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Manors and parks


Culture- & recreation



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What now?

Is it only a cultural heritage or has it additional value?



Luua manor



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So, what is behind the cultural heritage?



Luke manor



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So, what is behind the cultural heritage?



Luke manor



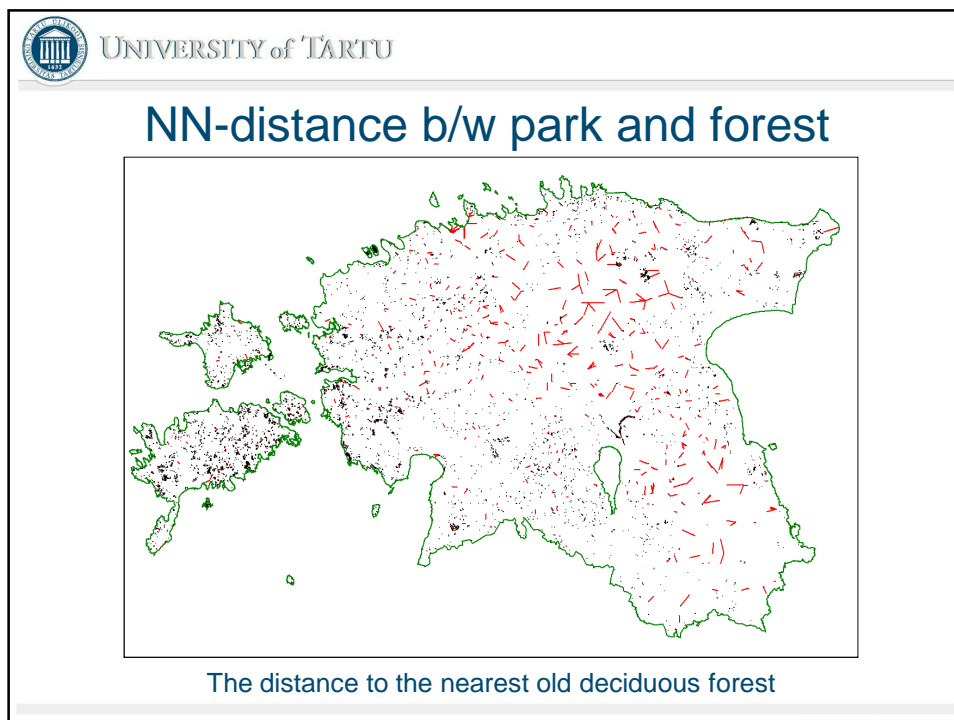
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Forest statistics of Estonia (SFI)

Forest land 2197 kha (48.6%)


- Average age of stands 51a
- All deciduous forest (37.4% of forests)
- Broad leaved forests (ca 4-5%)
 - Stand age of broad leaved trees 62-66 a
- Dec. forests of age group 61...80yr (1.5%)
- Dec. forests of age group 81... yr (0.3%)
- Protected, Semi-protected & Forest-Network (26%)
- Natura2000 coded dec. forests (2.5%)
- Nature forests by definition (3.5%)

(Adermann 2009, SMI)



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Neighbourhood statistics



Characteristic	N	Average	Median
Dec. forest - Area [ha]	5967	3.8	1.2
Forest's nearest forest - Area [ha]	5967	6.6	1.4
Forest's nearest forest - Distance [m]	5967	640	270
Park - Area [ha]	593	8.5	4.2
Park's nearest forest - Area [ha]	593	4.2	1.1
Park's nearest forest - Distance [m]	593	2160	1700


Small forests are clustered around larger forest fragments.
Parks are mostly in landscapes with little forest.

