

Mainprotocol workpackage T 3.10

- 1. Selected and installed HIPs (region-specific)
- 2. Completed field work installation (region-specific)
- 3. Planned measuring campaign 2012
- 4. Field work manual

1. Selected and installed HIPs

Finl and

Plot ID	03	07	06	10	09	21	25	26				
specification	Mor	10	Мо	no	Me	ono	3-Speci es-Mi x					
speci es	Betula sp.		Pi cea abi	es	Pinus syl	vestri s	Betula s	р.				
							Picea a.					
							Pinus s.					

Pol and

Plot ID	01	24	83	168	50	80	51	14	107	163
speci fi cati on	Mor	10	M	ono	Mo	no	Mono	Mono	3-Sp.	5-Sp.
speci es	Pi cea abi es	3	Pi nus syl ve	s estri s	Quero robui	cus r	Betul a sp.	Carpinus betulus	Picea a. Pinus s. Quercus r.	Picea a. Pinus s. Quercus r. Betula sp. Carpinus b.

Romani a

Plot ID	51	118	18	90	07	08	137	44	88	14
specification	Mo	no	Мо	no	Mo	no	2-Sp.		3-Sp.	4-Sp.
speci es	Fagus syl vat	i ca	Abi es al ba	6	Pi cea abi es	9 S	Abies a. Fagus s.	Pi cea Fagus Abi es	а. S. а.	Fagus s. Picea a. Abies a.
										Acer c.

l tal y

							1				
Plot ID	11	102	41	114	22	35	110	16	101	115	113
specification	M	ono	M	ono	Mo	no	Mono	Mono	3	-Sp.	5-Sp.
speci es	Quer	cus	Quer	cus	Casta	nea	0strya	Quercus	Quero	cus p.	Quercus p.
	petraea		cerri s		Sati va		Carp.	Hex	Quero	cus c.	Quercus c.
									Casta	nea s.	Castanea s.
											Ostrya c.
											Quercus i.

Spai n

Plot ID	09	09 10 15 17 19 2		20	02	07					
speci fi cati on	Mor	סר	Мо	no	Me	ono	3-Speci es-Mi x				
speci es	Quercus fa	ngi nea	Pinus nig	ra	Pinus syl	vestri s	Quercus f. Pinus n.				
							Pinus sy	Ι.			

MAIN PROTOCOL FOR WORK PACKAGE T 3.10 FRESHWATER PROVISIONING, WATER QUALITY Person responsible: Simon Kolb, Forest Research Institute Freiburg, Department of Soils and Environment (Simon.Kolb@forst.bwl.de)



2. Completed field work installation



D:Deposition sampler





the state of affairs:

		A: Permanent	B: Soil moisture	C: Mobile	D: Depo.	E:Meteo-
		Suction cup	Data logger	Suction cup	Sampler	logger
Finl and						
	03	X	X	X		
	07	X	X V	v	01	Net algorithms
	10	X	X	X	01	Not pranned so
	09	X	X	X	02	Stations in the
	21	X	X	X	05	vicinity
	25	X	X	X		vronney
	26	X	X	X		
	20	Λ	Λ	Λ		
Pol and						
	01	Х	Х			
	24	Х	Х			
	83	Х	Х			
	168	Х	Х	Will be		
	50	Х	Х	carried out	01	(
	80	Х	Х	at the	02	6 are needed
	51	Х	Х	the measuring	03	and pranned
	14	Х	Х	campai an		
	107	Х	Х	campargri		
	163	Х	Х			
	One fur	ther plot (3-Spe	Mix) is planned			
Romani a						
	51	X	Not yet			
	118	in spring	Not yet			
	18	X	Х	Will be		
	90	Х	Not yet	carried out	01	No decision so
	07	Х	Not yet	at the	02	far,
	08	Х	Not yet	beginning of	03	at least 3 are
	137	Х	Not yet	the measuring		needed
	44	Х	Not yet	campai gn		
	88	Х	Not yet			
	14	Х	Not yet			
Italy	11	V	V			
	100	X	X V	4		
	102	X	<u>×</u>			
	41	X	X	Will be		
	114 22	A V	A V	carried out	01	1 wore bought
	22	^ У	л У	at the	02	4 were bought,
	110	х Х	Х	beginning of	02	installed
	16	X	X	the measuring	00	mstarrou
	101	X	X	campaign		
	115	X	X	1		
	113	X	X	1		
Spai n						
	09	Х	Х			
1	10	Х	Х	Will be		No decision so
	15	Х	Х	carried out	01	far, waiting
1	17	17 X	Х	at the	02	for offers, at
	19	Х	Х	beginning of	02	least 3 are
1	20	Х	Х	the measuring	00	needed, 1 for
	02	Х	Х	campaign		each cluster
L	07	Х	Х			
1						1



Open questions:

- FVA can make 13 rain gauge samplers available for the project (Who needs?)
- The Italian Team (Andrea) needs a vacuum pump (?) (Who also needs?)
- Lab bottles for romanian sites (Who also needs)
- I need all addresses for sending back lab bottles
- What about the data loggers (Em50) for the romanians sites? Stand of affairs?
- Deposition samplers (coordinates?)
- Marking of previous MSC sampling point crucial for further Measurements
- One data logger (Em50) for Poland (Bogdan/Dawid), who can make available (Olivier?Fernando?)
- -> 2 data loggers (Em50) from the Spanish team still lying in my office (how they may be used?)
- -> 1 data logger (Em50) will remain at the romanians site. (how it may be used?)

