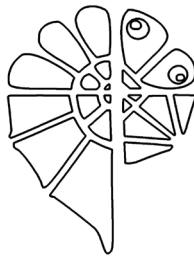


Bulletin

of

the Natural History Museum in Belgrade



Natural History Museum Belgrade, 2008
Volume 1

ISSN 1820-9521

Biology

NOTES ON THE CURRENTLY KNOWN ANT SPECIES (HYMENOPTERA: FORMICIDAE) OF MONTENEGRO

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A list of 117 species of ants of Montenegro (Crna Gora) is presented. The finding of *Lasius paralienus* was the second record of that species in the myrmecofauna of Serbia and Montenegro. There are only three localities [Budva, Tivat (Vogrin 1955) and Belgrade (Petrov 2000)] known for *Cataglyphis viaticus* in Serbia and Montenegro. Although Karaman (2004) registered more species in Montenegro than presented here, he did not mention species: *Myrmica specioides*, *M. sulcinodis*, *Messor denticulatus*, *Crematogaster scutellaris*, *Solenopsis latro*, *Tetramorium bicarinatum*, *T. lucidulum*, *Bothriomyrmex syrius* and *Tapinoma nigerrimum*. In that way his list is now enriched with 9 more species, which were now specified for first time in the the myrmecofauna of Montenegro. Since Montenegro is a Mediterranean country, Mediterranean species were the most numerous species found in Montenegro.

Key words: ants, Formicidae, fauna, Montenegro

INTRODUCTION

The myrmecofauna of Montenegro, as well as of other republics of the former Yugoslavia, is still insufficiently investigated.

The first data on ants of Montenegro were published by Müller (1923) who investigated ants of Dalmatia and in his major work listed a total of 88 species, of which 22 species, 6 subspecies, and 2 varieties were found in some localities in Montenegro (Krivošije, Meljine, Oko, Risan, Savina, Tivat, Zelenika).

Soudek (1925) reported data on the myrmecofauna of Dalmatia and some localities in Montenegro (Boka Kotorska, Igalo, Herceg Novi, Radostak, Savina, Zelenika), mentioning 23 species, 3 subspecies, and 7 varieties.

Zimmermann (1934) used material obtained from several collectors and mentioned 29 genera, 77 species, and 48 subspecies. They were collected at sixteen localities in the southern part of Dalmatia and on the seacoast of Montenegro. At the localities in Montenegro [Budva, Crkvice (Risan), Savina, Sv. Savina (Herceg Novi), Sutorina, Tivat, Topla, Trebešić], he registered 26 genera, 52 species and 1 form of ants.

Vogrin (1955) published a review of the fauna of Aculeata of former Yugoslavia, mentioning the localities Budva and Tivat in Montenegro, where he found *Cataglyphis viaticus*.

Many years later, Petrov and Collingwood (1992) gave a survey of the myrmecofauna of Yugoslavia, in which they included some localities in Montenegro (Mt. Durmitor, the Komovi Mountains, Tivat, Ulcinj). They mentioned 210 species for Yugoslavia, but they did not indicate the species collected in Montenegro.

Petrov (1993) gave a supplement to Zimmermann's work and enriched his list with 13 more species. *Bothriomyrmex syrius* Forel (1910) was a new species for the myrmecofauna of Yugoslavia.

Petrov (1995) gave a preliminary list of Yugoslav ants recording 136 species including ants from Montenegro, but the author did not indicate how many species were registered in Montenegro itself.

Petrov (2000) listed 160 ant species in the myrmecofauna of Yugoslavia, 85 of which were found in Montenegro.

Karaman (1998) gave a list of 94 species in Montenegro

Karaman *et al.* (1998) gave a preliminary list of the ant fauna of the Vrmac Peninsula and reported 39 species.

Karaman (2004) registered 133 species in the myrmecofauna of Montenegro.

Karaman & Karaman (2006) gave a list of 52 ant species for Montenegro.

