



Silvicultural analysis of beech coppice forests in upper Bregalnica region



HELVETAS
Swiss Intercooperation



ФАРМАХЕМ
ФАРМАСЕМ



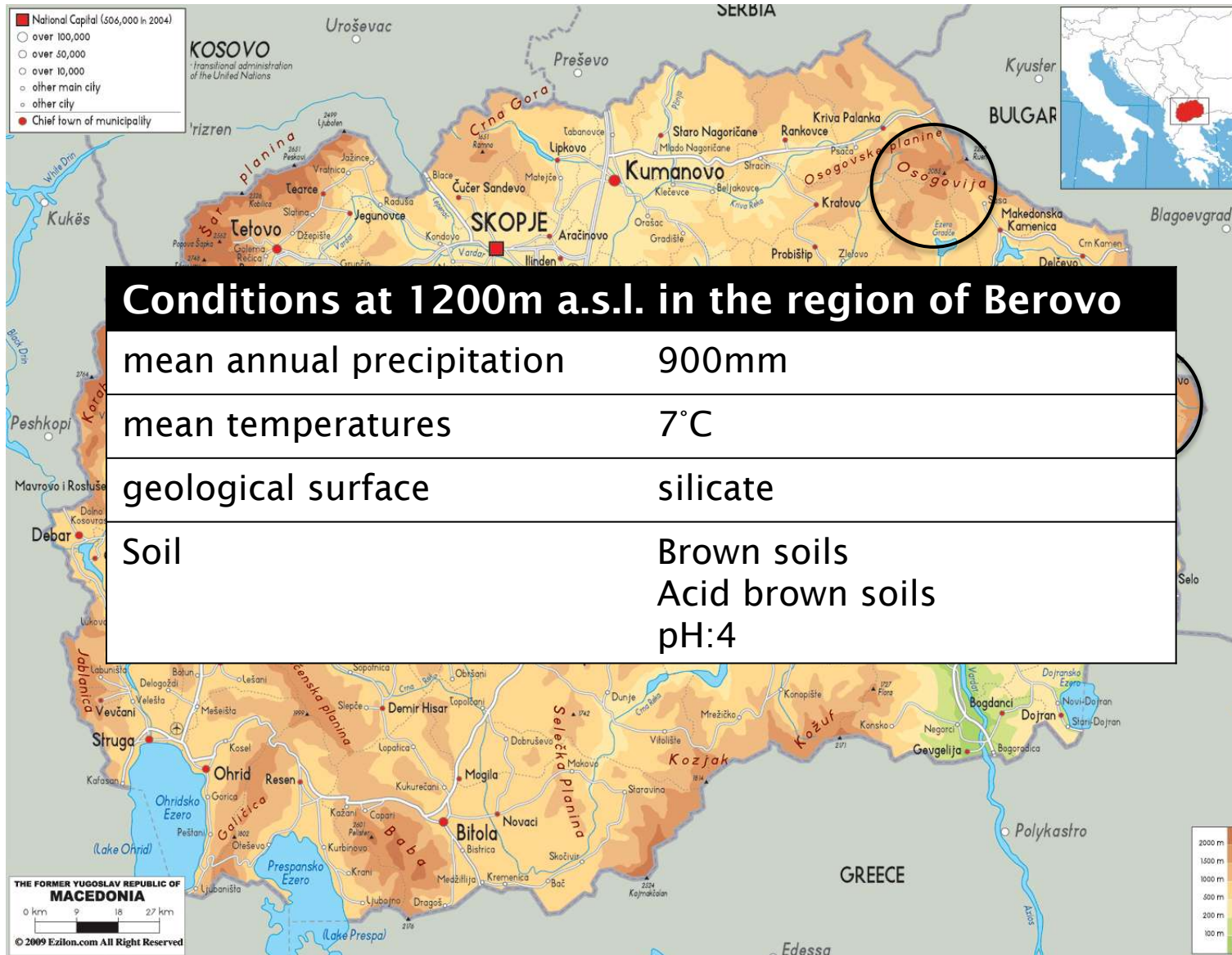
ПРОГРАМА ЗА
ЗАЧУВУВАЊЕ
НА ПРИРОДАТА



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

Region



Aims of my work

- ▶ *What is the optimal management of beech coppice forests?*
- ▶ *In what ways beech coppice forests are interesting for timber production?*
- ▶ *What is the optimal rotation time for beech coppice forests?*
- ▶ *Which growth is expected in beech coppice forests?*

Methodology of the inventory

- ▶ Circular areas of 500m², radius= 12.65m
- ▶ Total ten different ages from 20 to 65 years old
- ▶ 5 different ages in the region Kochani and 5 in Berovo
- ▶ Per age 5 Plots
- ▶ Total 50 plots in both region
- ▶ Diameter above 7cm (with the diameter measuring tape)
- ▶ Diameter between 3-7cm were just counted

