

A comprehensive list of the ants of Romania (Hymenoptera: Formicidae)¹

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Abstract

In the last decades the ant checklists of most Central and Eastern European countries were updated, with the exception of Romania. The last Romanian checklist was published in 1978 and contained only 76 species. The present work lists all species mentioned in publications until 2006. Up to now, altogether 103 valid species were recorded in the Romanian fauna (102 outdoor species), besides these there are eleven species of uncertain occurrence in Romania and two names which cannot be assigned to existing valid species. The comparison of Romanian and other Central and Eastern European myrmecofaunas reveals that the Romanian fauna is insufficiently known and that a considerable number of species (mostly parasitic and Mediterranean) remains to be detected.

Key words: Ants, Romania, check-list, faunistics, new records, comparison, Central and Eastern Europe.

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Introduction

The ant fauna of Central and Eastern European countries is relatively well-known today. The new wave of the European ant taxonomy in the last decades (e.g., SEIFERT 1992a, 1997, 2002, RADCHENKO & ELMES 2003, SCHLICK-STEINER & al. 2003b, CSŐSZ & MARKÓ 2004, SCHLICK-STEINER & al. 2006b, CSŐSZ & al. in press) resulted not just in the description of new species, and elucidation of taxonomical problems, but also in the renewal or creation of checklists Europe-wide. In the last decades several ant checklists were published for Central and Eastern European countries including Germany (SEIFERT 1996, 2001), Poland (CZECHOWSKI & al. 2002, RADCHENKO & al. 2004), Ukraine (RADCHENKO 1991), Czech Republic (WERNER & BEZDECKA 2001), Slovakia (BEZDECKA 1996), Austria (STEINER & al. 2002), Hungary (GALLÉ & al. 1998), Slovenia (BRAČKO 2000), Serbia (PETROV 2000, 2004, 2006), Montenegro (KARAMAN 1998), and Bulgaria (ATANASSOV & DLUSSKIJ 1992). Romania constitutes an unfortunate exception as the last checklist (a comparison of Bulgarian and Romanian ant fauna) was published at the end of the 1970ies (PARASCHIVESCU 1978a), and contained only 76 species. Paraschivescu tried to update the Romanian myrmecofauna by preparing a monograph of the Romanian ants at the end of the 1990ies, but his death hindered the publication of the book, and the fate of the manuscript is still unknown. As Romania is at the meeting point of Eastern, Central European, Mediterranean and Ponto-Caspian influences, the precise knowledge of its fauna is of major importance for biogeographical and taxonomical-faunistic studies.

Despite the lack of an updated checklist the ant fauna of the territory of current Romania was studied fairly detailed in the last centuries. The first few data were published by C. FUSS (1853, 1855), and by G.L. MAYR (1853, 1857) regarding Transylvania. Their contributions were followed by J. FRIVALDSZKY's (1869, 1871, 1873) articles in the second part of the century. S. Mocsáry (also known as A. Mocsáry) also contributed essentially to the knowledge of the fauna at the end of the 19th and at the beginning of the 20th century (e.g., MOCSÁRY 1872, 1879, 1897, 1918). A.L. Montandon worked together with F. Santschi in Southern Romania at the beginning of the 20th century (MONTANDON & SANTSCI 1910), while P. RÖSZLER (1943) collected mainly from Transylvania. In the 1950ies W.K. KNECHTEL (1956) started working on ants, followed later on by D. Paraschivescu, who almost yearly published at least one article on regional faunas or ecological problems until the end of the 1980ies (PARASCHIVESCU 1961, 1963, 1967, OTTO & PARASCHIVESCU 1968, PARASCHIVESCU 1972a - c, 1974, 1975a - c, PARASCHIVESCU & al. 1975, PARASCHIVESCU 1976, PARASCHIVESCU & RAICEV-ARCAŞU 1976, PARASCHIVESCU 1978a - c, 1982, GOAGĂ & PARASCHIVESCU 1991).

From the middle of the 1990ies myrmecological investigations were renewed in Romania, due to the work of a new generation of myrmecologists (e.g., MARKÓ 1999a - c, CSŐSZ & al. 2001, MARKÓ & CSŐSZ 2002). The need for sufficient knowledge of the Romanian fauna yielded the identification of additional species (e.g., MARKÓ 1999c, MARKÓ & CSŐSZ 2001), partly as a result of taxonomical

¹ This work is dedicated to the memory of Stefan Schödl.

revisions (e.g., SEIFERT 1992a) and partly as a result of the identification of formerly missed common species (e.g., *Tapinoma ambiguum* EMERY, 1925, *Myrmica specioides* BONDROIT, 1918). In the last years a small team of myrmecologists has begun working on the Romanian checklist at the Babeş-Bolyai University in Cluj-Napoca, and gathered every faunistic and ecological paper published ever regarding the territory of current Romania. The study of these papers revealed that PARASCHIVESCU (1978a) omitted further species from his checklist, which had been published before. These discoveries and the lack of an updated faunistic reference list urged us to prepare a comprehensive list of ant species published until 2006.

The current list of species was prepared by using every major faunistic paper concerning the territory of current Romania as well as other papers handling Romanian data. The list of names was created on the base of BOLTON's (1995, 2003) works, as well as on the base of currently available taxonomical literature (e.g., SEIFERT 1988, 1992a, 1996, 1997, 2002). In some cases the Antbase search engine (AGOSTI & JOHNSON 2005) was also used. Most species were collected also in the last decades, but there are some records which could not be verified, neither by checking voucher specimens nor by collecting from the sample sites. Among the respective species those which do not occur in the surrounding countries or the taxonomic status of which was not clear at the time of publication are considered to be species of uncertain Romanian occurrence. Finally, those names which could not be attributed to valid species are likewise listed separately.

