

**Checklist of soil Mesostigmata (Acari) of Central Croatia (Dalmatia)
with some microenvironmental remarks**

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ABSTRACT. Mesostigmatid mites (Acari) were studied in various microhabitats of Central Croatia (Dalmatia). Altogether 320 samples (taken during August 2002) and 2074 individuals were examined. Checklist of soil Mesostigmata, with microenvironmental notices was prepared.

KEY WORDS: Checklist, Acari, Mesostigmata, Croatia, Dalmatia, microenvironments.

INTRODUCTION

Croatia, because of its location within the Balkan Peninsula, is very interesting region of ecological investigations. Country has relatively small area with diversified climate and landscape which favours diversity of micro-environments and the formation of species richness. So far, the mite fauna of Croatia had been recognised only partially (mostly as Oribatida, Hydrachnidia and Uropodina) (HIRSCHMANN & WIŚNIEWSKI 1993, RUCNER & RUCNER 1995, PESIC 2002).

Study area

Soil samples were taken from various microhabitats within the area of Krka National Park, Brač Island and surroundings of a place called Makarska.

MATERIAL AND METHODS

Altogether 320 soil samples (50 cm³ each) were taken during August 2002 from various micro-environments (moss covering soil, stones and tree trunks as well as decay and litter). Microhabitats of Krka NP were represented by 93 samples. From Brač Island and Makarska, respectively, 94 and 133 samples were taken. Totally 2074 specimens (1020 adult stages and 1054 juveniles) were obtained during 6-days extraction in Tullgren funnels. Mites were preserved in 70% ethyl alcohol and mounted in Hoyer's medium. Mites from order Mesostigmata (both mature and immature specimens), were identified to species level using universally applied keys (MICHERDZIŃSKI 1969, BŁASZAK 1974, BREGETOVA 1977, KARG 1993). Overall, 45 species of Mesostigmata (17 families) were recorded. Presented classification of Mesostigmata follows Joel Hallan's Biology Catalog (HALLAN 2005).

Checklist of Central Croatia (Dalmatia) soil Mesostigmata

Suborder: Epicriina

Superfamily: Epicrioidea

Family: Zerconidae BERLESE, 1892

Zercon athiasi VINCZE, 1965 – 4 ad. and 1 juv.

Brač – 1 ad. (moss covering stones); 1 ad. (litter)

Makarska – 1 ad. (moss covering soil); 1 ad. and 1 juv. (moss on tree trunks)

Zercon berlesei SELLNICK, 1958 – 2 ad. and 5 juv.

Brač – 2 ad. and 4 juv. (litter)

Krka NP – 1 juv. (moss covering stones)

Zercon fageticola HALAŠKOVÁ, 1969 – 32 ad. and 19 juv.

Makarska – 7 ad. and 5 juv. (moss covering soil); 18 ad. and 5 juv. (moss on stones);

5 ad. and 8 juv. (moss on tree trunks); 1 ad. (decay); 1 ad. and 1 juv. (litter)

Suborder: Uropodina

Superfamily: Uropodoidea

Family: Polyaspididae BERLESE, 1913

Polyaspis patavinus BERLESE, 1881 – 170 ad. and 429 juv.

Brač – 170 ad. and 429 juv. (decay)

Family: Trachytidae TRAGÄRDH, 1938

Trachytes lambda BERLESE, 1903 – 17 ad. and 16 juv.

Krka NP – 2 ad. (decay); 15 ad. and 16 juv. (litter)

Family: Trematuridae BERLESE, 1917

Trichouropoda ovalis (C.L. KOCH, 1839) – 13 ad. and 16 juv.

Krka NP – 1 ad. (moss covering soil); 11 ad. and 16 juv. (decay); 1 ad. (litter)

Family: Urodinychidae BERLESE, 1917

Dinychus inermis (C.L. KOCH, 1841) – 37 ad. and 14 juv.

Krka NP – 12 ad. and 3 juv. (moss covering soil); 25 ad. and 11 juv. (moss on tree trunks)

Urobovella vinicolora (VITZTHUM, 1926) – 34 ad. and 9 juv.

Krka NP – 34 ad. and 9 juv. (decay)

Family: Uropodidae KRAMER, 1881

Uropoda minima KRAMER, 1882 – 3 ad.

Krka NP – 1 ad. (decay); 2 ad. (litter)

Suborder: Parasitina

Superfamily: Parasitoidea

Family: Parasitidae OUDEMANS, 1901

Paragamasus runciger (BERLESE, 1903) – 22 ad. and 29 juv.

Krka NP – 3 ad. and 3 juv. (moss on soil); 10 ad. and 11 juv. (moss covering stones); 9 ad. and 15 juv. (litter)

Parasitus hyalinus (WILLMANN, 1949) – 5 ad. and 21 juv.