Fieldwork

Position-fixing
Setting up of the plot



Distance and angle



Collection of the data at
the tree



Data

Age:	35	Plot:	II (3)
Radius:	12.6		
Trunks (Treenumber)			
Number			
Höhe			
Breite			
Tree Number	Azimut	Distance	Tree
1	115	4.70	Fagus
2	105	10.4	Fagus
3	123	6.00	Fagus
4	111	11.70	Fagus
5	105	11.80	Fagus
6	150	2.80	Fagus
7	146	3.60	Fagus
8	164	3.80	Fagus
9	160	11.30	Fagus
10	178	11.80	Fagus
11	208	10.90	Fagus
12	235	4.00	Fagus
13	221	7.45	Fagus
14	224	5.90	Fagus
15	224	7.70	Fagus
16	234	8.50	Fagus
17	238	8.70	Fagus
18	238	7.60	Fagus
19	243	8.95	Fagus
20	262	4.60	Fagus
21	262	4.20	Fagus
22	283	5.60	Fagus
23	266	6.00	Fagus
24	250	8.60	Fagus
25	255	7.90	Fagus
26	283	7.70	Fagus
27	269	8.40	Fagus
28	284	10.70	Fagus
29	253	12.7	Fagus
30	283	12.1	Fagus
31	274	11.8	Fagus
32	296	8.8	Fagus
33	305	6	Fagus
34	304	3.7	Fagus
35	335	4.1	Fagus
36	360	4.4	Fagus



				≤ 7cm	Notice
14	15	Stump area	Total		
					1
					10
					3
					6
					3
		1,30*2,00			12
					7
					4
		70*75			5
					9
					1
					8
					4
					7
					4
					5
					6
					3
					13
					6
					3
					6
					3
					1
					3
					5
					2
					1
					3
					5
		1,40*1,75			7
					8