MATERIAL AND METHODS

Ants were collected over a wide area by friends in the following localities in Montenegro: Ada Bojana, Bijela, Čanj, Crno Jezero (Mt. Durmitor), Donja Bukovica (Mt. Durmitor), Savin Kuk, (Mt. Durmitor), Pitomine (Mt. Durmitor), Dobrota, Donji štoj (Ulcinj), Đakovića Klis (Bjelo Polje), Grbaljsko polje, Manastir Morača, Modro Jezero, Momčilov Grad, Mrčevsko Polje, Ostros (Mt. Rumija), Podgorica, Radovići, Ravna Rijeka (Bjelo Polje), Skaljari, Srablje lake, Sv. Stefan, Vrmac, Vučji Do, and Žabljak. The author himself collected ants by accidental findings and also by looking for potential nests on the seacoast (Bar, Kotor, Petrovac, Sutomore, Tivat, and Ulcinj).

In the presented list data by Zimmermann (1934) and Karaman (1998; 2004), Karaman & Karaman (2006) are also incorporated.

Identification was made using adequate keys, above all those of Agosti & Collingwood (1987).

RESULTS AND DISCUSSION

In the course of these investigations, 118 species from four subfamilies (Ponerinae, Myrmicinae, Dolichoderinae, Formicinae) (Tab. 1) were registered.

The names of species in the presented list are given as the authors termed them. However, the nomenclature of species found in Montenegro and used by Zimmermann is now partially invalid. Some specimens found in the Adriatic area of Montenegro and identified by Zimmermann as subspecies have been raised to the species level: *Myrmica scabrinodis sabuleti* = *M. sabuleti* (Agosti & Collingwood 1987a), *Aphenogaster obsidiana epirote* = *A. epirote*, (Agosti & Collingwood 1987a), *Aphenogaster ovaticeps muelleriana* = *A. muelleriana* (Agosti & Collingwood 1987a), *Messor semirufus*

wasmanni=*M. wasmanni* (Agosti & Collingwood 1987a), *Crematogaster schmidti ionia* =*C. ionia* (Agosti & Collingwood 1987a), *Leptothorax nylanderi lichtensteini* =*L. lichtensteini* (Agosti & Collingwood 1987a), *Temnothorax* (=*Leptothorax*) *recedens rogeri* =*Leptothorax rogeri* (Dalla Torre 1893) (Bolton 1995), *Cardiocondyla elegans dalmatica* =*C. dalmatica* (Soudek, 1925) (Bolton 1995), *Tetramorium semilaeve biskrense* =*T. biskrense* (Menozzi, 1933) (Bolton 1995). In addition, some of the genera determined by Zimmermann have been moved to other genera: *Ponera eduardi* (det. Zimmermann, 1934) =*Hypoponera eduardi* (Agosti & Collingwood 1987a), *Myrmecerus microcellatus* (det. Zimmermann, 1934) =*Epimyrma microcellatus* (Buschinger *et al.* 1984).

According to Bolton (1995), there are further misidentifications by Zimmermann: *Ponera coarctata testacea* is a junior synonym of *coarctata* (Taylor 1967); *Pheidole pallidula orientalis* is no longer in use, but is a junior synonym of *pallidula* (Baroni-Urbani 1964; Atanasov & Dlusky 1992); *Crematogaster scutellaris schmidti* var. *atratula* is an unavailable name; *C. sordidula mayri* is a junior synonym of *sodidula*; *Lasius alienus illyricus* is a junior synonym of *alienus* (Wilson 1955), and *emarginatus* (Seifert 1992); *Camponotus aethiops concavus* is an unavailable name, a junior synonym of *aethiops* (Agosti & Collingwood 1987a).

All species registered in Montenegro were expected. After Karaman (1998) the finding of *Lasius paralienus* was the second record of that species in the myrmecofauna of Serbia and Montenegro. Also, in Serbia and Montenegro there are only three localities [Budva, Tivat (Vogrin 1955) and Belgrade (Petrov 2000)] known for *Cataglyphis viaticus*.

