The Reading Palaeofire database: an expanded global resource to document changes in fire regimes from sedimentary charcoal records: Supplementary Information

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This supplementary contains:

SI Table 1. Information of the charcoal records (sites and entities) in the Reading Palaeofire Database version 1. Latitude and longitude are in decimal degrees, and elevation in metres above/below sea level. Fields where information could be available but was never recorded or has subsequently been lost are represented by -999999, fields where we were unable to obtain this information but it could be included in subsequent updates of the database are represented by -777777, fields where specific information is not applicable are represented by -888888.

SI Table 2. List of pre-defined valid choices for restricted fields in the Reading Palaeofire Database version 1.

SI Table 3: List of charcoal measurement units currently used in the Reading Palaeofire Database version 1

SI Figure 1: Supplementary Figure 1. Summary of the stages used to select the optimum RBacon age models for from ageR. Plots A.-C. show the modelling output from ageR for an example entity from the RPD (Geral core), where the optimum age model selected by ageR A. is a table ranking the age model scenarios by the lowest area between the prior and posterior accumulation rate curves. Note that only the top 5 model scenarios of a total of 25 run for this entity are listed B. Shows the plots for the prior and posterior accumulation rates and the area between curves for the top 5 model scenarios. C. Is the top ranked RBacon age model (Accumulation rate = 15, thickness = 10) which was visually checked to verify that the interpolation through the dates was valid and consistent with the dates. In this example, the top ranked model scenario selected by ageR (Accumulation rate = 15, thickness= 10) was accepted as the chosen model scenario as the interpolation through the dates is valid.

SI Figure 2. An example of alternative model scenario selection where the top ranked ageR model scenario is deemed to be inaccurate. In this example, the top ranked model scenario from King Tableland Swamp (accumulation rate = 45, thickness = 5)(A.) with the lowest area between the prior and posterior accumulation rate curves (B.) does not accurately represent the date at 157.5cm. This age was included by the original authors and lies in stratigraphic order with the other dates. Therefore, this model is rejected in favour of the model with the next lowest abc score which accurately reflects the dates included (ageR model ranking 3 in A.). The RBacon plot for this age model scenario is shown in D. (accumulation rate = 90, thickness = 5) and is more accurately and precisely modelled through the dates than the model selected by ageR.

SI Table 1. Information of the charcoal records (sites and entities) in the Reading Palaeofire Database version 1. Latitude and longitude are in decimal degrees, and elevation in metres above/below sea level. Fields where information could be available but was never recorded or has subsequently been lost are represented by -999999, fields where we were unable to obtain this information but it could be included in subsequent updates of the database are represented by -777777, fields where specific information is not applicable are represented by -888888.

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
111	1	225.00	59.912878	-96.957600	lacustrine	3.97	1.309	Umbanhowar Jr et al., 2021
150	1	299.00	59.875018	-98.131800	lacustrine	7.14	0.403	Umbanhowar Jr et al., 2021
396	1	317.00	59.571677	-98.559100	lacustrine	7.36	0.839	Umbanhowar Jr et al., 2021
614	1	268.00	59.321304	-97.280400	lacustrine	14.15	0.462	Umbanhowar Jr et al., 2021
630	1	271.00	59.314377	-98.083600	lacustrine	9.96	0.911	Umbanhowar Jr et al., 2021
7-M Lake	1	213.00	62.500000	-113.720000	lacustrine	6.5	0.12	Lynch et al., 2002; Lynch et al., 2004
785	1	234.00	59.118988	-97.409300	lacustrine	12.57	0.65	Umbanhowar Jr et al., 2021
Abalone Rocks Marsh	1	0.00	33.956389	-119.976667	coastal, salt marsh		-999999	Cole and Liu, 1994
Abbeyknockmoy Bog	1	60.00	53.440000	-8.760000	terrestrial, bog	-777777		Barber et al., 2003
Abborrtjarnen	1	387.00	63.800000	14.370000	lacustrine	6.5	0.03	Giesecke, 2005b
Abeille	1	441.00	54.114444	-72.500278	terrestrial, fen	-888888	0.035	van Bellen et al., 2013
Ackgol	1	1000.00	37.300000	33.440000	-777777	-777777		Turner et al., 2008
Adi Kolen I	1	2171.00	13.330000	39.360000	terrestrial, soil	-777777		Gebru et al., 2009
Adi Kolen II	1	2171.00	13.330000	39.360000	terrestrial, soil	-777777		Gebru et al., 2009
Adi Kolen III	1	2171.00	13.332167	39.364600	terrestrial, soil	-888888	-999999	Gebru et al., 2009
Adigrat	1	2493.00	14.270433	39.447827	terrestrial, soil	-888888	-999999	Moeyersons et al., 2006
Aeroport	2	431.00	54.101027	-72.516166	terrestrial, fen	-888888	0.03	van Bellen et al., 2013
Aguada de Petapilla	1	705.00	14.860000	-89.120000	terrestrial, mire	-888888	0.09	Rue et al., 2002
Aguai Ramata	1	1950.00	-6.560000	145.210000	lacustrine, volcanic lake	2.9		Haberle, 2007
Agulhas Negras	1	2410.00	-22.385319	-44.669802	terrestrial, mire	-888888	-999999	Behling et al., 2020
Ahlequellmoor	1	300.00	51.730000	9.510000	terrestrial, fen		0.1	Jahns, 2005
Aino Pond	1	354.00	42.680759	-71.925514	lacustrine	2.5	0.018	Fuller et al., 1998; Parshall and Foster, 2002
Airag Nuur	1	1030.00	48.908700	93.307600	lacustrine	9.1	180.22	Umbanhowar Jr et al., 2009
Aire Crossing	1	180.00	-38.640000	143.470000	terrestrial	-888888	-999999	McKenzie and Kershaw, 2004
Airport 1	1	175.00	53.653500	-77.729000	terrestrial, bog	-888888	-999999	Magnan et al., 2012
Airport 2	1	175.00	53.653600	-77.726300	terrestrial, bog	-888888	-999999	Magnan et al., 2012
Aishihik WA01 (Yukon)	2	1000.00	61.233000	-136.917000	lacustrine	1	0.001	Rainville and Gajewski, 2013
Ajax Bog	1	680.00	-46.419200	169.292200	terrestrial, bog	10	-888888	McGlone, 2009
Ajkwa 1	1	1.30	-4.860000	136.960000	coastal, estuarine	-888888	-888888	Ellison, 2005
Ajkwa 2	1	1.30	-4.860000	136.960000	coastal, estuarine	-888888	-888888	Ellison, 2005

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Ajkwa 3	1	1.30	-4.860000	136.960000	coastal, estuarine	-888888	-888888	Ellison, 2005
Ajkwa 4	1	1.30	-4.860000	136.960000	coastal, estuarine	-888888	-888888	Ellison, 2005
Ajkwa 5	1	1.30	-4.860000	136.960000	coastal, estuarine	-888888	-888888	Ellison, 2005
Akali	1	30.50	58.408056	27.231944	terrestrial, mire	0.2	25.68	Poska and Saarse, 2006
Akkol Lake	1	2204.00	50.250000	89.625000	lacustrine, glacial origin	2.8	3.2	Blyakharchuk et al., 2007
Alahake	3	483.00	47.693806	87.544583	lacustrine	2	2.4	Li et al., 2019
Alamo Bog	1	2630.00	35.910000	-106.580000	terrestrial, bog	-888888	0.5	Allen et al., 2008; Anderson et al., 2008a; Brunner Jass, 1999
Albion	1	320.00	45.670800	-71.325000	lacustrine	1	0.025	Carcaillet and Richard, 2000
Aligol	1	1550.00	41.630000	44.010000	terrestrial, bog	0.5	-999999	Connor and Sagona, 2007; Connor, Unpublished
Allom Lake	1	100.00	-25.230000	153.160000	lacustrine	3.7	0.015	Donders et al., 2006
Almalou	1	2491.00	37.665278	46.631944	terrestrial, bog	-888888	-999999	Djamali et al., 2009; Djamali et al., 2010
Altar Lough	1	30.00	55.016700	-8.400000	lacustrine	2.5	0.012	Fossitt, 1994
Alvor Estuary Ribeira do Farelo Ribeira da Torre	2	0.60	37.151969	-8.594376	coastal, estuarine	-888888	-999999	Schneider et al., 2010; Schneider et al., 2016
Amber Lake Minnesota	1	351.00	43.605300	-94.472500	lacustrine	6	0.73	https://www.ncdc.noaa.gov/paleo/study/21017
Amont	1	335.00	53.730000	-74.380000	terrestrial, bog	-888888		Cedric, 2008
Anderson Pond	1	300.00	36.028495	-85.505116	lacustrine	1	0.35	Horn et al., 2019
Andy Lake	1	360.00	61.950000	-109.810000	lacustrine	9.5	0.1	Lynch et al., 2004
Anggi Lakes	1	1945.00	-1.390000	133.894893	lacustrine, tectonic origin	200	-999999	Hope, 2007b
Anstey's Combe	1	282.00	51.054451	-3.674715	terrestrial, mire	-888888	-999999	Fyfe et al., 2003
Anteojos Valley	2	3984.00	-0.965767	-78.406617	terrestrial, mire	-888888	-999999	Villota et al., 2015
Antu Sinijarv	2	95.00	59.062500	26.240000	lacustrine	7.3	0.024	Laumets et al., 2013
Anumon Swamp	1	45.00	-20.162800	169.827500	terrestrial, fen	-888888	-999999	Hope, 1996a
Anyang Huanhe River 01	1	67.00	36.100000	114.400000	fluvial		-999999	Cao, 2008
Anyang Huanhe River 02	1	103.00	36.160000	114.160000	fluvial		-999999	Cao, 2008
Anzac	1	497.00	56.471944	-111.042778	terrestrial, bog	-888888	-999999	Magnan et al., 2018
Appleman Lake	1	293.00	41.623331	-85.212806	lacustrine	9	0.21	Gill et al., 2009
Apsuciems Mire	1	6.60	57.053642	23.317031	terrestrial, fen	-888888	0.15	Gałka et al., 2016
Aracatuba	1	1500.00	-25.910000	-48.980000	terrestrial, mire	-888888	0.006	Behling, 2007
Araisu lake	2	120.20	57.250912	25.289886	lacustrine	12.3	0.326	Stivrins et al., 2014; Stivrins et al., 2016
Arbarrain Mire	1	1004.00	43.211400	-2.172900	terrestrial, bog	-888888	0.0156	Pérez-Díaz et al., 2018
Argan Swamp	2	3.00	-10.050000	142.060000	coastal	0		Rowe, 2006a
Armacao de Pera Ribeira de Alcantarilha	2	2.40	37.110107	-8.344590	coastal, estuarine	-888888	-999999	Schneider et al., 2010; Schneider et al., 2016

