

Short communication

CONTRIBUTION TO THE MYRMECOFAUNA
(HYMENOPTERA: FORMICIDAE) OF SOME PARTS
OF THE ADRIATIC COAST AND SOME ISLANDS IN CROATIA

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In the past, ants from Yugoslavia were collected by some enthusiastic naturalists, who cruised across the country collecting insects and ants, and later consulted experts who identified the species. According to NONVEILLER (1989), Croatia was involved in the investigations on ants by MAIDL (1922) who contributed to the myrmecofauna of Bosnia and Herzegovina and Dalmatia and registered 16 species of ants. FINZI (1923) mentioned some species of ants from Dalmatia. MÜLLER (1923) reported 65 species from Dalmatia in his work comprising 88 species in total. SOUDEK (1925) reported some data on myrmecofauna of Dalmatia and presented a list of 15 species. ZIMMERMANN (1930) published a paper in which he elaborated myrmecofauna of Quarner islands and registered 18 genera, 43 species and 19 subspecies. The same author (1934) used the material obtained by several collectors and mentioned 29 genera, 77 species and 48 subspecies collected in 16 localities in south Dalmatia and the seaside of Montenegro. But, nomenclature used by ZIMMERMANN (1934) is now partially invalid. Some specimens found at the Adriatic area and determined by ZIMMERMANN as subspecies were raised to the species level: *Myrmica scabrinodis sabuleti*=*M. sabuleti*, *Aphenogaster obsidiana epirotes*=*A. epirotes* (AGOSTI & COLLINGWOOD, 1987), *Aphenogaster ovaticeps muelleriana*=*A. mülleriana*, *Messor semirufus wasmanni*=*M. wasmanni* (AGOSTI & COLLINGWOOD, 1987), *Crematogaster schmidti ionia*=*C. ionia*, *Leptothorax nylanderii lichtensteini*=*L. lichtensteini* (AGOSTI & COLLINGWOOD, 1987), *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). Furthermore, some genera determined by ZIMMERMANN were moved to other genera: *Ponera eduardi* (det. ZIMMERMANN, 1934)=*Hypoponera eduardi* (AGOSTI & COLLINGWOOD, 1987), *Myrmetaerus microcellatus* (det. ZIMMERMANN, 1934) = *Myrmoxenus microcellatus* (SCHULTZ & SANTERA, 2002). VOGRIN (1955) presented a review of the Fauna Aculeata of former Yugoslavia, presenting 27 genera, 69 species and 6 varieties from the family Formicidae, mostly from Croatia.

Table I. List of ants collected in some localities of the Adriatic coast and islands in Croatia

Species	Locality (and date)
Subfam.: Ponerinae	
<i>Ponera coarctata</i> (Latreille, 1802)	Lokrum (19.05.1978)
Subfam.: Myrmicinae	
<i>Myrmica rubra</i> (L.1758)	Dubrovnik (25.5.1983)
<i>Stenamma petiolatum</i> Emery, 1897	Trogir (09.1981), Milna (24.08.1987)
<i>S. striatum</i> Emery, 1895	Trogir (09.1981)
<i>Aphenogaster lesbica</i> Forel, 1913	Milna (14.08.1985, 04.08.1987, 08.08.1987, 09.08.1987, 12.08.1987, 17.08.1987, 24.08.1987)
<i>A. mülleriana</i> Wolf, 1914	Milna (31.07.1987, 05.08.1990)
<i>Aphenogaster</i> sp.	Milna (29.08.1983)
<i>Messor capitatus</i> (Latreille, 1798)	Milna (12.07.1972), Trogir (13.08.1981, 16.08.1982), Dubrovnik (27.05.1990), Pula (09.09.1990)
<i>M. denticulatus</i> K. Ugamski, 1927	Trogir (13.08.1981), Trsteno (24.05.1990), Milna (08.08.1990), Pula (10.09.1990)
<i>M. structor</i> (Latreille, 1798)	Trogir (13.08.1981)
<i>M. oertzeni</i> Forel, 1910	Milna (12.7.1972)
<i>M. wasmanni</i> Krausse, 1910	Milna (28.08.1981), Pula (09.09.1990)
<i>Myrmecina graminicola</i> (Latreille, 1802)	Lokrum (19.05.1978), Dubrovnik (25.05.1990)
<i>Diplorhoptum fugax</i> (Latreille, 1798)	Dubrovnik (25.05.1983), Milna (06.08.1987, 19.08.1987)
<i>Pheidole megacephala</i> (Fabricius, 1793)	Milna (06.08.1987, 19.08.1987, 24.08.1987, 12.08.1988)
<i>Crematogaster lorteti</i> Forel, 1910	Trogir (13.08.1981)
<i>C. schmidti</i> (Mayr, 1853)	Trsteno (24.05.1990)
<i>C. scutellaris</i> (Olivier, 1792)	Milna (12.08.1982, 14.08.1987, 22.08.1987, 09.08.1988)
<i>Temnothorax racovitzai</i> (Bondroit, 1918)	Milna (12.08.1990), Veliki Brioni (11.09.1990)
<i>Temnothorax</i> sp.	Trogir (09.1981)
<i>Cardiocondyla elegans</i> Emery, 1869	Milna (07.08.1990)
Subfam.: Formicinae	
<i>Plagiolepis pygmaea</i> (Latreille, 1798)	Veliki Brioni (11.09.1990)
<i>Plagiolepis</i> sp.	Milna (16.08.1982)
<i>Lepisiota splendens</i> (Karawajew, 1912)	Milna (17.08.1982, 06.08.1987, 20.08.1990)
<i>Prenolepis</i> sp.	Milna (14.08.1990)
<i>Lasius alienus</i> (Foerster, 1850)	Trogir (sept. 1981, 13.08.1981), Dubrovnik (25.05.1983), Milna (12.08.1988), Mrdujja (Milna) (20.08.1990)
<i>L. bicornis</i> (Foerster, 1850)	Milna (17.08.1982, 14.08.1985)
<i>L. brunneus</i> (Latreille, 1798)	Trogir (13.08.1981)
<i>L. niger</i> (L., 1758)	Milna (12.08.1988), Trsteno (24.05.1990), Pula (09.09.1990)
<i>Lasius</i> sp.	Milna (09.08.1987)
<i>Camponotus aethiops</i> (Latreille, 1798)	Milna (12.08.1982)
<i>C. dalmaticus</i> (Nylander, 1849)	Blatina (16.07.1976)
<i>C. herculeanus</i> (L., 1758)	Markan (27.05.1990)
<i>C. lateralis</i> (Olivier, 1791)	Milna (26.08.1987, 12.08.1988, 20.08.1990)

