+	+	-
sp.		+	-	-	-	-	-	-	-	-	+	+	-
<i>vespa vespa</i> Retzius, 1783		+	+	-	-	+	+	+	+	+	+	+	-
<i>omissa</i> (Förster, 1844)		-	-	-	-	-	-	-	+	-	+	+	-
<i>scrophulariae</i> Linnaeus, 1758		-	+	-	-	-	-	-	+	-	+	+	-
<i>pseudorossii</i> Taeger, 1985		-	+	-	-	-	-	-	+	-	+	+	-
<i>zonula</i> Klug, 1817		+	-	-	+	-	-	+	-	-	+	+	-
<i>amoena</i> Gravenhorst, 1807		+	-	-	+	-	-	+	+	+	+	+	-
<i>fagi</i> Panzer, 1798		+	+	-	-	+	-	-	+	-	+	+	-
* <i>albicornis</i> Fabricius, 1781	32	-	-	-	-	-	-	-	-	-	-	+	-
<i>campestris</i> Linnaeus, 1758		+	+	+	-	+	+	+	+	+	+	+	-
* <i>eburata</i> Konow, 1900	33	-	-	-	-	-	-	-	+	-	+	+	-
* <i>amurica</i> Dalla Torre, 1894	34	-	-	-	-	-	-	-	-	-	-	+	-
<i>atra</i> (Linnaeus, 1758)		+	+	+	-	+	+	+	+	-	+	+	-
<i>velox</i> Fabricius, 1798		-	+	-	-	+	+	+	+	-	+	+	+
<i>silensis</i> A. Costa, 1859		-	-	-	-	-	-	-	+	-	+	+	-
<i>moniliata</i> Klug, 1817		-	+	-	-	+	+	+	+	+	+	+	-
* <i>mandibularis</i> Fabricius, 1805	35	+	-	-	-	-	-	-	-	-	-	+	-
<i>ferruginea</i> Schrank, 1776		+	+	+	-	+	+	-	+	-	+	+	-
<i>balteata</i> Klug, 1817		+	-	-	-	+	-	-	-	-	+	-	-
<i>colon</i> Klug, 1817		+	+	-	-	-	+	-	-	-	+	+	-
<i>livida</i> Linnaeus, 1758		+	+	+	+	+	+	+	+	-	+	+	-
* <i>bipunctula</i> Klug, 1817	36	-	-	-	-	-	-	+	-	-	-	+	-
<i>obsoleta</i> Klug, 1817		-	-	-	-	+	-	+	+	+	+	+	-
<i>mesomela</i> Linnaeus, 1758		+	+	+	-	+	+	-	+	+	+	+	-
<i>mioceras</i> (Enslin, 1912)		+	+	-	+	+	+	-	+	+	+	+	+