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Arrow Lake	1	90.00	60.750000	-150.516667	lacustrine	10.5	0.105	Lynch et al., 2002
Arroyo de Aguas Frias	1	1120.00	40.266700	-5.116700	terrestrial, bog	-888888	0.03	Camarero et al., 2019
Arroyo de las Carcavas	1	1300.00	40.841900	-4.031400	terrestrial, small hollow	-888888	7e-04	Morales-Molino et al., 2017a
Arroyo de Valdeconejos	1	1380.00	40.862200	-4.059700	terrestrial, mire	-888888	0.00126	Morales-Molino et al., 2017a
Artxilondo	1	900.00	43.030000	-1.130000	terrestrial, mire	-888888	-999999	Galop et al., 2004
Aru	1	1.00	-5.910000	134.200000	terrestrial	0		Hope and Aplin, 2005
Asi Gonia	1	780.00	35.248773	24.277500	terrestrial, bog	-888888	-999999	Atherden and Hall, 1999; Jouffroy-Bapicot et al., 2016
Attekposmosse	2	177.50	56.383333	12.850000	terrestrial, bog	0	-999999	Håkansson, 1984; Wohlfarth et al., 2018
Auassat	1	466.00	51.813600	-63.691900	terrestrial, fen	-888888	0.22	Primeau and Garneau, 2021
Aurelie Lake	1	428.00	50.418500	-74.235444	lacustrine	5.7	0.0018	El-Guellab et al., 2015
Aval	1	335.00	53.410000	-73.860000	terrestrial, bog	0		Cedric, 2008
Avril Lake	1	472.00	49.368740	-89.418470	lacustrine	5	0.027	Senici et al., 2015
Ayla Lake	1	582.00	52.894250	-67.040920	lacustrine	10.2	0.108	Remy et al., 2017
Azzano Decimo	1	10.00	45.880000	12.710000	terrestrial			Pini et al., 2009
Badu 15	2	20.00	-10.060000	142.090000	terrestrial	-888888	-999999	Rowe, 2006a; Rowe, 2006b; Rowe, 2007
Baga Nuur	1	981.00	49.920800	93.849300	lacustrine	7.1	3.14	Umbanhowar Jr et al., 2009
Bagno Kusowo	3	155.00	53.807778	16.587222	terrestrial, bog	-888888	3.19	Marcisz et al., 2017; Marcisz et al., 2019
Bagno Serebryskie	1	173.00	51.176363	23.526241	terrestrial, fen		3.76	Gałka et al., 2017
Baie	1	17.00	49.096600	-68.250000	terrestrial, bog	-888888	24.2	Magnan et al., 2014
Bakaly	1	1879.00	42.450000	72.600000	lacustrine	5		Beer, Unpublished
Baker Lake, Montana	1	2300.00	45.891785	-114.263047	lacustrine, glacial origin	16	-999999	Brunelle et al., 2005; Brunelle-Daines, 2002
Ballachrink	1	20.00	54.370000	-4.470000	terrestrial, buried fen	-888888	-999999	Innes et al., 2003
Balywillin Crannog Lake Kinale	1	62.00	52.775000	-7.416700	lacustrine	4	6	Brown et al., 2005a
Banda Sea Core SHI-9014	1	-3163.00	-5.760000	126.960000	marine	-888888	-888888	van der Kaars et al., 2000
Bao-1	1	1775.00	19.060000	-71.030000	terrestrial, mire	0.15	-999999	Kennedy et al., 2006
Bar20	1	18.00	-10.100000	142.120000	coastal	0.8	-999999	Rowe, 2006a; Rowe, 2007
Barrett Lake	1	2816.00	37.588994	-118.996235	lacustrine	8.1	0.032	Hallett and Anderson, 2010
Basa de la Mora	1	1906.00	42.545270	0.325500	lacustrine, glacial origin	4.5	0.03	Pérez-Sanz et al., 2013
Bashania die-off soil profile	1	-999999.00	33.660000	107.795000	terrestrial		-999999	Rayle et al., 2015
Bashania non-die-off soil profile	1	-999999.00	33.660000	107.795000	terrestrial		-999999	Rayle et al., 2015
Basin (COHMAP2k)	1	125.00	44.466667	-70.050000	lacustrine	32	0.134	Gajewski et al., 1987
Bass Lake Faribault County	1	314.00	43.820530	-94.078250	lacustrine	6	0.81	Umbanhowar Jr, Unpublished
Bass Lake Kandiyohi County	1	361.00	45.197500	-94.879100	lacustrine	10	19.61	https://www.ncdc.noaa.gov/paleo-search/study/21050

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Batbold Nuur	1	2150.00	51.347600	98.874930	lacustrine	15.5	0.14	Robinson, 2007
Bates Pond Canterbury	1	95.00	41.658780	-72.016230	lacustrine	3.6	0.027	Kdster and Pienitz, 2006b
Batorliget Marsh	1	130.00	47.750000	22.500000	terrestrial, marsh	-888888	0.035	Willis et al., 1995
Battle Ground Lake	1	154.00	45.800000	-122.490000	lacustrine	16.13	0.135	Juvigné, 1986; Walsh et al., 2008
Bayan Nuur	1	1540.00	48.463100	95.160400	lacustrine	14	64.01	Umbanhowar Jr et al., 2009
Bayangdian Lake	1	7.97	38.840000	115.990000	lacustrine	2	-999999	Fan et al., 2019
Bazu bog	1	15.00	57.700040	22.450210	terrestrial, bog	-888888	2646	Stivrins, Unpublished
BC 1	4	120.00	57.147783	-120.651383	terrestrial, bog	-888888	-999999	Väliranta et al., Unpublished
BC 2	4	120.00	58.431900	-120.119444	terrestrial, bog	-888888	-999999	Väliranta et al., Unpublished
BC 4	4	120.00	58.852222	-122.422778	terrestrial, bog	-888888	-999999	Väliranta et al., Unpublished
Beach Lake	1	81.00	65.216667	-127.050000	lacustrine	-999999	-999999	Rowe et al., 1975
BEAT, Glen Affric	1	270.00	57.259899	-4.966109	terrestrial	-888888	-999999	Shaw and Tipping, 2006
Beaver Lake, Nebraska	1	900.00	42.460044	-100.670164	lacustrine	-777777		Clark et al., 2001
Beaver Lake, Ontario	1	468.00	49.534350	-90.400190	lacustrine	4	0.032	Senici et al., 2015
Beaver Lake, Oregon	1	69.00	44.917167	123.296333	lacustrine, fluvial origin	1.5	0.01	Walsh et al., 2010a
Beef Pasture	3	3060.00	37.416667	-108.150000	terrestrial	-888888	0.75	Petersen, 1988
Beg Bunar	1	1750.00	42.150000	22.550000	terrestrial, bog	-888888	-999999	Lazarova et al., 2015
Bega Swamp	1	1080.00	-36.510000	149.500000	terrestrial, bog	-888888	-999999	Polach and Singh, 1980
Belauer See	1	26.00	54.100000	10.253300	lacustrine	29	1.15	Dörfler et al., 2012; Wiethold, 1998
Beliya Kanton	1	1547.00	41.730000	24.140000	terrestrial, bog		0.095	Marinova, Unpublished
Ben Lake	1	480.00	49.356950	-89.769560	lacustrine	5	0.016	Senici et al., 2013
Bereket Basin	1	1410.00	37.545000	30.295000	terrestrial, marsh	-888888	-999999	Kaniewski et al., 2008
Bermu Mire	2	783.00	39.434100	-4.146000	terrestrial, bog	-888888	5e-04	Luelmo-Lautenschlaeger et al., 2018
Berry East Pond	1	43.00	42.620100	-71.087330	lacustrine	-999999	0.016	Oswald et al., 2007; Oswald, Unpublished
BI02 (North Quebec)	1	210.00	57.120000	-76.380000	lacustrine	7.5	0.007	Gajewski, 2019
Bialowieza forest Site 2	4	165.00	52.751900	23.878900	terrestrial, small hollow	-888888	1e-05	Mitchell and Cole, 1998
Bibersee	1	430.00	47.206944	8.466667	terrestrial, mire	-888888	-999999	Tinner and Lotter, 2006
Bielice	1	185.00	48.620000	18.340000	terrestrial, fen		-999999	Hájková et al., 2013
Big Beer	1	315.00	53.122810	-60.103610	lacustrine	1.25	1.35	Umbanhowar Jr and Camill, 2020
Big Fish Lake	1	320.00	42.883960	-83.392430	lacustrine	21	0.43	Ballard, 2009
Big Spirit Lake Iowa	1	449.00	43.484620	-95.106170	lacustrine	7.3	23	Umbanhowar Jr, Unpublished
Binnewater Pond	1	256.00	41.409742	-74.551738	lacustrine	-999999	0.26	Robinson et al., 2005
Birzulis	2	148.00	55.780000	22.470000	lacustrine	4.5	1	Stančikaitė et al., 2006
Biviere di Gela	1	7.00	37.016700	14.330000	lacustrine	6	1.2	Noti et al., 2009
Bjornfjelltjorn	1	510.00	68.444160	18.071660	lacustrine	12.9	-999999	Bjune et al., 2008
Black HF	1	13.00	41.328100	-70.792300	lacustrine	-999999	0.014	Oswald et al., 2018; Oswald et al., 2020
Black Loch	4	90.00	56.000000	-3.000000	lacustrine	3	0.015	Edwards and Whittington, 2000; Edwards et al., 2000; Whittington et al., 1991

