

## GENERAL INFORMATION

<b>author(s)</b>	Van Daele S
<b>year</b>	2009
<b>English title</b>	30-year vegetation dynamics in young and old forest stands in the western part of Flanders
<b>original title</b>	30 Jaar vegetatiedynamiek in jonge en oude bossen in het westelijk deel van Vlaanderen
<b>reference</b>	Msc thesis, Ghent University, Ghent
<b>pages</b>	115
<b>type</b>	dissertation (d2)
<b>ecosystem service</b>	supporting – forest dynamics
<b>keywords</b>	herb layer, shrub layer, tree layer
<b>taxa</b>	
<b>project</b>	Msc thesis
<b>supervisor</b>	Verheyen K
<b>institution</b>	Laboratory of Forestry
<b>location</b>	hardcopy, pdf
<b>data</b>	Flora&Fauna.xls

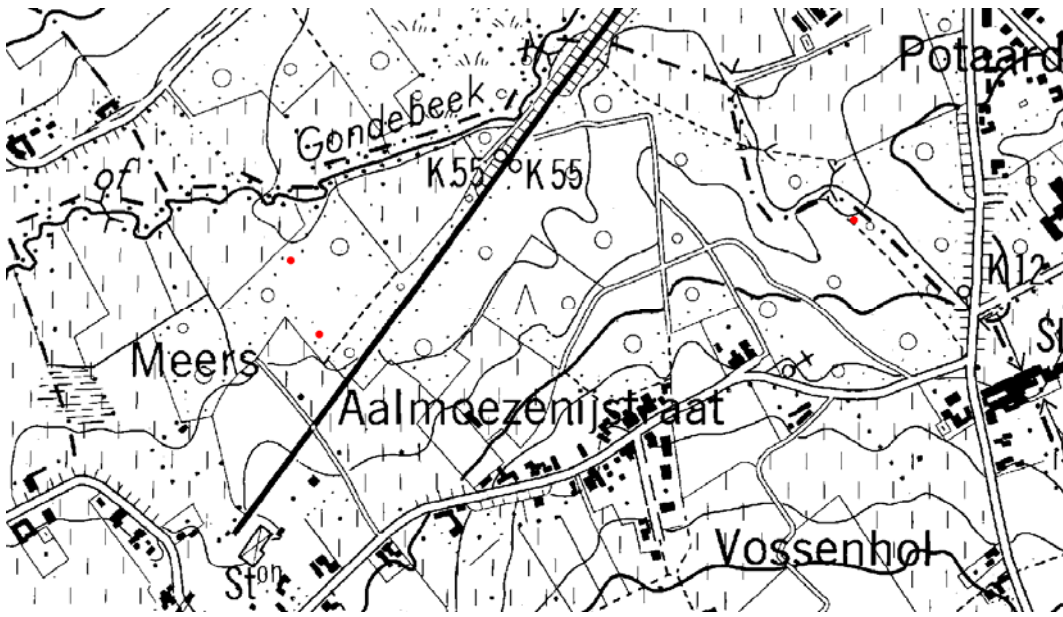
## MATERIALS & METHODS

<b>study area</b>	3a, 5n (scientific zone)
<b>time period</b>	July-August 2008
<b>goal</b>	Are the differences between old/young stands found in 1980 still visible? How did the vegetation change in 30 years time?
<b>set-up</b>	re-inventory of sample plots (10 m x 15 m) that were installed in young and old forest stands in West- and East-Flanders between 1977-1983 by Martin Hermy. - 4 plots in the Aelmoeseneie forest (see map below, nr 249-250, 252-253)
<b>data collection</b>	herb layer (plants < 25 cm), shrub layer, coppice layer, tree layer: cover per layer, cover per species, abundance for species with cover < 5 % (Londo) soil: 4 samples per plot (0-10 cm) – mixed sample, pH, P concentration
<b>remarks</b>	

## RESULTS

Old forest have a higher herb, tree, shrub and total species richness, show a higher (a)biotic variability, and have a less nutrient-rich and more acid soil. In young forest, the soil/light conditions promote fast-growing, nutrient-loving, and competitive vegetation.

The comparison 1980–2008 shows that the forests have become eutrophied: nutrient-loving, competitive species increased; the vegetation became functionally and taxonomically more homogenous. The biotic impoverishment is most probably the consequence of competitive exclusion and paying off the extinction debt. There is no indication that young forests are developing towards the situation in old forests.



(the 4<sup>th</sup> plot lies northwest of the upper-left plot)