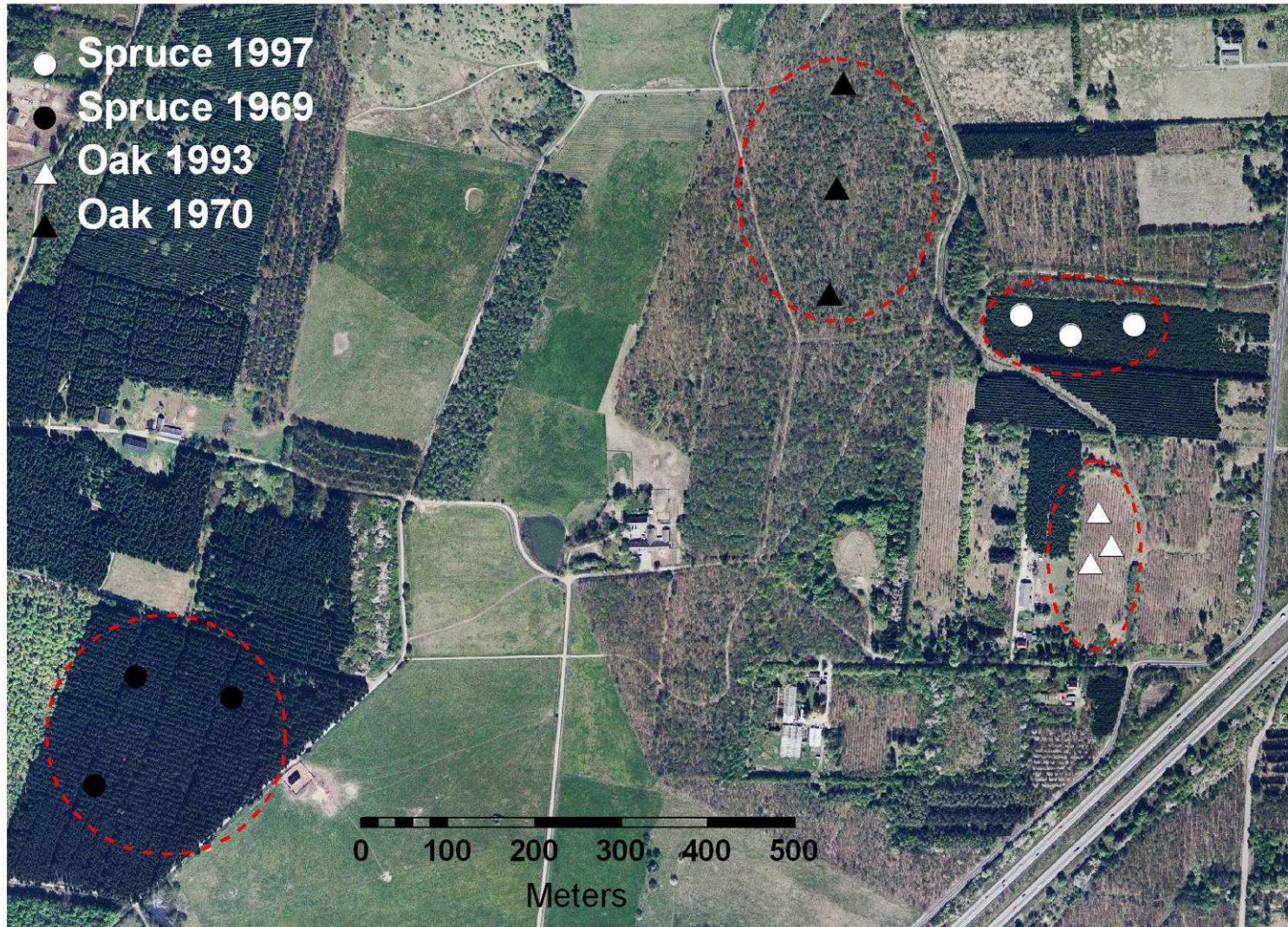


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## Supplementary material S-1



**Fig. S-1** Aerial photograph of Vestskoven. The four stands are indicated with a red dashed line.

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**Table S-1** Mean values (mean±standard error of the mean), the range in brackets (minimum – maximum) and coefficient of variation (%) of N<sub>2</sub>O and CH<sub>4</sub> fluxes ( $\mu\text{g N}_2\text{O-N m}^{-2} \text{h}^{-1}$  or  $\mu\text{g CH}_4\text{-C m}^{-2} \text{h}^{-1}$ ) for each chamber in each stand in the period February 2008 – April 2010. Each plot (A, B, C) contained 3 chambers. The spatial variation of N<sub>2</sub>O and CH<sub>4</sub> fluxes at stand level was expressed as the coefficient of variation in % (CV%). The CV% at stand level was calculated as weighted average of the CV% for each chamber taking the number of sampling occasions for that chamber in to account.