Stands

Around 30 years old

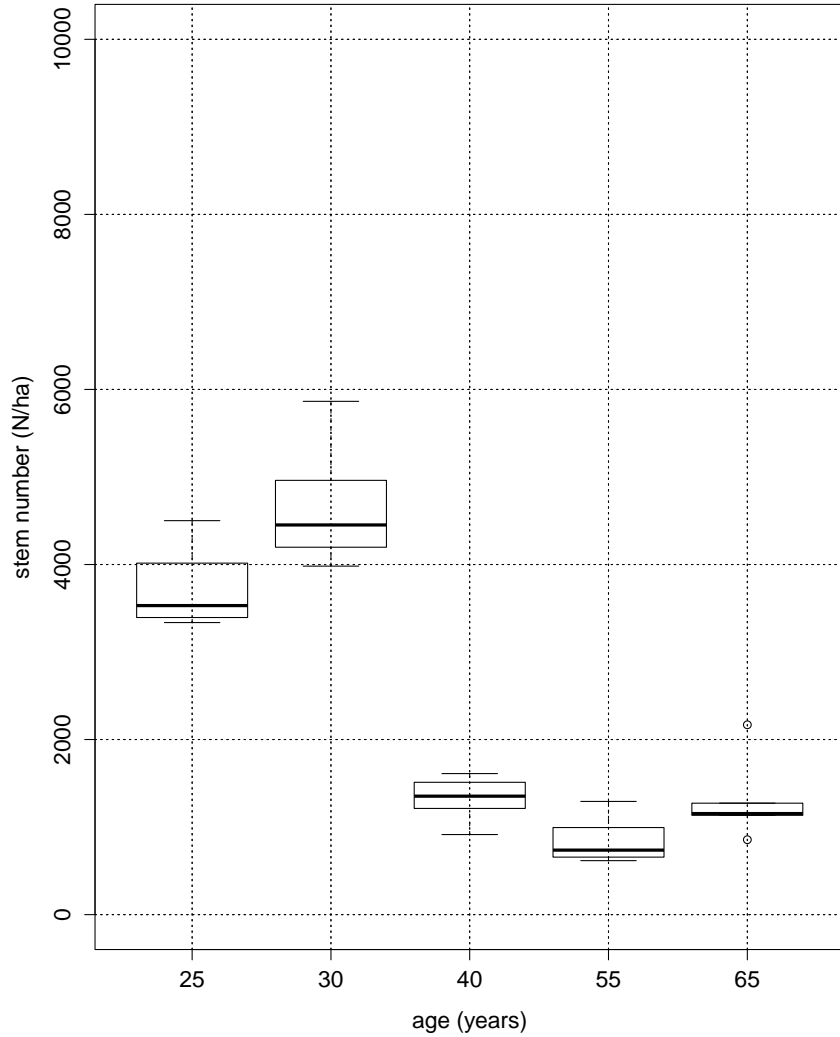


Over 60 years old