Although Karaman (2004) registered more species in Montenegro than presented here, he did not mention these species: *Myrmica specioides*, *M. sulcinodis*, *Messor denticulatus*, *Crematogaster scutellaris*, *Solenopsis latro*, *Tetramorium bicarinatum*, *T. lucidulum*, *Bothriomyrmex syrius* and *Tapinoma nigerrimum*. In this way his list is now enriched with 9 more species, which are now specified for the first time in the the myrmecofauna of Montenegro.

Since Montenegro is a Mediterranean country, Mediterranean species (*Ponera coarctata*, *Aphenogaster lesbica*, *A. subterranea*,

Messor minor, *Pheidole megacephala*, *P. pallidula*, *Crematogaster scutellaris*, *C. ionia*, *C. lorteti*, *C. schmidti*, *C. sordidula*, *Tapinoma erraticum*, *Plagiolepis pygmaea*, *Lasius emarginatus*, *Camponotus dalmaticus*, *C. lateralalis*, *C. piceus*, *Cataglyphis nodus*, *C. viaticus*, *Formica gagates*) were the most numerous. Some Holarctic species (*Lasius alienus*, *L. niger*, *L. umbratus*, *Formica fusca*), Palaearctic species (*Myrmica rubra*, *M. scabrinodis*, *M. specioides*, *M. sulcinodis*, *Tetramorium caespitum*, *Diplorhoptrum fugax*, *L. flavus*, *Camponotus. herculeanus*, *Formica cunicularia*, *F. fusca*, *F. lemani*), European species (*Myrmecina graminicola*, *Leptothorax unifasciatus*, *Tetramorium forte*, *Lasius fuliginosus*, *Camponotus piceus*, *C. vagus*, *Formica rufibarbis*), south European species (*Aphenogaster epirotes*, *Cardiocondyla elegans*, *Lepisiota frauenfeldi*), Eurasian species (*Messor structor*, *Pheidole pallidula*, *Leptothorax ferox* *Camponotus vagus*), and Euro-Mediterranean species (*Hypoponera eduardi*, *Leptothorax interruptus*, *Tetramorium semilaeve*, *Lasius emarginatus*) were also found (Stitz 1939; Živojinović 1950; Bernard 1968; Collingwood 1979) (Tab. 1).

Table 1. - List of ants from Montenegro

Subfam.: PONERINAE

- Ponera coarctata* (Latreille) 1802 (K, P)
Hypoponera eduardi (Forel) 1894 (K, P)

Subfam.: MYRMICINAE

- Myrmica hellenica* Forel 1913 (P)
M. rubra (L.) 1758 (K, P)
M. sabuleti Meinert 1861 (K, P)
M. scabrinodis Nylander 1846 (K, P)
M. schencki Viereck 1903
M. specioides Bondroit 1918 (P)
M. sulcinodis Nylander 1846 (P)
Aphenogaster finzii (Mueller) 1913 (K, P)
A. gibbosa (Latreille) 1798 (P)
A. lesbica Forel 1913 (P)
A. epirotes Emery 1895 (K, P, Z)
A. muelleriana Wolf 1914 (K, P, Z)
A. obsidiana (Mayr) 1861 (P)
A. sicula Emery 1908 (P)
A. subterranea (Latreille) 1798 (K, P, Z)
A. subterraneoides Emery 1881 (P)