	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EiniN	EiniS	Alt	Emed	Eor	Esar
<i>olivacea</i> Klug, 1817	-	-	+	-	+	-	-	-	-	-	+	+	-
<i>trabeata</i> Klug, 1817	-	-	-	-	+	-	-	+	-	-	+	-	-
* <i>temula temula</i> Scopoli, 1763	37	+	+	-	-	+	+	-	-	+	-	+	-
<i>Rhogogaster</i> Konow, 1884													
* <i>genistae</i> Benson, 1943	38	-	-	-	-	-	-	-	-	-	+	-	-
<i>dryas</i> (Benson, 1943)		+	+	-	-	-	-	-	-	-	-	+	-
<i>punctulata</i> (Klug, 1817)		-	+	-	-	-	+	-	-	+	-	+	+
<i>viridis</i> (Linnaeus, 1758)		+	+	+	-	+	+	-	+	+	+	+	+
<i>scalaris</i> (Klug, 1817)		+	+	+	-	+	+	-	+	-	+	+	-
<i>Sciapteryx</i> Stephens, 1835													
* <i>consobrina</i> (Klug, 1816)	39	-	-	-	-	+	+	-	-	-	+	+	+
<i>Bacconematus</i> Zhelokhovtsev, 1988													
<i>pumilio</i> (Konow, 1904)		-	-	-	-	-	-	-	-	-	-	+	+
<i>Priophorus</i> Dahlbom, 1835													
<i>morio</i> (Lepeletier, 1823)		+	+	-	+	+	-	-	+	-	-	+	+
<i>pallipes</i> (Lepeletier, 1823)		+	+	-	-	+	-	-	+	-	+	+	+
* <i>rufipes</i> (Lepeletier, 1823)	40	-	-	-	-	-	-	-	-	-	-	-	+
* <i>pilicornis</i> (Curtis, 1831)	41	-	+	-	-	-	-	-	-	-	-	-	-
<i>Trichiocampus</i> Hartig, 1837													
<i>grandis</i> (Fallén, 1808)	42	-	-	+	-	+	-	-	-	-	-	+	+
<i>Cladius</i> Illiger, 1807													
<i>pectinicornis</i> (Geoffroy, 1785)		+	+	-	+	+	+	+	-	+	-	+	+
<i>Endophytus</i> Hering, 1934													
<i>anemones</i> (Hering, 1924)		-	+	-	-	-	-	-	-	-	-	-	-
<i>Pseudodineura</i> Konow, 1885													
* <i>heringi</i> Enslin, 1921	43	-	+	+	-	-	-	-	-	-	-	-	-
<i>mentiens</i> (Thomson, 1871)		-	+	-	-	-	-	-	-	-	-	-	-
<i>enslini</i> (Hering, 1923)		-	-	-	+	-	+	-	-	-	-	-	-
<i>fuscus</i> (Klug, 1816)		-	+	-	+	+	-	-	-	+	+	-	-
<i>Mesoneura</i> Hartig, 1837													
<i>opaca</i> (Fabricius, 1775)		-	+	-	-	-	-	-	-	-	-	-	-
<i>Nematinus</i> Rohwer, 1911													
<i>fuscipennis</i> (Lepeletier, 1823)		+	+	+	-	+	-	-	+	+	+	+	+
<i>acuminatus</i> (Thomson, 1871)		-	+	-	-	-	-	-	-	-	-	+	-
<i>luteus</i> (Panzer, 1805)		+	+	+	-	+	-	-	+	-	+	+	+
<i>willigkiae</i> R. von Stein, 1926		-	-	-	-	-	-	-	+	-	+	-	-
<i>Dineura</i> Dahlbom, 1835													
<i>parcivalvis</i> (Konow, 1901)	44	-	-	-	-	-	-	-	-	-	+	-	-
<i>testaceipes</i> (Klug, 1816)		+	-	-	-	-	-	+	-	-	+	-	-
<i>virididorsata</i> (Retzius in Degeer, 1783)		+	+	-	-	+	-	-	+	-	+	+	+
<i>Platycampus</i> Schiodte, 1839													
<i>luridiventris</i> (Fallén, 1808)		+	+	+	-	-	-	-	+	+	+	+	+
<i>Anoplonyx</i> Marlatt, 1896													
<i>destructor</i> Benson, 1952		-	-	-	-	-	-	-	-	-	+	-	-
<i>Hemichroa</i> Stephens, 1835													
<i>australis</i> (Lepeletier, 1823)		+	+	-	-	-	-	-	+	+	+	+	+
<i>crocea</i> (Geoffroy, 1785)		-	-	-	-	-	-	-	-	-	-	+	-

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>Hoplocampa</i> Hartig, 1837													
* <i>fulvicornis</i> (Panzer, 1801)	45	-	-	-	-	-	-	-	-	-	+	-	-
<i>testudinea</i> (Klug, 1816)		-	-	-	-	-	-	-	-	-	+	+	-
* <i>flava</i> (Linnaeus, 1761)	46	-	-	-	-	-	-	-	-	-	+	-	-
* <i>minuta</i> (Christ, 1791)	47	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauronematus</i> Benson, 1953													
<i>compressicornis</i> (Fabricius, 1804)		-	-	-	-	-	-	+	-	-	-	-	-
<i>Micronematus</i> Konow, 1890													
<i>monogyniae</i> (Hartig, 1840)		-	-	-	-	-	-	-	+	-	+	-	-
<i>Pristiphora</i> Latreille, 1810													
<i>retusa</i> (Thomson, 1871)		-	-	+	-	-	-	-	+	-	-	+	-
<i>angulata</i> Lindqvist, 1974		-	-	+	-	-	-	-	-	-	+	-	-
<i>punctifrons</i> (Thomson, 1871)		-	-	-	-	-	-	-	-	-	+	-	-
<i>pallidiventris</i> (Fallén, 1808)		-	-	-	+	-	-	-	-	-	-	+	-
<i>testacea</i> (Jurine, 1807)		+	-	-	-	-	-	-	-	-	-	-	-
<i>cincta</i> Newman, 1837		-	+	-	+	-	-	+	+	-	+	+	-
<i>aphantoneura</i> (Förster, 1854)		+	+	-	+	-	-	-	-	-	-	+	-
<i>brevis</i> (Hartig, 1837)		-	+	+	-	-	-	-	-	-	-	-	-
<i>rufipes</i> Lepelletier, 1823		-	-	-	-	-	-	-	-	-	+	+	-
<i>leucopus</i> (Hellén, 1948)		+	-	-	-	-	-	-	-	-	-	-	-
<i>subbifida</i> (Thomson, 1871)		+	-	-	-	-	-	-	-	-	-	-	-
<i>coactula</i> (Ruthe, 1859)		-	-	-	-	-	-	-	-	-	+	+	-
<i>albilabris</i> (Thomson, 1862)		-	-	-	-	-	-	-	-	-	+	-	-
<i>carinata</i> (Hartig, 1837)		+	-	-	-	-	-	-	-	-	+	-	-
<i>mollis</i> (Hartig, 1837)		+	-	+	-	+	-	+	+	-	+	+	-
<i>abietina</i> (Christ, 1791)		+	+	-	-	-	-	-	-	-	+	+	-
<i>compressa</i> (Hartig, 1837)		-	-	-	-	-	-	-	-	-	-	+	-
<i>pseudodecapiens</i> Beneš & Kristek, 1976		-	-	-	-	-	-	-	-	-	-	+	-
<i>saxesenii</i> (Hartig, 1837)		-	-	-	-	-	-	-	-	-	-	+	-
<i>gerula</i> (Konow, 1895)		-	-	+	-	-	-	-	-	-	-	+	-
<i>leucopodia</i> (Hartig, 1837)		-	-	+	-	-	-	-	-	-	-	-	-
* <i>piceae</i> (Zhelochovtsev, 1988)	48	-	-	+	-	-	-	-	-	-	-	+	-
<i>erichsonii</i> (Hartig, 1837)		-	-	-	-	-	-	-	-	-	+	-	-
<i>wesmaeli</i> (Tischbein, 1853)		-	-	-	-	-	-	-	-	-	+	-	-
<i>bufo</i> (Brischke in Zaddach & Brischke, 1883)		-	-	-	-	-	-	-	-	-	-	+	-
<i>laricis</i> (Hartig, 1837)		-	-	-	-	-	-	-	-	-	-	+	-
<i>Sharliphora</i> Wong, 1969													
<i>nigella</i> (Förster, 1854)		-	+	+	-	+	-	-	-	-	+	+	-
<i>amphibola</i> (Förster, 1854)		-	-	+	-	-	-	-	-	-	+	-	-
<i>parva</i> (Hartig, 1837)		-	-	+	-	-	-	-	-	-	+	+	-
<i>Euura</i> Newman, 1837													
<i>atra</i> (Jurine, 1807) coll.	49	-	-	-	+	-	-	-	-	-	+	+	-
<i>amerinae</i> (Linnaeus, 1758)		+	-	-	-	+	+	+	-	-	-	+	-
<i>testaceipes</i> (Zaddach & Brischke, 1883)		+	-	-	-	-	-	-	-	-	-	-	-
<i>mucronata</i> (Hartig, 1840)		+	+	+	+	+	-	+	-	-	+	+	-
<i>Pontania</i> A. Costa, 1859													
<i>acutifoliae daphnoides</i> Zinovjev, 1985		-	-	+	-	-	-	-	-	-	-	+	-
<i>arcticornis</i> Konow, 1904		-	-	+	-	+	-	+	-	-	+	+	-