List of species

Subfamily Dolichoderinae

Bothriomyrmex meridionalis (ROGER, 1863) in: PARASCHIVESCU (1967, 1974, 1975b, 1978b)

Dolichoderus quadripunctatus (LINNAEUS, 1771) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), KNECHTEL (1956), PARASCHIVESCU (1967, 1974, 1978b), MARKÓ (1999a), CSÖSZ & al. (2001), MARKÓ & CSÖSZ (2002), GALLÉ & al. (2005)

– as *Hypoclinea quadripunctata* (LINNAEUS, 1771) in: FRIVALDSZKY (1869)

Liometopum microcephalum (PANZER, 1798) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), PARASCHIVESCU (1961), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1975a), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)

Tapinoma ambiguum EMERY, 1925 in: MARKÓ (1999), CSÖSZ & al. (2001)

Tapinoma erraticum LATREILLE, 1798 in: FRIVALDSZKY (1869), MONTANDON & SANTSCHI (1910), RÖSZLER (1943), KNECHTEL (1956), PARASCHIVESCU (1961, 1967, 1972a, b, 1974, 1975a, b), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAŞU (1976), PARASCHIVESCU (1978b, 1982), CSÖSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ & CSÖSZ (2002), GALLÉ & al. (2005)

– as *Tapinosoma erraticum* LATREILLE, 1798 in: MOCSÁRY (1872)

Subfamily Formicinae

Camponotus aethiops (LATREILLE, 1798) in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1874, 1897), KNECHTEL (1956),

PARASCHIVESCU (1961), CÎRDEI & al. (1962), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967, 1974, 1975a, b), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAŞU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), CSÖSZ & al. (2001), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005)

– as *Camponotus aethiops* var. *marginata* (LATREILLE, 1798) in: CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969)

– as *Camponotus marginatus* (LATREILLE, 1798) in: MOCSÁRY (1897)

– as *Camponotus maculatus* st. *aethiops* (LATREILLE, 1798) in: MONTANDON & SANTSCHI (1910)

Camponotus atricolor (NYLANDER, 1849) sensu auctorum – This name is mentioned as the synonym of *C. piceus* (LEACH, 1825) by ATANASSOV & DLUSSKIJ (1992) due to their findings of intermediate morphs between the two species concerning the mesopropodeal furrow. A. Radchenko (pers. comm.) also supports this hypothesis on the basis of type material investigation of *C. atricolor*. Still, the morph treated up to now as "*atricolor*" shows clear differences from *C. piceus* in characters other than the mesopropodeal furrow and both morphs occur in Romania (B. Markó, unpubl.). Further investigations should elucidate the taxonomical status of the so-called "*atricolor*" morph.

– as *Camponotus lateralis* var. *atricolor* (NYLANDER, 1849) in: MONTANDON & SANTSCHI (1910) – See note above.

Camponotus dalmaticus (NYLANDER, 1849)

– as *Camponotus lateralis dalmaticus* (NYLANDER, 1849) in: MOCSÁRY (1897)

Camponotus fallax (NYLANDER, 1856) in: PARASCHIVESCU (1961, 1974, 1975a, 1978b), MARKÓ (1999a), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005)

– as *Camponotus fallax* var. *ruzskyi* EMERY, 1898 in: MONTANDON & SANTSCHI (1910)

Camponotus herculeanus (LINNAEUS, 1758) in: FRIVALDSZKY (1869, 1871), MOCSÁRY (1874), KNECHTEL (1956), CÎRDEI & al. (1962), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1972a, b, 1974, 1975a, c), PARASCHIVESCU & RAICEV ARCAŞU (1976), PARASCHIVESCU (1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999b), KISS & MARKÓ (2003), MARKÓ & al. (2004), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)

– as *Formica herculeana* LINNAEUS, 1758 in: FUSS (1853)

Camponotus lateralis (OLIVIER, 1792) in: FRIVALDSZKY (1869), MOCSÁRY (1897), RÖSZLER (1943), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1975a)

Camponotus ligniperda (LATREILLE, 1802) in: FRIVALDSZKY (1871), MOCSÁRY (1872, 1874), KNECHTEL (1956), CÎRDEI & al. (1962), PARASCHIVESCU (1963), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1972b, 1974, 1975c, 1976), PARASCHIVESCU & RAICEV ARCAŞU (1976), PARASCHIVESCU (1978), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999b), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005)

– as *Formica ligniperda* LATREILLE, 1802 in: MAYR (1853)

Camponotus piceus (LEACH, 1825) in: KNECHTEL (1956), PARASCHIVESCU (1961, 1967, 1974, 1975b, 1976), PARASCHIVESCU & RAICEV ARCAŞU (1976), PARASCHIVESCU

