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**NEW DATA ON THE APOID HYMENOPTERANS  
(HYMENOPTERA: ANDRENIDAE, ANTHOPHORIDAE, APIDAE)  
FROM DOBROGEA (ROMANIA)**

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Abstract. We present 41 apoid species belonging to 3 families, collected from Dobrogea. Sixteen species are reported for the first time from this area.

Résumé. On présente 41 espèces d'apoïdes appartenant à 3 familles, capturées en Dobrogea. Seize espèces sont rapportées pour la première fois de cette région.

Key words: Hymenoptera, Andrenidae, Anthophoridae, Apidae, Dobrogea (Romania).

The first references on the apoid hymenopteran fauna from Dobrogea were made beginning with the 20th century. In “Fauna României” (“Romanian Fauna”) (1955), Knechtel mentioned 7 apid species collected from Dobrogea, then Iuga (1958) reported 28 anthophorid species. Warncke (1965, 1967, 1975) mentioned 5 andrenid species from Tulcea and Constanța. Fesci (1972) reported *Xylocopa iris* as *X. cyanescens* (Anthophoridae) for the first time and added 5 apid species, the material originating in Periprava, Caraorman, C. A. Rosetti. Constantinescu (1976) enriched the list with 3 apid species and 21 anthophorid species, collected from North Dobrogea. Warncke & Scobiola-Palade’s paper from 1980 presented 27 andrenid species from Dobrogea, and Pascu (1996) added another 3 species.

The studies made by the scientists of „Grigore Antipa” National Museum of Natural History (Bucharest) on the entomofauna from Dobrogea carried on during the periods 1962 - 1966 in the Danube Delta, 1973 - 1975 in North - West Dobrogea, Măcin - Tulcea - Niculițel area, and after 1990, South Dobrogea, the results being published in the journal *Travaux du Muséum National d'Histoire Naturelle* “Grigore Antipa”. Since 2005, the study on the fauna of Dobrogea has been resumed, beginning with the northern side of it.

*MATERIAL AND METHOD*

The studied material was collected by the scientists of „Grigore Antipa” National Museum of Natural History, from North Dobrogea, during 23<sup>rd</sup> - 28<sup>th</sup> of May and the 5<sup>th</sup> - 9<sup>th</sup> of September 2005, within the project “Măcin Mountains biodiversity evaluation”.

The specialists of the „Ion Borcea” Museum Complex of Natural Sciences from Bacău also made researches on the hymenopteran fauna of Dobrogea, respectively Aristița Goagă, between 1971 - 1972 and in 1994 and Bogdan Tomozei, in July 1997 and 2001, the material preserved in this museum being unpublished, yet.

Collecting sites from Dobrogea, with U.T.M. codes (Lehrer & Lehrer, 1990)  
(Fig. 1):