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Black Pond	1	262.00	35.620000	-84.180000	lacustrine	0.1		Cridlebaugh, 1984; Delcourt and Delcourt, 1997a; Delcourt and Delcourt, 1997b; Delcourt and Delcourt, 1998; Delcourt et al., 1983; Delcourt et al., 1986; Delcourt et al., 1998; Meeks, 2004; Meeks, 2005
Black Swamp	1	1450.00	-32.050000	151.466700	terrestrial, bog	-888888	-999999	Dodson et al., 1986
Blaneys Pond HF	1	5.00	41.471700	-70.765200	lacustrine	-999999	0.01	Oswald et al., 2018; Oswald et al., 2020
Blood Pond HF	1	214.00	42.080000	-71.961500	lacustrine	3.6	0.085	Lindbladh et al., 2007; Oswald and Foster, 2013; Oswald et al., 2007; Oswald et al., 2020
Blue Lake Kosciuzko	1	1950.00	-36.140000	148.430000	lacustrine	28	0.16	Raine, 1974
Bluff Lake CA	1	1926.00	41.346415	-122.559950	lacustrine	1.7	0.03	Mohr et al., 2000
Blundells Flat	2	762.00	-35.190000	148.490000	terrestrial, fen	-888888	-999999	Hope et al., 2006b
BN07 (North Quebec)	1	395.00	55.000000	-73.520000	lacustrine	2.8	0.34	Gajewski, 2019
Bobundara Swamp	1	75.00	-36.583300	150.060000	coastal, estuarine	-999999	1.2	Hope et al., 2006a
Bogdanowka-Belo	3	675.00	49.754200	19.794350	terrestrial, buried fen	-888888	0.003	Kołaczek et al., 2017; Kołaczek et al., 2020
Boggy Swamp	1	1160.00	-29.960000	151.490000	terrestrial, bog	-888888	-999999	Dodson et al., 1986
Bohult Hollow	1	77.00	57.233300	16.166700	terrestrial, small hollow	-888888	0.005	Axelsson, 1995; Lindbladh et al., 2000
Boigu Gawat	1	10.00	-10.100000	142.140000	coastal	0.1	-999999	Rowe, 2006a; Rowe, 2007
Bolan Lake	1	1637.00	41.022500	-122.458300	lacustrine	11.25	0.05	Briles et al., 2005
Bolin Billabong	1	50.00	-37.766700	145.066700	fluvial	3	0.017	Leahy et al., 2005
Bolshoe Bog	1	450.00	51.460000	104.500000	terrestrial, mire	-888888	-999999	Krivonogov et al., 2004; Takahara and Krivonogov, Unpublished
Bolton Fell Moss	1	110.00	55.020000	-2.850000	terrestrial, bog	-888888	3.65	Barber et al., 2003
Boluo Pond	1	-999999.00	44.380000	124.820000	terrestrial, bog		70	He et al., 2015
Bonatoa	1	4.00	-18.070000	178.530000	terrestrial, bog	0.5	-999999	Hope et al., 1999; Hope, 1996b
Bondi Lake	2	22.00	-36.800000	149.930000	coastal	4.5	0.7	Dodson et al., 1993
Boomerang Lake	1	360.00	49.180000	-124.150000	lacustrine	7	0.627	Brown et al., 2006
Bopaiah	1	910.00	12.153889	75.713056	terrestrial, mire	-888888	-999999	Nogué et al., 2017
Borreguil de la Caldera	1	2992.00	37.050600	-3.323300	terrestrial, bog	-888888	0.0017	Ramos-Román et al., 2016
Borsteler Moor	2	36.21	52.638810	8.972081	terrestrial, bog	-888888	-999999	Shumilovskikh et al., 2015
Bortala River	1	1300.00	44.973730	81.031340	terrestrial, marsh		38.4	Li and Wang, 2020
Botucatu	1	500.00	-23.180000	-48.000000	terrestrial, soil	-888888	-888888	Marques Gouveia et al., 2002; Ruiz Pessenda et al., 2004
Boulder Flat	1	25.00	-37.450000	148.920000	terrestrial	-888888	-999999	Kenyon, 1989
Bouleau	1	108.00	50.523900	-63.207300	terrestrial, bog	-888888	1.51	Primeau and Garneau, 2021; Primeau and Garneau, Unpublished
Braamhoek	1	1700.00	-28.230000	25.580000	terrestrial, fen	-888888		Norström et al., 2009
Breadalbane	1	694.00	-34.800000	149.510000	lacustrine, drained lake	-888888	-999999	Dodson, 1986

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Breclav	1	160.00	48.770000	16.875469	terrestrial, fen	-888888	0.125	Jamrichová, Unpublished
Brenda Lake	1	207.00	62.350000	-119.190000	lacustrine	5.86	-999999	Lynch et al., 2004
Bricu lake	1	208.40	57.115374	25.870619	lacustrine	2.7	0.16	Steinberga and Stivrins, 2021
Bridgewater Lakes	1	20.00	-38.300000	141.380000	lacustrine	5	-999999	Head, 1988
Brooks Ridge Fen	1	1450.00	-36.150000	148.590000	terrestrial, fen	-888888		Mooney et al., 1997
Bruckmisse	3	670.00	48.732500	8.644200	terrestrial, bog	-888888	-999999	Rösch et al., 2005; Rösch, 2007
Brule (Quebec Ontario)	1	270.00	45.717000	-75.433000	lacustrine	45	0.1	Lafontaine-Boyer and Gajewski, 2014
Brurskardtjorni	1	1309.00	61.416667	8.666667	lacustrine	10	-999999	Bjune, 2005
Brve	1	362.00	50.066660	14.238880	terrestrial, fen	-888888	0.06	Pokorný and van der Knaap, 2011
Buhaiescu Mare	1	1918.00	47.570000	23.643333	lacustrine, glacial origin	0.5	0.009	Feurdean et al., 2020b; Geantă et al., 2014
Burnt Knob Lake	1	2250.00	45.700000	-114.980000	lacustrine, glacial origin	5.5	0.035	Brunelle and Whitlock, 2003
Burraga Swamp	1	1462.00	-32.020000	151.430000	terrestrial, bog	-888888		Dodson et al., 1994c
Burralow Creek Swamp	1	320.00	-33.530000	150.630000	terrestrial, fen	-888888		Chalson, 1991
Butchers Swamp	1	1230.00	-29.970000	151.450000	terrestrial, bog	-888888	-999999	Dodson et al., 1986
Butler Lake	1	316.00	43.662484	-88.134088	lacustrine	4	0.03	Long et al., 2011b
Buxton	1	235.00	-37.440000	145.690000	terrestrial, bog	-888888		McKenzie, 2002
Byenup Lagoon	2	175.00	-34.460000	116.730000	lacustrine	2.8	12	Dodson and Lu, 2000
Cahaba Pond	1	204.00	33.500000	-86.530000	lacustrine	1.34	0.002	Cridlebaugh, 1984; Delcourt and Delcourt, 1997a; Delcourt and Delcourt, 1997b; Delcourt and Delcourt, 1998; Delcourt et al., 1983; Delcourt et al., 1986; Delcourt et al., 1998; Meeks, 2004; Meeks, 2005
Caihe Town	1	1190.00	47.510000	120.870000	lacustrine, volcanic lake	6.5	0.03	Wu and Liu, 2013
Cain HF	1	20.00	41.858300	-70.978400	lacustrine	-999999	0.013	Oswald et al., 2020
Cajanuma valley	2	3285.00	-4.149722	-79.156944	terrestrial, bog	-888888	7e-04	Villota and Behling, 2014
Caledonia Fen	1	1280.00	-37.333300	146.733300	terrestrial, fen	0.1	0.15	Kershaw et al., 2007b
Calineasa	1	1300.00	46.563100	22.829200	terrestrial, bog		0.01	Feurdean et al., 2009; Feurdean et al., 2020b
Cambara do Sul	1	1040.00	-29.052500	-50.101100	terrestrial, bog	-888888	0.00196	Behling et al., 2004
Cameron's Lagoon	1	1045.00	-41.960000	146.680000	terrestrial, bog	1	0.0025	Thomas and Hope, 1994
Camillan Wood	1	17.00	52.030000	-9.560000	terrestrial, small hollow	-888888	0.001	Mitchell, 1988
Camp Lake Albion County	1	316.00	45.159300	-94.091600	lacustrine	17	47.76	https://www.ncdc.noaa.gov/paleo-search/study/21051
Campbell Lake CA	1	1750.00	41.532802	-123.105499	lacustrine	7.12	0.12	Briles et al., 2011
Campo Lameiro	5	295.00	42.533300	-8.516700	terrestrial	-888888	-999999	Kaal et al., 2008; Kaal et al., 2011; Kaal et al., 2013; López-Merino et al., 2012
Cana Swamp	1	500.00	7.750000	-77.580000	terrestrial, fen	-888888	1	Bush and Colinvaux, 1994
Canada de la Cruz	1	1595.00	38.067500	-2.687500	lacustrine	1	0.6875	Carrión et al., 2001b
Canada del Gitano Sierra de Baza	1	1900.00	37.233300	-2.700000	terrestrial, bog	-888888	2	Carrión et al., 2007

