Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa»	Vol. 59 (2)	pp. 115–128

DOI: 10.1515/travmu-2016-0019 Research paper

Tribe Anthidiini (Hymenoptera: Apoidea: Megachilidae) from Romania

Cristina Maria CALEFARIU*

"Grigore Antipa" National Museum of Natural History, Kiseleff 1, 011341 Bucharest 1, Romania
*corresponding author, e-mail: cristina.calefariu@antipa.ro

Received: April 14, 2016; **Accepted:** September 19, 2016; **Available online:** December 12, 2016; **Printed:** December 30, 2016

Abstract. The paper presents data regarding the Anthidiini species distribution in the Romanian fauna. The list includes 28 species, belonging to the following genera: *Trachusa* (one species), *Archianthidium* (one species), *Paraanthidium* (one species), *Rhodanthidium* (one species), *Paraanthidiellum* (three species), *Icteranthidium* (one species), *Anthidium* (seven species), *Proanthidium* (one species), *Anthidiellum* (one species), *Stelis* (nine species), *Dioxys* (one species), *Dioxoides* (one species); seven of them are rare in Romania, having only two or three reports, and *Paraanthidiellum melanurum*, *Anthidium mocsaryi* and *Dioxoides tridentata* need future confirmation. Distribution maps were made for each species, according to the studied material and data from literature.

Key words: Anthidiini, bee, fauna, Romania.

INTRODUCTION

Wild bee populations are strongly influenced by human activity. Therefore, the exagerate use of chemicals, soil polution and monocultures have reduced the range of some bee species and the number of individuals. Carried out studies proved that bee families have been vanishing in an alarming rate in the past years. More than 500 cultivated plants are entomophilous, their reproduction being directly dependant on the pollination activity of the insects, firstly by the bees. An important part in agricultural plant pollination is that of the wild bees. These plants (red clover and alfalfa) cannot be pollinated by melliferous bees because of their structural particularities. Maintaining of wild bee populations is very important for the genetic diversity, necessary for improving cultivated species (Michener, 2000).

In Romania, some apoid species have a large distribution, while others are rarely reported. Studies on the distribution of the genus Anthidiini in Romania were made within the period 1880–2009 by Henrich (1880, 1881, 1882, 1883, 1884), Mocsáry (1874, 1897), Szilády (1914), Móczár (1956), Iuga & Scobiola-Palade (1959), Noskiewicz (1962), Aftene (1972, 1973, 1979a, b, 1995), Aftene & Goagă (1993), Constantinescu (1976), Zanden & Matache (1986), Pascu (2003), Tomozei (2005), Ban-Calefariu (2009a, b) Ban-Calefariu & Ljubomirov (2009) and Tomozii & Toma (2011).

MATERIAL AND METHODS

The study was carried during the CNCSIS PN II-RU-TD no. 107 Grant, within the period 2008–2009. The scientific collections of "Grigore Antipa" National Museum of Natural History (Bucharest) and of Brukenthal National Museum (Sibiu) were studied; data from old literature and own investigations made possible a wide synthesis on the tribe Anthidiini in Romania. Data on the other two tribes of the family

Megachilidae, the tribe Osmiini, respectively the tribe Megachilini, were given in the papers published by Ban-Calefariu (2009a, b) and Ban-Calefariu & Ljubomirov (2009).

For the identification of Anthidiini species, the papers by Osychnyuk et al. (1978) and Banaszak & Romasenko (2001) were used. Systematic order and nomenclature are according to Banaszak & Romasenko (op. cit.).

Basing on the data from literature and on collectings in the field, distribution maps for the identified species were made; new reports are marked with black squares and those from literature are marked with black circles.

Abbreviation:

MGAB – "Grigore Antipa" National Museum of Natural History; BNM – Brukenthal National Museum.

Abbreviations for the county names in Romania:

AB – Alba; AG – Argeș; AR – Arad; B – București; BC – Bacău; BZ – Buzău; CJ – Cluj; CS – Caraș Severin; CT – Constanța; DJ – Dolj; GL – Galați; GJ – Gorj; GR – Giurgiu; HR – Harghita; IF – Ilfov; IL – Ialomița; MS – Mureș; NT – Neamț; PH – Prahova; SB – Sibiu; TL – Tulcea; TR – Teleorman; VL – Vâlcea; VN – Vrancea; VS – Vaslui (Fig. 1).

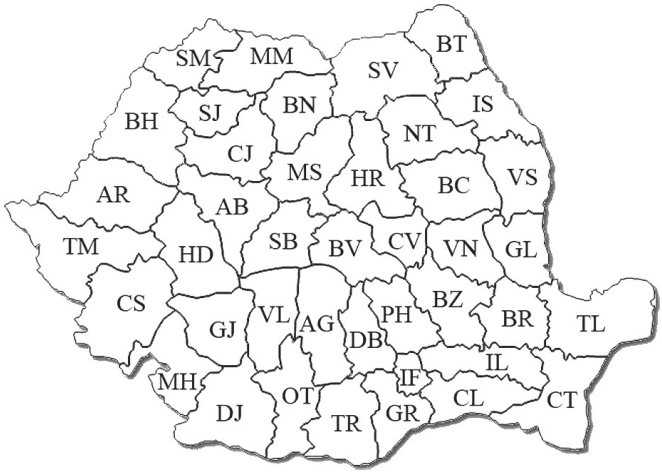


Fig. 1 – Map of Romanian counties.

RESULTS AND DISCUSSIONS

This list includes 28 species, 12 genera of the tribe Anthidiini reported within the period 1880–2009 in the Romanian fauna (Tab. 1).