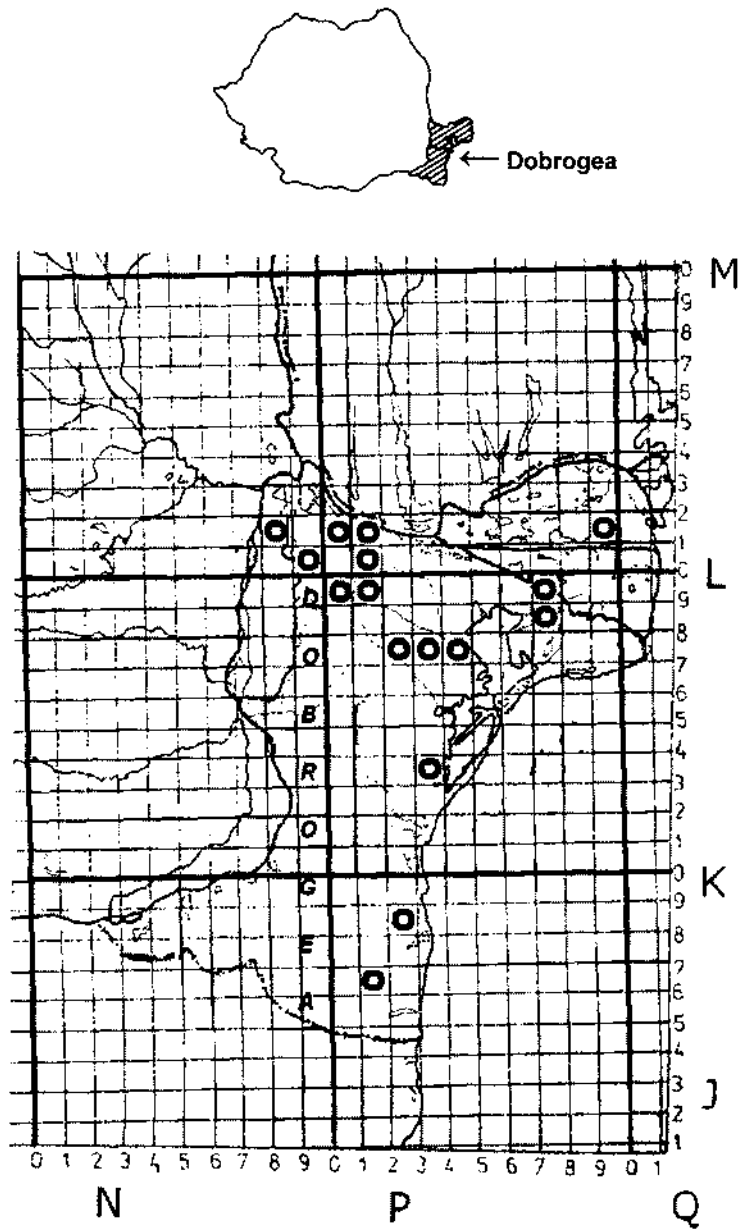


Fig. 1 – The map of collecting sites from Dobrogea.

The specimens, collected by mowing the vegetation with the entomological net, originate in 17 collecting sites from Constanța and Tulcea counties:

PJ 28 - Agigea (CT); PK 19 - Alba (TL); PK 37 - Babadag (TL); PK 09 - Cerna (TL); NL 90 - Greci (TL); PJ 14/15 - Hagieni (CT); PK 33 - Istria (CT); PL 91 - Letea (TL); PL 01 - Luncavița - Valea Fagilor (TL); PK 27 - Celic Dere Monastery (TL); PL 11 - Saon Monastery (TL); PK 78 - Murighiol (TL); PL 10 - Niculițel - Cocoș Monastery (TL); PL 10 - Niculițel - 6 km towards Valea Teilor (TL); PK 47 - Sarighiol (TL); PK 79 - Uzlina (TL); NL 81 - Valea Suluc - Măcin (TL).

For the identification of the andrenid species we used Osychnyuk's papers (1977), for anthophorids, Iuga's (1958) and Osychnyuk, Panfilov & Ponomareva's papers (1978), and for the apids, Knechtel's papers (1955). In order to certify the identification of the species *Anthophora aestivalis*, *A. crinipes*, *Tetralonia armeniaca*, *Xylocopa valga* and *X. violacea* we studied their genitalia.

Systematical order, nomenclature and geographical distributional data of the species are according to Warncke (1965, 1967, 1975), Warncke & Scobiola - Palade (1980), Quaranta et al (2004) for Andrenidae, according to Iuga (1958), Michener (1993), Gogala (1999) for Anthophoridae and to Knechtel (1955) and Michener (1993) for Apidae.

The species reported from the studied area for the first time are marked with \*.

Abbreviations:

P. N. M. M. - Parcul Național Munții Măcin (Măcin Mountains National Park). Counties: CT - Constanța, TL - Tulcea

Collectors' names: A. G. - Andrei Gabriela, B. C. - Ban Cristina, M. I. - Matache Ioana, P. E. - Pistică Elena, R. D. - Ruști Dorel, S. R. - Serafim Rodica ("Grigore Antipa" National Museum of Natural History), G. A. - Goagă Aristița; T. B. - Tomozei Bogdan ("Ion Borcea" Museum Complex of Natural Sciences, Bacău).

#### RESULTS

We identified 41 apoid species, belonging to 9 genera from 3 families: Andrenidae (20 species, 1 genus), Anthophoridae (14 species, 6 genera) and Apidae (7 species, 2 genera). For most of the species we present the material (number of the specimens, sex, collecting site, date, legit), mentions in literature, geographical distribution of the species and ecological data.