- Messor capitatus* (Latreille) 1798 (K)
M. denticulatus K. Ugamski 1927 (P)
M. ebeninus Santschi 1927 (P)
M. meridionalis André 1883 (P)
M. minor André 1883 (P)
M. muticus (Nylander) 1849 (P)
M. structor (Latreille) 1798 (K, P)
M. wasmanni Krause 1910 (K, P, Z)
M. sp. (P)
Pheidole megacephala (F.) 1793 (P)
Ph. pallidula (Nylander) 1849 (K, P)
Myrmecina graminicola (Latreille) 1802 (K, P, Z)
Crematogaster auberti Emery 1869 (K)
C. jehovae Forel 1907 (K, P)
C. ionia Emery 1870 (Z, P)
C. lorteti Forel 1910 (P)
C. scutellaris (Olivier) 1791 (P)
C. schmidti (Mayr) 1852 (K, P, Z)
C. sordidula (Nylander) 1849 (K)
Monomorium monomorium Bolton 1987 (K, P, Z)
M. pharaonis (L.) 1758 (K, P, Z)
Diplorhoptrum fugax (Latreille) 1798 (K, P)
Solenopsis latro Forel 1894 (P)
Leptocephalus carinithiacus Bernard 1957 (K, P)
L. crassipinus Karawajew 1926 (K)
L. exilis Emery 1869 (P, Z)
L. flavidus Emery 1870 (K, P)
L. gredleri Mayr 1855 (K, P)
L. kraussei Bondroit 1918 (K)
L. lichtensteini Bondroit 1918 (Z)
L. interruptus (Schenck) 1852 (K, P, Z)
Leptocephalus muscorum (Nylander, 1846) (P)
L. nylanderi (Foerster) 1850 (K, P)
L. parvulus (Schenck) 1852 (K, Z)
L. racovitzai Bondroit 1918 (K, P)
L. recedens (Nylander) 1856 (P)
L. rogeri Emery 1869 ((P, Z))
L. unifasciatus (Latreille) 1798 (K, P, Z)
L. sp. (P)
Epimirma microcelatus Soudek 1925 (Z)
(*Myrmetaerus*, det. Zimmermann 1934)

- Cardiocndyla dalmatica* Soudek 1925 (K)
C. elegans Emery 1869 (P)
Tetramorium bicarinatum (Nyl.) 1846 (P)
T. caespitum (L.) 1758 (K, P, Z)
T. diomedaeum Emery 1908 (P, Z)
T. ferox Ruzsky 1903 (K, P)
T. forte Forel 1904 (K, Z)
T. impurum (Foerster) 1850 (K)
T. lucidulum Emery 1909 (P)
T. moravicum Kratochvil 1944 (P)
T. semilaeve André 1883 (K, P, Z)
Strumigenys baudueri (Emery) 1875 (P)

Subfam.: DOLICHODERINAE

- Dolichoderus quadripunctatus* (L.) 1771 (K, Z)
Liometopum microcephalum (Panzer) 1798 (Z)
Bothriomyrmex adriacus Santschi 1922 (Z)
Bothriomyrmex gibbus Soudek, 1922 (P)
B. meridionalis (Roger) 1863 (K, P)
B. syrius Forel 1910 (P)
B. sp. (P)
Tapinoma ambiguum Emery 1925 (P)
T. erraticum (Latreille) 1798 (K, P, Z)
Tapinoma nigerrimum Nylander 1886 (P)
Linepithema humile Mayr 1868 (K)

Subfam.: FORMICINAE

- Plagiolepis pygmaea* (Latreille) 1798 (K, P, Z)
P. vindobonensis Lomnicki 1925 (K, P)
P. xene Staercke 1936 (P)
Lepisota (=Acantholepis) caucasica Emery, 1917 (P)
Lepisiota frauenfeldi (Mayr) 1855 (P)
L. nigra Emery 1893 (Z)
Prenolepis nitens (Mayr) 1852 (K, Z)
Lasius alienus (Foerster) 1852 (K, P, Z)
L. distiguendus Emery 1916 (K, P, Z)
L. emarginatus (Olivier) 1791 (K, P)
L. flavus (F.) 1781 (K)
L. fuliginosus (Latreille) 1798 (P, Z)
L. lasioides Emery 1869 (K, P)
L. myops Forel 1894 (K, P)

