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FAMILY MEGACHILIDAE (HYMENOPTERA: APOIDEA) IN DOBROGEA (ROMANIA)

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Abstract. The synthesis consists of 58 species belonging to 16 genera of Megachilidae. Two of them are reported for the first time from Dobrogea and one for Romania. The material originates in 34 sites, 7 of them being unstudied till now.

Résumé. On présente dans cette synthèse 58 espèces appartenant aux 16 genres de Megachilidae. Deux sont rapportés pour la première fois en Dobrogea et une, pour la Roumanie. Le matériel provient de 34 emplacements, 7 n'étant pas étudiés jusqu'à présent.

Key words: Hymenoptera, Megachilidae, Dobrogea (Romania).

For the time being, in Romania, 90 Megachilidae species were reported from the 156 cited by Banaszak and Romasenko (2001) in the monograph paper "Megachilid Bees of Europe".

By its relief, vegetation and climate Dobrogea offers good life conditions to the wild bees of Megachilidae. That is why we proposed ourselves to make a synthesis of the presence and distribution of this family in Dobrogea.

Studying the specialized papers (Aftene, 1972, Aftene & Goagă, 1993, Constantinescu, 1976 and Zanden & Matache, 1986), as well as the material from this region, collected by the team of the Department of Entomology of "Grigore Antipa" National Museum of Natural History (Bucharest), we made a list of 58 species, for each species specifying the collecting data, ecology and distribution.

MATERIAL AND METHOD

The studied material from the Museum collections was collected during 1932 – 2005 and originates in 34 sites, 7 of them (Popina Island, Maliuc, Negureni, "6 Martie" Forest, Cerna, Suluc Valley and Alba) being reported for the first time. Till 1962, the capture was made sporadically. After that date, "Grigore Antipa" National Museum of Natural History (Bucharest) started the systematical research of the entomological fauna of the Danube Delta and of the forests of Dobrogea.

A synthesis of the data from literature and of those given by the material collected from Dobrogea for Megachilidae was made for the first time by the team of the Department of Entomology of the "Grigore Antipa" National Museum of Natural History (Bucharest).

The nomenclature, systematical organization and the data of ecology and distribution are according to Banaszak and Romasenko (2001), Gogala (1999) and Osychnyuk et al. (1978). Within genera, the species are ordered alphabetically, and the specimens are written in the collecting order, from the oldest ones to the newest. We have to mention that the specimens which Constantinescu (op. cit.) refers have

not complete collecting data (years are not specified, but the entire period of the study, 1973 - 1975). Systematical list includes 2 subfamilies, 2 tribes, 16 genera and 58 species.

The species reported for the first time from this region are marked with *. They were collected from North Dobrogea, in 2005.

Abbreviations:

P. N. M. M. - Parcul Național Munții Măcin; Counties: CT – Constanța, TL – Tulcea; specimens – specs.

RESULTS

Family Megachilidae

Subfamily Lithurginae

Lithurgus Latreille, 1825

Lithurgus chrysurus Fonscolombe, 1834: 2 specs, Caraorman (TL), 21.07.1969; 3 specs, Cocoș Monastery (TL), 15 – 18.07.1973 – 1975. Oligolectics, it collects on Asteraceae. Flying period: June - August. It builds its nest in soft rotten wood.

Mediterranean species. In Romania, less numerous everywhere.

Subfamily Megachilinae

Tribe Anthidiini

Paraanthidium Friese, 1898

Paraanthidium interruptum (Fabricius, 1781): reported by Zanden & Matache (1986) as *Anthidium interruptum*, 1 spec., Agigea (CT), 21.07.1948. Polylectics, it collects on: Asteraceae, Linaceae, Dipsacaceae, Campanulaceae. Flying period: June – August. It builds its nest in soil.

Palearctic. In Romania, the species is rarer and besides Dobrogea it is occurred in South - West and Central Romania.

Rhodanthidium Isensee, 1927

Rhodanthidium septemdentatum Latreille, 1809: reported by Constantinescu (1976) as *Anthidium septemdentatum*, 1 spec., Comarova Forest (CT), 2.06.1962; 1 spec., Hagieni Forest (CT), 19.06.1962; 1 spec., 7.06.1963; 3 specs, 20 - 23.06.1964; 2 specs, 7.06.1965; 2 specs, Băneasa – Canaraua Fetii (CT), 16, 17.07.1964; 1 spec., 1.05.1965; 1 spec., 1.06.1965; 1 spec., Cocoș Monastery (TL), 17.06.1973 – 1975. Polylectics. Flying period: April - July.

