



### ***The purpose of the research of manor parks' woodland***


According to the data of the Ministry of the Environment there are ca 450 manor parks out of the total number of 548 nature protected parks. Approximately half of the nature protected manor parks are also on the list of monuments of national heritage.  
**In other words, the majority of Estonian parks are historical, more than 150 years old.**

The results of the research of parks' woodland are used in the renovation and maintenance works.

The general purposes of current work are:

- To determine the proportion of different tree and shrub species depending on the number of specimen which currently grow in manor parks;
- To determine how large proportion of the tree specimen currently growing in manor parks is original

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artex terrae 

### *Significance of the woodland in the work with manor parks*

- **The Florence Charter – 1982. Article 9**

The preservation of historic gardens depends on their identification and listing. They require several kinds of action, namely maintenance, conservation and restoration. In certain cases, reconstruction may be recommended. The authenticity of an historic garden depends as much on the design and scale of its various parts as on its decorative features and on **the choice of plant or inorganic materials adopted for each of its parts.**

- **The protective regulation of parks, arboretums and woodlands**

§ 1 (2) The purpose of the protection of park is to maintain **the historical layout and dendrological**, cultural, ecological, aesthetical and recreational **values of woodland** and the preservation of valuable elements of park and garden art with the guiding of continuing use and development.

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### *Park woodland – not simply a bunch of trees and shrubs*



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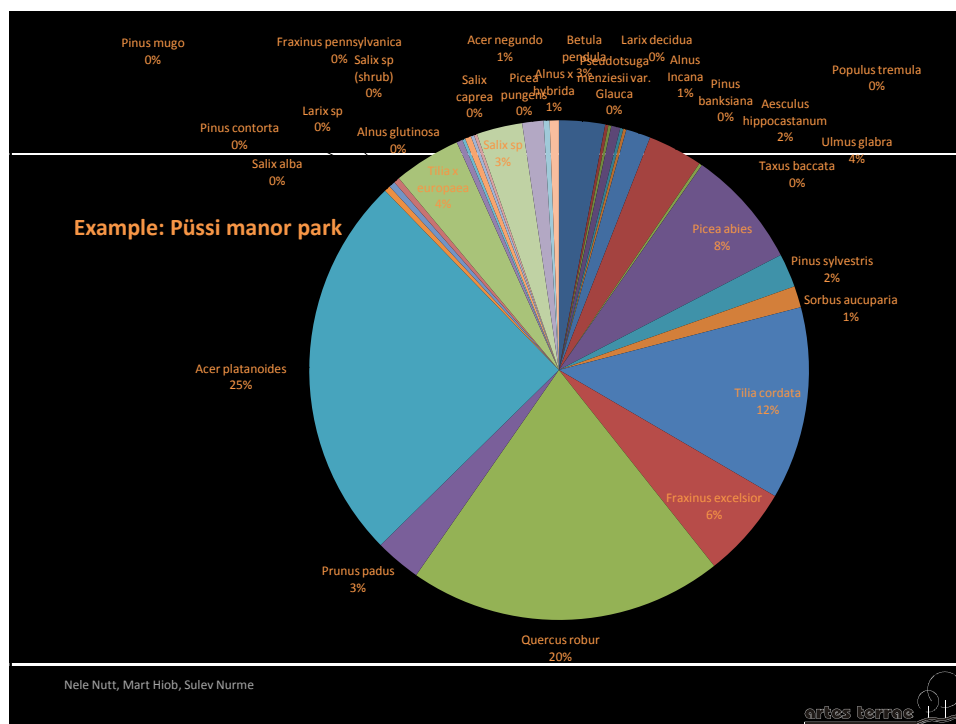




### *The proportion of specimen of different species*

- The inventories of manor parks have been concerned with the diversity of the species. The number of specimen of each species as well as the proportion of original trees has been much less investigated.
- The survey on the number of species does not give an appropriate picture of the park's character nor of its level of preservation and chances for continuing existence.
- For acquiring a general expression of a park we need to determine the proportion of shrubs, leafy and conifer trees out of the total number of specimen