Three megachilid species remained mentioned only once in literature, their presence having to be confirmed: *Paraanthidiellum melanurum*, *Anthidium mocsaryi* and *Dioxoides tridentata,* and seven species are mentioned in some papers from different areas of Romania but they were not found in the studied material: *Paraanthidium interruptum, Anthidium punctatum, Stelis jugae, S. minuta, S. odontopyga, S. ornatula* and *Dioxys cincta.*

Table 1

Anthiidini genera reported from Romania fauna

Genera	No. of species
Trachusa	1
Archianthidium	1
Paraanthidium	1
Rhodanthidium	1
Paraanthidiellum	3
Icteranthidium	1
Anthidium	7
Proanthidium	1
Anthidiellum	1
Stelis	9
Dioxys	1
Dioxoides	1

Subfamily Megachilinae

Tribe Anthidiini

Genus *Trachusa* Panzer, 1804

Trachusa byssina (Panzer, 1798) (Fig. 2)

Studied material: Preliminary identification: 3 ♀♀, Agighiol (TL), 12.VI.1993; 2 ♀♀, Letea, Haşmacul lui Omer (TL), 20.VI.1993.

Previous records: Băile Herculane, Cristuru Secuiesc, Mehadia, Reşiţa, Tiha, Tuşnad (Mocsáry, 1897; Aftene, 1972); Cisnădie, Guşteriţa, Ocna Sibiului, Mts Piatra Craiului, Sighişoara (Zanden & Matache, 1986; Pascu, 2003); Retezat (Aftene, 1995); Vadul Izei, Sapânţa – Poiana Brustani, Sătic – Valea Scorobia, Zărneşti – Cabana Gura Râului, Poienile de sub Munte – Cabana Coşnea (Ban-Calefariu, 2009b); Udeşti, Vânatori Neamţ Natural Park, Bârzuleşti, Izvorul Alb, Valea Uzului, Slănic Moldova, Slătioara, Poiana Sărată, Şerbăneşti (Tomozii & Toma, 2011).

Genus *Archianthidium* Mavromoustakis, 1939

Archianthidium pubescens (F. Morawitz, 1872) (Fig. 3)

Studied material: Preliminary identification: 1 ♀, Văleni (NT), 26.VIII.1954.

Previous records: Sânnicolau (Móczár, 1956).

Genus *Paraanthidium* Friese, 1898

Paraanthidium interruptum (Fabricius, 1781) (Fig. 4)

Studied material: No examined specimen.

Previous records: Mehadia (Mocsáry, 1897); Saschiz, Hădăreni, Ocna Dejului (Móczár, 1956); Agigea (Zanden & Matache, 1986).

Rhodanthidium Isensee, 1927

Rhodanthidium septemdentatum (Latreille, 1809) (Fig. 5)

Studied material: MGAB collection: 4 ♂♂, 5 ♀♀, Hagieni (CT), 15.VI.1960, 19.VI.1962, 22.VI.1964, 13.VII.1992; 2 ♂♂, 1 ♀, Băneasa (CT), 16, 17.VII.1964, 1.V.1965, 30.X.1965.

Previous records: Cazane (Móczár, 1956); Mănăstirea Cocoş (Constantinescu, 1976); Băneasa – Canaraua Fetii, Pădurea Comarova, Pădurea Hagieni (Zanden & Matache, 1986); Agigea, Mehadia (Aftene, 1995); Sibiu, Dumbrava Sibiului (Pascu, 2003); Agigea, Cumpăna Mare Valley – Clăbucet (Ban-Calefariu, 2009b); Cheile Turzii (Tomozii & Toma, 2011).

Genus *Paraanthidiellum* Michener, 1948

Syn: *Pseudoanthidium* Friese, 1898

Paraanthidiellum lituratum (Panzer, 1801) (Fig. 6)

Studied material: Preliminary identification: 3 ♂♂, 1 ♀, Pădurea Hagieni (CT), 21.VI.1964, 16, 19.V.1986; 1 ♀, Poiana Neamţ (NT), 23.VIII.1954; 1 ♀, Runcu (GJ), 30.VII.1956; 1 ♀, Sărata (NT), 17.VII.1955; 1 ♂, Agigea (CT), 15.VIII.1966; 1 ♂, Topliţa (MS), 13.VIII.1950; 1 ♂, Sărăcineşti (VL), 7.VIII.1948; 2 ♀♀, Olăneşti (VL), 19.VIII.1946, 13.VIII.1948; 1 ♂, Copăceni (GR), 17.VI.1951; 1 ♂, Sighişoara (MS), Hetiur, 10.VII.1950; 2 ♀♀, Bucureşti, Grădina Botanică (B), 14.VIII.1953; 1 ♀, Comana (GR), 11.VIII.1948; 1 ♀, Târgu Jiu (GJ), 21.VIII.1951; 1 ♀, Vărsături (GJ), 23.VIII.1951; 1 ♀, Segarcea (DJ), 6.VIII.1951; 1 ♀, Brăteşti (BC), 4.VII.1951; 1 ♀, Niculiţel (TL), 29.VI.1967; 1 ♀, Craiova (DJ), Basta, 7.VII.1951; 1 ♀, Ştefăneşti (AG), 17.VII.1957; 1 ♂, 1 ♀, Mănăstirea Cocoş (CT), 5, 13.VI.1985; 1 ♀, Grindul Lupilor (TL), 15.VI.1995. MGAB collection: 1 ♀, Caraorman (TL), 16.VII.1985.

