

# CHECKLIST OF THE BEES IN THE CZECH REPUBLIC AND SLOVAKIA WITH COMMENTS ON THEIR DISTRIBUTION AND TAXONOMY (Insecta: Hymenoptera: Apoidea)

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## Abstract

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Complete faunistics was compiled in countries surrounding the Czech Republic and Slovakia. The latest checklist of the bee fauna from the then Czechoslovakia being published well over a decade ago, the aim of this paper is to up-date Kocourek's checklist (hereinafter referred to as only "the List") from 1989. In the present paper, inaccuracies occurring in Kocourek's checklist (e.g. using of junior synonyms or homonyms, spelling of names, incorrect species distribution, etc.) are corrected. In addition, new records according to literature data, findings communicated by colleagues, or own records, are summarised.

The compilation of this faunistic list required checking of over 750 names of the species group and more than 140 supraspecific names to be used valid and available names. The faunistic revision results in the following findings.

In total, 431 bee species range the **Bohemian territory** (occurrence was approved); of that, the following species are newly included: 4 species according to records (captured or checked specimen(s)) and 3 species as per literature data. Five species are conditionally removed from the Bohemian fauna, ten species are missing, eleven species are removed from the checklist, and the occurrence of one species is potential.

Altogether 543 species range the **Moravian territory**; in that number, the following species are newly included: 17 species according to records, and 6 species according to literature data. Eight species are conditionally removed from the Moravian fauna, one species is missing, six species are removed from the checklist, and the occurrence of five species is potential.

A total of 625 species range the **Slovak territory**; of that, the following species are newly included: 17 species according to records, and 14 species according to literature data. Seventeen species are conditionally removed from the Slovak fauna, no species is missing, ten species are removed from the checklist, and the occurrence of thirteen species is potential. Therefore, more intensive faunistic research is recommended in the Slovak territory.

Altogether 655 species range the **Czech Republic and Slovakia**; of that number, 555 species occur in the **Czech Republic**, and 625 species occur in **Slovakia**. It results in finding that the diversity of the bee fauna in the Czech Republic and Slovakia can be regarded as comparably equal with their neighbouring countries regarding the structure and geographic position of the both republics.

The most important records of species are as follows: *Hylaeus trinotatus* (Pérez, 1895) [Slovakia], *Andrena pontica* Warncke, 1972 [Moravia], *Halictus resurgens* Nurse, 1903 [S], *H. smaragdulus* Vachal, 1895 [M, S], *Lasioglossum bavaricum* (Blüthgen, 1930) and *L. cupromicans* (Pérez, 1903)

[S], *L. lissonotum* (Noskiewicz, 1926) [M, S], *Sphecodes majalis* Pérez, 1903 and *Melitta wankowiczii* (Radoszkowski, 1891) [S], *Megachile flabellipes* Pérez, 1895 [M], *Coelioxys alata* Förster, 1853 [S], *Anthidium septemspinosum* Lepeletier, 1841 and *Melecta aegyptiaca* Radoszkowski, 1876 [M], *Pyrobombus* (*Cullumanobombus*) *semenoviellus* (Skorikov, 1910) [Bohemia] and *P.* (*Melanobombus*) *sicheli* (Radoszkowski, 1859) [M, S].

*Pseudoanthidium scapulare* (Latreille, 1809) – **nom. et sp. rev.** – is not conspecific with *P. lituratum* (Panzer, 1801). *Eucera polonica* Ruzsowski, 1994 is a junior subjective synonym to *E. pollinosa* Smith, 1854.

faunistics, supraspecific taxonomy, bees, Hymenoptera, Apoidea, Czech Republic, Slovakia, new records, *Pseudoanthidium scapulare*, *Eucera polonica*

This paper is a continuation of the previous paper by PŘIDAL (2001) where the latest knowledge about faunistics of the Colletidae bee family was summarised and broadly commented. The last checklist of the bees of the Czech Republic and Slovakia was published in 1989 (KOCOUREK, 1989, hereinafter referred to as only "the List"). The List contains numerous errors and obsolete data; therefore, further publishing of commented checklist also for the other bee families was indicated in PŘIDAL (2001). However, as the compilation of such a detailed list requires a slew of work, the edition thereof is delayed. The delay is the reason for the present paper being published in the meantime.

In the neighbouring countries, complete faunistics was compiled as follows: Austria, Switzerland, Germany (SCHWARZ et al., 1996) and Poland (PAWLIKOWSKI, 2001). Data on the bee fauna from the Ukraine and Hungary have so far not been summarised. The latest published checklist of the bee fauna from the Czech Republic and Slovakia has come out well over a decade ago; therefore, the aim of the present paper is to up-date Kocourek's List. It seeks to correct the mentioned errors and keying mistakes, review contemporary species distribution through comparison with Kocourek's list, and to register new or forgotten records.

## MATERIAL AND METHODS

Information sources were as follows: **a)** private personal records or various colleagues (see **b.** for private coll.), **b)** data from literature (see **b.** for references) and **c)** following national and private collections of the Czech Republic and Slovakia:

- coll. Moravian Museum Brno [MMB]
- coll. National Museum Praha [NMP]
- coll. Pavel Bezděčka – Uherské Hradiště
- coll. Petr Bogusch - Blatná
- coll. Jozef Lukáš - Bratislava
- coll. Antonín Přidal - Brno (author)
- coll. Jakub Straka - Praha
- coll. Bořek Tkalců - Praha
- coll. Pavel Tyrner - Litvínov
- coll. Dalibor Všíanský - Brno
- card index compiled by Dr. Zdeněk Pádr (Praha)

(Note: Pádr's card index was kindly lent by Mr Pavel Tyrner from inheritance of Mr Pádr. He managed to gather a vast amount of information on faunistics of the bees in Czechoslovakia – from literature, various collections and personal private records or records of his colleagues. For the most part, these records were registered with date of collection, number, sexes or caste of specimens.)

### Abbreviations used for indication of distribution:

B = Bohemia, M = Moravia (incl. Silesia), S = Slovakia

### **B M S**

The species was found in the given territory (in this example in Bohemia, Moravia and Slovakia).

### **M S**

The species was not found in the given territory (in this example in Bohemia).

### **B M S**

A new record, or the first reliable literature record, for the indicated territory (in this example - in Bohemia).

### **B ? S**

The species has not yet been recorded. No specimens or literature data are currently available. However, the occurrence of the species is highly likely, or the occurrence thereof cannot be quite excluded (as in this example relating the Moravian territory) – usually with regard to records in neighbouring territories. This prediction has to refer to potential reserves in faunistic research for the given territory.

### **B? M S**

There is some literature indication, or another source of distribution, of the species for given terri-

tory. However, it is not reliable or logical information and - concurrently - no evidence exists (e.g. specimen). Therefore, such species is conditionally removed from checklist for the given territory (as in case of the above example relating Bohemia). Re-registration in the checklist has to be documented by a recent or another reliable record.

x M S

The species has been removed from the checklist for the given territory (as in case of the above example for Bohemia). Such species was included in the checklist by mistake (through, e.g., misidentification).

(b) M S

Though the species is missing for the given territory (as in case of the above example for Bohemia), the record is reliable (i.e. identification and labelling are correct, and the specimen is revised or available in any collection). That means that the species does either no longer occur in the given territory (due to, e.g., destroyed locality), or the species has not been found for a long time. In terms of the given territory, it may be an extinct species.

Further remarks to the structure of the checklist:

a) Subgenera are not included with the exception of the tribes Bombini and Apini. Presentation of the subgeneric classification in this case can make easy comprehension of supraspecific differences in this large group. Subgeneric classification of the further groups will be presented in a following paper.

b) Subspecific names are not used in this species list.

c) References to the identification keys for individual groups will be summarised in the following papers.

d) Records are cited with the number of faunistic square (faunistic grid) proposed by PRUNER & MÍKA (1996).

e) Remarks "available name" or "valid name" signify the replacement of junior synonyms or invalid names, respectively, in comparison with the List by KOCOUREK (1989).

The check-list will be up-dated at following internet address: <http://mendelu.cz/user/apridal/beelist/index.htm>.

## RESULTS AND DISCUSSION

Commentary is present in remark column. There are summarised remarks to new records and corrections of the List by KOCOUREK (1989).

## COLLETIDAE

### Hylaeinae

#### *Hylaeus*

	Fabricius, 1793				
<i>alpinus</i>	Morawitz, 1867			<b>S?</b>	§
<i>angustatus</i>	(Schenck, 1861)	B	M	S	
<i>annularis</i>	(Kirby, 1802)	B	M	S	
<i>annulatus</i>	(Linnaeus, 1758)	<b>B?</b>	<b>M</b>	S	§
<i>brevicornis</i>	Nylander, 1852	B	M	S	
<i>cardioscapus</i>	Cockerell, 1924	<b>B?</b>	<b>M</b>	<b>S</b>	§*
<i>clypearis</i>	(Schenck, 1853)		<b>M?</b>	<b>S?</b>	§
<i>communis</i>	Nylander, 1852	B	M	S	
<i>confusus</i>	Nylander, 1852	B	M	S	
<i>cornutus</i>	Curtis, 1831	B	M	S	
<i>difformis</i>	(Eversmann, 1852)	B	M	S	
<i>duckei</i>	(Alfken, 1904)	B	M	S	
<i>euryscapus</i>	Förster, 1871		M	S	
<i>gibbus</i>	Saunders, 1850	B	M	S	
<i>gracilicornis</i>	(Morawitz, 1867)	B	M	S	
<i>gredleri</i>	Förster, 1871	B	M	S	
<i>hyalinatus</i>	Smith, 1842	B	M	S	
<i>imparilis</i>	Förster, 1871		<b>M</b>	<b>S</b>	§
<i>kahri</i>	Förster, 1871			<b>S</b>	§
<i>leptocephalus</i>	(Morawitz, 1870)	B	M	S	
<i>lineolatus</i>	(Schenck, 1861)	B	M	S	
<i>moricei</i>	(Friese, 1898)	B	M	S	
<i>nigritus</i>	(Fabricius, 1798)	B	M	S	

<i>paulus</i>	Bridwell, 1919	B	M	?	§
<i>pectoralis</i>	Förster, 1871	B	M	S	§
<i>pfankuchi</i>	(Alfken, 1919)		M	S	
<i>pictipes</i>	Nylander, 1852	B	M	S	
<i>punctatus</i>	(Brullé, 1832)	B	M	S	
<i>punctulatissimus</i>	Smith, 1842	B	M	S	
<i>rinki</i>	(Gorski, 1852)	B	M	S	
<i>signatus</i>	(Panzer, 1798)	B	M	S	
<i>sinuatus</i>	(Schenck, 1853)	B	M	S	
<i>styriacus</i>	Förster, 1871	B	M	S	
<i>trinotatus</i>	(Pérez, 1895)			S	*
<i>variegatus</i>	(Fabricius, 1798)	B	M	S	

### Colletinae

#### *Colletes*

#### **Latreille, 1802**

<i>albomaculatus</i>	(Lucas, 1849)	x	(m)	?	§
<i>collaris</i>	Dours, 1872		M		§
<i>cunicularius</i>	(Linnaeus, 1761)	B	M	S	
<i>daviesanus</i>	Smith, 1846	B	M	S	
<i>floralis</i>	Eversmann, 1852	B			
<i>fodiens</i>	(Geoffroy, 1785)	B	M	S	
<i>graeffei</i>	Alfken, 1900		M	S	
<i>hylaeiformis</i>	Eversmann, 1852		M	S	
<i>impunctatus</i>	Nylander, 1852	x	M?	S?	§
<i>inexpectatus</i>	Noskiewicz, 1936	B	M	S	
<i>maidli</i>	Noskiewicz, 1936			S	
<i>marginatus</i>	Smith, 1846	B	M	S	
<i>mlokoszewiczi</i>	Radoszkowski, 1891			S	
<i>nasutus</i>	Smith, 1853	(b)	M	S	§
<i>punctatus</i>	Mocsáry, 1877		M?	S	§
<i>similis</i>	Schenck, 1853	B	M	S	
<i>succinctus</i>	(Linnaeus, 1758)	B	M	S	

§ - complete commentary in PŘIDAL (2001)

SK, Gbelce - Nature Reserve "Parížské močiare" - fens, 8177, 13.IX.2000, 1 male, lgt. P. Deván, coll. et det. A. Přidal.

#### \* *Hylaeus cardioscapus* Cockerell, 1924

The first record of this species from Slovakia has been published by PŘIDAL (1998). There is further new record from the second locality as follows:

#### \* *Hylaeus trinotatus* Cockerell, 1924 - new species for Slovakia

SK, Gbelce - Nature Reserve "Parížské močiare" - fens, 8177, 9.VIII. - 13.IX.2000, 2 male, 3 females, lgt. P. Deván, coll. et det. A. Přidal.