The families, subfamilies and the tribes are systematically presented, and the genera and species, alphabetically.

16 species are reported for the first time from Dobrogea: *Andrena abbreviatta osychniuki*, *A. haemorrhoea*, *A. labialis*, *A. polita*, *A. proxima*, *A. taraxaci*, *A. tibialis* (Andrenidae), *Nomada obtusifrons*, *Anthophora aestivalis*, *A. crinipes*, *Eucera interrupta*, *Tetralonia armeniaca*, *Ceratina cucurbitina*, *C. cyanea* (Anthophoridae), *Bombus sylvarum*, *Apis mellifera* (Apidae).

Superfamily Apoidea

Family Andrenidae

Subfamily Andreninae

*Andrena* Fabricius, 1775

\* *Andrena abbreviatta osychniucki* Warncke, 1973

*Material*: 1 ♂, 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I.

*Distribution*. Romania, South Ukraine, Bulgaria, Greece, Crete, Cyprus, Italy, Turkey.

Oligolectic species on Asteraceae.

*Andrena aeneiventris* F. Morawitz, 1872

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material:* 4 ♀♀, Niculițel (TL) - Cocoș Monastery, 24.05.2005, M. I., 1 ♂, 3 ♀♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, B. C., M. I., 2 ♀♀, Celic Dere (TL), 27.05.2005, A. G., 1♀, Luncavița (TL) – Valea Fagilor, 24.05.2005, B. C.

*Distribution.* Mediterranean species towards Central Asia.

*Andrena anatolica* Alfken, 1935

*Material:* 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I.

*Distribution.* Russia, Ukraine, Romania, ex-Yugoslavia, Greece.

The species visits the crucifer inflorescence.

Species reported for the first time in the Romanian fauna by Tomozei (op. cit.).

*Andrena carbonaria* Fabricius, 1793

Reported from Dobrogea by Warncke & Scobiola - Palade (1980) and Pascu (1996).

*Material:* 2 ♀♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I., 2 ♀♀, Istria (CT), 3.06.1972, G. A., 3 ♀♀, Letea (TL), 24.07.1997, T. B., 2 ♂♂, Murighiol (TL), 5.07.1981.

*Distribution.* Palaearctic.

*Andrena figurata* Morawitz, 1866

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material:* 1 ♀, Cetatea Istria (CT), 3.06.1972, G. A.

*Distribution.* Poland, Slovakia, Russia, Ukraine, Romania, Hungary, ex-Yugoslavia, Italy, Cyprus.

*Andrena flavipes* Panzer, 1799

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material:* 19 ♀♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, B. C., M. I., 7 ♀♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I., 3 ♀♀, Luncavița (TL) - Valea Fagilor, 24.05.2005, B. C., M. I., 2 ♀♀, Greci (TL), P. N. M. M., 25.05.2005, B. C., M. I., 1 ♂, Babadag (TL), 25.05.1971, G. A.

*Distribution.* West Palaearctic.

*Andrena fuscata* Erichson, 1835

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material:* 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I., 1 ♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I.

*Distribution.* Europe, North Africa, Asia Minor, Central Asia, India.

\* *Andrena haemorrhoea* Fabricius, 1781

*Material:* 2 ♀♀, Luncavița (TL) - Valea Fagilor, 24.05.2005, M. I., S. R.

*Distribution.* Palaearctic.

A polylectic ubiquitous species, reaches 1600 m altitude in the mountains; males fly from the half of March till the end of June, and the females, from the half of April till the half of June.

\* *Andrena labialis* (Kirby, 1802)

*Material:* 1♀, Uzlina (TL), 25.06.1994, G. A.

*Distribution.* Palaearctic.

Species occurred especially on the Fabaceae inflorescences.

*Andrena magna* Warncke, 1965

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material*: 1 ♀, Agigea (CT), 27.07.2001, T. B.

*Distribution*. Russia, Ukraine, Romania, Greece, Turkey.

*Andrena morio* Brullé, 1832

Reported from Dobrogea by Pascu (1996).