Emoc Emor Emb Lh Einf Esup Ecl EintN EintS Alt Emed Eor Esar

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>collactanea</i> (Förster, 1854)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>pedunculi</i> (Hartig, 1837)	-	+	-	-	+	-	-	-	-	-	-	+	-
<i>aestiva</i> (Thomson, 1862)	-	-	-	+	+	+	-	-	-	-	-	+	-
<i>tuberculata</i> (Benson, 1953)	-	-	-	-	-	+	-	+	-	-	-	+	-
<i>joergenseni</i> Enslin, 1916	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>proxima</i> (Lepeletier, 1823)	+	-	-	-	-	-	-	-	-	-	-	-	-
<b>50</b> <i>*triandrae</i> Benson, 1941	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>virilis</i> (Zirngiebl, 1955)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>coriacea</i> (Benson, 1953)	-	-	-	-	-	-	-	-	-	-	+	+	-
<i>excavata</i> Marlatt, 1896	-	-	-	+	-	-	-	-	-	-	+	-	-
<i>leucapsis</i> (Tischbein, 1846)	+	-	+	+	+	-	-	+	-	-	+	+	-
<i>leucosticta</i> (Hartig, 1837)	+	+	+	+	+	-	-	+	+	-	+	+	-
<i>puella</i> (Thomson, 1871)	+	-	-	-	-	-	-	-	-	-	+	-	-
<i>Decanematus</i> Malaise, 1931	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>viduatus</i> (Zetterstedt, 1838)	-	-	-	+	+	-	-	-	-	-	-	-	-
<i>Amauronematus</i> Konow, 1890	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>sagmarius</i> Konow, 1895	-	-	+	-	-	-	-	-	-	-	-	-	-
<i>mcluckiei</i> Benson, 1935	-	-	-	-	+	-	-	-	-	-	-	+	-
<i>lateralis</i> Konow, 1896	-	-	+	-	-	-	-	+	-	-	-	+	-
<i>neglectus</i> (W. F. Kirby, 1882)	-	-	-	+	-	-	+	-	-	-	-	-	-
<i>mundus</i> Konow, 1895	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>taeniatus</i> (Lepeletier, 1823)	-	-	-	-	-	-	-	+	-	-	+	-	-
<i>puniceus</i> (Christ, 1791)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>excellens</i> Forsius, 1919	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>vittatus</i> (Lepeletier, 1823)	-	-	-	+	-	-	+	-	-	-	+	+	-
<i>fasciatus</i> Konow, 1897	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>semilacteus</i> (Zaddach, 1883)	+	-	+	-	-	-	-	-	-	-	-	-	-
<i>amplus</i> Konow, 1895	+	-	-	+	-	-	+	-	-	-	+	-	-
<i>histrion</i> (Lepeletier, 1823)	-	-	+	-	-	-	-	-	-	-	-	+	+
<i>fallax</i> (Lepeletier, 1823)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Craesus</i> Leach, 1817	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>varus</i> (Villaret, 1832)	+	+	+	-	-	-	-	-	+	+	+	+	-
<i>septentrionalis</i> (Linnaeus, 1758)	+	-	-	-	+	+	-	+	+	-	+	+	-
<i>latipes</i> (Villaret, 1832)	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>Eitelius</i> Kontuniemi, 1966	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>dentatus</i> (Lindqvist, 1937)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>Nematus</i> Panzer, 1801	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>princeps</i> Zaddach & Brischke, 1875	+	-	-	-	-	-	-	-	-	-	-	-	-
<b>51</b> <i>longispinis</i> Kriechbaumer, 1885	-	-	-	-	-	-	-	-	-	+	-	+	-
<i>wahlbergi</i> Thomson, 1871	-	-	-	-	-	-	-	-	-	-	-	-	+
<i>tulunensis</i> Vikberg, 1972	-	-	+	-	-	-	-	-	-	-	-	-	-
<i>ribesii</i> (Scopoli, 1763)	+	+	-	-	-	-	-	-	-	-	-	-	-
<i>olfaciens</i> Benson, 1953	+	-	-	-	-	-	-	-	-	-	-	-	-
<i>leucotrochus</i> Hartig, 1837	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>viridis</i> Stephens, 1835	-	+	-	-	-	-	-	-	-	-	-	+	-
<i>myosotidis</i> (Fabricius, 1804)	+	+	+	-	-	-	-	-	-	-	-	+	+
<i>salicis</i> (Linnaeus, 1758)	-	-	-	-	+	-	-	-	+	-	-	-	-
<i>capreae</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	+	-	-	-	-