South and Central Europe. In Romania, the species is rarer, being occurred in different areas of the country.

Pseudoanthidium Friese, 1898

Pseudoanthidium lituratum (Panzer, 1801): reported by Zanden & Matache (1986) at C. A. Rosetti, 1 spec., C. A. Rosetti (TL), 6.07.1980; 2 specs, 27, 31.05.1981; 1 spec., 4.06.1981. Oligolectics: Asteraceae. Flying period: May - August. It builds its nest in dry stems, digging galleries in the soft pith, but sometimes it does not dig its own galleries and uses the pre-existent cavities, which were made either by other bee or by xylophagous bugs.

Palearctic. Species occurred all over the country.

Pseudoanthidium melanurus Klug, 1832: 1 spec., Periprava (TL), 16.07.1964. Palaearctic. Known in Romania only from the Danube Delta.

Icteranthidium Michener, 1948

Icteranthidium laterale (Latreille, 1809) : 1 spec., C. A. Rosetti (TL), 20.07.1964; 1 spec., Caraorman (TL), 1.07.1968. Oligolectics: Asteraceae. Flying period: June – July. It builds its nest in large cavities in soil, cells being made of resin.

Palaearctic. At present, in Romania, known from the Danube Delta and centre of the country.

Anthidium Fabricius, 1804

Anthidium cingulatum Latreille, 1809: 1 spec., Agigea (CT), 27.07.1964; 3 specs, Cocos Monastery (TL), 30.08. – 8.09.1973 - 1975. Polylectics: Lamiaceae, Fabaceae, Asteraceae. Flying period: June – September. The nest is placed in pre-existent cavities in different substrata.

Palaearctic. Species known from Central and South - West Romania, less from East.

Anthidium florentinum (Fabricius, 1775): 1 spec., Sfântu Gheorghe (TL), 06.1951; 1 spec., Valu lui Traian (CT), 12.07.1957; 2 specs, Periprava (TL), 2.07.1965; 1 spec., Crişan (TL), 17.08.1967; 2 specs, 15, 21.07.1970; 1 spec., Caraorman (TL), 16.08.1967; 1 spec., 2.07.1968; 1 spec., 4.10.1968; 5 specs, 17 – 21.07.1969; 2 specs, 23 – 24.08.1992; 8 specs, Roşu (TL), 26.07.1981; 13 specs, Cocos and Celic monasteries, Greci (TL), 10.05. – 7.09.1973 - 1975, C. A. Rosetti (TL), 5, 6.08.1981. The species was collected from *Medicago sativa* and *Anethum graveolens*, especially in southern Romania. Polylectics: Fabaceae, Lamiaceae. Flying period: June – September. The nest is placed in pre-existent cavities in different substrata: abandoned nests of other bees, galleries of other insects in soil, in empty dry stems, in clayey walls.

Palaearctic. Species known in all Romania, less in the East.

Anthidium loti Perris, 1852: 1 spec., Periprava (TL), 20.06.1958; 1 spec., C. A. Rosetti (TL), 12.07.1980. Flying period: June – August.

North Mediterranean. Species known in Romania only from the Danube Delta.

Anthidium manicatum (Linnaeus, 1758): 1 spec., Bădila (TL), 29.06.1967; 1 spec., Babadag (TL), 11.09.1967; 1 spec., C. A. Rosetti (TL), 15.07.1980. Polylectics: Fabaceae, Lamiaceae. The nest is placed in pre-existent cavities in different substrata.

Palaearctic. Common species collected from entire Romania.

Anthidiellum Cockerell, 1904

Anthidiellum breviusculum (Pérez, 1890): 1 spec., C. A. Rosetti (TL), 12.06.1979.

Palaearctic. It was not collected in another place of Romania.

Anthidiellum strigatum (Panzer, 1805): reported by Constantinescu(1976) as *Anthidium strigatum*, 1 spec., Valu lui Traian (CT), 6.07.1959; 4 specs, Agigea (CT), 19, 22.07.1964; 1 spec., Caraorman (TL), 11.08.1967; 1 spec., 23, 24.08.1992; 1 spec., Cocos Monastery (TL), 16.06.1973 – 1975; 1 spec., C. A. Rosetti (TL), 10.06.1979; 2 specs, 29.09.1980; 1 spec., 3.08.1981. Oligolectics: Fabaceae. Flying

period: June – August. The nest is placed at the surface of the stones, rocks or is fixed in the shrub branches.

