

Some oribatid mites (Acari, Oribatida) from the State of São Paulo, Brazil

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ABSTRACT. A survey was conducted in three sites from northern and mid-eastern regions of the State of São Paulo, Brazil, to determine oribatid mite composition in patches of seasonal semideciduous forest and soybean crop plantation. A list of 52 taxa, 24 at the species level and 28 only at the genus level, is given, 27 of which are new records for the region.

KEY WORDS. oribatid mites, São Paulo, Brazil, semideciduous forest, soybean

Oribatid mites have received considerable attention around the world for their assumed participation in the decomposition process of organic matter and their potential as bioindicators of soil conditions. The knowledge of the taxa found in a given region is important to provide a background for further ecological research.

Most records of oribatid mites in the State of São Paulo, southeast Brazil, derive from samples taken near the city of São Paulo and from the northern coast of the State (SCHUSTER 1962, 1977; MÄRKEL 1964; BECK 1965; GRANDJEAN 1966, 1968; BALOGH & MAHUNKA 1977, 1978; NIEDBALA 1981; BALOGH & BALOGH 1985; PÉREZ-IÑIGO & BAGGIO 1980, 1988, 1989, 1991, 1993, 1994). Little is known for other regions (SCHUSTER 1962; BECK 1965; BALOGH & MAHUNKA 1978; KRISPER 1984; PÉREZ-IÑIGO & BAGGIO 1985, 1986, 1993, 1994; BALOGH 1986; PASCHOAL 1987a,b). There are no records for the northern central part of the State. This paper reports on a survey for oribatid mites at tree sites:

1) a native seasonal semideciduous forest located at Bosque Municipal, São José do Rio Preto, northern State of São Paulo (at 20°48'36"S and 49°22'50"W). The tree canopy consisted of *Copaifera langsdorffii* Desf. (Fabaceae), *Ficus guaranitica* Chod. (Moraceae), *Coccoloba latifolia* Lam. (Polygonaceae), *Myroxylon perui-ferum* Linn.f. (Fabaceae) and *Mabea fistulifera* Mart. (Euphorbiaceae), with an under growth composed mainly of *Siparuna guianensis* Aubl. (Monimiaceae) and

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Alibertia edulis A.Rich. (Rubiaceae). Litter samples were collected on 10 occasions at approximately two week intervals between late November 1998 and late April 1999;

II) a reclaimed seasonal semideciduous forest formed in an old *Eucalyptus* spp. (Myrtaceae) plantation located at Jaguariúna, mid-eastern State of São Paulo (at 22°42'18"S and 46°59'22"W). Litter samples were taken in late May 1993;

III) a soybean field located at Jaguariúna, in an area which had not been cultivated in the three years period preceeding the samplings. The predominant plant species before soybean plantation were *Sida cordifolia* L. (Malvaceae), *Brachiaria plantaginea* Hitchc. (Poaceae) and *Panicum maximum* Jacq. (Poaceae). Soil samples were taken on five occasions at two week intervals between late January and early April 1997.

Mite extraction was done with Berlese-Tullgren funnels. The specimens were identified using mainly the keys of BALOGH (1972) and BALOGH & BALOGH (1988, 1990). The classification system adopted in this paper is that of FUJIKAWA (1991). New records of genera and species for the State of São Paulo are indicated.

Voucher Specimens are deposited in the Zoology Reference Collection of Escola Superior de Agricultura "Luiz de Queiroz", Universidade de São Paulo, Piracicaba, São Paulo, Brazil.

LIST OF MITES COLLECTED

Remark. New records for the State of São Paulo are indicated by asterisks. Collection sites are indicated in parentheses after species names by symbols described previously in the text.

Palaeacaridae Grandjean, 1932 [= Ctenacaridae Grandjean, 1954]

Beklemishevia Zachvatkin, 1945 *

B. barbata (Schubart, 1968) (I)

Brachychthoniidae Thor, 1934

Brachychthonius Berlese, 1910 * (III)

Cosmochthoniidae Grandjean, 1947

Cosmochthonius Berlese, 1910 * (I)

Phyllochthoniidae Travé, 1967

Phyllochthonius Travé, 1967 * (III)

Lohmanniidae Berlese, 1916

Papillacarus Kunst, 1959 * (III)

Epilohmanniidae Oudemans, 1916

Epilohmannia Berlese, 1916

E. pallida americana J. Balogh & Mahunka, 1981 * (I, III)

Phthiracaridae Perty, 1841

Phthiracarus Perty, 1841 (II)

