MUSEUM & INSTITUTE OF ZOOLOGY
POLISH ACADEMY OF SCIENCES

FRAGMENTA FAUNISTICA

Fragm. faun.	Warsaw, 30.12.2000	43	14	135–193

Józef BANASZAK

A checklist of the bee species (*Hymenoptera, Apoidea*) of Poland, with remarks on their taxonomy and zoogeography: revised version

Abstract: The list of bee species (*Hymenoptera, Apoidea*) and their synonyms reported from the present area of Poland was made on the basis of literature and original research. A total of 469 species and subspecies of 52 genera found within Poland are listed. Of this number, the occurrence of 15 species is considered doubtful, and another 9 species are likely to occur in Poland. Some information on the taxonomy and distribution of less frequent taxa is supplied.

Key words: fauna of Poland, bees, *Apoidea*

Author's address: Institute of Biology and Environmental Protection, Bydgoszcz University of Kazimierz Wielki, Chodkiewicza 30, 85-064 Bydgoszcz, POLAND.
e-mail: lednica@wsp.bydgoszcz.pl

INTRODUCTION

Although the first version of this checklist was published only 10 years ago (BANASZAK 1991), it already needs to be revised and updated. It should be noted that the checklist of *Apoidea* of Poland published a few years ago by DYLEWSKA (1997), contains many mistakes and in the light of latest research most of its contents appear to be out of date. Our knowledge about the fauna of Polish bees has greatly increased thanks to field work and monographs of several important groups. It must be stressed that the bodies of researchers (much larger than ever before) were particularly active in the last decade of the 20th century. Their hard work and significant contribution can be proved by the example of the large and seemingly well-studied bumble bees: in the past decade the occurrence of three new species was reported!

Moreover, the Institute of Biology and Environmental Protection, Bydgoszcz University of Kazimierz Wielki, employed as visiting professors a number of

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prominent scientists, such as Dr Yu. A. Pesenko from St. Petersburg, Dr V. Radchenko and Dr L. Romasenko from Kiev, who also contributed significantly to the verification and identification of the taxonomy of *Apoidea* of Poland. Some of the most important monographs that have been written recently by Polish and other researchers invited for cooperation include: Bumblebees of Poland (BANASZAK 1993), *Nomadini* (*Hymenoptera, Apoidea, Anthophoridae*) of Poland (CELARY 1995), Megachilid Bees of Europe (BANASZAK, ROMASENKO 1998), Bees of the Family *Halictidae* (Excluding *Sphecodes*) of Poland: Taxonomy, Ecology, Bionomics (PESENKO, BANASZAK, RADCHENKO, CIERZNIAK 2000). The last work in particular permitted to verify nearly all the Polish collections of halictid bees, which are exceptionally difficult to identify. It was found that almost 50% of old collections had been incorrectly identified by faunists. This means that their papers are no longer valid and useful.

The checklist of *Apoidea* recorded in Poland includes 469 species (previously 454 species). The present list is supplemented with 28 new species found in the past decade as a result of either special field research or revision of identification of specimens collected earlier. At the same time a number of species that were earlier mentioned in various faunistic works as new for the Polish fauna proved to have been identified incorrectly. Consequently, the following 15 species listed in the previous checklist of *Apoidea* were removed from the list: *Halictus scabiosae* (ROSSI), *H. tetrazonius* (KLUG), *Lasioglossum breviventre* (SCHENCK), *L. laterale* (BRULLÉ), *L. pallens* (BRULLÉ), *Evylaeus puncticollis* (MORAWITZ), *E. pygmaeus* (SCHENCK), *E. smeathmanellum* (KIRBY), *Camptopoeum frontale* (FABRICIUS), *Hoplitis tuberculata* (NYLANDER), *Megachile bombycina* (RADOSZKOWSKI), *M. genalis* (MORAWITZ), *M. maacki* (RADOSZKOWSKI), *Nomada trapesiformis* (SCHMIEDEKNECHT), and *N. baccata* (SMITH). The above changes introduced to the present checklist, compared to the previous one, refer to 43 taxa altogether, so they account for nearly 10% of all the species.

The checklist presented below includes amendments concerning nomenclature, species distribution and recent developments in this branch of science. Readers that are less familiar with the history of research on *Apoidea* in Poland are referred to the first version of the checklist, in which the problem is discussed.

The correct names of species recorded in the past 50 years were provided with ordinal numbers. For instance:

1. *Colletes* (*Elecolletes*) *caspicus* MORAWITZ, 1874.

For species reported earlier, whose occurrence was not confirmed in the past 50 years and is thus doubtful, ordinal numbers were enclosed in square brackets. For instance:

[428.] *Bombus* (*Melanobombus*) *sicheli* (RADOSZKOWSKI, 1859).

The names of species which are likely to occur in Poland but have not been adequately documented are not numbered but only preceded by a dash. For instance:

— *Bombus* (*Cullumanobombus*) *cullumanus* (KIRBY, 1802).

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Synonyms, as well as nomina dubia, are mentioned twice: (1) after the correct name of the species and (2) in alphabetical order but with no ordinal. For instance:

Bombus agrorum (FABRICIUS) – see *B. pascuorum*!

SYSTEMATIC SUMMARY OF POLISH BEES
(after MICHENER 1944, 1974)

Superfamily: *Apoidea*

(in parenthesis number of species)

1. Family: *Colletidae*

1. Genus: *Colletes* LATREILLE, 1802	(13)
2. Genus: *Hylaeus* FABRICIUS, 1793	(29)

2. Family: *Andrenidae*

1. Genus: *Andrena* FABRICIUS, 1775	(94)
2. Genus: *Melitturga* LATREILLE, 1809	(1)
3. Genus: *Panurgus* PANZER, 1806	(2)
4. Genus: *Panurginus* NYLANDER, 1848	(1)
5. Genus *Camptopoeum* SPINOLA, 1843	(–)

3. Family: *Halictidae*

1. Genus: *Dufourea* LEPELETIER, 1841	(4)
2. Genus: *Rhophitoides* SCHENCK, 1861	(1)
3. Genus: *Rophites* SPINOLA, 1808	(3)
4. Genus: *Systropha* ILLIGER, 1806	(2)
5. Genus: *Nomiapis* COCKERELL, 1919	(2)
6. Genus: *Nomioides* SCHENCK, 1867	(1)
7. Genus: *Halictus* LATREILLE, 1804	(6)
8. Genus: *Seladonia* ROBERTSON, 1918	(6)
9. Genus: *Lasioglossum* CURTIS, 1833	(13)
10. Genus: *Evylaeus* ROBERTSON, 1902	(43)
11. Genus: *Sphecodes* LATREILLE, 1804	(24)

4. Family: *Melittidae*

1. Genus: *Melitta* KIRBY, 1802	(6)
2. Genus: *Macropis* KLUG, in PANZER, 1802	(2)
3. Genus: *Dasypoda* LATREILLE, 1802	(3)

5. Family: *Megachilidae*

1. Genus: *Trachusa* PANZER, 1804	(1)
2. Genus: *Paranthidiellum* MICHENER, 1948	(1)

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3. Genus: *Anthidium* FABRICIUS, 1804 (3)
4. Genus: *Proanthidium* FRIESE, 1898 (1)
5. Genus: *Anthidiellum* COCKERELL, 1904 (1)
6. Genus: *Stelis* PANZER, 1806 (9)
7. Genus: *Dioxoides* POPOV, 1947 (1)
8. Genus: *Heriades* SPINOLA, 1808 (2)
9. Genus: *Chelostoma* LATREILLE, 1809 (6)
10. Genus: *Anthocopa* LEPELETIER, 1825 (6)
11. Genus: *Hoplitis* KLUG, 1807 (6)
12. Genus: *Osmia* PANZER, 1806 (18)
13. Genus: *Chalicodoma* LEPELETIER, 1841 (2)
14. Genus: *Megachile* LATREILLE, 1802 (18)
15. Genus: *Coelioxys* LATREILLE, 1809 (13)

6. Family: *Anthophoridae*

1. Genus: *Anthophora* LATREILLE, 1803 (8)
2. Genus: *Amegilla* FRIESE, 1897 (1)
3. Genus: *Melecta* LATREILLE, 1802 (2)
4. Genus: *Thyreus* PANZER, 1806 (3)
5. Genus: *Eucera* SCOPOLI, 1770 (4)
6. Genus: *Tetralonia* SPINOLA, 1838 (4)
7. Genus: *Xylocopa* LATREILLE, 1802 (2)
8. Genus: *Ceratina* LATREILLE, 1802 (2)
9. Genus: *Nomada* SCOPOLI, 1770 (49)
10. Genus: *Pasites* JURINE, 1807 (1)
11. Genus: *Ammobates* LATREILLE, 1809 (1)
12. Genus: *Biastes* PANZER, 1806 (3)
13. Genus: *Epeolus* LATREILLE, 1802 (4)
14. Genus: *Epeoloides* GIRAUD, 1863 (1)

7. Family: *Apidae*

1. Genus: *Bombus* LATREILLE, 1802 (30)
2. Genus: *Psithyrus* LEPELETIER, 1833 (9)
3. Genus: *Apis* LINNAEUS, 1758 (1)

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LIST OF SPECIES

Family *COLLETIDAE*

Genus *Colletes* LATREILLE, 1802

Taxonomy and systematical arrangement after WARNCKE (1978).

Subgenus *Elecolletes* WARNCKE, 1978

Colletes balticus ALFKEN – see *C. caspicus*!

1. *Colletes (Elecolletes) caspicus* MORAWITZ, 1874
   WARNCKE (1978) treats the Central European species *C. balticus* ALFKEN, 1913 as subspecies of the Western Palearctic one *C. caspicus* MORAWITZ. Known only from two localities in Poland: Baltic Coast (erroneously reported as *C. constrictus* PÉREZ, 1903 by ALFKEN (1912) and Lubelska Upland (NOSKIEWICZ 1959).
2. *Colletes (Elecolletes) hylaeiformis* EVERSMANN, 1852
   Meridional species, lately found in Lubelska Upland (vicinity of Zamość) (KOSIOR, FIJAŁ 1992).

Subgenus *Simcolletes* WARNCKE, 1978

3. *Colletes (Simcolletes) daviesanus* SMITH, 1846
4. *Colletes inexpectatus* NOSKIEWICZ, 1936
   WARNCKE (1978) regarded *C. inexpectatus* NOSKIEWICZ, 1936 as synonymus with *C. daviesanus* SMITH, 1846. After PŘIDAL (1999) *C. inexpectatus* species revocata and *C. daviesanus* are distinctive species. Reported in south-eastern Poland.
5. *Colletes (Simcolletes) fodiens* (FOURCROY, 1785)
   Colletes picistigma THOMSON – see *similis*!
6. *Colletes (Simcolletes) similis* SCHENCK, 1853
   Syn.: *C. picistigma* THOMSON, 1872.

Subgenus *Albocolletes* WARNCKE, 1978

7. *Colletes (Albocolletes) floralis* EVERSMANN, 1852
   Syn.: *C. montanus* MORAWITZ, 1876.
   Reported only from Nakło in Wielkopolsko-Kujawska Lowland (TORKA 1913) and from Mazovian Lowland (BANASZAK, PLEWKA 1981).
8. *Colletes (Albocolletes) impunctatus* NYLANDER, 1852
   Syn.: *C. alpinus* MORAWITZ, 1872.
   Known only from Baltic Coast (ALFKEN 1912, BLÜTHGEN 1919) and Mazovian Lowland (BANASZAK, PLEWKA 1981).
   Colletes montanus MORAWITZ – see *C. floralis*!

Subgenus *Colletes* LATREILLE s.str.

Colletes balteatus NYLANDER – see *succinctus*!

9. *Colletes (Colletes) marginatus* SMITH, 1846

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10. *Colletes (Colletes) succinctus* (LINNAEUS, 1758)
Syn.: *C. balteatus* NYLANDER, 1852.

Subgenus *Rhinocolletes* COCKERALL, 1910

11. *Colletes (Khinocolletes) nasutus* SMITH, 1853
12. *Colletes (Rhinocolletes) punctatus* MOCSARY, 1877
Subpontic species, known from one locality in Małopolska Upland (NOSKIEWICZ 1959).

Subgenus *Pachycolletes* BISCHOFF, 1954

Colletes hirtus LEPELETIER – see *C. cunicularius*!
13. *Colletes (Pachycolletes) cunicularius* (LINNAEUS, 1761)
Syn.: *C. hirtus* LEPELETIER, 1825.

Genus *Hylaeus* FABRICIUS, 1793
Syn.: *Prosopis* FABRICIUS, 1804

Taxonomy and identification after DATHE (1980). This generic name was a subject of controversy by long period because WARNCKE (1972) recommended the use of the name *Prosopis*, which had a long tradition. However, DATHE (1979, 1980) has been of opinion that according to International Code of Zoological Nomenclature the name *Hylaeus* should be applied on the principle of priority. I agree with the second author stressing, moreover, that the name *Hylaeus* has been in use long ago especially out of Europe and recently is more and more often applied also in this continent.

Subgenus *Prosopis* FABRICIUS s.str.

14. *Hylaeus (Prosopis) confusus* NYLANDER, 1852
Hylaeus genalis THOMSON – see *H. gibbus*!
15. *Hylaeus (Prosopis) gibbus* SAUNDERS, 1850
Syn.: *H. mixta* (SCHENCK, 1859).
H. genalis THOMSON, 1872.
Hylaeus kriechbaumeri FÖRSTER – see *H. pectoralis*!
Hylaeus mixta (SCHENCK) – see *H. gibbus*!
16. *Hylaeus (Prosopis) pectoralis* FÖRSTER, 1871
Syn.: *H. kriechbaumeri* FÖRSTER, 1871.
Hylaeus pratensis (FOURCROY) – see *H. signatus*!
17. *Hylaeus (Prosopis) signatus* (PANZER, 1798)
Syn.: *H. pratensis* (FOURCROY, 1785).
18. *Hylaeus (Prosopis) variegatus* (FABRICIUS, 1798)
Rare species in Poland.

Subgenus *Dentigera* POPOV, 1939

19. *Hylaeus (Dentigera) brevicornis* NYLANDER, 1852
20. *Hylaeus (Dentigera) gredleri* FÖRSTER, 1871
Till now *H. gredleri* has not been recorded from Poland. Recently, the species was found in three sites of southern Poland (CELARY 1999).

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Subgenus *Paraprosopis* POPOV, 1939

21. *Hylaeus (Paraprosopis) clypearis* (SCHENCK, 1853)
Reported only from few stands in Western Poland (SOLGER 1927, SZULCZEWSKI 1948, NOSKIEWICZ 1950). Should be checked.
Hylaeus minutus (FABRICIUS) – see *H. sinuatus*!
22. *Hylaeus (Paraprosopis) pictipes* NYLANDER, 1852
23. *Hylaeus (Paraprosopis) sinuatus* (SCHENCK, 1853)
Syn.: *H. minutus* (FABRICIUS, 1793).
24. *Hylaeus (Paraprosopis) styriacus* FÖRSTER, 1871
Rare species in Poland.

Subgenus *Hylaeus* FABRICIUS, 1793

25. *Hylaeus (Hylaeus) angustatus* (SCHENCK, 1859)
26. *Hylaeus (Hylaeus) annulatus* (LINNAEUS, 1758)
Syn.: *H. borealis* NYLANDER, 1852.
27. *Hylaeus (Hylaeus) bisinuatus* FÖRSTER, 1871
Syn.: *H. leptocephala* (MORAWITZ, 1871).
Reported form single localities by out of date entomologists. Its occurrence should be checked.
Hylaeus borealis NYLANDER – see *H. annulatus*!
28. *Hylaeus (Hylaeus) cardioscapus* COCKERELL, 1924
Till now *H. cardioscapus* has not been recorded from Poland. There localities from southern Poland of this species are given herein (CELARY 1999).
29. *Hylaeus (Hylaeus) communis* NYLANDER, 1852
30. *Hylaeus (Hylaeus) gracilicornis* (MORAWITZ, 1867)
Hylaeus lepidulus COCKERELL – see *H. paulus*!
31. *Hylaeus (Hylaeus) paulus* BRIDWELL, 1919
Syn.: *H. lepidulus* COCKERELL, 1924
Up to now the species has been recorded only from Siberia as *H. lepidulus* (DATHE 1986). However Dathe's latest studies result in the fact that taxon *H. gracilicornis* auct. include two species: *H. gracilicornis* (MORAWITZ, 1867) and *H. lepidulus* (COCKERELL, 1924). Both species are of eurosiberian distribution. In Europe *H. lepidulus* is recorded in Austria, Germany, Poland and Russia. In Poland: reported from Rogaczewo near Leszno (DATHE et al. 1996, BANASZAK 2000). Recently, the species was found in two sites of southern Poland (CELARY 1999).
Hylaeus leptocephala (MORAWITZ) – see *H. bisinuatus*!
32. *Hylaeus (Hylaeus) moricei* (FRIESE, 1898)
H. moricei luteifrous (STRAND, 1909).
Reported only by PAWLIKOWSKI (1993) from Inowrocław (Wielkopolsko-Kujawska Lowland).
33. *Hylaeus (Hylaeus) nigritus* (FABRICIUS, 1798)
Syn.: *H. propinquus* NYLANDER, 1852.
Hylaeus propinquus NYLANDER – see *H. nigritus*!

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Subgenus *Patagiata* BLÜTHGEN, 1949

34. *Hylaeus (Patagiata) difformis* (EVERSMANN, 1852)
Syn.: *H. subfasciatus* (SCHENCK, 1867). Loc. typ.: Gdańsk.
Hylaeus subfasciatus (SCHENCK) – see *H. difformis*!