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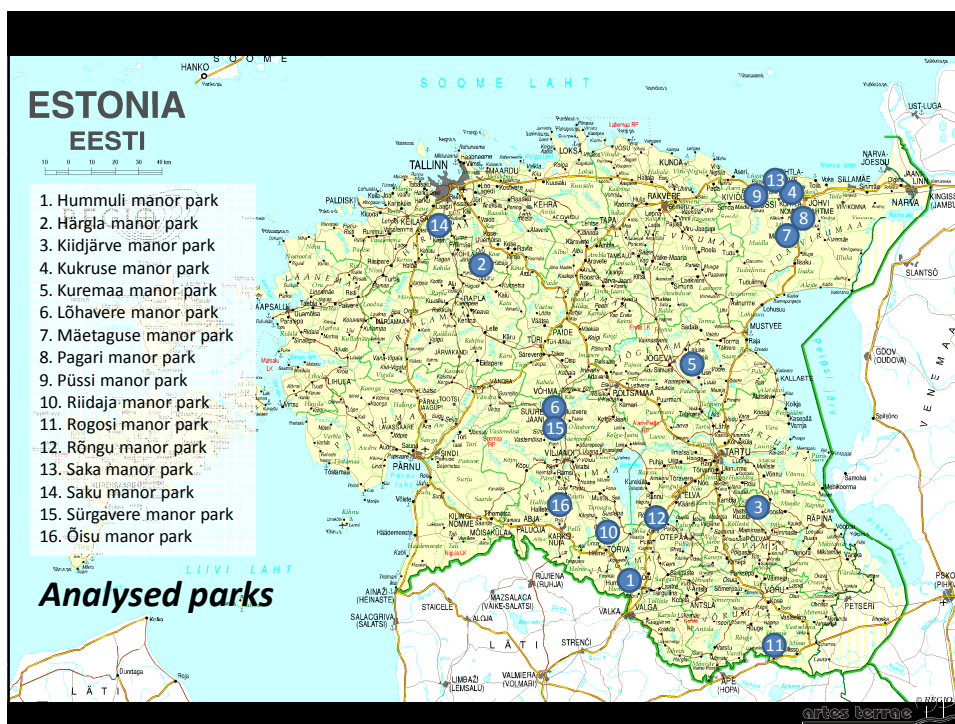
## Method

The authors analysed the proportion of distinct tree species on basis of the detailed inventory of 16 nature protected manor parks. Some other characteristics, notably the diameter, were also analysed.

In the research there were used a selection of works of Artes Terrae OÜ in the period of 2003-2009.

Previous research in the field is considered as well as the list of indigenous tree and shrub species and the list of unwanted species in the so-called *black book* of species.

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### *Analysed parks*

	Name	Author(s) dendrological assessment	Year	Nature protected	National heritage list
1	Hummuli manor park	Sulev Nurme, Tanel Breede	2008	X	X
2	Härgla manor park	Urmas Roht	2007	-	X
3	Kiidjärve manor park	Edgar Kaare, Anu Torim	2009	X	-
4	Kukruse manor park	Sulev Nurme, Kärt-Mari Paju	2008	X	-
5	Kuremaa manor park	Sulev Nurme	2006	X	X
6	Lõhavere manor park	Sulev Nurme	2009	X	-
7	Mäetaguse manor park	Sulev Nurme	2004	X	X
8	Pagari manor park	Urmas Roht	2007	X	X
9	Püssi manor park	Sulev Nurme, Tanel Breede	2009	X	X
10	Riidaja manor park	Sulev Nurme, Andres Viitkar	2006	X	X
11	Rogosi manor park	Kristel Kängsepp	2003	Landscape protection area	X
12	Rõngu manor park	Sulev Nurme, Tanel Breede	2008	X	-
13	Saka manor park	Heino Laas, Sirle Treumuth	2008	X	X
14	Saku manor park	Olev Abner	2007	X	X
15	Sürgavere manor park	Sulev Nurme, Kersti Saloste	2008	X	-
16	Õisu manor park	Jüri Jänes	2008	Landsscape protection area	X