*Material*: 1 ♀, Cerna (TL), P. N. M. M., 26.05.2005, B. C.

*Distribution*. Europe, North Africa, Central Asia.

*Andrena oralis* Morawitz, 1876

Reported from Dobrogea by Warncke (1967), Warncke & Scobiola - Palade (1980).

*Material*: 2 ♀ ♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I.

*Distribution*. Europe.

*Andrena ovatula* Kirby, 1802

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material*: 2 ♀ ♀, Cerna (TL), P. N. M. M., 26.05.2005, B. C., M. I., 1 ♀, Istria (CT), 3.06.1972, G. A.

*Distribution*. Palaeartic.

\* *Andrena polita* Smith, 1847

*Material*: 1 ♂, 9 ♀ ♀, Agigea (CT), 26-29.07.2001, T. B.

*Distribution*. European species extending to Anatolia.

Species occurred on the Asteraceae inflorescences, but also on Rosaceae (*Potentilla* sp.).

\* *Andrena proxima* (Kirby, 1802)

*Material*: 40 ♀ ♀, Luncavița (TL) – Valea Fagilor, 24.05.2005, B. C., M. I., S. R., 64 ♀ ♀, 25.05.2005, A. G., B. C., M. I., 10 ♀ ♀, Celic Dere (TL), 27.05.2005, A. G., S. R., 2 ♀ ♀, Niculițel (TL) – Cocoș Monastery, 24.05.2005, M. I.

*Distribution*. Palaeartic.

Oligolectic species on Apiaceae.

*Andrena scita* Eversmann, 1852

Reported from Dobrogea by Warncke & Scobiola - Palade (1980), Pascu (1996).

*Material*: 7 ♂ ♂, 1 ♀ Cerna (TL), P. N. M. M., 26.05.2005, B. C., M. I., 1 ♂, 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I.

*Distribution*. Mediterranean species distributed in Southern Europe, the Caucasus, Turkey, Iran, Afghanistan, Central Asia.

*Andrena symphyti* Schmiedeknecht, 1883

Reported from Dobrogea (Tulcea) by Warncke & Scobiola - Palade (1980).

*Material*: 1 ♀, Hagieni (CT), 28-29.04.1971, G. A.

*Distribution*. Mediterranean species distributed in Northern and Central Europe (Austria, Czechia, France, Germany, Greece, Hungary, Italy, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland, Ukraine) till the Caucasus.

\* *Andrena taraxaci* Giraud, 1861

*Material*: 1 ♀, Hagieni (CT), 29.04.1971, G. A.

*Distribution*. Palaeartic.

Oligolectic species on Asteraceae.

\* *Andrena tibialis* (Kirby, 1802)

*Material*: 1 ♀, Luncavița (TL) – Valea Fagilor, 24.05.2005, B. C.

*Distribution*. Palaearctic.

Polylectic species.

*Andrena truncatilabris* Morawitz, 1878

Reported from Dobrogea by Warncke & Scobiola - Palade (1980).

*Material*: 1 ♀, Sarighiol (TL), 1.06. 1972, G. A.

*Distribution*. Palaearctic.

## Family Anthophoridae

## Subfamily Nomadinae

## Tribe Nomadini Latreille, 1802

*Nomada* Scopoli, 1770\* *Nomada obtusifrons* Nylander, 1848

*Material*: 2 ♂♂, 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, B. C., M. I.

*Distribution*. Palaearctic.

Cleptoparasitic, univoltine species.

## Subfamily Anthophorinae

## Tribe Anthophorini Michener, 1944

*Anthophora* Latreille, 1803\* *Anthophora aestivalis* (Panzer, 1801)

*Material*: 1 ♂, Cerna (TL), P. N. M. M., 26.05.2005, M. I. (Fig. 2).

*Distribution*. Palaearctic.

Eurioic polylectic species, flies late, beginning only in May, females remaining active all summer.