Subgenus *Lambdopsis* POPOV, 1939

35. *Hylaeus (Lambdopsis) annularis* (KIRBY, 1802)
Syn.: *H. dilatata* (KIRBY, 1802).
H. cervicomis (COSTA, 1858).
Hylaeus cervicomis (COSTA) – see *H. annularis*!
Hylaeus dilatata (KIRBY) – see *H. annularis*!
Hylaeus gerstaeckeri (HENSEL) – see *H. rinki*!
36. *Hylaeus (Lambdopsis) euryscapus* FÖRSTER, 1871
Known only from two localities near Chełmno (RAFA, PAWLIKOWSKI 1999)

37. *Hylaeus (Lambdopsis) pfankuchi* (ALFKEN, 1919)
Known from Biebrza National Park (BANASZAK, KRZYSZTOFIAK 1996).
38. *Hylaeus (Lambdopsis) rinki* (GORSKI, 1852)
Syn.: *H. gerstaeckeri* (HENSEL, 1870).
Rare species. Reported from few localities.

Subgenus *Kaptogaster* ALFKEN, 1912

39. *Hylaeus (Kaptogaster) punctulatissimus* SMITH, 1842
Rare species. Reported from few localities.

Subgenus *Abrupta* POPOV, 1939

40. *Hylaeus (Abrupta) cornutus* CURTIS, 1831
Reported from Wielkopolsko-Kujawska Lowland (Nakło) by TORKA (1913), PAWLIKOWSKI (2000) and from Lubelska Upland (Puławy) by RUSZKOWSKI and GOSEK (1999).

Subgenus *Spatulariella* POPOV, 1939

41. *Hylaeus (Spatulariella) hyalinatus* SMITH, 1842
42. *Hylaeus (Spatulariella) punctatus* (BRULLÉ, 1832)
Submediterranean species, known only from few stands in southern Poland (NOSKIEWICZ 1959) and in Wielkopolsko-Kujawska Lowland (Poznań) (BANASZAK 1976 b).

Family *ANDRENIDAE*

Genus *Andrena* FABRICIUS, 1775

Taxonomy and systematical arrangement after WARNCKE (1967, 1968) and OSYTSHNJUK (1978). Key for identification: OSYTSHNJUK (1978), DYLEWSKA (1987 a).

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Subgenus *Chlorandrena* PÉREZ, 1890
(= *humilis* – Gruppe DYLEWSKA, 1987)

Andrena fulvescens SMITH – see *A. humilis*!

43. *Andrena (Chlorandrena) humilis* IMHOFF, 1832
Syn.: *Andrena nudigastra* ALFKEN, 1914.
A. fulvescens SMITH, 1847.

Andrena nudigastra ALFKEN – see *A. humilis*!

44. *Andrena (Chlorandrena) taraxaci* GIRAUD, 1861
Reported from few stands in southern Poland.

Subgenus *Lepidandrena* HEDICKE, 1933
(= *curvungula* – Gruppe DYLEWSKA, 1987)

Andrena alpina MORAWITZ – see *A. rufizona*!

45. *Andrena (Lepidandrena) curvungula* THOMSON, 1870
46. *Andrena (Lepidandrena) pandellei* PÉREZ, 1895
Known from Silesia (DITTRICH 1903, ALFKEN 1904, TORKA 1927) Western Beskid and Carpathian Mts. (DYLEWSKA, ZABŁOCKI 1972).
47. *Andrena (Lepidandrena) paucisquama* NOSKIEWICZ, 1924
48. *Andrena (Lepidandrena) rufizona* IMHOFF, 1834
Syn.: *A. alpina* MORAWITZ, 1872
Mountain species recorded from Tatra Mts. (NOSKIEWICZ 1920, DYLEWSKA 1991).

Subgenus *Pallandrena* WARNCKE, 1968
(= *braunsiana* – Gruppe DYLEWSKA, 1987)

— *Andrena (Pallandrena) braunsiana* FRIESE, 1887
From Poland (Silesia) mentioned by DITTRICH (1903, 1909), but according to WARNCKE (1967) this report was a result of misidentification of *A. braunsiana*. Thus, *A. braunsiana* should be removed from the list of Polish bee-species.

Subgenus *Poecilandrena* HEDICKE, 1933
(= *labiata* – Gruppe DYLEWSKA + *viridescens* – Gruppe DYLEWSKA, 1987)

Andrena cingulata (FABRICIUS) – see *A. labiata*!
Andrena cyanescens NYLANDER – see *A. viridescens*!
Andrena genevensis SCHMIEDEKNECHT – see *A. potentillae*!

49. *Andrena (Poecilandrena) labiata* FABRICIUS, 1781
Syn.: *A. cingulata* (FABRICIUS, 1775).
50. *Andrena (Poecilandrena) potentillae* PANZER, 1809
Syn.: *A. genevensis* SCHMIEDEKNECHT, 1883.
51. *Andrena (Poecilandrena) viridescens* VIERECK, 1916
Syn.: *A. cyanescens* NYLANDER, 1852, nec HALIDAY, 1836.
Known from few localities in southern Poland.
52. *Andrena (Poecilandrena) coitana* (KIRBY, 1802)
Syn.: *A. shawella* (KIRBY, 1802).
Relatively rare species, known from a number of stands scattered all over the country.

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ŁOZIŃSKI's (1920) data should be excluded for erroneous identification (DYLEWSKA 1987 b).
Andrena shawella (KIRBY) – see *A. coitana*!

Subgenus *Charitandrena* HEDICKE, 1933
(= *hattorfiana* – Gruppe DYLEWSKA, 1987)

53. *Andrena (Charitandrena) hattorfiana* (Fabricius, 1775)

Subgenus *Suandrena* WARNCKE, 1968
(= *suerinensis* – Gruppe DYLEWSKA, 1987)

54. *Andrena (Suandrena) suerinensis* Friese, 1884

Subgenus *Plastandrena* Hedicke, 1933
(= *tibialis* – Gruppe DYLEWSKA, 1987)

55. *Andrena (Plastandrena) bimaculata* (KIRBY, 1802)
Andrena blüthgeni STOECKHERT – see *A. morawitzi*!
56. *Andrena (Plastandrena) carbonaria* LINNAEUS, 1767
Syn.: *A. nigrospina* THOMSON, 1872.
A. pilipes (FABRICIUS, 1781).
57. *Andrena morawitzi* THOMSON, 1872.
Syn.: *A. blüthgeni* STOECKCHERT in SCHMIEDEKNECHT 1930
Andrena nigrospina THOMSON – *see A. carbonaria*!
Andrena pilipes (FABRICIUS) – see *A. carbonaria*!
58. *Andrena (Plastandrena) tibialis* (KIRBY, 1802)

Subgenus *Agandrena* WARNCKE, 1968
(= *agilissima* – Gruppe DYLEWSKA, 1987)

59. *Andrena (Agandrena) agilissima* (SCOPOLI, 1770)
Syn.: *A. flesse* PANZER, 1805.
Mostly in southern Poland. According to NOSKIEWICZ (1950) the northern borderline attain Zielona Góra.
Andrena flesse PANZER – *see A. agilissima*!

Subgenus *Micrandrena* ASHMEAD, 1899
(= *minutula* – Gruppe DYLEWSKA + *proxima* – Gruppe DYLEWSKA +
+ *euslinella* – Gruppe DYLEWSKA, 1987)

60. *Andrena (Micrandrena) alfkenella* PERKINS, 1914
Andrena alutacea STOECKHERT – see *A. proxima*!
61. *Andrena (Micrandrena) enslinella* E. STOECKHERT, 1924
Subpontic species, recently discovered on Lubelska Upland in the vicinity of Zamość. (DYLEWSKA 1987 b, KOSIOR, FIJAŁ 1992).
62. *Andrena (Micrandrena) falsifica* PERKINS, 1915
63. *Andrena (Micrandrena) floricola* EVERSMANN, 1852
Syn.: *A. punctata* SCHENCK, 1853.
A. ochropyga ALFKEN, 1914.

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64. *Andrena (Micrandrena) minutula* (KIRBY, 1802)
65. *Andrena (Micrandrena) minutuloides* PERKINS, 1914
66. *Andrena (Micrandrena) nana* (KIRBY, 1802).
Pontic-Submediterranean species, its occurrence in Poland is insufficiently justifiable. According to DYLEWSKA (1987 b) records from Kraków (ŁOZIŃSKI 1920) as well as from Pieniny Mts. (DYLEWSKA, NOSKIEWICZ 1963) are erroneous.
67. *Andrena (Micrandrena) nanula* NYLANDER, 1848
68. *Andrena (Micrandrena) niveata* FRIESE, 1887
Andrena ochropyga ALFKEN – see *A. floricola*!
69. *Andrena (Micrandrena) proxima* (KIRBY, 1802)
Syn.: *A. alutacea* STOECKHERT, 1942.
Andrena punctata SCHENCK – see *A. floricola*!
70. *Andrena (Micrandrena) pusilla* PÉREZ, 1903
Syn.: *A. spreta pusilla* WARNCKE 1967.
Andrena saundersella PERKINS – see *A. semilaevis*!
71. *Andrena (Micrandrena) semilaevis* PÉREZ, 1903
Syn.: *A. saundersella* PERKINS, 1914.
Andrena spreta PÉREZ – see *A. pusilla*!
72. *Andrena (Micrandrena) subopaca* NYLANDER, 1848

Subgenus *Trachandrena* ROBERTSON, 1902
(=*Biareolina* WARNCKE, 1968 = *haemorrhoa* – Gruppe DYLEWSKA, 1987)

Andrena albicans autc. – see *A. haemorrhoa*!
73. *Andrena (Trachandrena) haemorrhoa* (FABRICIUS, 1781)
Syn.: *A. albicans auct.* nec MÜLLER, 1776.

Subgenus *Chrysandrena* HEDICKE, 1933
(= *fulvago* – Gruppe DYLEWSKA, 1987)

74. *Andrena (Chrysandrena) fulvago* (CHRIST, 1791)

Subgenus *Poliandrena* WARNCKE, 1968
(= *polita* – Gruppe DYLEWSKA = *limbata* – Gruppe DYLEWSKA = *tarsata* – Gruppe DYLEWSKA, 1987)

75. *Andrena (Poliandrena) florea* FABRICIUS, 1793
Pontic-Submediterranean species, known from a few stands in Poland.
76. *Andrena (Poliandrena) polita* SMITH, 1847
Syn.: *A. pseudopolita* ALFKEN, 1939.
Pontic-Submediterranean species, known from a few stands in southern Poland.
Andrena pseudopolita ALFKEN – see *A. polita*!
77. *Andrena (Poliandrena) tarsata* NYLANDER, 1848

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Subgenus *Campylogaster* DOURS, 1873
(= *erber* – Gruppe DYLEWSKA, 1987)

78. *Andrena (Campylogaster) incisa* EVERSMANN, 1852
Pontic-Submediterranean species, in Poland known only from Kraków (DYLEWSKA, ZABŁOCKI 1972).

Subgenus *Holandrena* PÉREZ, 1890
(= *labialis* – Gruppe DYLEWSKA, 1987)

79. *Andrena (Holandrena) decipiens* SCHENCK, 1859
Syn.: *A. flavilabris* SCHENCK, 1874
Pontic-Submediterranean species, in Poland known from Mazurian Region (BRISCHKE 1888) and from Silesia (DYLEWSKA 1987 b).
Andrena flavilabris SCHENCK – see *A. decipiens*!
80. *Andrena (Holandrena) labialis* (KIRBY, 1802)

Subgenus *Opandrena* ROBERTSON, 1902
(= *cressoni* – Gruppe DYLEWSKA, 1987)

Andrena labiata SCHENCK – see *A. schencki*!
81. *Andrena (Opandrena) schencki* MORAWITZ, 1866
Syn.: *A. labiata* SCHENCK, 1851, nec FABRICIUS, 1781.

Subgenus *Zonandrena* HEDICKE, 1933
(= *flavipes* – Gruppe DYLEWSKA, 1987)

82. *Andrena (Zonandrena) chrysopyga* SCHENCK, 1853
Andrena fasciata NYLANDER – see *A. gravida*!
83. *Andrena (Zonandrena) flavipes* PANZER, 1799
84. *Andrena (Zonandrena) gravida* IMHOFF, 1899
Syn.: *A. fasciata* NYLANDER, 1852.

Subgenus *Taeniandrena* HEDICKE, 1933
(= *ovatula* – Gruppe DYLEWSKA + *lathyri* Gruppe DYLEWSKA, 1987)

85. *Andrena (Taeniandrena) aberrans* EVERSMANN, 1852
Syn.: *A. ratisbonensis* STOECKHERT, 1924. .
Subpontic species, in Poland found only in Przemyśl vicinity (KRYSIŃSKI 1957).
Andrena afzeliella (KIRBY) – see *A. ovatula*!
Andrena albofasciata THOMSON – see *A. ovatula*!
Andrena convexiuscula (KIRBY) – see *A. wilkella*!
86. *Andrena (Taeniandrena) gelriae* van der VECHT, 1927
Syn.: *A. padolica* NOSKIEWICZ, 1930.
87. *Andrena (Taeniandrena) intermedia* THOMSON, 1870
Discovered in southern Poland (DYLEWSKA 1987 b).
88. *Andrena (Taeniandrena) lathyri* ALFKEN, 1899
89. *Andrena (Taeniandrena) ovatula* (KIRBY, 1802)
Syn.: *A. albofasciata* THOMSON, 1870.

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A. afzeliella (KIRBY, 1802).
In opinion of STOECKHERT (1930 a) and NIEMELÄ (1949) *Andrena albofasciata* is a separate species. Whereas WARNCKE (1967 b) as well as WESTRICH (1984) and DYLEWSKA (1987 a) consider it to be a subspecies of *A. ovatula*.
Andrena podolica NOSKIEWICZ – see *A. gelriae*!
Andrena ratisbonensis STOECKHERT – see *A. aberrans*!

90. *Andrena (Taeniandrena) similis* SMITH, 1849
Andrena xanthura (KIRBY) – see *A. wilkella*!

91. *Andrena (Taeniandrena) wilkella* (KIRBY, 1802)
Syn.: *A. xanthura* (KIRBY, 1802).
Syn.: *A. convexiuscula* (KIRBY, 1802).

Subgenus *Melandrena* PÉREZ, 1890
(= *morio* – Gruppe DYLEWSKA + *vaga* – Gruppe DYLEWSKA, 1987)

92. *Andrena (Melandrena) assimilis* RADOSZKOWSKI, 1876
Rare in Poland – ssp. *A. assimilis gallica* SCHMIEDEKNECHT, 1883.
Andrena baltica ALFKEN – see *A. nitida*!
Andrena barbareae PANZER – see *A. cineraria*!

93. *Andrena (Melandrena) cineraria* (LINNAEUS, 1758)
Syn.: *A. barbareae* PANZER, 1805.
A. fumipennis SCHMIEDEKNECHT, 1883.
Andrena fumipennis SCHMIEDEKNECHT – see *A. cineraria*!

94. *Andrena (Melandrena) limata* SMITH, 1853
Pontic-Submediterranean species occurs only in southern Poland.

95. *Andrena (Melandrena) morio* BRULLÉ, 1832
Pontic-Submediterranean species, known from a few localities in Poland.

96. *Andrena (Melandrena) nitida* (MÜLLER, 1776)
Syn.: *A. pubescens* OLIVIER, 1789.
A. baltica ALFKEN, 1912.

97. *Andrena (Melandrena) nigroaenea* (KIRBY, 1802)
Andrena pubescens OLIVIER – see *A. nitida*!

98. *Andrena (Melandrena) thoracica* (FABRICIUS, 1775)
Andrena ovina KLUG – see *A. vaga*!

99. *Andrena (Melandrena) vaga* PANZER, 1799
Syn.: *A. ovina* KLUG, 1810.

Subgenus *Euandrena* HEDICKE, 1933
(= *bicolor* – Gruppe DYLEWSKA + *fulvida* Gruppe DYLEWSKA +
+ *symphyti* – Gruppe DYLEWSKA, 1987)

100. *Andrena (Euandrena) bicolor* FABRICIUS, 1775
Syn.: *A. gwynana* (KIRBY, 1802).

101. *Andrena (Euandrena) fulvida* SCHENCK, 1853
Andrena gwynana (KIRBY) – see *A. bicolor*!

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102. *Andrena (Euandrena) ruficrus* NYLANDER, 1848
Syn.: *A. rufitarsis* ZETTERSTEDT, 1838.
Boreal and mountain element; few stands in Poland.
Andrena rufitarsis ZETTERSTEDT – see *A. ruficrus*!
103. *Andrena (Euandrena) symphyti* SCHMIEDEKNECHT, 1883
Pontic-Submediterranean species, occurs regularly in southern Poland, also reported from steppe reserve at Lower Vistula River.

Subgenus *Simandrena* PÉREZ, 1890
(= *dorsata* – Gruppe DYLEWSKA + *combinata* – Gruppe DYLEWSKA + *transitoria* – Gruppe DYLEWSKA, 1987)

104. *Andrena (Simandrena) combinata* (CHRIST, 1791)
Andrena confinis STOECKHERT – see *A. congruens*!
105. *Andrena (Simandrena) congruens* SCHMIEDEKNECHT, 1883
Syn.: *A. confinis* STOECKHERT, 1930.
106. *Andrena (Simandrena) dorsata* (KIRBY, 1802)
In out of date monographs and papers *A. dorsata* and *A. propinqua* SCHENCK, 1853 were usually treated as separate species. Nowadays the majority of specialists, however, consider to treat *A. propinqua* as the subspecies (or synonym) of the former (WARNCKE 1967, WARNCKE et al. 1974, WESTRICH 1984, DYLEWSKA 1987 a).
107. *Andrena (Simandrena) lepida* SCHENCK, 1859
Syn.: *A. separanda* SCHMIEDEKNECHT, 1883.
In Poland rare, more frequent in southern part.
Andrena propinqua SCHENCK – see *A. dorsata*!
Andrena separanda SCHMIEDEKNECHT – see *A. lepida*!
108. *Andrena (Simandrena) susterai* ALFKEN, 1914
Known only from a single stand near Zamość (PAWLIKOWSKI et al. 1993).

