

Table S8. Mean (SE) biogenic volatile organic compound (BVOC) emissions from a subarctic peatland (n=4) during a 24-hour period the 23-24 of July 2008.

Emission ($\mu\text{g m}^{-2} \text{ h}^{-1}$)	July													
Time	01:00	03:00	05:00	07:00	09:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00		
Isoprene	3.95 (3.95)	11.96 (5.96)	37.63 (16.35)	18.61 (7.06)	27.05 (7.32)	51.67 (18.91)	15.97 (15.97)	93.08 (67.96)	21.15 (13.66)	14.21 (12.75)	47.40 (29.57)	17.76 (9.55)		
<i>Monoterpenoids</i>														
α -pinene	35.97 (4.39)	36.27 (5.98)	16.35 (28.94)	24.49 (3.73)	22.28 (1.91)	23.19 (9.74)	12.88 (5.72)	15.44 (5.10)	17.33 (2.87)	49.67 (7.43)	90.25 (26.32)	60.12 (7.37)		
Camphene	1.51 (0.88)	1.74 (0.60)	0.89 (0.54)	0.41 (0.25)	0.82 (0.54)	1.65 (1.65)	<0.01	<0.01	0.26 (0.26)	0.90 (0.52)	3.39 (0.87)	2.19 (0.83)		
β -pinene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	4.98 (4.98)	4.21 (4.21)	<0.01	<0.01	<0.01		
β -myrcene	<0.01	<0.01	<0.01	<0.01	1.21 (0.80)	<0.01	<0.01	<0.01	2.52 (2.52)	<0.01	<0.01	<0.01		
Carene	13.58 (0.91)	12.97 (2.05)	3.70 (2.66)	6.95 (0.97)	6.82 (2.64)	2.60 (1.75)	1.81 (1.25)	3.36 (1.23)	0.54 (0.54)	12.77 (2.79)	16.81 (6.05)	16.20 (2.24)		
d-limonene	6.07 (0.47)	5.43 (0.86)	2.68 (1.12)	6.86 (5.32)	6.55 (1.34)	7.54 (1.47)	1.69 (0.77)	3.44 (2.02)	12.88 (4.06)	12.75 (6.48)	10.44 (5.53)	7.82 (3.52)		
Terpinolene	0.98 (0.57)	2.01 (0.77)	0.24 (0.24)	<0.01	0.80 (0.49)	0.35 (0.22)	0.33 (0.33)	2.14 (1.24)	1.08 (1.08)	<0.01	<0.01	0.60 (0.60)		
γ -terpinene	<0.01	<0.01	<0.01	<0.01	50.28 (50.10)	38.38 (37.99)	<0.01	120.5 (71.85)	<0.01	<0.01	0.68 (0.68)	<0.01		
Camphor	<0.01	<0.01	<0.01	<0.01	1.02 (0.72)	<0.01	<0.01	0.27 (0.27)	<0.01	<0.01	<0.01	<0.01		
1,8-cineole	<0.01	<0.01	<0.01	<0.01	0.72 (0.47)	0.22 (0.22)	<0.01	<0.01	<0.01	<0.01	<0.01	0.31 (0.31)		
Linalool	<0.01	<0.01	<0.01	<0.01	0.83 (0.83)	21.93 (21.93)	1.04 (1.04)	11.63 (11.63)	<0.01	<0.01	<0.01	<0.01		
Borneol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.95 (0.95)	<0.01	<0.01	<0.01	<0.01		
O-cymene	<0.01	<0.01	<0.01	1.55 (1.55)	4.09 (1.94)	3.43 (2.07)	1.34 (1.34)	0.81 (0.81)	5.29 (3.22)	2.01 (2.01)	9.25 (5.84)	4.12 (2.69)		
Total MTs	58.12 (5.99)	58.61 (7.63)	36.46 (6.59)	40.27 (10.92)	95.50 (55.48)	99.27 (51.37)	19.09 (9.72)	172.53 (87.01)	44.10 (4.77)	78.10 (15.46)	130.82 (43.45)	91.35 (13.18)		
<i>Sesquiterpenes</i>														
Longifolene	0.51 (0.37)	<0.01	<0.01	<0.01	0.61 (0.61)	<0.01	<0.01	<0.01	0.81 (0.81)	<0.01	<0.01	0.60 (0.55)		
trans-b-farnesene	<0.01	<0.01	<0.01	<0.01	0.30 (0.30)	0.65 (0.52)	0.90 (0.90)	<0.01	<0.01	<0.01	<0.01	<0.01		