Palaeartic. In Romania, less numerous.

Stelis Panzer, 1806

Stelis breviscula (Nylander, 1848): 1 spec., Comarova Forest (CT), 12.05.1959.

Larvae were collected from reed stems. The adults appeared on 15.04.1960. Cleptoparasite of *Heriades truncorum*, species of *Chelostoma*, *Hoplitis adunca*. Flying period: April – August.

Palaeartic. Species known from Central and South Romania.

Stelis phaeoptera (Kirby, 1802): 1 spec., Istria (CT), 3.06.1972. Cleptoparasite of *Hoplitis anthocopoides*, *Anthocopa spinulosa*, *Osmia emarginata*, *O. fulviventris*, *O. leaiana*, *O. rufa*, *Megachile rotundata*. Flying period: May – August.

Europe, the Caucasus, North Africa. In Romania it was collected from centre and South.

Stelis punctulatissima (Kirby, 1802): 3 specs, Sulina (TL), 22, 23.07.1964; 2 specs, Crişan (TL), 18.08.1967; 1 spec., 17.07.1969; 1 spec., 21.07.1970; 2 specs, Cocos Monastery (TL), 1973 – 1975. Cleptoparasite of *Hoplitis adunca*, *Osmia aurulenta*, *O. fulviventris*, *Anthidium manicatum*. Flying period: June – August.

Europe. In Romania, almost everywhere.

Tribe Megachilini

Chelostoma Latreille, 1809

* *Chelostoma florissomne* (Linnaeus, 1758): 6 specs, Luncaviţa (TL), Valea Fagilor, 24.05.2005. Oligolectics: *Ranunculus*. Flying period: May – July. The nest in empty dry stems.

Western Palaeartic. Species distributed all over Romania.

Chelostoma proximum Schletterer, 1889: 1 spec., Istria (CT), 8.06.1978. Oligolectics: *Campanula*. Flying period: June – July.

Palaeartic. In Romania, it was also collected from Hemeiuşi (Bacău).

Chelostoma rapunculi (Lepeletier, 1841): reported by Constantinescu (1976) as *Heriades nigricornis*, by Zanden & Matache (1986) as *Chelostoma fuliginosum*, 1 spec., Techirghiol (CT), 06.1932; 1 spec., Cocos Monastery (TL), 15.06.1973 – 1975. Oligolectics: *Campanula*. Flying period: May – August. The nest, in pre-existent cavities in empty stems and in wooden constructions.

Europe. Species distributed all over Romania, but less numerous everywhere.

Heriades Spinola, 1808

Heriades crenulatus Nylander, 1856: 4 specs, Sulina (TL), 23.06.1964; 1 spec., 11.09.1966; 1 spec., Caraorman (TL), 15.08.1967; 3 specs, Crişan (TL), 17, 18.08.1967; 2 specs, 27.09.1967; 4 specs, 21.07.1969; 2 specs, 27.08.1969; 3 specs, Istria (CT), 3.06.1972; 1 spec., C. A. Rosetti (TL), 14.07.1980; 1 spec., Negureni (CT), 20.05.1993. Oligolectics: Asteraceae, Compositae. Flying period: May–September. The nest, in pre-existent cavities in wooden constructions and in reed roofs, forming small agglomerations.

Palaeartic. The species was collected from all regions of Romania, excepting the northern ones.

Heriades rubicola Pérez, 1890: 1 spec., C. A. Rosetti (TL), 7.06.1979; 1 spec., 19.07.1980; 1 spec., 27.07.1981.

Mediterranean species. Species known in Romania from the Danube Delta and centre of the country.

Heriades truncorum (Linnaeus, 1758): 4 specs, Caraorman (TL), 12.-15.08.1967; 1 spec., Murighiol (TL), 3.06.1972; 1 spec., 5.06.1972; 1 spec., 6.06.1972; 3 specs, C. A. Rosetti, (TL), 18.06.1980; 5 specs, 18.07.1980; 2 specs, 1.10.1980; 4 specs, 30.07.1981; 1 spec., Alba (TL), 7.09.2005. Oligolectics: Asteraceae. Flying period: June - September. The nest, in pre-existent cavities in wooden constructions and reed roofs, forming small agglomerations.

Palaeartic. Species known from all regions of Romania, excepting the northern ones.

