

## GENERAL INFORMATION

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## MATERIALS & METHODS

study area	5n
time period	June-November 1997, February-June 1998
goal	Quantification of the differences and similarities in the diversity and structure of the spider community in 5 forest fragments and infer relationships with the history of fragmentation
set-up	Aelmoeseneie forest A ( <i>Quercus robur</i> , <i>Fagus sylvatica</i> , <i>Quercus rubra</i> ) & Aelmoeseneie forest B ( <i>Acer pseudoplatanus</i> , <i>Fraxinus excelsior</i> ) - glass traps, ø 9.5 cm, depth 10 cm - 3 traps on a row, distance between the traps 3 m - filled with 4 % formaldehyde solution, with a little detergent to reduce the surface tension
data collection	- traps emptied each two weeks - spiders kept in 70 % alcohol - determination and classification in 4 groups: species of forest soil & litter layer, spiders of the tree/shrub layer, forest edge species, non-forest species
remarks	The data for the Aelmoeseneie forest come from another campaign, i.e., DeBakker_etal_2000

## RESULTS

	Aelmoeseneie-A	Aelmoeseneie-B	mean for the 9 plots (5 forests)
number of spiders	504	408	695
number of species	39	50	50
- soil/litter layer	15 (39 %)	16 (32 %)	15 (30 %)
- shrub/tree layer	7 (18 %)	9 (18 %)	8 (16 %)
- forest edge	0	0	0.4 (1 %)
- non-forest	17 (44 %)	25 (50 %)	26.7 (53 %)
number of Red List species	4	4	11
- <i>Coelotes inermis</i>	18	15	
- <i>Coelotes terrestris</i>	96	94	
- <i>Histopona torpida</i>	17	6	

- <i>Pachygnata listeri</i>	1	11	
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*Coelotes terrestris*, *C. inermis*, *Histopona torpida* occur mainly in dry broadleaved forests with a lot of dead wood in the litter layer. *Pachygnata listeri* occurs mainly in open and swampy broadleaved forests.

*Coelotes terrestris* only occurs in the Aelmoeseneie forest (not in the 4 other forests); *Pachygnata listeri* occurs in all 5 forests. This shows the limited dispersal capacity of *Coelotes terrestris*.

Overall diversity is higher on the moist sites (Aelmoeseneie-B), lowest on the dry sites (e.g., Aelmoeseneie-A). The diversity of species of the soil/litter layer is still high on moist sites, but the difference between Aelmoeseneie-A and Aelmoeseneie-B is no longer significant.

The fauna of the Aelmoeseneie forest clearly differs from the fauna in the other forests in the study, mainly because of the occurrence of *Coelotes terrestris*.