Subgenus *Didonia* GRIBODO, 1894
(= *mucida* – Gruppe DYLEWSKA, 1987)

109. Andrena *(Didonia) nasuta* GIRAUD, 1863
Subpontic species seldom reported from Poland.

Subgenus *Margandrena* WARNCKE, 1968
(= *marginata* – Gruppe DYLEWSKA, 1987)

Andrena cetii (SCHRANK) – see *A. marginata*!
110. *Andrena (Margandrena) marginata* FABRICIUS, 1776
Syn.: *A. cetii* (SCHRANK, 1781).

Subgenus *Hoplandrena* PÉREZ, 1890
(= *trimmerana* – Gruppe DYLEWSKA + *bucephala* – Gruppe DYLEWSKA, 1987)

Andrena carantonica PÉREZ – *see A. jacobi*!
111. *Andrena (Hoplandrena) jacobi* PERKINS, 1921
Syn.: *A. trimerana* auct., nec KIRBY, 1802.

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A. carantonica WARNCKE 1967.
A. sabulosa SCOPOLI, 1763.

The synonymy of this species is unclear yet. WARNCKE (1967) separated the lectotype for *A. carantonica* PÉREZ, 1902 and defined *A. jacobi* PERKINS, 1921 to be a junior synonym for this name.The same author interpreted later (WARNCKE 1970) *Apis sabulosa* SCOPOLI, 1763 as the same species and included only the name *A. carantonica* as the synonym of *A. sabulosa* on the rule of priority. WESTRICH (1984) questioned this opinion considering – after STOECKHERT (1954) – only the species name *A. jacobi* to be valid one. DYLEWSKA (1987 a) shared this opinion and it is convincing for me.

112. *Andrena (Hoplandrena) rosae* PANZER, 1801
Andrena sabulosa SCOPOLI – see *A. jacobi*!

[113.] *Andrena (Hoplandrena) trimmerana* (KIRBY, 1802)

The occurrence of this species in Poland is not clarified although very probable. Indeed, several authors reported *A. trimmerana* (KIRBY) or *A. rosae rasse trimmerana*, however, in face of lack of original materials, it is now impossible to determine whether they represented *A. trimmerana* (KIRBY) or *A. jacobi* PERKINS.

Andrena trimmerana auct. – see *A. jacobi*!

Subgenus *Notandrena* PÉREZ, 1890
(= *nitidiuscula* – Gruppe DYLEWSKA + *chrysosceles* – Gruppe DYLEWSKA, 1987)

114. *Andrena (Notandrena) chrysosceles* (KIRBY, 1802)
Andrena fulvicornis SCHENCK – *A. nitidiuscula*!
Andrena lucens IMHOFF – see *A. nitidiuscula*!
115. *Andrena (Notandrena) nitidiuscula* SCHENCK, 1853
Syn.: *A. fulvicornis* SCHENCK, 1853.
A. lucens IMHOFF, 1866.
116. *Andrena (Notandrena) pontica* WARNCKE, 1972

This Subpontic species was lately found in Poland by DYLEWSKA (1987 b) in southern part of country. In opinion of the author it could be misidentificated in Poland as *A. nitidiuscula* and *A. chrysosceles*.

Subgenus *Leucandrena* HEDICKE, 1933
(= *barbilabris* – Gruppe DYLEWSKA, 1987)

Andrena albicrus (KIRBY) – see *A. barbilabris*!
117. *Andrena (Leucandrena) argentata* SMITH, 1844
118. *Andrena (Leucandrena) barbilabris* (KIRBY, 1802)
Syn.: *A. sericea* (CHRIST, 1791).
A. albicrus (KIRBY, 1802).

[119.] *Andrena (Leucandrena) sericata* IMHOFF, 1866

Subpontic-Submediterranean species, in Poland reported only from Silesia by TORKA (1927). The species is treated as extinct in the Red Book of Polish fauna (BANASZAK, 1992).

Andrena sericea (CHRIST) – see *A. barbilabris*!

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Subgenus *Parandrena* ROBERTSON, 1897
(= *sericata* – Gruppe DYLEWSKA, 1987)

Andrena rufiventris EVERSMANN – see *A. ventralis*!

120. *Andrena (Parandrena) ventralis* IMHOFF, 1832
Syn.: *A. rufiventris* EVERSMANN, 1852.

Subgenus *Cnemidandrena* HEDICKE, 1933
(= *nigriceps* – Gruppe DYLEWSKA, 1987)

121. *Andrena (Cnemidandrena) bremensis* ALFKEN, 1900
122. *Andrena (Cnemidandrena) denticulata* (KIRBY, 1802)
Syn.: *A. listerella* (KIRBY, 1802).
123. *Andrena (Cnemidandrena) fuscipes* (KIRBY, 1802)
Syn.: *A. pubescens* (KIRBY, 1802).
Andrena listerella (KIRBY) – see *A. denticulata*!
Andrena marchica ALFKEN – see *A. nigriceps*!
124. *Andrena (Cnemidandrena) nigriceps* (KIRBY, 1802)
Syn.: *A. marchica* ALFKEN, 1939.
There is no agreement as concerns the status of three following species: *A. nigriceps*, *A. bremensis* ALFKEN, 1900, and *A. simillima* SMITH, 1851. WARNCKE (1968) differentiated *A. nigriceps* and *A. simillima* as separate species, treating *A. bremensis* as a subspecies of the latter. OSYTSHNJUK (1977) treated *A. bremensis* and *A. simillima* as synonym, contrary to BLÜTHGEN (1961) who recognized them to be two separate species. At last DYLEWSKA (1987 a) placed both *A. bremensis* and *A. simillima* in synonymy of *A. nigriceps*. Until the problem is definitely resolved it seems to be the most appropriate to leave all three forms in the species rank despite their slight differentiation – according to WESTRICH's (1984) suggestion.
Andrena pubescens (KIRBY) – see *A. fuscipes*!
125. *Andrena (Cnemidandrena) simillima* SMITH, 1851

Subgenus *Andrena* FABRICIUS, 1775
(= *helvola* – Gruppe DYLEWSKA, 1987)

126. *Andrena (Andrena) apicata* SMITH, 1847
Syn.: *A. batava* PÉREZ, 1902.
Andrena armata (GMELIN) – see *A. fulva*!
Andrena batava PÉREZ – see *A. apicata*!
127. *Andrena (Andrena) clarkella* (KIRBY, 1802)
Andrena clypearis NYLANDER – see *A. fucata*!
128. *Andrena (Andrena) fucata* SMITH, 1847
Syn.: *A. clypearis* NYLANDER, 1848.
129. *Andrena (Andrena) fulva* (MÜLLER, 1766)
Syn.: *A. fulva* (SCHRANK, 1781).
A. armata (GMELIN, 1790).
Vistula River is a eastern borderline of its occurrence (BANASZAK 1982 a–d). Big colonies of this species are observed in city parks.
Andrena fulva (SCHRANK) – see *A. fulva* (MÜLLER)!
130. *Andrena (Andrena) helvola* (LINNAEUS 1758)

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131. *Andrena (Andrena) lapponica* ZETTERSTEDT, 1838
Boreal-Alpine species connected with *Vaccinium* spp.
132. *Andrena (Andrena) mitis* SCHMIEDEKNECHT, 1883
Submediterranean species occurs only in southern Poland.
133. *Andrena (Andrena) nycthemera* IMHOFF, 1866
134. *Andrena (Andrena) praecox* (SCOPOLI, 1763)
135. *Andrena (Andrena) synadelpha* PERKINS, 1914
Reported only from Silesia (TORKA 1927) and from Beskid Zachodni Mts (CELARY 1998).
136. *Andrena (Andrena) varians* (ROSSI, 1792)

Genus *Melitturga* LATREILLE, 1809

Key for identification: WARNCKE (1972).

137. *Melitturga clavicornis* (LATREILLE, 1806)
Very rare species in Poland.

Genus *Panurgus* PANZER, 1806

138. *Panurgus banksianus* (KIRBY, 1802)
139. *Panurgus calcaratus* (SCOPOLI, 1763)
Syn.: *P. lobatus* (PANZER, 1799).
Panurgus lobatus (PANZER) – see *P. calcaratus*!

Genus *Panurginus* NYLANDER, 1848

Panurginus clypeatus (EVERSMANN) – see *P. labiatus*!
140. *Panurginus labiatus* (EVERSMANN, 1852)
Syn.: *P. clypeatus* (EVERSMANN, 1852).
Reported from few stands in southern Poland.

Genus *Camptopoeum* SPINOLA, 1843

— *Camptopoeum frontale* (FABRICIUS, 1804)
Lately recorded from Lubelska Upland, vicinity of Zamość (KOSIOR, FIJAŁ 1992), however, the information is wrong because of incorrect determination.

Family *HALICTIDAE*

Taxonomy and identification after EBMER (1969–1971,1987, 1988 a, b), ALEKSANDER, MICHENER 1995, PESENKO 1999, PESENKO, BANASZAK, RADCHENKO & CIERZNIAK (2000).

Genus *Dufourea* LEPELETIER, 1841

Subgenus *Dufourea* LEPELETIER, 1841

141. *Dufourea (Dufourea) halictula* (NYLANDER, 1852)
Syn.: *D. minuta* auct., nec LEPELETIER, 1841.
Rare species in Poland.
Dufourea minuta auct. – see *D. halictula*!

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142. *Dufourea (Dufourea) minuta* (LEPELETIER, 1841)
Syn.: *D. vulgaris* SCHENCK, 1861
Not common species recorded in a few localities in western and southern Poland.
Dufourea vulgaris SCHENCK – see *D. minuta*

Subgenus *Halictoides* NYLANDER, 1848

143. *Dufourea (Halictoides) dentiventris* (NYLANDER, 1848)
Not common species recorded in a few localities in south-western Poland, mainly in Sudeten, Carpathian Mountains, southern uplands and Silesian Lowland.
144. *Dufourea (Halictoides) inermis* (NYLANDER, 1848)
Rare species in Poland.

Genus *Rhophitoides* SCHENCK, 1861

WARNCKE (1979) proposed to include the genera *Rhophitoides* SCHENCK and *Dufourea* LEPELETIER to one genus *Rophites* SPINOLA, but I consider a reasonable the taxonomy after EBMER (1987 a).

145. *Rhophitoides canus* (EVERSMANN, 1852)
Relatively common species in Poland.

Genus *Rophites* SPINOLA, 1808

146. *Rophites algirus* PÉREZ, 1895
The species is represented in Poland by ssp. *trispinosus* PÉREZ, 1903. Recorded from Poznań (STOECKHERT 1933: as "*Rhophites trispinosus*"), Bydgoszcz (EBMER, SCHWAMMBERGER 1986), and two localities in the south-eastern Poland (PESENKO et al. 2000).
Rophites bistrispinosus LEBEDEV – see *R. hartmanni*!
147. *Rophites hartmanni* FRIESE, 1902
Syn.: *R. bistrispinosus* LEBEDEV, 1931.
Known only from a few localities in south-eastern Poland: Sandomierz vicinity (NOSKIEWICZ 1952, SZYMCZAKOWSKI (1972) and Przemyśl (KRYSIŃSKI 1957).
148. *Rophites quinquespinosus* SPINOLA, 1808
Rophites trispinosus PÉREZ – see *R. algirus*!

Genus *Systropha* ILLIGER, 1806

149. *Systropha curvicornis* (SCOPOLI, 1770)
Syn.: *S. spiralis* (OLIVIER, 1789).
150. *Systropha planidens* GIRAUD, 1861
Only in south-eastern Poland.
Systropha spiralis (OLIVIER) – see *S. curvicornis*!

Genus *Nomiapis* COCKERELL, 1919

Taxonomy after PAULY (1990).

151. *Nomiapis diversipes* (LATREILLE, 1806)
KUNTZE and NOSKIEWICZ (1938) quoted Morawitz's information on the occurrence of this species in the vicinity of Kraków (without closer data) stressing their doubt about it. Ho-

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wever, recently WARNCKE (1976 a) indicated "Polen: Krakau" as a new locality.

152. *Nomiapis femoralis* (PALLAS, 1773)
The only stand in Lubelska Upland (Gołąb) reports NOSKIEWICZ (1959).

Genus *Nomioides* SCHENCK, 1867

153. *Nomioides minutissimus* (ROSSI, 1790)
Syn.: *N. pulchellus* (SCHENCK, 1861).
Particular data on the distribution of this species gives PESENKO (1983). After NOSKIEWICZ's (1950) information there is in the collection of Wrocław University a long series of specimen collected by the end of last and in the beginning of this centuries in Karłowice by Wrocław. DITTRICH (1884) had informed on a part of materials earlier collected in Karłowice. At present Karłowice is a part of Wrocław-City, and this species probably does not occur there. The actual data on the occurrence of this species in Poland are those of BANASZAK (1979), and BANASZAK and PLEWKA (1981), namely in the Otłoczyn near Toruń and in the Kampinos National Park. Both localities are outlying northern stands of this species in Europe.

Genus *Halictus* LATREILLE, 1804

154. *Halictus compressus* (WALCKENAER, 1802
Syn.: *H. eurygnathus* BLÜTHGEN, 1931
H. senex (FÖRSTER, 1860) – nomen dubium!
Halictus eurygnathus BLÜTHGEN – see *H. compressus*!
Halictus ibex WARNCKE – see *H. simplex*!
155. *Halictus maculatus* SMITH, 1848
Halictus marchali sensu WARNCKE – see *H. simplex*!
Halictus pannonicus EBMER – see *H. tetrazonius*!
156. *Halictus quadricinctus* (FABRICIUS, 1776)
Syn.: *H. quadristrigatus* LATREILLE, 1805.
Halictus quadristrigatus LATREILLE – see *H. quadricinctus*!
157. *Halictus rubicundus* (CHRIST, 1791)
Halictus senex (FÖRSTER) – see *H. compressus*!
158. *Halictus sexcinctus* (FABRICIUS, 1775)
159. *Halictus simplex* BLÜTHGEN, 1923
Syn.: *H. ibex* WARNCKE, 1973.
H. marchali sensu WARNCKE, 1982

Genus *Seladonia* ROBERTSON, 1918

Seladonia alpina ALFKEN – see *H. confusus*!
160. *Seladonia confusa* (SMITH, 1853)
EBMER (1976) treats *S. perkinsi* BLÜTHGEN, 1926 and *S. alpina* ALFKEN, 1907 as a subspecies of *S. confusa*: *S. confusa perkinsi* – reported from the whole country. *S. confusa alpina* – *alpine* subspecies, the only stand in Poland stated EBMER (1988 b) in Tatra Mts. (Bukowina), on the basis of specimen collected 18–19 July 1939.
Seladonia fasciata NYLANDER – see *S. tumulorum*!
Seladonia flavipes (FABRICIUS) – see *S. tumulorum*!
161. *Seladonia gavarnica* (PÉREZ, 1903)
The species is represented in Poland by ssp. *tatarica* (BLÜTHGEN, 1933). In Poland recorded

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only from Opole district (Żędowice) (PESENKO et al. 2000).

162. *Seladonia leucahenea* (EBMER, 1972)
The species is represented in Poland by ssp. *arenosa* (EBMER, 1976). It is not common species (PESENKO et al. 2000).

Seladonia perkinsi BLÜTHGEN – see *S. confusa*!

163. *Seladonia semitecta* (MORAWITZ, 1874)
Steppe species, very rare in Poland.

164. *Seladonia subaurata* (ROSSI, 1792)
Syn.: *S. virescens* (LEPELETIER, 1841)

165. *Seladonia tumulorum* (LINNAEUS, 1758)
Syn.: *S. flavipes* (FABRICIUS, 1787).
S. fasciata (NYLANDER, 1848), nec auct.

Seladonia virescens (LEPELETIER) – see *H. subaurata*!

Genus *Lasioglossum* CURTIS, 1833

Lasioglossum alpestris (MORAWITZ) – see *L. costulatum*!

Lasioglossum bifasciatum (SCHENCK) – see *L. subfasciatum*!

— *Lasioglossum breviventre* (SCHENCK, 1853)
Rare European species. Occurrence in Poland doubtful, the only stand reported by STOECKHERT (1932) from Silesia ("Schneeberg"). Probably it can occurring in western Poland.

166. *Lasioglossum costulatum* (KRIECHBAUMER, 1873)
Syn.: *L. alpestris* (MORAWITZ, 1876).

Lasioglossum decipiens (PERKINS) – see *L. lativentre*!

Lasioglossum fulvicrus EVERSMANN – see *L. xanthopus*!

Lasioglossum haemorrhoidale (SCHENCK) – see *L. prasinum*!

167. *Lasioglossum laevigatum* (KIRBY, 1802)

168. *Lasioglossum lativentre* (SCHENCK, 1853)
Syn.: *L. decipiens* (PERKINS, 1913).

169. *Lasioglossum leucozonium* (SCHRANK, 1781)

170. *Lasioglossum majus* (NYLANDER, 1852)

Lasioglossum nitidum PANZER – see *L. sexnotatum*!

— *Lasioglossum pallens* (BRULLÉ, 1832)
Reported from Chełm Lubelski, Lubelska Upland (ANASIEWICZ 1976). However, the authors of the revision of Polish halictids (PESENKO et al. 2000) did not accept the occurrence of the species in Poland.

171. *Lasioglossum prasinum* (SMITH, 1848)
Reported from a few stands scattered all over the country.