Hoplitis Klug, 1807

Hoplitis adunca (Panzer, 1798): 1 spec., Murighiol (TL), 5.06.1972. Oligolectics: *Echium*. Flying period: June - August. The nest, in pre-existent cavities from different substrata: empty stems and shells, rock cracks, wooden constructions, trunks. Cleptoparasite: *Stelis punctulatissima*, *Dioxoides tridentata*, *Dioxys cinctus*.

Palaeartic. It is occurred in Central and even South - West Romania.

Hoplitis bidentata (Morawitz, 1876): reported by Zanden & Matache (1986) as *Anthocopa bidentata*, 3 specs, Comarova Forest (CT), 12.09.1959. Larvae were collected from reed stems. The adults appeared on 15.04.1964.

Palaeartic. Species known from entire Romania.

Hoplitis laevifrons (Morawitz, 1872): 1 spec., Bugeac (CT), 24.07.1952.

Palaeartic. In Romania, known only from Dobrogea.

Hoplitis manicata Morice, 1901: 7 specs, Comarova Forest (CT), 12.09.1959. Reed stems with larvae were collected. The adults appeared on 15.04.1960. It collects from Oleaceae, Moraceae. Flying period: June - September.

Palaeartic. Species known from several localities of Romania, but nowhere numerous.

* *Hoplitis praestans* (Morawitz, 1894): 1 spec., Valea Suluc (TL), P. N. M. M., 27.05.2005. Oligolectics: *Campanula*. Flying period: May - July. The female builds its nest in the dry stem pith where it digs galleries.

Palaeartic. In Romania, it was reported for the first time from Valea Suluc.

Hoplitis tridentata (Dufour et Perris, 1840): 1 spec., C. A. Rosetti (TL), 27.05.1981; 1 spec., 27.07.1981. Oligolectics: Fabaceae. Flying period: May - August. The female builds its nest in the dry stem and branch pith, where it digs galleries.

Palaeartic. In Romania, it was also reported from Bașta (Neamț).

Anthocopa Lepeletier, 1825

Anthocopa andreoides (Spinola, 1808): 1 spec., Agigea (CT), 19.07.1958; 1 spec., Caraorman (TL), 3.09.1968; 1 spec., C. A. Rosetti - Pădurea Letea (TL), 7.06.1979; 1 spec., 26.09.1980; 1 spec., 4.06.1981; 1 spec., Căcoș Monastery (TL), 17.06.1973 - 1975. It collects from Lamiaceae, Fabaceae. Flying period: May - September. The nest, in empty shells.

North Mediterranean. In Romania, the species is known only from the South.

Anthocopa papaveris (Latreille, 1799): 1 spec., Valu lui Traian (CT), 7.07.1959.

It collects from: *Campanula*, *Centaurea*, *Papaver*. Flying period: June - August. The nest, in pre-existent cavities in soil; often, the females dig their own galleries.

Palaeartic. It was also collected from Moldova.

Anthocopa spinulosa (Kirby, 1802): reported by Constantinescu (1976) as *Osmia spinulosa*, 1 spec., Periprava (TL), 15.07.1964; 1 spec., 18.07.1966; 5 specs, Caraorman (TL), 11, 14.08.1967; 3 specs, 9.10.1968; 2 specs, 15.05.1992; 6 specs, C. A. Rosetti - Letea Forest (TL), 14 - 19.07.1980; 36 specs, 1 - 30.09.1980; 2 specs, 1.10.1980; 4 specs, 29, 30.07.1981; 8 specs, 3 - 6.08.1981; 2 specs, Celic Monastery (TL), 16 - 18.06.1973 - 1975.

Flying period: May - September. The nest, in empty shells.

Palaeartic. Frequent in the Danube Delta, also collected from Central and South Romania. The collecting was made from Umbeliferae.

Osmia Panzer, 1806

Osmia aurulenta (Panzer, 1799): 1 spec., Valu lui Traian (CT), 12.07.1957; 1 spec., Comarova Forest (CT), 24.06.1962; 1 spec., Agigea (CT), 15.06.1964; 2 specs, 2 - 5.07.1993; 19 specs, Caraorman (TL), 1 - 12.05.1967; 1 spec., 17.06.1967; 20 specs, 11 - 16.05.1968; 3 specs, 2, 3.06.1968; 1 spec., 12.06.1969; 1 spec., 20.07.1969; 10 specs, Cicoș Monastery (TL), 9 - 16.05.1973 - 1975; 1 spec., C. A. Rosetti (TL), 19.07.1966; 4 specs, 7 - 11.06.1979, 13 specs, 27 - 30.05.1980; 2 specs, 15.07.1980; 7 specs, 6, 29, 31.05.1981; 4 specs, 2, 4.06.1981; 2 specs, 28.07.1981; 3 specs, Hagieni Forest (CT), 9 - 13.07.1992; 5 specs, „6 Martie“ Forest (TL), 10.05.1992.