- L. niger* (L.) 1758 (K, P, Z)
L. paralienus Seifert 1992 (K, P)
L. umbratus (Nylander) 1846 (K, P)
Camponotus aethiops (Latreille) 1798 (K, P, Z)
C. dalmaticus (Nylander) 1849 (K, P, Z)
C. falax (Nylander) 1856 (K, P, Z)
C. lateralis (Olivier) 1791 (K, P, Z)
C. ligniperda (Latreille) 1802
C. oertzeni Forel 1888 (K, P)
C. piceus (Leach) 1825 (K, P, Z)
C. truncatus (Spinola) 1882 (K, P, Z)
C. vagus (Scopoli) 1763 (K, P, Z)
Cataglyphis nodus Brulli 1832 (K, P, Z)
C. viaticus Fabricius 1787 (V)
Formica balcanina Petrov et Collingwood 1993 (K)
F. cunicularia Latreille 1798 (K, P)
F. fusca L. 1758 (K, P)
F. gagates Latreille 1798 (K, P, Z)
F. gagatoides Ruzsky 1904 (P)
F. lemani Bondroit 1917 (K, P)
F. pratensis Retzius 1783 (K, P, Z)
F. rufibarbis Fabricius 1793 (K, P)

K= Karaman M. (1998, 2004, 2006), P= Petrov, V= Vogrin (1955), Z= Zimmermann (1934)

Species richness in Montenegro is related to habitat diversity. Although the territory of Montenegro is small it is characterized by extreme complexity of abiotic and biotic factors, which results in the formation of numerous types of ant habitats.

Thus, species dwelling in different habitats can be found in the myrmecofauna of Montenegro. Some species prefer open, warm habitats (*Tetramorium caespitum*, *Tapinoma erraticum*, *Cataglyphis nodus*, *C. viaticus*, *Formica cunicularia*, *F. rufibarbis*). Species preferring more covered habitats (*Myrmica rubra*, *M. sabuleti*, *Formica pratensis*) and species that tolerate humid habitats (*Lasius flavus*, *L. fuliginosus*) were also found, as well as species living at the edges of woods or in woods (*Ponera coarctata*, *Myrmecina graminicola*) (Stitz 1939; Bernard 1968; Collingwood 1979) (Tab. 1).

Even this number of 109 ant species in Montenegro presented here is rather high and surpasses the number of species in other Balkan

countries (Agosti & Collingwood 1987a). A richer myrmecofauna is encountered only in Greece (Legakis, pers. comm.). Nonetheless, the presented list cannot be considered final because the myrmecofauna of Montenegro, as a Balkan country, is surely richer.

CONCLUSIONS

The myrmecofauna of Montenegro shows great variety. In the myrmecofauna of Montenegro Mediterranean species are dominant, although there are also present some Holarctic, Palearctic, European, Eurasian and Euro-Mediterranean species.

Species *Myrmica specioides*, *M. sulcinodis*, *Messor denticulatus*, *Crematogaster scutellaris*, *Solenopsis latro*, *Leptothorax racovitzai*, *Tetramorium bicarinatum*, *T. lucidulum*, *Bothriomyrmex syrius* and *Tapinoma nigerrimum* presented here were specified for first time in the myrmecofauna of Montenegro.

Acknowledgements

I wish to express my gratitude to Mrs. Pavelka Ćirić (Institute of Zoology, Faculty of Biology, University of Belgrade) for her help in writing the English version of the text.

REFERENCES

- Agosti, D., Collingwood, C. A. (1987): A provisional list of the Balkan ants (Hym., Formicidae) with a key to the worker caste. I. Synonymic list. Bull. Soc. Entomol. Suisse **60**: 51–62.
- Agosti, D., Collingwood, C. A. (1987a): A provisional list of the Balkan ants (Hym., Formicidae) with the key to the worker caste. II. Key to the worker caste, including the European species without the Iberian. Bull. Soc. Entomol. Suisse **60**: 261–293.
- Atanasov, N. N., Dlussky, G. M. (1992): Fauna Bulgarica (Hymenoptera, Formicidae) 22. - Aedibus Academiae Scientiarum Bulgaricae, Sofia.
- Baroni Urbani, C. (1964): Sualcune formicheraccolte in Turchia. Annuario dell'Istituto e Museodi zoologia della Università di Napoli **16**: 1–12.
- Bernard, F. (1968): Les Fourmis (Hymenoptera, Formicidae) D'Europe occidentale et septentrionale. - Masson et Cie Editeurs, Paris.
- Bolton, B. (1995): A New General Catalogue of the Ants of the World. - Harvard University Press, Cambridge, Massachusetts, London.
- Buschinger, A., Winter, U., Faber, W. (1983): The biology of *Myrmoxenus gordiagini* Ruzsky, a slave-making ant. Psyche **90**: 335–342.