Brač – 2 juv. (moss on stones); 2 ad. and 2 juv. (decay); 3 ad. and 17 juv. (litter)

Pergamasus crassipes (LINNAE, 1758) – 8 ad. and 4 juv.

Krka NP – 3 ad. and 1 juv. (moss covering soil); 3 ad. and 3 juv. (moss on stones);
1 ad. (moss on tree trunks)

Makarska – 1 ad. (moss covering stones)

Pergamasus septentrionalis (OUDEMANS, 1902) – 1 ad.

Krka NP – 1 ad. (moss on tree trunks)

Suborder: Dermanyssina

Superfamily: Ascoidea

Family: Ascidae OUDEMANS, 1905

Asca aphidioides (LINNAE, 1758) – 68 ad. and 26 juv.

Krka NP – 27 ad. and 22 juv. (litter); 21 ad. and 2 juv. (moss on stone)

Makarska – 3 ad. and 2 juv. (decay); 9 ad. (moss covering soil); 2 ad. (moss on tree trunks); 6 ad. (litter).

Asca nova WILLMANN, 1939 – 64 ad. and 26 juv.

Brač – 13 ad. and 4 juv. (moss on stones); 1 ad. and 1 juv. (decay); 22 ad. and 18 juv. (litter)

Makarska – 18 ad. and 1 juv. (moss covering soil); 8 ad. (moss on stones); 2 ad. and 2 juv. (moss on tree trunk)

Cheiroseius serratus (HALBERT, 1915) – 154 ad. and 65 juv.

Krka NP – 23 ad. and 6 juv. (moss covering soil); 34 ad. and 15 juv. (moss on stones); 96 ad. and 40 juv. (moss on tree trunks)

Makarska – 1 juv. (moss covering soil)

Brač – 1 ad. and 3 juv. (litter)

Gamasellodes bicolor (BERLESE, 1918) – 45 ad. and 49 juv.

Brač – 1 ad. (moss covering stones); 9 ad. and 15 juv. (decay); 10 ad. and 2 juv. (litter)

Makarska – 4 juv. (moss on tree trunks); 7 ad. (decay);

Krka NP – 3 ad. and 11 juv. (decay); 15 ad. and 17 juv. (litter)

Lasioseius fimetorum KARG, 1971 – 9 ad. and 28 juv.

Krka NP – 9 ad. and 28 juv. (litter)

Platyseius italicus (BERLESE, 1905) – 1 ad.

Brač – 1 ad. (litter)

Proctolaelaps pygmaeus (MÜLLER, 1860) – 6 ad.

Makarska – 3 ad. (moss covering soil); 1 ad. (moss on stones); 1 ad. (moss on tree trunks); 1 ad. (litter)

Protogamasellus primitivus KARG, 1962 – 21 ad. and 5 juv.

Brač – 10 ad. and 1 juv. (moss on stones); 2 ad. (decay); 6 ad. and 4 juv. (litter)

Krka NP – 1 ad. (decay)

Makarska – 2 ad. (moss covering soil)

Zercoseius spathuliger (LEONARDI, 1899) – 12 ad.

Brač – 12 ad. (litter)

Family: Phytoseiidae BERLESE, 1916

Amblyseius obtusus (C.L. KOCH, 1839) – 2 ad. and 8 juv.

Krka NP – 1 ad. (moss on soil), 1 ad. and 8 juv. (litter)

Family: Podocinidae BERLESE, 1913

Podocinum pacificum BERLESE, 1896 – 1 juv.

Krka NP – 1 juv. (litter)

Superfamily: Dermanyssoidea
Family: Laelapidae BERLESE, 1892

Hypoaspis aculeifer (CANESTRINI, 1883) – 30 ad. and 59 juv.

Brač – 3 juv. (moss on stones); 21 ad. and 35 juv. (decay); 1 ad. and 1 juv. (litter);

Makarska – 1 ad. (moss on tree trunks); 1 juv. (decay)

Krka NP – 3 juv. (moss covering soil); 5 ad. and 13 juv. (moss on stones); 1 ad. (decay); 1 ad. and 3 juv. (litter)

Hypoaspis claviger (BERLESE, 1883) – 10 ad.

Brač – 1 ad. (moss on stones); 3 ad. (litter)

Makarska – 1 ad. (moss on stones); 1 ad. (litter)

Krka NP – 2 ad. (moss on stones); 1 ad. (decay); 1 ad. (litter)

Hypoaspis cuneifer (MICHAEL, 1891) – 1 ad.

Brač – 1 ad. (decay)

Hypoaspis kargi COSTA, 1968 – 34 ad. and 5 juv.