Polylectics: Fabaceae, Lamiaceae. Flying period: April - July. The nest, in empty shells, in empty dry stems and in rock cracks.

Palaeartic. Common species, collected from all Romania.

Osmia brevicornis (Fabricius, 1798): reported by Zanden & Matache (1986) as *Osmia atrocaerulea*, 1 spec., Luncavița (TL), 26.06.1956; 2 specs, Periprava (TL), 2.07.1965; 6 specs, C. A. Rosetti (TL), 26 - 31.05.1980; 3 specs, 29 - 31.05.1981; 3 specs, Greci (TL), P. N. M. M., 25.05.2005; 1 spec., Cerna (TL), P. N. M. M., 26.05.2005; 1 spec., Valea Suluc (TL), P. N. M. M., 27.05.2005.

Oligolectics: Brassicaceae. Flying period: April - July. The nest, in dead wood and in empty plant stems.

Palaeartic. The species is known especially from South and Central Romania.

Osmia caerulescens (Linnaeus, 1758): 1 spec., C. A. Rosetti (TL), 20.07.1966; 1 spec., 12.06.1979; 5 specs, 26, 27.05.1980; 1 spec., 20.07.1980; 2 specs, 31.05.1981; 4 specs, 2 - 7.06.1981; 1 spec., 27.07.1981; 2 specs, 2, 3.08.1981; 3 specs, Caraorman (TL), 7 - 10.05.1967; 2 specs, 11 - 14.05.1968; 2 specs, 31.05.1968; 1 spec., Crișan (TL), 18.05.1968; 1 spec., Sfântu Gheorghe (TL), 31.05.1972; 1 spec., Murighiol (TL), 5.06.1972; 2 specs, Cicoș Monastery (TL), 14 - 15.06.1973 - 1975; 1 spec., Tulcea, 22.07.1980; 2 specs, Maliuc (TL), 6 - 9.08.1991; 1 spec., Popina Island (TL), 9.05.1992; 1 spec., Agigea (CT), 2 - 5.07.1993; 2 specs, Luncavița (TL), Valea Fagilor, 24.05.2005. Polylectics: Fabaceae, Lamiaceae. Flying period: May - August. The nest, in pre-existent cavities in different substrata.

Holarctic. Common species in Romania.

Osmia cornuta (Latreille, 1805): 1 spec., Sfântu Gheorghe (TL), 22.08.1954; 4 specs, Chilia Veche (TL), 7.05.1964; 14 specs, Cicoș Monastery, 31.03. -

9.05.1973 – 1975 (collected from the blossomed trees and reed roofs); 2 specs, Babadag Forest (TL), 12.05.1992.

Polylectics: Rosaceae, Fabaceae. Flying period: March – August. Female nestles in different substrata.

Palaeartic. Known all over Romania.

Osmia dimidiata Morawitz, 1870: 1 spec., Agigea (CT), 28.06.1964.

Palaeartic. Known in Romania only from Agigea.

Osmia fulviventris (Panzer, 1798): 3 specs, Eforie Sud (CT), 06.1939; 4 specs, 20.06.1957; 1 spec., Caraorman (TL), 27.08.1969; 1 spec., Istria (CT), 2.06.1972; 1 spec., 3.06.1972; 2 specs, Murighiol (TL), 5.06.1972; 17 specs, C. A. Rosetti (TL), 6 – 13.06.1979; 3 specs, 16, 17, 20.07.1980; 1 spec., 7.06.1981; 3 specs, „6 Martie” Forest (TL), 10.05.1992. Oligolectics: Asteraceae, Compositae. Flying period: May – August. The nest, in pre-existent cavities in dead wood or empty stems.

Palaeartic. Collected from entire Romania.

Osmia leaiana (Kirby, 1802): 1 spec., Eforie Sud (CT), 06.1939; 1 spec., Comarova Forest (TL), 12.09.1959; 1 spec., Crişan (TL), 8.06.1973. Oligolectics: Asteraceae. Flying period: May – September. The nest, in pre-existent cavities in dead wood.