Alterra needs shared relevant data:

- The litterfall, i.e. dry mass, leaf area (SLA) and elemental composition (C, N, P, S, Ca, Mg, K, pH) of leaves, branches and reproductive organs for all site-specific tree species (TIII.7).
 - → At all sites or also only HIPs
 - → Litterfall It's sampled how? (Point measuring by net?)
 - → Who will measure the ingedients? Only N+C?
- Nitrogen content of leaves of (a) mature and (b) abscised leaves of all tree species present giving N resorption information for all site-specific tree species (TIII.6).
- Belowground nitrogen (T III.6) and carbon stocks (TIV2) at the study plots in the organic soil horizon and in the mineral soil layers: 0-10 cm, 10-20 cm, 20-40 cm.



3. Planned measuring campaign 2012/2013



Bi-weekly data collection (marked in green = sampling day) Sampling campaign will take 1 ½ Year (Till august 2013)

2013		Juni Juli August September Oktober November Dezember			2 2 2 2 2	3 3 3 3 3 3		0 0 0 0	0 0 0		8 padd 8 8 8 8 8		padd 10 10 10 10 10 10 10	11 11 11 11 11	12 12 12 12 12 12	13 13 13 13 13 13 13	14 14 14 14	15 15 15 15 15 15 15	16 16 16 16 16 16 16 16 16 16 16 16 16 1	17 17 17 17 17 17 17 17 17 17 17 17 17 1	18 18 18 18 18 18	19 19 19 19 19	20 20 20 20 20 20 20	21 21 21 21 21 21	22 padd 22 22 22 22 22	23 23 23 23 23 23 23	padd 24 24 24 24 24 24 24	25 25 25 25 25 25	26 26<	27 27 27 27 27 27 27	28 28<	29 29 29 29 29 29	
-		August Septemb		- (2	о С	4 4	5	9	7 7	8 8	<u>б</u>	0 10	1 11	2 12	3 13	4 14	5 15	6 16	7 17	18	9 19	20 20	1 21	22 22	23 23	24 24	5 25	26 26	27 27	28 28	29 29	30
2013	-	Ini	-	- (17	0	4	S	9	7	8 padd	D	add 10 1	11	12 12	13 13	14 14	15	16	17	18	19	20	21 21	22 p add 2	23	add 24 2	25 25	26 2	27 27	28	29	30
-		Mai	-	- (N	0	4	5	9	2	8	0	10 pa	11	12	p add 13	14	15	16	17	10	19	20	21	22	23	24 pa	25	26	p add 27	28	29	30
-	-	April	2 00 x	- (2	с С	4	5	9	7 7	8	6	10 10	11	12 12	13 13	14 14	15 p31 15	16 16	17 17	18	19 16	20 20	21 21	22 22	23	24 24	25 25	26 26	27 27	28	29 p add 29	30
-		sbruar Marz		- (2	3	p26 4 p28	5	9	7	8	6	10	11	12	13	14	15	16	17	p 27 18 p 29	19	20	21	22	23	24	25	26	27	28	29	30
-		9 9	-	- (7	e	4	ۍ ا	9	24 7	8	σ	10	11	12	13	14	15	16	17	18	19	20	25 21	22	23	24	25	26	27	28		





Most important months (yellow mark the time windows of possible wet period) of the year for sampling. In view of aims inside these periods measurements ought to be realized.

		Jan	Feb	Mrz	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1	Finland												
2	Poland												
3	Romania												
4	Germany												
5	Italy												
6	Spain		?								?		

Timetable/Plan for measuring campaign 2012/2013 should give an optimal resolution.

BUT: Sampling depends on capacity of time and availability of personnel, and on time exposure according the accessibility of the plots. It should be basis of discussion!

One Day of sampling includes:

- A: Collecting water out of the permanent suction cup and reinstalling of vacuum pressure
 - → Estimated time needed per plot: 5 min
- B: Downloading of soil moisture data (data logger Em50)
 → Estimated time needed per plot: 5 min (But: once a month should be sufficient)
- C: Collecting water out of the mobile suction cup, reinstallation of the MSC device at a new sampling point and reinstalling of vacuum pressure → Estimated time needed per plot: 15 min
- D: Collecting water out of the deposition samplers and cleaning up of samplers

→ Estimated time needed per sampling point: 5 min

E: Downloading of Meteo-data

→ Estimated time needed per sampling point: 5 min

Total time needed for one sampling day for task 3.10. (only sampling time): ~ 3.5 hours