

Table S1. Average organic carbon concentrations in soil in forest land with organic soil in Latvia.

Soil type and moisture conditions	Forest site types*	Organic carbon concentration (average \pm S.E.) in O horizon and different soil layer, g kg ⁻¹						
		O horizon	0-10 cm	10-20 cm	20-30 cm	30-40 cm	40-50 cm	50-100 cm
Wet organic soil	<i>Sphagnosa</i>	531.1 ± 10.4	516.8 ± 5.9	515.9 ± 5.4	517.3 ± 7.1	517.2 ± 7.1	519.7 ± 5.3	521.7 ± 5.4
	<i>Caricoso–phragmitosa</i>	516.7 ± 9.2	490.9 ± 18.1	501.9 ± 19.6	510.3 ± 23.0	510.3 ± 23.0	506.3 ± 26.3	507.5 ± 26.3
	<i>Dryopterioso–caricosa</i>	490.6 ± 7.8	427.3 ± 22.2	415.3 ± 30.4	410.2 ± 37.2	371.5 ± 45.1	352.1 ± 46.7	319.1 ± 49.3
	<i>Filipendulosa</i>	494.5 ± 13.1	470.6 ± 9.5	452.2 ± 21.0	438.9 ± 42.8	446.8 ± 47.3	444.6 ± 42.0	405.2 ± 56.2
	weighted average**	509.5 ± 5.6	471.3 ± 11.3	469.4 ± 14.2	470.1 ± 17.1	454.3 ± 20.1	445.7 ± 21.5	432.6 ± 23.2
Drained organic soil	<i>Callunosa turf. mel.</i>	536.5	516.4 ± 8.3	535.6 ± 7.9	538.6 ± 9.6	538.6 ± 9.6	546.7 ± 11.2	546.9 ± 10.9
	<i>Vacciniosa turf. mel.</i>	554.9 ± 3.5	518.6 ± 21.3	539.7 ± 23.6	543.2 ± 22.5	543.6 ± 22.8	539.8 ± 25.0	562.6 ± 10.3
	<i>Myrtillosa turf.mel.</i>	523.1 ± 4.9	510.6 ± 8.6	508.5 ± 19.1	500.0 ± 25.8	500.9 ± 25.9	468.6 ± 32.7	468.0 ± 33.6
	<i>Oxalidosa turf. mel.</i>	501.0 ± 4.8	436.8 ± 18.1	415.2 ± 25.7	377.2 ± 34.9	334.1 ± 39.9	287.3 ± 41.3	242.2 ± 39.1
	weighted average**	523.6 ± 4.1	494.0 ± 8.8	492.0 ± 13.2	478.7 ± 17.4	468.6 ± 19.6	439.4 ± 22.0	431.8 ± 22.9

* According national classification system [20].

** Weighted average takes into account the distribution of forest site types in Latvia according to the NFI data.

Table S2. Average soil bulk density in forest land with organic soil in Latvia.

Soil type and moisture conditions	Forest site types*	Soil bulk density (average \pm S.E.), g 100 cm ⁻² (O horizon) or kg m ⁻³ (0-100 cm soil layer)						
		O horizon	0-10 cm	10-20 cm	20-30 cm	30-40 cm	40-50 cm	50-100 cm
Wet organic soil	<i>Sphagnosa</i>	45.0 \pm 2.2	77.1 \pm 7.3	78.5 \pm 5.1	69.5 \pm 4.3	69.5 \pm 4.3	62.7 \pm 3.9	60.6 \pm 4.0
	<i>Caricoso–phragmitosa</i>	44.6 \pm 14.0	119.9 \pm 15.5	133.0 \pm 18.0	144.9 \pm 25.8	144.9 \pm 25.8	173.9 \pm 44.1	173.2 \pm 44.1
	<i>Dryopterioso–caricosa</i>	19.4 \pm 2.8	228.4 \pm 22.4	266.3 \pm 38.2	345.4 \pm 78.6	434.0 \pm 99.5	489.1 \pm 109.4	610.9 \pm 120.0
	<i>Filipendulosa</i>	12.7 \pm 5.3	186.1 \pm 6.6	252.1 \pm 26.7	310.9 \pm 98.1	282.1 \pm 109.8	305.9 \pm 126.5	295.0 \pm 101.7
	weighted average**	34.0 \pm 4.3	154.0 \pm 12.3	174.9 \pm 17.8	209.5 \pm 33.0	245.5 \pm 41.3	275.8 \pm 47.5	324.8 \pm 53.4
Drained organic soil	<i>Callunosa turf. mel.</i>	31.0	108.3 \pm 7.5	106.9 \pm 11.5	86.2 \pm 7.1	86.2 \pm 7.1	77.7 \pm 5.0	77.4 \pm 5.3
	<i>Vacciniosa turf. mel.</i>	26.9 \pm 4.2	173.9 \pm 23.8	179.1 \pm 25.1	151.4 \pm 18.4	142.8 \pm 15.3	144.3 \pm 28.2	112.9 \pm 8.8
	<i>Myrtillosa turf. mel.</i>	38.5 \pm 5.5	169.4 \pm 7.0	186.2 \pm 15.3	232.0 \pm 42.1	232.3 \pm 42.1	298.2 \pm 62.6	309.9 \pm 67.8
	<i>Oxalidosa turf. mel.</i>	28.0 \pm 2.7	241.1 \pm 17.3	302.5 \pm 31.5	489.7 \pm 75.7	635.8 \pm 97.2	741.0 \pm 96.2	837.0 \pm 100.9
	weighted average**	33.6 \pm 2.2	185.2 \pm 8.9	210.3 \pm 14.9	275.6 \pm 34.9	310.4 \pm 44.4	371.8 \pm 48.8	396.5 \pm 55.7

* According national classification system [20].

** Weighted average takes into account the distribution of forest site types in Latvia according to the NFI data.