- (1978b, 1982), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
 – as *Camponotus lateralis piceus* (LEACH, 1825) in: MOCSÁRY (1897), CÎRDEI & al. (1962), CÎRDEI & BULIMAR (1965)
Camponotus truncatus (SPINOLA, 1808) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), PARASCHIVESCU (1967, 1975a, b), MARKÓ (1999a), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005)
 – as *Colobopsis truncata* (SPINOLA, 1808) in: FRIVALDSZKY (1869)
 – as *Formica truncata* SPINOLA, 1808 in: MAYR (1857)
Camponotus vagus (SCOPOLI, 1763) in: PARASCHIVESCU (1961), CÎRDEI & al. (1962), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967), CÎRDEI & al. (1969), PARASCHIVESCU (1974, 1975a - c, 1976, 1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005)
 – as *Formica pubescens* FABRICIUS, 1775 in: MAYR (1853), FUSS (1855)
 – as *Camponotus pubescens* (FABRICIUS, 1775) in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1874)
 – as *Camponotus herculeanus* st. *vagus* (SCOPOLI, 1763) in: MONTANDON & SANTSCHI (1910)
Cataglyphis aenescens (NYLANDER, 1849) in: PARASCHIVESCU (1961), PARASCHIVESCU & RAICEV ARCAȘU (1976), CSÖSZ & MARKÓ (2005)
 – as *Myrmecocystus cursor* st. *aenescens* (NYLANDER, 1849) in: MONTANDON & SANTSCHI (1910)
 – as *Cataglyphis cursor aenescens* (NYLANDER, 1849) in: PARASCHIVESCU (1972b, 1974, 1975a), GOAGĂ & PARASCHIVESCU (1991)
Cataglyphis nodus (BRULLÉ, 1832)
 – as *Myrmecocystus viaticus* var. *orientalis* FOREL, 1895 in: MOCSÁRY (1897)
 – as *Cataglyphis bicolor* (FABRICIUS, 1793) in: PARASCHIVESCU (1975a, b, 1978b) – According to CSÖSZ & MARKÓ (2005) Paraschivescu misidentified *C. nodus* as *C. bicolor*.
Formica cinerea MAYR, 1853 in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1897), KNECHTEL (1956), PARASCHIVESCU (1963), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967, 1972b, 1974, 1975a, b, 1976) PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999a), SEIFERT (2002)
 – as *Formica balcanina* PETROV & COLLINGWOOD, 1993 in: CSÖSZ & MARKÓ (2005), CSÖSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ (1997, 1998), GALLÉ & al. (2005)
 – as *Serviformica cinerea* MAYR, 1853 in: PARASCHIVESCU (1961)
 – as *Formica fusca* st. *cinerea* var. *armenica* RUZSKY, 1905 in: MONTANDON & SANTSCHI (1910)
 – as *Formica fusca* var. *cinerea* MAYR, 1853 in: RÖSZLER (1943)
Formica cunicularia LATREILLE, 1798 in: PARASCHIVESCU (1972a, b, 1974, 1975b, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a), CSÖSZ & al. (2001), KISS & MÁTIS (2002), KISS & MARKÓ (2003), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
 – as *Formica glebaria* NYLANDER, 1846 in: KNECHTEL (1956), PARASCHIVESCU (1963, 1967)
 – as *Serviformica glebaria* NYLANDER, 1846 in: PARASCHIVESCU (1961)
 – as *Formica fusca* var. *rubescens* FOREL, 1904 in: MONTANDON & SANTSCHI (1910) – According to SEIFERT (1997) the types of this species belong in fact to *F. cunicularia*.
Formica exsecta NYLANDER, 1846 in: OTTO & PARASCHIVESCU (1968), PARASCHIVESCU (1972a, b, 1974), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1982), MARKÓ (1997), GALLÉ & al. (2005)
Formica fusca LINNAEUS, 1758 in: FUSS 1853, FRIVALDSZKY (1869), MOCSÁRY (1872, 1874, 1897), RÖSZLER (1943), KNECHTEL (1956), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1963, 1972b, 1974, 1975a, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999b), CSÖSZ & al. (2001), KISS & MARKÓ (2003), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
Formica gagates LATREILLE, 1798 in: MOCSÁRY (1872, 1897), KNECHTEL (1956), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967, 1972b, 1974, 1975a, b, 1976, 1978b), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005)
 – as *Serviformica gagates* LATREILLE, 1798 in: PARASCHIVESCU (1961)
Formica lemani BONDROIT, 1917 in: PARASCHIVESCU (1967, 1975b), MARKÓ (1999b), KISS & MARKÓ (2003), MARKÓ & al. (2004), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
Formica lusatica SEIFERT, 1997
 – as *Formica glauca* RUZSKY, 1895 in: GALLÉ & al. (2005) – The name "glauca" was attributed erroneously to the morph formerly described as *F. lusatica*.
Formica picea NYLANDER, 1846 in: CÎRDEI & BULIMAR (1965)
Formica polyctena FÖRSTER, 1850 in: OTTO & PARASCHIVESCU (1968), PARASCHIVESCU (1972b, 1974), PARASCHIVESCU & al. (1975), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999a), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005)
Formica pratensis RETZIUS, 1783 in: FRIVALDSZKY (1869, 1871), MOCSÁRY (1872, 1874), KNECHTEL (1956), CÎRDEI & BULIMAR (1965), OTTO & PARASCHIVESCU (1968), PARASCHIVESCU (1972a, b, 1974, 1975a - c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a), CSÖSZ & al. (2001), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
 – as *Formica rufa* st. *pratensis* RETZIUS, 1783 in: MONTANDON & SANTSCHI (1910)
 – as *Formica nigricans* EMERY, 1909 in: OTTO & PARASCHIVESCU (1968), PARASCHIVESCU (1967), CSÖSZ & MARKÓ (2005) – Several specialists supported the status of *F. nigricans* as species separated from *F. pratensis* RETZIUS, 1783 on the basis of queen and male morphology (e.g., KUTTER 1977, AGOSTI & COLLINGWOOD 1987, CSÖSZ & MARKÓ 2005); others stressed the fact that these differences are not consistent and only appear as a result of intraspecific variation (PARA-

- SCHIVESCU 1972c, SEIFERT 1992b). Though we admit the current taxonomic position of *F. nigricans*, we consider that the contradiction between the sometimes small interspecific differences among *Formica* s. str. species and the extent of differences between *F. nigricans* and *F. pratensis* queens and males make this problem worth of further studies.
- Formica rufa* LINNAEUS, 1761 in: MOCSÁRY (1872, 1897), KNECHTEL (1956), OTTO & PARASCHIVESCU (1968), PARASCHIVESCU (1963, 1972b, 1975a, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), CSÖSZ & al. (2001), KISS & MARKÓ (2003), CSÖSZ & MARKÓ (2005)
- Formica rufibarbis* FABRICIUS, 1793 in: MOCSÁRY (1872, 1874), RÖSZLER (1943), PARASCHIVESCU (1963, 1967, 1972a, 1974, 1975a - c, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a), CSÖSZ & al. (2001), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
- as *Formica cinereo-rufibarbis* FABRICIUS, 1793 [sic!] in: PARASCHIVESCU (1963)
- as *Serviformica rufibarbis* FABRICIUS, 1793 in: PARASCHIVESCU (1961)
- as *Formica fusca* st. *rufibarbis* FABRICIUS, 1793 in: MONTANDON & SANTSCHI (1910)
- Formica sanguinea* LATREILLE, 1798 in: MOCSÁRY (1872, 1874), KNECHTEL (1956), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1972a, 1974, 1975a, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976, 1978b), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999b), KISS & MARKÓ (2003), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
- as *Raptiformica sanguinea* LATREILLE, 1798 in: PARASCHIVESCU (1961)
- Formica truncorum* FABRICIUS, 1804 in: PARASCHIVESCU (1963), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1972b, 1975c), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997), CSÖSZ & MARKÓ (2005)
- as *Formica truncicola* NYLANDER, 1846 in: MOCSÁRY (1897)
- Lasius alienus* (FÖRSTER, 1850) in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1874), KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1972b, 1974, 1975a, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), MARKÓ (1997), CSÖSZ & al. (2001), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
- as *Lasius niger* st. *alienus* (FÖRSTER, 1850) in: MONTANDON & SANTSCHI (1910)
- Lasius balcanicus* SEIFERT, 1988 in: GALLÉ & al. (2005)
- Lasius bicornis* (FÖRSTER, 1850) in: CSÖSZ & MARKÓ (2005)
- Lasius brunneus* (LATREILLE, 1798) in: FRIVALDSZKY (1869), KNECHTEL (1956), PARASCHIVESCU (1961, 1967, 1972b, 1974, 1975a - c), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b), SEIFERT (1992a), MARKÓ (1997, 1999a, b), CSÖSZ & al. (2001), KISS & MÁTIS (2002), CSÖSZ & MARKÓ (2005)
- as *Lasius niger* st. *brunneus* (LATREILLE, 1798) in: MONTANDON & SANTSCHI (1910)
- Lasius citrinus* EMERY, 1922
- as *Lasius affinis* (SCHENCK, 1852) in: CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CSÖSZ & MARKÓ (2005)
- as *Chthonolasius affinis* (SCHENCK, 1852) in: RÖSZLER (1943)
- Lasius distinguendus* (EMERY, 1916) in: CSÖSZ & al. (2001), MARKÓ & CSÖSZ (2001), CSÖSZ & MARKÓ (2005)
- Lasius emarginatus* (OLIVIER, 1792) in: MOCSÁRY (1897), KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1972a, b, 1974, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), CSÖSZ & MARKÓ (2005), MARKÓ (1997)
- as *Lasius niger* st. *emarginatus* (OLIVIER, 1791) in: MONTANDON & SANTSCHI (1910)
- Lasius flavus* (FABRICIUS, 1782) in: FRIVALDSZKY (1869), MOCSÁRY (1874, 1897), MONTANDON & SANTSCHI (1910), KNECHTEL (1956), PARASCHIVESCU (1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1972a, b, 1974, 1975a, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a), CSÖSZ & al. (2001), MARKÓ & al. (2004), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
- as *Formica flava* FABRICIUS, 1781 in: FUSS (1853)
- Lasius fuliginosus* (LATREILLE, 1798) in: FRIVALDSZKY (1869), MOCSÁRY (1874), MONTANDON & SANTSCHI (1910), KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1972b, 1974, 1975a, c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999b), CSÖSZ & al. (2001), CSÖSZ & MARKÓ (2005), GALLÉ & al. (2005)
- as *Dendrolasius fuliginosus* (LATREILLE, 1798) in: RÖSZLER (1943)
- as *Formica fuliginosa* LATREILLE, 1798 in: FUSS (1855)
- Lasius mixtus* (NYLANDER, 1846) in: FRIVALDSZKY (1869), MOCSÁRY (1874, 1897), PARASCHIVESCU (1961, 1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967)
- as *Formica mixta* NYLANDER, 1846 in: FUSS (1855)
- Lasius myops* FOREL, 1894
- as *Chthonolasius myops* FOREL, 1894 in: RÖSZLER (1943)
- as *Chthonolasius flavoides* EMERY, 1925 in: RÖSZLER (1943)
- as *Chthonolasius flavo-myops* EMERY, 1916 in: RÖSZLER (1943)
- Lasius neglectus* VAN LOON, BOOMSMA & ANDRÁSFALVY, 1990 in: MARKÓ (1998)
- Lasius niger* (LINNAEUS, 1758) in: FRIVALDSZKY (1871), MOCSÁRY (1872, 1874), MONTANDON & SANTSCHI (1910), KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967), CÎRDEI & al. (1969), PARASCHIVESCU (1972a, b, 1974, 1975a - c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982),

GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a, b), CSŐSZ & al. (2001), KISS & MÁTIS (2002), KISS & MARKÓ (2003), MARKÓ & al. (2004), CSŐSZ & MARKÓ (2005), GALLÉ & al. (2005)
 – as *Formica nigra* LINNAEUS, 1758 in: FUSS (1853)
 – as *Lasius alieno-niger* FOREL, 1874 in: RÖSZLER (1943)
Lasius paralienus SEIFERT, 1992 in: MARKÓ (1998, 1999b), CSŐSZ & MARKÓ (2005), GALLÉ & al. (2005)
Lasius platythorax SEIFERT, 1991 in: SEIFERT (1992a), MARKÓ (1997, 1999a, b), CSŐSZ & al. (2001), MARKÓ & al. (2004), CSŐSZ & MARKÓ (2005), GALLÉ & al. (2005)
Lasius sabularum (BONDROIT, 1918) in: SEIFERT (1988)
Lasius umbratus (NYLANDER, 1846) in: MONTANDON & SANTSCHI (1910), CÎRDEI & al. (1964), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969), PARASCHIVESCU (1974, 1975b, c, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b), CSŐSZ & MARKÓ (2005)
 – as *Chthonolasius affinis* var. *nyárádi* RÖSZLER, 1943 in: RÖSZLER (1943)
Plagiolepis pygmaea (LATREILLE, 1798) in: FRIVALDSZKY (1869), MONTANDON & SANTSCHI (1910), RÖSZLER (1943), KNECHTEL (1956), PARASCHIVESCU (1961, 1967, 1974, 1975a, b), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), CSŐSZ & MARKÓ (2005), GALLÉ & al. (2005)
Plagiolepis taurica SANTSCHI, 1920 – Senior synonym of *P. vindobonensis* LOMNICKI, 1925 (RADCHENKO 1989).
 – as *Plagiolepis vindobonensis* LOMNICKI, 1925 in: CSŐSZ & al. (2001), CSŐSZ & MARKÓ (2005)
Polyergus rufescens (LATREILLE, 1798) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1972b, 1974, 1975a), MARKÓ (1997), CSŐSZ & al. (2001), CSŐSZ & MARKÓ (2005), GALLÉ & al. (2005)
Prenolepis nitens (MAYR, 1853) in: MOCSÁRY (1874), PARASCHIVESCU (1961, 1974, 1975a), MARKÓ (1999a), CSŐSZ & MARKÓ (2005)
 – as *Prenolepis imparis* var. *nitens* (MAYR, 1853) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), CÎRDEI & BULIMAR (1965), CÎRDEI & al. (1969)
 – as *Tapinoma nitens* MAYR, 1853 in: FUSS (1855), MAYR (1857)
Proformica nasuta (NYLANDER, 1856) in: MONTANDON & SANTSCHI (1910), PARASCHIVESCU (1961)

Subfamily Ponerinae

Cryptopone ochraceum (MAYR, 1855) in: CSŐSZ (2003)
 – as *Euponera ochracea* (MAYR, 1855) in: MONTANDON & SANTSCHI (1910), PARASCHIVESCU (1974)
Hypoponera punctatissima (ROGER, 1859)
 – as *Ponera punctatissima* ROGER, 1859 in: PARASCHIVESCU (1974)
Ponera coarctata (LATREILLE, 1802) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), RÖSZLER (1943), KNECHTEL (1956), PARASCHIVESCU (1974, 1975a, b, 1978b), MARKÓ & CSŐSZ (2002), CSŐSZ & SEIFERT (2003)
 – as *Ponera contracta* (LATREILLE, 1802) in: FRIVALDSZKY (1869)
Ponera testacea EMERY, 1895 in: CSŐSZ & SEIFERT (2003)

– as *Ponera coarctata* var. *testacea* EMERY, 1895 in: MONTANDON & SANTSCHI (1910), MARKÓ & CSŐSZ (2002)

Subfamily Proceratiinae

Proceratium melinum (ROGER, 1860)
 – as *Sysphincta europaea* FOREL, 1886 in: MONTANDON & SANTSCHI (1910), PARASCHIVESCU (1974)