Previous records: Aiud, Beclean, Bocşa, Cazane, C. A. Rosetti, Chiajna, Cluj, Corund, Dumbrava Sibiului, Guşteriţa, Hodod, Ineu, Iţeşti, Lugoj, Mehadia, Ocna Sibiului, Odaia, Oradea, Pir, Posada, Răşinari, Revetiş, Sibiu, Suceagu, Turnu Măgurele, Viile, Zalău (Mocsáry, 1897; Móczár, 1956; Aftene, 1972; Zanden & Matache, 1986; Pascu, 2003); Retezat, Ser, Slimnic (Aftene, 1995); Agapia (Tomozei, 2005); Mihăileşti (Ban-Calefariu, 2009b); Vâlcele (Tg. Ocna), Valea Seacă, Plopana, Agigea, Agapia (Tomozii & Toma, 2011).

Paraanthidiellum melanurum (Klug, 1832) (Fig. 7)

Studied material: No examined specimen.

Previous records: Periprava (Zanden & Matache, 1986).

Paraanthidiellum tenellum (Mocsáry, 1881) (Fig. 8)

Studied material: Preliminary identification: 1 ♀**,** Mănăstirea Cocoş (TL), 11.VI.1985.

Previous records: Mehadia, Revetiş (Mocsáry, 1874).

Icteranthidium Michener, 1948

Icteranthidium laterale (Latreille, 1809) (Fig. 9)

Studied material: Preliminary identification: 1 ♂, 6 ♀♀, Caraorman (TL), 12.VIII.1984, 13, 16, 19, 20.VII.1985.

Previous records: Sibiu, Saschiz, Târnăveni (cited by Móczár, 1956 as *Anthidium laterale*); C. A. Rosetti, Caraorman (Zanden & Matache, 1986).



Fig. 2 – Records of *Trachusa byssina* in Romania (black squares: new reports; black circles: data from literature).



Fig. 3 – Records of *Archianthidium pubescens* in Romania (black squares: new reports; black circles: data from literature).



Fig. 4 – Records of *Paraanthidium interruptum* in Romania (black circles: data from literature).

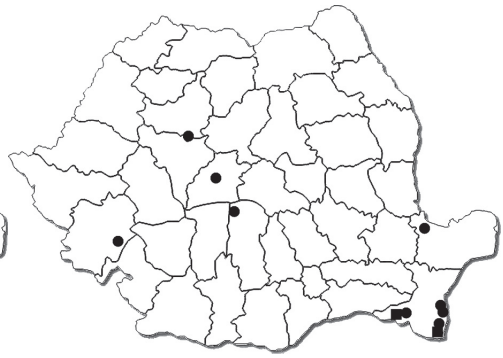


Fig. 5 – Records of *Rhodanthidium septemdentatum* in Romania (black squares: new reports; black circles: data from literature).



Fig. 6 – Records of *Paraanthidiellum lituratum* in Romania (black squares: new reports; black circles: data from literature).



Fig. 7 – Records of *Paraanthidiellum melanurum* in Romania (black circles: data from literature).

Genus *Anthidium* Fabricius, 1804

Anthidium cingulatum Latreille, 1809 (Fig. 10)

Studied material: Preliminary identification: 1 ♀, Tecuci (GL), Furceni, 30.VII.1943; 2 ♂♂, 1 ♀, Mera – Putna (VN), 13.VI.1950; 1 ♂, Mănăstirea Cocoş (TL), 13.VI.1985; 1 ♂, Babadag (TL), 29.VI.1956; 1 ♂, V. Roaită (CT), 20.VI..

Previous records: Mănăstirea Cocoş (Constantinescu, 1976); Mehadia, Guşteriţa (Mocsáry, 1874; Aftene, 1972; Pascu, 2003); Oraviţa (Móczár, 1956); Pituluşa, Dumbrava Sibiului, Agigea (Zanden & Matache, 1986); Putna (Aftene, 1995).

Anthidium florentinum (Fabricius, 1775) (Fig. 11)

Studied material: Preliminary identification: 1 ♀, Budeşti (CL), 16.VI.1947; 1 ♀, Chilia Veche (TL), 27.VI.1963; 1 ♂, Flămânda (TR), 9.VI.1949; 1 ♂, 1 ♀, Copăceni (GR), 28.VI.1953; 1 ♀, Gura Jiului (GJ), lunca Potelu, 13.VI.1956; 1 ♂, 6 ♀♀, Sfântu Gheorghe (TL), VI.1951, 26.VI.1982, 4 ♀♀, 1.VIII.1982, 2 ♀♀, 3.VIII.1982, 1 ♀, 4.VIII.1982, 1 ♀, 5.VIII.1982, 16 ♂♂, 36 ♀♀, 4.IX.1982, 3 ♂♂, 1 ♀, 5.IX.1982, 3 ♂♂, 5 ♀♀, 6.IX.1982, 3 ♂♂, 18 ♀♀, 7.IX.1982, 1 ♂, 6 ♀♀, 9.IX.1982, 2 ♀♀, 11.IX.1982, 2 ♂♂, 2 ♀♀, 12.IX.1982, 1 ♀, 13.IX.1982, 1 ♂, 5.VII.1983, 1 ♀, 23.VI.1983, 2 ♀♀, 3.VII.1983, 1 ♀, 9.VIII.1984, 1 ♀, 6.VII.1989; 1 ♂, Râmnicu Sărat (BZ), 12.VI.1986; 4 ♂♂, 4 ♀♀, Bucureşti, Grădina Botanică (B), 11, 4.VII.1947, 1 ♂, 26.VI.1987; 1 ♀, Mănăstirea Cocoş (TL), 13.VI.1985.
MGAB collection: 5 ♀♀, Bucureşti (B), 16.VI.1942, 8, 26.VI.1943, 21.VI.1950; 1 ♀, Sfântu Gheorghe (TL), 1.VIII.1951.