172. *Lasioglossum quadrinotatum* (KIRBY, 1802)

Lasioglossum rufocinctum (NYLANDER) – see *L. subfasciatum*!

173. *Lasioglossum sexmaculatum* (SCHENCK, 1853)
Known from single stands in Poland.

174. *Lasioglossum sexnotatum* (KIRBY, 1802)
Syn.: *L. nitidum* (PANZER, 1798, nec MÜLLER, 1776)

175. *Lasioglossum sexnotatulum* (NYLANDER, 1852)
Boreal Euro-Siberian species. Found in different localities but perhaps not all data concerning this species (verification is impossible) (PESENKO et al. 2000).

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176. *Lasioglossum subfasciatum* (IMHOFF, 1832)
Syn.: *L. rufocinctum* (NYLANDER, 1852).
L. bifasciatum (SCHENCK, 1853 nec BRULLÉ, 1832).
177. *Lasioglossum xanthopus* (KIRBY, 1802)
Syn.: *L. fulvicrus* EVERSMANN, 1852.
178. *Lasioglossum zonulum* (SMITH, 1848)

Genus *Evylaeus* ROBERTSON, 1902

Evylaeus aeneidorsum (ALFKEN) – see *E. nitidulus*!
179. *Evylaeus aeratus* (KIRBY, 1802)
Syn.: *E. viridiaeneus* (BLÜTHGEN, 1918).
180. *Evylaeus albipes* (FABRICIUS, 1781)
Syn.: *E. malachurellus* (STRAND, 1909).
E. albipes var. *alpicola* (BLÜTHGEN, 1920).
Lasioglossum alpicola (BLÜTHGEN) – see *L. albipes*!
Evylaeus appropinquans (SCHENCK) – see *E. convexiusculus*!
Evylaeus atricornis (SMITH) – see *E. rufitarsis*!
181. *Evylaeus bavaricus* (BLÜTHGEN, 1930)
Rare species, reported from south Poland.
182. *Evylaeus brevicornis* (SCHENCK, 1863)
183. *Evylaeus calceatus* (SCOPOLI, 1763)
Syn.: *E. cylindricus* (FABRICIUS, 1793)
The most frequent halictid in Poland.
Evylaeus continentalis (BLÜTHGEN) – see *L. nitidulus*!
184. *Evylaeus clypearis* (SCHENCK, 1853)
Recorded only from Kraków (PESENKO et al. 2000).
185. *Evylaeus convexiusculus* (SCHENCK, 1853)
Syn.: *E. appropinquans* (SCHENCK, 1868).
Rare species in Poland.
186. *Evylaeus cupromicans* (PÉREZ, 1903)
Very rare species in Poland.
Evylaeus cylindricus (FABRICIUS) – see *L. calceatus*!
Evylaeus delmasi (PÉREZ) – see *E. tricinctus*!
— *Lasioglossum (Evylaeus) duckei* (ALFKEN, 1909)
EBMER (1970) mentioned Poland in general distribution of this species, but in the later paper (EBMER 1988 b) omitted our country. KUNTZE and NOSKIEWICZ (1938) form Western Ukraine reported this Pontic-Mediterranean species. Thus its occurrence is possible in southern-east of Poland.
187. *Evylaeus euboeensis* (STRAND, 1909)
Syn.: *E. kirschbaumi* (BLÜTHGEN, 1918).
Steppe species, known only from a few stands in Poland.
188. *Evylaeus fratellus* (PÉREZ, 1903)
Syn.: *E. subfasciatus* (NYLANDER, 1848), nec (IMHOFF, 1832).
E. freygessneri (ALFKEN, 1904).
E. nigrum (VIERECK, 1903).
Evylaeus freygessneri (ALFKEN) – see *E. fratellus*!

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189. *Evylaeus fulvicornis* (KIRBY, 1802)
190. *Evylaeus glabriusculus* (MORAWITZ, 1872)
Known only from Sandomierska Lowland (Góry Pieprzowe) (NOSKIEWICZ 1959).
Evylaeus gracilis (MORAWITZ) – see *L. lucidulus*!
191. *Evylaeus intermedius* (SCHENCK, 1868)
192. *Evylaeus interrupus* (PANZER, 1798)
Evylaeus kirschbaumi (BLÜTHGEN) – see *E. euboeensis*!
193. *Evylaeus laevis* (KIRBY, 1802)
Syn.: *E. nigriventris* (ARNOLD, 1893).
194. *Evylaeus laticeps* (SCHENCK, 1868)
195. *Evylaeus leucopus* (KIRBY, 1802)
196. *Evylaeus limbellus* (MORAWITZ, 1876)
Reported only from Małopolska Upland (DROGOSZEWSKI 1934, 1936) and from Lubelska Upland (MINKIEWICZ 1935).
197. *Evylaeus linearis* (SCHENCK, 1868)
Syn.: *E. longuloides* (STRAND, 1909).
Evylaeus longuloides (STRAND) – see *E. linearis*!
Evylaeus longulus (SMITH) – see *E. malachurus*!
198. *Evylaeus lucidulus* (SCHENCK, 1861)
Syn.: *E. tenellus* (SCHENCK, 1861).
E. gracilis (MORAWITZ, 1865).
Evylaeus malachurellum (STRAND) – see *E. albipes*!
199. *Evylaeus malachurus* (KIRBY, 1802)
Syn.: *E. longulus* (SMITH, 1848).
200. *Evylaeus marginellus* (SCHENCK, 1853)
An European, mostly steppe species, sporadically occurring in Central Europe; Poland (Sandomierz) (PESENKO et al. 2000).
Evylaeus megacephalus (SCHENCK) – see *E. quadrinotatulus*!
201. *Evylaeus minutissimus* (KIRBY, 1802)
202. *Evylaeus minutulus* (SCHENCK, 1853)
Syn.: *E. semipunctulatus* (SCHENCK, 1868).
Evylaeus minutus (KIRBY) – see *L. parvulus*!
203. *Evylaeus morio* (FABRICIUS, 1793)
One of the most frequent halictid in Poland.
Evylaeus nanulus (SCHENCK) – see *E. politus*!
204. *Evylaeus nigripes* (LEPELETIER, 1841)
Syn.: *E. vulpinus* (NYLANDER, 1852).
Known only from a few stands in southern and eastern Poland. Collected in xerothermic habitats.
Evylaeus nigriventris (ARNOLD) – see *E. laevis*!
Evylaeus nigrum (VIERECK) – see *E. fratellus*!
205. *Evylaeus nitidiusculus* (KIRBY, 1802)
206. *Evylaeus nitidulus* (FABRICIUS, 1804)
Syn.: *E. smeathmanelus* auct. nec (KIRBY, 1802).
E. continentalis (BLÜTHGEN, 1944).
Reported from a few stands in Poland: Baltic Coast, Silesia and Western Beskid (Carpathian

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Mts.). From Poland often mentioned subspecies *E. nitidulus aeneidorsum* (ALFKEN, 1921).

207. *Evylaeus obscuratus* (MORAWITZ, 1875)
The species is represented in Poland by ssp. *acerbus* (WARNCKE, 1975). Rare species (PESENKO et al. 2000).

208. *Evylaeus parvulus* (SCHENCK, 1853)
Syn.: *E. minutus* (KIRBY, 1802).

209. *Evylaeus pauxillus* (SCHENCK, 1853)

210. *Evylaeus politus* (SCHENCK, 1853)
Syn.: *E. nanulus* (SCHENCK, 1853).

211. *Evylaeus punctatissimus* (SCHENCK, 1853)

— *Evylaeus puncticollis* (MORAWITZ, 1872)
Occurrence *E. puncticollis* in Poland recorded by some authors was not confirmed by study of PESENKO et al. (2000) and remains questionable.

Evylaeus punctulatus (KIRBY) – see *E. villosulus*!

— *Evylaeus pygmaeus* (SCHENCK, 1853)
Occurrence *E. pygmaeus* in Poland recorded by some authors – not taxonomists, was not confirmed by study of PESENKO et al. (2000) and remains questionable.

212. *Evylaeus quadrinotatulus* (SCHENCK, 1861)
Syn.: *E. megacephalus* (SCHENCK, 1868).
E. sexsignatus (SCHENCK, 1868).

213. *Evylaeus quadrisignatus* (SCHENCK, 1853)
Reported only from Pomerania (ALFKEN 1912) and Przemyśl district (PESENKO et. al. 2000).

214. *Evylaeus rufitarsis* (ZETTERSTEDT, 1838)
Syn.: *E. atricornis* (SMITH, 1870).

215. *Evylaeus semilucensis* (ALFKEN, 1914)

Evylaeus semipunctulatus (SCHENCK) – see *E. minutulus*!

216. *Evylaeus setulellus* (STRAND, 1909)
Steppe species reported only from Sandomierz by NOSKIEWICZ (1952).

217. *Evylaeus setulosus* (STRAND, 1909)
Steppe species reported only form vicinity of Poznań (BANASZAK 1976 b).

Evylaeus sexsignatus (SCHENCK) – see *E. quadrinotatulus*!

218. *Evylaeus sexstrigatus* (SCHENCK, 1868)

Evylaeus smeathmanellus auct. – see *E. nitidulus*!

Evylaeus subfasciatus (NYLANDER) – see *E. fratellum*!

219. *Evylaeus tarsatus* (SCHENCK, 1868)
Rare in Poland.

Evylaeus tenellus (SCHENCK) – see *E. lucidulus*!

220. *Evylaeus tricinctus* (SCHENCK, 1874)
Syn.: *E. delmasi* (PÉREZ, 1903).
Steppe species, known only from a few stands in south-eastern Poland.

221. *Evylaeus villosulus* (KIRBY, 1802)
Syn.: *E. punctulatus* (KIRBY, 1802).

Evylaeus viridiaeneus (BLÜTHGEN) – see *E. aeratus*!

Evylaeus vulpinus (NYLANDER) – see *E. nigripes*!

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Genus *Sphecodes* LATREILLE, 1804

Synonymy and key identification after WARNCKE 1992.

Sphecodes affinis HAGENS – see *S. geofrellus*!

222. *Sphecodes albilabris* (FABRICIUS, 1793)
Syn.: *S. fuscipennis* (GERMAR, 1819).

[223.] *Sphecodes alternatus* SMITH, 1853
Reported by DYLEWSKA (1997) without giving the locality. This information needs to be confirmed.

Sphecodes atratus HAGENS – see *S. marginatus*!

224. *Sphecodes crassus* THOMSON, 1870
Syn.: S. *variegatus* HAGENS, 1874.

225. *Sphecodes cristatus* HAGENS, 1882
Submediterranean species, very rare in Poland.

226. *Sphecodes croaticus* MEYER, 1922
Reported from a few stands in south-eastern Poland.

Sphecodes dimidiatus HAGENS – see *S. miniatus*!

Sphecodes divisus (KIRBY) – see *S. ephippius*!

227. *Sphecodes ephippius* (LINNAEUS, 1767)
Syn.: *S. rufescens* (FOURCROY, 1785)
S. divisus (KIRBY, 1802).
S. similis WESMAEL, 1835.

Sphecodes fasciatus HAGENS – see *S. geofrellus*!

228. *Sphecodes ferruginatus* HAGENS, 1882

Sphecodes fuscipennis (GERMAR) – see *S. albilabris*!

229. *Sphecodes geofrellus* (KIRBY, 1802)
Syn.: *S. fasciatus* HAGENS, 1882, after WESTRICH, 1984.
S. affinis HAGENS, 1882.

230. *Sphecodes gibbus* (LINNAEUS, 1758)

231. *Sphecodes hyalinatus* HAGENS, 1882

[232.] *Sphecodes intermedius* BLÜTHGEN, 1923
Reported by DYLEWSKA (1997) without giving the locality. This information needs to be confirmed.

233. *Sphecodes longulus* HAGENS, 1882

234. *Sphecodes monilicornis* (KIRBY, 1802)
Syn.: *S. subquadratus* SMITH, 1845.

[235.] *Sphecodes marginatus* HAGENS, 1882
Syn.: *S. nigritulus* HAGENS, 1882.
S. atratus HAGENS, 1882.
Reported only from Pomerania by BLÜTHGEN (1919). Its occurrence requires confirmation.

236. *Sphecodes miniatus* HAGENS, 1882
Syn.: *S. dimidiatus* HAGENS, 1882.

237. *Sphecodes niger* HAGENS, 1882

Sphecodes nigritulus HAGENS – see *S. marginatus*!

238. *Sphecodes pellucidus* SMITH, 1845
Syn.: *S. pilifrons* (THOMSON, 1870).

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Sphecodes pilifrons (THOMSON) – see *S. pellucidus*!
239. *Sphecodes puncticeps* THOMSON, 1870
240. *Sphecodes reticulatus* THOMSON, 1870
Sphecodes rufescens (FOURCROY) – see *S. ephippius*!
241. *Sphecodes rufiventris* (PANZER, 1798)
Syn.: *S. subovalis* SCHENCK, 1853.
Sphecodes rubicundus HAGENS – see *S. ruficrus*!
242. *Sphecodes ruficrus* (ERICHSON, 1835)
Syn.: *S. rubicundus* HAGENS, 1882.
243. *Sphecodes scabricollis* WESMAEL, 1835
Very rare species in Poland.
Sphecodes similis WESMAEL – see *S. ephippius*!
[244.] *Sphecodes schencki* HAGENS, 1882
Reported by DYLEWSKA (1997) without giving the locality. This information needs to be confirmed.
245. *Sphecodes spinulosus* HAGENS, 1875
Rare species in Poland.
Sphecodes subovalis SCHENCK – see *S. rufiventris*!
Sphecodes subquadratus SMITH – see *S. monilicornis*!
Sphecodes variegatus HAGENS – see *S. crassus*!

Family *MELITTIDAE*

Systematic after MICHENER (1981), and WARNCKE (1973).
Recently ALEXANDER and MICHENER (1995) proposed the division of this small family into three families: *Meganomidae*, *Dasypodidae* and *Melittidae*. In this paper I use previous systematics.

Genus *Melitta* KIRBY, 1802

WARNCKE (1973) divided Western Palearctic species of this genus to two groups in subgeneric rank: *Melitta* KIRBY 1802 and *Cilissa* LEACH, 1812 however, MICHENER (1981) does not sustain this separation.

Melitta centaureae TORKA – see *M. leporina*!
Melitta chrysura KIRBY – see M. *haemorrhoidalis*!
246. *Melitta haemorrhoidalis* (FABRICIUS, 1775)
Syn.: *M. chrysura* KIRBY, 1802.
247. *Melitta leporina* (PANZER, 1799)
Syn.: *M. centaureae* TORKA, 1922.
Melitta melanura (NYLANDER) – see *M. tricincta*!
248. *Melitta nigricans* ALFKEN, 1905
249. *Melitta tricincta* KIRBY, 1802
Syn.: *M. melanura* (NYLANDER, 1852).
250. *Melitta wankowiczi* (RADOSZKOWSKI, 1890)
The species seldom observed in Poland.

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251. *Melitta udmurtica* SITDIKOV, 1986
The species reported only from Puławy, but incorrectly identified by DYLEWSKA (1997) as *M. hispanica* FRIESE, 1900 (CELARY 2000).

Genus *Macropis* KLUG, in PANZER, 1809

Systematics after MICHENER (1983).

252. *Macropis europaea* WARNCKE, 1973
Syn.: *M. labiata* auct., nec FABRICIUS, 1804.
253. *Macropis fulvipes* (FABRICIUS, 1804)
Macropis labiata auct. – see *M. europaea*!

Genus *Dasypoda* LATREILLE, 1802

254. *Dasypoda hirtipes* (HARRIS, 1780)
Syn.: *D. altercator* (FABRICIUS, 1793)
D. plumipes (PANZER, 1797).
Dasypoda altercator (FABRICIUS) – see *D. hirtipes*!
Dasypoda plumipes (PANZER) – see *D. hirtipes*!
Dasypoda mixta RADOSZKOWSKI – see *D. suripes*!
Dasypoda mlokosewitzi RADOSZKOWSKI – see *D. suripes*!
Dasypoda nigrescens FRIESE – see *D. hirtipes*!
255. *Dasypoda braccata* EVERSMANN, 1852
256. *Dasypoda suripes* (CHRIST, 1791)
Syn.: *D. argentala* PANZER, 1809.
D. mixta RADOSZKOWSKI, 1887.
D. thomsoni SCHLETTERER, 1890.
D. mlokosewitzi RADOSZKOWSKI, 1890.
Very rare species in Poland.

Family *MEGACHILIDAE*

Systematical arrangement after KROMBEIN et al. (1979), key for identification: OSYTSHNJUK, PANFILOV, PANOMAREVA (1978), BANASZAK, ROMASENKO (1998).

Genus *Trachusa* PANZER, 1804

257. *Trachusa byssina* (PANZER, 1798)
Syn.: *T. serratulae* PANZER, 1805.
Rare species in Poland.
Trachusa serratulae PANZER – see *T. byssina*!

Genus *Paranthidiellum* MICHENER, 1948

258. *Paranthidiellun lituratum* (PANZER, 1801)
Only in southern Poland.

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Genus *Anthidium* FABRICIUS, 1804

— *Anthidium florentinum* (FABRICIUS, 1775)
Occurrence of this species in Poland requires justification. WIERZEJSKI (1868) reported it from the vicinity of Kraków, but according to DYLEWSKA (1962) there are no specimens of this species in Wierzejski's collection.

259. *Anthidium manicatum* (LINNAEUS, 1758)

260. *Anthidium montanum* MORAWITZ, 1864
Only in southern Poland.

261. *Anthidium punctatum* LATREILLE, 1809

Genus *Proanthidium* FRIESE, 1898

262. *Proanthidium oblongatum* LATREILLE, 1809
Known from a few localities.