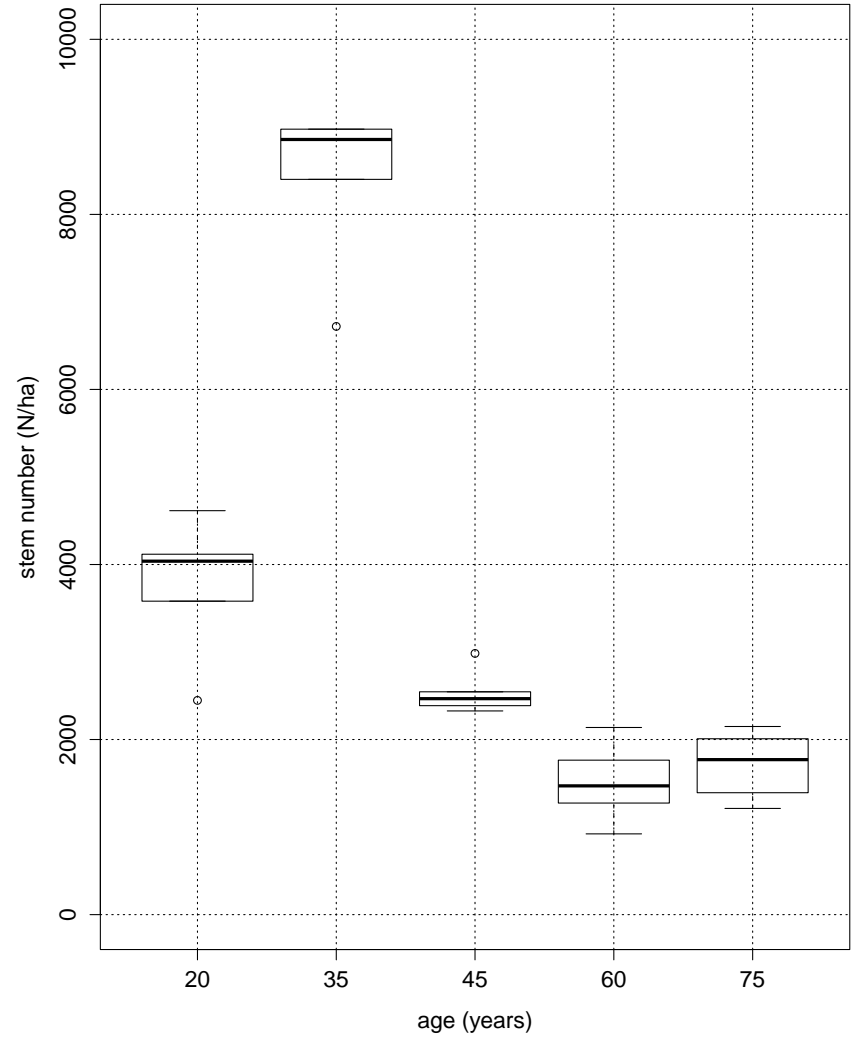


Results stemnumber

Kochani

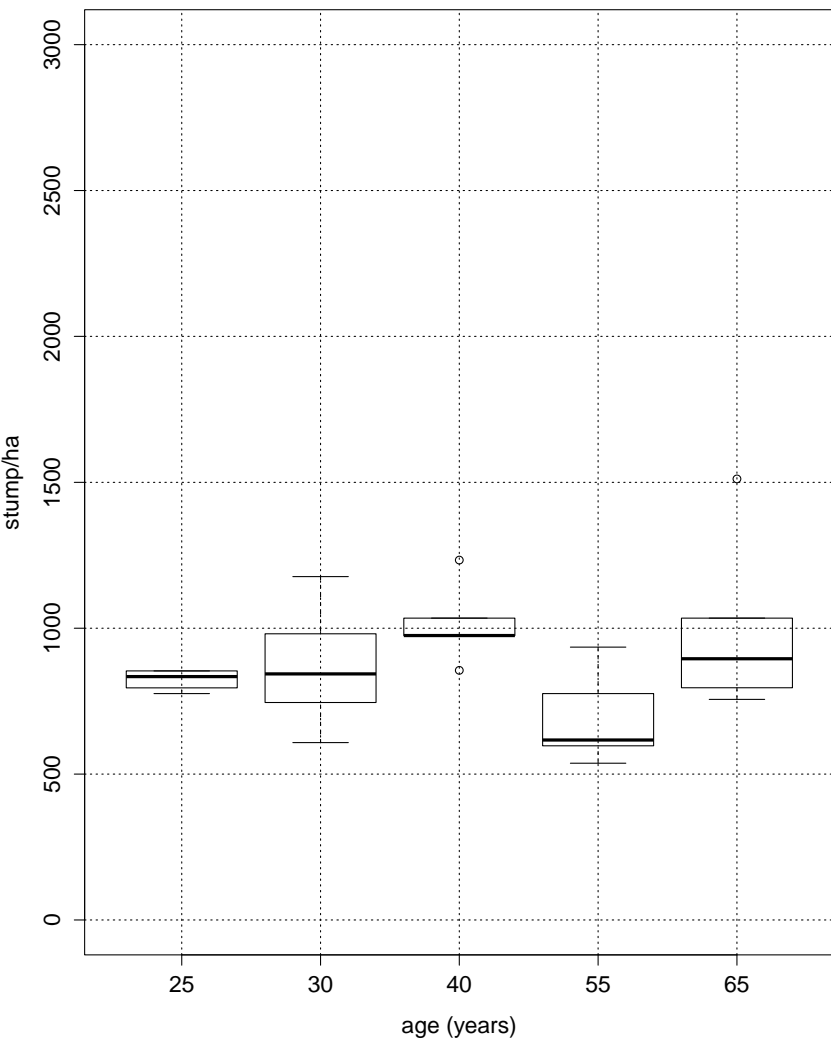