- Collingwood, C. A. (1979): The Formicidae (Hymenoptera) of Fennoscandia and Denmark. - Fauna Entomologica Scandinavica 8, Copenhagen.
- Dalla Torre, C. G. de (1893): Catalogus Hymenopterum, hucusque descriptorum systematicus et synonymicus 7.
- Karaman, M. (1998): Data about investigations on myrmecofauna (Hymenoptera, Formicidae) in Montenegro. Glas. Republ. Zavoda zašt. prirode Prirodnočakog Muzeja, Podgorica **26**: 55–62.
- Karaman, M., Karaman, G., Petrov, I. (1998): Contribution to the knowledge of the ants (Hymenoptera, Formicidae) of the Vrmac peninsulaBoka Kotorska (Montenegro). Glas. Republ. Zavoda zašt. prirode Prirodnočakog Muzeja Podgorica **26**: 41–53.
- Karaman, M. G. (2004): Checklist of known species of ants (Hymenoptera, Formicidae) in the fauna of Montenegro. Natura Montenegrina, Podgorica **3**: 83–92.
- Karaman, G. S., Karaman, M. G. (2006): Contribution to the knowledge of the ants (Hymenoptera, Formicidae) of Crna Gora (Montenegro). Natura Montenegrina **5**: 91–108.
- Menozzi, C. (1933): Description préliminaire une espèce nouvelle de fourmi constituant un genre nouveau. Naturhistorisch Mandblad **22**: 146–147.
- Müller, G. (1923): Le formiche della Venezia Giulia e della Dalmazia. Bollettino della Societa Adriatica di Scienze Naturali **28**: 11–180.
- Petrov, I. Z. (1993): Supplement to the Zimmermann's Contribution to the knowledge of the myrmecofauna (Formicidae, Hymenoptera) of South Dalmatia (1934). Arch. Biol. Sci., Belgrade **45**(1–2): 7P.
- Petrov, I. Z. (1995): Preliminary data on the myrmecofauna (Formicidae, Hymenoptera) in Yugoslavia. Arch. Biol. Sci., Belgrade **47**(3–4): 151–156.
- Petrov, I. Z. (2000): Checklist of the myrmecofauna (Formicidae, Hymenoptera) of Yugoslavia. Arch. Biol. Sci., Belgrade **52**(4): 243–249.
- Petrov, I. Z., Collingwood, C. A. (1992): Survey of the myrmecofauna (Formicidae, Hymenoptera) of Yugoslavia. Arch. Biol. Sci., Belgrade **44**(1–2): 79–91.
- Seifert, B. (1992): A taxonomic revision of the Palaearctic members of the ant subgenus *Lasius* s. str. Abhandlungen und Berichte der Naturkundesmuseum G-rlitz **66**: 1–67.
- Soudek, Št. (1925): Four new European ants. Ent. Rec. **37**: 33.
- Stitz, H. (1939): Ameisen oder Formicidae. In Dahl, F. (ed.): Die Tierwelt Deutschlands und der angrenzenden Meeresteile 37. - Gustav Fischer Verlag, Jena.
- Vogrin, V. (1955): Prilog fauni Hymenoptera Aculeata Jugoslavije. Zaštita bilja **31**: 1–72.
- Wilson, E. O. (1955): A monographic revision of the ant genus *Lasius* (Hymenoptera: Fomicidae) from Central Europe. Bulletin of the Museum of Comparative Zoology at Harvard College **113**: 3–205.
- Zimmermann, S. (1934): Beitrag zur Kenntnis der Ameisenfauna Süddalmatiens. Sonder. Verhandl. Zool. Botan. Ges., Wien **84**(1–2): 1–65.