Europe. Species known all over Romania.

Osmia melanogaster Spinola, 1808: 1 spec., C. A. Rosetti (TL), 4.06.1981. It collects from Asteraceae, Lamiaceae, Boraginaceae. Flying period: June – July. The nest, in pre-existent cavities in dead wood or empty stems.

Palaeartic. In Romania, it was not recorded from East and North.

Osmia rufa (Linnaeus, 1758): 87 specs, Cocoş Monastery (TL), 31.03. – 9.05.1973 – 1975; 1 spec., Luncaviţa (TL), 24.05.2005. Polylectics: Rosaceae, Fabaceae. Flying period: March – July. The nest, in pre-existent cavities in wooden constructions, empty dry stems, reed roofs, snail shells.

Palaeartic. In Romania, it is a common species. It was not reported from North.

Osmia rufohirta Latr.: 1 spec., Valu lui Traian (CT), 12.07.1957.

North Mediterranean. Less occurred species in Romania.

Chalicodoma Lepeletier, 1841

Chalicodoma ericetorum (Lepeletier, 1841): reported by Constantinescu (1976) as *Megachile ericetorum*, 1 spec., Caraorman (TL), 21.07.1969; 2 specs, Cocoş Monastery (TL), 14 – 16.06.1973 – 1975; 1 spec., C. A. Rosetti (TL), 20.07.1980; 1 spec., 28.07.1981. Oligolectics: Fabaceae. Flying period: June – August. The nest, in pre-existent cavities in wood and clayey walls or in the empty dry stems of plants.

Palaeartic. In Romania, it is a common species.

Megachile Latreille, 1802

Megachile bombycina Radoszkowski, 1874: 1 spec., C. A. Rosetti (TL), 5.08.1981.

Oligolectics: Asteraceae, sometimes Laminaceae, too. Flying period: June – August. The nest in pre-existent cavities in dead wood and in the empty stems of the plants; the nests, built around, form aggregations.

Palaeartic. In Romania, it is a rare species.

Megachile centuncularis (Linnaeus, 1758): 1 spec., Periprava (TL), 14.10.1966; 1 spec., Caraorman (TL), 14.08.1967; 1 spec., 31.05.1968; 1 spec., 3.09.1968; 2 specs, 5, 6.10.1968; 10 specs, 15 – 20.07.1969; 1 spec., Sulina (TL), 9 – 12.07.1969; 1 spec., Sfântu Gheorghe (TL), 9.07.1972; 19 specs, Cocoş, Celic Dere and Niculiţel monasteries, 14.06. – 18.07.1973 – 1975; 1 spec., C. A. Rosetti (TL), 28.09.1978; 4 specs, 7 – 11.06.1979; 2 specs, 28 – 31.05.1980; 1 spec., 1.06.1980; 6 specs, 13 – 19.07.1980; 8 specs, 23 – 28.09.1980; 2 specs, 1.10.1980; 2 specs, 1, 2.06.1981; 1 spec., Tulcea, 22.07.1980; 3 specs, Hagieni (CT), 9 – 13.07.1992; 2 specs, Alba (TL), 7.09.2005. Polylectics: Fabaceae, Asteraceae. Flying period: May – October. Femela builds its nest in pre-existent cavities in different substrata.

Holarctic. Species distributed all over the country.

Megachile lagopoda (Linnaeus, 1761): 1 spec., Caraorman (TL), 15.07.1969; 14 specs, Cocoş and Celic Dere monasteries, 18.07. – 6.09.1973 – 1975. Polylectics: Asteraceae. Flying period: June – August. The nest, in pre-existent cavities in soil.

Palaeartic. In Romania, reported from all regions of the country, less from the West.

Megachile leachella Curtis, 1828 : 1 spec., C. A. Rosetti (TL), 11.06.1979; 17 specs, 13 – 20.07.1980; 1 spec., 26.09.1980; 1 spec., 2.07.1981; 9 specs, 26 – 30.07.1981; 8 specs, 3 – 6.08.1981; 1 spec., 06.1993. Polylectics: it prefers to collect from Fabaceae. Flying period: June – September. The nest, in pre-existent cavities in stones, empty stems, soil (especially in sandy soil, but often, in sand banks, too).

Holarctic. In Romania, it was not reported from the North.

