

6. *Bledius spectabilis* (KRAATZ, 1857).

Saintes Maries, 2 ♂ & 3 ♀ tussen aanspoelsel in de intertidale zone in gezelschap van onderstaande soort.

7. *Bledius (Euceratobledius) furcatus* (OLIVIER, 1811), var. *skrimshiri* (CURTIS, 1826).

Saintes Maries, 1 ♂ & 1 ♀ (zie *B. spectabilis*).

8. *Bledius (Elbidus) verres* (ERICHSON, 1839).

Port Camargue, 2 ♂ & 2 ♀ aan de oever van een zoutkreek in gezelschap van *Platystethus nitens* (SAHLBERG, 1832) en de Carabidae *Dyschirius salinus* SCHAUM, 1843.

9. *Cafius xantholoma* (GRAVENHORST, 1806).

La Grande Motte, 2 ♂ & 6 ♀ van deze algemene halobionte soort tussen aanspoelsel op het strand.

10. *Phytosus spinifer* CURTIS, 1838.

Vaccarés (R.N.), 1 ex. in de spatzone samen met *Euphania insignis* en onderstaande soort.

11. *Phytosus balticus* KRAATZ, 1859.

Vaccarés (R.N.), 3 ex. (zie *P. spinifer*).

12. *Myrmecopora (Xenusa) uvida* (ERICHSON, 1840).

La Grande Motte, 4 ex. van deze halobionte soort tussen stenen in de spatzone in gezelschap van *Myllaena elongata* (MATTHEWS, 1838).

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6. Op verzoek van Dhr. P. BERBIERS en J. MERTENS, geeft de secretaris een overzicht van hun mededeling.

Distribution of corticolous Collembola (Insecta, Apterygota) in East and West Flanders

by Philippe BERBIERS¹ and Johan MERTENS²

¹ Westakkerslaan 14, B-2750 Beveren.

² Laboratorium voor Ecologie der Dieren, Zoögeografie en Natuurbehoud, K.L. Ledeganckstraat 35, B-9000 Gent.

Samenvatting

In 21 plaatsen in Oost- en West-Vlaanderen, verspreid over 15 U.T.M. hokken, werden in totaal 10 springstaartensoorten behorende tot 3 families aangetroffen op de bast van bomen.

Introduction

As almost nothing is known of the distribution of Collembola in Belgium, we thought it useful to present the results of a small survey in East and West Flanders.

Material and methods

We used a battery-driven aspirator to sample corticolous Collembola in 21 localities in East and West Flanders that are scattered over 15 U.T.M.-quadrants. At each locality, 1 to 7 samples were taken (total: 63). Sampling involved aspirating for 1 to 2 minutes the bark of 1 to 6 trees having a well-developed layer of epiphytic algae. In all, 201 trees (178 deciduous, 23 coniferous) were sampled. Captured springtails were fixed immediately in a 4% formaldehyde solution. All individuals were identified according to GISIN (1960).

Results

With the exception of Berlare and Wetteren, Collembola were found on tree trunks at all localities (Table). We pooled the capture data as there were no major differences in abundance or species composition between coniferous and deciduous trees. Sampling at any locality was highly variable: from 2 to 93 individuals, belonging to 1 to 6 different species were captured.

Locality	UTM	Samples	Trees	E.n.	E.a.	E.c.	O.c.	E.m.	L.c.	T.l.	I.p.	I.o.	A.f.	Total
De Panne	DS76	3	17 D	49	-	-	5	-	-	-	1	1	4	60
De Panne	DS65	1	6 D	-	-	-	2	-	-	-	-	-	-	2
Soenen	ES44	2	4 D	1	6	-	-	-	-	-	-	-	-	7
Schelderode	"	3	14, D	6	-	13	2	-	2	-	-	-	-	23
Nazareth	"	3	3 D + 4 C	34	-	1	57	1	-	-	-	-	-	93
Melle	ES55	2	4 D + 4 C	10	-	12	-	-	-	-	-	-	-	22
Serskamp	ES64	5	20 D	17	3	18	4	1	-	1	-	-	-	44
Overmere	ES65	3	13 D	-	-	-	4	-	1	-	-	-	-	5
Wetteren	"	1	3 D	-	-	-	-	-	-	-	-	-	-	0
Waasmunster	ES76	4	8 D + 2 C	16	22	-	29	-	-	-	-	-	-	67
Beisele	"	2	7 D	10	1	-	1	-	-	-	-	-	-	12
Ursele	ES36	7	15 D + 6 C	8	3	-	-	1	-	-	-	-	-	12
Bellem	ES35	7	14 D + 5 C	30	27	-	7	3	1	-	-	-	5	73
Zwijnaarde	ES45	2	4 D	2	2	-	6	-	-	-	-	-	-	10
St-Martens-Latem	"	2	5 D	1	4	-	-	-	-	-	-	-	-	5
Brakelbos	ES52	4	6 D + 2 C	3	15	10	2	-	-	1	-	-	-	31
Bovenkwartier	"	3	6 D	-	-	10	-	-	1	-	-	-	-	11
Ename	ES43	3	14 D	14	-	1	-	-	-	-	-	-	-	15
Ganzenberg	ES42	2	7 D	-	-	5	-	-	-	-	-	-	-	5
Oosterzele	ES54	3	6 D	3	1	1	-	-	1	-	-	-	-	6
Beclare	ES75	1	2 D	-	-	-	-	-	-	-	-	-	-	0
Total				204	84	71	119	6	6	2	1	1	9	503
Occurrence at 21 localities :				15	10	9	11	4	5	2	1	1	2	
" " at 15 UTM-quadrants :				11	8	7	9	4	5	2	1	1	2	

Abundance and distribution of corticolous Collembola in East and West Flanders. D : deciduous trees; C : coniferous trees. Abbreviation of species names : see text.

In all, 503 springtails belonging to 10 species and 3 families were found. *Entomobrya nivalis* (E.n.), *Entomobrya albocincta* (E.a.), *Entomobrya corticalis* (E.c.), *Orchesella cincta* (O.c.), *Entomobrya multifasciata* (E.m.), *Lepidocyrtus cyaneus* (L.c.) and *Tomocerurus longicornis* (T.l.) are Entomobryidae. *Isotomurus palustris* (I.p.) and *Isotoma olivacea* (I.o.) are Isotomidae and *Allacma fusca* (A.f.) is a species belonging to the Sminthuridae. Only the first 4 species can be considered as truly showing tree-dwelling behavior, as they make up the majority (95%) of the captured Collembola and are found at more than half of the localities.

Discussion

That Collembola exhibit tree-dwelling behavior is not a novel finding. With the exception of *Isotomurus palustris* and *Isotoma olivacea*, all species that we captured were found previously on trees (BOWDEN et al., 1976; BAUER, 1979; VON ALLMEN & ZETTEL, 1982; ANDRÉ, 1983). As these authors reported and as is confirmed by our results, Entomobryid Collembola are a typical element of the corticolous fauna.

The activity of Collembola on the bark of trees is largely regulated by the relative humidity of the air and by the species-specific resistance to desiccation (BAUER, 1979). Not one of the species is, however, truly corticolous, as they all need to descend to the soil surface for moulting and oviposition (VON ALLMEN & ZETTEL, 1982).

Clearly, more data are needed to synthesize the distribution pattern of any of the sampled Collembolan species. Our preliminary work has shown that sampling of the bark of trees is a convenient method for gathering data on the distribution of at least some Entomobryidae.

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