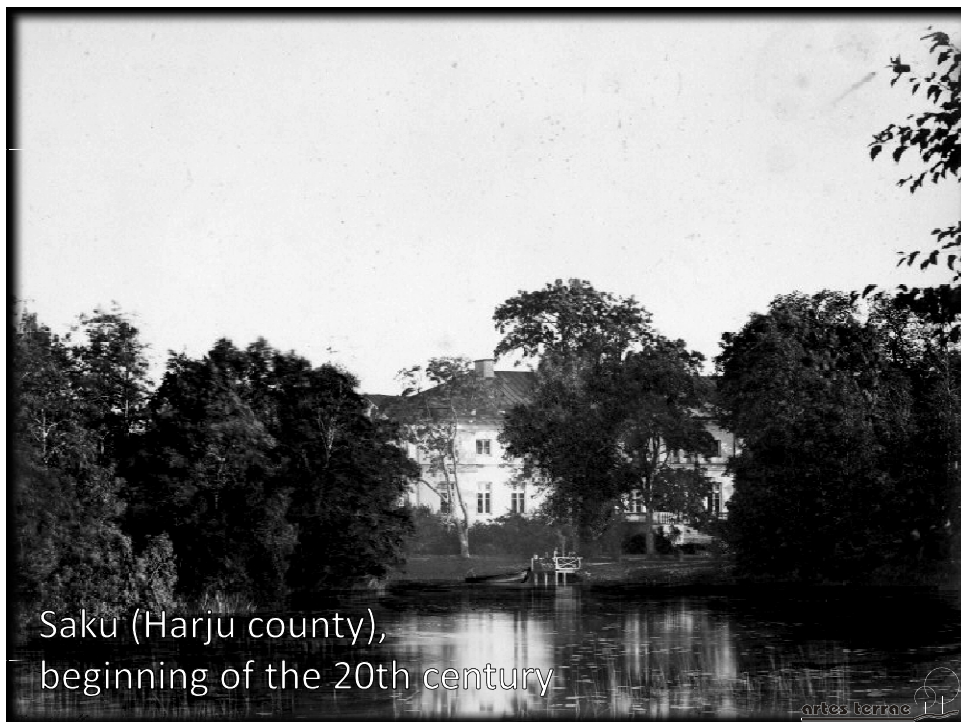
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### ***Analysed parks***

In the course of the analysis of the selected parks the following data were chosen:

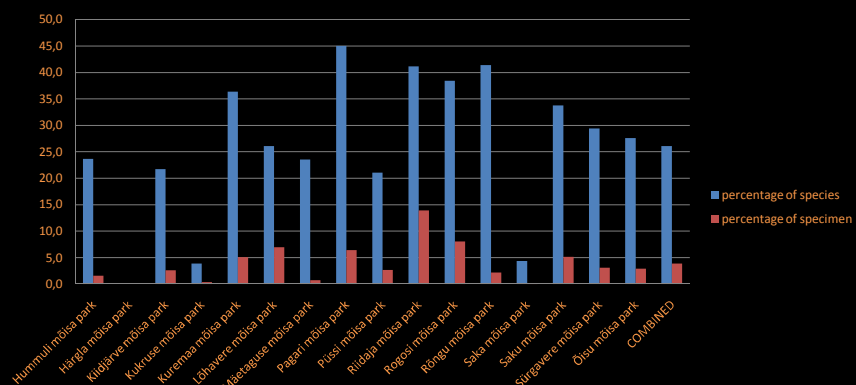
- the number of tree and shrub species and specimen
- the number of old (with greater diameter) tree species and specimen
- the number of indigenous tree species and specimen
- the number of species and specimen listed in the so-called *black book* (unwanted species)
- the number of species listed in the list of Dietrich (1865)

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## Preliminary results

The proportion of species compared to the proportion of specimen:  
shrubs

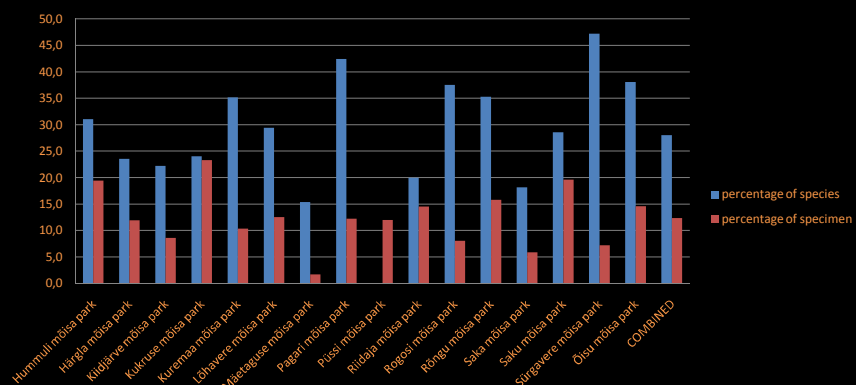


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## Preliminary results

The proportion of species compared to the proportion of specimen:  
conifer trees