Berovo

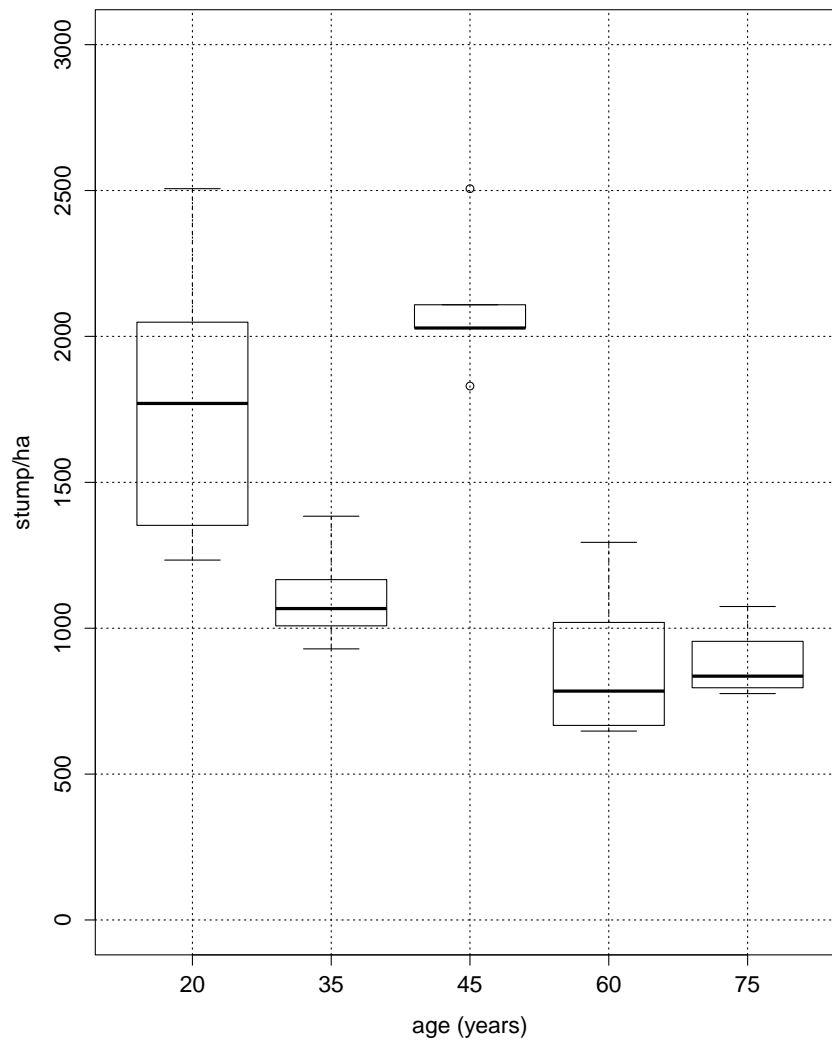


Results: stumps