Steganacaridae Niedbala, 1986

Atropacarus (*Hoplophorella*) Berlese, 1923*A. (H.) cucullatus* (Ewing, 1909) * (I, II)*A. (H.) lanceoseta* (Balogh & Mahunka, 1981) * (I)*A. (H.) scapellata* (Aoki, 1965) * (I, II, III)*Hoplophthiracarus* Jacot, 1933 (II)

Euphthiracaridae Jacot, 1930

Rhysotritia Märkel & Meyer, 1959 (III)*R. comteae* Mahunka, 1983 * (I, II)

Oribotritiidae Grandjean, 1954

Indotritia Jacot, 1928 **I. bellingeri* Niedbala & Schatz, 1996 (I)

Allonothridae Lee, 1985

Allonothrus Hammen, 1953*A. neotropicus* Balogh & Mahunka, 1969 * (I)

Nothridae Berlese, 1896

Nothrus C.L. Koch, 1836*N. biciliatus* C.L. Koch, 1841 (I, III)*N. becki* Balogh & Mahunka, 1981 * (I)

Pheroliodidae Paschoal, 1987

Pheroliodes Grandjean, 1931 (I, II)

Plateremaeidae Trägårdh, 1931

Plateremaeus Berlese, 1908*P. ornatissimus* (Berlese, 1888) (II)

Microtegeidae J. Balogh, 1972

Microtegeus Berlese, 1916 (II)

Eremaeozetidae Piffil, 1972

Eremaeozetes Berlese, 1913 * (I)

Microzetidae Grandjean, 1936

Berlesezetes Mahunka, 1980 **B. brazilozetoides* J. Balogh & Mahunka, 1981 (I, III)*Schizozetes* J. Balogh, 1962 * (III)

Damaeolidae Grandjean, 1965

Fosseremus Grandjean, 1954 **F. saltaensis* (Hammer, 1958) (III)

- Eremobelbidae J. Balogh, 1961
Eremobelba Berlese, 1908 (II)
- Eremulidae Grandjean, 1965
Eremulus Berlese, 1908 (II, III)
E. rigidisetosus J. Balogh & Mahunka, 1969 * (I)
- Heterobelbidae J. Balogh, 1961
Heterobelba Berlese, 1913 (I)
- Astegistidae J. Balogh, 1961
Cultroribula Berlese, 1908 * (II)
- Carabodidae C.L. Koch, 1842
Carabodes C.L. Koch, 1836 *
C. atrichosus Mahunka, 1984 (I)
- Otocepheidae J. Balogh, 1961
Pseudotocepheus J. Balogh, 1960 (II)
- Tectocepheidae Grandjean, 1954
Tectocepheus Berlese, 1896 (I, II, III)
- Eremellidae J. Balogh, 1961
Eremella Berlese, 1913 * (I)
- Oppiidae Grandjean, 1951
Amerioppia Hammer, 1961 * (I, II)
Brachioppia Hammer, 1961 (I, II)
Mystroppia J. Balogh, 1959 * (III)
Oppiella Jacot, 1937
O. nova (Oudemans, 1902) (I, III)
Ramusella Hammer, 1962 (I, II, III)
Striatoppia J. Balogh, 1958 * (III)
Teratoppia J. Balogh, 1959 (II)
- Suctobelbidae Jacot, 1938
Suctobelbella Jacot, 1937 * (II)
S. complexa (Hammer, 1958) (I, III)
S. variosetosa (Hammer, 1961) (I)
- Haplozetidae Grandjean, 1936
Haplozetes Willmann, 1935 (I)
Rostrozetes Sellnick, 1925
R. foveolatus Sellnick, 1925 (I, II, III)

- Nasobatidae J. Balogh, 1972
Nasobates Woolley, 1966 * (I)
- Oripodidae Jacot, 1925
Oripoda Banks, 1904 (I, II)
- Scheloribatidae Grandjean, 1933
Scheloribates Berlese, 1908 (II)
S. praeincisus Berlese, 1910 (I, III)
- Xylobatidae J. Balogh & P. Balogh, 1984
Brasilobates Pérez-Iñigo & Baggio, 1980
B. bipilis Pérez-Iñigo & Baggio, 1980 (II)
Xylobates Jacot, 1929 (I)
- Ceratozetidae Jacot, 1925
Ceratobates J. Balogh & Mahunka, 1969 (II)
- Oribatellidae Jacot, 1925
Lamellobates Hammer, 1958 (I)
L. molecula (Berlese, 1916) (III)
- Galumnidae Jacot, 1925
Erogalumna Grandjean, 1964 * (II)
Galumna Heyden, 1826 (II)
G. glabra Pérez-Iñigo & Baggio, 1991 (I, III)
Pergalumna Grandjean, 1936 (II)
P. decoratissima Pérez-Iñigo & Baggio, 1986 (I)

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