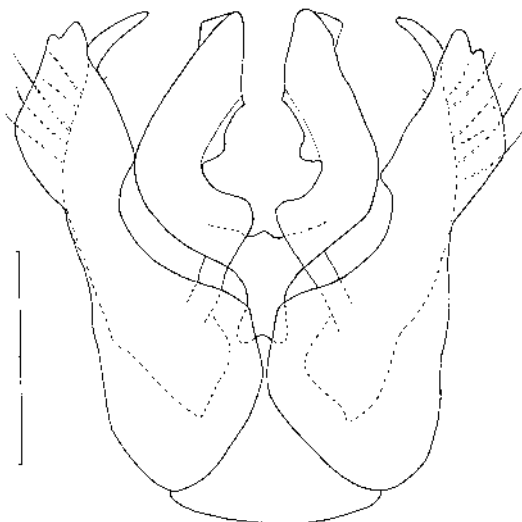


Fig. 2 – *Anthophora aestivalis* (Panzer, 1801), dorsal view of male genitalia. Scale: 1 mm.

Fig. 3 – *Anthophora crinipes*  
Smith, 1854, dorsal view  
of male genitalia. Scale: 1 mm.



\* *Anthophora crinipes* Smith, 1854

*Material*: 1 ♂, Valea Suluc (TL), P. N. M. M., 27.05.2005, B. C. (Fig. 3).

*Distribution*. North of southern Europe.

Eurioic polylectic species, flying from May to August.

Tribe Eucerini Michener, 1944

*Eucera* Scopoli, 1770

*Eucera cinerea* Lepeletier, 1841

Reported by Iuga (1958) from Techirghiol, Măcin and by Constantinescu (1976) from Cocoș Monastery and from Celic Dere.

*Material*: 3 ♂ ♂, 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I., 13 ♂ ♂, Cerna (TL), P. N. M. M., 26.05.2005, B. C., M. I., S. R.

*Distribution*. East-southern species distributed in the steppes of Asia Minor, the European part of the ex USSR, Hungary, Italy.

\* *Eucera interrupta* Baer, 1850

*Material*: 5 ♂ ♂, Cerna (TL), P. N. M. M., 26.05.2005, B. C.

*Distribution*. East, South and Central Europe.

Eurioic polylectic species, flying in May – July.

*Eucera longicornis* (Linnaeus, 1758)

Reported by Iuga (1958) from Techirghiol and by Constantinescu (1976) from Cocoș Monastery, Celic Dere, Greci and Niculițel.

*Material*: 1 ♂, Cerna (TL), P. N. M. M., 26.05.2005, M. I.

*Distribution*. Europe.

*Eucera nigrescens* Pérez, 1879

Reported by Constantinescu (1976) as *Eucera tuberculata* from Cocoș Monastery and Greci.

*Material*: 1 ♀, Valea Suluc (TL), P. N. M. M., 27.05.2005, M. I.

*Distribution*. South and Central Europe.

*Eucera nitdiventris* Mocsáry, 1879

Reported by Constantinescu (1976) from Cocos Monastery and Greci.

*Material*: 1 ♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I.

*Distribution*. Europe.

*Eucera pollinosa* Smith, 1854

Reported by Iuga (1958) from Constanța and by Constantinescu (1976) from Cocos Monastery.

*Material*: 6 ♂ ♂, Cerna (TL), P. N. M. M., 26.05.2005, B. C., M. I., S. R.

*Distribution*. Palaearctic.

*Tetralonia* Spinola, 1838

\* *Tetralonia armeniaca* Morawitz, 1878

*Material*: 1 ♂, Saon Monastery (TL), 8.09.2005, P. E. (Fig. 4).

*Distribution*. Europe.

Oligolectic species, collecting from *Salvia sylvestris*; it flies in June – August.

Subfamily Xylocopinae

Tribe Ceratinini Latreille, 1802

*Ceratina* Latreille, 1802

\* *Ceratina cucurbitina* (Rossi, 1792)

*Material*: 1 ♀, Greci (TL), P. N. M. M., 6.09.2005, B. C.

*Distribution*. Southern species.

Polylectic species, flying in May – September.