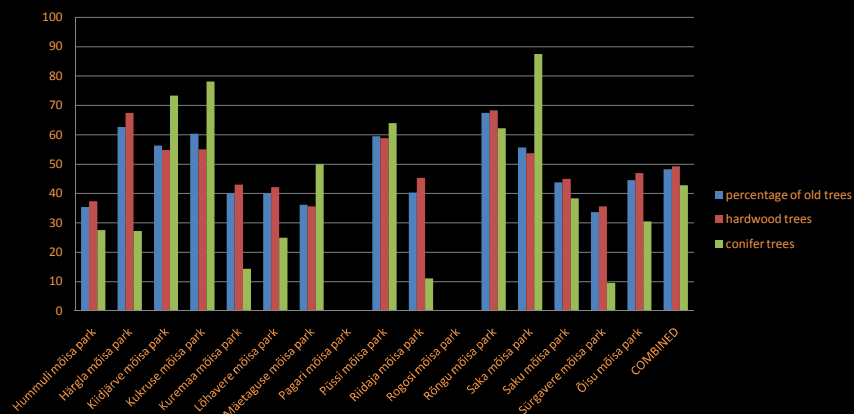


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## Preliminary results

The proportion of old trees in the parks

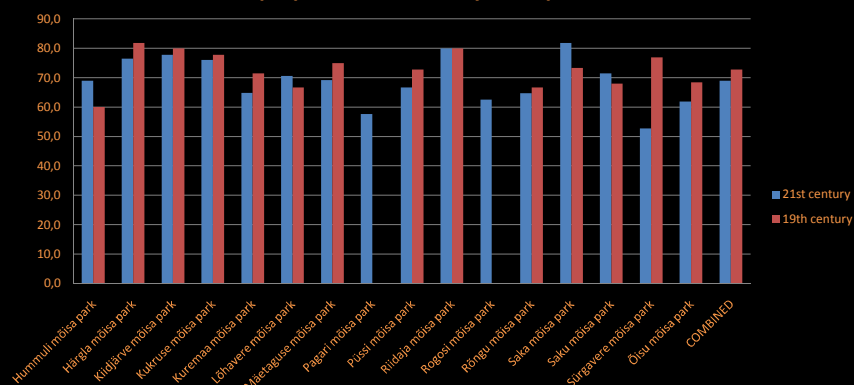


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## Preliminary results

The proportion of current leafy tree species compared to the proportion of old leafy tree species



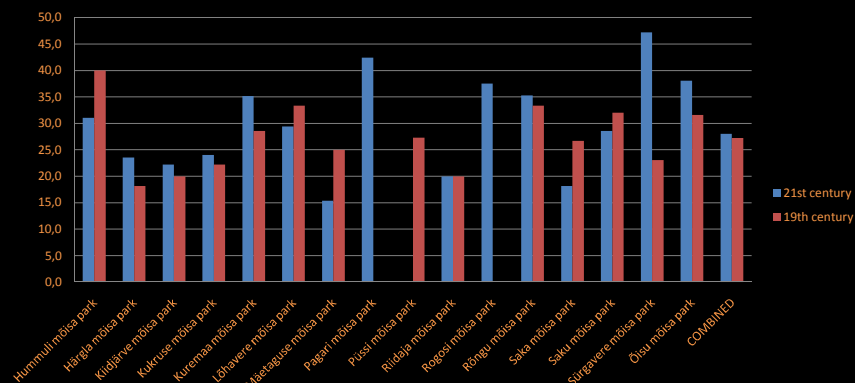
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## Preliminary results

The proportion of current conifer species compared to the  
proportion of old conifer species



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## Conclusions

- A limited number of species stand for the majority of specimen, the tendency is stronger within shrubs and conifer trees
- Roughly half of the trees growing in manor parks today is the original plantation, the proportion differs from 35% to 67%, among conifer trees from 10% to 88%
- Out of 51 indigenous species there were 19 among old trees represented in analysed parks
- 3 of the old tree species are listed in the so-called *black book*
- Due to the lack of original plantation plans it is not possible to determine the original number of species and specimen. When using the list of Dietrich (1865) we may assume which species were used but we cannot know where and how many. In addition, there are a few order lists and invoices on trees and shrubs from the period of the construction of original park.

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## ***Järeldused***

- Valdav osa ajaloolistes parkides kasvavatest liikidest on pärismaised või XIX sajandi II poolel parkidesse istutatud introductseeritud liigid.
- Parkide liigirikkus on XX sajandi jooksul kahanenud eelkõige introductseeritud liikide väljalangemise tõttu. Seejuures suurem väljalangemine on toimunud eelkõige lehtpõõsaste ja okaspuude osas.
- Enamus täna parkides kasvavatest liikidest on algselt mõisaparkides kasutusel olnud, millest pärismaiste liikide osakaal on suurem kui kaks kolmandikku.
- Kõige enam esineb pärismaiseid nn kõvu lehtpuuliike.
- Introductseeritud puittaimedest kuuluvad mõned nn musta nimekirja, kuid arvestades isendite paiknemist pargiruumides võib kindlalt oletada, et valdav osa neist kuulub algupäraste istutuste või hilisemate täiendistutuste juurde

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## ***Thank You!***

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