Caryophyllene	17.59 (9.28)	4.93 (2.11)	7.72 (1.42)	6.62 (1.90)	8.09 (3.26)	28.57 (11.85)	7.90 (5.13)	31.85 (7.50)	12.84 (4.14)	4.32 (2.77)	3.48 (2.01)	5.43 (2.38)		
Total SQT	18.10 (9.18)	4.93 (2.11)	7.72 (1.42)	6.62 (1.90)	9.00 (3.86)	29.21 (12.26)	8.81 (5.33)	31.85 (7.50)	13.65 (4.81)	4.32 (2.77)	3.48 (2.01)	6.03 (2.26)		
<i>ORVOCs</i>														
trans cyclohexane 1-methyl-4-(1-methylethyl)	<0.01	<0.01	<0.01	<0.01	7.74 (5.71)	4.18 (4.18)	<0.01	<0.01	13.25 (13.25)	<0.01	<0.01	<0.01		
2-methylfuran	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.47 (0.47)	3.11 (2.04)	<0.01	<0.01	<0.01	<0.01		
1,2-Pentadiene	<0.01	<0.01	<0.01	4.07 (4.07)	12.71 (8.32)	18.31 (10.69)	6.88 (6.88)	30.01 (12.90)	12.53 (7.88)	2.84 (2.84)	4.19 (4.19)	7.84 (7.84)		
1-heptene	8.78 (6.83)	10.30 (10.30)	<0.01	20.25 (11.81)	3.80 (2.87)	2.33 (2.33)	4.55 (4.55)	<0.01	<0.01	<0.01	8.96 (5.40)	<0.01		
3-heptene	<0.01	37.19 (14.32)	8.61 (5.28)	<0.01	12.29 (12.29)	4.69 (4.69)	21.43 (14.72)	4.52 (4.52)	3.11 (3.11)	<0.01	5.27 (5.27)	28.44 (19.49)		
(e)-2-heptene	27.53 (10.47)	40.51 (10.10)	16.82 (10.87)	14.91 (8.61)	16.01 (8.04)	38.75 (28.86)	11.86 (11.86)	26.93 (9.72)	27.33 (9.99)	3.91 (3.91)	3.61 (3.61)	34.16 (21.03)		
Heptanal	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	91.21 (91.21)	<0.01	<0.01	<0.01	<0.01		
Benzaldehyde	<0.01	0.34 (0.34)	<0.01	1.60 (1.60)	0.04 (0.04)	1.53 (1.53)	<0.01	0.03 (0.03)	5.45 (5.45)	<0.01	<0.01	<0.01		
p-xylene	<0.01	2.75 (2.75)	<0.01	<0.01	1.20 (1.20)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
1-octene	<0.01	<0.01	<0.01	<0.01	<0.01	6.44 (4.13)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Octanal	<0.01	<0.01	<0.01	<0.01	1.56 (1.56)	<0.01	<0.01	147.96 (147.96)	1.04 (1.04)	<0.01	<0.01	<0.01		
Total ORVOC	36.31 (5.57)	91.10 (25.06)	67.24 (25.43)	40.84 (19.17)	55.34 (25.06)	208.0 (188.2)	45.19 (37.17)	303.8 (255.1)	62.71 (10.85)	6.75 (6.75)	20.02 (12.29)	70.44 (42.24)		
<i>Other VOCs</i>														
Toluene	36.17 (21.04)	78.32 (30.48)	59.09 (23.68)	62.84 (25.35)	97.13 (43.85)	82.37 (14.68)	21.72 (21.72)	13.57 (13.57)	32.45 (32.45)	38.79 (38.79)	36.82 (5.54)	46.45 (9.04)		
Methoxy-phenyl-oxime	76.39 (75.39)	236.6 (115.1)	261.2 (92.60)	169.9 (98.4)	147.1 (57.37)	180.5 (180.5)	77.88 (75.74)	77.07 (77.07)	118.3 (118.3)	242.2 (196.0)	292.5 (176.8)	273.6 (118.8)		
Total Other VOC	112.6 (65.71)	314.9 (106.76)	320.3 (99.09)	232.7 (92.91)	244.23 (80.62)	262.9 (194.0)	99.60 (71.11)	90.64 (73.67)	150.8 (107.6)	281.0 (196.9)	329.4 (179.9)	320.1 (121.1)		
Total BVOC	229.1 (74.82)	481.5 (125.4)	427.5 (95.52)	339.1 (86.4)	431.1 (100.7)	519.3 (157.9)	188.7 (69.87)	691.9 (318.8)	292.4 (121.3)	384.3 (198.2)	533.1 (216.6)	505.7 (128.9)		