Genus *Anthidiellum* COCKERELL, 1904

263. *Anthidiellum strigatum* (PANZER, 1805)

Genus *Stelis* PANZER, 1806

Taxonomy after NOSKIEWICZ (1961).

Stelis aterrima (PANZER) – see *S. punctulatissima*!

264. *Stelis breviuscula* (NYLANDER, 1848)

[265.] *Stelis franconica* BLÜTHGEN, 1930
In Poland it was found on the only stand in Stolec near Ząbkowice (Silesia) (MACKO, NOSKIEWICZ 1954, NOSKIEWICZ 1959). Since 1985 any specimen of this species was not observed (STROJNY 1987), thus *S. franconica* is listed in Red Book as an extinct species (BANASZAK, 1992).

[266.] *Stelis minima* SCHENCK, 1861
Its occurrence in Poland is doubtful. STOECKHERT (1932) reported it from northern Poland and Silesia but subsequent investigators have not confirmed this information.

267. *Stelis minuta* LEPELETIER and SERVILLE, 1825

268. *Stelis odontopyga* NOSKIEWICZ, 1925
Known only from Krakowsko-Wieluńska Upland (CELARY 1995).

269. *Stelis ornatula* (KLUG, 1807)

270. *Stelis phaeoptera* (KIRBY, 1802)

271. *Stelis punctulatissima* (KIRBY, 1802)
Syn.: *S. aterrima* (PANZER, 1798).

272. *Stelis signata* (LATREILLE, 1809)
Stelis aterrima (PANZER) – see *S. punctulatissima*!

Genus *Dioxoides* POPOV, 1947

Dioxoides kuntzei NOSKIEWICZ – see *D. tridentata*!

273. *Dioxoides tridentata* (NYLANDER, 1848)
Syn.: *D. kuntzei* NOSKIEWICZ, 1949
Very rare species in Poland.

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Genus *Heriades* Spinola, 1808

274. *Heriades crenulatus* Nylander, 1856
Mostly in south-eastern Poland, rarely in central lowlands.
275. *Heriades truncorum* (Linnaeus, 1758)

Genus *Chelostoma* Latreille, 1809

276. *Chelostoma campanularum* (Kirby, 1802)
Syn.: *Ch. florisomne* auct. nec Linnaeus, 1758.
277. *Chelostoma distinctum* Stoeckhert, 1929
Know only from Bydgoszcz vicinity (Kuntze, Noskiewicz 1938) and from Pieniny Mts. (Dylewska 1962).
Chelostoma florisomne auct. – see *Ch. campanularum*!
278. *Chelostoma florisomne* (Linnaeus, 1758)
Syn.: *Ch. maxillosum* (Linnaeus, 1767).
According to Richards (1935) the name *Ch. maxillosum* (L.) is considered to be a synonym of *Ch. florisomne* (L.) whereas the latter – however in not Linnaeus sense – was applied by many authors to the species *Ch. campanularum* (K.).
279. *Chelostoma foveolatum* (Morawitz, 1868)
Known only from Masuria and Kotlina Sandomierska.
280. *Chelostoma rapunculi* (Lepeletier, 1841)
Syn.: *Ch. fuliginosum* (Panzer, 1798)
Ch. nigricorne (Nylander, 1848)
Chelostoma fuliginosum (Panzer) – see *Ch. rapunculi*!
Chelostoma maxillosum (Linnaeus) – see *Ch. florisomne*!
Chelostoma nigricorne (Nylander) – see *Ch. rapunculi*!
281. *Chelostoma ventrale* Schletterer, 1889
Submediterranean species, known only from Pieniny Mts. (Dylewska 1962).

Genus *Anthocopa* Lepeletier, 1825

Taxonomy and systematical arrangement after Zanden (1988).

282. *Anthocopa andrenoides* (Spinola, 1808)
Known only from Pieniny Mts. (Dylewska 1962).
283. *Anthocopa bidentata* (Morawitz, 1876)
Circummediterranean species reported from a few stands in south-eastern Poland.
Anthocopa ononidis (Ferton) – see *A. tergestensis*!
284. *Anthocopa papaveris* (Latreille, 1799)
285. *Anthocopa spinulosa* (Kirby, 1802)
286. Anthocopa tergestensis (Ducke, 1897)
Syn.: *A. ononidis* (Ferton, 1897).
A. wolhynica (Noskiewicz, 1922).
Reported from few stands in south-eastern Poland.
Anthocopa wolhynica (Noskiewicz) – see *A. tergestensis*!
287. *Anthocopa villosa* (Schenck, 1853)
Rare species in Poland.

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Genus *Hoplitis* KLUG, 1807

Taxonomy and systematical arrangement after ZANDEN (1988).

288. *Hoplitis adunca* (PANZER, 1798)
289. *Hoplitis anthocopoides* (SCHENCK, 1853)
Syn.: *H. spinolae* (SCHENCK, 1851).
H. caementaria (GERSTAECKER, 1869).
Hoplitis caementaria (GERSTAECKER) – see *H. anthocopoides*!
Hoplitis spinolae (SCHENCK) – see *H. anthocopoides*!
[290.] *Hoplitis claviventris* (THOMSON, 1872)
Syn.: *H. leucomelaena* auct, nec KIRBY, 1802.
This species is mentioned from western Beskid (Carpathian Mts.) by ŚNIEŻEK (1910). However, this information is doubtful and requires justification. May be it concerns the species *H. leucomelana* (KIRBY).
Hoplitis leucomelaena auct. – see *H. claviventris*!
291. *Hoplitis leucomelana* (KIRBY, 1802)
Syn.: *H. parvula* (DUFOUR and PERRIS, 1840).
Hoplitis parvula (DUFOUR and PERRIS) – see *H. leucomelana*!
292. *Hoplitis mitis* (NYLANDER, 1852)
Rare species occurs in south-eastern Poland.
293. *Hoplitis tridentata* (DUFOUR and PERRIS, 1840)

Genus *Osmia* PANZER, 1806

Taxonomy and systematical arrangement after ZANDEN (1988).

294. *Osmia aurulenta* (PANZER, 1799)
Osmia angustula ZETTERSTEDT – see *O. parietina*!
295. *Osmia bicolor* (SCHRANK, 1781)
Osmia bicornis LINNAEUS – see *O. rufa*!
296. *Osmia brevicornis* (FABRICIUS, 1798)
Syn.: *O. atrocaerulea* SCHILLING, 1849.
O. panzeri MORAWITZ, 1869.
Osmia panzeri MORAWITZ – see *O. brevicornis*!
297. *Osmia (Osmia) cerinthidis* MORAWITZ, 1876
Subpontic species, occcurring only in south-eastern Poland.
298. *Osmia coerulescens* (LINNAEUS, 1758)
Syn.: *O. aenea* (LINNAEUS, 1761).
299. *Osmia cornuta* (LATREILLE, 1805)
In Poland found only in Kraków (DYLEWSKA, ZABŁOCKI 1972).
Osmia emarginata auct. – see *O. mustelina*!
300. *Osmia fulviventris* (PANZER, 1798)
[301.] *Osmia gallarum* SPINOLA, 1808
NASONOV's (1892, 1894) notes on its occurrence in Mazovian Lowland (Gałachy) have not been hitherto confirmed. The species is treated as extinct in the Red Book of Polish fauna (BANASZAK 1992).
302. *Osmia inermis* (ZETTERSTEDT, 1838)
303. *Osmia leaiana* (KIRBY, 1802)

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Syn.: *O. solskyi* MORAWITZ, 1871.

Osmia solskyi MORAWITZ – see *O. leaiana*!

304. *Osmia maritima* FRIESE, 1885

The species connected with coastal dunes (HAESELER 1982), has been reported by BLÜTHGEN (1919) and NOSKIEWICZ (1950) from Polish seaside. The checking of its occurrence is necessary.

305. *Osmia mustelina* GERSTAECKER, 1869

Syn.: *O. emerginata* auct. nec LEPELETIER, 1841.

According to TKALCŮ (1971) *O. emerginata* is a western-mediterranean species whereas *O. mustelina* occurs in warmer habitats of Central Europe. In the past, specimens of the later were sometimes misidentified as *O. emerginata*.

306. *Osmia nigriventris* (ZETTERSTEDT, 1838)

Reported from northern and central Poland by aut of data entomologists. Its occurrence should be checked.

Osmia aenea (LINNAEUS) – see *O. coerulescens*!

307. *Osmia parietina* CURTIS, 1828.

Syn.: *O. angustula* ZETTERSTEDT, 1838.

308. *Osmia pilicornis* SMITH, 1846

309. *Osmia rufa* (LINNAEUS, 1758)

Syn.: *O. bicornis* (LINNAEUS, 1758).

310. *Osmia uncinata* GERSTAECKER, 1869

311. *Osmia xanthomelana* (KIRBY, 1802)

Genus *Chalicodoma* LEPELETIER, 1841

REBMAN (1970) and WESTRICH (1984) treated *Chalicodoma* LEPELETIER as a subgenus of *Megachile*. MICHENER (1962), PASTEELS (1966) and TKALCŮ (1977) considered it to be a separate genus. Apart from morphological differences the means of nest construction seems to be an essential cause its separation.

312. *Chalicodoma ericetorum* (LEPELETIER, 1841)

Chalicodoma muraria auct. – see *Ch. parietina*!

Chalicodoma muraria (RETZIUS) – see *Ch. parietina*!

[313.] *Chalicodoma parietina* FOURCROY, 1785

Syn.: *Ch. muraria* (RETZIUS, 1783)

Ch. muraria auct. nec (FABRICIUS, 1798).

The first note on the occurrence of *Ch. parietina* in Poland (Silesia) is that of SCHILLING (1849), but later investigations did not confirm it. The first sure and hitherto one discovery of this species in Silesia has been Dittrich's note in the report of Meetings of Entomological Society in Wroclaw from 1921 about the nesting of *Ch. parietina* in old stone-pit near Ząbkowice Śląskie (Frankenstein). NOSKIEWICZ (1949) confirmed its occurrence there in 1947. Later this stand was many times investigated by NOSKIEWICZ (1950, 1959), MACKO, NOSKIEWICZ (1954) and subsequently STROJNY (1963–1987). The latter author definitely stated extinction of this colony (STROJNY 1987), thus this species should be considered as dying out in our country (BANASZAK 1992). We need to add that DROGOSZEWSKI (1939) reported finding 4 females in the collection of former Gabinet Warszawski in Warsaw University labelled "Cracoviae".

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Genus *Megachile* LATREILLE, 1802

314. *Megachile alpicola* ALFKEN, 1924
315. *Megachile analis* NYLANDER, 1852
This species is mentioned only by DITTRICH (1903) and NOSKIEWICZ (1949) from Sudety Mts.
316. *Megachile apicalis* SPINOLA, 1808
317. *Megachile argentata* (FABRICIUS, 1793)
Megachile argentata auct. – see *M. leachella*!
318. *Megachile centuncularis* (LINNAEUS, 1758)
319. *Megachile circumcincta* (KIRBY, 1802)
320. *Megachile lagopoda* (LINNAEUS, 1761)
321. *Megachile lapponica* THOMSON, 1872
From the specimens in Dittrich's collection determined as *M. versicolor* (DITTRICH 1903), NOSKIEWICZ (1949) separated one individual of the male of *M. lapponica* collected Warta (Nysa Kłodzka River Valley).
322. *Megachile leachella* CURTIS, 1828
Syn.: *M. argentata* auct. nec (FABRICIUS, 1793) (after HURD 1967 and REBMANN 1967, 1968).
323. *Megachile ligniseca* (KIRBY, 1802)
324. *Megachile maritima* (KIRBY, 1802)
325. *Megachile nigriventris* SCHENCK, 1867/8
Rare species in Poland.
326. *Megachile octosignata* NYLANDER, 1852
Rare species in Poland.
327. *Megachile pilidens* ALFKEN, 1923
Known from few stands in southern Poland: Silesia, Sandomierska Lowland.
328. *Megachile pyrenaea* PÉREZ, 1890
The only report of this species is that of NOSKIEWICZ (1949) on the basis of one female from Dittrich's collection (coll. 18.07.1887).
329. *Megachile rotundata* (FABRICIUS, 1784)
330. *Megachile versicolor* SMITH, 1844
331. *Megachile willughbiella* (KIRBY, 1802)

Genus *Coelioxys* LATREILLE, 1809

Coelioxys acuminata NYLANDER – see *C. inermis*!
332. *Coelioxys afra* LEPELETIER, 1841
333. *Coelioxys alata* FÖRSTER, 1853
Reported only from Pieniny Mts. (DYLEWSKA 1962).
334. *Coelioxys aurolimbata* FÖRSTER, 1853
335. *Coelioxys brevis* EVERSMANN, 1852
336. *Coelioxys conoidea* (ILLIGER, 1806)
Syn.: *C. punctata* LEPELETIER, 1841.
337. *Coelioxys elongata* LEPELETIER, 1841
338. *Coelioxys inermis* (KIRBY, 1802)
Syn.: *C. acuminata* NYLANDER, 1852.
339. *Coelioxys lanceolata* NYLANDER, 1852
Reported only from Pieniny Mts. (DYLEWSKA 1962).

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340. *Coelioxys mandibularis* NYLANDER, 1848
Coelioxys octodentata LEPELETIER – see *C. rufocaudata*!
341. *Coelioxys polycentris* FÖRSTER, 1853
Subpontic species, in Poland mentioned only from Wielkopolsko-Kujawska Lowland (TORKA 1916, 1933, SZULCZEWSKI 1922, 1947) and Mazowiecka Lowland (BANASZAK, PLEWKA 1981).
Coelioxys punctata LEPELETIER – see *C. conoidea*!
342. *Coelioxys quadridentata* (LINNAEUS, 1758)
343. *Coelioxys rufescens* LEPELETIER, 1825
344. *Coelioxys rufocaudata* SMITH, 1854
Syn.: *C. octodentata* LEPELETIER, 1841

Family *ANTHOPHORIDAE*

Genus *Anthophora* LATREILLE, 1803

Taxonomy and systematic after BROOKS (1988), key for identification: OSYTSHNJUK, PANFILOV, and PONOMAREVA (1978).

Subgenus *Anthophora* LATREILLE, s.str.

Anthophora acervorum (LINNAEUS) – see *A. plumipes*!
Anthophora nigra (FRIESE) – see *A. plumipes*!
Anthophora nigripes (FRIESE) – see *A. plumipes*!
Anthophora pilipes (FABRICIUS) – see *A. plumipes*!
345. *Anthophora (Anthophora) plumipes* (PALLAS, 1772)
Syn.: *A. acervorum* (LINNAEUS, 1758).
A. pilipes (FABRICIUS, 1775).
A. squalens DOURS, 1869 (as *A. acervorum* ssp.).
A. nigra (FRIESE, 1896) (as *A. acervorum* ssp.).
A. nigripes (FRIESE, 1896) (as *A. acervorum* ssp.)
BROOKS (1988) sustains DAY's (1979) opinion, that *A. acervorum* is a synonym of a species of *Bombus* and probably *subterraneus*. The next available name for *A. acervorum* of Fabricius and subsequent authors is *Apis plumipes* PALLAS, 1772 (= *Apis pilipes* FABRICIUS, 1775).
Anthophora squalens DOURS – see *A. plumipes*!

Subgenus *Pyganthophora* BROOKS, 1988

Anthophora aestivalis (PANZER) – see *A. retusa*!
346. *Anthophora (Pyganthophora) retusa* (LINNAEUS, 1758)
Syn.: *A. aestivalis* (PANZER, 1801).

Subgenus *Mystacanthophora* BROOKS, 1988

[347.] *Anthophora (Mystacanthophora) borealis* MORAWITZ, 1864
SCHOLZ (1912) reported only one male specimen from Krzelów (Trzebnickie Hills). DYLEWSKA (1962) mentioned generally Silesia as area of occurrence this species. Its occurrence requires confirmation.

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Subgenus *Caranthophora* BROOKS, 1988

Anthophora flabellifera LEPELETIER – see *A. pubescens*!
348. *Anthophora (Caranthophora) pubescens* (FABRICIUS, 1781)
Syn.: *A. flabellifera* LEPELETIER, 1841.

Subgenus *Melea* SANDHOUSE, 1943

Anthophora parietina (FABRICIUS) – see *A. plagiata*!
349. *Anthophora (Melea) plagiata* (ILLIGER, 1806)
Syn.: *A. parietina* (FABRICIUS, 1793) nec FOURCROY, 1785 (after BROOKS 1988)
A. schenckii DALLA TORRE, 1877 (as *parietina* ssp.).
Anthophora schenckii DALLA TORRE – see *A. plagiata*!

Subgenus *Dasymegilla* BROOKS, 1988

350. *Anthophora (Dasymegilla) quadrimaculata* (PANZER 1806)
Syn.: *A. vulpina* (PANZER, 1798) (after BROOKS1988)
Anthophora vulpina (PANZER) – see *A. quadrimaculata*!

Subgenus *Clisodon* PATTON, 1879

351. *Anthophora (Clisodon) furcata* (PANZER, 1798)

Subgenus *Heliophila* KLUG, 1807

352. *Anthophora (Heliophila) bimaculata* (PANZER, 1798)
Syn: . *rotundata* (PANZER, 1798).
Anthophora rotundata (PANZER) – see *A. bimaculata*!

Genus *Amegilla* FRIESE, 1897

Subgenus *Amegilla* FRIESE, s.str.

353. *Amegilla (Amegilla) quadrifasciata* (VILLERS, 1789)

Genus *Melecta* LATREILLE, 1802

Melecta albifrons FÖRSTER sensu DAY and FITTON (1977) – see *M. punctata*!
Melecta armata (PANZER) – see *M. punctata*!
354. *Melecta luctuosa* (SCOPOLI, 1770)
355. *Melecta punctata* (FABRICIUS, 1775)
Syn.: *M. armata* (PANZER, 1799)
M. albifrons (FÖRSTER, 1771).