Previous records: Mehadia (Mocsáry, 1874; Móczár & Henter, 1907, cited by Aftene, 1972); Bocşa, Oradea, Pir, Sânnicolau (Mocsáry, 1897; Móczár, 1956); Filiaşi, Sagna (Iuga & Scobiola-Palade, 1959); Branişte, Bucovăţ, Bucureşti, Caraorman, C. A. Rosetti, Crişan, Giurgiu, Odaia, Oradea, Periprava, Roşu, Sfântu Gheorghe, Valu lui Traian (Aftene, 1972; Zanden & Matache, 1986); Greci, Mănăstirile Cocoş and Celic Dere (Constantinescu, 1976); Caracal, Ciupercenii Noi, Corabia, Craiova (Aftene, 1995); Sibiu, Bucureşti (Ban-Calefariu, 2009b).

Anthidium loti Perris, 1852 (Fig. 12)

Studied material: Preliminary identification: 3 ♂♂, 2 ♀♀, Caraorman (TL), 13, 15, 18, 20.VII.1985.

Previous records: Periprava, C. A. Rosetti (Zanden & Matache, 1986).

Anthidium manicatum (Linnaeus, 1758) (Fig. 13)

Studied material: Preliminary identification: 2 ♂♂, 1 ♀, Turnu-Măgurele (TR), 3.VI.1943, 11.VI.1949; 1 ♀, Furceni-Tecuci (GL), 30.VII.1943; 2 ♂♂, 3 ♀♀, Bucureşti, Grădina Botanică (B), 25.V.1943, 11.VI.1943; 4 ♀♀, Şura-Mică (SB), 20.VII.1949; 11 ♂♂, 6 ♀♀, Cluj (CJ), Grădina Botanică, 14, 15.VII.1946, 21, 28.VII.1947, 1, 3.VIII.1949, 1 ♂, 2 ♀♀, Făget, 1.VIII.1949, 2 ♂♂, 4 ♀♀, Floreşti, 5.VIII.1949; 2 ♂♂, 1 ♀, Tutova (VS), 18, 20.VII.1949; 4 ♂♂, 5 ♀♀, Sighişoara (MS), 17, 19.VII.1950; 4 ♂♂, 2 ♀♀, Preajba (GJ), 30.VIII.1951, 2 ♀♀, Târgu Jiu, 21.VIII.1951, 18.VI.1954, 1 ♀, Romăneşti, 27.VIII.1959; 1 ♂, Focşani (VN), 25.VI.19512; 1 ♂♂, 5 ♀♀, Mofleni (DJ), 3.VI.1951; 1 ♂, 1 ♀, Comana (GR), 5.VII.1953; 2 ♂♂, Bacău (BC), 27.VIII.1954; 2 ♂♂, 1 ♀, Gheorghieni (HR), 5.VII.1955; 1 ♀, Caraorman (TL), 11.VIII.1967, 2 ♂♂, 2 ♀♀, Letea, Haşmacul lui Omer, 18–20.VI.1993; 2 ♀♀, Budeşti (CL), 13.VIII.1948, 5.VII.1957; 1 ♂, Ciolpani (IF), Snagov, 4.VII.1957; 3 ♀♀, Mănăstirea Cocoş (CT), 9, 10, 12.VI.1985, 1



Fig. 8 – Records of *Paraanthidiellum tenellum* in Romania (black squares: new reports; black circles: data from literature).



Fig. 9 – Records of *Icteranthidium laterale* in Romania (black squares: new reports; black circles: data from literature).

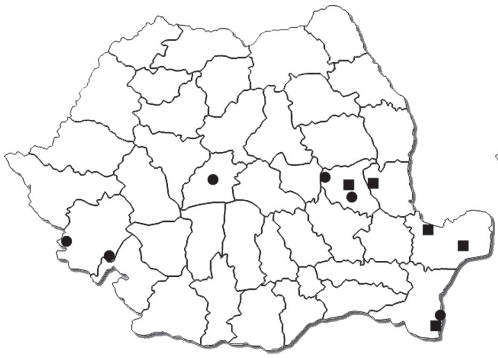


Fig. 10 – Records of *Anthidium cingulatum* in Romania (black squares: new reports; black circles: data from literature).



Fig. 11 – Records of *Anthidium florentinum* in Romania (black squares: new reports; black circles: data from literature).



Fig. 12 – Records of *Anthidium loti* in Romania (black squares: new reports; black circles: data from literature).

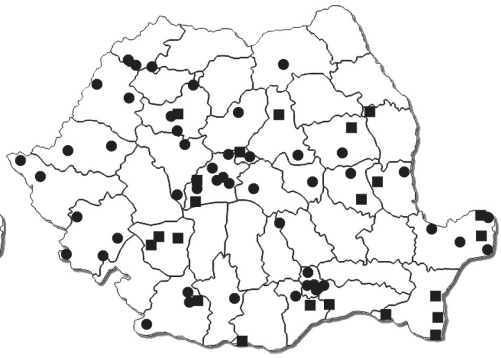


Fig. 13 – Records of *Anthidium manicatum* in Romania (black squares: new reports; black circles: data from literature).

♀, Pădurea Hagieni, 21.VI.1964, 4 ♀♀, Agigea, 27.VIII.1954, 23.V.1964, 24.VI.1964, 15.VIII.1966, 1 ♀, Valu lui Traian, 12.VII.1957, 2 ♀♀, Canaraua Fetii, 23.VII.1993.
MGAB collection: 6 ♀♀, Sibiu (SB), 20.VII.1943, 12.VI.1947, 30.VI.1951, 12.IX.1951, 20.VI.1953; 2 ♂♂, Cluj (CJ), Grădina Botanică, 28.VII.1947.
BNM collection: 1 ♂, Răşinari (SB), 26.VII.1943; 1 ♂, Sibiu (SB), 25.VIII.1952, 1 ♀, 28.VIII.1952, 1 ♂, 6.VII.1955.