Species	Locality (and date)
Subfam.: Formicinae	
<i>Camponotus piceus</i> (Leach, 1825)	Pula (12.03.1990, 09.09.1990)
<i>C. vagus</i> (Scopoli, 1763)	Trogir (13.08.1981), Markan (27.05.1990), Pula (09.09.1990)
<i>Camponotus</i> sp.	Milna (12.08.1982)
<i>Cataglyphis aenescens</i> (Nylander, 1849)	Trogir (13.08.1981), Milna (26.08.1987)
<i>Formica cunicularia</i> Latreille, 1798	Pula (09.09.1990)
<i>F. rufibarbis</i> Fabricius, 1793	Pula (09.09.1990)

(Table I – continued)

Many years later PETROV & COLLINGWOOD (1992) gave a survey of myrmecofauna of Yugoslavia in which some localities of Croatia and the Adriatic area were involved. They mentioned 210 species for Yugoslavia, but they did not specify which species were collected in Croatia. In that work they reported *Pheidole megacephala* (Fabricius, 1793) and *Lepisiota splendens* (Karawajew, 1912) found in Milna (Brač Island) as new for the myrmecofauna of Yugoslavia, and in that respect of Croatia too. The first myrmecological data concerning Croatia alone can be found in BRAČKO (2006) who registered 140 species in the myrmecofauna of Croatia.

The species presented in this paper were collected in Milna, Pula and Veliki Brioni Island by the author, and in some other localities of the Adriatic coast (Trogir, Trsteno, Dubrovnik, Blatina) and islands (Lokrum, Mljet, Markan) by some colleagues. The list contains 40 species from three subfamilies (Ponerinae, Myrmicinae, Formicinae) (Tab. I).

No species from the subfamily Dolichoderinae was found although genera *Dolichoderus*, *Tapinoma*, *Liometopum*, *Bothriomyrmex* must be present. Also, more species from subfamilies Myrmicinae and Formicinae must exist in the myrmecofauna of the Adriatic coast and islands, but to get complete information about the myrmecofauna of that area, more intensive investigations and collecting of ants are needed.

The myrmecofauna of the Adriatic coast and islands is very diverse. Some Holarctic species (*Lasius alienus*, *L. niger*), Palearctic (*Myrmica rubra*, *Diplorhoptum fugax*, *Lasius brunneus*, *Camponotus herculeanus*, *Formica cunicularia*), European (*Myrmecina graminicola*, *Formica rufibarbis*), South European (*Cardiocondyla elegans*) and Euroasian (*Camponotus vagus*) species were found. And, since the Adriatic area belongs to the Mediterranean region, most species found in that area are Mediterranean species (*Aphenogaster lesbica*, *Messor capitatus*, *Crematogaster scutellaris*, *C. lorteti*, *C. schmidtii*, *Plagiolepis pygmaea*, *Lepisiota splendens*, *Camponotus dalmaticus*, *C. lateralis*, *C. piceus*, *Cataglyphis aenescens*) (Tab. I) (STITZ, 1939; BERNARD, 1968; COLLINGWOOD, 1979; SEIFERT, 1988; PARASCHIVESCU, 1993).

Ant diversity of the Adriatic coast and island is also shown by species living in different habitats. That is, some species prefer open, warm habitats (*F. cunicularia*, *F. rufibarbis*). Species preferring more covered habitats (*Myrmica rubra*), 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. I).

In addition, several new species from the Adriatic coast and islands have been described: *Acantholepis frauenfeldi* (Mayr 1855), found in Senj, *Crematogaster (Acrocoelia) mayri* Mayr 1855, found near Zadar,

Temnothorax pelagosanus (Müller, 1923), found on Palagruža Island, *Solenopsis wolffi* Emery 1915, found on Hvar Island and *Sysphincta mayri* Forel 1899 from Dalmatia.

The myrmecofauna of the Adriatic Coast and islands is supposedly richer, and the list presented here should be considered only as a preliminary one.

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ПРИЛОГ ПОЗНАВАЊУ МИРМЕКОФАУНЕ (HYMENOPTERA: FORMICIDAE) НЕКИХ ДЕЛОВА ЈАДРАНСКЕ ОБАЛЕ И НЕКИХ ОСТРВА У ХРВАТСКОЈ

ИВАН ПЕТРОВ

ИЗВОД

У овом прилогу представљени су налази 40 врста мрва са подручја Јадранске обале и неколико острва у Хрватској. Прилог садржи и историјски преглед истраживања фауне мрва наведеног подручја. Дат је и попис зоогеографских група као и типова станишта на којима су мрави сакупљани.

Мирмекофауна Јадранске обале и острва је сигурно богатија него што је овде приказано, али за комплетнију слику мирмекофауне те области потребна су интензивнија истраживања и сакупљања мрва.

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