Genus *Thyreus* PANZER, 1806
Syn.: *Crocisa* Jurine, 1807

Taxonomy after LIEFTINCK (1968).

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356. *Thyreus histrionicus* (ILLIGER, 1806)
Syn.: *T. major* MORAWITZ, 1875.
Thyreus major MORAWITZ – see *T. histrionicus*!
357. *Thyreus orbatus* (LEPELETIER, 1841)
Syn.: *T. scutellaris* auct.
Thyreus scutellaris auct. – see *T. orbatus*!
358. *Thyreus truncatus* (PÉREZ, 1883)
Known only from Szczucin, Sandomierska Lowland (NIESIOŁOWSKI 1949).

Genus *Eucera* SCOPOLI, 1770

Taxonomy and identification after IUGA (1958), BANASZAK, RASMONT (1994).

Eucera dificilis FRIESE – see *E. longicornis*!
359. *Eucera interrupta* BAER, 1850.
360. *Eucera longicornis* (LINNAEUS, 1758)
Syn.: *E. dificilis* FRIESE, 1896.
Eucera polonica RUSZKOWSKI – see *E. pollinosa*!
361. *Eucera tuberculata* (FABRICIUS, 1793)
Rare species in Poland.
362. *Eucera pollinosa* (SMITH, 1854)
Syn.: *E. polonica* RUSZKOWSKI, 1994
Reported only from Puławy (RUSZKOWSKI et al. 1994, BANASZAK 2000).

Genus *Tetralonia* SPINOLA, 1838

Syn.: *Macrocera* LATREILLE

Taxonomy and identification after IUGA (1958).

363. *Tetralonia dentata* (KLUG, 1835)
Syn.: *T. tricincta* (LEPELETIER, 1841).
364. *Tetralonia hungarica* (FRIESE, 1895)
Reported only from Pomerania (Kwidzyń) by ALFKEN (1909) and from Sandomierska Lowland (Sandomierz) by NOSKIEWICZ (1959).
365. *Tetralonia macroglossa* ILLIGER, 1806
Syn.: *T. malvae* auct. nec ROSSI, 1791.
Tetralonia malvae auct. – see *T. macroglossa*!
366. *Tetralonia salicariae* (LEPELETIER, 1841)
Tetralonia tricincta (LEPELETIER) – see *T. dentata*!

Genus *Xylocopa* LATREILLE, 1802

Taxonomy and identification after HURD and MOURE (1963).

Subgenus *Xylocopa* LATREILLE, s.str.

367. *Xylocopa (Xylocopa) valga* GERSTAECKER, 1872
All stands in Poland reviewed BANASZAK (1979). Occurrence of this species in Poland was recently confirmed in Puławy (RUSZKOWSKI et al. 1997) and in Sanok vicinity (CELARY et al. 1998).

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368. *Xylocopa (Xylocopa) violacea* (LINNAEUS, 1758)
NOSKIEWICZ (1950) gave the last record of this species from Silesia. Banaszak (1979) gives the map of its stands in Poland. The species is treated as dying out in Poland (BANASZAK, 1992).

Genus *Ceratina* LATREILLE, 1802

Taxonomy and identification after TERZO (1992)

369. *Ceratina cucurbitina* (ROSSI, 1792)
Recently discovered in the vicinity of Toruń by PAWLIKOWSKI (1985).
370. *Ceratina cyanea* (KIRBY, 1802)

Genus *Nomada* SCOPOLI, 1770

Taxonomy after CELARY (1995). Keys for identification: PITTIONI (1953), OSYTSHNJUK, PANFILOV, and PONOMAREVA (1978).

Nomada alboguttata HERRICH-SCHÄFFER – see *N. ochrostoma*!
371. *Nomada argentata* HERRICH-SCHÄFFER, 1839
372. *Nomada armata* HERRICH-SCHÄFFER, 1839
373. *Nomada atroscutellaris* STRAND, 1921
Rare species, known from a few stands in Poland.
Nomada baccata SMITH – see *N. ochrostoma*!
Nomada baeri STOECKHERT – see *N. castellana*!
374. *Nomada bifasciata* OLIVIER, 1811
Syn.: *N. pusilla* PÉREZ, 1884.
SCHWARZ (1986 d) has treated *N. lepeletieri* PÉREZ, 1884 as subspecies of *N. bifasciata*. The species is widely spread in France and Central Europe.
Nomada bifida THOMSON – see *N. ruficornis*!
375. *Nomada bispinosa* MOCSÁRY, 1883
Rare species, known from a few stands in Poland (CELARY 1995).
376. *Nomada braunsiana* SCHMIEDEKNECHT, 1882
Rare species in Poland.
377. *Nomada castellana* DUSMET, 1913
Syn.: *N. baeri* STOECKHERT, 1930 (after SCHWARZ 1986 a–d).
In Poland this species mentioned only from Pieniny Mts. (DYLEWSKA 1963), and from Krakowsko-Wieluńska Upland (CELARY 1995).
378. *Nomada conjugens* HERRICH-SCHÄFFER, 1839
Rare species, known from a few localities in Poland.
Nomada cinnabarina MORAWITZ – see *N. stigma*!
379. *Nomada distinguenda* MORAWITZ, 1874
Only in southern Poland.
380. *Nomada emarginata* MORAWITZ, 1877
Rare species, known from a few stands in Poland.
381. *Nomada errans* LEPELETIER, 1841
Submediterranean species, known from few stands in Poland.
382. *Nomada fabriciana* (LINNAEUS, 1767)
383. *Nomada facilis* SCHWARZ, 1967
Rare species, known only from Mazowiecka Lowland and Krakowsko-Wieluńska Upland (CELARY 1995).

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384. *Nomada femoralis* MORAWITZ, 1869
Nomada ferruginata auct. – see *N. cinctiventris*!
385. *Nomada ferruginata* (LINNAEUS, 1767)
Syn.: *N. xanthostica* (KIRBY, 1802).
Synonymy of this species has not been definitely cleared (SCHWARZ 1967).
386. *Nomada flava* PANZER, 1798
387. *Nomada flavoguttata* (KIRBY, 1802)
388. *Nomada flavopicta* (KIRBY, 1802)
389. *Nomada fucata* PANZER, 1798
390. *Nomada fulvicornis* FABRICIUS, 1793
Syn.: *N. lineola* PANZER, 1798 (after SCHWARZ 1974).
391. *Nomada furva* PANZER, 1798
Rare species, known from a few stands in part of south Poland (CELARY 1995).
392. *Nomada fuscicornis* NYLANDER, 1848
Nomada glabella THOMSON – see N. *panzeri*!
393. *Nomada goodeniana* (KIRBY, 1802)
Syn.: *N. succincta* auct., part.
394. *Nomada guttulata* SCHENCK, 1861
Nomada hillana (KIRBY) – see *N. striata*!
395. *Nomada integra* BRULLÉ, 1832
Syn.: *Nomada ferruginata var. cinctiventris* FRIESE, 1920.
Nomada ferruginata auct. nec. LINNAEUS
Nomada stigma auct. nec. FABRICIUS
396. *Nomada italica* DALLA TORE and FRIESE, 1894
NOSKIEWICZ (1959) reported it's from Gołąb in Vistula River Valley and CELARY (1995) from Dębsko (Pomerania).
397. *Nomada lathburiana* (KIRBY, 1802)
Nomada lepeletieri PÉREZ – see *N. bifasciata*!
398. *Nomada leucophthalma* (KIRBY, 1802)
Nomada lineola PANZER – see *N. fulvicornis*!
399. *Nomada marshamella* (KIRBY, 1802)
Nomada minuscula NOSKIEWICZ – see *N. sheppardana*!
400. *Nomada moeschleri* ALFKEN, 1913
Nomada montana MOCSÁRY – see *N. roberjeotiana*!
401. *Nomada mutabilis* MORAWITZ, 1871
402. *Nomada nobilis* HERRICH-SCHÄFFER, 1839
Rare species, known from a few localities in Poland.
403. *Nomada obscura* ZETTERSTEDT, 1838
Reported only from Silesia (TORKA 1925) and from Western Sudeten (STOECKHERT 1954).
404. *Nomada obtusifrons* NYLANDER, 1848
Only in mountain areas.
Nomada ochrostoma (KIRBY) – see *N. striata*!
405. *Nomada ochrostoma* ZETTERSTEDT, 1838, (nec Kirby, 1802)
Syn.: *N. alboguttata* HERRICH-SCHÄFFER, 1839 (after SCHWARZ 1986 a–d).
N. baccata SMITH, 1844

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406. *Nomada opaca* ALFKEN, 1913
Rare species in Poland.
407. *Nomada panzeri* LEPELETIER, 1841
Syn.: *N. ruficornis* auct. nec LINNAEUS, 1758.
N. glabella THOMSON, 1870 (after SCHWARZ 1986 a–d).
Nomada pusilla PÉREZ – see *N. bifasciata*!
408. *Nomada rhenana* MORAWITZ, 1872
409. *Nomada roberjeotiana* PANZER, 1799
Syn.: *N. montana* MOCSÁRY, 1894
N. tormentillae ALFKEN, 1901
410. *Nomada ruficornis* (LINNAEUS, 1758)
Syn.: *N. bifida* THOMSON, 1872
Nomada ruficornis auct. – see *N. panzeri*!
411. *Nomada rufipes* FABRICIUS, 1793
Syn.: *N. solidaginis* PANZER, 1799.
412. *Nomada sexfasciata* PANZER, 1799
413. *Nomada sheppardana* (KIRBY, 1802)
SCHWARZ (1986 c) has stated *N. minuscula* NOSKIEWICZ, 1930 to be a subspecies of *N. sheppardana*.
414. *Nomada signata* JURINE, 1807
Western European species, connected with *Andrena fulva* (MÜLL.). Rare species.
415. *Nomada similis* MORAWITZ, 1872
Seldom reported from Poland.
Nomada solidaginis PANZER – see *N. rufipes*!
Nomada stigma auct. – see *N. cinctiventris*!
416. *Nomada stigma* FABRICIUS, 1804
Syn.: *N. cinnabarina* MORAWITZ, 1872.
N. villipes STOECKHERT, 1930 (after SCHWARZ 1967 and WESTRICH 1983).
417. *Nomada striata* FABRICIUS, 1793
Syn.: *N. hillana* (KIRBY, 1802) (after SCHWARZ 1974).
N. ochrostoma (KIRBY, 1802).
Nomada succincta auct. – see *N. goodeniana*!
Nomada tormentillae ALFKEN – see *N. roberjeotiana*!
418. *Nomada trispinosa* SCHMIEDEKNECHT, 1882
Rare species, known from a few stands in Poland (CELARY 1995).
Nomada villipes STOECKHERT – see *N. stigma*!
Nomada xanthostica (KIRBY) – see *N. ferruginata*!
419. *Nomada zonata* PANZER, 1798

Genus *Pasites* JURINE, 1807

420. *Pasites maculatus* JURINE, 1807

Genus *Ammobates* LATREILLE, 1809

421. *Ammobates punctatus* (FABRICIUS, 1804)
WARNCKE (1983) treated *Ammobates* LATREILLE as subgenus in the genus *Pasites* JURINE.

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Genus *Biastes* PANZER, 1806

422. *Biastes brevicornis* (PANZER, 1798)
423. *Biastes emarginatus* (SCHENCK, 1853)
In Poland known from Cieszyn vicinity (KUNTZE, NOSKIEWICZ 1938) and from Zamość vicinity (KOSIOR, FIJAŁ 1992).
424. *Biastes truncatus* (NYLANDER, 1848)
Rare species in Poland.

Genus *Epeolus* LATREILLE, 1802

Taxonomy after RICHARDS (1937).

Epeolus alpinus BISCHOFF – see *E. glacialis*!
425. *Epeolus cruciger* (PANZER, 1799)
Syn.: *E. marginatus* BISCHOFF, 1930.
E. rufipes THOMSON, 1780.
E. similis HOPPNER, 1899.
426. *Epeolus glacialis* ALFKEN, 1913
Syn.: *E. alpinus* BISCHOFF, 1930.
The species connected with coastal dunes. Reported from Poland by out of date authors; its occurrence requires confirmation.
Epeolus marginatus BISCHOFF – see *E. cruciger*!
Epeolus notatus auct. – see *E. variegatus*!
Epeolus productus THOMSON – see *E. variegatus*!
Epeolus rufipes THOMSON – see *E. cruciger*!
Epeolus similis HOPPNER – see *E. cruciger*!
427. *Epeolus schumeli* SCHILING, 1848
Reported from south-eastern Europe, also mentioned from Poland by out of data entomologists; its occurrence requires confirmation.
428. *Epeolus variegatus* (LINNAEUS, 1758)
Syn.: *Epeolus productus* THOMSON, 1870.
Epeolus notatus auct. nec CHRIST, 1891.

Genus *Epeoloides* GIRAUD, 1863

429. *Epeoloides coecutiens* (FABRICIUS, 1775)

Family *APIDAE*

Classsification after MICHENER 1990.

Genus *Bombus* LATREILLE, 1802

Taxonomy and systematical arrangement after LØKEN (1973), MICHENER (1990), Rasmont (1983, 1984, 1988), WILLIAMS (1998), keys for identification: LØKEN (1973), ALFORD (1975), BANASZAK (1993), PAWLIKOWSKI (1996). In face of very consistent and morphologically and

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biologically uniform genus *Bombus* LATREILLE its division into genera (REINIG 1981) does not seem to be reasonable.

Subgenus *Alpigenobombus* SKORIKOV, 1914

Bombus mastrucatus GERSTAECKER – see *B. wurfleini*!

430. *Bombus (Alpigenobombus) wurfleini* RADOSZKOWSKI, 1859
After LØKEN (1973) in Poland does occur only subspecies *B. wurfleini mastrucatus* GERSTAECKER, 1869. Boreal-alpine species.

Subgenus *Kallobombus* DALLA TORE, 1880

Bombus proteus GERSTAECKER – see *B. soroeensis*!

431. *Bombus (Kallobombus) soroeensis* (FABRICIUS, 1776)
After DYLEWSKA (1957) in Poland appear two subspecies: *B. soroeensis soroeensis* (FABRICIUS) and *B. soroeensis proteus* GERSTAECKER, 1869.

Subgenus *Bombus* LATREILLE, s.str.
Syn.: *Terrestribombus* VOGT, 1911

Taxonomy and identification: BANASZAK, RASMONT 1994; identification of males: RASMONT et al. (1986).

432. *Bombus (Bombus) lucorum* (LINNAEUS, 1761)
433. *Bombus (Bombus) magnus* VOGT, 1911
Distribution in Poland – see BANASZAK, RASMONT 1994.
434. *Bombus (Bombus) terrestris* auct. (nec L. 1758)
435. *Bombus (Bombus) cryptarum* FABRICIUS, 1775
Syn.: *B. lucocryptarum* BALL, 1914; RASMONT, 1981
Bombus lucocryptarum BALL – see *B. cryptarum*!
Distribution in Poland – see BANASZAK, RASMONT 1994 b.

Subgenus *Cullumanobombus* VOGT, 1911

— *Bombus (Cullumanobombus) cullumanus* (KIRBY, 1802)
According to DYLEWSKA (1957) there are no justifiable data on occurrence of this species in Poland.

436. *Bombus semenoviellus* SKORIKOV, 1910
It occurs in Asia and Europe, mainly in the zone 52° and 60° north latitude. The species has been rapidly expanding its range westwards (SMISSEN & RASMONT 1999). In Poland it has been recorded since 1993 from the north-eastern part (PLEWKA 1995, 1998, KOWALCZYK 1997).

Subgenus *Pyrobombus* DALLA TORRE, 1880

437. *Bombus (Pyrobombus) hypnorum* (LINNAEUS, 1758)
438. *Bombus (Pyrobombus) jonellus* (KIRBY, 1802)
Syn.: *Bombus scrimshiranus* (KIRBY, 1802)
439. *Bombus (Pyrobombus) pratorum* (LINNAEUS, 1761)
440. *Bombus (Pyrobombus) pyrenaeus* PÉREZ, 1879
Bombus scrimshiranus (KIRBY) – see *A. jonellus*!

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Subgenus *Melanobombus* DALLA TORRE, 1880

441. *Bombus (Melanobombus) lapidarius* (LINNAEUS, 1758)

[442.] *Bombus (Melanobombus) sicheli* (RADOSZKOWSKI 1859)

REINIG (1937) mentioned it only from Białowieża Primeval Forest. The species is treated as extinct in the Red Book of Polish fauna (BANASZAK, 1992).

Subgenus *Megabombus* DALLA TORRE, 1880

443. *Bombus (Megabombus) hortorum* (LINNAEUS, 1761)

444. *Bombus (Megabombus) ruderatus* (FABRICIUS, 1775)

Subgenus *Thoracobombus* DALLA TORRE, 1880

Bombus agrorum (FABRICIUS) – see *B. pascuorum*!

Bombus arenicola THOMSON – see B. *veteranus*!

Bombus cognatus auct. – see B. *muscorum*!

Bombus derhamellus (KIRBY) – see *B. ruderarius*!

Bombus helferanus SEIDL – see *B. humilis*!

445. *Bombus (Thoracobombus) humilis* ILLIGER, 1806

Syn.: *B. solstitialis* PANZER, 1805.
B. helferanus SEIDL, 1837.
B. variabilis SCHMIEDEKNECHT, 1878

446. *Bombus (Thoracobombus) laesus* (MORAWITZ, 1875)

According to RUSZKOWSKI et. al. (1980), only occurs in Poland the subspecies *B. laesus mocsaryi* KRIECHBAUMER, 1877. In Poland was found in vicinity of Kraków (ŚNIEŻEK 1894) and in Kamionka near Chełm Lubelski (RUSZKOWSKI et al. 1980).