	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>ferrugineus</i> Förster, 1854	+	-	+	-	+	-	-	-	-	-	-	-	-
<i>cadderensis</i> Cameron, 1875	-	-	-	-	-	-	-	+	+	-	-	-	-
<i>fuscomaculatus</i> Förster, 1854	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>nigricornis</i> Lepeletier, 1823	-	-	-	-	-	-	-	-	-	+	+	+	-
<i>pavidus</i> Lepeletier, 1823	-	-	-	+	-	-	-	+	-	-	+	-	-
<i>umbratus</i> Thomson, 1871	-	+	-	-	-	-	-	-	-	-	-	+	-
<i>melanaspis</i> Hartig, 1840	-	-	+	-	-	-	-	-	-	-	-	-	-
<i>bergmanni</i> Dahlbom, 1835	-	-	-	-	-	-	-	-	+	-	-	-	-
<i>poecilnotus</i> Zaddach in Brischke & Zaddach, 1875	-	-	+	-	+	-	-	-	-	-	-	-	-
<i>stichi</i> (Enslin, 1913)	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>distinguendus</i> (Enslin, 1915)	+	-	-	-	-	-	-	-	+	-	-	-	-
<i>Pikonema</i> Ross, 1937													
<i>scutellatum</i> (Hartig, 1837)	-	-	+	-	-	-	-	-	-	-	-	+	-
<i>montanum</i> (Zaddach in Brischke & Zaddach, 1882)	+	-	+	-	-	-	-	-	-	-	-	-	-
<i>Pachynematus</i> Konow, 1890													
<i>vagus</i> (Fabricius, 1781)	+	-	-	-	-	-	-	-	-	-	-	+	-
<i>obductus</i> (Hartig, 1837)	-	-	-	-	-	-	-	-	-	-	-	+	+
<i>kirbyi</i> (Dahlbom, 1835)	+	-	+	-	+	-	-	-	-	-	-	+	-
<i>clitellatus</i> (Lepeletier, 1823)	-	-	-	-	-	-	-	-	-	-	-	+	-
<i>xanthocarpus</i> (Hartig, 1840)	-	-	-	-	-	-	-	-	-	-	-	+	+
<i>Polynematus</i> Zhelochovtsev, 1988													
<i>albipennis</i> (Hartig, 1837)	-	-	-	-	-	-	-	-	-	+	-	-	-
<i>rumicis</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	+
<b>SIRICIDAE</b>													
<i>Sirex</i> Linnaeus, 1761													
<i>juvencus</i> (Linnaeus, 1758)	-	+	+	+	+	+	-	+	+	-	+	+	-
<i>noctilio</i> Fabricius, 1793	-	-	-	-	+	+	-	-	-	-	+	-	-
<i>Urocerus</i> Geoffroy, 1785													
<i>gigas</i> (Linnaeus, 1758)	+	+	-	-	+	+	-	+	+	-	+	+	-
<i>fantoma</i> (Fabricius, 1781)	-	-	-	-	-	-	-	+	-	-	+	+	-
<i>Xeris</i> A. Costa, 1894													
<i>spectrum</i> (Linnaeus, 1758)	-	+	-	-	+	+	-	+	+	-	+	+	-
<i>Tremex</i> Jurine, 1807													
<i>fuscicornis</i> (Fabricius, 1787)	-	-	-	-	+	-	-	-	-	-	-	+	-
<b>XIPHYDRIIDAE</b>													
<i>Xiphydria</i> Latreille, 1802													
<i>camelus</i> (Linnaeus, 1758)	+	+	-	-	+	+	-	-	+	-	+	+	-
<i>prolongata</i> (Geoffroy, 1785)	-	-	-	-	-	-	-	-	+	-	-	+	-
<b>CEPHIDAE</b>													
<i>Janus</i> Stephens, 1835													
<i>luteipes</i> (Lepeletier, 1823)	-	-	-	-	-	-	-	-	-	-	-	+	+
<i>Hartigia</i> Schjødte, 1838													
<i>linearis</i> (Schrank, 1781)	-	+	-	-	-	-	-	-	-	-	-	-	-
* <i>nigra</i> (Harris, 1776)	52	+	+	-	-	-	-	-	-	-	-	-	-
<i>xanthostoma</i> (Eversmann, 1847)	+	+	-	-	+	-	-	-	+	-	+	-	-

