



Ground measurement acquisition  
report for the VALERI site  
**Järvelja**

**sampled from 28/06/2005 to 01/07/2005**

Organization: Tartu Observatory  
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People participating to the field experiment:

<b>Firstname &amp; Name</b>	<b>Organization</b>
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Tõnu Lükk	Tartu Observatory
Alo Eenmäe	Estonian University of Life Sciences
Ave Kodar	Tartu University

# Site coordinates

	Lat-Long WGS-84 (Deg min.00)		UTM / WGS84 UTM		Other projection* Lambert-Est 1992	
	Lat.	Long.	Easting	Northing	Easting	Northing
Upper left corner	27 14.28408	58 18.76428	513949	6463554	689721	6468147
Lower right corner	27 17.20086	58 17.07156	516811	6460423	692721	6465147

\*The other projection user is Lambert-Est 1992. All the characteristics are provided in the following table (see <http://www.avignon.inra.fr/valeri/>, methodology page, GPS document for more information):

Geodesic Map Datum		Map Projection	
Associated Ellipsoïd	WGS-84	Latitude of origin	57.51755393055N
Semi-major axe	6 378 137	Longitude of origin	24.00 E
Semi-minor axe	6 356 752.3	Parallels:	
1/flattening	298.257 223 563	1 <sup>st</sup>	58.00 N
		2 <sup>nd</sup>	59.333333 N
Eccentricity	0.081819190842622	Xo: false easting	500000
		Yo: false northing	6375000
		Scale factor	1

## Ground control points

Control points were located from 1:50000 digital map of Estonia. Co-ordinate system used: Lambert-Est 1992.