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Canal de la Puntilla	1	120.00	-40.952500	-72.905000	terrestrial, fen	-888888	-999999	Moreno, 1997
Canoe	1	166.00	53.048890	-57.671750	lacustrine	0.637	3.63	Umbanhowar Jr and Camill, 2020
Cantarrana	1	36.00	10.430000	-84.000000	terrestrial, bog	0.01	0.005	Kennedy and Horn, 2007
Caohu Lake	1	-999999.00	31.560000	117.390000	lacustrine	2.69	825	Wu et al., 2008
Caotanhu relic site	1	380.00	44.420000	113.020000	terrestrial, bog	-888888	-999999	Zhang et al., 2014
Carajas	1	250.00	-6.000000	-50.160000	lacustrine			Cordeiro et al., 2008
CASA	3	270.00	49.552292	-78.987178	terrestrial, bog	-888888	-999999	Beaulne et al., 2021
Castello Lagoon	1	2.40	42.281556	3.099528	coastal	1	2.2	Ejarque et al., 2016
Castor	1	220.00	46.613900	-72.998900	lacustrine	-999999	0.001	Carcaillet and Richard, 2000
Catas Altas	1	755.00	-20.083333	-43.366670	terrestrial, soil	-888888	-999999	Behling and Lichte, 1997
Cedar Lake CA	1	1740.00	41.207395	-122.496677	lacustrine	2.6	0.04	Whitlock et al., 2004
Cederberg Pakhuisch	1	460.00	-32.100000	19.060000	terrestrial			Scott and Woodborne, 2007
Cedres Lake	1	307.00	49.346000	-79.208000	lacustrine	16	0.04	Ali et al., 2008
Cenote Kail	2	1534.00	16.000000	-91.554000	lacustrine	-777777	-999999	Harvey et al., 2019
Cepicko polje	1	27.00	45.190000	14.159100	lacustrine, drained lake	0	1.2	Balbo et al., 2006; Balbo, Unpublished; Feurdean et al., 2020b
Cepkeliai	1	131.00	54.010000	24.617000	terrestrial, bog	-888888	58.58	Stančikaitė et al., 2019a
Cerna Horna	1	1190.00	50.660000	15.750000	-777777			Speranza et al., 2000
Cerro Toledo	2	3244.00	-4.116083	-79.172056	terrestrial, bog		-999999	Brunschön and Behling, 2009
Cha das Lameiras	2	950.00	40.942800	-7.676100	terrestrial	-888888	-999999	López-Sáez et al., 2017a
Chai-ku Lake	1	129.00	62.000000	130.060000	lacustrine	1	0.44	Katamura et al., 2009b
Champ Gazon	1	585.00	47.203333	4.048611	terrestrial, bog	-888888	0.2	Jouffroy-Bapicot et al., 2013; Jouffroy-Bapicot, 2010
Chang Cheng Cun	2	1400.00	35.870000	106.780000	terrestrial, loess		-999999	Tan et al., 2018
Changwu County	1	-999999.00	35.150000	107.930000	fluvial		-999999	Zhao, 2005
Chapple Vale Swamp	1	30.00	-38.620000	143.320000	terrestrial, fen	0		McKenzie and Kershaw, 1997
Charco da Candieira	1	1409.00	40.343600	-7.578100	lacustrine	0.5	0.008	Connor et al., 2012; van der Knaap and van Leeuwen, 1995; van der Knaap and van Leeuwen, 1997
Chasseur Lake	1	275.00	47.745775	-79.087453	lacustrine	5.2	0.0015	Paillard, Unpublished
Chatsworth Bog	1	290.00	40.675830	-88.323060	terrestrial, fen	1	0.25	Nelson et al., 2006
Cheinu	3	461.00	52.647000	-72.192600	terrestrial, fen	-888888	0.148	Robitaille et al., 2021
Chenghai Lake	2	1509.00	26.450000	100.630000	lacustrine	31.8	77.2	Xiao et al., 2018
Chengjiang River	1	1721.00	24.420000	102.870000	lacustrine, tectonic origin	81.2	212	Sun et al., 2018
Chengzishan site	1	553.00	41.310000	119.480000	archaeological site		-999999	Zhao et al., 2011
Cheremushuka bog	1	462.00	52.750000	108.080000	terrestrial, mire	-888888	0.5	Krivonogov et al., 2004; Shichi et al., 2009
Chiba Lake	1	-999999.00	29.580000	113.000000	lacustrine, fluvial origin	6	-999999	Gao, 2017
Chichi (Changbai Mountains)	1	1832.00	42.000000	128.000000	terrestrial, bog		0.5	Gao et al., 2016
Chickaree Lake	1	2796.00	40.334125	-105.841095	lacustrine	7.9	0.015	Dunnette et al., 2014

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Chihuahuenos Bog	1	2925.00	36.040000	-106.500000	terrestrial, bog	3	0.023	Allen et al., 2008; Anderson et al., 2008a; Anderson et al., 2008b; Anderson, Unpublished; Brunner Jass, 1999
Chopper Lake	1	-999999.00	66.002250	-146.275320	lacustrine	9.4	-999999	Kelly et al., 2013
Chyornaya Valley	1	2.00	44.560000	33.620000	fluvial	2		Cordova and Lehman, 2005
Clarks Junction	1	560.00	-45.710000	170.110000	terrestrial	-888888	-999999	McGlone, 2001
Clayoquot Lake	1	15.00	49.250000	-125.500000	lacustrine, glacial origin	3.8	0.47	Gavin et al., 2003
Clear (COHMAP2k)	1	513.00	43.750000	-74.016667	lacustrine	11	0.035	Gajewski et al., 1987
Cliff Palace Pond	1	424.00	37.520000	-83.920000	terrestrial, small hollow	0.14	0.001	Delcourt and Delcourt, 1997b; Delcourt et al., 1998
Club Lake	1	1995.00	-36.400000	148.310000	lacustrine	2	-999999	Dodson et al., 1994a
Coast Trail Pond	1	230.00	37.980000	-122.800000	lacustrine	0		Anderson, 2005; Rypins et al., 1989
Cobrico Swamp	1	140.00	-38.300000	143.030000	terrestrial, fen	1	-888888	Dodson et al., 1994b
Coldwater Lake, McIntosh County	1	596.00	46.016660	-99.066660	lacustrine	6	0.5	Umbanhowar Jr, 2004; Xia et al., 1997
Colonia basin	1	700.00	-23.867500	-46.707500	terrestrial, mire	-999999	-999999	Rodríguez-Zorro et al., 2020
Como Lake	1	3523.00	37.550000	-105.500000	lacustrine	-999999	-999999	Shafer, 1989
Congping	1	2120.00	31.400000	110.040000	terrestrial, bog	0.1	10	Dodson et al., 2021
Conroy (COHMAP2k)	1	140.00	46.283333	-67.883333	lacustrine	33	0.105	Gajewski et al., 1987
Cooley Lake BC	1	1515.00	49.490867	-117.645321	lacustrine	11	0.045	Gavin et al., 2006
Copper Falls Lake	1	392.00	47.417000	-88.192000	lacustrine	3	0.3	Pompeani et al., 2018
Core Fr10 95-GC-17	1	-1093.00	-22.040000	113.500000	marine	1093		van der Kaars and de Deckker, 2002
Core Trident 163 31B	1	-3210.00	-3.620000	-83.966700	marine			Heusser and Shackleton, 1994
Corral Lake	1	75.00	57.320000	-100.850000	lacustrine	7.5	0.08	Lynch et al., 2004
Cothill Fen	1	80.00	51.697753	-1.332935	terrestrial, fen	-888888	0.433	Day, 1991
Cotter Source Bog	1	1755.00	-35.755000	148.857500	terrestrial, bog	-888888	0.05	Jones, 1990
Cotter Source Bog center	1	1755.00	-35.960000	148.810000	terrestrial, bog	0		Hope and Clark, 2008
Crag Lough	1	250.00	55.006008	-2.367383	lacustrine, glacial origin	2	0.11	Dark, 2005
Craigrossie	1	112.00	-29.820000	30.990000	-777777	0		Scott, 2002
Crane Lake	1	2590.00	36.716667	-112.210000	lacustrine	-999999	-999999	Shafer, 1989
Crater Lake Alaska	1	806.00	62.101714	-146.238431	lacustrine	4.2	0.01	Barrett et al., 2013
Crater Lake CA	1	2288.00	41.383600	-122.579700	lacustrine	12.15	0.06	Mohr et al., 2000
Crawford Lake Ontario	1	279.00	43.468529	-79.948817	lacustrine	28.5	0.025	Clark and Royall, 1996
Creag na Caillich	1	685.00	56.500000	-4.330000	terrestrial, bog	-888888	-999999	Tipping et al., 1993
Crevice Lake	2	1713.00	45.000000	-110.578000	lacustrine, glacial origin	31	0.0776	Power, Unpublished; Whitlock et al., 2008
Crominia	1	710.00	-17.270000	-49.410000	terrestrial, marsh	-888888	-999999	Salgado-Labouriau et al., 1997
Crooked Pond	1	28.00	41.891667	70.650000	lacustrine	3.5	0.09	Shuman et al., 2001
Crudale Meadow	1	9.00	59.010000	-3.320000	terrestrial, bog	-888888	0.12	Bunting, 1994; Edwards et al., 2000