НЕКА ЗАПАЖАЊА О ТРЕНУТНО ПОЗНАТИМ ВРСТАМА МРАВА (HYMENOPTERA: FORMICIDAE) ЦРНЕ ГОРЕ

ИВАН З. ПЕТРОВ

РЕЗИМЕ

Мирмекофауна Црне Горе је још увек слабо истражена.

За време ових истраживања регистровано је 117 врста мрава које припадају трима подфамилијама (Ponerinae, Myrmicinae, Dolichoderinae, Formicinae) (Таб. 1).

Све регистроване врсте су могле бити очекиване. Како је Црна Гора медитеранска земља, медитеранске врсте су биле најбројније: *Ponera coarctata*, *Aphenogaster lesbica*, *A. subterranea*, *Messor minor*, *Pheidole megacephala*, *P. pallidula*, *Crematogaster scutellaris*, *C. ionia*, *C. lorteti*, *C. schmidti*, *C. sordidula*, *Tapinoma erraticum*, *Plagiolepis pygmaea*, *Lasius emarginatus*, *Camponotus dalmaticus*, *C. lateralis*, *C. piceus*, *Cataglyphis nodus*, *C. viaticus*, *Formica gagates*. Нађене су и неке холарктичке врсте (*Lasius alienus*, *L. niger*, *L. umbratus*, *Formica fusca*), палеарктичке (*Myrmica rubra*, *M. scabrinodis*, *M. specioides*, *M. sulcinodis*, *Tetramorium caespitum*, *Diplorhoptrum fugax*, *L. flavus*, *Camponotus herculeanus*, *Formica cunicularia*, *F. fusca*, *F. lemani*), као и европске (*Myrmecina graminicola*, *Leptothorax unifasciatus*, *Tetramorium forte*, *Lasius fuliginosus*, *Camponotus piceus*, *C. vagus*, *Formica rufibarbis*), јужноевропске (*Aphenogaster pirotes*, *Cardiocondyla elegans*, *Lepisiota frauenfeldi*), али такође и европскије (*Messor structor*, *Pheidole pallidula*, *Leptothorax ferox*, *Camponotus vagus*), као и европско-медитеранске врсте (*Hypoponera eduardi*, *Leptothorax interruptus*, *Tetramorium semilaeve*, *Lasius emarginatus*) (Stitz 1939; Živojinović 1950; Bernard 1968; Collingwood 1979) (Таб. 1).

Богатство врста је у вези са разноврсношћу станишта. Мада је територија Црне Горе мала, њу карактерише велика комплексност абиотичких и биотичких фактора, што резултира у постојању бројних типова станишта.

Тако су нађене врсте које преферирају отворена и топла станишта (*Tetramorium caespitum*, *Tapinoma erraticum*, *Cataglyphis nodus*, *C. viaticus*, *Formica cunicularia*, *F. rufibarbis*). Налажене су и врсте које настањују затворенија станишта (*Myrmica rubra*, *M. sabuleti*, *Formica pratensis*) као и врсте које толеришу влажна станишта (*Lasius flavus*, *L. fuliginosus*). Исто тако срећу се и врсте које живе на ивицама шума или у шумама (*Ponera coarctata*, *Myrmecina graminicola*) (Stitz 1939; Bernard 1968; Collingwood 1979) (Таб. 1).

Мада Караман (2004) наводи већи број врста него што је приказано овде, он не наводи врсте: *Myrmica specioides*, *M. sulcinodis*, *Messor denticulatus*, *Crematogaster scutellaris*, *Solenopsis latro*, *Tetramorium bicarinatum*, *T. lucidulum*, *Bothriomyrmex syrius* и *Tapinoma nigerrimum*. На тај начин његов списак је обогаћен са 9 нових врста које се сада по први пут саопштавају за мирмекофауну Црне Горе.

Иако је број од 117 врста већи од броја врста у другим балканским земљама (Agosti & Collingwood 1987), осим Грчке где је Легакис (лична комуникација) регистровао 268 врста, овај број се мора разматрати само као привремени, јер је мирмекофауна Црне Горе сигурно богатија.