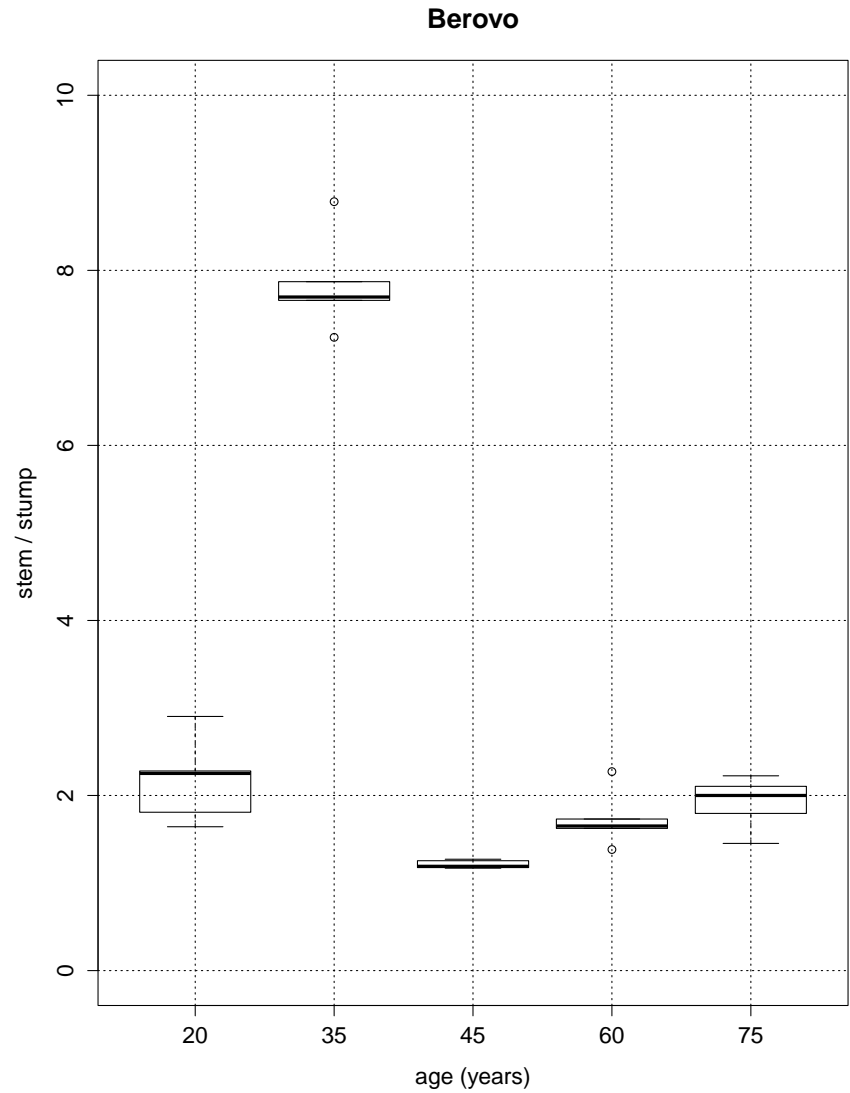
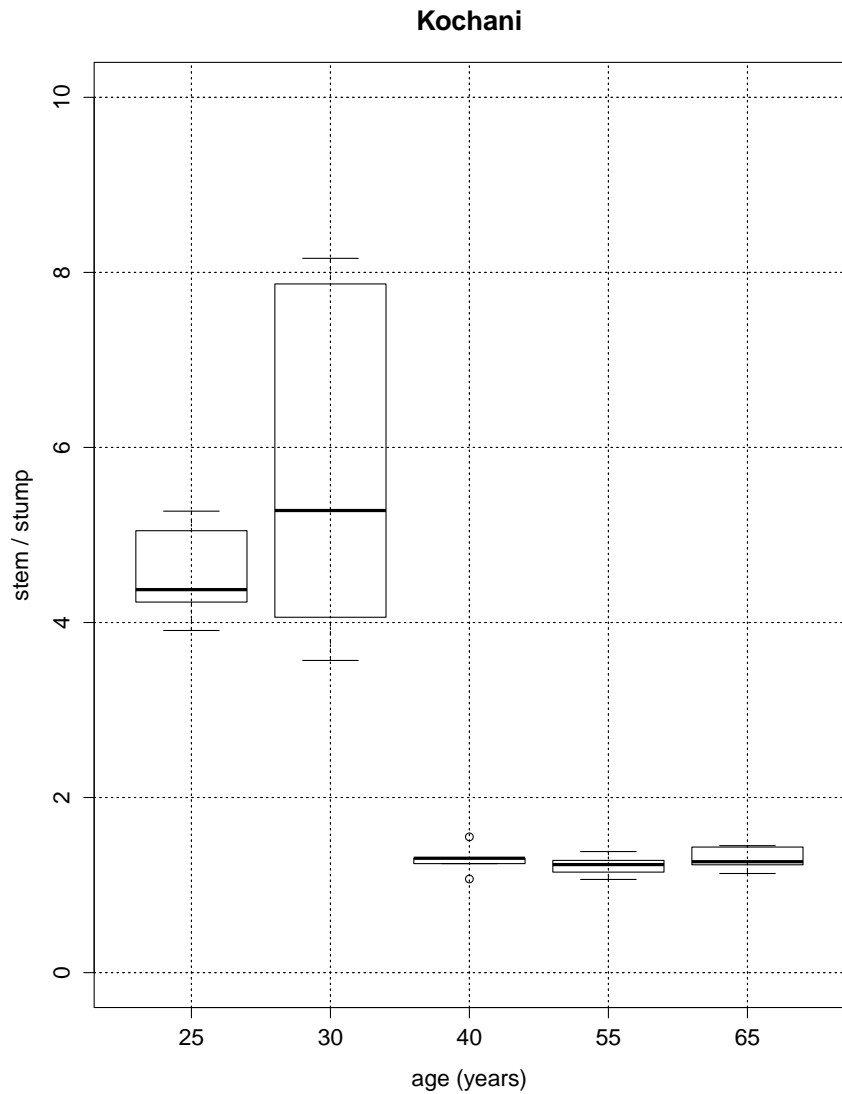
Kochani