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Crystal Lake Minnesota	1	284.00	44.333900	-93.211300	lacustrine	11	1.13	https://www.ncdc.noaa.gov/paleo/study/21054
Cubelles	1	2.00	41.200000	-1.670000	coastal	-888888	-999999	Riera-Mora and Esteban-Amat, 1994
Cuddie Springs	1	127.00	-30.370000	147.310000	lacustrine, drained lake	-888888	3	Field et al., 2002
Cuguron	1	513.00	43.100000	0.540000	terrestrial, mire	-888888	0.8	Vannière and Laggoun-Défarge, 2002
Curt Pond	1	336.00	36.900000	-84.030000	terrestrial, small hollow	0.2	-999999	Cridlebaugh, 1984; Delcourt and Delcourt, 1998; Delcourt et al., 1983; Delcourt et al., 1986; Meeks, 2004; Meeks, 2005
Cvitova	1	228.00	49.215830	24.468200	terrestrial, buried fen	-888888	0.012	Feurdean et al., 2020b; Kołaczek et al., 2016
Cygnet Lake	1	2530.00	44.660000	-110.610000	lacustrine, glacial origin	6.1	0.11	Millspaugh et al., 2000; Millspaugh, 1997
Daihai Lake	1	1221.00	40.530000	112.670000	lacustrine	13.1	133.5	Wang et al., 2013
Daiyunshan Mountain 01	1	1030.00	25.840000	118.270000	terrestrial		-999999	Zhao et al., 2017a
Daiyunshan Mountain 02	1	950.00	25.770000	118.110000	terrestrial		-999999	Zhao et al., 2017a
Daktariske	1	148.00	55.800000	22.400000	-777777			Rimantienė, 1992
Dalane	1	40.00	58.244167	8.004445	lacustrine	5.15	0.028	Eide et al., 2005
Dalhousie Springs	1	150.00	-26.410000	135.520000	terrestrial, mound spring or spring	0		Boyd, 1990
Dallican Water	1	56.00	60.391670	-1.100000	lacustrine	4	0.01	Bennett et al., 1992
Dallund So North Funen	1	12.00	55.480000	10.260000	-777777			Bradshaw et al., 2005; Rasmussen and Bradshaw, 2005
Dalmutladdo	1	355.00	69.166667	20.716667	lacustrine	4	0.072	Bjune et al., 2004
Dark Lake (COHMAP2k)	1	335.00	45.266667	-91.466667	lacustrine	4	0.138	Gajewski et al., 1985
Daxigou	1	3450.00	43.140000	86.910000	terrestrial	0		Zhang et al., 2004b
Dead Horse Lake	1	2248.00	42.560600	-120.778100	lacustrine, glacial origin	0	0.15	Minckley et al., 2007
Deep Pond Falmouth	1	23.00	41.564087	-70.635791	lacustrine	-999999	0.01	Oswald et al., 2020; Parshall et al., 2003
Deep Taunton	1	7.00	41.882400	-71.011500	lacustrine	-999999	0.015	Oswald et al., 2018; Oswald et al., 2020
DeHerrera Lake	1	3343.00	37.740000	-107.700000	lacustrine	0		Anderson et al., 2008a; Anderson, Unpublished
Delta del Rio Besos	1	0.00	41.380278	2.248333	terrestrial	-888888	-999999	Riera-Mora and Esteban-Amat, 1994
Deming Lake Minnesota	1	464.00	47.170177	-95.168432	lacustrine	16.6	0.054	Clark and Royall, 1996
Den Plain	1	350.00	-41.502780	146.341670	fluvial	-888888	-999999	Moss et al., 2007
Derragh Bog	1	70.50	53.766700	-7.416700	terrestrial, bog		0.374	Brown et al., 2005a
Derragh Lough	1	62.00	53.761100	-7.577800	lacustrine	2	0.4	Brown et al., 2005a
Derrycunihy Wood	1	75.00	52.010000	-9.410000	terrestrial, small hollow	-888888	-999999	Mitchell, 1988
Desautels	1	480.00	49.457800	-73.256700	lacustrine	7	0.3	Carcaillet and Richard, 2000

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Deuce Lake	1	170.00	65.516670	-147.516700	lacustrine, thermokarst origin	5	0.03	Lynch et al., 2002
Dimple Lake Alaska	1	394.00	69.956951	-150.201839	lacustrine	8	0.1	Hu et al., 2010
Dingnan County	1	250.00	24.750000	115.030000	fluvial		-999999	Dodson et al., 2006
Doe HF	1	79.00	42.175400	-72.702400	lacustrine	-999999	0.014	Oswald et al., 2018; Oswald et al., 2020
Doel	1	-1.00	51.320830	4.245270	coastal, estuarine	-888888	-888888	Deforce, 2011
Dog Lake	1	1183.00	50.760000	-116.100000	lacustrine	4.7	0.151	Hallett and Walker, 2000
Doge Doge Swamp	1	8.00	-17.900000	177.270000	terrestrial, bog	0.5	0.05	Hope et al., 2009
Dolbeau	1	965.00	48.966900	-65.955800	lacustrine	0.45	0.031	Carcaillet and Richard, 2000
Dom Lake	1	470.00	49.439660	-89.632040	lacustrine	6	0.031	Senici et al., 2015
Dongganchi site	1	49.00	40.200000	116.000000	terrestrial	-777777		Zhang et al., 1996; Zhang et al., 1997; Zhang et al., 1999
Dongxiafeng North	1	500.00	35.250000	111.350000	archaeological site		-999999	Huang et al., 2006
Dongxiafeng South	1	500.00	35.150000	111.350000	archaeological site		-999999	Huang et al., 2006
Doroo Nuur	1	2394.00	48.245900	90.663900	lacustrine	9.1	14.12	Umbanhowar Jr et al., 2009
Dragonfly Lake	1	760.00	60.811944	-135.340000	lacustrine	2	0.06	Edwards et al., 2015
Duarte Pond HF	1	15.00	41.420000	-70.615500	lacustrine	3	0.014	Foster et al., 2002b
Dubh-Lochan	1	150.00	57.290000	-4.430000	lacustrine, glacial origin	3.5	0.012	Froyd, 2006
Dublin Bog	1	710.00	-41.720000	146.230000	terrestrial, bog	-888888	0.5	Colhoun et al., 1991
Dubrava Wood	1	190.00	48.867300	17.102400	terrestrial, bog		-999999	Jamrichová et al., 2017
Duck Pond Naushon	1	3.00	41.494745	-70.714160	lacustrine	18	-999999	Oswald, Unpublished
Duck Pond Wellfleet	1	2.50	41.932448	-70.000651	lacustrine	18	0.051	Winkler, 1985
Duguldzeiri River bog	1	529.00	54.450000	109.530000	terrestrial, mire	-888888	-777777	Krivonogov et al., 2004; Takahara and Krivonogov, Unpublished
Dukes Tarn	1	830.00	-44.964180	168.492690	lacustrine	-999999	0.015	McWethy et al., 2014
Duliha bog	1	510.00	51.510000	105.000000	terrestrial, mire	-888888	-999999	Krivonogov et al., 2004; Takahara and Krivonogov, Unpublished
Dune Lake	1	134.00	64.416670	-149.900000	lacustrine	9	0.12	Lynch et al., 2002
Durchenbergried	1	432.00	47.783333	8.983333	terrestrial, bog	0	0.0225	Rösch, 1986; Rösch, 1997
Durnoye	1	118.00	55.090000	40.893900	terrestrial, bog		0.03	Feurdean et al., 2020b; Novenko et al., 2016b
Dyanushka	1	33.00	65.030000	125.030000	terrestrial, bog	-777777		Werner et al., 2005
E5	1	805.00	68.640000	-149.460000	lacustrine	12	0.1	Vachula et al., 2019
Eagle Lake Carver County	1	294.00	44.808700	-93.933600	lacustrine	4	0.74	https://www.ncdc.noaa.gov/paleo/study/21055
Eagle Pond HF	1	11.00	41.698000	-70.137000	lacustrine	6.4	0.04	Oswald et al., 2020; Parshall et al., 2003
East Lake	1	2863.00	37.170000	-119.020000	lacustrine, glacial origin	5		Power, 1998
East Moor	1	250.00	50.530000	-4.470000	terrestrial, bog	-888888	-999999	Gearey et al., 2000
East Sooke Fen	1	155.00	48.351900	-123.681700	terrestrial, fen	-888888	0.001	Brown and Hebda, 2002; Brown et al., 2006
EC01 (North Quebec)	1	250.00	56.280000	-75.100000	lacustrine	8.65	0.04	Gajewski, 2019

