

CHANGES IN VASCULAR PLANT COMMUNITIES IN THE THIRD TO FIFTH YEAR IN AN EXPERIMENTAL TREE TRIAL ON ARABLE LAND

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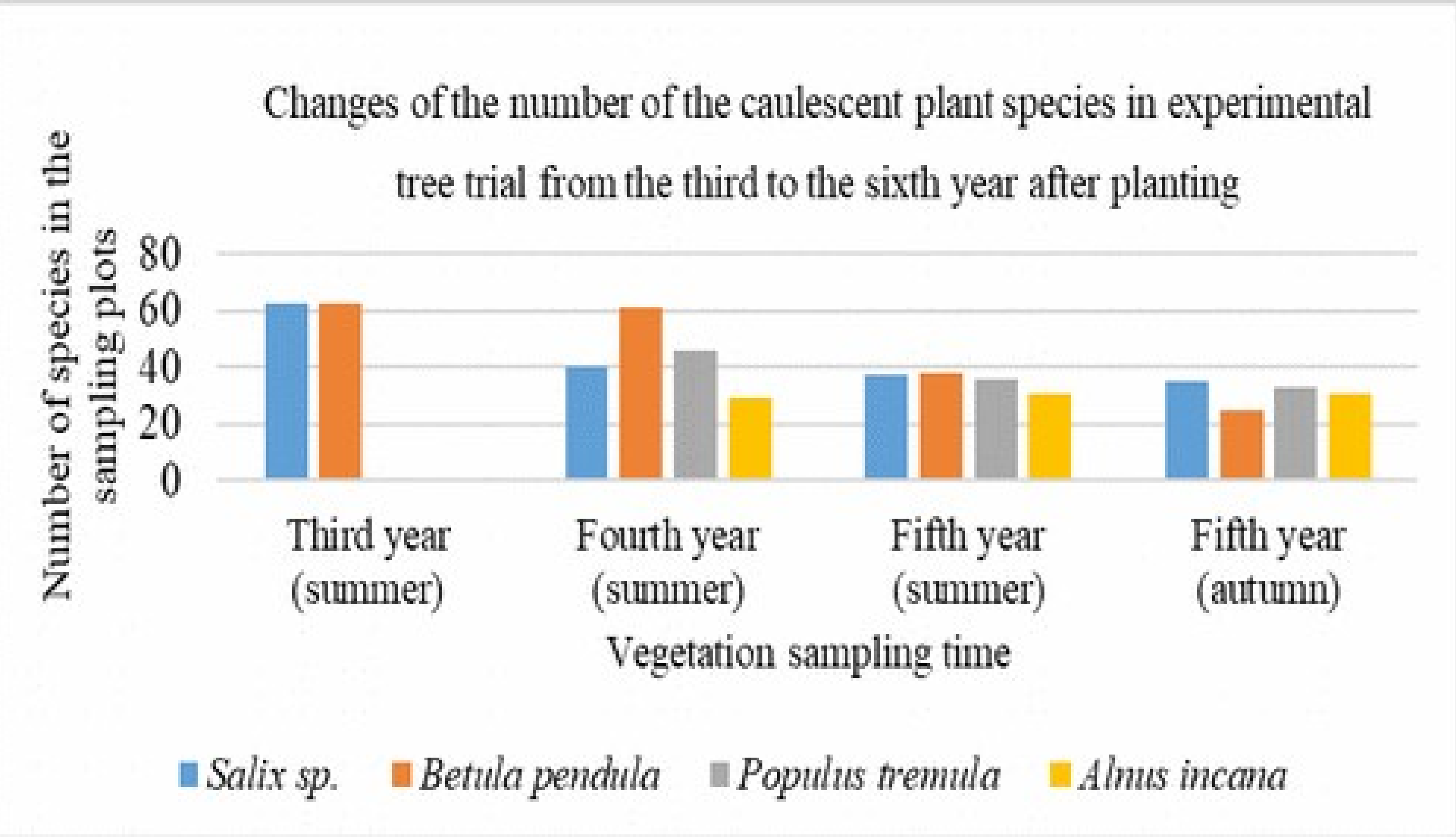
The studied object is located in Latvia, in Skrīveri district, in “Pardenči”. In this area, short rotation tree species were planted. In this study, we have paid attention to willow, birch, aspen, grey alder to compare the difference of plant species composition. Vegetation sampling was done in the third to fifth year after tree planting.

Experimental tree trial



To see if there are any dominant plant species characteristic for forests, indicator species analysis was done. Indicator species analysis showed that the most characteristic species for willow plots were, *Phleum pratense*, *Trifolium pratense*, *Plantago lanceolata*, *Sonchus arvensis*, *Agrostis gigantea*. The most characteristic species for birch plots were *Poa annua*, *Taraxacum officinale*, *Trifolium hybridum*, *Myosotis sylvatica*, *Leontodon autumnalis*, *Cerastium holostoides*, *Myosotis sparsiflora*. The most characteristic species for aspen plots was *Festuca ovina*. There were no characteristic species for grey alder plots.

Changes in vegetation diversity in three year period



The amount of plant species in the plantation tends to decrease. Conditions are changing and short rotation coppice starts to look more like young forest.

Dominant vascular plant species in the experimental tree trial in the fifth year after planting

Trees planted	Willow	Birch	Aspen	Grey alder
Dominant plant species in the fifth year after planting	<i>Elytrigia repens</i>	<i>Phleum pratense</i>	<i>Agrostis tenuis</i>	<i>Poa pratensis</i>
	<i>Phleum pratense</i>	<i>Agrostis tenuis</i>	<i>Trifolium repens</i>	<i>Elytrigia repens</i>
	<i>Agrostis tenuis</i>	<i>Trifolium repens</i>	<i>Achillea millefolium</i>	<i>Taraxacum officinale</i>
	<i>Achillea millefolium</i>	<i>Achillea millefolium</i>	<i>Vicia cracca</i>	<i>Medicago lupulina</i>
	<i>Trifolium pratense</i>	<i>Trifolium pratense</i>	<i>Taraxacum officinale</i>	<i>Tussilago farfara</i>
	<i>Vicia cracca</i>	<i>Taraxacum officinale</i>	<i>Trifolium pratense</i>	<i>Agrostis tenuis</i>
	<i>Stellaria graminea</i>		<i>Fragaria vesca</i>	<i>Phleum pratense</i>
	<i>Taraxacum officinale</i>		<i>Melilotus albus</i>	
			<i>Festuca ovina</i>	

In the fifth year after planting, the canopy of the trees are getting connected and vegetation is changing and getting more homogenous. But the main vegetation consists of meadow plants, not forest. The only forest plant species found as a dominant in the experimental tree trial is *Fragaria vesca*. Though, already in the fourth year after planting, there were found forest mushroom species, for example, *Leccinum aurantiacum*.