## ANDRENIDAE

## Andreninae

<i>Andrena</i>	Fabricius, 1775				
<i>aberrans</i>	Eversmann, 1852	B	M	S	* available name
<i>aciculata</i>	Morawitz, 1896	B	M	S	
<i>aeneiventris</i>	Morawitz, 1872		M	S	
<i>agilissima</i>	(Scopoli, 1770)	B	M	S	
<i>albopunctata</i>	(Rossi, 1792)			S	
<i>alfkenella</i>	Perkins, 1914	B	M	S	* available name
<i>anthrisci</i>	Blüthgen, 1925			S	* according to Pádr's card index (Slovakia, Štúrovo, July, Igt. V. Balthasar) – record has to be reviewed with respect to the rather western distribution of this species
<i>apicata</i>	Smith, 1847	B	M	S	* removed synonym <i>A. batava</i> Panzer, 1902 (GUSENLEITNER & SCHWARZ, 2002)
<i>argentata</i>	Smith, 1844	B	M	S	
<i>atrata</i>	Friese, 1887		M	S	
<i>barbareae</i>	Panzer, 1805	B	M	S	
<i>barbilabris</i>	(Kirby, 1802)	B	M	S	
<i>bicolor</i>	Fabricius, 1775	B	M	S	
<i>bimaculata</i>	(Kirby, 1802)	B	M	S	* = <i>A. bluethgeni</i> Stoeckert, 1930 (GUSENLEITNER & SCHWARZ, 2002)
<i>bisulcata</i>	Morawitz, 1878		M	S	
<i>braunsiana</i>	Friese, 1887			S	
<i>bucephala</i>	Stephens, 1846			S	
<i>carantonica</i>	Pérez, 1902	B	M	S	* available name
<i>chrysopus</i>	Pérez, 1903		M	S	* corrected date of description
<i>chrysopyga</i>	Schenck, 1853	B	M	S	
<i>chrysoseles</i>	(Kirby, 1802)	B	M	S	
<i>cineraria</i>	(Linnaeus, 1758)	B	M	S	* removed synonym <i>A. danuvia</i> Stöckert, 1950 (SCHWARZ et al., 1996)
<i>clarkella</i>	(Kirby, 1802)	B	M	S	
<i>clypella</i>	Strand, 1921			S	
<i>coitana</i>	(Kirby, 1802)	B	M	S	
<i>combaella</i>	Warncke, 1966			S	
<i>combinata</i>	(Christ, 1971)	B	M	S	* <i>A. combinata mehelyi</i> Alfken, 1936 (SCHWARZ et al., 1996)
<i>congruens</i>	Schmiedeknecht, 1884	B	M	S	* removed synonym <i>A. confinis</i> Stöckert, 1929 (SCHWARZ et al., 1996); corrected date of description
<i>cordialis</i>	Morawitz, 1878			S	* corrected date of description
<i>curtula</i>	Pérez, 1903	B	M	S	* available name
<i>curvana</i>	Warncke, 1965		M	?	* expected occurrence in Slovakia according to GUSENLEITNER & SCHWARZ (2002)

<i>curvungula</i>	Thomson, 1870	B	M	S	
<i>decipiens</i>	Schenck, 1861	B	M	S	
<i>denticulata</i>	(Kirby, 1802)	B	M	S	
<i>dorsalis</i>	Brullé, 1832			S	
<i>dorsata</i>	(Kirby, 1802)	B	M	S	* removed synonym <i>A. propinqua</i> Schenck, 1853 (SCHWARZ et al., 1996)
<i>enslinella</i>	Stoeckert, 1924		M	S	
<i>falsifica</i>	Perkins, 1915	B	M	S	* corrected date of description
<i>ferox</i>	Smith, 1847	B	M	S	
<i>figurata</i>	Morawitz, 1866			S	
<i>flavipes</i>	Panzer, 1799	B	M	S	* corrected date of description; removed synonym <i>A. cinerascens</i> Eversmann, 1852 (nec Nylander, 1848)
<i>florea</i>	Fabricius, 1793	B	M	S	
<i>floricola</i>	Eversmann, 1852	B	M	S	
<i>florivaga</i>	Eversmann, 1852	B	M	S	
<i>fucata</i>	Smith, 1847	B	M	S	
<i>fulva</i>	(Müller, 1766)	B	<b>M</b>	<b>S</b>	* new for the Moravia according to PŘIDAL (1998) and Slovakia according to LUKÁŠ (1991)
<i>fulvago</i>	(Christ, 1791)	B	M	S	
<i>fulvata</i>	Stoeckert, 1930			S	
<i>fulvida</i>	Schenck, 1853	B	M	S	
<i>fuscipes</i>	(Kirby, 1802)	B	M	S	
<i>fuscosa</i>	Erichson, 1835		M	S	
<i>gallica</i>	Schmiedeknecht, 1883	B	M	S	* removed name <i>A. assimilis</i> Radoszkowski, 1876 which is further bona species (GUSENLEITNER & SCHWARZ, 2002)
<i>gelriae</i>	van der Vecht, 1927	B	M	S	
<i>granulosa</i>	Pérez, 1902	B	M	S	
<i>gravida</i>	Imhoff, 1832	B	M	S	
<i>haemorrhoea</i>	(Fabricius, 1781)	B	M	S	
<i>hattorfiana</i>	(Fabricius, 1775)	B	M	S	
<i>hedikae</i>	Jaeger, 1934			S	
<i>helvola</i>	(Linnaeus, 1758)	B	M	S	
<i>hesperia</i>	Smith, 1853			S	
<i>humilis</i>	Imhoff, 1832	B	M	S	
<i>hungarica</i>	Friese, 1887			S	
<i>impunctata</i>	Pérez, 1895	B	M	S	
<i>intermedia</i>	Thomson, 1870	<b>B</b>	M	?	* corrected date of description; occurrence in Bohemia confirmed by STRAKA (2000); with respect to distributin map by GUSENLEITNER & SCHWARZ (2002, p. 1073) is expected in Slovakia

<i>labialis</i>	(Kirby, 1802)	B	M	S	
<i>labiata</i>	Fabricius, 1781	B	M	S	
<i>lapponica</i>	Zetterstedt, 1838	B	M	S	
<i>lathyri</i>	Alfken, 1899	B	M	S	
<i>lepida</i>	Schenck, 1861		M	S	* corrected date of description
<i>limata</i>	Smith, 1853		M	S	
<i>limbata</i>	Eversmann, 1852			S	
<i>marginata</i>	Fabricius, 1776	B	M	S	* removed parentheses
<i>minutula</i>	(Kirby, 1802)	B	M	S	
<i>minutuloides</i>	Perkins, 1914	B	M	S	
<i>mitis</i>	Schmiedeknecht, 1883	B	M	S	
<i>mocsaryi</i>	Schmiedeknecht, 1884		M	S	* corrected date of description
<i>morio</i>	Brullé, 1832	<b>B?</b>	M	S	* see below for comment
<i>mucida</i>	Kriechbaumer, 1873		M	S	
<i>nana</i>	(Kirby, 1802)	B	M	S	
<i>nanaeformis</i>	Noskiewitz, 1925	B			* corrected date of description
<i>nanula</i>	Nylander, 1848	B	M	S	
<i>nasuta</i>	Giraud, 1863	B	M	S	
<i>nigriceps</i>	(Kirby, 1802)	B	M	S	
<i>nigroaenea</i>	(Kirby, 1802)	B	M	S	
<i>nitida</i>	(Müller, 1776)	B	M	S	
<i>nitidiuscula</i>	Schenck, 1853	B	M	S	* removed synonym <i>A. fulvicornis</i> Schenck, 1853 (GUSENLEITNER & SCHWARZ, 2002)
<i>niveata</i>	Friese, 1887	B	M	S	
<i>nobilis</i>	Morawitz, 1874	x	M	S	* this stenotopy eremophile species is recorded according to KOCOUREK (1989) also in Bohemia but this record is not documented; corrected date of description
<i>nuptialis</i>	Pérez, 1902	B	M	S	
<i>nycthemera</i>	Imhoff, 1868	B	M	S	* corrected date of description
<i>oralis</i>	Morawitz, 1876		M	S	
<i>ovatula</i>	(Kirby, 1802)	B	M	S	
<i>pallitarsis</i>	Pérez, 1903	B	M	S	* corrected date of description
<i>pandellei</i>	Pérez, 1895	B	M	S	* correct author
<i>parviceps</i>	Kriechbaumer, 1873			S	
<i>paucisquama</i>	Noskiewicz, 1924		M	S	
<i>pilipes</i>	Fabricius, 1781	B	M	S	* available name; removed synonyms <i>A. nigrospina</i> Thomson, 1872 and <i>A. spectabilis</i> Smith, 1853 (in detail SCHWARZ et al., 1996)
<i>polita</i>	Smith, 1847	B	M	S	

<i>pontica</i>	Warncke, 1972		M			* new record, see below
<i>potentillae</i>	Panzer, 1809	B	M	S		
<i>praecox</i>	(Scopoli, 1763)	B	M	S		
<i>producta</i>	Warncke, 1973		M	S		* for comments see below
<i>proxima</i>	(Kirby, 1802)	B	M	S		
<i>pusilla</i>	Pérez, 1903	B	M	S		
<i>rosae</i>	Panzer, 1801	B	M	S		* corrected date of description
<i>roscipes</i>	Alfken, 1933			S		* = <i>A. roseipes</i> auct. (GUSENLEITNER & SCHWARZ, 2002)
<i>ruficrus</i>	(Nylander, 1848)	B	M	S		
<i>rufizona</i>	Imhoff, 1834	B		S		
<i>rufula</i>	Schmiedeknecht, 1883			S		
<i>rugulosa</i>	Stoeckert, 1935	B				
<i>saxonica</i>	Stoeckert, 1935	B	M	S		
<i>schencki</i>	Morawitz, 1896	B	M	S		
<i>schlettereri</i>	Friese, 1896			S		
<i>scita</i>	Eversmann, 1852	x	M	S		* see below for commentary
<i>semilaevis</i>	Pérez, 1903	B	M	S		* available name
<i>seminuda</i>	Friese, 1896			S		
<i>sericata</i>	Imhoff, 1868	B	M	S		* corrected date of description
<i>similis</i>	Smith, 1849	B	M	S		* available name
<i>simillima</i>	Smith, 1851	B	M	S		* new record, see below
<i>simontornyella</i>	Noskiewicz, 1939		?	?		* expected occurrence with respect to many records in Austria (GUSENLEITNER & SCHWARZ, 2002)
<i>stragulata</i>	Illiger, 1806	B	M	S		* KOCOUREK (1989) forgot to insert this species; removed synonym <i>A. eximia</i> Smith, 1847 (GUSENLEITNER & SCHWARZ, 2002)
<i>strohmella</i>	Stoeckert, 1928	B	M	S		* corrected date of description
<i>subopaca</i>	Nylander, 1848	B	M	S		
<i>suerinensis</i>	Friese, 1884	B	M	S		* corrected date of description
<i>susterai</i>	Alfken, 1914	B	M	S		
<i>symphyti</i>	Schmiedeknecht, 1883	B	M	S		
<i>synadelpha</i>	Perkins, 1914	B	?	S		* expected occurrence in Moravia due to distribution in Austria (SCHWARZ et al., 1966)
<i>taraxaci</i>	Giraud, 1861		M	S		
<i>tarsata</i>	Nylander, 1848	B				
<i>thoracica</i>	(Fabricius, 1775)	B	M	S		
<i>tibialis</i>	(Kirby, 1802)	B	M	S		
<i>transitoria</i>	Morawitz, 1871		M	S		* corrected date of description
<i>trimmerana</i>	(Kirby, 1802)		M	S		



<i>truncatilabris</i>	Morawitz, 1878		M	S	* corrected date of description
<i>tscheki</i>	Morawitz, 1872	B	M	S	
<i>vaga</i>	Panzer, 1799	B	M	S	
<i>variabilis</i>	Smith, 1853			S	
<i>varians</i>	(Kirby, 1802)	B	M	S	
<i>ventralis</i>	Imhoff, 1832	B	M	S	
<i>ventricosa</i>	Dours, 1873			S	
<i>viridescens</i>	Vierdeck, 1916	B	M	S	
<i>wilkella</i>	(Kirby, 1802)	B	M	S	* corrected keying mistake

***Andrena morio* Brullé, 1832** – conditionally removed from the list of the Bohemian bee fauna.

This species was recorded by KUBES (1904) in Kaňk near Kutná Hora. This old record has not been confirmed any latter record, therefore, the species is conditionally removed from the list of the Bohemian bee fauna until will be found recent record.

***Andrena pontica* Warncke, 1972** – new for the Czech Republic - Moravian territory, records in Slovakia are highly probable.

CZ: Moravia, Olomučany, faunistic square (6666), 19.VII.1998, 1 female; White Carpathians Mts., Návojná, 6874c, 6.VI.1998, 1 male, Slavičín, 6973a, 20.V.1998, 1 male, Svatý Štěpán-Pláňavy, 6974ac, 6.VI.1998, 1 male, Valašské Klobouky, 6874c, 6.VI.1998, 1 male, lgt. A. Přidal; Váté písky – Nature reserve, Bzenec – přívoz, 7069d, 30.V.1998, 1 male, lgt. M. Říha, coll. A. Přidal, det. D. Všianský et A. Přidal.

***Andrena scita* Eversmann, 1852** – removed from the list of the Bohemian bee fauna.

No record from Bohemia of this stenotopy eremo-

phile species was reviewed. The same result is figured by GUSENLEITNER & SCHWARZ (2002) in distribution map (no. 425).

***Andrena simillima* Smith, 1851** – new for Slovakia SK, Levice, August 1961, 1 male, lgt. M. Kocourek, coll. MMB, det. D. Všianský.

***Andrena producta* Warncke, 1973** – new for the Czech Republic and Slovakia.

This species was described by WARNCKE (1973) as a subspecies of *A. gelriae*. However, this concept is not correct - as mentioned by SCHWARZ et al. (1996). Several records from Moravia are presented below.

CZ: Moravia, Brno – Stránská skála, 6866a, 28.V.1998, 1 female, lgt. M. Říha, coll. A. Přidal; Popice, 7065-66, 2 males, coll. MM, lgt. M. Kocourek; White Carpathians Mts., Radějov Žerotín (Nature Reserve), 7169, 1.VI.2001, 1 female, lgt. et coll. A. Přidal, det. D. Všianský.

SK: Kamenica n. Hronom env. („PP Kamenický“), 8178, 13.VII.1998, 2 females, leg. J. Straka, coll. E. Scheuchl et J. Straka, det. E. Scheuchl.

## Panurginae

### Panurgini

<b><i>Panurgus</i></b>	<b>Panzer, 1806</b>				
<i>banksianus</i>	(Kirby, 1802)		B	M	S
<i>calcaratus</i>	(Scopoli, 1763)		B	M	S
<b><i>Panurginus</i></b>	<b>Nylander, 1848</b>				
<i>labiatus</i>	(Eversmann, 1852)		B	M	S
<b><i>Camptopoeum</i></b>	<b>Spinola, 1843</b>				
<i>friesei</i>	(Mocsáry, 1894)				S
<i>frontale</i>	(Fabricius, 1804)		B	M	S

Melitturgini

<b>Melitturga</b>	<b>Latreille, 1809</b>				
<i>clavicornis</i>	(Latreille, 1806)	B	M	S	
<i>praestans</i>	Giraud, 1861		M	S	

**HALICTIDAE****Halictinae**Halictini

<b>Halictus</b>	<b>Latreille, 1804</b>				
<i>compressus</i>	(Walckenaer, 1802)	B	M	S	* = <i>eurygnathus</i> Blüthgen, 1931 (see below for comment)
<i>confusus</i>	Smith, 1853	B	M	S	* available name
<i>gavarnicus</i>	Pérez, 1903		?	?	* warm habitats in South Moravia and Slovakia considering records from Austria (SCHWARZ et al., 1996) and Poland (PESENKO et al., 2000)
<i>kessleri</i>	Bramson, 1879		M	S	* corrected keying mistake in author name
<i>langobardicus</i>	Blüthgen, 1944	B	M	S	
<i>leucaheneus</i>	Ebmer, 1972	B	M	S	* nom. nov. for <i>H. fasciatus</i> auct. (nec Nylander, 1848), recent records for south Moravia in coll. author
<i>maculatus</i>	Smith, 1848	B	M	S	
<i>patellatus</i>	Morawitz, 1873	<b>B?</b>		S	* for Bohemia only historic record (KUBES, 1905)
<i>pollinosus</i>	Sichel, 1860	B	M	S	
<i>quadricinctus</i>	(Fabricius, 1776)	B	M	S	* corrected date of description
<i>resurgens</i>	Nurse, 1903		?	<b>S</b>	* new species for Slovakia, for details see below
<i>rubicundus</i>	(Christ, 1791)	B	M	S	* missing parentheses
<i>sajoi</i>	Blüthgen, 1923		M	S	
<i>scabiosae</i>	(Rossius, 1790)			S	
<i>seladonius</i>	(Fabricius, 1794)		M	S	
<i>semitectus</i>	Morawitz, 1874		M	S	* corrected date of description
<i>sexcinctus</i>	(Fabricius, 1775)	B	M	S	
<i>simplex</i>	Blüthgen, 1923	B	M	S	
<i>smaragdulus</i>	Vachal, 1895		<b>M</b>	<b>S</b>	* new species for the Czech Republic Moravian territory and Slovakia, see below for details
<i>subauratus</i>	(Rossius, 1792)	B	M	S	
<i>tectus</i>	Radoszkowski, 1875		M	S	* available name
<i>tumulorum</i>	(Linnaeus, 1758)	B	M	S	

***Halictus compressus* (WALCKENAER, 1802)**

PESENKO (1985) stabilized subgenus *Monilapis* Cockerell, 1931 with typical species *H. compressus* (Walckenaer, 1802) which is a nomen novum for *Apis flavipes* Panzer, 1798 (nec Fuesslin, 1775 et Fabricius, 1787). In spite of the fact that *H. compressus* is rather unknown name (nearly “nomen oblitum” because the

name absents in DALA TORRE (1896) and the most of former and contemporary specialists do not know it), the stabilization of the subgenus and resolution of the mentioned homonymy both proposed by PESENKO (1985) is valid nomenclatural act (consistent with International Code of Zoological Nomenclature [ICZN Art. 75]). The name *H. compressus* has been

used in two further cases: PESENKO et al. (2000) and PAWLIKOWSKI (2001) in the least. Therefore, it is not possible to use the assignment of ICZN Art. 23 b and 79 c for suppression of senior synonyms. Moreover, it would have to be suppressed (by Commission) also two following synonyms: *Hylaeus tomentosus* Herich-Schäffer 1840 (nomen novum for *Apis flavipes* Panzer) and *Hyleus senex* Förster 1860, to be possible to use commonly known name *Halictus eurygnathus*.