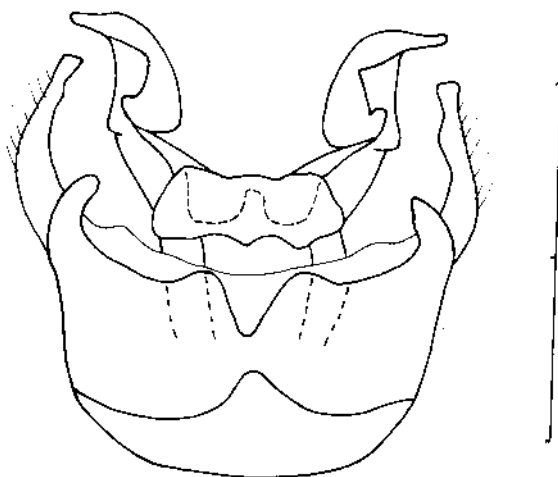


Fig. 4 – *Tetralonia armeniaca* Morawitz, 1878, dorsal view of male genitalia. Scale: 1 mm.

\* *Ceratina cyanea* (Kirby, 1802)

*Material*: 2 ♂♂, Luncavița (TL), Valea Fagilor, 24.05.2005, B. C., M. I.

*Distribution*. Europe.

Polylectic species, flying in April – September.

## Tribe Xylocopini Latreille, 1802

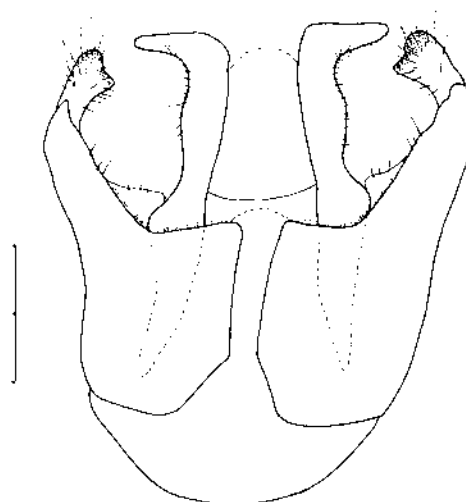
*Xylocopa* Latreille, 1802*Xylocopa valga* Gerstaecker, 1872

Reported by Constantinescu (1976) from Cocoș Monastery.

*Material*: 2 ♂♂, Cerna (TL), P. N. M. M., 26.05.2005, M. I., S. R., 1 ♂, 1 ♀, Niculițel (TL), 6 km towards Valea Teilor, 7.09.2005, B. C., 1 ♀, Celic Dere (TL), 25.05.2005, R. D. (Fig. 5).

*Distribution*. Palaearctic.

Fig. 5 – *Xylocopa valga*  
Gerstaecker, 1872,  
dorsal view of male genitalia.  
Scale: 1 mm.

*Xylocopa violacea* (Linnaeus, 1758)

Reported by Constantinescu (1976) from Cocoș Monastery and Greci.

*Material*: 1 ♂, Niculițel (TL), 6 km towards Valea Teilor, 7.09.2005, B. C., 1 ♂, Cerna (TL), P. N. M. M., 24.05.2005, M. I. (Fig. 6).

*Distribution*. Europe.

## Family Apidae

## Subfamily Bombinae

*Bombus* Latreille, 1802*Bombus hortorum* (Linnaeus, 1761)

Reported by Fesci (1972) from Periprava and by Constantinescu (1976) from Cocoș Monastery.

*Material*: 8 ♂♂, 5 ♀♀, Luncavița (TL), Valea Fagilor, 24.05.2005, B. C., M. I.

*Distribution*. Palaearctic.

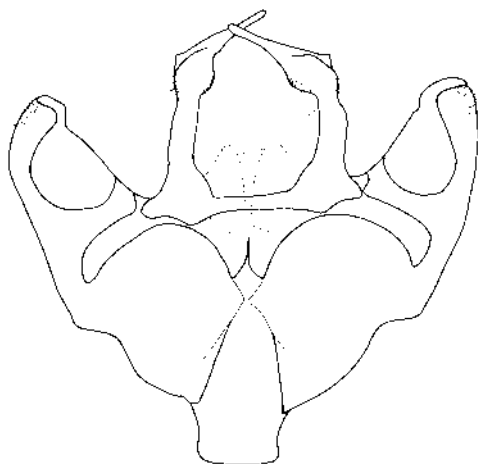


Fig. 6 – *Xylocopa violacea* (Linnaeus, 1758), dorsal view of male genitalia.  
Scale: 1 mm.