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EC02 (North Quebec)	1	260.00	56.020000	-74.950000	lacustrine	8.85	0.025	Gajewski, 2019
EC03 (North Quebec)	1	279.00	56.020000	-74.980000	lacustrine	4.18	0.025	Gajewski, 2019
Egg Lagoon	1	20.00	-39.650000	143.950000	terrestrial, bog	0		D'Costa et al., 1993
El Brezosa	2	733.00	39.349100	-4.361100	terrestrial, bog	-888888	0.106	Morales-Molino et al., 2018
El Carrizal	1	860.00	41.318500	-4.145000	lacustrine	1.5	0.11	Franco-Múgica et al., 2005
El Patia	1	760.00	2.030000	-77.000000	lacustrine	-888888	0.018	Vélez et al., 2005
El Payo mire	4	1000.00	40.253500	6.771200	terrestrial, fen	-888888	-999999	Silva Sánchez et al., 2016
El Perro mire	1	690.00	39.051300	-4.759600	terrestrial, mire	-888888	3.3	Luelmo-Lautenschlaeger et al., 2019a; Luelmo-Lautenschlaeger et al., 2019b
El Portalet	2	1802.00	42.798990	-0.398830	terrestrial, bog	-888888	0.1	González-Sampériz et al., 2006
El Redondo	2	1765.00	40.221400	-5.656900	terrestrial, bog	-888888	0.00125	López-Sáez et al., 2016a
El Salto	1	67.00	-41.640000	-73.090000	lacustrine	-777777		Alloway et al., 2017; Moreno and Videla, 2016
El Tiemblo	1	1250.00	40.357500	-4.526300	terrestrial, bog	-888888	2e-04	López-Sáez et al., 2017b
El Tiro Bog	1	2810.00	-3.840000	-79.140000	terrestrial, bog	-888888	-999999	Niemann and Behling, 2008
ELA-320 Lake	1	370.00	49.500000	-93.500000	lacustrine	17.3	0.045	Lynch et al., 2004
Elferdalen	1	380.00	59.650000	9.300000	terrestrial, bog	-777777		Tryterud, 2000
Elim	1	1757.00	-28.510000	28.500000	lacustrine	1		Scott, 2002
Ely (COHMAP2k)	1	384.00	41.766667	-75.833333	lacustrine	-999999	0.129	Gajewski et al., 1987
Enos Lake	1	50.00	49.280000	-124.150000	lacustrine	-999999	0.18	Brown et al., 2006
Epilobium Lake	1	366.00	65.972480	-145.567120	lacustrine	13.1	-999999	Kelly et al., 2013
Erethizon Lake	1	-999999.00	61.599383	-161.160417	lacustrine	4.1	0.43	Higuera, Unpublished; Hu, 2015
Erhai Lake	1	1974.00	25.760000	100.200000	lacustrine, tectonic origin	10.8		Jing et al., 2003
Erlongwan Maar Lake	1	724.00	42.300000	126.380000	lacustrine, volcanic lake	36	0.3	Li et al., 2013
Ertangcun	1	1050.00	35.150000	107.800000	archaeological site		-999999	Huang et al., 2006
Esambu	1	1191.00	-2.711913	37.554357	-777777			Courtney-Mustaphi et al., 2015; Githumbi et al., 2018a; Githumbi et al., 2018b
Eski Acigol	1	1270.00	38.550000	34.540000	lacustrine, drained lake	-888888	0.2	Turner et al., 2008
Espinosa de Cerrato	1	885.00	41.956700	-3.935000	terrestrial, marsh	-888888	0.088	Morales-Molino et al., 2017b
Estacion Cientifica San Francisco Cerro de Consuelo	1	3155.00	-4.002444	-79.059583	terrestrial, soil		-999999	Niemann and Behling, 2009a
Estacion Cientifica San Francisco Refugio	1	1534.00	16.000000	-91.554000	terrestrial, soil		-999999	Niemann and Behling, 2009a
Estacion Cientifica San Francisco T2250	1	3495.00	-4.730417	-79.424064	terrestrial, soil		-999999	Niemann and Behling, 2009a
Etang de la Gruere	2	1005.00	47.240600	7.050000	terrestrial, bog		0.225	Roos-Barraclough et al., 2004
Etu-Mustajarvi	1	157.00	60.980000	25.000000	lacustrine	9	0.045	Sarmaja-Korjonen, 1998
Eustach	1	387.00	50.890667	14.428425	terrestrial, bog	-888888	0.005	Bobek et al., 2017

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Evoran Pond	1	194.00	-18.760000	169.010000	lacustrine	-777777		Hope, Unpublished
Eweburn Bog	1	320.00	-45.320000	167.800000	terrestrial, bog	0		Ogden et al., 1998
Excelsior Basin	2	2631.00	52.783333	-117.116667	lacustrine	-999999	-999999	Kearney and Luckman, 1983a
Fargesia die-off soil profile	1	-999999.00	33.660000	107.795000	terrestrial		-999999	Rayle et al., 2015
Fariya Lake	2	225.00	59.848333	-111.291111	lacustrine	5.6	0.012	Larsen and MacDonald, 1998; Larsen et al., 2000; Larsen, 1994
Fazendo do Pinto	1	900.00	-29.400000	-50.560000	terrestrial, mire	-888888	-999999	Behling et al., 2001
Fenton Cottage	1	200.00	53.840005	-2.928430	terrestrial, mire	-888888	-999999	Wells et al., 1997
Ferry Lake	1	25.00	46.010000	-92.130000	lacustrine, glacial origin	12		Jensen et al., 2007
Fish	1	423.00	43.850000	-95.040000	lacustrine	-777777		Clark et al., 2001
Fish Lake Le Sueur County	1	310.00	44.227400	-93.664800	lacustrine	16.7	0.31	https://www.ncdc.noaa.gov/paleo/study/21058
Fish Lake Scott County	1	288.00	44.649200	-93.459700	lacustrine	8.5	0.7	https://www.ncdc.noaa.gov/paleo/study/21064
Five Lakes	1	780.00	48.080000	-118.920000	lacustrine	2.84		Scharf, 2010
Fleck's Loch Bog, Foula	1	170.00	60.146022	-2.093045	terrestrial, bog	-888888	-999999	van Leeuwen and van der Knaap, 2008
Flotatjonn	1	890.00	59.670270	7.540550	lacustrine	8	-999999	Birks, 2006
Folly	1	133.00	45.458260	-75.777750	terrestrial, bog		0.14	Blarquez et al., 2018
Forest Pond 1	1	2797.00	43.471667	-109.938889	lacustrine	0.5	-999999	Lynch, 1995; Lynch, 1998
Forest Pond 2	1	2766.00	43.438889	-109.950000	lacustrine	0.5	-999999	Lynch, 1995; Lynch, 1998
Fox Lake Martin County	1	381.00	43.675280	-94.692220	lacustrine	6	3.85	Umbanhowar Jr, Unpublished
Fox Lake Yukon	1	-999999.00	68.009783	-160.170133	lacustrine	6	0.02	Higuera, Unpublished; Hu, 2015
Foy	2	1006.00	48.160000	-114.350000	lacustrine	39.9		Power et al., 2006
Fred South Swamp	1	27.00	-38.130000	141.780000	terrestrial, bog	1	0.012	Builth et al., 2008
Fresh Pond Falmouth HF	1	6.00	41.593500	-70.533800	lacustrine	5.9	0.053	Oswald et al., 2020; Parshall et al., 2003
Frozen Lake	1	1180.00	49.600000	-121.460000	lacustrine	17	0.03	Hallett et al., 2003
Frying Pan Lake	1	2720.00	38.616667	-111.666667	lacustrine	-999999	-999999	Shafer, 1989
Fuente de la Leche	1	1382.00	40.346800	-5.056900	terrestrial, bog	-888888	-999999	Robles-López et al., 2018
Fuente del Pino Blanco	1	1343.00	40.236300	-4.977600	terrestrial, bog	-888888	0.0137	Robles-López et al., 2018
Fuldera-Palu Lunga	1	1822.00	46.610000	10.360000	terrestrial, bog	-888888	0.01	Stahli et al., 2006
Fuller Lake Stearns County	1	292.00	45.420600	-94.074300	lacustrine	8.5	0.12	http://www.ncdc.noaa.gov/paleo/study/21057
Funduzi	1	429.00	-22.850000	30.890000	lacustrine	0		Scott, 2002
Fur Lake	1	288.00	46.710217	-78.789733	lacustrine	5.5	0.0725	Paillard, Unpublished
Fusedame	1	120.00	35.080000	136.180000	lacustrine	0		Nishimura, Unpublished
Gabarn	1	525.00	43.170000	-0.550000	terrestrial, bog	0		Rius et al., 2009
Gaillard	2	392.00	50.113270	-68.808760	terrestrial, bog	-888888	-999999	Unpublished
Gallaghers Swamp	1	535.00	-34.490300	150.723000	terrestrial, bog	-888888	0.18	Hope and Macphail, 2005; Hope, 2010

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Galway Tarn	1	130.00	-43.408300	169.873300	lacustrine	5.5	-999999	Vandergoes et al., 2013
Gammelheimenvatnet	1	290.00	68.482220	17.759440	lacustrine	4.8	-999999	Bjune et al., 2008
Ganbold Nuur	1	2102.00	51.334600	98.875533	lacustrine	21.9	0.12	http://www.ncdc.noaa.gov/paleo/study/20513; Robinson, 2007
Gaoyao County	2	29.00	22.900000	112.340000	terrestrial, bog		-999999	Ma et al., 2018b
Garba Guracha	1	3950.00	6.881938	39.871212	lacustrine	6	0.15	Gil-Romera et al., 2019
Gasak II	1	81.00	52.460000	19.391266	terrestrial, bog		-999999	Wacnik et al., 2011
Gazwa	1	155.00	53.872500	21.219722	terrestrial, bog	-888888	2.05	Marcisz et al., 2017
GB01 (North Quebec)	1	325.00	55.120000	-75.250000	lacustrine	4.82	0.07	Gajewski, 2019
GB02 (North Quebec)	1	300.00	55.100000	-75.280000	lacustrine	4.8	0.05	Gajewski, 2019
Geais Lake	1	280.00	49.892280	-78.655100	lacustrine	10.15	0.037	Ali et al., 2009
Gem Lake Colorado	1	3101.00	40.881000	-106.734000	lacustrine	6.5	0.028	Calder et al., 2015
Gentry Lake	1	270.00	-12.170000	-69.090000	lacustrine	3	0.35	Bush et al., 2007b
GeoB1023-5	1	-1978.00	-17.157217	11.011667	marine	-888888	-888888	Shi et al., 1998
Geral	1	130.00	-1.640000	-53.590000	lacustrine	6	3	Bush et al., 2000
Ghab	1	240.00	35.650000	36.250000	lacustrine, drained lake	-888888	-999999	Yasuda et al., 2000
Ginini Flats	2	1590.00	-35.310000	148.460000	terrestrial, bog	0		Hope et al., 2005
Ginkunai Lake	1	107.00	55.950000	23.338600	lacustrine	-999999	0.722	Stančikaitė et al., 2015
Glaswaldsee	1	839.00	48.426166	8.246156	lacustrine, glacial origin	11	0.029	Rösch, 2009
Gleboczek	1	110.00	53.868066	18.209629	terrestrial, bog	-888888	0.001	Lamentowicz et al., 2019
Glendhu Bog	1	600.00	-45.833300	169.750000	terrestrial, bog	-888888	0.036	McGlone and Wilmshurst, 1999
Glenmire	1	399.00	37.990000	-122.770000	terrestrial, bog	-888888	-999999	Scott and Woodborne, 2007
Gold Creek Lake	1	2917.00	40.781000	-106.678000	lacustrine	10.6	0.037	Calder et al., 2015
Golebiewo I	1	130.00	54.450000	18.500000	terrestrial, bog		0.06	Latałowa et al., 2013; Pędziszewska and Latałowa, 2016; Święta-Musznicka et al., 2021
Gonghe Basin	1	3780.00	35.650000	101.100000	terrestrial		13800	Miao et al., 2017
Gooches Swamp	1	960.00	-33.450000	150.260000	terrestrial, fen	-888888	0.4	Black and Mooney, 2006
Goose Lake Meeker County	1	334.00	44.985500	-94.586300	lacustrine	3.5	0.48	https://www.ncdc.noaa.gov/paleo/study/21066
Gorenje jezero	2	550.00	45.740000	14.408300	terrestrial, mire	0.1	0.1	Andrič and Willis, 2003; Andrič, 2004; Andrič, Unpublished; Feurdean et al., 2020b
Gorgo Basso	1	6.00	37.610000	12.650000	lacustrine	10	0.03	Tinner, 2008
Gourte Mires	1	291.00	51.060000	-3.670000	terrestrial, mire		-999999	Fyfe et al., 2003
Graham Lake	1	381.00	45.183300	-77.350000	-777777	-999999	0.025	Fuller, 1997
Granger Lake	1	-999999.00	66.057540	-145.652090	lacustrine	9.5	-999999	Kelly et al., 2013
Grauthelleren	1	80.00	58.144160	7.913610	lacustrine	7.8	-999999	Birks, 2006
Green HF	1	82.00	42.566800	-72.511100	lacustrine	-999999	0.05	Oswald et al., 2018; Oswald et al., 2020
Green Pond	1	80.00	42.566800	-72.511000	lacustrine	5.7	0.05	Fuller et al., 1998; Parshall and Foster, 2002
Greenpepper Lake	1	207.00	66.089000	-146.730000	lacustrine, thermokarst origin	15.5	1.5	Anderson et al., 2019
Greens Bush	1	160.00	-38.430000	144.930000	coastal	0		Jenkins, 1992