## Description of the site and land cover

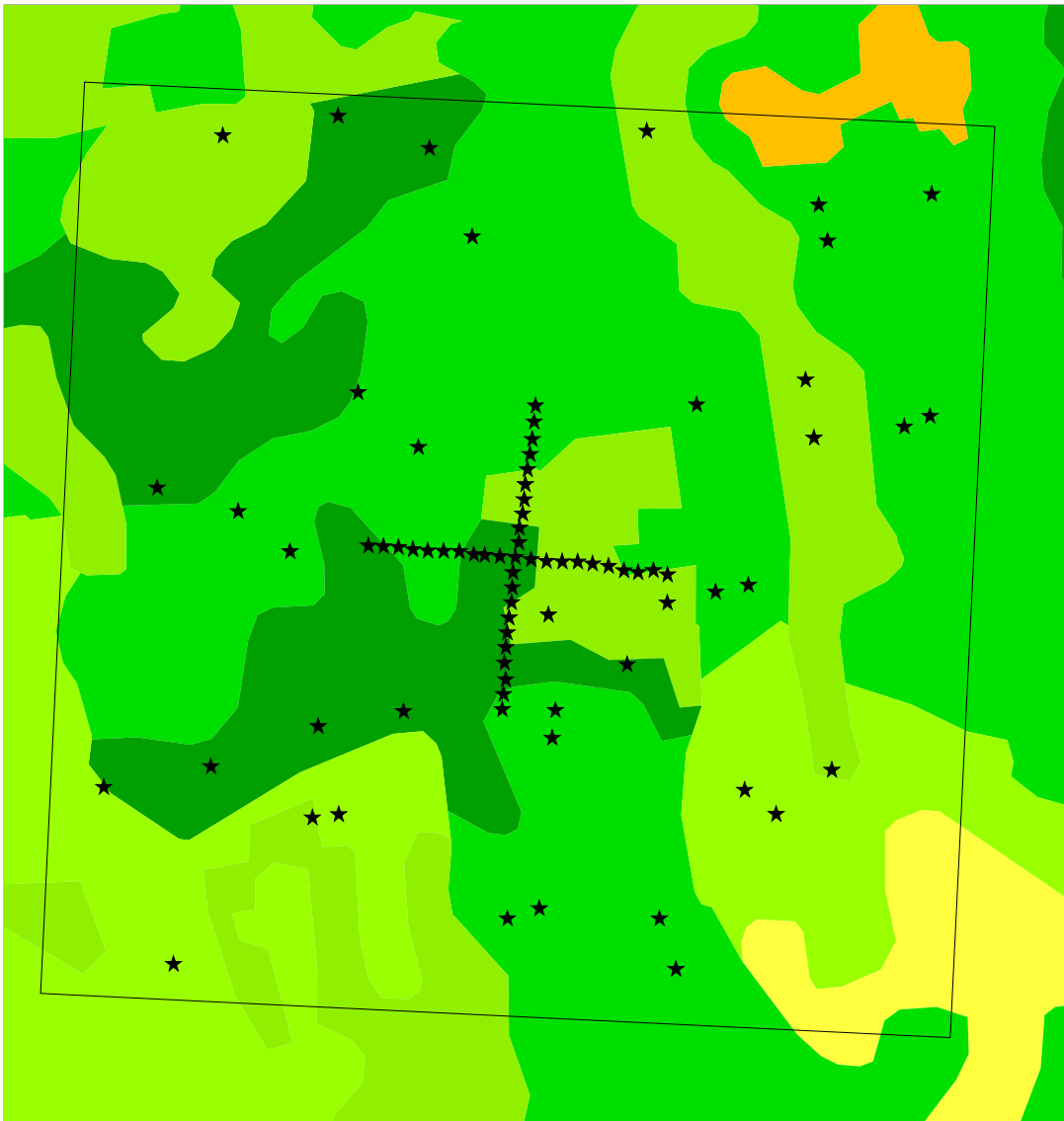
### *Comments on the land cover*

Boreal forests.

### *Topography*

Flat.

*Land cover map*









Järvelja VALERI testsite



★ ESU

CORINE Landcover 2000

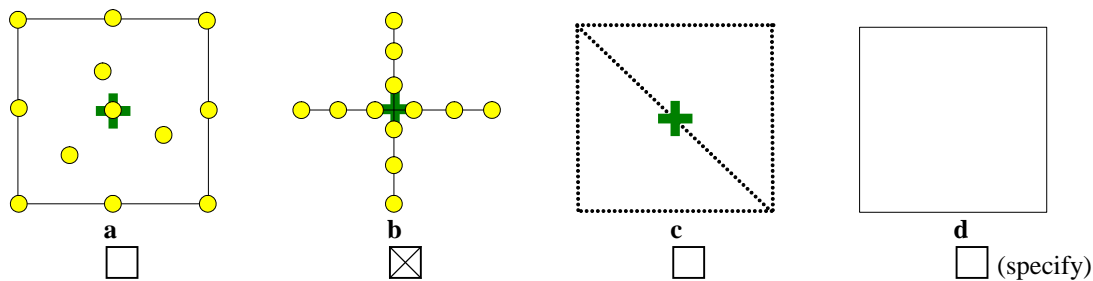
-  Agricultural lands (242)
-  Agricultural and natural areas (243)
-  Deciduous forests (311)
-  Coniferous forests (312)
-  Mixed forests (313)
-  Transitional forests (324)

# Spatial Sampling scheme

## *Sensors used for sampling the ESUs*

	Method	Comments
<input checked="" type="checkbox"/>	Hemispherical photographs	
<input checked="" type="checkbox"/>	LAI2000	
<input type="checkbox"/>	TRAC	
<input type="checkbox"/>	Ceptometer	
<input type="checkbox"/>	Direct measurements	
<input type="checkbox"/>	Other	

## *Sampling strategy for the ESU*



## *Distribution of the Elementary sampling units*

# The high spatial resolution image

### *Satellite*

Satellite used: SPOT2 HRV1

Level of processing: 1B

Projection type: Lambert-Est 1992

Acquisition date:

Georeferencing comment (accuracy, waypoint validation ...): residual error 4.6 m.

