

GENERAL INFORMATION

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taxa	<i>Anemone nemorosa</i> , <i>Hyacinthoides non-scripta</i> , <i>Lamium galeobdolon</i> , <i>Lonicera periclymenum</i> , <i>Paris quadrifolia</i> , <i>Primula elatior</i> , <i>Stellaria holostea</i>
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MATERIALS & METHODS

green: different from the description in the Masterthesis

study area	5n (scientific zone)
time period	1999- 2001
goal	Investigation of the effect of tree species, via the soil, on the germination and recruitment of forest understorey species in post-agricultural forests
set-up	<p>pot experiment</p> <ul style="list-style-type: none"> - 7 herb species (<i>Anemone</i>, <i>Lamium</i>, <i>Lonicera</i>, <i>Paris</i>, <i>Primula</i>, <i>Stellaria</i>, <i>Hyacinthoides</i>) - soil (0-10 cm, 2 sample spots per stand) from below 4 tree species (<i>Acer pseudoplatanus</i>, <i>Alnus glutinosa</i>, <i>Fagus sylvatica</i>, <i>Populus x euramericana cv. Robusta</i>) in the Mortagne forest (27 yr old) - soil collected in September 1999 - 64 pots per soil type, 2 kg soil per pot (256 in total) - seeds collected in the Aelmoeseneie forest (first 6 species) and the Raspaille forest (last species) during spring and summer, stored dry and dark - 8 pots per understory species (+ control) and soil type, seeding in September - pots next to the level II plot in the Aelmoeseneie forest (oak-beech), aboveground
data collection	<p>germination</p> <ul style="list-style-type: none"> - counting germinated seeds (8/11/99, 3/12/99, 11/02/00, 29/02/00, 18/03/00, 10/05/00, 17/05/00, 12/07/00 – only for <i>Lamium</i>, 12/07/00 and 08/04/2001 for <i>Anemone</i> and <i>Paris</i>) - record of the number of leaves, to be able to distinguish between newly and formerly germinated seeds <p>soil analysis</p> <ul style="list-style-type: none"> - before and after the experiment - after: soil analysis for 8 pots per soil type - pH-KCl, N, K, Ca, Mg, P
remarks	

RESULTS

Acer soil had high P levels; *Alnus* soil high N levels; *Populus* soil had low N, but high base saturation and pH levels. None of the ancient forest species was present in the soil seed bank of the post-agricultural forests. *Paris* did not germinate, and only 4 % of *Anemone* in the first year. Germination of *Hyacinthoides* was independent of soil type. Germination of *Lonicera* and *Stellaria* was higher in *Populus* soil, and *Anemone* germinated in *Populus* soil only. Soil type also affected the timing of germination for 3 of the herb species.