Previous records: Aiud, Baziaş, Beclean, Bocşa, Cluj, Covasna, Cugir, Dumbrava Sibiului, Dumbrăveni, Hodod, Mehadia, Nima, Ocna Sibiului, Oradea, Pir, Râmeţ, Reghinu Secuiesc, Revetiş, Ruscior, Saschiz, Sfântu Gheorghe, Sibiu, Sânnicolau, Trascău, Turda, Tăşnad, Şuncuiuş (Henrich, 1880; Mocsáry, 1897; Szilády, 1914; Móczár, 1956; Aftene, 1972, 1979a, b; Pascu, 2003); Arad, Babadag, Balta Verde, Bădila, Băile Herculane, Beciu–Putna, Brăneşti, C. A. Rosetti, Cluj, Gemenea, Guşteriţa, Mogoşoaia, Nicolae Titulescu, Timişoara (Zanden & Matache, 1986); Bucureşti, Craiova, Desa (Aftene, 1995); Sibiu, Sărata, Băile Victoria, Pădurea Tâncăbeşti, Bucureşti, Grădina Botanică, Mihăileşti (Ban-Calefariu, 2009b); Băneasa, Sinaia, Oneşti (Tomozii & Toma, 2011).

Anthidium mocsaryi Friese 1897 (Fig. 14)

Studied material: No examined specimen.
Previous records: Mehadia (Mocsáry, 1874; Móczár, 1956).

Anthidium punctatum Latreille, 1809 (Fig. 15)

Studied material: No examined specimen.
Previous records: Bocşa**,** Cazane**,** Hodod**,** Ileanda Mare**,** Saschiz, Turda (Mocsáry, 1897; Móczár, 1956); Furceni (Zanden & Matache, 1986); Tatlageac (Aftene, 1995); Sibiu, Vişeul de Jos (Ban-Calefariu, 2009b).

Anthidium septemspinosum Lepeletier de Saint-Fargeau, 1841 (Fig. 16)

Studied material: Preliminary identification: 1 ♂, Giurgiu (GR), 22.VIII.1938; 13 ♂ ♂, Sfântu Gheorghe (TL), 4, 7, 10.IX.1982; 1 ♀, Pădurea Hagieni (CT), 12.VII.1992.
Previous records: Reghin, Sibiu, Craiova (Aftene, 1995).

Proanthidium Friese, 1898

Proanthidium oblongatum Latreille, 1809 (Fig. 17)

Studied material: Preliminary identification: 1 ♂, Someşeni (CJ), 30.VII.1949; 1 ♂, Brăteşti (BC), 4.VII.1951; 1 ♂, Chiciureni (PH), Teleajen, 28.VII.1954.
MGAB collection: 1 ♀, Brăteşti (BC), 4.VII.1951; 1 ♀, Cheia (PH), 26.VII.1967.
BNM collection: 1 ♀, Sibiu (SB), 7.VII.1945.
Previous records: Aiud, Bocşa, Mehadia, Saschiz, Sibiu, Turda (Mocsáry, 1897; Móczár, 1956; Aftene, 1972; Pascu, 2003); Cheia (Aftene, 1973); Apahida, Brăteşti, Bucureşti, Vameş, Vărsături (Zanden & Matache, 1986); Sibiu (Ban-Calefariu, 2009b); Hemeiuş (Tomozii & Toma, 2011).

Anthidiellum Cockerell, 1904

Anthidiellum strigatum (Panzer, 1805) (Fig. 18)

Studied material: Preliminary identification: 1 ♀, Sagna (BC), 9.VII.1951; 1 ♂, Urziceni (IL), Răduleşti, 27.VII.1954; 1 ♀, Comana (GR), 22.VII.1963; 1 ♂, Poiana Neamţ (NT), 11.VII.1965; 2 ♂♂, 1 ♀, Sfântu Gheorghe (TL), 9.VIII.1982; 2 ♀♀,

Caraorman (TL), 13.VIII.1984, 23.VII.1992; 1 ♂, Grindul Lupilor (TL), 15.VI.1995; 1 ♂, 3 ♀♀, Cişmigiu (B), 26.VI., 31.VII., 1943.
MGAB collection: 3 ♂♂, Bucureşti, Grădina Botanică (B), 26.VI.1943; 1 ♂, Caraorman (TL), 11.VIII.1967.

Previous records: Ineu, Maramureş (Móczár, 1956); Sagna (Iuga & Scobiola-Palade, 1959); Mănăstirea Cocoş (Constantinescu, 1976); Agigea, Berzunţi, Bucureşti, Caraorman, C. A. Rosetti, Flămânda, Guşteriţa, Odaia, Segarcea, Valu lui Traian (Zanden & Matache, 1986); Retezat (Aftene, 1995); Reşiţa, Pădurea Panciu, Săpânţa – Colibi, Vaser Valley – Făina (Ban-Calefariu, 2009b); Ceahlău Massif, Uzului Valley, Trebeş (Tomozii & Toma, 2011).

Stelis Panzer, 1806

Stelis breviuscula (Nylander, 1848) (Fig. 19)

Studied material: Preliminary identification: 1 ♀, Olăneşti (VL), 13.VIII.1948.
BNM collection: 1 ♂, Sibiu (SB), 1.VII.1946.

Previous records: Transylvania, Românești (Mocsáry, 1897); Izvoarele (Aftene, 1973); Guşteriţa, Bucureşti, Comorova (Zanden & Matache, 1986; Aftene, 1995); Hemeiuş, Racova (Tomozii & Toma, 2011).