Subfamily Myrmicinae

Anergates atratulus (SCHENCK, 1852) in: KNECHTEL (1956), PARASCHIVESCU (1976)
Aphaenogaster subterranea (LATREILLE, 1798) in: MONTANDON & SANTSCHI (1910), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967), CÎRDEI & al. (1969), PARASCHIVESCU (1974, 1975b, 1978b)
Cardiocondyla stambuloffi FOREL, 1892 in: PARASCHIVESCU (1972b), SEIFERT (2003)
 – as *Cardiocondyla montandoni* SANTSCHI, 1912 in: SANTSCHI (1912)
Crematogaster schmidti (MAYR, 1853) in: MARKÓ (1998), MARKÓ & CSŐSZ (2002)
Crematogaster sordidula (NYLANDER, 1849) in: PARASCHIVESCU (1961), GOAGĂ & PARASCHIVESCU (1991), MARKÓ & CSŐSZ (2002)
 – as *Crematogaster sordidula* var. *flachii* FOREL, 1895 in: MONTANDON & SANTSCHI (1910)
Formicoxenus nitidulus (NYLANDER, 1846) in: PARASCHIVESCU (1975a), MARKÓ & CSŐSZ (2001, 2002), CSŐSZ & MARKÓ (2005)
Harpagoxenus sublaevis (NYLANDER, 1849) in: MARKÓ & CSŐSZ (2001)
Leptothorax acervorum (FABRICIUS, 1793) in: FRIVALDSZKY (1869), MOCSÁRY (1897), KNECHTEL (1956), PARASCHIVESCU (1972b, 1974, 1975a), MARKÓ (1999b), MARKÓ & CSŐSZ (2002), MARKÓ & al. (2004)
Leptothorax muscorum (NYLANDER, 1846) in: MOCSÁRY (1897), MARKÓ (1999b)
Manica rubida (LATREILLE, 1802) in: PARASCHIVESCU (1972a, 1975a, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999b), MARKÓ & CSŐSZ (2002), KISS & MARKÓ (2003), GALLÉ & al. (2005)
 – as *Myrmica rubida* in: KNECHTEL (1956)
Messor cf. *structor* – According to SCHLICK-STEINER & al. (2006a) at least two separate biospecies can occur in Romania; their status is currently subject to taxonomical studies.
 – as *Messor structor* (LATREILLE, 1798) in: PARASCHIVESCU (1961, 1967, 1972b, 1974, 1975a - c), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002)
 – as *Aphaenogaster structor* (LATREILLE, 1798) in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1874)
 – as *Messor barbarus* st. *structor* var. *orientalis* EMERY, 1898 in: MONTANDON & SANTSCHI (1910)
Monomorium pharaonis (LINNAEUS, 1758) in: PARASCHIVESCU (1978c)
Myrmecina graminicola (LATREILLE, 1802) in: CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1963, 1972b, 1974, 1975a, 1978b), MARKÓ (1999a), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002)

- as *Myrmecina latreillei* CURTIS, 1829 in: FRIVALDSZKY (1869), MOCSÁRY (1897), MONTANDON & SANTSCHI (1910)
- Myrmica hellenica* FINZI, 1926 in: MARKÓ (1997, 1998), CSŐSZ & MARKÓ (2005)
- Myrmica lobicornis* NYLANDER, 1846 in: KNECHTEL (1956), PARASCHIVESCU (1975a), MARKÓ (1999b), MARKÓ & CSŐSZ (2002), MARKÓ & al. (2004)
- Myrmica lonae* FINZI, 1926 in: MARKÓ & CSŐSZ (2001), MARKÓ & CSŐSZ (2002)
- Myrmica rubra* (LINNAEUS, 1758) in: MARKÓ (1997, 1999a, b), CSŐSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ & CSŐSZ (2002), KISS & MARKÓ (2003), MARKÓ & al. (2004), GALLÉ & al. (2005)
- as *Myrmica laevinodis* NYLANDER, 1846 in: FUSS (1853), KNECHTEL (1956), PARASCHIVESCU (1972a, b, 1976, 1978b)
- Myrmica ruginodis* NYLANDER, 1846 in: MOCSÁRY (1897), RÖSZLER (1943), KNECHTEL (1956), CÍRDEI & BULIMAR (1965), PARASCHIVESCU (1975a, 1976), MARKÓ (1997, 1999b), CSŐSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ & CSŐSZ (2002), KISS & MARKÓ (2003), MARKÓ & al. (2004), GALLÉ & al. (2005)
- Myrmica rugulosa* NYLANDER, 1849 in: MOCSÁRY (1897), CÍRDEI & BULIMAR (1965), PARASCHIVESCU (1972b, 1974), MARKÓ & CSŐSZ (2002), GALLÉ & al. (2005)
- as *Myrmica scabrinodis* st. *rugulosa* NYLANDER, 1849 in: MONTANDON & SANTSCHI (1910)
- Myrmica sabuleti* MEINERT, 1861 in: MARKÓ (1999b), CSŐSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ & CSŐSZ (2002)
- as *Myrmica scabrinodis* var. *sabuleti* MEINERT, 1861 in: MONTANDON & SANTSCHI (1910)
- Myrmica salina* RUZSKY, 1905 in: MARKÓ (1998, 1999a), MARKÓ & CSŐSZ (2002), GALLÉ & al. (2005)
- Myrmica scabrinodis* NYLANDER, 1846 in: MAYR (1853), MOCSÁRY (1874), FRIVALDSZKY (1869), KNECHTEL (1956), PARASCHIVESCU (1961, 1972a, 1974, 1975a), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976, 1978b), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999b), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002), KISS & MARKÓ (2003), MARKÓ & al. (2004), GALLÉ & al. (2005)
- Myrmica schencki* VIERECK, 1903 in: KNECHTEL (1956), PARASCHIVESCU (1972b), MARKÓ & CSŐSZ (2002), KISS & MARKÓ (2003), GALLÉ & al. (2005)
- Myrmica specioides* BONDROIT, 1918 in: CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2001), MARKÓ & CSŐSZ (2002)
- Myrmica sulcinodis* NYLANDER, 1846 in: PARASCHIVESCU (1963), CÍRDEI & BULIMAR (1965), PARASCHIVESCU (1972b, 1975a)
- Myrmica turcica* SANTSCHI, 1931 in: SEIFERT (2002)
- Myrmica vandeli* BONDROIT, 1920 in: MARKÓ (1999c), MARKÓ & al. (2004), GALLÉ & al. (2005)
- Pheidole pallidula* NYLANDER, 1849 in: FRIVALDSZKY (1869), MOCSÁRY (1897), PARASCHIVESCU (1961)
- as *Pheidole pallidula* var. *arenarum* RUZSKY, 1905 in: MONTANDON & SANTSCHI (1910)
- Solenopsis fugax* (LATREILLE, 1798) in: MOCSÁRY (1897), MONTANDON & SANTSCHI (1910), RÖSZLER (1943), KNECHTEL (1956), PARASCHIVESCU (1961, 1967, 1972a, b, 1974, 1975a, b), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002), GALLÉ & al. (2005)
- as *Diplorhoptum fugax* (LATREILLE, 1798) in: PARASCHIVESCU (1963), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1999a)
- Stenamma debile* (FÖRSTER, 1850) in: MARKÓ (1999c), CSŐSZ & al. (2001), KISS & MÁTIS (2002), KISS & MARKÓ (2003)
- as *Stenamma westwoodii* WESTWOOD, 1839 in: MOCSÁRY (1897), CÍRDEI & BULIMAR (1965), CÍRDEI & al. (1969), MARKÓ (1999a, b) – In Central and Eastern Europe *S. debile* was misidentified as *S. westwoodi* until the 1990ies, when *S. debile* was revived and its sister species was proven to occur only in Western Europe.
- Strongylognathus testaceus* (SCHENK, 1852) in: KNECHTEL (1956), PARASCHIVESCU (1974, 1976)
- Temnothorax affinis* (MAYR, 1855)
- as *Leptothorax affinis* (MAYR, 1855) in: CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2001, 2002), GALLÉ & al. (2005)
- Temnothorax clypeatus* (MAYR, 1853)
- as *Leptothorax clypeatus* (MAYR, 1853) in: MARKÓ & CSŐSZ (2001, 2002)
- Temnothorax corticalis* (SCHENK, 1852)
- as *Leptothorax corticalis* (SCHENK, 1852) in: CÍRDEI & BULIMAR (1965), PARASCHIVESCU (1972b), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002)
- Temnothorax crassispinus* (KARAVAJEV, 1926)
- as *Leptothorax crassispinus* KARAVAJEV, 1926 in: CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2002)
- as *Leptothorax nylanderi* (FÖRSTER, 1850) in: KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÍRDEI & al. (1969), PARASCHIVESCU (1972b, 1974, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), MARKÓ (1999a) – For a long time *T. crassispinus* was misidentified in Central and Eastern Europe as *T. nylanderi*.
- as *Leptothorax tuberum* st. *nylanderi* (FÖRSTER, 1850) in: MONTANDON & SANTSCHI (1910) – See note under *L. nylanderi*.
- as *Leptothorax slavonicus* SEIFERT, 1995 in: MARKÓ (1999c)
- Temnothorax interruptus* (SCHENK, 1852)
- as *Leptothorax interruptus* (SCHENK, 1852) in: PARASCHIVESCU (1961, 1972a, 1974, 1978b), KISS & MÁTIS (2002)
- as *Leptothorax tuberum* st. *interruptus* (SCHENK, 1852) in: MONTANDON & SANTSCHI (1910)
- Temnothorax nigriceps* (MAYR, 1855)
- as *Leptothorax nigriceps* MAYR, 1855 in: KNECHTEL (1956), PARASCHIVESCU (1975a - c), PARASCHIVESCU & RAICEV ARCAȘU (1976)
- as *Leptothorax tuberum* st. *nigriceps* MAYR, 1855 in: MONTANDON & SANTSCHI (1910)
- Temnothorax parvulus* (SCHENK, 1852)
- as *Leptothorax parvulus* (SCHENK, 1852) in: PARASCHIVESCU (1974)
- as *Leptothorax tuberum* var. *parvula* (SCHENK, 1852) in: MONTANDON & SANTSCHI (1910)
- Temnothorax tuberum* (FABRICIUS, 1775)
- as *Leptothorax tuberum* (FABRICIUS, 1775) in: PARASCHIVESCU (1967), GOAGĂ & PARASCHIVESCU (1991), CSŐSZ & al. (2001), MARKÓ & CSŐSZ (2001, 2002)