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Grey Pole Swamp Broughton Island	1	9.00	-32.610000	152.310000	terrestrial, bog	0		Horn, 2005
Griblje	1	160.00	45.567500	15.281900	terrestrial, marsh	0.01	0.008	Andrič, 2011; Feurdean et al., 2020b
Griblje Marsh	1	160.00	45.560000	15.270000	-777777	0		Andrič, 2007
Griffith Swamp	1	20.00	-33.280000	151.000000	terrestrial, bog	0.1		Mooney et al., 2007
Grosser Krebssee	1	5.00	52.850000	14.099300	lacustrine	7.5	0.3	Jahns, 2000
Grosser Treppelsee	1	52.20	52.150000	14.452778	lacustrine	5.55	0.71	Giesecke, 2001
Grostjorna Setesdal Valley	1	180.00	58.533300	7.733300	lacustrine	9.5	0.03	Eide et al., 2005
Grusha Lake	1	2413.00	50.383300	89.416700	lacustrine, glacial origin	3.5	1.6	Blyakharchuk et al., 2007
Gushantun bogs	1	500.00	42.000000	126.000000	terrestrial, bog		0.79	Zhao et al., 2015
Gutian wetland	2	1677.00	26.090000	110.370000	terrestrial, bog		-999999	Ma et al., 2018b
Haeapugua	1	1650.00	-5.830000	142.780000	terrestrial, marsh	-888888		Haberle and Ledru, 2001
Haerbaling (Changbai Mountains)	1	550.00	43.300000	128.600000	terrestrial, bog		9.17	Gao et al., 2016
Haircut Lake	2	1000.00	60.515555	-133.205555	lacustrine	8.64	0.1	Edwards et al., 2015
Halledammen Hallands Vadero	1	NA	56.440000	12.570000	-777777			Molinari, 2002
Hanlongwan maar lake	1	700.00	42.680000	126.500000	lacustrine, drained lake	0	0.85	Zhao et al., 2015
Hardibo	1	2150.00	11.230000	39.760000	-777777	0		Moeyersons et al., 2006
Harlock Pond HF	1	23.00	41.403000	-70.713000	lacustrine	5.9	0.055	Foster et al., 2002b; Oswald et al., 2020
Hasseldala Port	2	63.00	56.266667	15.016667	terrestrial, bog	0	-999999	Wohlfarth et al., 2017
Hatchodaira	1	810.00	35.230000	135.830000	terrestrial, mire	-888888	0.05	Sasaki and Takahara, Unpublished
Hayk	1	1920.00	11.350000	39.710000	-777777	0		Moeyersons et al., 2006
Head Lake	1	2300.00	37.700000	-105.500000	lacustrine	-999999	-999999	Jodry et al., 1989; Shafer, 1989
Hells Kitchen Lake (COHMAP2k)	1	500.00	46.183333	-89.700000	lacustrine	19	0.045	Swain, 1973
Henty Bridge	1	115.00	-41.990000	145.470000	lacustrine, drained lake	-888888	-999999	Colhoun, 1985
Herrenwieser See	2	830.00	48.669167	8.296389	lacustrine	9.5	0.013	Rösch, 2012
Heshui County	1	1400.00	36.030000	108.170000	archaeological site		-999999	Tan et al., 2010
Hidden Lake Mount Zirkel	1	2704.00	40.504000	-106.607000	lacustrine, glacial origin	9	0.038	Shuman et al., 2006
High Lake	1	192.00	44.516700	-76.600000	lacustrine	-999999	0.025	Fuller, 1997
Hinman Lake	1	2501.00	40.771000	-106.827000	lacustrine	5	0.027	Calder et al., 2015
Hino	1	181.00	57.583056	27.238611	terrestrial, fen	-888888	0.02	Laul and Kihno, 1999
Hinojos Marsh	2	1.50	36.960200	-6.385800	terrestrial, marsh	-888888	-999999	López-Sáez et al., 2018
Hogan's Billabong	1	140.00	-36.020000	146.710000	lacustrine	3.5		Reid et al., 2006

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Hogayaku	1	3580.00	-3.980000	137.380000	lacustrine, glacial origin	0		Hope, 2007a
Holbicky	1	183.00	48.510000	17.109167	terrestrial, bog	-888888	-999999	Jamrichová et al., 2019
Holebudalen	1	1144.00	59.841389	6.008611	lacustrine	8.2	0.02	Eide et al., 2005
Holtjarnen	1	232.00	60.650000	14.916667	lacustrine, glacial origin	7	0.01	Brown and Giesecke, 2014; Giesecke, 2005a
Hoodoo Lake	1	1770.00	46.320193	-114.651545	lacustrine	4	0.046	Brunelle et al., 2005; Brunelle-Daines, 2002
Hopwoods Lagoon	1	38.00	-33.210000	150.990000	lacustrine	0		Smeulders, 1999
Hornstaad	1	393.00	47.690000	8.900000	-777777			Rösch, 1992; Rösch, 1993
Horse Cove Bog	1	887.00	35.040000	-83.150000	terrestrial, bog	-888888	0.12	Delcourt and Delcourt, 1997a
Horton Plains	1	2200.00	6.800000	80.490000	terrestrial, bog	-888888	-999999	Premathilake, 2006
Hougongzhai village	1	-999999.00	35.680000	107.580000	archaeological site		-999999	Zhou et al., 2011
Hovorany	1	246.00	48.950000	17.057496	terrestrial, fen	-888888	-999999	Jamrichová, Unpublished
Howes Prairie Marsh	1	185.00	41.650000	-87.072222	terrestrial, marsh	-888888	6e-04	Cole and Taylor, 1995
Howes Waterhole Swamp	1	280.00	-33.010000	150.660000	terrestrial, fen	0		Mason, 2004
Hoya del Castillo	2	258.00	41.482000	-0.158300	lacustrine, playa	4.5	0.17	Davis and Stevenson, 2007
Huangqihai Lake	1	1280.00	40.830000	113.380000	lacustrine, drained lake	0	80	Ling et al., 2016
Hudson Lake	2	860.00	61.897711	-145.670722	lacustrine	1.4	2.7	Barrett et al., 2013
Huguangyan Maar Lake	1	87.60	21.150000	110.280000	lacustrine	22	2.3	Chu, 2001
Hula	1	70.00	33.040000	35.370000	-777777	-777777		Turner et al., 2010
Hunnemara Lake Blekinge coast	1	3.00	56.166700	14.883300	lacustrine, drained lake	-888888	0.2	Yu et al., 2005
Hunt Lake Rice County	1	327.00	44.331400	-93.445400	lacustrine	8	0.71	https://www.ncdc.noaa.gov/paleo/study/21067
Hunter's Lake	1	3516.00	37.600000	-106.840000	lacustrine	0		Anderson et al., 2008a; Anderson, Unpublished
Hute pod Smrkem	1	533.00	49.470000	18.418517	terrestrial, bog	-888888	-999999	Jamrichová, Unpublished
Huzenbacher See	2	747.00	48.574657	8.348487	lacustrine, glacial origin	8	0.025	Rösch and Tserendorj, 2011a; Rösch and Tserendorj, 2011b
Hyde Park	1	74.00	41.780000	-73.890000	terrestrial, mire	-888888	-999999	Robinson et al., 2005
Icehouse Pond HF	1	19.00	41.798000	-69.961000	lacustrine	6.3	0.018	Oswald et al., 2020; Parshall et al., 2003
Iezerul Sadovei	1	930.00	47.600000	25.449444	lacustrine	4.7	0.02	Florescu et al., 2017
Ijomba	1	3630.00	-4.030000	137.210000	terrestrial, fen	0		Haberle and Ledru, 2001
Imera	1	1610.00	41.650000	44.210000	terrestrial, bog	2	0.06	Connor and Sagona, 2007; Connor et al., 2004; Connor, Unpublished
Ingar Swamp	1	584.00	-33.760000	150.450000	terrestrial, mire	-888888	-999999	Chalson and Martin, 2009; Chalson, 1991
Isbenttjorn	1	787.00	59.765000	0.434440	lacustrine	11.5	-999999	Birks, 2006
Iso Lehmalampi	1	106.00	60.350000	24.600000	lacustrine	8.1	0.028	Sarmaja-Korjonen, 1998
Ispani	1	2.00	41.860000	41.800000	terrestrial, bog	-888888	-999999	Connor et al., 2007