Fig. 14 – Records of *Anthidium mocsaryi* in Romania (black circles: data from literature).

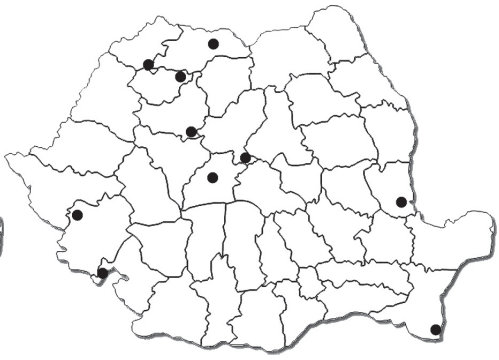


Fig. 15 – Records of *Anthidium punctatum* in Romania (black circles: data from literature).

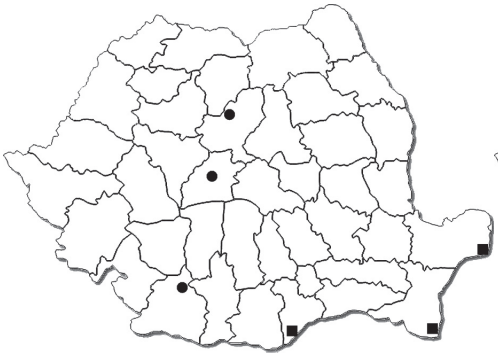


Fig. 16 – Records of *Anthidium septemspinosum* in Romania (black squares: new reports; black circles: data from literature).

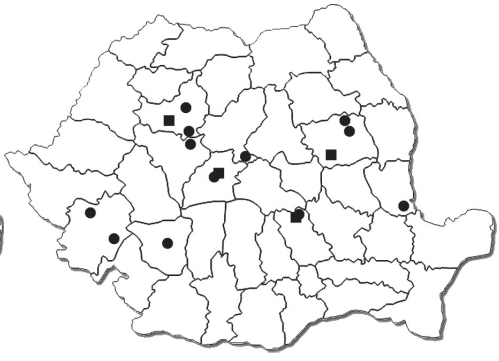


Fig. 17 – Records of *Proanthidium oblongatum* in Romania (black squares: new reports; black circles: data from literature).

Stelis jugae Noskiewicz, 1962 (Fig. 20)
Studied material: No examined specimen.
Previous records: Bucureşti, 8.VII.1949, Ulea, 17.VII.1949 (Noskiewicz, 1962).

Stelis minuta Lepeletier de Saint-Fargeau & Audinet-Serville, 1825 (Fig. 21)
Studied material: No examined specimen.
Previous records: Simişna (Mocsáry, 1897); Sibiu (Ban-Calefariu, 2009b).

Stelis odontopyga Noskiewicz, 1925 (Fig. 22)
Studied material: No examined specimen.
Previous records: Bucov (Aftene, 1995); Sulina (Tomozii & Toma, 2011).

Stelis ornatula (Klug, 1807) (Fig. 23)
Studied material: No examined specimen.
Previous records: Periş (Zanden & Matache, 1986); Ieud (Ban-Calefariu, 2009b).

Stelis phaeoptera (Kirby, 1802) (Fig. 24)
Studied material: Preliminary identification: 1 ♀, Eforie Sud (CT), VI.1939; 1 ♀, Olăneşti (VL), 9.VIII.1948; 1 ♀, Răşinari (SB), 26.VII.1949; 5 ♀♀, Cluj (CJ),



Fig. 18 – Records of *Anthidiellum strigatum* in Romania (black squares: new reports; black circles: data from literature).

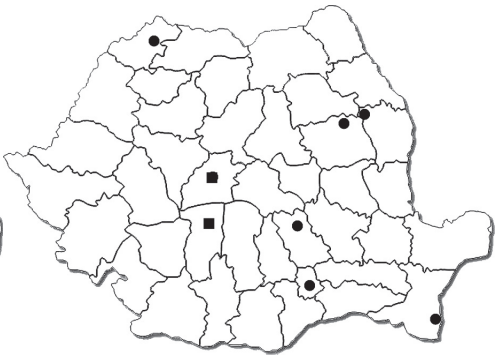


Fig. 19 – Records of *Stelis breviuscula* in Romania (black squares: new reports; black circles: data from literature).



Fig. 20 – Records of *Stelis jugae* in Romania (black circles: data from literature).



Fig. 21 – Records of *Stelis minuta* in Romania (black circles: data from literature).

Feleacu, 22.VII.1947, Mănăştur, 31.VII.1947, Grădina Botanică, 3.VIII.1949, Someşani, 30.VII.1949; 4 ♀♀, Arad (AR), 6.VII.1974; 1 ♀, Sfântu Gheorghe (TL), 4.VII.1983; 1 ♀, Agigea (CT), 30.VII.1992.

Previous records: Aiud, Arad, Buziaş, Sibiu, Turda, Tăşnad, Tuşnad (Henrich, 1882; Mocsáry, 1874, 1897; Szilády, 1914); Izvoarele, Mâneciu Ungureni (Aftene, 1973); Apahida, Arad, Băile Olăneşti, Mănăştur, Răşinari, Vânători – Neamţ (Zanden & Matache, 1986); Istria (Aftene & Goagă, 1993); Pădurea Repedea (Ban-Calefariu, 2009b).

Stelis punctulatissima (Kirby, 1802) (Fig. 25)
Stelis aterrima Panzer, 1798

Studied material: Preliminary identification: 1 ♀, Cluj-Mănăştur (CJ), 21.VII.1947, 3 ♀♀, Grădina Botanică, 28.VII.1947, 3.VIII.1949, 1 ♂, Hoia, 31.VII.1949; 1 ♀, Şura Mică (SB), 20.VII.1949; 1 ♀, Târgu Jiu (GJ), 21.VII.1951.
BNM collection: 1 ♀, Sibiu (SB), 20.VI.1945.