Temnothorax unifasciatus (LATREILLE, 1798)
 – as *Leptothorax unifasciatus* (LATREILLE, 1798) in: KNECHTEL (1956), PARASCHIVESCU (1972a, b, 1974, 1975c, 1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1982), CSÖSZ & al. (2001), MARKÓ & CSÖSZ (2002)
 – as *Leptothorax tuberculatum* st. *unifasciatus* (LATREILLE, 1798) in: MONTANDON & SANTSCHI (1910)
Tetramorium chefketi FOREL, 1911 – The original type series of *Tetramorium forte* FOREL, 1904 contained in fact two different species: an Eastern and a Western morph (GÜSTEN & al. 2006). Since the lectotype of *Tetramorium forte* was recently designated from the series belonging to the Western species (GÜSTEN & al. 2006), the records of *Tetramorium forte* in Romania before this designation presumably belong to *T. chefketi* (CSÖSZ & al. in press).
 – as *Tetramorium forte* FOREL, 1904 in: PARASCHIVESCU (1961, 1967, 1975b), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b)
 – as *Tetramorium caespitum* var. *forte* FOREL, 1904 in: MONTANDON & SANTSCHI (1910)
 – as *Tetramorium caespitum ferox* var. *forte* FOREL, 1904 in: RÖSZLER (1943)
Tetramorium ferox RUZSKY, 1903 in: PARASCHIVESCU (1961)
Tetramorium hungaricum RÖSZLER, 1935
 – as *Tetramorium caespitum hungarica* RÖSZLER, 1935 in: RÖSZLER (1943)
 – as *Tetramorium semilaeve* ANDRÉ, 1883 in: PARASCHIVESCU (1961, 1967, 1975b), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1982) – According to STEINER & al. (2005) it is most probable that Romanian and other Eastern European *T. semilaeve* records in fact refer to *T. hungaricum*, as *T. semilaeve* appears to be confined to areas surrounding the Mediterranean Sea.
 – as *Tetramorium caespitum* st. *semilaeve* ANDRÉ, 1883 in: MONTANDON & SANTSCHI (1910) – See note under *T. semilaeve*.
Tetramorium moravicum KRATOCHVIL, 1941 in: CSÖSZ & al. (in press), SCHLICK-STEINER & al. (in press)
Tetramorium sp. E in: SCHLICK-STEINER & al. (2006b) – Multidisciplinary evidence revealed that the ants, that had formerly been regarded as *T. caespitum* (LINNAEUS, 1758) and *T. impurum* (FÖRSTER, 1850), represent at least seven Western Palaearctic species (SCHLICK-STEINER & al. 2006b); the authors designated neotypes and redescribed *T. caespitum* and *T. impurum*, and additionally characterized *Tetramorium* spp. A - E by morphological and molecular means. Up to now, only one of the seven species, *T. sp. E* has been identified from Romania; it is well possible, however, that further of the species occur.