***Halictus resurgens* Nurse, 1903** – new species for Slovakia, records in Moravian territory of the Czech Republic are highly probable.

SK: White Carpathians Mts., Drietoma, 7073, 22.VII.1986, 1 male, 1 female, lgt. and coll. Sander W.F., det. B. Tkalců et A. Přidal

***Halictus smaragdulus* Vachal, 1895** – new for the Czech Republic Moravian territory and Slovakia.

CZ: Moravia, Čejč, 7067, VIII. 1958, 1 male, 1 female; SK, Košice, 7393, VII. 1951, 1 male, lgt. M. Kocourek, coll. et det. A. Přidal.

<i>Lasioglossum</i>	Curtis, 1833				
<i>aeratum</i>	(Kirby, 1802)	B	M	S	
<i>albipes</i>	(Fabricius, 1781)	B	M	S	
<i>bavaricum</i>	(Blüthgen, 1930)			S	* PESENKO et al. (2000) published several reliable records from the Tatra Mts.
<i>bluethgeni</i>	Ebmer, 1971		M		
<i>brevicorne</i>	(Schenck, 1868)	B	M	S	
<i>breviventre</i>	(Schenck, 1853)	B	M	S	
<i>buccale</i>	(Pérez, 1903)	B	M	S	
<i>calceatum</i>	(Scopoli, 1763)	B	M	S	
<i>clypeare</i>	(Schenck, 1853)	B	M	S	
<i>convexiusculum</i>	(Schenck, 1853)		M	S	
<i>costulatum</i>	(Kriechbaumer, 1873)	B	M	S	* corrected date of description
<i>cupromicans</i>	(Pérez, 1903)			S	* new for Slovakia according to records of PÁDR et LUKÁŠ (1994)
<i>damascenum</i>	(Pérez, 1911)			S	
<i>discus</i>	Smith, 1853		M	S	* available name
<i>elegans</i>	(Lepeletier, 1841)			S	
<i>euboeense</i>	(Strand, 1909)		M	S	* corrected keying mistake in species name
<i>fratellum</i>	(Pérez, 1903)	B	M	S	* available name
<i>fulvicorne</i>	(Kirby, 1802)	B	M	S	
<i>glabriusculum</i>	(Morawitz, 1872)	B	M	S	
<i>griseolum</i>	(Morawitz, 1872)		M		
<i>intermedium</i>	(Schenck, 1868)		M		* corrected date of description
<i>interruptum</i>	(Panzer, 1798)	B	M	S	
<i>leave</i>	(Kirby, 1802)	B	M	S	
<i>laevigatum</i>	(Kirby, 1802)	B	M	S	
<i>laticeps</i>	(Schenck, 1868)	B	M	S	* corrected date of description
<i>lativentre</i>	(Schenck, 1853)	B	M	S	
<i>leucopus</i>	(Kirby, 1802)	B	M	S	
<i>leucozonium</i>	(Schrank, 1781)	B	M	S	
<i>limbellum</i>	(Morawitz, 1876)	B	M	S	
<i>lineare</i>	(Schenck, 1868)	B	M	S	* corrected date of description
<i>lissonotum</i>	(Noskiewicz, 1926)		M	S	* see below for coment
<i>lucidulum</i>	(Schenck, 1861)	B	M	S	
<i>majus</i>	(Nylander, 1852)	B	M	S	
<i>malachurum</i>	(Kirby, 1802)	B	M	S	
<i>marginatum</i>	(Brullé, 1832)		M	S	
<i>marginellum</i>	(Schenck, 1853)	B	M	S	
<i>mesosclerum</i>	Pérez, 1903		M?	S?	

<i>minutissimum</i>	(Kirby, 1802)	B	M	S	
<i>minutum</i>	(Schenck, 1853)	B	M	S	
<i>morio</i>	(Fabricius, 1793)	B	M	S	
<i>nigripes</i>	(Lepeletier, 1841)	B	M	S	
<i>nitidiusculum</i>	(Kirby, 1802)	B	M	S	
<i>nitidulum</i>	(Fabricius, 1804)	B	M	S	* available name
<i>obscuratum</i>	(Morawitz, 1876)			S	
<i>pallens</i>	(Brullé, 1832)		M	S	
<i>parvulum</i>	(Schenck, 1853)	B	M		* available name
<i>pauxillum</i>	(Schenck, 1853)	B	M	S	
<i>politum</i>	(Schenck, 1853)	B	M	S	
<i>prasinum</i>	(Smith, 1848)	B	M		
<i>punctatissimum</i>	(Schenck, 1853)	B	M	S	* corrected date of description
<i>puncticolle</i>	(Morawitz, 1872)	B	M	S	
<i>pygmaeum</i>	(Schenck, 1853)	B	M	S	* corrected authorship
<i>quadrinotatum</i>	(Schenck, 1861)	B	M	S	* corrected date of description
<i>quadrinotatum</i>	(Kirby, 1802)	B	M	S	
<i>quadrisignatum</i>	(Schenck, 1853)	B	M	S	
<i>rufitarse</i>	(Zetterstedt, 1938)	B	M		* corrected keying mistake in author name
<i>semilucens</i>	(Alfken, 1914)	<b>B</b>	<b>M</b>	<b>S</b>	* new species for the all studied areas; forgotten species by KOCOUREK (1989)
<i>setulosum</i>	(Strand, 1909)		M	S	
<i>sexmaculatum</i>	(Schenck, 1853)		M		
<i>sexnotatum</i>	(Kirby, 1802)	B	M	S	
<i>sexstrigatum</i>	(Schenck, 1868)	B	M		* corrected date of description
<i>smeathmanellum</i>	(Kirby, 1802)	B	M	S	
<i>subfasciatum</i>	(Imhoff, 1832)	B	M	S	
<i>tarsatum</i>	(Schenck, 1868)	B	M		* corrected date of description
<i>tricinctum</i>	(Schenck, 1874)	B	M	S	
<i>trichopygum</i>	(Blüthgen, 1923)		M	S	
<i>truncaticolle</i>	Morawitz, 1878		M	S	
<i>villosulum</i>	(Kirby, 1802)	B	M	S	
<i>xanthopus</i>	(Kirby, 1802)	B	M	S	
<i>zonulum</i>	(Smith, 1848)	B	M	S	

All *Lasioglossum* species were inserted into *Halicetus* genus in the List by KOCOUREK (1989).

***Lasioglossum lissonotum* (Noskiewicz, 1926)** – new for the Czech Republic - Moravian territory, and Slovakia.

CZ: Moravia, Pavlov hills, 7166, 15.VI.1966, 1 female, lgt. O. et B. Tkalců, coll. A. Přidal, det. A.W. Ebmer.

SK: Slovak karst, Turňa nad Bodvou, 7391, 3.VIII.1999, 1 female, lgt. J. Straka & P. Bogusch, coll. & det. J. Straka.

***Lasioglossum semilucens* (Alfken, 1914)** – new species for both the Czech Republic and Slovakia.

CZ: Bohemia, Stratov, 16.IV.1946, 5755, 1 female, lgt. B. Tkalců, coll. A. Přidal, det. A.W. Ebmer.

Next records for Bohemia, Moravia and Slovakia are incorporated in Pádr's card index, though largely unreadable.

<i>Sphcodes</i>		<b>Latreille, 1805</b>				
<i>albilabris</i>	(Fabricius, 1793)	B	M	S		
<i>alternatus</i>	Smith, 1853			S		
<i>crassus</i>	Thomson, 1870	B	M	S		
<i>cristatus</i>	Hagens, 1882		M	S		
<i>croaticus</i>	Meyer, 1922	B	M	<b>S</b>		* new species for Slovakia, see below
<i>ephippius</i>	(Linné, 1767)	B	M	S		
<i>ferruginatus</i>	Hagens, 1882	B	M	S		
<i>geoffrellus</i>	(Kirby, 1802)	B	M	S		
<i>gibbus</i>	(Linnaeus, 1758)	B	M	S		
<i>hyalinatus</i>	Hagens, 1882		M	S		
<i>intermedius</i>	Blüthgen, 1923		M	S		
<i>longulus</i>	Hagens, 1882	B	M	S		
<i>majalis</i>	Pérez, 1903		M	<b>S</b>		* new species for Slovakia, also in LUKÁŠ (1987); see below
<i>marginatus</i>	Hagens, 1882		M	S		
<i>miniatus</i>	Hagens, 1882	B	M	S		
<i>monilicornis</i>	(Kirby, 1802)	B	M	S		
<i>niger</i>	Hagens, 1874	B	M	S		
<i>pellucidus</i>	Smith, 1845	B	M	S		
<i>pinguiculus</i>	Pérez, 1903			S		
<i>pseudofasciatus</i>	Blüthgen, 1925		M	S		
<i>puncticeps</i>	Thomson, 1870	B	M	S		
<i>reticulatus</i>	Thomson, 1870	B	M	S		
<i>rubicundus</i>	Hagens, 1875	B	M	S		
<i>rufiventris</i>	(Panzer, 1798)	B	M	S		
<i>scabricollis</i>	Wesmael, 1835	B	<b>M?</b>	S		* no reliable record is known; for Moravia only according to KOCOUREK (1989)
<i>schenckii</i>	Hagens, 1882		<b>x</b>	S		* errata of PŘIDAL (1998) p. 28; misidentification of <i>S. reticulatus</i> ; species is known only from Slovakia.
<i>spinulosus</i>	Hagens, 1875	B	M	S		

***Sphcodes croaticus* Meyer, 1922** – new species for Slovakia

SK, Cerová vrchovina, Čamovce, 7785, 24.VII.1990, 1 female, lgt. P. Tyrner, coll. A. Přidal, det. M. Schwarz et A. Přidal; Kamenica nad Hronom, 8178, 2 females, VII.1963,

lgt. M. Kocourek, coll. MMB, Kováčov hills, 8178, lgt. A. Hoffer, coll. et det. A. Přidal.

***Sphcodes majalis* Pérez, 1903** – new species for Slovakia

SK, Štúrovo, 8178, 1 male, V.1961, lgt. M. Kocourek, coll. MMB, det. A. Přidal.

#### Nomioidinae

<i>Nomioides</i>		<b>Schenck, 1866</b>				
<i>minutissimus</i>	(Rossi, 1790)		B	M	S	* corrected ending of species names
 <i>Ceylaliectus</i>		<b>Strand, 1913</b>				
<i>variegatus</i>	(Olivier, 1789)			M	S	* corrected ending of species names

<b>Nomiinae</b>						
<i>Nomiapis</i>	<b>Cockerell, 1919</b>					
<i>diversipes</i>	(Latreille, 1806)					S
<i>femorialis</i>	(Pallas, 1773)	M				S
<b>Rophitinae</b>						
<i>Rophites</i>	<b>Spinola, 1808</b>					* corrected spelling of the genus name
<i>algirus</i>	Pérez, 1903	B	M			S * corrected date of description
<i>hartmanni</i>	Friese, 1902	B	M			S
<i>quinquespinosus</i>	Spinola, 1808	B	M			S * complemented distribution missing in KOCOUREK (1989)
<i>Rhophitoides</i>	<b>Schenck, 1861</b>					* corrected date of description
<i>canus</i>	(Eversmann, 1852)	B	M			S
<i>Systropha</i>	<b>Illiger, 1806</b>					
<i>curvicornis</i>	(Scopoli, 1770)	B	M			S
<i>planidens</i>	Giraud, 1861	B	M			S
<i>Dufourea</i>	<b>Lepeletier, 1841</b>					
<i>dentiventris</i>	(Nylander, 1848)	B	M			S
<i>inermis</i>	(Nylander, 1848)	B	M			S
<i>halictula</i>	(Nylander, 1852)		M			S * valid and available name
<i>minuta</i>	Lepeletier, 1841	B	M			S * corrected date of description
<b>MELITTIDAE</b>						
<b>Melittinae</b>						
<i>Melitta</i>	<b>Kirby, 1802</b>					
<i>dimidiata</i>	Morawitz, 1876			M		S
<i>haemorrhoidalis</i>	(Fabricius, 1775)	B	M			S
<i>leporina</i>	(Panzer, 1799)	B	M			S
<i>nigricans</i>	Alfken, 1905	B	M			S
<i>tricincta</i>	Kirby, 1802	B	M			S * removed synonym <i>M. melanura</i> (Nylander, 1852)
<i>tomentosa</i>	Friese, 1900					S
<i>udmurtica</i>	Sitdikov, 1986				?	* see below for remarks
<i>wankowiczi</i>	(Radoszkowski, 1891)				S	* new record for Slovakia
<i>Macropis</i>	<b>Panzer, 1809</b>					
<i>frivaldskyi</i>	Mocsáry, 1878					S * corrected spelling of species name
<i>fulvipes</i>	(Fabricius, 1804)	B	M			S
<i>europaea</i>	Warncke, 1973	B	M			S * valid and available name
<b>Dasypodinae</b>						
<b>Dasypodini</b>						
<i>Dasypoda</i>	<b>Latreille, 1802</b>					
<i>argentata</i>	Panzer, 1809	B	M			S
<i>hirtipes</i>	(Fabricius, 1793)	B	M			S
<i>suripes</i>	(Christ, 1791)	B	M			S * available name; see below for comment

***Melitta udmurtica* Sitdikov, 1986**

Though in Slovakia, this species has not been recorded yet in Slovakia, however, due to several records in eastern Poland and the Ukraine, the occurrence thereof of this species in eastern Slovakia is probable.