Previous records: Transylvania, Tuşnad, Simişna, Sighişoara, Sibiu (Henrich, 1882; Mocsáry, 1897); Sagna (Iuga & Scobiola-Palade, 1959); Mănăstirea Cocoş (Constantinescu, 1976); Bucureşti, Răşinari, Cisnădie, Cluj, Feleacu, Sibiu, Turnişor, Turnu Măgurele, Arad, Sulina, Crişan (Zanden & Matache, 1986; Aftene, 1995); Gherăeşti (Aftene & Goagă, 1993);



Fig. 22 – Records of *Stelis odontopyga* in Romania (black circles: data from literature).



Fig. 23 – Records of *Stelis ornatula* in Romania (black circles: data from literature).

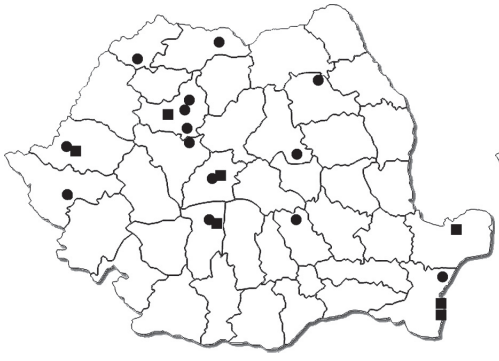


Fig. 24 – Records of *Stelis phaeoptera* in Romania (black squares: new reports; black circles: data from literature).

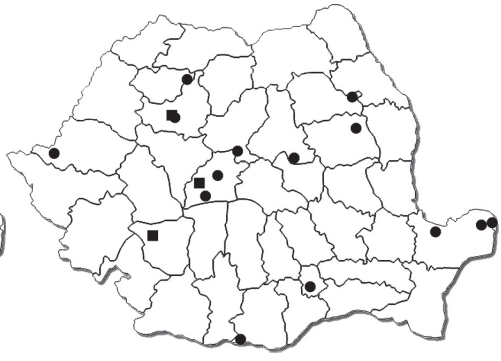


Fig. 25 – Records of *Stelis punctulatissima* in Romania (black squares: new reports; black circles: data from literature).

Stelis scutellaris F. Morawitz, 1894 (Fig. 26)

Studied material: Preliminary identification: 1 ♂, Letea (TL), Haşmacul lui Omer, 18–20.VI.1993.

Previous records: Ulea (Zanden & Matache, 1986); Răchitoasa (Tomozii & Toma, 2011).

Stelis signata (Latreille, 1809) (Fig. 27)

Studied material: 1 ♂, Pădurea Pasărea (IF), 6.VIII.1960.

Previous records: Tuşnad (Mocsáry, 1874).

Dioxys Lepeletier de Saint-Fargeau & Audinet-Serville, 1825

Dioxys cincta (Jurine, 1807) (Fig. 28)

Studied material: No examined specimen.

Previous records: Cluj – Simişna (Mocsáry, 1897); Beclean (Zilahi-Kiss, 1915), Sibiu (Aftene, 1995).

Dioxoides Popov, 1947

Dioxoides tridentata (Nylander, 1848) (Fig. 29)

Studied material: No examined specimen.

Previous records: Sibiu – Guşteriţa (Zanden & Matache, 1986).



Fig. 26 – Records of *Stelis scutellaris* in Romania (black squares: new reports; black circles: data from literature).

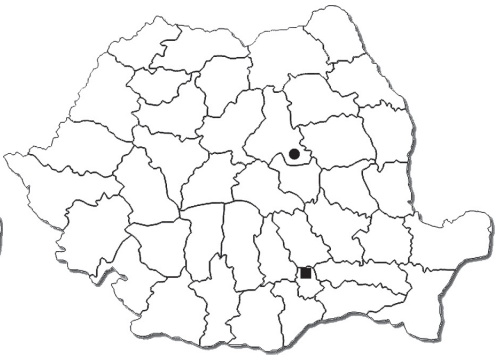


Fig. 27 – Records of *Stelis* signata in Romania (black squares: new reports; black circles: data from literature).



Fig. 28 – Records of *Dioxys* c*incta* in Romania (black circles: data from literature).



Fig. 29 – Records of *Dioxoides tridentata* in Romania (black circles: data from literature).