	Emoc	Emor	Emb	Lh	Einf	Esup	Ecl	EintN	EintS	Alt	Emed	Eor	Esar
<i>Trachelus</i> Jurine, 1807													
<i>trogodytus</i> (Fabricius, 1767)	+	-	-	-	-	-	-	-	-	-	-	+	-
<i>Calameuta</i> Konow, 1896													
<i>filiformis</i> (Eversmann, 1847)	+	+	-	+	+	+	-	+	+	+	+	+	+
* <i>filum</i> (Gussakovskij, 1935)	53	-	-	-	-	-	-	-	-	-	-	+	-
<i>pallipes</i> (Klug, 1803)	+	+	-	-	-	-	-	-	-	-	-	+	-
<i>Cephus</i> Latreille, 1802													
<i>cultratus</i> Eversmann, 1847	+	+	+	-	+	+	-	+	+	+	+	+	+
<i>nigrinus</i> Thomson, 1871	-	-	-	-	+	-	-	-	+	+	+	+	-
<i>brachycercus</i> Thomson, 1871	-	-	-	+	-	-	-	-	+	+	+	+	-
<i>fumipennis</i> Eversmann, 1847	-	-	-	-	-	+	-	+	+	+	+	+	-
* <i>pygmeus</i> (Linnaeus, 1767)	54	-	-	-	-	-	-	-	-	-	-	+	-
<b>ORUSSIDAE</b>													
<i>Orussus</i> Latreille, 1796													
<i>abietinus</i> (Scopoli, 1763)	-	-	-	-	+	-	-	-	+	-	+	-	-

## COMMENTS

1. *Cephalcia europaea* – “Estonia”, 2♀ 3♂. We consider tentatively *C. europaea* as a distinct species because the European specimens and the type series of *C. alashanica* in ZISP have the temporal groove located differently behind their compound eyes.

2. \**Neurotoma nemoralis* – Recorded in Sweden, absent in Finland.

3. \**Neurotoma saltuum* – Occurs in southern Sweden, absent in Finland.

4. *Aprosthemata bifidum* (Klug, 1834) ? = *fuscicorne* (Thomson, 1871) – V. Vikberg demonstrated that the form of the head is different between the two annual generations (The Minutes of the Monthly Meeting of the Finnish Entomol. Society on 16.09.1994); the form of the head of the progeny of a female appeared to be different from that of the mother, in the rearing experiment by VV. According to a hypothesis adopted from this experiment, in the spring generation the head is long like that of “*A. fuscicorne*”, in the summer generation it is short as in *A. bifidum*. The reason may be, according to V. Vikberg (pers. comm.), that the adults of the first generation need strong muscles to be able to emerge from the ground. The prepupae of their progenies frequently spin their cocoon above the ground, and it is easier for the adults of the second generation to emerge. The phenology of these two suggested forms of one species supports this hypothesis. In Finland the known finds of “*A. fuscicorne*” are between 1 June and 16 July, those of *A. bifidum* between 2 July and 12 August (Viitasaari, 1990).

5. *Aprosthemata brevicorne* (Fallén, 1808) ? = *melanurum* (Klug, 1814) ? = *tardum* (Klug, 1814) – This species may represent a similar, not verified, dimorphism as



the preceding one, between the two generations. Then in the spring generation the head would be long like that of "*A. tardum*", in the summer generation short as in *A. brevicorne*. In Finland the finds of "*A. tardum*" are between 14 May and 25 June, the few finds of *A. brevicorne* between 9 July and 28 July (Viitasaari, 1990). In coll. Fallén, Zool. Mus. Univ. Lund, there is one specimen of *Hylotoma brevicornis* Fallén, 1808. This female (examined in 1987 by the author MV) is hereby designated as lectotype, labelled: 1: *H. brevicornis* ♀ Fallén (Fallén's handwriting, according to R. Danielsson, pers. comm.). 2: Lectotype *Hylotoma brevicornis* Fallén, 1808. M. Viitasaari 1997.

