THE FIRST RESULTS OF THE EXPERIMENTAL AREA OF TÜNDÉRHEGY
(PЕРВЫЕ РЕЗУЛЬТАТЫ С ЭКСПЕРИМЕНТАЛЬНОЙ ПЛОЩАДИ ТЮНДЕРХЕГИ)

Introduction
The Pilisi Parkerdő Zrt.’s Forestry department of Budapest is planning to establish a forestry reserve in the Mountains of Buda in the near future. That is how it came the survey of the assigned study area nearby Tündérhegy in the summer of 2012. The measured data of the plot provide the description of the current state. The further results of the surveys, that will be done specified from time to time, can be compared against the recently measured conditions. These comparisons can give a momentous help during the research of the processes occurring in time in the forest, in other words during the research of the forest dynamics.

On another research area, we can also make comparison among the surveys about the temporal changes in tree-stand structure. From the surveys, done every five years, we can get information of the tree-stand structure changes such as mixture ratio, density, the change of closure of canopy layer or ingrowth and loss of prime numbers.

Description of the area
The complete selected plot can be found in downtown part of Budapest, in the XII district. It’s infrastructure is well-established and easily approachable.

The stand is very unique and it is protected by nature protection and the Natura 2000 network. The cutting is limited, the last one was in 2011 and was not forceful. The
most part of the forest was afores-
ted in the past seventy years, whi-
ch you can see well in the pictures.
The plant community shows ravi-
nes character, it is extremly rich
in species, you can find a lot of re-
served herbaceus plants. We have
to mention the huge 194 years old
beech, 155 years old sessile oak
and the 107 years old common ash
trees that is also described in the
forest planning.

Sadly these days a local forester
has to face many problems due the
close capital and the well estab-
lished infrastructure. The biggest
problems are the illegal bumps
and settlements of homless peop-
le. The newest problem is downhill
cycling which is widespreaing
in the hills of Buda increasing the
erosion and debase the area.

Material and method
During the field measurement
I surveyed all of the boles with the
help of the Field-Map program.
This is a software which can com-
unicate between data collecti-
ng-measuring equipments and the
computer. The main point of the
system is mapping, it can mana-
ge many mapping and measuring
tasks virtually. The recorded datas
can be stored in the own reference
point network.

I measured every piece of tree
ont he plot. I measured breast di-
ameter and height on every tree
which had breast height diameter
over 7 cm. The used equipment
was Vertex IV. I also mapped the
logs of dead trees.

I examined 1380 wood specimens, based on different perspec-
tives, provided with GPS coordi-
nates. After the survey I could
complete detailed forest stand
structure.

Results
I have analysed the vertical and
horizontal structure of the forest
stand. Tree species proportion was
also examined.
Species proportion was also
examined in the different diameter
and height classes (Fig. 6 and 7).
Summary
The history and the plants community of the forests deserves appreciation and attention. The previous woodcutting and the leeway of this activity significantly influenced the image of the forest. There are still very old beech trees and sessile oak trees in the forest but their renewal is complicated in the new competitive circumstances, without the human interference these trees will be suppressed. However, in the meantime, a new, rich in species and closed plant-community evolved and spreaded slowly by itself. The observation of these two processes could help to understand the unbidden forest dynamics in the long term.

Figure 6. Groups of diameters at 1,3 m and species ratio over 50 cm diameter

Figure 7. The height of the trees in groups and species ratio at deadwoods