REFERENCES

AFTENE, M. (1972) Speciile familiei Megachilidae (Hymenoptera) citate în fauna României. Comunicări şi Referate, Muzeul de Ştiinţele Naturii Ploieşti: 263–276. (in Romanian)
AFTENE, M. (1973) Specii de Megachilidae (Hymenoptera) din zona Văii Teleajenului. Comunicări şi Referate, Muzeul Judeţean de Ştiinţele Naturii Ploieşti: 131–134. (in Romanian)
AFTENE, M. (1979a) Lista speciilor de albine (Hymenoptera, Apoidea) din Muzeul de Ştiinţele Naturii Ploieşti. Comunicări şi Referate, Muzeul Judeţean de Ştiinţele Naturii Ploieşti: 149–155. (in Romanian)
AFTENE, M. (1979b) Megachilidae (Hymenoptera) din Fauna Moldovei. Anuarul Muzeului de Ştiinţele Naturii Piatra–Neamţ, Seria Botanică – Zoologie, 4: 195–199. (in Romanian)
AFTENE, M. (1995) Contribuţii la studiul Megachilidelor (Insecta, Hymenoptera, Megachilidae) din România (sistematică, faunistică, biologie, ecologie şi etologie). PhD thesis, Universitatea "Alexandru Ioan Cuza", Facultatea de Biologie, Iaşi. (in Romanian)
AFTENE, M., A. GOAGĂ (1993) Specii de Megachilidae (Insecta, Hymenoptera, Apoidea) din colecţiile entomologice ale Complexului Muzeal de Ştiinţele Naturii – Bacău. Studii şi Comunicări: 305–308. (in Romanian)
BAN-CALEFARIU, C. (2009a) Checklist of Megachilidae (Hymenoptera: Megachilidae) of Romania. Travaux du Museum National d` Histoire Naturelle "Grigore Antipa", 52: 303–311.
BAN-CALEFARIU, C. (2009b) Megachilidae şi Anthophoridae (Apoidea) din fauna României. Edit. Altip**,** Alba Iulia, 300 pp. (in Romanian)
BAN-CALEFARIU, C., T. LJUBOMIROV (2009) New data on the distribution of some Megachilini (Apoidea: Megachilidae) in Romania. Linzer Biologische Beiträge, 41(2): 1803–1816.
BANASZAK, J., L. ROMASENKO (2001) Megachilid Bees of Europe, Second Edition. Bydgoszcz University of Kazimierz Wielki, 239 pp.
CONSTANTINESCU, A. (1976) Ordinul Hymenoptera, Apoidea (Fam. Colletidae, Halictidae, Melittidae, Megachilidae et Apidae). *In*: L`Entomofauna du Nord de la Dobrogea, la Zone Măcin-Tulcea-Niculiţel. Travaux du Muséum d`Histoire Naturelle "Grigore Antipa", 17: 153–157.
HENRICH, C. (1880) Verzeichniss der im Jahre 1879–1883 bei Hermannstadt beobachteten Blumennwespen (Anthophila). Verhandlungen and Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt, 30: 179–182. (in German)
HENRICH, C. (1881) Verzeichniss der im Jahre 1879–1883 bei Hermannstadt beobachteten Blumennwespen (Anthophila). Verhandlungen and Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt, 31: 68–69. (in German)
HENRICH, C. (1882) Verzeichniss der im Jahre 1879–1883 bei Hermannstadt beobachteten Blumennwespen (Anthophila). Verhandlungen and Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt, 32: 122–125. (in German)
HENRICH, C. (1883) Verzeichniss der im Jahre 1879–1883 bei Hermannstadt beobachteten Blumennwespen (Anthophila), Verhandlungen and Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt, 33: 115–116. (in German)
HENRICH, C. (1884) Verzeichniss der im Jahre 1879–1883 bei Hermannstadt beobachteten Blumennwespen (Anthophila). Verhandlungen and Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt, 34: 136 pp. (in German)
IUGA, V. G., X. SCOBIOLA-PALADE (1959) Despre principalele Apoide polenizatoare ale lucernelor. *In*: Omagiu lui Traian Săvulescu la împlinirea a 70 de ani: 337–346. (in Romanian)
MICHENER, CH. D. (2000) The Bees of the world. University of Kansas Natural History Museum and Departament of Entomology, The John Hopkins University Press Baltimore and London, 913 pp .
MOCSÁRY, Al. (1874) Zur Hymenopteren Fauna Siebenbürgens. Verhandlungen und Mittheilungen des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt. Jg., 24.
MOCSÁRY, Al. (1897) Fauna Regni Hungarie, Arthropoda, Ord. Hymenoptera. Regia Societas Scientiarum Naturalium Hungarica, Budapest, 3, 113 pp. (in Hungarian)
MÓCZÁR, M. (1956) A pelyhesméhek (*Anthidium* Fabr.) faunakatalógusa és etológiai adatai. Rovartani Közlemények, Folia Entomologica Hungarica, 9 (11): 211–222. (in Hungarian)
NOSKIEWICZ, J. (1962) Drei neue palearktisch Arten der Gattung *Stelis* Panz. (Hymenoptera, Apidae), 15 pp. (in German)
OSYCHNYUK, A. Z., D. V. PANFILOV, A. A. PONOMAREVA (1978) Nadsem. Apoidea – Pchelinye. Pp. 279–519. *In*: G. S. Medvedeva (ed.) Opredelitel` nasekomyh Evropejskoj chasti SSSR, 3, Pereponchatokrylye, pt. 1, Akademija Nauk SSSR, Leningrad, 583 pp. (in Russian)
PASCU, M. (2003) Contribuţii la cunoaşterea faunei de Megachilidae (Hymenoptera) din depresiunea Sibiului. Studii şi cercetări, Biologie, Complexul Muzeal Bistriţa Năsăud, 8: 71–87. (in Romanian)

SZILÁDY, Z. (1914) Magyarországy rovargyüjtésem jegyzéke. Rovartani Lapok, 21: 78–95. (in Hungarian)
TOMOZEI, B. (2005) Contribution to the knowledge of Apoidea (Hymenoptera) from Vânători Neamţ Natural Park. Studies and Research in Vânători Neamţ Natural Park, 1: 45–53.
TOMOZII, B., V. C. TOMA (2011) New records of megachilid bees (Hymenoptera: Apiformes: Megachilidae) from Romania. Studii și Comunicări, Complexul Muzeal de Ştiintele Naturii "Ion Borcea" Bacău, 24: 61–68.
ZANDEN, G., I. MATACHE (1986) Family Megachilidae (Hymenoptera) in the collections of the "Grigore Antipa" Natural History Museum. Travaux du Muséum d`Histoire Naturelle "Grigore Antipa", 28: 65–78.
ZILAHI-KISS, E. (1915) Újab adatok Magyarország Hymenoptera - faunájához. Rovartani Lapok, 22: 76–86. (in Hungarian)