# List of the ESUs

Plot #	Easting(m)	Northing(m)	Vegetation
X00	691213	6466658	Spruce understorey, 2m. Thinning 1994, 1997.
E01	692154	6467864	
E02	691316	6466650	2nd storey spruce, h=13m. Thinning 1994, 1997. Thinning 2005
E03	691368	6466651	clearcut.
E04	691419	6466653	Thinning 1995.
E05	691468	6466649	Thinning 1995.
W01	691162	6466658	#N/A. #N/A. #N/A
W02	691112	6466660	Thinning 1994, 1995.
W03	691076	6466661	Spruce understorey 4m. Thinning 2003
W04	691028	6466668	Spruce understorey 4m. Thinning 2003
W05	690976	6466667	Spruce understorey 4m. Thinning 2003
N01	691222	6466707	Spruce understorey, 2m. Thinning 1994, 1997.
N02	691222	6466755	Spruce understorey, 1m. Sanitary thinning 1996, 1997.
N03	691230	6466802	Spruce understorey, 1m. Sanitary thinning 1996, 1997.
N04	691233	6466849	Recent clear cut. Clear cut 1997.
N05	691234	6466899	2nd storey spruce and birch, h=8m. Sanitary thinning 1997. Thinning 2004
N06	691239	6466948	2nd storey spruce and birch, h=8m. Sanitary thinning 1997. Thinning 2004
16503	691598	6466323	Sanitary thinning 1996.
13904	691877	6466576	2nd storey spruce, h=12m.
13902	691984	6466040	2nd storey spruce, h=12m.
15905	689896	6465837	2nd storey spruce, h=8m.
16004	690245	6465922	2nd storey spruce, h=14m. Sanitary thinnings 1995, 1997.
16105	690592	6466071	2nd storey spruce, 21m. Sanitary thinning, 1996, 1997.
16111	690673	6465785	Spruce understorey, 4m.
16110	690587	6465770	Clear cut in 2001.
16206	690870	6466134	2nd storey spruce, h=10m.
7302	690184	6467996	
7403	690560	6468079	2nd storey spruce, h=13m. Thinnings 1995, 1997.
7501	690865	6467988	
7604	691020	6467704	2nd storey spruce 14m. Sanitary thinning 1995, 1996, 1997. Clearcut 2005 spring
10417	690024	6466829	
13401	690294	6466764	
13403	690471	6466641	Birch regeneration on previous clear cut. 2003 June birches cut and lay on the ground in July.
10608	690669	6467174	Clear cut. Clear cut.
10712	690877	6467004	Sanitary thinning 1995.
16713	692288	6466010	Regenerating clear cut.
18902	692112	6465856	
16605	692005	6465930	
18608	691348	6465508	Thinned 1999.
18607	691245	6465470	2nd storey spruce, h=7m. Heavy thinning 2001.
18806	691745	6465494	2nd storey spruce, h=12m. Sanitary thinning 1997.
18809	691807	6465331	2nd storey spruce, h=2m. Thinned in 2003.
16404	691369	6466162	Spruce understorey 8m. Sanitary thinning 1995.
13708	691331	6466474	Clear cut. Clear cut 1997.
S01	691208	6466608	Spruce understorey, 2m. Thinning 1994, 1997.
S02	691208	6466558	Spruce understorey, 2m. Thinning 1994, 1997.
S07	691194	6466309	Spruce understorey, 4m. Sanitary thinning 1996.
11004	691785	6467188	
11117	692139	6467287	
14003	692176	6467098	
14104	692554	6467188	2nd storey spruce.
14102	692471	6467149	
32816	692524	6467917	#N/A. #N/A. #N/A
11104	692189	6467747	
7914	692154	6467864	
N10	691255	6467159	2nd storey spruce, h=5m.
W10	690728	6466672	2nd storey spruce 8m. Thinning 2003