Berovo

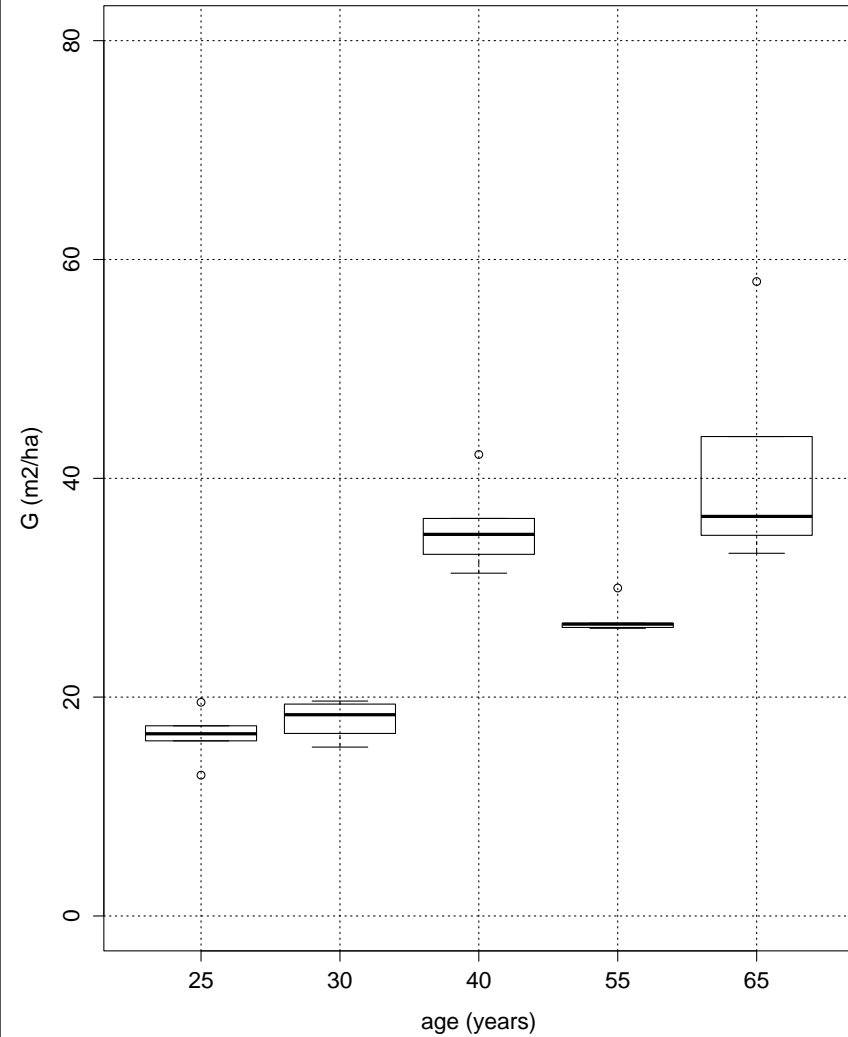


Results: stem per stump

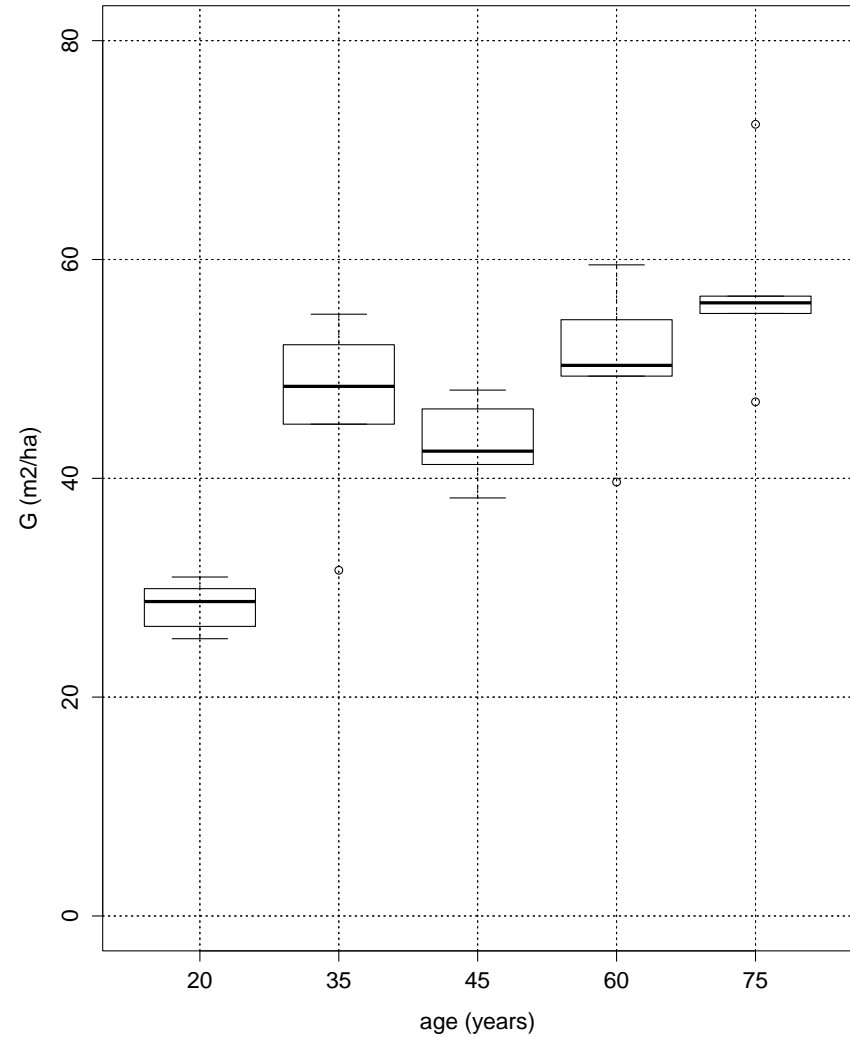


Results base area

Kochani

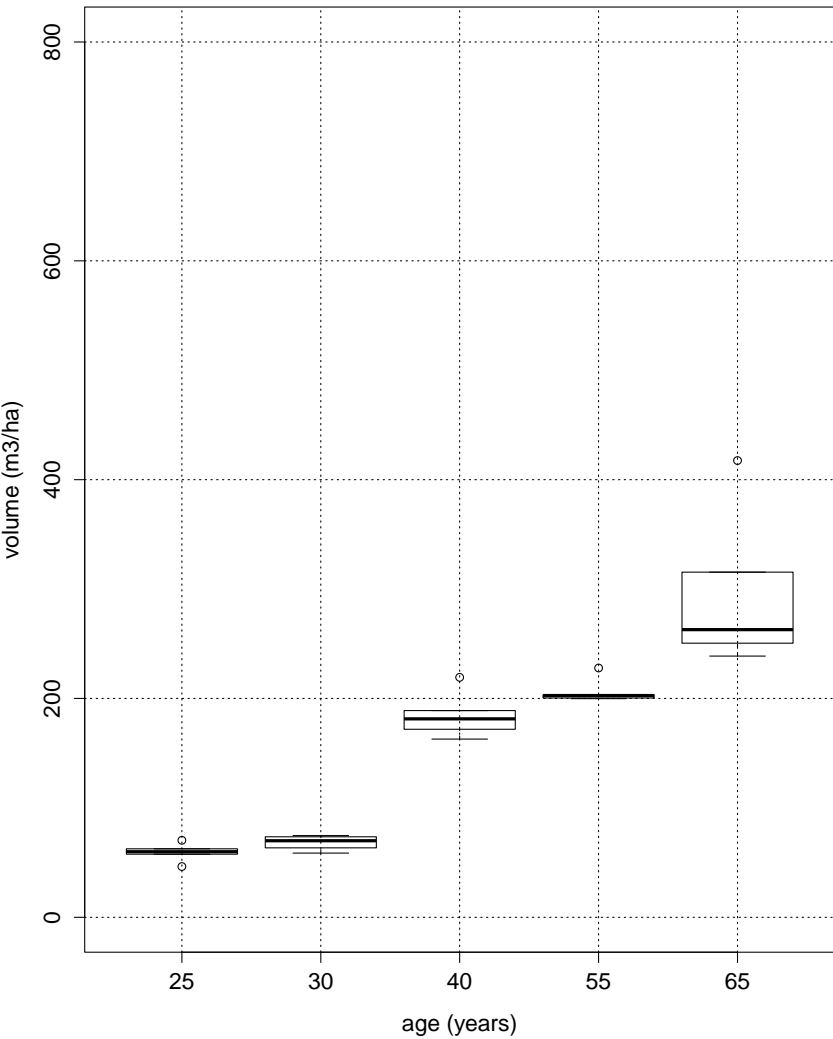


Berovo

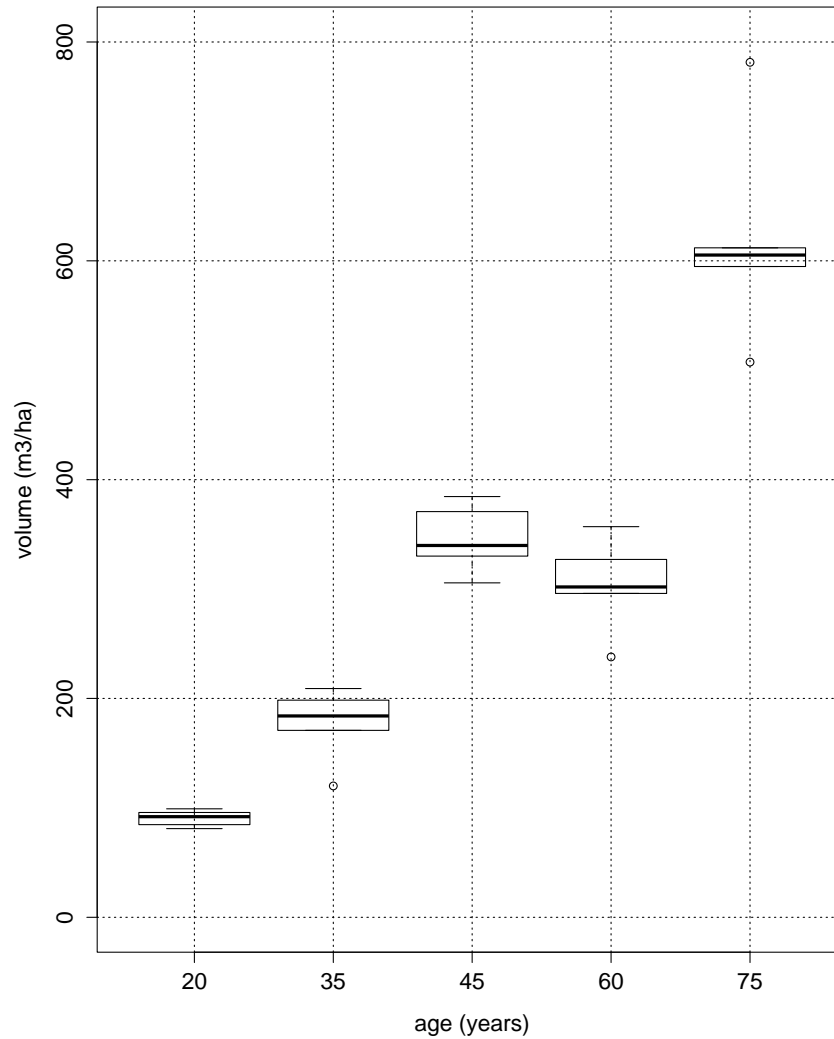


Results Volume

Kochani



Berovo



Challenges and problems

- ▶ partly unequal stands
- ▶ Part inaccurate information when or if there was a thinning
- ▶ Photo Sphere:

75 years old Berovo

<https://plus.google.com/u/0/118298746717727713377/photos/photo/6188912966512525474?pid=6188912966512525474&oid=118298746717727713377>

35 years old Berovo

<https://plus.google.com/u/0/118298746717727713377/photos/photo/6187741137881570114?pid=6187741137881570114&oid=118298746717727713377>

25 years old Kochani

<https://plus.google.com/u/0/118298746717727713377/photos/photo/6207836527880153826?pid=6207836527880153826&oid=118298746717727713377>

A photograph of a forest scene. In the foreground, a large, gnarled tree trunk with a reddish-brown bark is prominent, leaning slightly to the right. The ground is covered in a thick layer of fallen, brown leaves. In the background, many thin, vertical tree trunks are visible, creating a dense forest. The lighting is natural, suggesting a daytime setting.

Thanks for your attention