SK, Kamenica nad Hronom, 8178, 7.VIII.1946, 1 male, 3 females, Hajnáčka, 7785, 1.VIII.1949, 1 female, Fiľakovo, 7784, 1 male, 17.7.1949, lgt. Šusterka, Kamendín, 8.VIII.1946, 1 female, Streda nad Bodrogom, 7696, 1 female, 24.VII. 1947, lgt. V. Zavadil, Štúrovo, 8178, 19.VII.1954, 1 female, lgt. Palásek, coll. NMP, det. J. Straka.

***Melitta wankowiczi* (Radoszkowski, 1891) – new species for Slovakia**

The following records were studied by Mr Jakub Straka in coll. NMP:

***Dasygaster suripes* (Christ, 1791) – new species for Slovakia**

SK, Štúrovo - Hegyfárok, 8178, 13.VIII.1976, 1 male, lgt. et coll. B. Tkalcú, det. B. Tkalcú & A. Pridal.

**MEGACHILIDAE****Megachilinae**Lithurgini***Lithurgus*****Latreille, 1825***chrysurus*

Fonscolombe, 1834

S

*cornutus*

(Fabricius, 1787)

M

S

Osmiini***Heriades*****Spinola, 1808***crenulatus*

Nylander, 1856

B

M

S

*truncorum*

(Linnaeus, 1758)

B

M

S

***Chelostoma*****Latreille, 1809***campanularum*

(Kirby, 1802)

B

M

S

*distinctum*

(Stoeckert, 1929)

B

M

S

*emarginatum*

(Nylander, 1856)

M

S

\* new for Slovakia according to PRÍDAL (1998)

*florisomne*

(Linnaeus, 1758)

B

M

S

\* corrected spelling

*foveolatum*

(Morawitz, 1868)

x

S

\* see below for details

*handlirschi*

Schletterer, 1889

x

*rapunculi*

(Lepeletier, 1841)

B

M

S

\* see below for details corrected missing parentheses

*ventrale*

Schletterer, 1889

M

S

***Osmia*****Panzer, 1806***aurulenta*

(Panzer, 1799)

B

M

S

*caerulescens*

(Linnaeus, 1758)

B

M

S

\* corrected spelling of species name

*cerinthidis*

Morawitz, 1876

B

M

S

*cornuta*

(Latreille, 1805)

B

M

S

*gallarum*

Spinola, 1808

x

M

S

\* is not representative of the Bohemian bee fauna

*inermis*

(Zetterstedt, 1838)

B

M

S

*labialis*

Pérez, 1879

S

*leaiana*

(Kirby, 1802)

B

M

S

\* valid and available name and corrected its spelling

*maritima*

Friese, 1885

x

\* is not representative of the Slovak bee fauna as published KOCOUREK (1989)

*melanogaster*

Spinola, 1808

M

S

<i>mustelina</i>	Gerstaecker, 1869	B	M	S	* corrected missing parentheses
<i>nigriventris</i>	(Zetterstedt, 1838)	B		S	
<i>niveata</i>	(Fabricius, 1804)	B	M	S	* valid and available name; homonym removed
<i>parietina</i>	Curtis, 1828	B	M	S	
<i>pilicornis</i>	Smith, 1846	B	M	S	
<i>rufa</i>	(Linnaeus, 1758)	B	M	S	
<i>submicans</i>	Morawitz, 1871		x	x	* species is representative neither of the Czech or Slovak fauna
<i>uncinata</i>	Gerstaecker, 1869	B	M	S	* new species for Slovakia according to PÁDR et LUKÁŠ (1994)
<i>xanthomelana</i>	(Kirby, 1802)	B	M	S	* corrected spelling of species name; details in PŘIDAL (1998)
<b><i>Erythrosmia</i></b>	<b>Schmiedeknecht, 1885</b>				* see below
<i>andrenoides</i>	(Spinola, 1808)		M	S	
<b><i>Tergosmia</i></b>	<b>Warncke, 1988</b>				* see below
<i>tergestensis</i>	(Ducke, 1897)		M	S	* corrected missing parentheses; see below
<b><i>Neosmia</i></b>	<b>Tkalců, 1974</b>				* see below
<i>bicolor</i>	(Schrank, 1781)	B	M	S	

***Chelostoma foveolatum* (Morawitz, 1868)** – is not representative of the Czech fauna

PÁDR (1990) published a record of this species from Praha (Bohemia). This record was subsequently accepted by WARNCKE (1991). No record is registered in the „card index“ gathered in person by Dr Pádr (Praha). In the light of these facts, this record is unreliable until some specimen is found.

***Chelostoma handlirschi* Schletterer, 1889** – is not a representative of Slovak fauna

WARNCKE (1992) found out that the record of *Ch. handlirschi* from Slovakia has been misidentified with *Ch. emarginatum* [= *appendiculata* (Morawitz, 1871)].

***Erythrosmia*** and ***Tergosmia*** genera are comparatively isolated taxa. In the *Erythrosmia* genus, common characters of *Osmia* and *Anthocopa* co-occur (the mesonotum stria is short as in *Osmia* but the stria on the ventrolateral part of the 1<sup>st</sup> tergite is absent!). The basal pair membrane on the 6<sup>th</sup> metasomal sternit in males is absent, therefore, this taxon is not closely related to *Hoplitis*). The same example exists in case of ***Neosmia*** Tkalců, 1974, genus. Males of this genus have six visible-free metasomal sternites and the first flagellium is three times longer than wider; mandibles are three-toothed. The six free metasomal sternites are for example also typical of isolated taxon

***Metallinella*** Tkalců, 1966 (see below), or three-toothed mandibles are developed in *Tergosmia*. Moreover, in males of *Tergosmia* genus, the basal pair membrane of the 6<sup>th</sup> metasomal sternite is absent. In the females of this genus, the stria on the ventrolateral part of the 1<sup>st</sup> tergite is absent and the uncus is wide and with longitudinal carina – as distinct from *Osmia* species. Since the facts mentioned above have not yet been resolved in complex analysis, all above mentioned taxa have to be temporarily treated at the genus level.

#### ***Tergosmia tergestensis* (Ducke, 1897)**

*Osmia tergestensis* Ducke, 1897 – Ent. Nachr., Berlin 32(3): 41. (February)

*Osmia ononidis* Ferton, 1897 – Act.Soc. linn. Bordeaux 52: 44. (August)

*Osmia rondoui* Pérez, 1902 – Porc.-verb. Soc. linn. Bordeaux 57:LXVI.

*Osmia wolhynica* Noskiewicz, 1922 – Polsk. Pismo ent. 1: 9.

*Osmia atlantica* Benoist, 1934 – Bull. Soc. ent. Fr. 37:107.

*Anthocopa tergestensis remota* Tkalců, 1979 – Acta ent. bohemoslovaca 76:320.

PAWLIKOWSKI (2001) registers the species under different name – *Osmia ononidis* Ferton, 1897 with reference to BANASZAK & ROMASENKO (1998). However, these author cite this species under *T. tergestensis*. *Osmia ononidis* was described on August in 1897 when *O. tergestensis* had been published already eight months (February).



<b><i>Hoplitis</i></b>	<b>Klug, 1807</b>				* = <i>Anthocopa</i> Lepeletier et Serville, 1825 sensu lato; see below for explanation
<i>acuticornis</i>	(Dufour et Perris, 1840)	B	M	S	* corrected missing parentheses
<i>adunca</i>	(Panzer, 1798)	B	M	S	
<i>anthocopoides</i>	(Schenck, 1853)	B	M	S	* corrected missing parentheses
<i>claviventris</i>	(Thomson, 1872)	B	M	S	* available name
<i>laevifrons</i>	(Morawitz, 1872)		M	S	* corrected missing parentheses
<i>leucomelana</i>	(Kirby, 1802)	B	M	S	* synonym <i>O. parvula</i> Dufour et Perris, 1840 removed from the list of KOCOUREK (1989)
<i>manicata</i>	(Morice, 1901)		M	S	* corrected missing parentheses
<i>mitis</i>	(Nylander, 1852)	B	M	S	* corrected missing parentheses
<i>mocsaryi</i>	(Friese, 1895)			S	* corrected missing parentheses
<i>papaveris</i>	(Latreille, 1799)	B	M	S	
<i>praestans</i>	(Morawitz, 1894)			S	* corrected missing parentheses and date of description
<i>ravouxi</i>	(Pérez, 1902)	B	M	S	* corrected missing parentheses
<i>rufohirta</i>	Latreille, 1811	B	M	S	* transposed from the genus <i>Osmia</i> , conception of KOCOUREK (1989)
<i>tenuispina</i>	(Alfken, 1937)			S	* corrected missing parentheses
<i>tridentata</i>	(Dufour et Perris, 1840)	B	M	S	* corrected missing parentheses
<i>villosa</i>	(Schenck, 1853)	B	M	S	
<b><i>Hoplosmia</i></b>	<b>Thomson, 1872</b>				* this genus was absent in checklist by KOCOUREK (1989)
<i>bidentata</i>	(Morawitz, 1876)	x	M	S	* a reliable record of the occurrence of this species in Bohemia is not known with exception of incommented remark of KOCOUREK (1989)
<i>ligurica</i>	(Morawitz, 1868)			S	
<i>scutellaris</i>	(Morawitz, 1868)			S	
<i>spinulosa</i>	(Kirby, 1802)	B	M	S	
<b><i>Metallinella</i></b>	<b>Tkalců, 1966</b>				* corrected spelling of the genus name; see below for next remarks
<i>brevicornis</i>	(Fabricius, 1798)	B	M	S	* see below for remark
<i>brevicornis leucogastra</i>	(Morawitz, 1875)		x		* according to PADR (1995) as <i>O. leucogastra</i> ; see below for details

**Metallinella Tkalců, 1966** is a monotypic taxon. Since the claws are cleft, mesonotum a propodeum are differently shaped in comparison with *Osmia* species, and maxillar palpus is only four-segmented (as, for example, in *Erythrosmia* species), this taxon is morphologically isolated in Osmiini tribe. The cleft claws suggest morphological transmigration to Megachilini tribe. A reduction of maxillar segments is also typical of Megachilini tribe (i.e. fewer than five segments). The isolated position of *M. brevicornis* is also due to its specific construction of nest, which is unique in Megachilidae (RADCHENKO, 1978).

*Metallinella atrocaerulea* (Schilling, 1849) is a subjective junior synonym which is removed from

the List by KOCOUREK (1989). PÁDR (1995) published a record of *Osmia leucogastra* from Pálava Nature reserve. However, this taxon is only an Asian subspecies - *Metallinella brevicornis leucogastra* (Morawitz, 1875). Therefore, the name is removed from the species list.

All species of the genus *Anthocopa* sensu lato (it means following species: *mocsaryi*, *papaveris* and *villosa*) are included in the genus *Hoplitis* sensu lato. There is an insufficiency of morphological differences distinguishing the genus from *Hoplitis* sensu lato. Therefore, individual separation in *Anthocopa* sensu lato is not well founded (MICHENER, 2000). Subgenera *Anthocopa* s. str. and *Arctosmia* Schiedeknecht, 1885 etc. are valid and available.

#### Megachilini

<b>Creightonella</b>	<b>Cockerell, 1908</b>					* see below for remarks
<i>albisecta</i>	(Klug, 1817)		M	S		
<b>Chalicodoma</b>	<b>Lepeletier, 1841</b>					
<i>ericetorum</i>	Lepeletier, 1841	B	M	S		* KOCOUREK (1989) inserted this species in Megachile genus
<i>hungarica</i>	Mocsáry, 1877			S		
<i>parietina</i>	(Geoffroy, 1785)	B	M	S		* corrected spelling of species name
<b>Megachile</b>	<b>Latreille, 1802</b>					
<i>alpicola</i>	Alfken, 1924	B	M	S		* new for Moravia (PŘIDAL, 1998)
<i> analis</i>	Nylander, 1852	B	M	S		
<i>apicalis</i>	Spinola, 1808	B	M	S		
<i>bombycina</i>	Radoszkowski, 1876			S		
<i>centuncularis</i>	(Linnaeus, 1758)	B	M	S		
<i>circumcincta</i>	(Kirby, 1802)	B	M	S		
<i>deceptoris</i>	Pérez, 1890		M	S		
<i>labellipes</i>	Pérez, 1895		M	S		* new for Moravia according to PŘIDAL (1998); = <i>rubrimana</i> auct. (nec Morawitz, 1894) removed from KOCOUREK's (1989) list (next e.g. DORN & WEBER, 1988)
<i>genalis</i>	Morawitz, 1880	B	M	S		* comments in PŘIDAL (1998)
<i>lagopoda</i>	(Linnaeus, 1761)	B	M	S		
<i>lapponica</i>	Thomson, 1872	B	M	S		
<i>leachella</i>	Curtis, 1828	B	M	S		* available name
<i>leucomalla</i>	Gerstaecker, 1869		x	x		* species is representative neither of the Czech or Slovak fauna; announced only by KOCOUREK (1989)
<i>ligniseca</i>	(Kirby, 1802)	B	M	S		
<i>maackii</i>	Radoszkowski, 1874			S		
<i>maritima</i>	(Kirby, 1802)	B	M	S		
<i>melanopyga</i>	Costa, 1863	B	M	S		
<i>nigriventris</i>	Schenck, 1868	B				* see below for remark
<i>octosignata</i>	Nylander, 1852		M	S		
<i>pacifica</i>	Panzer, 1798	B	M	S		
<i>pilicrus</i>	Morawitz, 1878		M	S		* see below for remark

<i>pilidens</i>	Alfken, 1924	<b>B</b>	M	S	* corrected date of description, explanation in PŘIDAL (1998)
<i>pyrenaea</i>	Pérez, 1890	B	M		
<i>versicolor</i>	Smith, 1844	B	M	<b>S</b>	* details in PŘIDAL (1998)
<i>willughbiella</i>	(Kirby, 1802)	B	M	S	
<b><i>Coelioxys</i></b>	<b>Latreille, 1809</b>				
<i>afra</i>	Lepeletier, 1841	B	M	S	
<i>alata</i>	Förster, 1853		M	<b>S</b>	* see below for remark
<i>aurolimbata</i>	Förster, 1853	B	M	S	
<i>brevis</i>	Eversman, 1852	B	M	S	
<i>caudata</i>	Spinola, 1938			S	* removed synonym <i>C. foersteri</i> Spinola, 1838 from the list by KOCOUREK (1989)
<i>conoidea</i>	(Illiger, 1806)	B	M	S	
<i>echinata</i>	Förster, 1853	B	M	S	* valid and available name
<i>elongata</i>	Lepeletier, 1841	B	M	S	
<i>emarginata</i>	Förster, 1853	B	M	S	
<i>haemorhoa</i>	Förster, 1853			S	
<i>inermis</i>	(Kirby, 1802)	B	M	S	
<i>lanceolata</i>	Nylander, 1852	?	x	?	* removed parentheses; see below for comments
<i>mandibularis</i>	Nylander, 1848	B	M	S	
<i>polycentris</i>	Förster, 1853		<b>M</b>	S	* comments in PŘIDAL (1998)
<i>quadridentata</i>	(Linnaeus, 1758)	B	M	S	* corrected date of description
<i>rufescens</i>	Lepeletier, 1825	B	M	S	

*Creightonella* is a supraspecific taxon which is considered at the generic or subgeneric level (in genus *Megachile*, MICHENER, 2000). In *C. albisecta* several supraspecific characters with high taxonomic importance are developed; these are as follows: a) in males, six visible (free) metasomal sternites, b) in females, only one thin and long seta is present on the ventro-basal part of the claw, c) mandibles are five-toothed with dense hairs, d) at the end of labrum a cluster of the long and hooked hairs is developed, e) the uncus (i.e. an anatomical projection at the latero-distal part of mesotibia) has bifid apex. Because these characters are completely different from supraspecific characters in the *Megachile* genus, the contemporary concept by TKALCŮ (1997 – 2003 pers. comm.), or older concepts by MITCHELL, 1980), are followed.