**6. *Praia taczanowskii*** – Contemporary records from Estonia and Finland are published in Nuorteva et al. (1997).

**7. *Trichiosoma*** – The taxonomy and nomenclature follow that of Viitasaari (1989, 1990).

**8. *Macrodiprion nemoralis*** – "Estonia", 1♀. One female without antennae in coll. M. v. z. Mühlen bearing the label "ESTONIA" was mounted under the name *G. variegata*. Probably "*Gilpinia variegata*" in Tsinovskij (1953) is a misidentification referring to this specimen.

**9. *Gilpinia variegata*** – (Tsinovskij, 1953); see comment 8 (*Macrodiprion nemoralis*).

**10. \**Dolerus blanki* = *thoracicus*** (Fallén, 1808) preocc. – Found in Sweden, absent in Finland.

**11. \**Dolerus anthracinus*** – Occurs in the southern parts of Scandinavia, is absent in Finland.

**12. *Dolerus asper*** coll. – Taxonomically unsolved. Probably not conspecific with *Dolerus planatus* Hartig. Possibly involves some sibling species.

**13. \**Dolerus coracinus*** – Identified according to Benson (1952). Some authors have considered this overlooked species as a synonym of *D. nitens*. The published distribution record (Liston, 1995) indicates a more or less southern distribution. Not recorded in Scandinavia and Finland. Male and host plant are unknown. A paper dealing with the taxonomy of *D. varispinus*, *D. schmidtii*, and *D. liogaster* is under preparation by the authors MH and MV.

**14. \**Dolerus varispinus*** – Absent in Finland, not recorded in Sweden but possibly occurs there.

**15. *Dolerus gibbosus*** auctt. nec Hartig – Probably an undescribed species.

**16. \**Dolerus gibbosus*** – Not recorded in Finland.

**17. \**Dolerus vulneratus*** – Identified according to Lindqvist (1969), who based his paper on the material identified by R. B. Benson. Found also in Viborg. The identity of the species needs confirmation. *D. vulneratus* was described from Siberia (Mocsáry, 1878). Not recorded in the European part of Russia (Zhelochovtsev & Zinovjev, 1996).

**18. *Eutomostethus punctatus*** – Under that name another species was found in the historical collection. Possible misinterpretation by Tsinovskij (1953).



19. *Monardis plana* – Under that name a specimen belonging to another species was found in the historical collection. Possible misinterpretation by Tsinovskij (1953).
20. *Parna reseri* – Reported as new for northern Europe by Heidema and Viitasaari (1997).
21. \**Hinatara recta* – Mines on *Acer platanoides*, most of them empty. One larva was compared with the description in Lorenz & Kraus, 1957 by MV. Recorded in Sweden, absent in Finland.
22. *Caliroa* sp. – One female was collected in Estonia and a single male was found in Finland. Most probably they are conspecific and represent an undescribed species of *Caliroa*.
23. \**Harpiphorus lepidus* – Not recorded in Scandinavia.
24. \**Empria hungarica* – The finds of this species in Viidumäe Nature Reserve (Saaremaa) are probably the northernmost. The species was identified using the key of Zhelochovtsev (1988). The penis valves are similar to the drawing in Chevin (1984).
25. \**Siobla sturmii* – The northernmost finds of this species, not recorded in Scandinavia.
26. \**Aglaostigma nebulosum* – The northernmost finds of this species. According to Liston (1995) is recorded in Austria, Belgium, Czechia and Slovakia, Germany, and Russia.
27. *Tenthredopsis nassata* coll. – Two different forms were recognized on the basis of penis valves. Only one of those was found in Finland.
28. *Perineura rubi* – Clearly bisexual in Estonia and Central Europe. In Finland probably parthenogenetic, no males are known.
29. \**Macrophya erythrocnema* – Not recorded in Scandinavia.
30. \**Macrophya ribis* – Recorded in Sweden but absent in Finland.
31. \**Tenthredo schaefferi* – Absent in Finland.
32. \**Tenthredo albicornis* – Absent in Finland, not recorded in Sweden.
33. \**Tenthredo eburata* – Occurs in Finland, not recorded in Sweden.
34. \**Tenthredo amurica* – Occurs in Finland, not recorded in Sweden.
35. \**Tenthredo mandibularis* – Not recorded in Scandinavia, absent in Finland.
36. \**Tenthredo bipunctula* – Not recorded in Scandinavia, absent in Finland.
37. \**Tenthredo temula temula* – This species seems to be an example of rapid invasion from south. Only two old Estonian finds from the same locality are available from the last century. Now it is quite a common species, especially in parks and gardens. Occurs in Scandinavia but is absent in Finland.
38. \**Rhogogaster genistae* – Absent in Finland. An old find under the name *R. picta* is known from southern Sweden.
39. \**Sciapteryx consobrina* – Known from the southernmost part of Sweden, and occurs in the Leningrad district. Absent in Finland.
40. \**Priophorus rufipes* – Not recorded in Scandinavia and Finland.
41. \**Priophorus pilicornis* – (Kruus, 1988). Absent in Finland.