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Nature value



Park of Surju manor

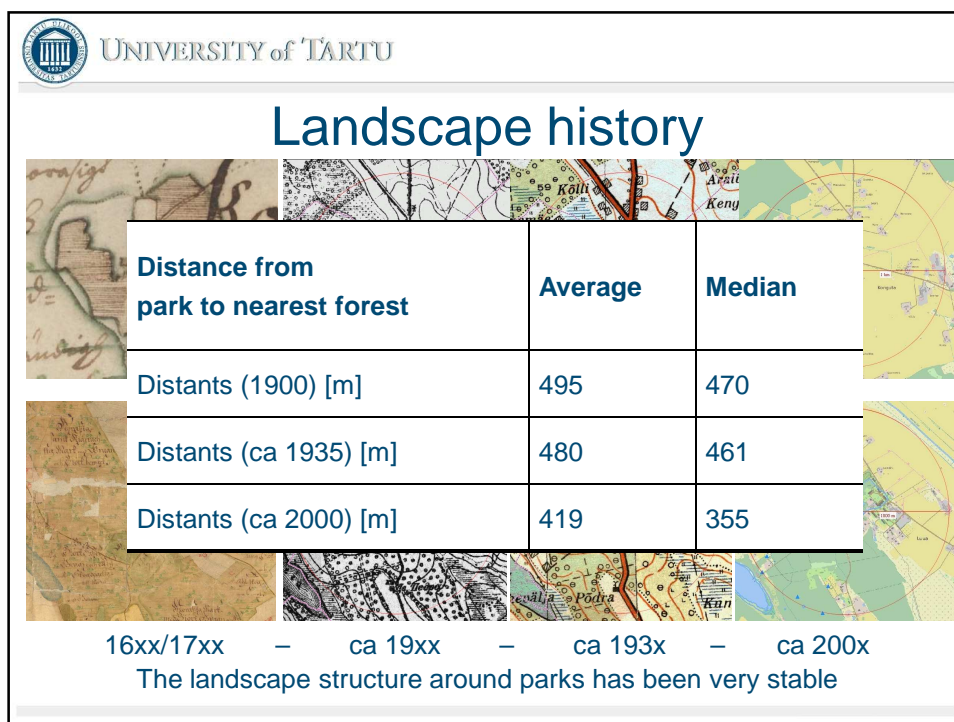
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Landscape history



16xx/17xx — ca 19xx — ca 193x — ca 200x


The landscape structure around parks has been very stable



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Stand structure


Characteristic	Park	Aegop.	Hepat .
Closure	0.76	0.67	0.70
Basal area	22.7	26.9	25.3
⇒ BA D<8..40	9.3	21.0	19.6
⇒ BA D>40cm	13.2	5.8	5.7
No.of diamters	3.2	3.8	3.5
Tree species	6.1	5.1	4.5
⇒ Conifer%	16	40	74
Lying dead wood	1.1	6.5	4.5
Shrub species	0.85	5.32	6.16
Shrub cover%	11	16	38
Herb species	32 (28)	38	38



The stand structure of old wooded parks resembles to mature forests or even outclasses them.
(Data about Aegop. & Hepat. from Liira & Sepp 2009)

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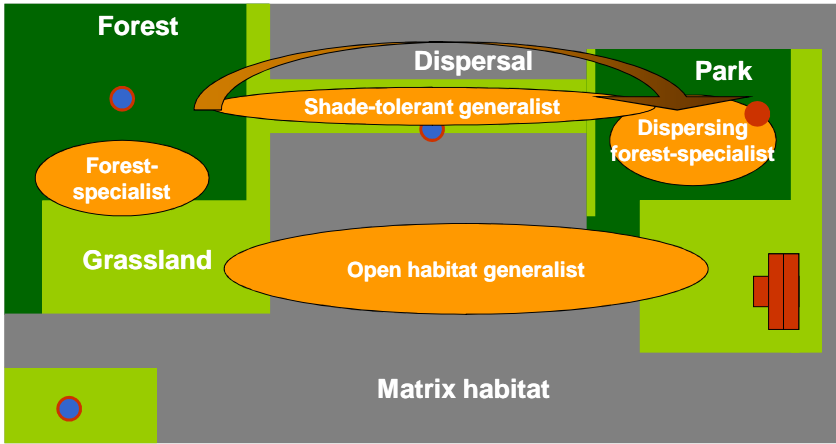
Indicators of nature value



Very old and dead trees

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Species dispersal in landscape



Forest

Park

Grassland

Matrix habitat

Dispersal

Shade-tolerant generalist

Dispersing forest-specialist

Forest-specialist

Open habitat generalist

Forest species have dispersal limits in the landscape.
So, what is the use of wooded parks?



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Can park be comparable to forest?!



There was in average 32 herb species (15-51) in wooded parks,
87% (67-100%) of them were forest species.
In forests, the same estimate was 85%.