Species of uncertain Romanian occurrence

Camponotus sylvaticus OLIVIER, 1792 in: MOCSÁRY (1897)
 – Until the reference specimen is found we treat this single record with suspicion.
Cardiocondyla elegans EMERY, 1869 in: PARASCHIVESCU (1961) – This record should be treated carefully, as at the time of publication no reliable keys were available for the *Cardiocondyla* species of Southern and Eastern

Europe (see SEIFERT 2003), and the voucher specimens could not be found.
Cataglyphis cursor (FONSCOLOMBE, 1846)
 – as *Myrmecocystus cursor* (FONSCOLOMBE, 1846) in: MOCSÁRY (1897) – Probably this is in fact *C. aeneocens*, but this can be confirmed only when finding the reference specimens.
Cataglyphis viaticus (FABRICIUS, 1787) in: PARASCHIVESCU (1967)
 – as *Cataglyphis viatica* (FABRICIUS, 1787) in: MOCSÁRY (1874) – We suspect that *C. nodus* is "hiding" behind these records, but until the material is found and checked we are placing this record among the uncertain occurrences.
Crematogaster scutellaris (OLIVIER, 1791) in: MOCSÁRY (1897), PARASCHIVESCU (1961, 1967, 1975a, b, 1978b)
 – Probably all data in fact refer to *C. schmidtii*, as this species was sampled in most of the places from where the above authors reported of "*C. scutellaris*".
Lasius lasioides (EMERY, 1869)
 – as *Lasius niger* var. *lasioides* (EMERY, 1869) in: CÎRDEI & BULIMAR (1965) – The single reference on this species should be treated with uttermost care. At the time of its publication no reliable keys were available for the identification of this species, and furthermore it seems that there is at least one sibling species of *L. lasioides* (B. Seifert, pers. comm.).
Messor barbarus (LINNAEUS, 1767) in: CÎRDEI & BULIMAR (1965) – The mostly Western Mediterranean distribution of *M. barbarus* makes its occurrence in Romania improbable. *Messor capitatus* (LATREILLE, 1798) could erroneously have been identified as *M. barbarus*, but to our knowledge this species also does not occur in Romania and Bulgaria (V. Antonova, pers. comm.). Also, recent faunistical investigations concerning the genus *Messor* in Romania did not support the occurrence of *M. barbarus* or *M. capitatus*. Nevertheless, the possible existence of cryptic species within the *M. structor*-group in Romania (SCHLICK-STEINER & al. 2006a) could be the reason for records of species other than *M. structor*.
Stenamamma striatulum EMERY, 1895
 – as *Stenamamma westwoodii* var. *striatula* EMERY, 1895 in: MONTANDON & SANTSCHI (1910) – Until the reference specimen is found we treat this single record with suspicion.
Temnothorax luteus (FOREL, 1874)
 – as *Leptothorax luteus* (FOREL, 1874) in: PARASCHIVESCU (1961, 1967, 1972a, 1975b), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1982) – The status of this species has been currently clarified, moreover there seem to be several sibling species of *T. luteus* in Europe and North Africa (B. Seifert, pers. comm.), hence we can hardly assume that these data refer to the currently recognized *T. luteus*.
Tetramorium caespitum (LINNAEUS, 1758) in: FRIVALDSZKY (1869), MOCSÁRY (1872, 1874), MONTANDON & SANTSCHI (1910), RÖSZLER (1943), KNECHTEL (1956), PARASCHIVESCU (1961, 1963), CÎRDEI & BULIMAR (1965), PARASCHIVESCU (1967), CÎRDEI & al. (1969), PARASCHIVESCU (1972a, b, 1974, 1975a - c), PARASCHIVESCU & al. (1975), PARASCHIVESCU (1976), PARASCHIVESCU & RAICEV ARCAȘU (1976), PARASCHIVESCU (1978b, 1982), GOAGĂ & PARASCHIVESCU (1991), MARKÓ (1997, 1999a,

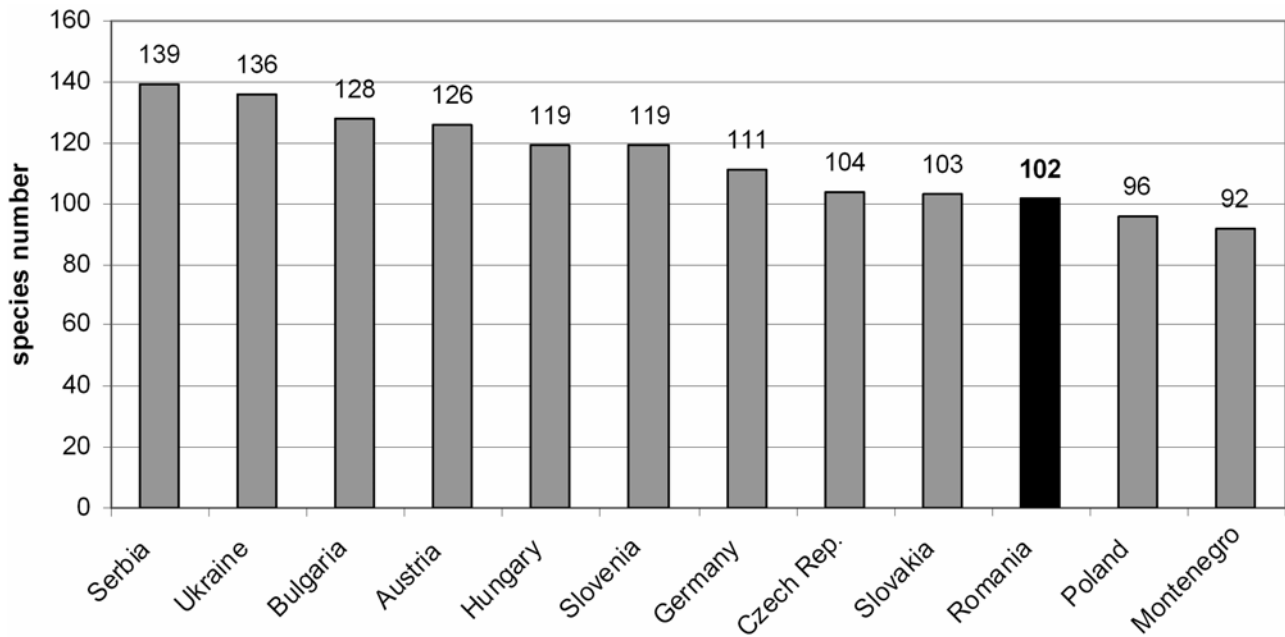


Fig. 1: The number of outdoor ant species of Romania and of different Central and Eastern European countries (the number of indoor species in parentheses) in decreasing order: Serbia (2) (PETROV 2006), Ukraine (4) (A. Radchenko, pers. comm.), Bulgaria (2) (V. Antonova, pers. comm.), Austria (8) (STEINER & al. 2002, B. Seifert, pers. comm., B.C. Schlick-Steiner & F.M. Steiner, pers. comm.), Hungary (1) (S. Csősz, pers. comm.), Slovenia (1) (BRAČKO 2000, 2003, SCHLICK-STEINER & al. 2003a), Germany (2) (B. Seifert, pers. comm.), Czech Republic (1) (WERNER & BEZDECKA 2001), Slovakia (1) (BEZDECKA 1996), Poland (5) (CZECHOWSKI & al. 2002, RADCHENKO & al. 2004), Montenegro (2) (KARAMAN 1998). Note that the given species numbers may not be directly comparable in all cases, as not all of the latest taxonomic changes (mostly regarding the *Tetramorium caespitum* / *impurum* complex) may have been taken into account for all countries.

