Table 1: List of peatlands used in this study

Country	Peat location/name	Latitude	Longitude	Altitude (m)	Mean annual air temp. (°C)	pH	pH range (±)	#samples analyzed	Sample extraction method
Ireland	Ballyduff Bog	53.1	-8.0	60	8.3	4	0.25	**9**	**1**
UK	Butterburn Flow	55.1	-2.5	280	8.0	4.15	0.15	**7**	**1**
Germany	Bissendorfer Moor	52.5	9.7	52	8.9	4	0.25	**8**	**1**
Finland	Kontolanrahka	60.8	22.8	87	4.4	4	0.25	**5**	**1**
Peru	Aucayacu	-3.9	-74.4	100	26.4	3.7	0.2	**5**	**2**
Peru	Roca Fuerte	-4.4	-74.8	100	26.4	4.15	0.45	**13**	**2**
Peru	Riñón	-4.9	-74.0	100	26.6	*n.d.*		**1**	**2**
Peru	Maquía	-6.3	-74.8	100	25.8	6.1	0.4	**4**	**2**
Peru	Buena Vista del Maquía	-6.2	-74.7	100	25.8	6	0.2	**8**	**2**
Peru	Miraflores	-4.4	-74.1	100	26.6	3.75	0.15	**8**	**2**
Peru	Nueva York	-4.4	-74.3	100	26.6	3.95	0.05	**8**	**2**
Peru	Nueva Alianza	-4.7	-75.4	100	26.4	5.7	0.3	**4**	**2**
Peru	Tacshacocha	-4.9	-74.3	100	26.7	5.1	0.3	**4**	**2**
Peru	Quistococha	-3.8	-73.3	100	26.4	*n.d.*		**3**	**2**
Peru	San Jorge	-4.1	-73.2	100	26.4	*4*	0.5	**10**	**2**
France	Fransne, Jura Mountains	46.8	6.2	840	9.6	3.5	0.5	**16**	**3**
France	La Guette, Sologne	47.3	2.3	154	11.0	4	0.25	**4**	**4**
Switzerland	Lörmoos	47.0	7.4	585	9.0	4.32	0.07	**2**	**4**
Switzerland	Praz Rodet	46.6	6.2	1040	9.6	4.26	0.0	**2**	**4**
Switzerland	Sortel	46.7	7.4	1406	4.3	4.82	0.14	**2**	**4**
Switzerland	Hochrajen	46.6	8.0	1885	1.5	4.55	0.07	**2**	**4**
Tanzania	Kyambangunguru	-9.4	33.8	663	24.4	5.4		**4**	**5**
Poland	Kojle Lake	54.3	22.9	148.5	6.3	*n.d.*		**2**	**4**
Latvia	Teici Bog	56.6	26.5	100	5.0	*n.d.*		**2**	**4**
Romania	Poiana Siol	47.6	24.8	1540	2.3	*n.d.*		**2**	**4**
China	Tibetean Plateau	32.8	102.5	3500	-1.0	5.5	0.5	**8**	**2**
Argentina	Andorra	-54.7	-68.3	180	4.5	5.4	0.7	**13**	**2**
Queensland	Bomfield Swamp	-17.4	145.5	754	21.1	6.5	1	**14**	**2**
Chile	SKY1	-52.5	-72.1	20	6.5	4.25	0.25	**6**	**2**
Indonesia	Sebangau/Saganbau	-2.3	113.9	30	26.5	3	0.3	**11**	**2**
USA	Okefenokee Swamp	30.6	-82.3	0	20.5	4	0.2	**3**	**2**
USA	Dismal Swamp	36.7	-76.6	4	15.7	4	0.5	**1**	**2**
USA	North Carolina Peat	35.0	-77.0	*n.d.*	17.1	3.7	0.25	**1**	**2**
USA	Shark River peat	25.2	-81.0	0	24.5	6.51	0.25	**1**	**2**

