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Biomass allocation and carbon potential of beech coppice forests in Eastern Macedonia



HELVETAS
Swiss Intercooperation



**ФАРМАХЕМ
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ПРОГРАМА ЗА
ЗАЧУВУВАЊЕ
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Schweizerische Eidgenossenschaft
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Swiss Agency for Development
and Cooperation SDC



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Overview

- Introduction
- Methodology
- Problems
- Data
- Calculations

The main research questions included

- the relation between aboveground- and belowground biomass of beech coppice trees in different age classes
- the comparison of beech high stem- and coppice forests with regard to biomass stockage and allocation
- the overall carbon stock potential of beech coppice forests in Eastern Macedonia







Datasheet Fieldwork

Stand	Tree	Coordinate	Height	DBH	DGH	H.B.G	Age	G1	G2
3	2	41.98598° 022.32157°	8.8 m	9.8	13	1115	~ 20	75.42963961	132.7322896
				10	16			78.53981634	201.0619298
				7	9			38.48451001	63.61725124
				7.5	11			44.17864669	95.03317777
				10.5	17			86.59014751	226.9800692
								323.2227602	719.4247177

Compartm. 1	Compartm. 2	Compartm. 3	Compartm. 4	Compartm. 5	Compartm. 6	Compartm. 7	Compartm. 8	Compartm. 9	Compartm. 10
Leaves <1cm	Br. 1 - 4 cm	Br. 4 - 7 cm	Br. 7 - 10 cm	Br. 10 - 20 cm	Br. > 20 cm	Trunk	Rts. <1.5 cm	Rts. 1.5 - 5 cm	Rts. > 5 cm
19.4	41.6	48.4	65.2	28.8		15	3	6.2	37.4
19.4	41.6	48.4	65.2	28.8	0	15	3	6.2	37.4

fresh biomass ABG BGB

Samples fresh

617	2185	222	821	1139		0	490	80	202
		359	714	906				54	213
		251	405	289				117	219

Samples dry

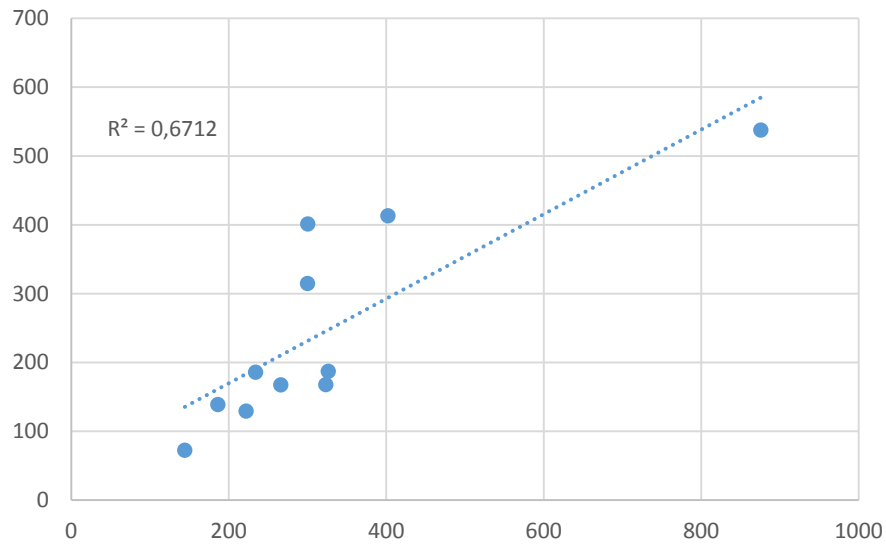
377	1282	142	583	817			329	49	112
		254	492	574				33	115
		146	257	197				67	131

11.85380875 24.40787185 31.11851925 44.20023521 19.51210423 9.872738306 2.014285714 3.71227208 21.10027047
 dry biomass ABG BGB
 total 167.7921059

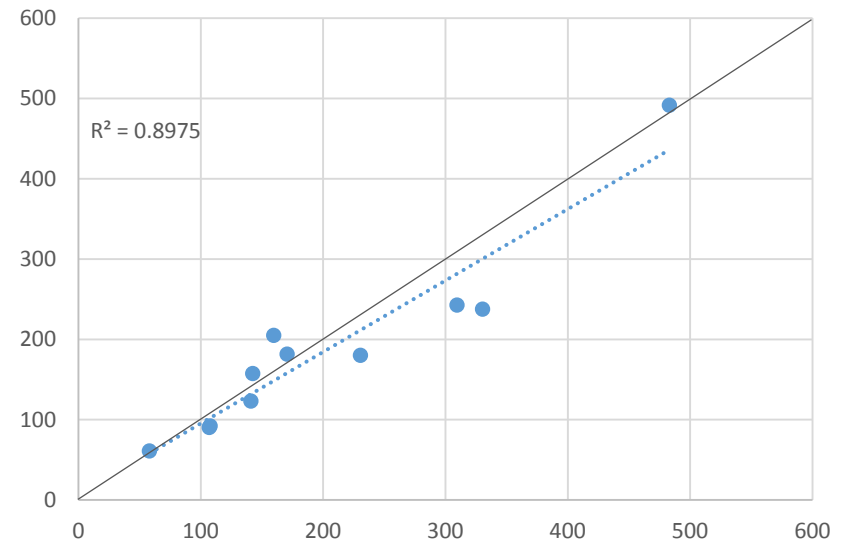
BGB : ABG (%)

Data evaluation

Correlation btw. G (cm²) and tot. Biomass (kg)



AGB_{tot} (kg) (Chave et al. 2014) / AGB_{tot} (Kg)





Answering the research questions

The final research results will be available in December 2015

A photograph of a dense forest with many tall, thin trees. The ground is covered in brown leaves and fallen branches. A path leads through the trees from the left towards the center. The trees have light-colored bark and green foliage. The lighting is soft, suggesting an overcast day or a shaded forest.

**Thank you for
your attention**