42. *Trichiocampus grandis* – Nifontoff (1937), under the name *T. viminalis* (Fallén), which must be replaced by *T. grandis* (Taeger & Blank, 1996).
43. \**Pseudodineura heringi* – The host plant, *Anemone silvestris*, occurs in Scandinavia only in Gotland and Öland. Absent in Finland.
44. *Dineura parcivalvis* – Dorpat (= Tartu) in Estonia is the type locality of *Pontania parcivalvis* Konow 1901, instead of Latvia, and the published records of the species from Latvia (Liston, 1995; Zhelochovtsev & Zinovjev, 1995) must be considered as Estonian.
45. \**Hoplocampa fulvicornis* = *H. rutilicornis* (Klug, 1816) (Taeger & Blank, 1996) – Absent in Finland.
46. \**Hoplocampa flava* – According to Nutt (1966) the plum-sawfly population in the orchards studied in Estonia consisted 98% of *H. flava*. Absent in Finland.
47. \**Hoplocampa minuta* – (Nutt, 1966). Absent in Finland.
48. \**Pristiphora piceae* – Probably reaches the western limit of its distribution area in Estonia.
49. *Euura atra* coll. – The genus was revised by Kopelke (1996) and a new closely related species to *Euura atra*, *Euura weiffenbachii*, with the larva feeding on *Salix rosmarinifolia*, was thereby described.
50. \**Pontania triandrae* – Not recorded in Finland. The host plant of the species *Salix triandra* does not occur there in nature.
51. *Nematus longispinis* = *Nematus crassus* auct. = *Nematus sulcipes* auct. nec Hartig (Taeger & Blank, 1996).
52. \**Hartigia nigra* – Estonia is the northernmost confirmed locality. The Finnish specimens under the name *Hartigia nigra* in Viitasaari (1984) are recognized as *Hartigia etorofensis* Takeuchi at present.
53. \**Calameuta filum* – Probably reaches the western limit of its distribution area in Estonia.
54. \**Cephus pygmeus* – Occurs in southern Scandinavia, absent in Finland.

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## REFERENCES

- Benson, R. B. 1952. 2. Symphyta, Section (b). In *Handbooks for the Identification of British Insects. VI. Hymenoptera*. Royal Entomological Society of London, London.
- Chevin, H. 1984. Note sur les Hyménoptères Tenthredoïdes (XI). 25. Tenthredes rares ou nouvelles pour la France. *Bull. Soc. Linn. Lyon*, **53**, 9, 307–308.
- Heidema, M. & Viitasaari, M. 1997. *Parna reseri*, a new leaf miner for the fauna of northern Europe (Hymenoptera, Tenthredinidae). *Proc. Estonian Acad. Sci. Biol. Ecol.*, **46**, 3, 191–192.
- Kangas, J. K. 1985. Pälkäneen sahapistiäisfauna 1953–1983. *Pälkäne-Seuran julkaisuja*, **5**.
- Kauri, H. 1935. Loodusuurijate Seltsi zooloogilised kogud. *Eesti Loodus*, **3**, 2, 68–71.
- Konow, F. W. 1887. Neue griechische und einige andere Blattwespen. *Wien. Entomol. Zeit.*, **6**, 19–28.
- Konow, F. W. 1901. Revision der Nematiden-Gattung *Pontania* Costa (Hym.). *Zeits. Hym. Dipt.*, **1**, 127–128.
- Kopelke, J.-P. 1996. Die *Euura atra*- und *amerinae*-Gruppe in Nord- und Mitteleuropa (Insecta: Hymenoptera: Tenthredinidae: Nematinae). *Senckenbergiana biol.*, **76**, 1/2, 93–113.
- Kruus, M. 1988. Suuremõisa pargi kahjurid. In *Eesti saarte loodus ja selle ressurside kasutamine* (Kalamees, K., ed.). *Eesti Loodusuurijate Seltsi Aastaraamat*, **72**, 122–135.
- Lindqvist, E. 1969. Blattwespen-Studien (Hymenoptera, Symphyta). *Notulae Entomol.*, **49**, 38–48.
- Lippmaa, T. 1935. Eesti geobotaanika põhijooni. *Acta et Comment. Univ. Tartuensis*, **A**, 28, 4, 1–98.
- Liston, A. 1995. *Compendium of European Sawflies*. Chalastos Forestry, Gottfrieding.
- Liston, A. 1996. *Compendium of European Sawflies: Supplement*. Chalastos Press, Gottfrieding.
- Lorenz, H. & Kraus, M. 1957. *Die Larvalsystematik der Blattwespen* (Tenthredinoidea und Megalodontoidea). Akademie Verlag, Berlin.
- Magis, N. 1994. Répertoire des Mouches à scie reconnues en Belgique et au Grand-Duché de Luxembourg (Hymenoptera: Symphyta). *Notes Faun. Gembloux*, **28**, 3–52.
- Mocsáry, A. 1878. Data ad Faunam Hymenopterologicam Sibiriae Musei Nationalis Hungarici. *Tijdsch. Entomol.*, **21**, 198–200.
- Nifontoff, N. 1937. Kiletiivaliste vaatlusi. *Eesti Loodus*, **5**, 3, 124.
- Nuorteva, M. 1971. Die Sägewespenfauna (Hym., Symphyta) von Vuohiniemi, Südfinnland. *Ann. Entomol. Fenn.*, **37**, 179–189.
- Nuorteva, M., Heidema, M. & Viitasaari, M. 1997. *Praia taczanowskii* Wankowitz in André (Hym., Cimicidae) is repeatedly found in northern Europe. *Sawfly News*, **1**, 2, 11.
- Nutt, J. 1966. Ploomikahjurite bioloogias ja tõrjest. *Sots. Põllumaj.*, **10**, 458–461.
- Sintenis, F. 1895. 248. Sitzung der Dorpater Naturforscher-Gesellschaft am 17. September 1892. *Sitzungsber. Naturf. Ges. Dorpat*, **10**, 87–88.