The same principle of argumentation is applied in case of *Chalicodoma*. In *Chalicodoma* species, the following supraspecific characters are developed: a) the first submarginal cell is larger than the second; b) in males the 1<sup>st</sup> flagellium is as long as the 3<sup>rd</sup> or longer, the end of the 6<sup>th</sup> abdominal tergite is spiny and the longitudinal projection is developed on the surface of the 7<sup>th</sup> abdominal tergite; in females clypeus is elongated, two the thin and long setae are developed as distinct from *Megachile* and *Creightonella* species. Uncus in females is hooked and has only one apex.

#### *Megachile nigriventris* Schenck, 1868 and *Coelioxys lanceolata* Nylander, 1852

The known distribution of both species in the Czech Republic and Slovakia (according to KOCOUREK, 1989) is not logic because of their nest cleptoparasitic relation. Records of *M. nigriventris* from mountainous territories of the Bohemia are even recent, e.g. Halada et Halada (1992) in Vyšenské kopce - South Bohemia, but any record of *C. lanceolata* is not known in Bohemia. **The occurrence of this cleptoparasite is assumed in mountainous territories of Bohemia.**

The record of *C. lanceolata* in Moravia (KOCOUREK, 1989) is not reliable because no record of *M. nigriventris* is known from Moravia. Moreover, one record is present in Pádr's card index – „Bzenec“. It is a very warm and dry locality which is not consistent with the ecological valence of both species! As a result, ***C. lanceolata* is removed from the species list for Moravia.** Records in north Moravia are likely.

Records of both species in Slovakia are more than merely likely because of the several recent reliable records made in the Polish territory of the Tatra region (DYLEWSKA, 1962; CELARY, 1995). **Recent finds in the Slovak territory of the Tatra region are expected.**

*Megachile pilicrus* Morawitz, 1878 – new species for the Czech Republic – Moravian territory.

CZ: Moravia mer., Zaječí, 7166, 18.VI.2003, 1 female, lgt. D. Povolný, coll. et det. A. Přidal.

A further record from Moravia is given also by STRAKA et al. (in press).

***Coelioxys alata* Förster, 1853** – new species for Slovakia.

STRAKA (in litt., 2003) revised some specimens in collection of Maximilian Schwarz. He found one

record of this rare species from Slovakia as follows: SK, Remetské Hámre, Zaječí, 7199, 20.VII.1966, 1 female, lgt. M. Kocourek, coll. M. Schwarz, det. J. Straka.

It is not known why this record has not been included in the List (KOCOUREK, 1989).

#### Anthidiini

<b><i>Trachusa</i></b> <i>byssina</i>	<b>Panzer, 1804</b> (Panzer, 1798)	B	M	S	* see below for remark
<b><i>Paraanthidium</i></b> <i>interruptum</i>	<b>Friese, 1898</b> (Fabricius, 1781)			S	
<b><i>Rhodanthidium</i></b> <i>septemdentatum</i>	<b>Isensee, 1927</b> (Latreille, 1809)	B	M	S	
<b><i>Icteranthidium</i></b> <i>laterale</i>	<b>Michener, 1948</b> (Latreille, 1809)			S	
<b><i>Pseudoanthidium</i></b> <i>lituratum</i> <i>tenellum</i>	<b>Friese, 1898</b> (Panzer, 1801) (Mocsáry, 1879)	B	M	S S	* see below for remark
<b><i>Anthidiellum</i></b> <i>strigatum</i>	<b>Cockerell, 1904</b> (Panzer, 1805)	B	M	S	
<b><i>Anthidium</i></b> <i>cingulatum</i>	<b>Fabricius, 1804</b> Latreille, 1809	(b)	M	S	* new for Moravia, see below for comment
<i>florentinum</i>	(Fabricius, 1775)			S	
<i>loti</i>	Perris, 1852			S	
<i>manicatum</i>	(Linnaeus, 1758)	B	M	S	
<i>montanum</i>	Morawitz, 1864	B?	M?	S	* see below for comments
<i>oblongatum</i>	(Illiger, 1806)	B	M	S	* corrected authorship
<i>punctatum</i>	Latreille, 1809	B	M	S	
<i>septemspinusum</i>	Lepeletier, 1841		M	S	* new for the Czech Republic - Moravian territory, see below
<b><i>Stelis</i></b> <i>breviuscula</i>	(Nylander, 1848)	B	M	S	* corrected authorship
<i>franconica</i>	Blüthgen, 1930			S	* corrected erratum in KOCOUREK (1989)
<i>iugae</i>	Noskiewicz, 1962			S	* published in PŘIDAL (1998)
<i>minima</i>	Schenck, 1861	B	M	S	
<i>minuta</i>	Lepeletier et Serville, 1825	B	M	S	
<i>nasuta</i>	(Latreille, 1809)	(b)	M	S	* see below for comments
<i>odontopyga</i>	Noskiewicz, 1925	B	M	S	
<i>ornatula</i>	(Klug, 1807)	B	M	S	
<i>phaeoptera</i>	(Kirby, 1802)	B	M	S	
<i>punctulatissima</i>	(Kirby, 1802)	B	M	S	

<i>signata</i>	(Latreille, 1809)	B	M	S
<b>Dioxyini</b>				
<b>Dioxys</b>				
<i>cincta</i>	(Jurine, 1807)		M	S
<i>pannonica</i>	Mocsáry, 1877			S
<i>tridentata</i>	(Nylander, 1848)	B	M	S

PASTEELS (1969) and MICHENER (1994, 2000) consider genus *Trachusa s. str.* as a subgenus of *Trachusa* sensu lato taking in, e.g., also *Paraanthidium* or *Archianthidium* Mavromoustakis, 1939, etc. However, this concept fails to weight up the different structure of the male genitalia, number of the maxillar palpus segments, and total habitus. Therefore, in this paper, *Trachusa* and *Paraanthidium* are considered at the generic level. There is further reason for a revision of relations within the said group. Nesting bionomy of *T. byssina* is seen as intermediate between *Megachile* and some Anthidiini species. It seems to be an old taxon. Though *T. byssina* nests in ground (in contrast to most *Megachile* species), the nest cavity is coated with pieces of leaves (as in *Megachile* species) connected with resin (as in some Anthidiini species).

This intermediate nesting bionomy is not the one and only suggestion of the intermediate character of *Trachusa*, finding itself between Megachilini and Anthidiini. The second recurrent vein (2m-cu) is directly connected with second submarginal cross-vein (2r-m) in *Trachusa* in contrast to Megachilini and other Anthidiini (except of *Archianthidium* genus; the configuration of the mentioned veins is similar here as in *Megachile*). The 2m-cu vein is connecting with posterior margins of the second submarginal cell (Rs+M) before 2r-m vein in Megachilini (i.e. proximally - closer to the basal vein). In Anthidiini tribe (except *Trachusa* and *Archianthidium*), the vein 2m-cu is ending in Rs+M behind of 2r-m vein (distally from the basal vein).

In *Trachusa*, the male genitalia are simple in contrast to *Archianthidium* or *Paraanthidium* male genitalia. It seems that the *Trachusa* genus is an old taxon because of its intermediate bionomy and morphology. This suggestion is moreover supported by the five-segmented maxillar palpus, which is of plesiomorphic state - in contrast to the four-segmented maxillar palpus in *Archianthidium*, and the three-segmented one in *Paraanthidium*. This inter-position reminds of the case of *Metallinella* genus, transitional between *Osmiini* and *Megachilini* tribes.

Greater unusual variability of supraspecific characters (e.g. presence of arolium) in *Trachusa* sensu

MICHENER (2000) than in further supraspecific taxa of Anthidiini is mentioned by MICHENER (1994, p. 323). Since mentioned facts have not yet been resolved in complex analysis, both *Trachusa* and *Paraanthidium* taxa have to be - temporarily at least - treated at the genus level.

#### *Anthidium cingulatum* Latreille, 1809

KOCOUREK (1989) forgot to include this species also for Moravia. A further record from Moravia was published by PÁDR (1995) - Pálava. The anomalous record from Bohemia (Kaňk near Kutná Hora by ZAVADIL, 1932) is fairly old (in 1908); therefore, the species is missing in Bohemia and newly included in the checklist of Moravia.

*A. montanum* Morawitz, 1864 - conditionally removed from the list of the Bohemian and Moravian bee fauna until a recent record is found.

The species is known from Bohemia (Krkonoše Mts. and Krušné hory Mts.) only from old records by MÜLLER (1944); likewise in Moravia (Oderské vrchy Mts.; DUCKE, 1900). No recent record of this species is known from the Czech Republic in contrast to Slovakia (Tatry Mts., LUKÁŠ, 1979).

*A. septemspinum* Lepeletier, 1841 - new species for the Czech Republic - Moravian territory.

CZ: Moravia mer. or., White Carpathians Mts., Radějov - natural reservation Žerotín, 7169, 2.VIII.2000, 1 male, lgt. & coll. A. Přidal, det. A. Přidal et B. Tkalců. (fresh specimen)

#### *Pseudoanthidium lituratum* (Panzer, 1801)

*Apis liturata* Panzer, 1801 (nec Gmelin, 1790) - Faun. Insect. German. 80: 21.

*Anthidium scapulare* auct. part. [TKALCŮ, 1966; WARNCKE, 1980; SCHWARZ et. al., 1996] (nec Latreille, 1809 - **nomen et species revocata**)

*Anthidium sinuatum* Lepeletier, 1841 - Hist. nat. Insec. Hymen. 2: 374.

*Anthidium floripetum* Eversmann, 1852 - Bull. Soc. Nat. Moscou 25: 83.

*Anthidium reptans* Eversmann, 1852 - Bull. Soc. Nat. Moscou 25: 85.

*Anthidium nanum* Mocsáry, 1881 - Termesztud. Közl. 16: 51.

*Stelis leucostoma* Costa, 1883 – Atti Accad. Sci. fis. mat. Napoli (2) 1: 96.

*Anthidium peregrinum* Costa, 1884 – Rc. Accad. Sci. fis. mat. Napoli 23: 170.

*Anthidium eversmanni* Radoszkowski, 1886 – Hor. Soc. ent. Ross. 20: 54.

*Anthidium tenellum* var. *grandii* Alfken, 1937 – Boll. Ist. ent. Univ. Bologna 9: 11. The major part of synonyms is catalogued by WARNCKE (1980).

The name *Apis lituratum* Panzer, 1801 (= *Pseudoanthidium lituratum*) is used here in spite of the fact that it is homonym to *Apis lituratum* Gmelin, 1790 [= *Anthophora pubescens* (Fabricius, 1871), according to WARNCKE, 1986], since the revision of this genus has not yet been completed. TKALCŮ (1966) revised syntypes of *Anthidium scapulare* Latreille, 1809. He designed the lectotype (partially destroyed) and retained the rest of very much destroyed syntypes without designation. He stated that *P. scapulare* is a junior synonym to *P. lituratum*.

The specific differences among the species of this genus are often very minute but constant, therefore, it is not usually possible to find them on the destroyed specimens. Within a few years, TKALCŮ (1997 – pers. comm.) was studying a plenty of specimens from different parts of Europe. He found that *P. scapulare* -

**nomen et species revocata** - has not been conspecific with *P. lituratum*.

The mentioned homonymy required the replacement of the unavailable name *Apis lituratum* Panzer, 1801 by the junior synonym *Anthidium sinuatum* Lepeletier, 1841. However, this name is probably synonym to *P. scapulare* because WARNCKE (1996) did not check type series of this species. Further names *A. reptans* and *A. floripetum* can't be also used because of the same reason. These names can be under synonymy with very relative species *A. tenellum*. Only the type series of *A. nanum* Mocsáry, 1879 was studied with the result that *A. nanum* is a subjective junior synonym to *A. lituratum* Panzer, 1801 (TKALCŮ, 1997 – pers. comm.). Considering above factology, it is necessary to use the name *Pseudoanthidium lituratum* until will be completed the general revision of the genus *Pseudoanthidium*.

***Stelis nasuta* (Latreille, 1809)** – the species is missing in Bohemia

Only one record was found - in card index by Pádr: Kokořín valley 22.6.1897. Other records are illegible. In Bohemia, the species is missing as long as it is newly found, or any reliable specimens appear in any collection!