Megachile ligniseca (Kirby, 1802): 1 spec., Eforie Sud (CT), 06.1939; 2 specs, C. A. Rosetti (TL), 16 – 18.07.1980; 1 spec., 4.06.1981.

Polylectics: it prefers to collect from Asteraceae. Flying period: June – August. The nest, in pre-existent cavities in dead wood.

Europe. In Romania, reported from southern, central and northern regions.

Megachile melanopyga Costa, 1863: 1 spec., Valu lui Traian (CT), 12.07.1957; 2 specs, C. A. Rosetti (TL), 16 – 17.09.1966; 5 specs, 23 – 29.09.1980; 3 specs, Periprava (TL), 10 – 12.10.1966; 1 spec., Caraorman (TL), 12.08.1967; 1 spec., 6.10.1968; 1 spec., Babadag (TL), 9.09.1967; 1 spec., Cocoş Monastery (TL), 30.08.1973 – 1975. Polylectics: it collects from Fabaceae. Flying period: June – October.

North Mediterranean. In Romania, besides the studied region, it was reported also from the South - East, centre and East.

Megachile octosignata Nylander, 1852: 1 spec., Istria (CT), 2.06.1972. Polylectics: it prefers Fabaceae, Asteraceae. Flying period: June – August. Females make their nest in pre-existent cavities in dead wood.

North Mediterranean. In Romania, it was not reported from the North.

Megachile pilicrus Morawitz, 1878: 1 spec., Periprava (TL), 19.07.1964; 2 specs, C. A. Rosetti (TL), 15, 18.07.1980. Oligolectics: Asteraceae. Flying period: June – August. The nest, in pre-existent cavities, in dead wood or in empty stems.

North Mediterranean. In Romania, collected from a few localities.

Megachile pilidens Alfken, 1924: 3 specs, Techirghiol (CT), 11.07.1957; 2 specs, Valu lui Traian (CT), 13.07.1957; 4 specs, C. A. Rosetti (TL), 14, 15.07.1980; 1 spec., Cocoş Monastery (TL), 16.06.1973 – 1975. Polylectics: it prefers to collect from Fabaceae and Asteraceae. Flying period: June – August. The nest, in pre-existent cavities in soil.

Mediterranean species. In Romania, occurred especially in the South.

Megachile rotundata (Fabricius, 1787): 1 spec., Istria (CT), 3.06.1972; 1 spec., Tulcea, 22.07.1980; 1 spec., C. A. Rosetti (TL), 27.07.1981; 1 spec., 27.09.1980. It was also collected from 14 Romanian localities. Polylectics: Asteraceae, Fabaceae and Lamiaceae. Flying period: June - September. The nest, in pre-existent cavities in different substrata; it adapts in artificial nests, too.

Holarctic. In Romania, it was not reported from the North.

Megachile versicolor Smith, 1844: 1 spec., Eforie Sud (CT), 06.1938, 1 spec., C. A. Rosetti (TL), 12.06.1979; 4 specs, 28 - 31.05.1980; 3 specs, 1.06.1980; 2 specs, 18.07.1980; 3 specs, 23 - 29.09.1980; 1 spec., 1.10.1980; 2 specs, 7.06.1981; 1 spec., 28.07.1981; 1 spec., 2.08.1981; 1 spec., 06.1993. Polylectics: Asteraceae and Fabaceae. Flying period: May - September. The nest, in pre-existent cavities in dead wood or in empty stems.

Palaeartic. In Romania, it is distributed almost everywhere.

Coelioxys Latreille, 1809

Coelioxys brevis Eversmann, 1852: 1 spec., Periprava (TL), 26.07.1957; 1 spec., 16.07.1964; 1 spec., Caraorman (TL), 21.09.1967; 1 spec., 3.07.1968; 1 spec., 30.08.1969; 3 specs, 17, 20.07.1969; 1 spec., Agigea (CT), 18.07.1968; 1 spec., Sfântu Gheorghe (TL), 15.08.1971; 1 spec., Cocos Monastery (TL), 16.06.1981 - 1975; 1 spec., C. A. Rosetti (TL), 7.06.1981; 3 specs, 26, 29.09.1980; 1 spec., „6 Martie” Forest (TL), 16.08.1992. Cleptoparasite of *Megachile leachella*, *M. apicalis*. Flying period: June - September.

South, Eastern and Central Europe, the Caucasus, Algeria. Species collected also from the South Romania.