Krka NP – 5 ad. (moss covering stones); 5 ad. (litter)

Makarska – 5 ad. and 1 juv. (moss covering soil); 3 ad. (moss on stones); 3 ad. (moss on tree trunks); 1 ad. (decay); 3 ad. (litter)

Brač – 2 ad. and 1 juv. (moss on stones); 7 ad. and 3 juv. (litter);

Hypoaspis praesternalis WILLMANN, 1949 – 65 ad. and 75 juv.

Brač – 16 ad. and 25 juv. (moss on stones); 3 ad. and 3 juv. (decay); 22 ad. and 35 juv. (litter)

Makarska – 4 ad. (moss covering soil); 1 ad. (moss on tree trunks)

- Krka NP – 1 ad. and 6 juv. (moss on stones); 9 ad. and 1 juv. (moss on tree trunks);
7 ad. and 4 juv. (decay); 2 ad. and 1 juv. (litter)
- Hypoaspis vacua* (MICHAEL, 1891) – 2 ad.
Makarska – 1 ad. (litter)
Brač – 1 ad. (litter)
- Holostaspis montana* (BERLESE, 1904) – 6 ad.
Makarska – 1 ad. (moss covering soil); 2 ad. (moss on stones)
Brač – 3 ad. (litter)
- Pseudolaelaps paulseni* (BERLESE, 1910) – 31 ad. and 5 juv.
Brač – 8 ad. and 5 juv. (moss covering stones); 6 ad. (decay); 3 ad. (litter)
Krka NP – 1 ad. (moss covering soil); 2 ad. (moss on stones); 4 ad. (decay)
Makarska – 5 ad. (moss covering soil); 1 ad. (moss on tree trunks); 1 ad. (litter)

Superfamily: Eviphidoidea
Family: Eviphididae BERLESE, 1913

- Evimirus uropodinus* BERLESE, 1903 – 7 ad. and 4 juv.
Krka NP – 7 ad. and 3 juv. (moss covering stones); 1 juv. (decay)
- Thinoseius kargi* HIRSCHMANN, 1966 – 3 ad. and 1 juv.
Makarska – 1 juv. (moss covering soil); 1 ad. (moss on stones); 1 ad. (moss on tree trunks); 1 ad. (litter)

Family: Macrochelidae VITZTHUM, 1930

- Macrocheles scutatiformis* PETROVA, 1967 – 1 ad.
Krka NP – 1 ad. (moss on stones)
- Macrocheles scutatus* (BERLESE, 1904) – 3 ad. and 2 juv.
Krka NP – 2 ad. (moss covering soil); 1 ad. and 1 juv. (moss on stones); 1 juv. (decay)

Family: Pachylaelapidae BERLESE, 1913

- Olopachys scutatus* BERLESE, 1910 – 3 ad.
Makarska – 1 ad. (moss on soil); 2 ad. (litter)
- Pachylaelaps pectinifer* (G. et R. CANESTRINI, 1882) – 3 ad. and 7 juv.
Krka NP – 2 ad. and 3 juv. (moss on soil); 1 ad. and 2 juv. (moss covering stones);
2 juv. (decay)

Superfamily: Rhodacaroidea
Family: Digamasellidae EVANS, 1957

Dendrolaelaps rectus KARG, 1962 – 1 juv.
Krka NP – 1 juv. (moss covering stones)

Family: Rhodacaridae OUDEMANS, 1902

Rhodacarellus epigynalis SHEALS, 1956 – 27 ad. and 2 juv.
Brač – 13 ad. (moss covering stones); 14 ad. and 2 juv. (litter)
Rhodacarellus perspicuus HALAŠKOVÁ, 1958 – 25 ad. and 2 juv.
Brač – 20 ad. (moss covering stones); 5 ad. and 2 juv. (litter)
Rhodacarellus silesiacus WILLMANN, 1936 – 19 ad. and 112 juv.
Brač – 1 ad. (moss covering stones); 1 ad. (litter)
Krka NP – 1 ad. (moss covering stones); 2 ad. and 68 juv. (decay); 13 ad. and 44 juv. (litter)
Makarska – 1 ad. (moss covering soil)

Superfamily: Veigaiioidea
Family: Veigaiidae OUDEMANS, 1939

Veigaia cf. decurtata ATHIAS-HENRIOT, 1961 – 2 ad.
Makarska – 2 ad. (moss covering soil)
Veigaia exigua (BERLESE, 1916) – 10 ad. and 5 juv.
Brač – 4 ad. and 2 juv. (moss covering stones); 3 ad. and 3 juv. (litter)
Makarska – 3 ad. (litter)
Veigaia planicola (BERLESE, 1892) – 8 ad. and 3 juv.
Krka NP – 1 ad. and 1 juv. (moss covering stones); 3 ad. (decay); 4 ad. and 2 juv. (litter)

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