447. *Bombus (Thoracobombus) maculidorsis* SKORIKOV 1922

PANFILOV (1956) regarded *B. laesus*, *B. mocsaryi*, *B. maculidorsis* as separate species, but WILLIAMS (1998) has proposed to treat them as part of a single variable species. The species occurs in eastern Poland – the map of stands is given by RUSZKOWSKI et al. (1980)

Bombus mocsaryi KRIECHBAUMER – see *B. laesus*!

448. *Bombus (Thoracobombus) muscorum* (LINNAEUS, 1758)

Syn.: *B. cognatus* auct., nec STEPHENS 1846.

449. *Bombus (Thoracobombus) pascuorum* (SCOPOLI, 1763)

Syn.: *Bombus agrorum* (FABRICIUS, 1787)

According RASMONT (1983) only ssp. *B. pascuorum floralis* (GMELIN, 1970) occurs in the whole area of Poland.

Bombus rajellus (KIRBY) – see *B. ruderarius*!

450. *Bombus (Thoracobombus) ruderarius* (MÜLLER, 1776)

Syn.: *B. derhamellus* (KIRBY, 1802).
B. rajellus (KIRBY, 1802).

451. *Bombus (Thoracobombus) schrencki* (MORAWITZ, 1881)

REINIG (1937) mentioned it only from Białowieża Primeval Forest. It occurrence has been recently confirmed in the area of Wigry National Park (KRZYSZTOFIAK 1993).

Bombus solstitialis PANZER – see *B. humilis*!

452. *Bombus (Thoracobombus) sylvarum* (LINNAEUS, 1761)

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Bombus variabilis SCHMIEDEKNECHT – see *B. humilis*!

453. *Bombus (Thoracobombus) veteranus* (FABRICIUS, 1793)
Syn.: *B. equestris* auct. nec (FABRICIUS, 1793).
B. arenicola THOMSON, 1872.

Subgenus *Subterraneobombus* VOGT, 1911

454. *Bombus (Subterraneobombus) distinguendus* MORAWITZ, 1869

[455.] *Bombus (Subterraneobombus) fragrans* PALLAS, 1771
PONGRACZ (1923) reported it only from Chełm (distr. Lublin). The species is treated as extinct in the Red Book of Polish fauna (BANASZAK, 1992).

Bombus latreillellus (KIRBY) – see *B. subterraneus*!

456. *Bombus (Subterraneobombus) subterraneus* (LINNAEUS, 1758)
Syn.: *B. latreillellus* (KIRBY, 1802).

Subgenus *Rhodobombus* DALLA TORRE, 1880

Bombus elegans SEIDL – see *B. mesomelas*!

457. *Bombus (Rhodobombus) mesomelas* GERSTAECKER, 1869
Syn.: *B. elegans* auct.? nec SEIDL, 1837 (after REINIG 1981).
The species inhabits dry and sunny mountain slopes (DYLEWSKA 1957). In Poland was found in the Carpathian and in the Małopolska Upland.

458. *Bombus (Rhodobombus) pomorum* (PANZER, 1805)

Subgenus *Confusibombus* BALL, 1914

459. *Bombus (Confusibombus) confusus* SCHENCK, 1859
Rare species in Poland.

Genus *Psithyrus* LEPELETIER, 1833

Taxonomy and systematical arrangement after LØKEN (1984) and WILLIAMS (1998).
Keys for identification: BANASZAK 1993; PAWLIKOWSKI 1996.

Subgenus *Ashtonipsithyrus* FRISON, 1927

460. *Psithyrus (Ashtonipsithyrus) bohemicus* (SEIDL, 1837)
Syn.: *P. distinctus* PÉREZ, 1884.
Psithyrus distinctus PÉREZ – see *P. bohemicus*!

461. *Psithyrus (Ashtonipsithyrus) vestalis* (GEOFFROY in FOURCROY, 1785)

Subgenus *Allopsithyrus* POPOV, 1931

462. *Psithyrus (Allopsithyrus) barbutellus* (KIRBY, 1802)

Subgenus *Psithyrus* LEPELETIER, 1833

463. *Psithyrus (Psithyrus) rupestris* (FABRICIUS, 1793)

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Subgenus *Metapsithyrus* POPOV, 1931

464. *Psithyrus (Metapsithyrus) campestris* (PANZER, 1801)

Subgenus *Fernaldaepsithyrus* FRISON, 1927

465. *Psithyrus (Fernaldaepsithyrus) flavidus* (EVERSMANN, 1852)
In Poland confirmed only in 1994 from Borecka Primaeval Forest (PAWLIKOWSKI 1996).
466. *Psithyrus (Fernaldaepsithyrus) norvegicus* Sparre-SCHNEIDER, 1918
467. *Psithyrus (Fernaldaepsithyrus) quadricolor* LEPELETIER, 1832
468. *Psithyrus (Fernaldaepsithyrus) sylvestris* LEPELETIER, 1832

Genus *Apis* LINNAEUS, 1758

469. *Apis mellifera* LINNAEUS, 1758
Syn.: *A. mellifica* LINNAEUS, 1766.

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elongata LEPELETIER (*Coelioxys*)
emarginata auct. (*Osmia*)
emarginata MORAWITZ (*Nomada*)
emarginatus SCHENCK (*Biastes*)
enslinella *E.* STOECKHERT (*Andrena*)
EPEOLOIDES GIRAUD
EPEOLUS LATREILLE
ephippius LINNAEUS (*Sphecodes*)
ericetorum LEPELETIER (*Chalicodoma*)
errans LEPELETIER (*Nomada*)
Euandrena HEDICKE
euboeensis STRAND (*Evylaeus*)
EUCERA SCOPOLI
europaea WARNCKE (*Macropis*)
eurygnathus BLÜTHGEN (*Halictus*)
euryscapus FÖRSTER (*Hylaeus*)
EVYLAEUS ROBERTSON

F

fabriciana LINNAEUS (*Nomada*)
facilis SCHWARZ (*Nomada*)
falsifica PERKINS (*Andrena*)
fasciata NYLANDER (*Seladonia*)
fasciata NYLANDER (*Andrena*)
fasciatus HAGENS (*Sphecodes*)
femoralis MORAWITZ (*Nomada*)
femoralis PALLAS (*Nomiapis*)
Fernaldaepsithyrus FRISON
ferruginata LINNAEUS (*Nomada*)
ferruginatus HAGENS (*Sphecodes*)
flabellifera LEPELETIER (*Anthophora*)
flava PANZER (*Nomada*)
flavidus EVERSMANN (*Psithyrus*)
flavilabris SCHENCK (*Andrena*)
flavipes FABRICIUS (*Seladonia*)
flavipes PANZER (*Andrena*)
flavoguttata KIRBY (*Nomada*)
flavopicta KIRBY (*Nomada*)
flesse PANZER (*Andrena*)
floralis EVERSMANN (*Colletes*)
florea FABRICIUS (*Andrena*)
florentinum FABRICIUS (*Anthidium*)
floricola EVERSMANN (*Andrena*)
florisomne LINNAEUS (*Chelostoma*)
fodiens FOURCROY (*Colletes*)
foveolatum MORAWITZ (*Chelostoma*)
fragrans PALLAS (*Bombus*)
franconica BLÜTHGEN (*Stelis*)
fratellus PÉREZ (*Evylaeus*)
freygessneri ALFKEN (*Evylaeus*)
frontale FABRICIUS (*Panurgus*)
fucata PANZER (*Nomada*)
fucata SMITH (*Andrena*)
fuliginosum PANZER (*Chelostoma*)

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fulva MÜLLER (*Andrena*)
fulva SCHRANK (*Andrena*)
fulvago CHRIST (*Andrena*)
fulvescens SMITH (*Andrena*)
fulvicornis FABRICIUS (*Nomada*)
fulvicornis KIRBY (*Evylaeus*)
fulvicornis SCHENCK (*Andrena*)
fulvicrus EVERSMANN (*Lasioglossum*)
fulvida SCHENCK (*Andrena*)
fulvipes FABRICIUS (*Macropis*)
fulviventris PANZER (*Osmia*)
fumipennis SCHMIEDEKNECHT (*Andrena*)
furcata PANZER (*Anthophora*)
furva PANZER (*Nomada*)
fuscicornis NYLANDER (*Nomada*)
fuscipennis GENNAR (*Sphecodes*)
fuscipes KIRBY (*Andrena*)

G

gallarum SPINOLA (*Osmia*)
gavarnica PÉREZ (*Seladonia*)
gelriae VAN DER VECHT (*Andrena*)
genalis THOMSON (*Hylaeus*)
genevensis SCHMIEDEKNECHT (*Andrena*)
geofrellus KIRBY (*Sphecodes*)
gerstaeckeri HENSEL (*Hylaeus*)
gibbus LINNAEUS (*Sphecodes*)
gibbus SAUNDERS (*Hylaeus*)
glabella THOMSON (*Nomada*)
glabriusculus MORAWITZ (*Evylaeus*)
glacialis ALFKEN (*Epeolus*)
goodeniana KIRBY (*Nomada*)
gracilicornis MORAWITZ (*Hylaeus*)
gracilis MORAWITZ (*Evylaeus*)
gravida IMHOFF (*Andrena*)
gredleri FÖRSTER (*Hylaeus*)
guttulata SCHENCK (*Nomada*)
gwynana KIRBY (*Andrena*)

H

haemorrhoa FABRICIUS (*Andrena*)
haemorrhoidale SCHENCK (*Lasioglossum*)
haemorrhoidalis FABRICIUS (*Melitta*)

HALICTIDAE
Halictoides NYLANDER
halictula NYLANDER (*Dufourea*)
HALICTUS LATREILLE
hartmanni FRIESE (*Rophites*)
hattorfiana FABRICIUS (*Andrena*)
helferanus SEIDL (*Bombus*)
Heliophila KLUG
helvola LINNAEUS (*Andrena*)
HERIADES SPINOLA
hillana KIRBY (*Nomada*)
hirtipes FABRICIUS (*Dasypoda*)
hirtus LEPELETIER (*Colletes*)
histrionicus ILLIGER (*Thyreus*)
Holandrena PÉREZ
Hoplandrena PÉREZ
HOPLITIS KLUG
hortorum LINNAEUS (*Bombus*)
humilis ILLIGER (*Bombus*)
humilis IMHOFF (*Andrena*)
hungarica FRIESE (*Tetralonia*)
hyalinatus HAGENS (*Sphecodes*)
hyalinatus SMITH (*Hylaeus*)
hylaeiformis EVERSMANN (*Colletes*)
HYLAEUS FABRICIUS
Hylaeus FABRICIUS
hypnorum LINNAEUS (*Bombus*)

I

ibex WARNCKE (*Halictus*)
impunctatus NYLANDER (*Colletes*)
incisa EVERSMANN (*Andrena*)
inermis KIRBY (*Coelioxys*)
inermis NYLANDER (*Dufourea*)
inermis ZETTERSTEDT (*Osmia*)
inexpectatus NOSKIEWICZ (*Colletes*)
integra BRULLÉ (*Nomada*)
intermedia THOMSON (*Andrena*)
intermedius SCHENCK (*Evylaeus*)
intermedius BLÜTHGEN (*Sphecodes*)
interrupta BAER (*Eucera*)
interrupus PANZER (*Evylaeus*)
italica DALLA TORE and FRIESE (*Nomada*)

J

jacobi PERKINS (*Andrena*)
jonellus KIRBY (*Bombus*)

K

Kallobombus DALLA TORE
Kaptogaster ALFKEN
kirschbaumi BLÜTHGEN (*Evylaeus*)

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kriechbaumeri FÖRSTER (*Hylaeus*)
kuntzei NOSKIEWICZ (*Dioxoides*)

L

labialis KIRBY (*Andrena*)
labiata auct. (*Macropis*)
labiata FABRICIUS (*Andrena*)
labiata SCHENCK (*Andrena*)
labiatus EVERSMANN (*Panurginus*)
laesus MORAWITZ (*Bombus*)
laevigatum KIRBY (*Lasioglossum*)
laevis KIRBY (*Evylaeus*)
lagopoda LINNAEUS (*Megachile*)
Lambdopsis POPOV
lanceolata NYLANDER (*Coelioxys*)
lapidarius LINNAEUS (*Bombus*)
lapponica THOMSON (*Megachile*)
lapponica ZETTERSTEDT (*Andrena*)
LASIOGLOSSUM CURTIS
lathburiana KIRBY (*Nomada*)
lathyri ALFKEN (*Andrena*)
laticeps SCHENCK (*Evylaeus*)
lativentre SCHENCK (*Lasioglossum*)
latreillellus KIRBY (*Bombus*)
leachella CURTIS (*Megachile*)
leaiana KIRBY (*Osmia*)
lepeletieri PÉREZ (*Nomada*)
lepida SCHENCK (*Andrena*)
Lepidandrena HEDICKE
lepidulus COCKERELL (*Hylaeus*)
leporina PANZER (*Melitta*)
leptocephala MORAWITZ (*Hylaeus*)
leucahenea EBMER (*Seladonia*)
Leucandrena HEDICKE
leucomelaena (*Hoplitis*)
leucomelana KIRBY (*Hoplitis*)
leucophthalma KIRBY (*Nomada*)
leucopus KIRBY (*Evylaeus*)
leucozonium SCHRANK (*Lasioglossum*)
ligniseca KIRBY (*Megachile*)
limata SMITH (*Andrena*)
limbellus MORAWITZ (*Evylaeus*)
linearis SCHENCK (*Evylaeus*)
lineola PANZER (*Nomada*)
listerella KIRBY (*Andrena*)
lituratum PANZER (*Paranthidiellum*)
lobatus PANZER (*Panurgus*)
longicornis LINNAEUS (*Eucera*)
longuloides STRAND (*Evylaeus*)
longulus HAGENS (*Sphecodes*)
longulus SMITH (*Evylaeus*)
lucens IMHOFF (*Andrena*)
lucidulus SCHENCK (*Evylaeus*)
lucocryptarum BALL (*Bombus*)
lucorum LINNAEUS (*Bombus*)
luctuosa SCOPOLI (*Melecta*)

M

macroglossa ILLIGER (*Tetralonia*)
MACROPIS KLUG
maculatus JURINE (*Pasites*)
maculatus SMITH (*Halictus*)
maculidorsis SKORIKOV (*Bombus*)
magnus VOGT (*Bombus*)
major MORAWITZ (*Thyreus*)
majus NYLANDER (*Lasioglossum*)
malachurellum STRAND (*Evylaeus*)
malachurus KIRBY (*Evylaeus*)
malvae auct. (*Tetralonia*)
mandibularis NYLANDER (*Coelioxys*)
manicatum LINNAEUS (*Anthidium*)
marchali sensu WARNCKE (*Halictus*)
marchica ALFKEN (*Andrena*)
Margandrena WARNCKE
marginata FABRICIUS (*Andrena*)
marginatus BISCHOFF (*Epeolus*)
marginatus HAGENS (*Sphecodes*)
marginatus SMITH (*Colletes*)
marginellus SCHENCK (*Evylaeus*)
maritima FRIESE (*Osmia*)
maritima KIRBY (*Megachile*)
marshamella KIRBY (*Nomada*)
mastrucatus GERSTAECKER (*Bombus*)
maxillosum LINNAEUS (*Chelostoma*)
Megabombus DALLA TORRE
megacephalus SCHENCK (*Evylaeus*)
Megachile LATREILLE
MEGACHILIDAE
Melandrena PÉREZ, *1890*
Melanobombus DALLA TORRE
melanura NYLANDER (*Melitta*)
Melea SANDHOUSE
MELECTA LATREILLE
***MELITTA* KIRBY**
MELITTIDAE
MELITTURGA LATREILLE
mellifera LINNAEUS (*Apis*)
mesomelas GERSTAECKER (*Bombus*)

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Metapsithyrus POPOV
Micrandrena ASHMEAD
miniatus HAGENS (*Sphecodes*)
minima SCHENCK (*Stelis*)
minuscula NOSKIEWICZ (*Nomada*)
minuta LEPELETIER (*Dufourea*)
minuta LEPELETIER and SERVILLE (*Stelis*)
minutissimus KIRBY (*Evylaeus*)
minutissimus ROSSI (*Nomioides*)
minutula KIRBY (*Andrena*)
minutuloides PERKINS (*Andrena*)
minutulus SCHENCK (*Evylaeus*)
minutus FABRICIUS (*Hylaeus*)
minutus KIRBY (*Evylaeus*)
mitis NYLANDER (*Hoplitis*)
mitis SCHMIEDEKNECHT (*Andrena*)
mixta RADOSZKOWSKI (*Dasypoda*)
mixta SCHENCK (*Hylaeus*)
mlokosewitzi RADOSZKOWSKI (*Dasypoda*)
mocsaryi KRIECHBAUMER (*Bombus*)
moeschleri ALFKEN (*Nomada*)
monilicornis KIRBY (*Sphecodes*)
montana MOCSÁRY (*Nomada*)
montanum MORAWITZ (*Anthidium*)
montanus MORAWITZ (*Colletes*)
morawitzi THOMSON (*Andrena*)
moricei FRIESE (*Hylaeus*)
morio BRULLÉ (*Andrena*)
morio FABRICIUS (*Evylaeus*)
muraria auct. (*Chalicodoma*)
muraria RETZIUS (*Chalicodoma*)
muscorum LINNAEUS (*Bombus*)
mustelina GERSTAECKER (*Osmia*)
mutabilis MORAWITZ (*Nomada*)
Mystacanthophora BROOKS