## ANTHOPHORIDAE

### Xylocopinae

#### Xylocopini

##### *Xylocopa*

	<b>Latreille, 1802</b>					
<i>iris</i>	(Christ, 1791)		M	S		* available name
<i>valga</i>	Gerstaecker, 1872	x	M	S		* no reliable record is known from Bohemia
<i>violacea</i>	(Linnaeus, 1758)	B	M	S		

#### Ceratini

##### *Ceratina*

	<b>Latreille, 1802</b>					
<i>acuta</i>	Friese, 1896		M	S		
<i>chalybea</i>	Chevrier, 1872		M	S		
<i>cucurbitina</i>	(Rossius, 1792)		M	S		
<i>cyanea</i>	(Kirby, 1802)	B	M	S		
<i>dentiventris</i>	Gerstaecker, 1869			x		* the species is not representative of the Slovak bee fauna
<i>gravidula</i>	Gerstaecker, 1869			S		
<i>laevifrons</i>	Morawitz, 1893			x		* the species is not representative of the Slovak bee fauna
<i>nigrolabiata</i>	Friese, 1896			S		

**Nomadinae**Nomadini**Nomada****Scopoli, 1770**

<i>alboguttata</i>	Herrich-Schäffer, 1839	B	M	S	* corrected date of description and spelling of the author name
<i>argentata</i>	Herrich-Schäffer, 1839	B	M	S	* corrected spelling of the author name
<i>armata</i>	Herrich-Schäffer, 1839	B	M	S	* corrected spelling of the author name
<i>atroscutellaris</i>	Strand, 1921			M	S
<i>baccata</i>	Smith, 1844	B	M	S	
<i>basalis</i>	Herrich-Schäffer, 1839			M	S
<i>bifasciata</i>	Olivier, 1811	B	M	S	* available name
<i>bispinosa</i>	Moszczyński, 1883			M	S
<i>blepharipes</i>	Schmiedeknecht, 1882				S
<i>bluethgeni</i>	Stoekert, 1943	B	M	S	
<i>bouceki</i>	Kocourek, 1985				S
<i>braunsiana</i>	Schmiedeknecht, 1882	B	M	S	* for Slovakia already published by TKALCŮ (1974), KOCOUREK (1989) forgot to include this species into the list for Slovakia
<i>calimorpha</i>	Schmiedeknecht, 1882			M	S
<i>castellana</i>	Dusmet, 1913	B	M	S	
<i>conjungens</i>	Herrich-Schäffer, 1839	B	M	S	* corrected spelling of the author name
<i>connectens</i>	Pérez, 1884				S?
<i>corcyraea</i>	Schmiedeknecht, 1882				S?
<i>cruenta</i>	Schmiedeknecht, 1882			M	S
<i>discrepans</i>	Schmiedeknecht, 1882				S
<i>distinguenda</i>	Morawitz, 1874	B	M	S	* corrected date of description
<i>emarginata</i>	Morawitz, 1878	B	M	S	* new for Slovakia (LUKÁŠ & SCHLARMANOVÁ, 1998); corrected date of description
<i>errans</i>	Lepeletier, 1841	B	M	S	
<i>fabriciana</i>	(Linné, 1767)	B	M	S	* corrected spelling of author name
<i>facilis</i>	Schwarz, 1967	B	M	S	
<i>femoralis</i>	Morawitz, 1869	B	M	S	
<i>ferruginata</i>	(Linné, 1767)	B	M	S	* corrected spelling of author name
<i>flava</i>	Panzer, 1798	B	M	S	
<i>flavilabris</i>	Morawitz, 1875				S
<i>flavoguttata</i>	(Kirby, 1802)	B	M	S	
<i>flavopicta</i>	(Kirby, 1802)	B	M	S	
<i>fucata</i>	Panzer, 1798	B	M	S	
<i>fulvicornis</i>	Fabricius, 1793	B	M	S	* available name; in the KOCOUREK's list (1989) registered as <i>N. lineola</i> Panzer, 1798
<i>furva</i>	Panzer, 1798	B	M	S	
<i>furvoides</i>	Stoekert, 1944			M	S
<i>fuscicornis</i>	Nylander, 1848	B	M	S	* corrected date of description

<i>goodeniana</i>	(Kirby, 1802)	B	M	S	* missing parentheses
<i>guttulata</i>	Schneck, 1861	B	M	S	* corrected date of description
<i>hirtipes</i>	Pérez, 1884			S	
<i>immaculata</i>	Morawitz, 1873	x	x	x	* the species is not representative of the Czech and Slovak bee fauna (SCHWARZ in litt., 1999; ALEXANDER & SCHWARZ, 1994).
<i>imperiallis</i>	Schmiedeknecht, 1882			S?	* see below for comment
<i>incisa</i>	Schmiedeknecht, 1882			S?	* see below for comment
<i>insignipes</i>	Schmiedeknecht, 1882			S?	* see below for comment
<i>integra</i>	Brullé, 1832	B	M	S	* removed synonym <i>N. cinctiventris</i> Friese, 1921 (ALEXANDER & SCHWARZ, 1994)
<i>kohli</i>	Schmiedeknecht, 1882	B	M	S	
<i>lathburiana</i>	(Kirby, 1802)	B	M	S	
<i>leucophthalma</i>	(Kirby, 1802)	B	M	S	
<i>marshamella</i>	(Kirby, 1802)	B	M	S	* missing parentheses
<i>mauritanica</i>	Lepeletier, 1841	B	M	S	* = <i>N. mauritanica chrysoptoga</i> Morawitz, 1872 (SCHWARZ & GUSENLEITNER, 2003)
<i>melanopyga</i>	Schmiedeknecht, 1882			S	
<i>melathoracica</i>	Imhoff, 1834			S	
<i>mocsaryi</i>	Schmiedeknecht, 1882			S	* old record according to by BALTHASAR (1953) and Pádr's card index: "SK: Gbelce, 21 males, 1 female".
<i>mutabilis</i>	Morawitz, 1870	B	M	S	* corrected date of description
<i>mutica</i>	Morawitz, 1872	B	M	S	
<i>nobilis</i>	Herrich-Schäffer, 1839	B	M	S	* corrected spelling of the author name
<i>noskiewiczii</i>	Schwarz, 1966		M	S	* corrected authorship
<i>numida</i>	Lepeletier, 1841			S	* see below for comments
<i>obscura</i>	Zetterstedt, 1838	B	M	S	
<i>obtusifrons</i>	Nylander, 1848	B	M	S	
<i>opaca</i>	Alfken, 1913	B	M?		* see below for comment
<i>panzeri</i>	Lepeletier, 1841	B	M	S	* corrected date of description; removed synonym <i>N. glabella</i> Thomson, 1870
<i>pectoralis</i>	Morawitz, 1878			S?	* see below for comment
<i>picciolana</i>	Magretti, 1883	B	M	S	
<i>pleurosticta</i>	Herrich-Schäffer, 1839	B	M	S	* see below for comments; corrected spelling of the author name
<i>pygidialis</i>	Schwarz, 1968			S?	* see below for comments
<i>rhenana</i>	Morawitz, 1872	B	M	S	
<i>roberjeotiana</i>	Panzer, 1799	B	M	S	* removed synonyms <i>N. montana</i> Mocsáry, 1894 and <i>N. tormentillae</i> Alfken, 1901
<i>rostrata</i>	Herrich-Schäffer, 1839		M	S	* corrected spelling of the author name
<i>ruficornis</i>	(Linnaeus, 1758)	B	M	S	* available name



<i>rufipes</i>	Fabricius, 1793	B	M	S	
<i>sexfasciata</i>	Panzer, 1799	B	M	S	
<i>sheppardana</i>	(Kirby, 1802)	B	M	S	* corrected spelling of the species name; removed synonym <i>N. minuscula</i> Noskiewicz, 1930
<i>signata</i>	Jurine, 1807	B	M	S	
<i>similis</i>	Morawitz, 1872	B	M	S	
<i>stigma</i>	Fabricius, 1804	B	M	S	
<i>stoeckherti</i>	Pittioni, 1951			S	* corrected date of description
<i>striata</i>	Fabricius, 1793	B	M	S	* removed synonym <i>N. dzieduszyckii</i> Noskiewicz, 1924
<i>succincta</i>	Panzer, 1798	B	M	S	* = <i>fulvicornis</i> auct. (nec Fabricius, 1793); in the list by KOCOUREK (1989) registered under name <i>N. fulvicornis</i>
<i>sybarita</i>	Schmiedeknecht, 1882		<i>M?</i>	S	* see below for comment
<i>symphyti</i>	Stoeckert, 1941		M	S	
<i>tenella</i>	Mocsáry, 1883			<i>S?</i>	* see below for comment
<i>thersites</i>	Schmiedeknecht, 1882			S	* ALEXANDER & SCHWARZ (1994)
<i>transitoria</i>	Schmiedeknecht, 1882			?	* recorded in Austria (SCHWARZ et al., 1996)
<i>trapeziformis</i>	Schmiedeknecht, 1882	B	M	S	
<i>tridentirostris</i>	Dours, 1873		?	<b>S</b>	* see below for comments
<i>trispinosa</i>	Schmiedeknecht, 1882		M	S	
<i>verna</i>	Schmiedeknecht, 1882	B			
<i>villosa</i>	Thomson, 1870	B	M	S	
<i>zonata</i>	Panzer, 1798	B	M	S	

***Nomada connectens* Pérez, 1884** - conditionally removed from the list until a new reliable record is found.

ALEXANDER & SCHWARZ (1994) and SCHWARZ et al. (1999) recorded this species only in Switzerland, south France and Sicily. No reliable record is known from Slovakia.

***Nomada corcyraea* Schmiedeknecht, 1882** - conditionally removed from the list until a new reliable record is found.

Only one unreliable record has been found: Pádr's card index: "SK:Štúrovo, 26.V.1937, 1 male, lgt. Gregor". However, the record is probably a misidentification! ALEXANDER & SCHWARZ (1994) recorded the species only from Italy and Greece.

***Nomada imperiallis* Schmiedeknecht, 1882** - conditionally removed from the list of the Slovak bee fauna until a new record is found.

Removed nomen dubium *N. fulvipes* Brullé, 1832 (ALEXANDER & SCHWARZ, 1994). Only one unreliable

old record according to BALTHASAR (1952).

***Nomada incisa* Schmiedeknecht, 1882**

***Nomada insignipes* Schmiedeknecht, 1882**

***Nomada pygidialis* Schwarz, 1968**

***Nomada tenella* Mocsáry, 1883**

No documents (e.g. specimens) are known to me except for the registration in the species list (KOCOUREK, 1989); therefore, the all species are conditionally removed from the faunistic list of Slovak bee fauna until new records are found!

***Nomada numida* Lepelletier, 1841** - newly included species into the list of Slovak species.

*Nomada numida manni* Morawitz, 1871 was recorded by BALTHASAR (1958) in Slovakia near Štúrovo in July of 1957 but only one male has captured in spite of the several following visits. Therefore, the record was rather dubious. However, MOCZÁR & SCHWARZ (1968) recorded several specimens within revision of extensive material of cleptoparasite bees from Hungary (det. M. Schwarz). The occurrence

of the species in the southern parts of Slovakia near Štúrovo is confirmed.

BALTHASAR (1958) registered this species under name *N. mauritanica manni* Morawitz, 1872. SCHWARZ & GUSENLEITNER (2003) found that *N. mauritanica* Lepeletier 1841 and *N. numida* Lepeletier, 1841 are not conspecific. Moreover, he found that *N. manni* Morawitz, 1871 is subspecies of *N. numida*. The date of description is not consistent with the date printed on the cover of MORAWITZ'S (1872) publication; the journal was distributed on the 10<sup>th</sup> December of 1871.

Revision of Spinola's collection (SCHWARZ & GUSENLEITNER, 2003) confirmed that *Nomada chrysopyga* Morawitz, 1872 is subspecies of *Nomada mauritanica* Lepeletier, 1841. Therefore, this revision resolved the complicated taxonomical status among several taxa as follows: *N. chrysopyga*, *N. manni*, *N. mauritanica* and *N. numida*.

***Nomada opaca* Alfken, 1913** - conditionally removed from the list of the Moravian bee fauna.

Moravian record is unreliable (ŠNOFLÁK, 1944 - probable misidentification), therefore, the species is conditionally removed from the list of the Moravian bee species until a new record is found.

***Nomada pectoralis* Morawitz, 1878** - conditionally removed from the list until a new reliable record is found.

Only one unreliable old record according to BALTHASAR (1953).

***Nomada pleurosticta* Herrich-Schäffer, 1839** – new for Moravia and Slovakia.

The species is new for Slovakia according to BELÁKOVÁ (1980) and - in spite of the specimen that had been identified by M. Kocourek - the species is missing in the species List by KOCOUREK (1989). Records in Moravia are made as per ŠNOFLÁK (1944) (Mohelno locality). Pádr's card index registers records from Míkovice and Čejč (lgt. A. Hoffer). **The occurrence of this rare species should be checked!**

***Nomada sybarita* Schmiedeknecht, 1882** - conditionally removed from the list of Moravian bee species.

The species was recorded according to BALTHASAR (1953) in Slovakia. Only one unreliable and unspecified record from Moravia was found: Pádr's card index - "Čejč". Therefore, the species is conditionally removed from the list of Moravian bee species until a new record is found.

***Nomada tridentirostris* Dours, 1873** – potential for the Czech Republic – Moravian territory, newly included in the species list of Slovak fauna.

The occurrence of the species is expected in the warmest habitats of South Moravia considering records from Hungary and Austria – Niederösterreich (SCHWARZ et al., 1996). CELARY (1997) recently recorded this species in Poland. He stated that this species has occurred also in Slovakia. This announcement is only one record which I have found.