Plot		A			B			C			
	Chamber	1	2	3	4	5	6	7	8	9	Stand mean
N <sub>2</sub> O	O-93	1.2±2.1 (-13 – 23)	1.9±1.9 (-10 – 24)	0.6±1.7 (-15 – 14)	2.9±1 (-3 – 12)	1.3±1.2 (-7 – 8)	2.2±1.1 (-8 – 10)	4.7±1.3 (-6 – 15)	3.9±1.1 (0 – 11)	5.7±1.7 (-6 – 20)	2.7±0.5 (-15 – 24)
		683 n=16	407 n=16	1033 n=16	135 n=15	343 n=15	196 n=15	110 n=16	108 n=16	120 n=16	351 n=141
		2.9±1.6 (-2 – 23)	1.5±1.2 (-13 – 8)	2.0±1.3 (-13 – 11)	4.7±0.8 (0 – 11)	5.3±1.1 (-4 – 11)	8.3±2 (-1 – 22)	6.2±2.6 (-5.4 – 35)	19.5±10.4 (-5 – 166)	2.6±1.5 (-9 – 15)	5.9±1.3 (-13 – 166)
	O-70	218 n=16	302 n=16	264 n=16	72 n=16	80 n=16	97 n=16	163 n=15	213 n=16	221 n=16	181 n=143
		4.4±0.9 (0 – 12)	3.9±1.5 (-3 – 21)	0.0±1.6 (-18 – 9)	0.1±0.9 (-7 – 9)	2.5±1.2 (-5 – 11)	-0.2±1.1 (-11 – 10)	1.5±1 (-4 – 10)	0±1.6 (-15 – 14)	0.2±1.7 (-11 – 13)	1.4±0.4 (-18 – 21)
		81 n=16	154 n=16	25188 n=16	3037 n=16	181 n=16	2080 n=16	260 n=16	29771 n=16	3067 n=16	5600 n=144
	S-97	2.1±1.4 (-4 – 11)	38±17 (3 – 203)	4.6±3.7 (-18 – 44)	2.1±1.3 (-10 – 11)	7.2±1.4 (0 – 20)	2.8±0.8 (0 – 9)	3.0±1.6 (108 – 11 – 17)	5.1±1.5 (-11 – 17)	1.1±1.7 (-2 – 20)	6.7±1.9 (-14 – 15)
		201 n=9	163 n=12	302 n=14	237 n=16	79 n=16	108 n=16	210 n=16	117 n=16	615 n=16	228 n=131
		154 n=16	25188 n=16	3037 n=16	181 n=16	2080 n=16	260 n=16	29771 n=16	3067 n=16	5600 n=144	
Plot		A			B			C			
	Chamber	1	2	3	4	5	6	7	8	9	Stand mean
CH <sub>4</sub>	O-93	-3.2±3 (-20 – 18)	-0.1±3.3 (-28 – 27)	-10.0±3.9 (-47 – 13)	-7.6±3.5 (-38 – 12)	-6.2±3.2 (-40 – 5)	-0.2±2.8 (-11 – 31)	-6.7±2.3 (-30 – 0.7)	-6.1±3.3 (-39 – 12)	-8.7±5 (-61 – 20)	-5.4±1.2 (-61 – 31)
		377 n=16	11443 n=16	155 n=16	176 n=15	194 n=14	6811 n=14	130 n=15	211 n=15	226 n=15	2200 n=136
		-15±4 (-54 – 0)	-19±4 (-50 – 2)	-15±3 (-32 – 8)	-13±3 (-35 – 4)	-13±5 (-78 – 4)	-9.7±2.9 (-28 – 12)	-7.6±4.0 (-32 – 16)	-13±3 (-46 – 1)	-14±4 (91 – 4)	-13±1 (-78 – 16)
	O-70	105 n=15	93 n=15	85 n=15	89 n=15	153 n=15	115 n=15	196 n=14	191 n=15	96 n=15	113 n=134
		105 n=15	93 n=15	85 n=15	89 n=15	153 n=15	115 n=15	196 n=14	191 n=15	96 n=15	113 n=134
		-8.0±5.3 (-36 – 55)	-9.4±7.6 (-75 – 66)	-14±5 (-61 – 10)	-8.1±3.0 (-32 – 8)	-8.0±3.5 (-32 – 17)	-8.5±2.7 (-25 – 9)	-4.2±2.7 (-23 – 15)	-8.1±2.8 (-31 – 8)	-5.4±2.9 (-30 – 18)	-8.2±1.4 (-75 – 66)
	S-97	267 n=16	322 n=16	142 n=16	149 n=16	173 n=16	128 n=16	254 n=16	140 n=16	214 n=16	199 n=144
		267 n=16	322 n=16	142 n=16	149 n=16	173 n=16	128 n=16	254 n=16	140 n=16	214 n=16	199 n=144
		-4.8±3.4 (-20 – 9)	-8.4±7.1 (-49 – 50)	-6.1±4.2 (-35 – 23)	-0.6±3.3 (-24 – 31)	-9.4±4.7 (-69 – 9)	-12±3 (-37 – 0)	-3.9±2.9 (-35 – 17)	-5.2±4.6 (-42 – 25)	-6.3±5.2 (-56 – 34)	-6.3±1.4 (-69 – 50)
	S-69	216 n=9	295 n=12	262 n=14	2035 n=16	200 n=16	102 n=16	302 n=16	348 n=16	333 n=16	475 n=131
		216 n=9	295 n=12	262 n=14	2035 n=16	200 n=16	102 n=16	302 n=16	348 n=16	333 n=16	475 n=131