N

nana KIRBY (*Andrena*)
nanula NYLANDER (*Andrena*)
nanulus SCHENCK (*Evylaeus*)
nasuta GIRAUD (*Andrena*)
nasutus SMITH (*Colletes*)
niger HAGENS (*Sphecodes*)
nigra FRIESE (*Anthophora*)
nigrescens FRIESE (*Dasypoda*)
nigricans ALFKEN (*Melitta*)
nigriceps KIRBY (*Andrena*)
nigricorne NYLANDER (*Chelostoma*)
nigripes FRIESE (*Anthophora*)
nigripes LEPELETIER (*Evylaeus*)
nigritulus HAGENS (*Sphecodes*)
nigritus FABRICIUS (*Hylaeus*)
nigriventris ARNOLD (*Evylaeus*)
nigriventris SCHENCK (*Megachile*)
nigriventris ZETTERSTEDT (*Osmia*)
nigroaenea KIRBY (*Andrena*)
nigrospina THOMSON (*Andrena*)
nigrum VIERECK (*Evylaeus*)
nitida MÜLLER (*Andrena*)
nitidiuscula SCHENCK (*Andrena*)
nitidiusculus KIRBY (*Evylaeus*)
nitidulus FABRICIUS (*Evylaeus*)
nitidum PANZER (*Lasioglossum*)
niveata FRIESE (*Andrena*)
nobilis HERRICH-SCHÄFFER (*Nomada*)
NOMADA SCOPOLI
NOMIAPIS COCKERELL
NOMIOIDES SCHENCK
norvegicus SPARRE-SCHNEIDER (*Psithyrus*)
Notandrena PÉREZ
notatus (*Epeolus*)
nudigastra ALFKEN (*Andrena*)
nycthemera IMHOFF (*Andrena*)

O

oblongatum LATREILLE (*Proanthidium*)
obscura ZETTERSTEDT (*Nomada*)
obscuratus MORAWITZ (*Evylaeus*)
obtusifrons NYLANDER (*Nomada*)
ochropyga ALFKEN (*Andrena*)
ochrostoma KIRBY (*Nomada*)
ochrostoma ZETTERSTEDT (*Nomada*)
octodentata LEPELETIER (*Coelioxys*)
octosignata NYLANDER (*Megachile*)
odontopyga NOSKIEWICZ (*Stelis*)
ononidis FERTON (*Anthocopa*)
opaca ALFKEN (*Nomada*)
Opandrena ROBERTSON
orbatus LEPELETIER (*Thyreus*)
ornatula KLUG (*Stelis*)
OSMIA PANZER
ovatula KIRBY (*Andrena*)
ovina KLUG (*Andrena*)

P

Pachycolletes BISCHOFF
Pallandrena WARNCKE

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pallens BRULLÉ (*Lasioglossum*)
pandellei PÉREZ (*Andrena*)
pannonicus EBMER (*Halictus*)
PANURGINAE
PANURGINUS NYLANDER
PANURGUS PANZER
panzeri LEPELETIER (*Nomada*)
panzeri MORAWITZ (*Osmia*)
papaveris LATREILLE (*Anthocopa*)
Parandrena ROBERTSON
PARANTHIDIELLUM MICHENER
Paraprosopis POPOV
parietina CURTIS (*Osmia*)
parietina FABRICIUS (*Anthophora*)
parietina FOURCROY (*Chalicodoma*)
parvula DUFOUR and PERRIS (*Hoplitis*)
parvulus SCHENCK (*Evylaeus*)
pascuorum SCOPOLI (*Bombus*)
PASITES JURINE
Patagiata BLÜTHGEN
paucisquama NOSKIEWICZ (*Andrena*)
paulus BRIDWELL (*Hylaeus*)
pauxillus SCHENCK (*Evylaeus*)
pectoralis FÖRSTER (*Hylaeus*)
pellucidus SMITH (*Sphecodes*)
perkinsi BLÜTHGEN (*Seladonia*)
pfankuchi ALFKEN (*Hylaeus*)
phaeoptera KIRBY (*Stelis*)
picistigma THOMSON (*Colletes*)
pictipes NYLANDER (*Hylaeus*)
pilicornis SMITH (*Osmia*)
pilidens ALFKEN (*Megachile*)
pilifrons THOMSON (*Sphecodes*)
pilipes FABRICIUS (*Andrena*)
pilipes FABRICIUS (*Anthophora*)
plagiata ILLIGER (*Anthophora*)
planidens GIRAUD (*Systropha*)
Plastandrena HEDICKE
plumipes PALLAS (*Anthophora*)
plumipes PANZER (*Dasypoda*)
podolica NOSKIEWICZ (*Andrena*)
Poecilandrena HEDICKE
Poliandrena WARNCKE
polita SMITH (*Andrena*)
politus SCHENCK (*Evylaeus*)
pollinosa SMITH (*Eucera*)
polonica RUSZKOWSKI (*Eucera*)
polycentris FÖRSTER (*Coelioxys*)
pomorum PANZER (*Bombus*)
pontica WARNCKE (*Andrena*)
potentillae PANZER (*Andrena*)
praecox SCOPOLI (*Andrena*)
prasinum SMITH (*Lasioglossum*)
pratensis FOURCROY (*Hylaeus*)
pratorum LINNAEUS (*Bombus*)
PROANTHIDIUM FRIESE
productus THOMSON (*Epeolus*)
propinqua SCHENCK (*Andrena*)
propinquus NYLANDER (*Hylaeus*)
Prosopis FABRICIUS
proteus GERSTAECKER (*Bombus*)
proxima KIRBY (*Andrena*)
pseudopolita ALFKEN (*Andrena*)
PSITHYRUS LEPELETIER
pubescens FABRICIUS (*Anthophora*)
pubescens KIRBY (*Andrena*)
pubescens OLIVIER (*Andrena*)
punctata FABRICIUS (*Melecta*)
punctata LEPELETIER (*Coelioxys*)
punctata SCHENCK (*Andrena*)
punctatissimus SCHENCK (*Evylaeus*)
punctatum LATREILLE (*Anthidium*)
punctatus BRULLÉ (*Hylaeus*)
punctatus FABRICIUS (*Ammobates*)
punctatus MOCSARY (*Colletes*)
puncticeps THOMSON (*Sphecodes*)
puncticollis MORAWITZ (*Evylaeus*)
punctulatissima KIRBY (*Stelis*)
punctulatissimus SMITH (*Hylaeus*)
punctulatus KIRBY (*Evylaeus*)
pusilla PÉREZ (*Nomada*)
pusilla PÉREZ (*Andrena*)
Pyganthophora BROOKS
pygmaeus SCHENCK (*Evylaeus*)
pyrenaea PÉREZ (*Megachile*)
pyrenaeus PÉREZ (*Bombus*)
Pyrobombus DALLA TORRE

Q

quadricinctus FABRICIUS (*Halictus*)
quadricolor LEPELETIER (*Psithyrus*)
quadridentata LINNAEUS (*Coelioxys*)
quadrifasciata VILLERS (*Amegilla*)
quadrimaculata PANZER (*Anthophora*)
quadrinotatulus SCHENCK (*Evylaeus*)
quadrinotatum KIRBY (*Lasioglossum*)
quadrisignatus SCHENCK (*Evylaeus*)
quadristrigatus LATREILLE (*Halictus*)
quinquespinosus SPINOLA (*Rophites*)

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R

rajellus KIRBY (*Bombus*)
rapunculi LEPELETIER (*Chelostoma*)
ratisbonensis STOECKHERT (*Andrena*)
reticulatus THOMSON (*Sphecodes*)
retusa LINNAEUS (*Anthophora*)
rhenana MORAWITZ (*Nomada*)
Rhinocolletes COCKERALL
Rhodobombus DALLA TORRE
RHOPHITOIDES Schenck
rinki GORSKI (*Hylaeus*)
roberjeotiana PANZER (*Nomada*)
ROPHITES Spinola
rosae PANZER (*Andrena*)
rotundata FABRICIUS (*Megachile*)
rotundata PANZER (*Anthophora*)
rubicundus CHRIST (*Halictus*)
rubicundus HAGENS (*Sphecodes*)
ruderarius MÜLLER (*Bombus*)
ruderatus FABRICIUS (*Bombus*)
rufa LINNAEUS (*Osmia*)
rufescens FOURCROY (*Sphecodes*)
rufescens LEPELETIER (*Coelioxys*)
ruficornis (*Nomada*)
ruficornis LINNAEUS (*Nomada*)
ruficrus ERICHSON (*Sphecodes*)
ruficrus NYLANDER (*Andrena*)
rufipes FABRICIUS (*Nomada*)
rufipes THOMSON (*Epeolus*)
rufitarsis ZETTERSTEDT (*Andrena*)
rufitarsis ZETTERSTEDT (*Evylaeus*)
rufiventris EVERSMANN (*Andrena*)
rufiventris PANZER (*Sphecodes*)
rufizona IMHOFF (*Andrena*)
rufocaudata SMITH (*Coelioxys*)
rufocinctum NYLANDER (*Lasioglossum*)
rupestris FABRICIUS (*Psithyrus*)

S

sabulosa SCOPOLI (*Andrena*)
salicariae LEPELETIER (*Tetralonia*)
saundersella PERKINS (*Andrena*)
scabricollis WESMAEL (*Sphecodes*)
schencki HAGENS (*Sphecodes*)
schencki MORAWITZ (*Andrena*)
schenckii DALLA TORRE (*Anthophora*)
schrencki MORAWITZ (*Bombus*)
schumeli SCHILING (*Epeolus*)
scrimshiranus KIRBY (*Bombus*)
scutellaris auct. (*Thyreus*)
SELADONIA ROBERTSON
semenoviellus SKORIKOV (*Bombus*)
semilaevis PÉREZ (*Andrena*)
semilucensis ALFKEN (*Evylaeus*)
semipunctulatus SCHENCK (*Evylaeus*)
semitecta MORAWITZ (*Seladonia*)
senex FÖRSTER (*Halictus*)
separanda SCHMIEDEKNECHT (*Andrena*)
sericata IMHOFF (*Andrena*)
sericea CHRIST (*Andrena*)
serratulae PANZER (*Trachusa*)
setulellus STRAND (*Evylaeus*)
setulosus STRAND (*Evylaeus*)
sexcinctus FABRICIUS (*Halictus*)
sexfasciata PANZER (*Nomada*)
sexmaculatum SCHENCK (*Lasioglossum*)
sexnotatulum NYLANDER (*Lasioglossum*)
sexnotatum KIRBY (*Lasioglossum*)
sexsignatus SCHENCK (*Evylaeus*)
sexstrigatus SCHENCK (*Evylaeus*)
shawella KIRBY (*Andrena*)
sheppardana KIRBY (*Nomada*)
sicheli RADOSZKOWSKI (*Bombus*)
signata JURINE (*Nomada*)
signata LATREILLE (*Stelis*)
signatus PANZER (*Hylaeus*)
Simandrena PÉREZ
Simcolletes WARNCKE
similis HOPPNER (*Epeolus*)
similis MORAWITZ (*Nomada*)
similis SCHENCK (*Colletes*)
similis SMITH (*Andrena*)
similis WESMAEL (*Sphecodes*)
simillima SMITH (*Andrena*)
simplex BLÜTHGEN (*Halictus*)
sinuatus SCHENCK. (*Hylaeus*)
smeathmanellus auct. (*Evylaeus*)
solidaginis PANZER (*Nomada*)
solskyi MORAWITZ (*Osmia*)
solstitialis PANZER (*Bombus*)
soroeensis FABRICIUS (*Bombus*)
Spatulariella POPOV
SPHECODES LATREILLE
spinolae SCHENCK (*Hoplitis*)
spinulosa KIRBY (*Anthocopa*)
spinulosus HAGENS (*Sphecodes*)
spiralis OLIVIER (*Systropha*)

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spreta PÉREZ (*Andrena*)
squalens DOURS (*Anthophora*)
STELIS PANZER
stigma (*Nomada*)
stigma FABRICIUS (*Nomada*)
striata FABRICIUS (*Nomada*)
strigatum PANZER (*Anthidiellum*)
styriacus FÖRSTER (*Hylaeus*)
Suandrena WARNCKE
subaurata ROSSI (*Seladonia*)
subfasciatum IMHOFF (*Lasioglossum*)
subfasciatus NYLANDER (*Evylaeus*)
subfasciatus SCHENCK (*Hylaeus*)
subopaca NYLANDER (*Andrena*)
subovalis SCHENCK (*Sphecodes*)
subquadratus SMITH (*Sphecodes*)
Subterraneobombus VOGT
subterraneus LINNAEUS (*Bombus*)
succincta auct. (*Nomada*)
succinctus LINNAEUS (*Colletes*)
suerinensis FRIESE (*Andrena*)
suripes CHRIST (*Dasypoda*)
susterai ALFKEN (*Andrena*)
sylvarum LINNAEUS (*Bombus*)
sylvestris LEPELETIER (*Psithyrus*)
symphyti SCHMIEDEKNECHT (*Andrena*)
synadelpha PERKINS (*Andrena*)
SYSTROPHA ILLIGER

T

Taeniandrena HEDICKE
taraxaci GIRAUD (*Andrena*)
tarsata NYLANDER (*Andrena*)
tarsatus SCHENCK (*Evylaeus*)
tenellus SCHENCK (*Evylaeus*)
tergestensis DUCKE (*Anthocopa*)
terrestris auct. (*Bombus*)
TETRALONIA SPINOLA
thoracica FABRICIUS (*Andrena*)
Thoracobombus DALLA TORRE
THYREUS PANZER
tibialis KIRBY (*Andrena*)
tormentillae ALFKEN (*Nomada*)
Trachandrena ROBERTSON
TRACHUSA PANZER
tricincta KIRBY (*Melitta*)
tricincta LEPELETIER (*Tetralonia*)
tricinctus SCHENCK (*Evylaeus*)
tridentata DUFOUR and PERRIS (*Hoplitis*)
tridentata NYLANDER (*Dioxoides*)
trimmerana KIRBY (*Andrena*)
trispinosa SCHMIEDEKNECHT (*Nomada*)
trispinosus PÉREZ (*Rophites*)
truncatus NYLANDER (*Biastes*)
truncatus PÉREZ (*Thyreus*)
truncorum LINNAEUS (*Heriades*)
tuberculata FABRICIUS (*Eucera*)
tumulorum LINNAEUS (*Seladonia*)

U

udmurtica SITDIKOV (*Melitta*)
uncinata GERSTAECKER (*Osmia*)

V

vaga PANZER (*Andrena*)
valga GERSTAECKER (*Xylocopa*)
variabilis SCHMIEDEKNECHT (*Bombus*)
varians ROSSI (*Andrena*)
variegatus FABRICIUS (*Hylaeus*)
variegatus HAGENS (*Sphecodes*)
variegatus LINNAEUS (*Epeolus*)
ventrale SCHLETTERER (*Chelostoma*)
ventralis IMHOFF (*Andrena*)
versicolor SMITH (*Megachile*)
vestalis GEOFFROY in FOURCROY (*Psithyrus*)
veteranus FABRICIUS (*Bombus*)
villipes STOECKHERT (*Nomada*)
villosa SCHENCK (*Anthocopa*)
villosulus KIRBY (*Evylaeus*)
violacea LINNAEUS (*Xylocopa*)
virescens LEPELETIER (*Seladonia*)
viridescens VIERECK (*Andrena*)
viridiaeneus BLÜTHGEN (*Evylaeus*)
vulgaris SCHENCK (*Dufourea*)
vulpina PANZER (*Anthophora*)
vulpinus NYLANDER (*Evylaeus*)

W

wankowiczi RADOSZKOWSKI (*Melitta*)
wilkella KIRBY (*Andrena*)
willughbiella KIRBY (*Megachile*)
wolhynica NOSKIEWICZ (*Anthocopa*)
wurfleini RADOSZKOWSKI (*Bombus*)

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X

xanthomelana KIRBY (*Osmia*)
xanthopus KIRBY (*Lasioglossum*)
xanthostica KIRBY (*Nomada*)
xanthura KIRBY (*Andrena*)
XYLOCOPA LATREILLE

Z

Zonandrena HEDICKE
zonata PANZER (*Nomada*)
zonulum SMITH (*Lasioglossum*)

STRESZCZENIE

[Tytuł: Wykaz gatunków pszczół (*Hymenoptera, Apoidea*) z obszaru Polski. Druga wersja uzupełniona i poprawiona]

Praca niniejsza jest uaktualnioną wersją wykazu pszczół z obszaru Polski opublikowanego przed 10 laty (BANASZAK 1991). Obecna lista zawiera 469 gatunków i podgatunków należących do 52 rodzajów. Z tej liczby występowanie 15 gatunków jest ciągle wątpliwe, wymagające potwierdzenia, 9 dalszych gatunków prawdopodobnie w Polsce występuje. Obecna lista w stosunku do poprzedniej zawiera 28 nowych gatunków, odnalezionych w ostatniej dekadzie jako rezultat poszukiwań terenowych lub rewizji kolekcji zebranych wcześniej. Z poprzedniej listy skreślono 15 gatunków błędnie oznaczonych przez różnych badaczy: *Halictus scabiosae*, (ROSSI), *H. tetrazonius* (KLUG), *Lasioglossum breviventre* (SCHENCK), *L. laterale* (BRULLÉ), *Evylaeus puncticollis* (MORAWITZ), *E. pygmaeus* (SCHENCK), *E. smeathmanellum* (KIRBY), *Camptopoeum frontale* (FABRICIUS), *Hoplitis tuberculata* (NYLANDER), *Magachile bombycina* (RADOSZKOWSKI), *M. genalis* (MORAWITZ), *M. maacki* (RADOSZKOWSKI), *Nomada trapesiformis* (SCHMIEDEKNECHT), and *N. baccata* (SMITH). Ogółem zmiany wprowadzone w niniejszym spisie, w stosunku do poprzedniego, dotyczą 45 taksonów, a więc obejmują około 10% składu gatunkowego pszczół Polski.

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