Coelioxys caudata Spinola, 1838: reported by Zanden & Matache (1986) as *Coelioxys forsteri*, 1 spec., Caraorman (TL), 1.06.1968; 1 spec., C. A. Rosetti (TL), 27.05.1980; 1 spec., 11.06.1979. Cleptoparasite; host unknown. Flying period: May - August.

Palaeartic. In Romania, it was collected also from Arad.

Coelioxys conoidea (Illiger, 1806): 1 spec., C. A. Rosetti (TL), 20.07.1966; 2 specs, Caraorman (TL), 17, 20.07.1969; 1 spec., Crişan (TL), 26.08.1969; 4 specs, Cocos Monastery (TL), 13 - 18.07.1973 - 1975. Cleptoparasite of *Megachile maritima*, *M. lagopoda*, *Chalicodoma ericetorum*. Flying period: July - August.

Palaeartic. In Romania, it can be occurred in the centre of the country.

* *Coelioxys elongata* Lepeletier, 1841: 1 spec., Celic Dere (TL), 8.09.2005. Cleptoparasite of *Megachile circumcincta*, *M. centuncularis*, *M. leachella*, *M. lignisecca*, *M. willughbiella*. Flying period: June - September.

Palaeartic. In Romania, it is known also from the centre and South - West.

Coelioxys inermis (Kirby, 1802): 1 spec., C. A. Rosetti (TL), 12.06.1979, 1 spec., 19.07.1980; 4 specs, 24 - 29.09.1980; 3 specs, 27 - 31.05.1981; 3 specs, 2 - 6.06.1981. Cleptoparasite of *Megachile centuncularis*, *M. alpicola*, *M. versicolor*, *Anthocopa papaveris*. Flying period: May - September.

Palaeartic. At present, in Romania, it is known from the Danube Delta and centre of the country.

Coelioxys rufocaudata Smith, 1854: 1 spec., C. A. Rosetti (TL), 20.07.1966.

Cleptoparasite of *Megachile rotundata*. Flying period: June - August.

Palaeartic. In Romania, rare species, also known from Sibiu, Arad and Sagna (Neamt).

DISCUSSIONS

The list of Megachilidae species from Dobrogea consists of Romanian common species as: *Pseudoanthidium lituratum*, *Anthidium florentinum*, *A. manicatum*, *Stelis punctulatissima*, *Chelostoma florissomne*, *Hoplitis bidentata*, *Anthocopa spinulosa*, *Osmia aurulenta*, *O. caerulescens*, *O. cornuta*, *O. fulviventris*, *O. leaiana*, *O. rufa*, *Chalicodoma ericetorum*, *Megachile centuncularis*, *M. rotundata*, *M. versicolor* as well as species which were reported only from Dobrogea: *Anthidiellum brevisculum*, *Anthidium loti*, *Hoplitis laevifrons*, *H. praestans*, *Osmia dimidiata*, *Pseudoanthidium melanurus*.

In Dobrogea, 58 species of the 90 known in Romania were reported, representing 65 % of the total of Megachilidae species reported till now.

Two species were mentioned for the first time from Dobrogea: *Chelostoma florissomne* and *Coelioxys elongata*. *Hoplitis praestans* is reported for the first time not only from Dobrogea, but also for Romania.

FAMILIA MEGACHILIDAE (HYMENOPTERA: APOIDEA) ÎN DOBROGEA (ROMÂNIA)

REZUMAT

Pentru prima dată s-a realizat o sinteză a datelor din literatura de specialitate și a celor furnizate de materialul colectat din zona Dobrogei pentru familia Megachilidae de către colectivul Secției de entomologie din Muzeul Național de Istorie Naturală „Grigore Antipa” (București).

În Dobrogea au fost identificate 58 specii din cele 90 cunoscute în România ceea ce reprezintă 65 % din totalul speciilor de megachilide semnalate până în prezent. Dintre acestea, speciile *Chelostoma florissomne* și *Coelioxys elongata*, sunt semnalate pentru prima dată în zonă, iar *Hoplitis praestans* e și semnalare nouă pentru România. Exemplarele acestor specii provin din materialul colectat de către autori în anul 2005 din Dobrogea de Nord.

Exemplarele de megachilide provin din 34 de situri, 7 dintre acestea nefigurând în literatura consultată de noi. Acestea sunt: Insula Popina, Maliuc, Negureni, Pădurea „6 Martie”, Cerna, Valea Suluc și Alba.

Pentru speciile listate lucrarea aduce date noi de ecologie și de răspândire.

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