- Taeger, A. & Blank, S. M. 1996. Kommentare zur Taxonomie der Symphyta (Hymenoptera). (Vorarbeiten zu einem Katalog der Pflanzenwespen, Teil 1). *Beitr. Entomol.*, **46**, 251–275.
- Tsinovskij, Ya. P. 1953. *Insects of the Latvian SSR. Horntails and Sawflies*. Izdatel'stvo Akademii Nauk Latvijas SSR, Riga (in Russian).
- Viitasaari, M. 1984. Sawflies 3. Siricoidea, Orussoidea and Cephoidea. *Univ. Helsinki Dept. Agric. Forest Zool. Reports*, **6**, 1–66.
- Viitasaari, M. 1989. Taxonomic notes on the genus *Trichiosoma* Leach (Hymenoptera, Cimbicidae) II. *Ann. Entomol. Fenn.*, **54**, 111–119.
- Viitasaari, M. 1990. Sawflies 5. Argidae, Blasticotomidae and Cimbicidae. *Univ. Helsinki Dept. Agric. Forest Zool. Reports*, **15**, 1–80.
- Viitasaari, M. & Vikberg, V. 1985. A checklist of the sawflies (Hymenoptera, Symphyta) of Finland. *Notulae Entomol.*, **65**, 1–17.
- Zhelochovtsev, A. N. 1988. Suborder Symphyta (Chalastogastra). In *Keys to the Insects of the European Part of the USSR. III. Hymenoptera 6* (Medvedev, G. S., ed.). Nauka, Leningrad (in Russian).
- Zhelochovtsev, A. N. & Zinovjev, A. G. 1995. A list of the sawflies and horntails (Hymenoptera, Symphyta) of the fauna of Russia and adjacent territories. I. *Éntomol. Obozrenie*, **74**, 2, 395–415 (in Russian).
- Zhelochovtsev, A. N. & Zinovjev, A. G. 1996. A list of the sawflies and horntails (Hymenoptera, Symphyta) of the fauna of Russia and adjacent territories. II. *Éntomol. Obozrenie*, **75**, 2, 357–379 (in Russian).

## EESTI PIDEVKEHALISTE (HYMENOPTERA, SYMPHYTA) ANNOTEERITUD NIMESTIK

Matti VIITASAARI, Mikk HEIDEMAA, Matti NUORTEVA ja  
Alekssei ZINOVJEV

Kollektsioonimaterjalide revideerimise ja kirjanduse andmete põhjal on koostatud 437 liiki hõlmav Eesti pidevkehaliste annoteeritud nimestik koos vastava levikutabeliga Eesti fütogeograafiliste valdkondade tasandil. Liigid, mis tõenäoliselt jõuavad Eestis oma levikupiirile, on varustatud andmetega nende leviku kohta naabermaades. Kahe *Aprosthem*a perekonna liigi puhul oletatakse sesoone dimorfismi olemasolu. Tähistatud on liigi *Hylotoma brevicornis* Fallén, 1808 lektotüüp. Liigi *Dineura parcivalvis* (Konow, 1901) holotüübi leiukoht "Dorpat, Livonia" (Konow, F. W. 1901. Revision der Nematiden-Gattung *Pontania* Costa (Hym.). *Zeits. Hym. Dipt.*, **1**, 127–128) asub vastavalt esmaskirjeldusele Eestis, mitte Lätis, nagu on ekslikult tõlgendanud hilisemad autorid.