#### Epeolini

<b><i>Epeolus</i></b>	Latreille, 1802				
<i>cruciger</i>	(Panzer, 1799)	B	M	S	
<i>fasciatus</i>	Friese, 1895			S	
<i>schummeli</i>	Schilling, 1849	(b)	M	S	* see for comments in PŘIDAL (2001)
<i>tarsalis</i>	Morawitz, 1873		M	<b>S?</b>	* see below for comment
<i>variegatus</i>	(Linnaeus, 1758)	B	M	S	
<b><i>Triepeolus</i></b>	Robertson, 1901				* see below for comment
<i>tristis</i>	(Smith, 1854)			S	

#### Ammobatoidini

<b><i>Ammobatoides</i></b>	Radoszkowski, 1867				* corrected date of description
<i>abdominalis</i>	(Eversmann, 1852)		M	S	* corrected spelling of author name

#### Biastrini

<b><i>Biastrus</i></b>	Panzer, 1806				
<i>brevicornis</i>	(Panzer, 1798)			M	S
<i>emarginatus</i>	(Schenck, 1853)	B	M	S	
<i>truncatus</i>	(Nylander, 1848)	B	M		

Ammobatini

<b><i>Ammobates</i></b>	<b>Latreille, 1809</b>				* in KOCOUREK (1989) as a subgenus of the genus <i>Pasites</i>
<i>punctatus</i>	(Fabricius, 1804)	B	M	S	
<i>similis</i>	Mocsáry, 1894			S	
<i>vinctus</i>	Gerstaecker, 1869			S	
<b><i>Pasites</i></b>	<b>Jurine, 1807</b>				* in KOCOUREK (1989) as a subgenus <i>Pasites</i> s.str. of genus <i>Pasites</i>
<i>maculatus</i>	Jurine, 1807		M	S	
<b><i>Parammobatodes</i></b>	<b>Popov, 1932</b>				* in KOCOUREK (1989) as a subgenus of the genus <i>Pasites</i>
<i>minutus</i>	(Mocsáry, 1877)			S	

**Anthophorinae**Osirini

<b><i>Epeoloides</i></b>	<b>Giraud, 1863</b>				
<i>coecutiens</i>	(Fabricius, 1775)	B	M	S	

Eucerini

<b><i>Eucera</i></b>	<b>Scopoli, 1770</b>				
<i>casifica</i>	Morawitz, 1873			M	
<i>cineraria</i>	Eversmann, 1852			M	S
<i>clypeata</i>	Erichson, 1835	x	M	S	* species is not representative of the Bohemian bee fauna; removed synonym <i>E. similis</i> Lepeletier, 1841
<i>curvitaris</i>	Mocsáry, 1879			S	
<i>eucnemidea</i>	Dours, 1873			x	* see below for comment
<i>hispana</i>	Lepeletier, 1841			x	* see below for comment
<i>graeca</i>	Radoszkowski, 1876			S	* see below for comment
<i>interrupta</i>	Baer, 1850	B	M	S	
<i>longicornis</i>	(Linnaeus, 1758)	B	M	S	
<i>nigrescens</i>	Pérez, 1879	B	M	S	* available name
<i>nigrifacies</i>	Lepeletier, 1841			S	
<i>pollinosa</i>	Smith, 1854		M	S	* see below for comments
<i>rufipes</i>	Smith, 1879			- ?	* see below for comments
<i>seminuda</i>	Brullé, 1832		M	S	
<i>taurica</i>	Morawitz, 1871			S?	* see below for comments
<i>vittulata</i>	Noskiewicz, 1934			?	* see below for comment
<b><i>Pseudeucera</i></b>	<b>Tkalců, 1978</b>				* newly included genus, see below for comment
<i>parvicornis</i>	Mocsáry, 1878			S	
<b><i>Tetralonia</i></b>	<b>Spinola, 1838</b>				* see below for comment
<i>malvae</i>	(Rossius, 1790)	(b)	M	S	* see below for comment

<b><i>Tetraloniella</i></b>	<b>Ashmead, 1899</b>				* newly included genus, see below for comment
<i>alticineta</i>	(Lepeletier, 1841)	B	M	S	* valid name (nec <i>T. ruficornis</i> Fabricius, 1804)
<i>dentata</i>	(Germar, 1839)	(b)	M	S	* see below for comment
<i>fulvescens</i>	Giraud, 1863		M	S	* see below for comment
<i>graia</i>	(Eversmann, 1852)			S?	* see below for comment
<i>inulae</i>	(Tkalců, 1979)		M	S	
<i>lyncea</i>	(Mocsáry, 1879)			S?	* see below for comment
<i>nana</i>	(Morawitz, 1874)		M	S	
<i>pollinosa</i>	(Lepeletier, 1841)			S	
<i>salicariae</i>	(Lepeletier, 1841)		M	S	
<i>scabiosae</i>	(Mocsáry, 1881)			S	
<b><i>Synhalonia</i></b>	<b>Patton, 1879</b>				* newly included genus, see below for comment
<i>berlandi</i>	(Dusmet, 1926)			S?	* see below for comments
<i>hungarica</i>	(Friese, 1895)	x	M	S	* see below for comments
<i>tricincta</i>	(Erichson, 1835)			S	

***Epeolus tarsalis* Morawitz, 1873** – conditionally removed from the list of the Slovak bee fauna.

No reliable record exists from Slovakia. The species was recorded in Austria - Burgenland and Niederösterreich (SCHWARZ et al., 1996). The same applies to host species *Colletes collaris*; (PŘIDAL, 2001).

***Triepeolus* Robertson, 1901** genus is considered by MICHENER (2000) as a subgenus of ***Doeringiella* Holmberg, 1886**. There are several inconsistent characters in *Doeringiella* s.l.; as a result, *Triepeolus* is a generic taxon in this paper.

***Eucera eucnemidea* Dours, 1873** – removed from the list of the Slovak bee fauna.

Record by STANĚK (1961) from Slovakia (Štúrovo) is a misidentification of *E. nigrifacies* (RISCH, 1997).

***Eucera graeca* Radoszkowski, 1876**

The removed name of *E. nitidiventris*, Mocsáry, 1879, is a junior subjective synonym. *E. graeca* is not a junior subjective synonym to *E. proxima* Morawitz, 1875, as published by SITDIKOV & PESENKO (1988) (TKALCŮ, 2001 personal communication).

***Eucera pollinosa* Smith, 1854** (*E. polonica* Ruszkowski, 1994 syn.)

Removed name *E. chrysopyga* Pérez, 1879 is a junior subjective synonym.

The both paratypes of *Eucera polonica* was studied in Puławy at the convenience of the Apicultural Conference in 2000. In spite of the wrong condition of the paratypes it was found that *E. polonica* is fully conspecific with *E. pollinosa*. Therefore, the name *E. polonica* Ruszkowski, 1994 is a junior subjective synonym to *E. pollinosa* Smith, 1854. The holotype

was not studied within my visit in Puławy because it has been lent out by Prof. J. Banaszak from Bydgoszcz. The both paratypes are worn – hairs are raw and distal margin of wings is not integral. Identification of such specimens is difficult and it was probably the reason of Ruszkowski's misidentification. Locality labels is written only with a graphite pencil. The holotype and the both paratypes are deposited in the Division of Apiculture in Puławy. *E. pollinosa* is missing in Puławy at present (RUSZKOWSKI & BILIŃSKI, 2000 – pers. comm.).

***E. taurica* Morawitz, 1871** - conditionally removed from the list of the Slovak bee fauna.

Removed name *E. spectabilis* Mocsáry, 1881 is a junior subjective synonym to *E. taurica*. KOCOUREK's (1989) record of *E. hispana* in Slovakia is a misidentification – probably *E. hispana* auct. (nec Lepeletier, 1841) = either *E. taurica* or *E. pannonica* Mocsáry, 1878. One record exists in Pádr's card index: „SK, Štúrovo, 16.VI.1957, 1 male, lgt. Pádr.“ but it is unreliable record because several misidentifications of Eucerini species have been found in Pádr's collection! The occurrence of both species *E. taurica* and/or *E. pannonica* is likely in the southmost area of Slovakia after a series of warm years because the species was recorded in Hungary (TKALCŮ, 1997 – pers. comm.).

***Eucera rufipes* Smith, 1879** - conditionally removed from the list of the Slovak bee fauna.

The removed name of *E. platyrrhina* Pérez, 1902 is a junior subjective synonym to *E. rufipes*. No reliable record of this species was found! However,

according to consultation with TKALCŮ (1997 – pers. comm.) the occurrence of this species is possible in eastern areas of Slovakia. Records of this species in southern areas of Slovakia are evident misidentifications!

There is even a further expected species in the eastern areas of Slovakia – *Eucera vittulata* Noskiewicz, 1934 (TKALCŮ, 1997 – pers. comm.). These eastern species likely migrate from east to west, therefore, detailed field faunistic investigations in eastern and especially southeastern areas of Slovakia are important for better knowledge of Eucerini distribution in Slovakia.

*Tetralonia malvae* (Rossi, 1790) – is missing in Bohemia.

The species is not a contemporary representative of the Bohemian bee fauna! There is only one historical record by Kubes (1904), though probably a misidentification.

A recent record from Moravia:

Bzenec-přívov (Váté písky), 7069, 25.VII.1999, 5 males, A. Přidal coll., lgt. et det. (confirmed by B. Tkalců).

*Tetraloniella dentata* (Germar, 1839) – is missing in Bohemia.

The species is not a contemporary representative of the Bohemian bee fauna! There is only one historical record by Kubes (1904), though probably a misidentification.

*Tetraloniella fulvescens* Giraud, 1863

Removed name *T. acutangula* Morawitz, 1876 is a junior subjective synonym. Recent record:

Moravia, Troubsko u Brna, 23.VII.1998, 6864, 1 female, lgt. coll. et det. A. Přidal confirmed by B. Tkalců.

*Tetraloniella graia* (Eversmann, 1852) – conditionally removed from the species list of the Slovak bee fauna.

Only one record was checked in Pádr's card index - "Somotor". Another unreliable record is found in Austria (SCHWARZ et al., 1996). With regard to the known distribution in Europe, it probably is a misidentification; therefore, the species is conditionally removed from the list until a new record is found.

*Tetraloniella lyncea* (Mocsáry, 1879) – conditionally removed from the species list of the Slovak bee fauna.

The species is known only from the list by KOCOUREK (1989). It is probably a misidentification - with regard to known distribution in Europe; therefore, the species is conditionally removed from the list until a new record is found.

*Synhalonia berlandi* (Dusmet, 1926) – conditionally removed from the species list of the Slovak bee fauna.

The removed name *S. ruficollis* (Brullé, 1832) is a junior subjective synonym recorded by BALTHASAR (1952) in Slovakia; however, with regard to the known distribution in Europe, it is probably a misidentification; therefore, the species is conditionally removed from the list until a new record is found! SCHWARZ et al. (1996) states only an unreliable record from Austria, too.

*Synhalonia hungarica* (Friese, 1895) – is not representative of the Bohemian bee fauna.

Recent record from Moravia: Čejč, 7067, 2.VI.2001, 1 male, lgt. K. Holý & A. Přidal, coll. et det. A. Přidal.

Several following genera which are absent in the list by KOCOUREK (1989) are included: *Tetraloniella*, *Synhalonia* and *Pseudeucera*. Several different opinions held by different authors currently exist.

According to BAKER (1998), the following taxa *Tetralonia*, *Tetraloniella*, *Eucera*, *Synhalonia*, *Cubitalia*, *Melissina* and *Glazunovia* are genera.

MICHENER (2000) classifies these genera in the following way: *Tetralonia*, *Tetraloniella* (s.str. and further two subgenera from Mexico), *Tetraloniella* (*Glazunovia*), *Melissina* as a synonym to *Tetraloniella*, *Eucera* (*Synhalonia*) and other subgenera, *Cubitalia* (*Opacula*), *Cubitalia* (*Pseudeucera*).

TKALCŮ (2001 – pers. comm.) informed me as follows: *Tetralonia* (s. str., *Synhalonia*, *Tetraloniella*), *Eucera* (with subgenera), *Pseudeucera*, *Opacula* is synonym to *Pseudeucera*, *Cubitalia*, *Melissina* and *Glazunovia*. A similar classification was proposed by SITDIKOV & PESENKO (1988).

RISCH (1999, 2001) built up further conception as follows: *Eucera* (*Cubitalia* and further subgenera), *Pseudeucera* and *Opacula* are synonyms to *Cubitalia*, *Tetralonia* (s. str., *Tetraloniella*, *Glazunovia*).

Since the argumentation of individual conceptions are inconsistent and some species remain *incertae sedis*, the following genera *Tetralonia*, *Tetraloniella*, *Synhalonia*, *Eucera* (with subgenera) and *Pseudeucera* are at the generic position in this paper until a recent analysis of the world eucerine bees is carried out. Application of this principle pursues not to rub off existing supraspecific differences among individual species. The same method is used in this paper in case of the likewise complicated situation in Megachilinae. Generic position of *Synhalonia* seems to be right due to the well differentiated four species groups as follows: berlandi, hungarica, tricincta and cuniculina (TKALCŮ, 2001 – pers. comm.).

Anthophorini

<b><i>Anthophora</i></b>	<b>Latreille, 1803</b>				
<i>aestivalis</i>	(Panzer, 1801)	B	M	S	
<i>borealis</i>	Morawitz, 1864	B	M	S	
<i>crassipes</i>	Lepeletier, 1841		M	S	
<i>crinipes</i>	Smith, 1854	(b)	M	S	* for Bohemia only old record by BAŘA (1955)
<i>plagiata</i>	(Illiger, 1806)	(b)	M	S	* for Bohemia only old record by KREJČÍ (1915)
<i>plumipes</i>	(Pallas, 1772)	B	M	S	
<i>pubescens</i>	(Fabricius, 1781)	B	M	S	
<i>quadrimaculata</i>	(Panzer, 1798)	B	M	S	
<i>retusa</i>	(Linnaeus, 1758)	B	M	S	
<b><i>Clisodon</i></b>	<b>Patton, 1879</b>				
<i>furcatus</i>	(Panzer, 1798)	B	M	S	
<b><i>Heliophila</i></b>	<b>Klug, 1807</b>				
<i>bimaculata</i>	(Panzer, 1798)	B	M	S	
<b><i>Amegilla</i></b>	<b>Friese, 1897</b>				
<i>albigena</i>	(Lepeletier, 1841)		M	S	
<i>garrula</i>	(Rossi, 1790)			S	
<i>magnilabris</i>	(Fedtschenko, 1875)			S	
<i>quadrifasciata</i>	(Villers, 1789)	(b)	M	S	* for Bohemia only old record by KREJČÍ (1915)
<i>salviae</i>	(Morawitz, 1876)			S	

Melectini

<b><i>Melecta</i></b>	<b>Latreille, 1802</b>				
<i>aegyptiaca</i>	Radoszkowski, 1876		M	S	* see below for comment
<i>albifrons</i>	(Forster, 1771)	B	M	S	
<i>luctuosa</i>	(Scopoli, 1770)	B	M	S	
<b><i>Thyreus</i></b>	<b>Panzer, 1806</b>				
<i>affinis</i>	Morawitz, 1873			S	
<i>histrionicus</i>	(Illiger, 1806)	(b)	M	S	* see below for comment
<i>orbatus</i>	(Lepeletier, 1841)	B	M	S	
<i>ramosus</i>	(Lepeletier, 1841)			S	
<i>truncatus</i>	(Pérez, 1883)			S	

***Melecta aegyptiaca* Radoszkowski, 1876** – new species for the Czech Republic – Moravian territory.

The species is notably distributed in Hungary, and several records come from Slovakia (LIEFTINCK, 1980).

New record for the Czech Republic:

Moravia mer. or., Uherské Hradiště – Mikovice, 6971, approx. 1935, 1 male, lgt. A. Hoffer, coll. et det. B. Tkalců.

***Thyreus histrionicus* (Illiger, 1806)** – is missing in Bohemia.

Record by TKALCŮ (1974) is a misidentification of *T. orbatus* (the checked specimen is present in collection of Mr Tkalců). STRAKA (in litt., 2003) found several specimens in coll. NMP from several Bohemian localities. However, these records are very old and no other records have yet been found. Therefore, the species is missing in Bohemia.