*Bombus pascuorum* (Scopoli, 1763)

Reported by Fesci (1972) as *B. agrorum* from Caraorman and by Constantinescu (1976) from Cocos Monastery, Celic Dere and Greci.

*Material*: 11 ♀♀, Luncavița (TL), Valea Fagilor, 24.05.2005, B. C., M. I., Cerna (TL), P. N. M. M., 26.05.2005, S. R., Celic Dere (TL), 27.05.2005, S. R., Niculițel (TL), 6 km towards Valea Teilor, 7.09.2005, B. C.

*Distribution*. Europe, Siberia.

*Bombus ruderatus* Fabricius, 1775

Reported by Fesci (1972) from Caraorman and by Constantinescu (1976) from Cocos Monastery and from Celic Dere.

*Material*: 1 ♂, Alba (TL), 7.09.2005, B. C.

*Distribution*. Palaearctic.

\* *Bombus sylvarum* (Linnaeus, 1761)

*Material*: 1 ♀, Alba (TL), 7.09.2005, B. C.

*Distribution*. Palaearctic.

Polylectic species, making its nest above the ground. In Romania, it is a common species.

*Bombus terrestris* (Linnaeus, 1758)

Reported by Knechtel (1955) from the Danube Delta, by Fesci (1972) from Periprava, Letea Forest, C. A. Rosetti, Caraorman, and by Constantinescu (1976) from Cocos Monastery.

*Material*: 1 ♂, Greci (TL), P. N. M. M., 6.09.2005, B. C., Niculițel (TL), 6 km towards Valea Teilor, 7.09.2005, B. C.

*Distribution*. Palaearctic.

*Bombus zonatus* Smith, 1854

Reported by Knechtel (1955) from Tulcea.

*Material*: 1 ♀, Cerna (TL), P. N. M. M., 26.05.2005, M. I.

*Distribution.* Pontic species, distributed from the South of Hungarian steppe, over the Balkans, South Russia, Crimea, Asia Minor to Iran.

#### Subfamily Apinae

#### *Apis* Linnaeus, 1758

#### \* *Apis mellifera* Linnaeus, 1758

*Material:* 3 ♀ ♀, Cerna (TL), P. N. M. M., 26.05.2005, B. C., M. I., 1 ♀, Greci (TL), P. N. M. M., 6.09.2005, B. C., 6 ♀ ♀, Saon Monastery (TL), 8.09.2005, B. C., 26 ♀ ♀, Niculițel (TL), 6 km towards Valea Teilor, 7.09.2005, B. C., 3 ♀ ♀, Celic Dere (TL), 27.05.2005, B. C., S. R., 2 ♀ ♀, Alba (TL), 7.09.2005, B.C.

*Distribution.* Ubiquitous species.

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#### DATE NOI PRIVIND HIMENOPTERELE APOIDE (HYMENOPTERA: ANDRENIDAE, ANTHOPHORIDAE, APIDAE) DIN DOBROGEOA (ROMÂNIA)

#### REZUMAT

Sunt prezentate 41 specii de apoide din Dobrogea aparținând la 9 genuri din 3 familii: Andrenidae (20 specii, 1 gen), Anthophoridae (14 specii, 6 genuri) și Apidae (7 specii, 2 genuri). 16 specii sunt menționate pentru prima dată în Dobrogea. Pentru majoritatea speciilor se prezintă materialul (număr exemplare, sex, sit de colectare, data, legit), mențiunile în literatură, distribuția geografică a speciei și date de ecologie. Materialul a fost colectat de specialiști ai Muzeului Național de Istorie Naturală “Grigore Antipa” (București), din Dobrogea de Nord, în mai și septembrie 2005 și de specialiști ai Complexului Muzeal de Științele Naturii “Ion Borcea” (Bacău), din Dobrogea, în perioada 1971 – 1972, 1994, 1997 și 2001. Prin această contribuție numărul speciilor de apoide din cele 3 familii cunoscute pentru fauna Dobrogei se ridică la 117, ceea ce reprezintă ~ 18 % din numărul speciilor semnalate până în prezent în România.

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