b), CSŐSZ & al. (2001), KISS & MÁTIS (2002), MARKÓ & CSŐSZ (2002), GALLÉ & al. (2005) – According to SCHLICK-STEINER & al. (2006b) the ants, that had formerly been regarded as *T. caespitum* (LINNAEUS, 1758) and *T. impurum* (FÖRSTER, 1850), represent at least seven Western Palaearctic species; furthermore, due to the extreme morphological similarity of the seven species it is not possible to allocate former records of *T. caespitum* and *T. impurum* to any of these. Up to now only *T. sp. E* has been identified from Romania; the occurrence of *T. caespitum* as well as of other species appears possible but remains to be verified.

– as *Myrmica caespitum* in: FUSS (1853)

Tetramorium impurum (FÖRSTER, 1850) in: CSŐSZ & al. (2001), MARKÓ (1999b), MARKÓ & CSŐSZ (2001), MARKÓ & CSŐSZ (2002), GALLÉ & al. (2005) – See note under *T. caespitum*; the occurrence of *T. impurum* in Romania appears possible but remains to be verified.

Currently unidentifiable species

Lasius transylvanicus RÖSZLER, 1943 in: RÖSZLER (1943) – Neither the type material, nor the individuals identified as such by RÖSZLER (1943) are available at present, and they have never been reinvestigated to our knowledge. The author describes a species related to *L. niger*, and according to BOLTON (1995) *L. transylvanicus* is its junior synonym. The type locality is the riverbank of the Nyárád (*Niraj*) river by Nyárádtő (*Ungheni*), Mureș county, Romania.

Tetramorium caespitum var. *flavidula* EMERY, 1909 in: MONTANDON & SANTSCHI (1910)

Discussion

Altogether 103 species are known in Romania according to this checklist, one of which (*Monomorium pharaonis* (LINNAEUS, 1758)) was found only indoors up to now, though the chance of its outdoor occurrence is considerable (B. Seifert, pers. comm.). Besides these the occurrence of eleven species is uncertain, and two names cannot be attributed to valid species at present. PARASCHIVESCU (1978a) mentioned only 76 species in his checklist, six of which can be deleted until further checkings: *Crematogaster scutellaris* (OLIVIER, 1791), *Cardiocondyla elegans* EMERY, 1869, *Temnothorax luteus* (FOREL, 1874), *Tetramorium caespitum* (LINNAEUS, 1758), *Tetramorium forte* FOREL, 1904, and *Tetramorium semilaeve* ANDRÉ, 1883. Paraschivescu did not include in this list four species, which he mentioned in earlier papers: *Temnothorax tuberum* (FABRICIUS, 1775) (PARASCHIVESCU 1967), *Formicoxenus nitidulus* (NYLANDER, 1846) (PARASCHIVESCU 1975a), *Tetramorium ferox* RUZSKY, 1903 (PARASCHIVESCU 1961), and *Lasius mixtus* (NYLANDER, 1846) (PARASCHIVESCU 1961, 1963, 1967). Besides these, six species mentioned by other authors in earlier publications were also not included in the 1978 checklist: *Formica picea* NYLANDER, 1846 (CİRDEI & BULIMAR 1965), *Lasius myops* FOREL, 1894 (RÖSZLER 1943), *Lasius citrinus* EMERY, 1922 (RÖSZLER 1943, CİRDEI & al. 1964, CİRDEI & BULIMAR 1965), *Tetramorium hungaricum* RÖSZLER, 1935 (RÖSZLER 1943), *Camponotus atricolor* (NYLANDER, 1849) (MONTANDON & SANTSCHI 1910), and *Camponotus dalmaticus* (NYLANDER, 1849) (MOCSÁRY 1897). In conclusion altogether 80 valid spe-

cies were recorded in 1978, and from then on 23 new records of species for the Romanian myrmecofauna were published.

If we treat the Romanian outdoor myrmecofauna in the context of the Central and Eastern European fauna (Fig. 1), the question of how satisfactorily the Romanian ants are known arises. It is obvious that the number of ant species is increasing from North to South. Thus we would expect that the Romanian myrmecofauna would fit in among the Bulgarian, Ukrainian, and Serbian fauna as regards the number of species. On the contrary, however, the number of Romanian outdoor ant species is basically the same as that of the Czech Republic and of Slovakia, and contains significantly less species than the Austrian, Hungarian, or Slovenian myrmecofauna. Considering the geographical position of Romania we expect the occurrence of at least 130 species on the territory of Romania in reality. The major lack of parasitic species (e.g., no records of parasitic *Myrmica* species have been published until now), of *Coptoformica* species (with the exception of *F. exsecta*), of introduced species (with the exception of *Monomorium pharaonis* and *Lasius neglectus*), and the low number of Mediterranean elements suggest that the real number of species in Romania should be higher. Recent faunistic investigations and unpublished collections all point in this direction (B. Markó & al., unpubl.).

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Zusammenfassung

In den letzten Jahrzehnten wurden die Faunenlisten der Ameisen für die meisten mittel- und osteuropäischen Länder nachgeführt, mit der Ausnahme von Rumänien. Die letzte Liste für Rumänien wurde 1978 veröffentlicht und enthielt lediglich 76 Arten. Die vorliegende Arbeit listet alle Arten auf, die in Publikationen bis einschließlich 2006 erwähnt wurden. Insgesamt wurden bis heute 103 gültige Arten aus Rumänien festgestellt (102 davon freilebend), daneben gibt es Berichte von elf weiteren Arten, deren Vorkommen in Rumänien wir aber als unsicher einstufen, sowie von zwei weiteren Namen, die keinen gültigen Arten zugeordnet werden können. Der Vergleich der rumänischen

Ameisenfauna mit jenen anderer mittel- und osteuropäischer Länder ergibt, dass die rumänische Fauna unzureichend erforscht ist. Eine Reihe von (vor allem parasitischen und mediterranen) Arten dürfte bisher nicht erfasst worden sein.

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