## APIDAE

## Apinae

Bombini

					* adapted conception of the supraspecific classification
<b><i>Confusibombus</i></b>	<b>Ball, 1914</b>				
<i>confusus</i>	(Schenck, 1861)	B	M	S	
<b><i>Bombus</i></b>	<b>Latreille, 1802</b>				
<i>cryptarum</i>	(Fabricius, 1775)	<b>B</b>	<b>M</b>	<b>S</b>	* see below for comments
<i>lucorum</i>	(Linnaeus, 1761)	B	M	S	
<i>magnus</i>	Vogt, 1911	<b>B</b>	<b>M</b>	?	* see below for comments
<i>terrestris</i>	(Linnaeus, 1758)	B	M	S	
<b><i>Alpigenobombus</i></b>	<b>Skorikov, 1914</b>				
<i>wurflenii</i>	(Radoszkowski, 1859)	B	M	S	* corrected spelling of species name
<b><i>Pyrobombus</i></b>	<b>Dalla Torre, 1880</b>				
( <i>Cullumanobombus</i> )	Vogt, 1911				
<i>semeniellus</i>	(Skorikov, 1910)	<b>B</b>			* commentary in PRÍDAL & TKALCŮ (2003)
( <i>Kallobombus</i> )	Dalla Torre, 1880				
<i>soroensis</i>	(Fabricius, 1776)	B	M	S	
( <i>Melanobombus</i> )	Dalla Torre, 1880				
<i>lapidarius</i>	(Linnaeus, 1758)	B	M	S	
<i>sicheli</i>	(Radoszkowski, 1859)		<b>M</b>	<b>S</b>	* commentary in PRÍDAL & TKALCŮ (2003)
( <i>Pyrobombus</i> s.str.)					
<i>hypnorum</i>	(Linnaeus, 1758)	B	M	S	
<i>jonellus</i>	(Kirby, 1802)	B	M	S	* see below for remark
<i>pratorum</i>	(Linnaeus, 1761)	B	M	S	
<i>pyrenaicus</i>	(Pérez, 1879)			S	
<b><i>Megabombus</i></b>	<b>Dalla Torre, 1880</b>				
( <i>Laesobombus</i> )	Krüger, 1920				
<i>mocsaryi</i>	(Kriechbaumer, 1877)			S	* valid name [nec <i>M. laesus</i> (Morawitz, 1875)]
<i>sidemii</i>	(Radoszkowski, 1888)	<b>B</b>	<b>M</b>	?	* commentary in TKALCŮ (1999)
( <i>Megabombus</i> s.str.)					
<i>argillaceus</i>	(Scopoli, 1763)			S	
<i>hortorum</i>	(Linnaeus, 1761)	B	M	S	
<i>runderatus</i>	(Fabricius, 1775)	B	M	S	
( <i>Rhodobombus</i> )	Dalla Torre, 1880				
<i>armeniacus</i>	(Radoszkowski, 1877)		M		
<i>mesomelas</i>	(Gerstaecker, 1869)	B	M	S	* available name
<i>pomorum</i>	(Panzer, 1805)	B	M	S	
( <i>Subterraneobombus</i> )	Vogt, 1911				
<i>distinguendus</i>	(Morawitz, 1869)	B	M	S	
<i>fragrans</i>	(Pallas, 1771)		M	S	
<i>subterraneus</i>	(Linnaeus, 1758)	B	M	S	
( <i>Thoracobombus</i> )	Dalla Torre, 1880				
<i>humilis</i>	(Illiger, 1806)	B	M	S	
<i>muscorum</i>	(Linnaeus, 1758)	B	M	S	

<i>pascuorum</i>	(Scopoli, 1763)	B	M	S	* available name
<i>ruderarius</i>	(Müller, 1776)	B	M	S	
<i>sylvarum</i>	(Linnaeus, 1761)	B	M	S	
<i>veteranus</i>	(Fabricius, 1793)	B	M	S	* available name
<b><i>Psithyrus</i></b>	Lepeletier, 1832				* cleptoparasitic taxon
( <i>Ashtonipsithyrus</i> )	Frison, 1927				
<i>bohemicus</i>	(Seidl, 1837)	B	M	S	
<i>vestalis</i>	(Geoffroy, 1785)	B	M	S	
( <i>Fernaldaepsithyrus</i> )	Frison, 1927				
<i>norvegicus</i>	Sparre-Schneider, 1918	B	M	S	
<i>quadricolor</i>	Lepeletier, 1832	B	M	S	
<i>sylvestris</i>	Lepeletier, 1832	B	M	S	
( <i>Psithyrus</i> s.str.)					
<i>rupestris</i>	(Fabricius, 1793)	B	M	S	
( <i>Metapsithyrus</i> )	Popov, 1931				
<i>campestris</i>	(Panzer, 1801)	B	M	S	
( <i>Allopsithyrus</i> )	Popov, 1931				
<i>barbutellus</i>	(Kirby, 1802)	B	M	S	
<i>maxillosus</i>	(Klug, 1817)	B	M	S	
<b><u>Apini</u></b>					
<b><i>Apis</i></b>	Linnaeus, 1758				
( <i>Apis</i> s.str.)					
<i>mellifera</i>	Linnaeus, 1758	B	M	S	* see below for comments

The zoological classification of Bombini proposed by TKALCŮ (1972, 1974a, 1974b) is followed in this paper. The present position of *Laesobombus* is followed with regard to classification proposed by WILLIAMS (1985, 1991 & 1994) and MICHENER (2000) in spite of minute differences (namely in females). However, TKALCŮ (1999 pers. comm.) discovered different hair patterns on the 6<sup>th</sup> abdominal tergite in females of *Laesobombus* and *Thoracobombus*. It seems to be an added reason calling for a separation of this taxon from *Thoracobombus* subgenus.

Because all in table mentioned taxa could be exactly discriminated in diagnostic key in both sexes, they are retained at differentiated positions until new arguments occur. The practice follows the tendency not to rub off the supraspecific differences among individual species groups because the orientation in the large group of *Bombus* s.l. starts getting too hard. The same method is, moreover, used in this paper in case of other groups (e.g. Megachilidae or Eucerini, see above).

***Bombus cryptarum* (Fabricius, 1775)** – newly included species into the faunistic list of the Czech Republic and Slovakia.

Records of this species for the Czech Republic were published by TKALCŮ (1999). RASMONT (1986, p. 152) published Reinig's record from Slovakia (Tatra region).

There are recent records from Moravia:

West Carpathians, Vsetín hills, Bečvice (top of Vysoká hill cca 900 m), 6576, 23.V.2003, *Vaccinium myrtillus*, 2 females, det. A. Přidal; White Carpathians Mts., Velká Javořina (970 m), 7172, 28.VII.1999, 1 male, lgt., coll. et det. A. Přidal & B. Tkalců.

***Bombus magnus* Vogt, 1911** – newly included species into the faunistic list of the Czech Republic and new species for Moravia.

Records from Bohemia were published by TKALCŮ (1974).

New records for Moravia are as follows:

Moravia bor.: Jeseníky, Skalské rašeliniště (6069), 8.VIII.1998, lgt. Bezděčka, Moravia or.: White Carpathians Mts., Petrůvka, 6972, 31.VIII.1997, Kochavec, 6972, 13.IX.1997, leg. A. Přidal, Mikulčín vrch, 7072, 26.VIII.1998, lgt. Bezděčka, det. B. Tkalců et A. Přidal.

The occurrence of *B. magnus* in Slovakia is probable because White Carpathians border on Slovakia. However, BANASZAK & RASMONT (1994) this species was not found in the Polish Tatra region. TKALCŮ (1997 – pers. comm.) has the same experience from a lot of trips made into the area of the Slovak Tatra



region. Also, no record was found by KOSIOR (1990).

***Pyrobombus (Pyrobombus) jonellus* (Kirby, 1802)**

Recent record from Moravia:

Jeseníky Mts., Rejvíz (moss) – 750 m above s.l., 5769, 19.VII.2003, 2 workers, Šerák (1351 m above s.l.), 5868, 2.VIII.2003, 1 worker, Králický Sněžník env. (1420 m above s.l.), 5767, 3.VIII.2003, 2 workers, lgt., coll. et det. P. Bezděčka, Červenohorské sedlo, 5868, 21.VII.2003, 1 worker, lgt. et coll. P. Bezděčka; West Carpathians, Vsetín hills, Bečvice (top Vysoká cca 900 m), 6576, 23.V.2003, *Vaccinium myrtillus*, 2 females, 6 workers, lgt. P. Ocknecht & A. Přidal, coll. et det. A. Přidal.

***Megabombus (Thoracobombus) sidemii* (Radoszkowski, 1888)** – newly included species into the faunistic list of the Czech Republic – both Bohemian and Moravian territories.

TKALCŮ (1999) published several old records from Bohemia and Moravia. These records have not yet been repeated.

The occurrence of this species in Slovakia is highly likely because RUSZKOWSKI et al. (1980) discovered the species in the surroundings of Babia góra 1725 m above s.l. The peak is located on the common Poland/Slovak border! Nonetheless, to find this species is by no means a trifle as the density of its populations usually is scarce; therefore, recognition should be systematic.

***Alpigenobombus wurflenii* (Radoszkowski, 1859)**

Recent records from Moravia:

West Carpathians, Jeseníky Mts., Kurzovka, 5969a, 2.VII.2000, 1 male, Praděd (1491 m), 5969a, 2 workers, Vidly, 5869, 25.VIII.2001, 6 males, 3 workers, lgt. et coll. P. Bezděčka, coll. partim A. Přidal; Vsetín hills, Bečvice (top Vysoká cca 900 m), 6576, 23.V.2003, *Vaccinium myrtillus*, 2 females, lgt. P. Ocknecht & A. Přidal, coll. A. Přidal, everything det. A. Přidal.

***Apis (Apis) mellifera* Linnaeus, 1758**

Several remarks on subspecies in the Czech Republic and Slovakia (PŘIDAL, in press):

***Apis mellifera mellifera* Linnaeus, 1758** - autochthonous subspecies in Bohemia and Moravia (excepting of south eastern Moravia)

***Apis mellifera carnica* Pollmann, 1879** - autoch-

thonous subspecies in Slovakia (Carpathian ecotype) and partly in south eastern Moravia (Carniolan ecotype)

introduced subspecies and their ecotypes:

***Apis m. mellifera*, *Apis m. ligustica* Spinola, 1806** and ***A. m. caucasica* Pollmann, 1889** – are systematically suppressed by cross-breeding after the World War II (the same case as in Austria).

***Apis m. carnica* Pollmann, 1879** – introduction of alpine and Carpathian ecotypes is currently in progress – it is only one the admissible race of honey bee in the Czech Republic.

***Apis m. lamarckii* Cockerell, 1906** and ***Apis m. cyprina* Pollmann, 1879** were bred by J. G. Mendel in Brno (South Moravia) over the period of 1860 – 1880.

**ERRATA**

All distorted names „P. Bogush (Buzice)“ published in PŘIDAL (1999) have to be replaced by proper names P. Bogusch (Blatná). I would like to apologise to him in this way and thank him for having noticed me the lapse.

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## SOUHRN

### Úplný seznam včel České republiky a Slovenska s poznámkami k jejich rozšíření a taxonomii (Insecta: Hymenoptera: Apoidea)

Poslední úplný seznam včel někdejšího Československa vyšel naposledy v roce 1989. Od této doby se mnohé změnilo a nešlo vždy jen o nové či jinak revidované nálezy, ale i o vlastní revizi tohoto naposledy vydaného seznamu. Úplný komentovaný seznam včel čeledi Colletidae vyšel v roce 2001. Od té doby další aktualizace nevyšly. Vzhledem k tomu, že vypracování podrobného komentovaného seznamu si vezme ještě nějaký čas, cílem této práce je přehledně shrnout poznatky o rozšíření včel v České republice a na Slovensku v souhrnném aktualizovaném seznamu.

V tomto novém seznamu jsou odstraněny dřívější chyby (synonyma, způsoby psaní, revidované rozšíření aj.) a přeplepy v seznamu z roku 1989. Dále jsou zde uvedeny nové nálezy z literatury, sdělené kolegy či vlastní. Aby byla použita jen jména platná a použitelná, vyžadovalo sestavení faunistického seznamu také kontrolu platnosti přes 750 jmen druhové skupiny a více jak 140 jmen skupiny rodu.

V **Čechách** bylo celkově zjištěno **431** vyskytujících se druhů. Z toho nově zařazených podle nálezů **4** druhy a podle literatury **3** druhy. Z fauny Čech bylo podmíněčně vyřazeno **5** druhů, za nezvěstné bylo označeno **10** druhů, vyřazeno **11** druhů a u **1** druhu se výskyt nevylučuje.

Na **Moravě** bylo celkově zjištěno **543** vyskytujících se druhů. Z toho nově zařazených druhů podle nálezů **17** a podle literatury **6** druhů. Z fauny Moravy bylo podmíněčně vyřazeno **8** druhů, za nezvěstný byl označen **1** druh, vyřazeno **6** druhů a u **5** druhů se výskyt nevylučuje.

Na **Slovensku** bylo celkově zjištěno **625** vyskytujících se druhů. Z toho nově zařazených druhů podle nálezů **17** a podle literatury **14** druhů. Z fauny Slovenska bylo podmíněčně vyřazeno **17** druhů, žádný druh není nezvěstný, vyřazeno bylo **10** druhů a u **13** druhů se výskyt nevylučuje. Proto se doporučuje intenzivní výzkum na Slovenském území.

Celkem bylo zjištěno v **České republice a na Slovensku 655** vyskytujících se druhů. Z toho v České republice **555** a na Slovensku **625**. S přihlédnutím na strukturu a polohu území obou republik lze považovat faunu jejich včel za srovnatelnou s okolními státy střední Evropy.

Nejvýznamnější nálezy druhů jsou: *Hylaeus trinotatus* (Pérez, 1895) [Slovakia], *Andrena pontica* Warncke, 1972 [Moravia], *Halictus resurgens* Nurse, 1903 [S], *H. smaragdulus* Vachal, 1895 [M, S], *Lasioglossum bavaricum* (Blüthgen, 1930) a *L. cupromicans* (Pérez, 1903) [S], *L. lissonotum* (Noskiewicz, 1926) [M, S], *Sphécodes majalis* Pérez, 1903 a *Melitta wankowiczi* (Radoszkowski, 1891) [S], *Megachile flabellipes* Pérez, 1895 [M], *Coelioxys alata* Förster, 1853 [S], *Anthidium septemspinum* Lepelletier, 1841 a *Melecta aegyptiaca* Radoszkowski, 1876 [M], *Pyrobombus (Cullumanobombus) semenoviellus* (Skorikov, 1910) [Bohemia] a *P. (Melanobombus) sicheli* (Radoszkowski, 1859) [M, S]. *Pseudoanthidium scapulare* (Latreille, 1809) – **nom. et sp. rev.** – není konspicické s *P. lituratum* (Panzer, 1801). *Eucera polonica* Radoszkowski, 1994 je mladší subjektivní synonymum k *E. pollinosa* Smith, 1854.

faunistika, supraspecifická taxonomie, včely, Insecta, Hymenoptera, Apoidea, Česká republika, Slovensko, nové nálezy, *Pseudoanthidium scapulare*, *Eucera polonica*

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