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The presence of local species pool

From the local species pool,
60% of forest species were present in parks.
The same estimate in forests was 74%.

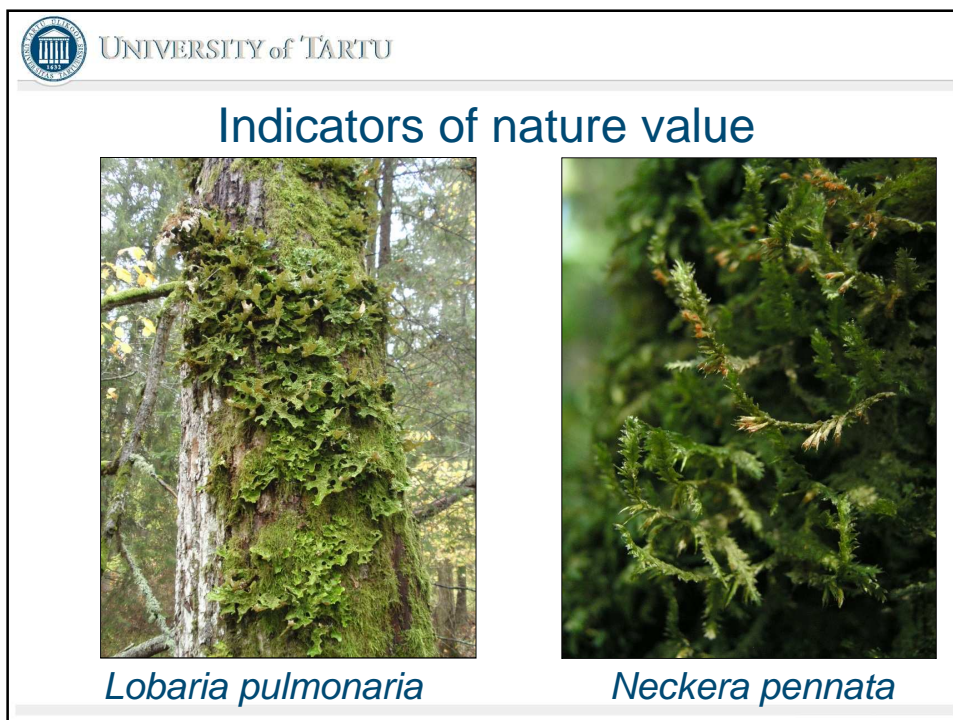



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Plant species' frequencies


Species	Park%	F%	C%	Species	P%	F%	C%
Anem nemo	89	80	7	Vero cham	98	95	84
Oxal acet	70	86	9	Aego poda	91	86	86
Gale lute	64	55	18	Ranu cass	91	84	32
Pari quad	61	77	5	Poa nemo	66	73	50
Stel holo	57	52	7	Geum urba	66	82	75
Athy fili	55	80	2	Geum riva	59	82	41
Care digi	48	64	2	Rubu idae	39	93	45
Viol mira	45	45	5	Scro nodo	30	50	25
Acta spic	43	52	11				
Moeh trin	43	41	16				
Hepa nobi	41	41	9				
Care sylv	39	41	2				
Conv maja	39	50	9				
Luzu pilo	39	73	5				
Asar euro	30	50	5				

23 common forest plant species were found in 1/3 of parks.
15 of them did not show the ability to use corridors.



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Indicators are in trouble




Lobaria pulmonaria *Neckera pennata*

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What next – park management



Krüüdneri vs Taagepera

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What next – park management




Krüüdneri vs Taagepera

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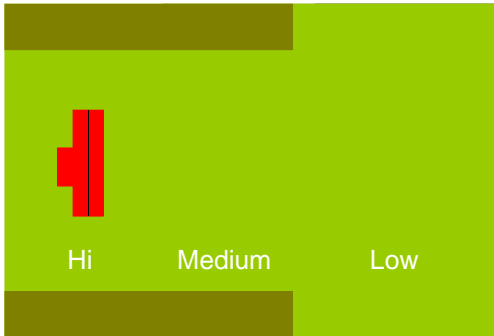
Flexible management



Luke


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Flexible planning - zonation




Hi Medium Low


Define different targets for different zones
Determine management according to zoning
The culture of biodiversity

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Additional value – public education



Elistvere

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Ecosystem service healthy microenvironment



Aru Unipiha

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