USA	Tamiami Sawgrass Peat	26.0	-81.0	*n.d.*	23.9	7.14	0.25	**1**	**2**
USA	Loxahatchee Sawgrass Peat	26.0	-80.5	*n.d.*	24.7	6.65	0.25	**1**	**2**
USA	Loxahatchee Nymphaea Peat	26.0	-80.5	*n.d.*	24.7	7.94	0.25	**1**	**2**
USA	Snuggedy Swamp Peat	32.0	-81.3	*n.d.*	19.3	*n.d.*		**1**	**2**
USA	New York Peat (Fort Drum)	44.0	-75.0	*n.d.*	6.5	7.85	0.25	**1**	**2**
USA	Maine Sphagnum peat	45.0	-68.0	*n.d.*	5.7	4.28	0.25	**1**	**2**
Spain	Chao de Veiga Mol	43.5	-7.5	695	12.4	4.1	1.5	**8**	**2**
Spain	Borralleiras da Cal Grande	43.6	-7.5	600	13.9	4.1	1.5	**6**	**2**
Spain	Zalama	43.1	-3.4	1330	12.1	4.65	0.15	**8**	**2**
Iran	Peat near Neor Lake	38.0	48.6	2500	4.8	n.d.		**7**	**2**
Brazil	Pau de Fruta	-18.3	-43.7	1360	19.4	3.8	0.2	**6**	**2**
Brazil	São João da Chapada	-18.1	-43.8	1342	19.4	3.9	0.3	**5**	**2**
Brazil	Sempre Viva	-17.9	-43.8	1260	19.4	3.3	0.5	**5**	**2**
Brazil	Pinheiros	-18.1	-43.7	1242	19.4	3.7	0.3	**6**	**2**
Russia	Igarka Site 1+2	67.5	86.6	128	-8.3	*n.d.*		**6**	**2**
UK	Walton Moss	55.0	-2.8	100	8.1	*n.d.*		**6**	**2**
USA	Brendan State Forest	39.9	-74.5	*n.d.*	12.5	*n.d.*		**8**	**2**
Sweden	Stordalen	68.4	19.1	350	-1.3	3.4	0.4	**6**	**2**
Belgium	Poleur	50.5	6.0	528	7.5	*n.d.*		**2**	**2**
UK	Bodmin Moor	50.6	-4.6	269	8.6	*n.d.*		**2**	**2**
France	Demoiselle	48.1	6.5	545	6.0	*n.d.*		**3**	**2**
Argentina	Harberton	-54.9	-67.2	69	4.0	*n.d.*		**8**	**2**
Poland	Kosova mire	53.8	16.6	130	7.8	*n.d.*		**2**	**2**
France	Tanet	48.1	7.1	1254	5.1	*n.d.*		**2**	**2**
France	OHM Vicdessos	42.8	1.4	1799	3.8	*n.d.*		**3**	**2**
Sweden	Storamyran	63.7	20.1	46	4.0	*n.d.*		**2**	**2**
Switzerland	Simplon	46.2	8.0	2055	5.5	*n.d.*		**2**	**2**
Iceland	Fjallsjökull	64.0	16.4	29	4.0	*n.d.*		**2**	**2**
Switzerland	Fachepremont	46.1	7.0	1070	3.5	*n.d.*		**2**	**2**
France	Pinet Fosse	42.9	2.0	880	8.4	*n.d.*		**3**	**2**
Poland	Linje mire	53.1	18.2	88	8.1	*n.d.*		**2**	**2**
Norway	N. Norway	69.0	15.3	269	1.6	*n.d.*		**1**	**2**
Iceland	S. Iceland	63.4	-18.8	57	11.3	*n.d.*		**2**	**2**
Poland	Zamarte mire	53.4	17.6	95	8.0	*n.d.*		**2**	**2**
Poland	Rzecin mire	52.5	16.2	66	8.5	*n.d.*		**3**	**2**
Switzerland	Flesch	46.2	8.0	1845	5.5	*n.d.*		**2**	**2**
Switzerland	Hängstli	46.8	7.8	1260	10.8	*n.d.*		**1**	**2**
Kenya	Nyabuiyabui	-0.4	35.8	2901	9.8	*n.d.*		**3**	**2**
Kenya	Shidodo	-1.0	34.0	1192	22.5	*n.d.*		**6**	**2**
Tanzania	Luala	-9.3	34.6	1798	17.9	*n.d.*		**2**	**2**
Kenya	Marula	-0.2	36.4	2338	14.3	*n.d.*		**2**	**2**
Tanzania	Kitulu	-9.3	34.7	1964	17.4	*n.d.*		**4**	**2**
Japan	Piyashiri	36.0	139.7	*n.d.*	14.3	*n.d.*		**6**	**2**
Germany	Harz, Odersprung Bog	52.8	10.6	800	6.2	4.25	0.25	**19**	**2**
Canada	Chénéville	45.9	-75.0	200	6.2	*n.d.*		**2**	**2**

Canada	Parc-des-grands-Jardins	47.6	-71.0	820	3.2	*n.d.*		**2**	**2**
Canada	Peace river	56.4	-116.9	610	-0.3	*n.d.*		**2**	**2**
Canada	Radisson	53.8	-77.6	160	-3.0	*n.d.*		**5**	**2**
Canada	Sainte-Eulalie	46.1	-72.3	85	5.3	*n.d.*		**2**	**2**
Canada	Seba beach	53.5	-114.9	810	2.7	*n.d.*		**2**	**2**
Canada	Shippagan 527	47.7	-64.7	0	4.9	*n.d.*		**2**	**2**
Canada	SS70-14	60.9	-116.8	220	-3.6	*n.d.*		**2**	**2**
Canada	Waswanipi	49.7	-76.0	305	0.4	*n.d.*		**3**	**2**
Scotland	Kentra Bay 007G	56.7	-5.8	5.8	5.8	5	0.25	**9**	**2**
Scotland	Kentra Bay 004D	56.7	-5.8	3.8	5.8	4.85	0.25	**11**	**2**
Scotland	Kentra Bay 001A	56.7	-5.8	2.4	5.8	6.12	0.25	**10**	**2**
Scotland	Kentra Bay M3	56.7	-5.8	15.8	5.8	4.70	0.25	**9**	**2**
Scotland	Kentra Bay M2	56.7	-5.8	5.5	5.8	4.80	0.25	**10**	**2**
Scotland	Kentra Bay M4	56.7	-5.8	15.9	5.8	4.74	0.25	**10**	**2**
Scotland	Kentra Bay M1	56.7	-5.8	3	5.8	5.49	0.25	**9**	**2**
Scotland	Kentra Bay 009I	56.7	-5.8	4.10	5.8	4.87	0.25	**10**	**2**
N-Ireland	Fallahogy Bog	54.8	-6.6	46	9.4	*n.d.*		**6**	**2**

[1]Lipids ultrasonically extracted using DCM:MeOH (1:1), GDGT distribution analyzed in hydrolyzed polar fractions. See Pancost et al. (2011) for details

[2]Samples microwave extracted using DCM:MeOH (9:1), GDGT distribution analyzed in fraction of TLE after elution over short silica column (this study)

[3]Samples extracted using ASE and DCM:MeOH (9:1), GDGT distribution analyzed in polar fraction after elution over silica column, see Huguet et al. (2013) for details

[4]Samples extracted using ASE and DCM:MeOH (9:1), GDGT distribution analyzed in fraction of TLE after elution over short silica column (this study)

[5]Samples extracted using Bligh-Dyer procedure, GDGT distribution analyzed in polar fractions, see Coffinet et al. (2014) for details

Supplementary references

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