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Iztapa	1	10.00	13.951908	-90.659736	terrestrial, marsh		-999999	Larmon, 2013
J'Arrive	1	56.00	49.247200	-65.376400	lacustrine	2.4	0.024	Carcaillet and Richard, 2000
Jack Pine Lake	1	341.00	50.270556	-86.962778	lacustrine	12.8	0.028	Ali, Unpublished
Jackfish	1	655.00	63.020000	-136.470000	lacustrine, glacial origin	8		Edwards, Unpublished
Jaczno	1	164.00	54.276971	22.876204	terrestrial, bog	-888888	0.013	Marcisz et al., 2020
Jagaike	1	610.00	35.240000	135.450000	terrestrial, mire	-888888	0.002	Manabe and Takahara, Unpublished; Sasaki and Takahara, 2012; Sasaki and Takahara, Unpublished
Jagniecy Potok	1	850.00	50.850000	15.360000	terrestrial, bog		0.14	Kajukało et al., 2016
Jan Lake	2	485.00	63.566670	-143.900000	lacustrine	12	0.143	Barber and Finney, 2000; Carlson and Finney, 2004
Jarveotsa	1	42.20	59.095556	24.154167	lacustrine	2.65	0.17	Poska, 1994
Jason	1	120.00	61.680000	-107.780000	lacustrine	12.6	0.01	Lynch et al., 2004
Jeleni louze	1	460.00	50.892778	14.270000	terrestrial, mire	1	0.02	Pokorný and Kuneš, 2005
Jemima Pond HF	1	3.00	41.829000	-69.985000	lacustrine	4.3	0.022	Oswald et al., 2020; Parshall et al., 2003
Jiandi Pond	1	-999999.00	45.000000	122.340000	terrestrial, bog		230	He et al., 2015
Jianghan Plain	1	33.00	30.770000	113.080000	archaeological site		-999999	Zhu et al., 2017
Jiangxigou village	1	3312.00	36.590000	100.300000	archaeological site		-999999	Jiang et al., 2015
Jiangyangcun	1	685.00	34.470000	107.880000	archaeological site		-999999	Huang et al., 2006
Jibbon Lagoon	2	65.00	-34.080000	151.150000	terrestrial, bog	0		Chalson, 1991
Jicarita Bog	1	3207.00	36.070000	-105.580000	-777777	0		Anderson et al., 2008a; Anderson, Unpublished; Bair, 2004
Jierstivaara	1	457.00	68.660000	23.730000	lacustrine, playa	2.5	0.112	Sarmaja-Korjonen, 1998
Jinchuan (Changbai Mountains)	1	614.00	42.300000	126.400000	terrestrial, bog		1.1	Gao et al., 2016
Jinchuan peat bog	2	662.00	42.370000	126.430000	terrestrial, bog		3.14	Gao et al., 2016; Jiang et al., 2008
Jingjie	1	1159.00	38.740000	110.180000	terrestrial		42200	Cai et al., 2015
Jonah Lake	1	-999999.00	66.068000	-145.084880	lacustrine	9.2	-999999	Kelly et al., 2013
Jones Lake	1	409.00	49.446389	-99.291111	lacustrine	4.4	0.56	Teed et al., 2009
JPH4	1	336.00	57.112222	-111.423333	terrestrial, bog	-888888	-999999	Magnan et al., 2018
Juodonys	1	20.00	55.740000	25.440000	terrestrial, bog	-888888	-999999	Stančikaitė et al., 2004; Stančikaitė et al., 2009
Kabata Swamp	1	1370.00	0.480000	30.260000	lacustrine, volcanic lake	0		Taylor et al., 1999
Kahala	2	33.20	59.486740	25.531503	lacustrine	1.2	3.45	Poska and Saarse, 1999
Kaipo	1	555.00	-38.400000	177.100000	terrestrial, bog	0		Hajdas et al., 2006; Newnham and Lowe, 2000
Kalksjon	1	14.20	60.130000	13.050000	lacustrine	14.2	0.4	Lindbladh et al., 2000
Kammekka hollow	3	156.00	61.242500	25.055278	terrestrial, small hollow	-888888	1e-06	Stivrins et al., 2017a; Stivrins et al., 2019

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Kankaanjarvi	3	85.00	61.539167	22.714722	lacustrine, glacial origin	10	-999999	Kaakinen et al., 2010
Kapteinstjorn Siljan	1	590.00	59.330000	9.660000	-777777			Molinari et al., 2005
Karakol	1	2353.00	42.830000	77.390000	lacustrine	3		Beer and Tinner, 2008
Kashiru Swamp	1	2240.00	-3.460000	29.560000	terrestrial, bog	-888888	-999999	Aucour et al., 1994
Katoomba Swamp	1	950.00	-33.710000	150.310000	terrestrial, fen	-888888	-999999	Chalson, 1991
Kazanie fen	1	101.00	52.458694	17.296352	terrestrial, mire	-888888	0.03	Czerwiński et al., 2019; Czerwiński et al., 2021
Keche Lake	1	740.00	68.017444	-146.923806	lacustrine	14.5	0.802	Chipman et al., 2015
Kelela Swamp	1	1650.00	-4.020000	138.910000	terrestrial, bog	0		Haberle et al., 1991
Kelly Dudley Lake	1	321.00	44.352300	-93.370800	lacustrine	18	0.77	https://www.ncdc.noaa.gov/paleo/study/21069
Kendegelukol Lake Ulagan Plateau	1	2050.00	50.505600	87.641700	lacustrine, glacial origin	6	-999999	Blyakharchuk et al., 2004
Kentra Moss	1	10.00	56.750000	-5.830000	terrestrial, bog	-888888	0.95	Ellis and Tallis, 2000
Kettle Lake, ND	1	610.00	48.607198	-103.623723	lacustrine	10.2	0.022	Brown et al., 2005b; Grimm et al., 2011; Grimm, 2011
Kettlehole Bog	2	600.00	-43.050000	171.780000	terrestrial, bog	0		McGlone et al., 2004
Kevojarvi	1	74.70	69.758940	27.000180	lacustrine	35	1.02	Lisitsyna, Unpublished
Keyhole (Yukon)	1	826.00	61.078000	-138.375000	lacustrine	4	0.0406	Gajewski et al., 2014
Kholboo Nuur	1	2570.00	49.701400	91.091400	lacustrine	2.9	0.09	Umbanhowar Jr et al., 2009
Khundt Nuur	1	1933.00	49.051300	97.160000	lacustrine	6.8	26.78	Umbanhowar Jr et al., 2009
Kichikol	1	2541.00	39.980000	73.550000	lacustrine	10		Beer, Unpublished
Kiilaspere	1	22.60	58.796944	24.436111	terrestrial, bog	-888888	0.43	Veski, 1998
Kilden Islet of Melkoya	1	15.00	70.670000	23.640000	terrestrial, fen		0.00015	Jensen, 2004
Killalea Lagoon	1	22.00	-34.600000	150.860000	coastal, estuarine	1	0.23	Dodson et al., 1993
Killymaddy Lough	1	70.00	54.530000	-6.760000	lacustrine	10.5	0.025	Hirons and Edwards, 1986
Kimble Pond	1	314.00	44.219020	-93.840090	lacustrine, glacial origin	16	0.049	Camill et al., 2003; Geiss et al., 2003; Umbanhowar Jr et al., 2006
Kings Tableland Swamp	1	780.00	-33.730000	150.480000	terrestrial, mire	-888888	-999999	Chalson and Martin, 2009; Chalson, 1991
Kings Waterhole	1	280.00	-33.010000	150.660000	terrestrial, bog	0.1	-999999	Black, 2001; Chalson, 1991
Kinloch	1	-999999.00	57.025431	-6.299902	terrestrial, mire	-888888	-999999	Hirons and Edwards, 1990
Kinnshaugen	1	591.00	61.108330	10.359160	lacustrine	4.6	-999999	Birks et al., 2012
Kis-Mohos Ro	1	310.00	48.400000	20.400000	terrestrial, bog		0.0036	Willis et al., 1997
Klotjarnen	1	235.00	61.816667	16.533333	lacustrine, glacial origin	6	0.012	Brown and Giesecke, 2014; Giesecke, 2005a
Klukvennoye	1	171.00	54.780000	43.450000	terrestrial, bog		0.15	Feurdean et al., 2020b; Novenko et al., 2018
Knob Hill Pond HF	1	370.00	44.360500	-72.373700	lacustrine	4.2	0.071	Oswald et al., 2018; Oswald, Unpublished
Kohuora	1	30.00	-36.978700	174.842700	lacustrine, volcanic lake	0	-999999	Newnham et al., 2007a
Koivasoo	1	27.50	58.908611	22.199444	terrestrial, bog	-888888	0.34	Königsson et al., 1998
Kontolanrahka bog Poytya	1	80.00	60.790000	22.770000	terrestrial, bog	-888888	8.8	Sillasoo et al., 2011; Väliranta et al., 2007

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Kosipe Swamp	2	1960.00	-8.460000	147.200000	terrestrial, marsh	-888888	12	Hope, 2009
Koumac	1	2.00	-20.650000	164.280000	coastal, salt marsh	-999999	-888888	Hope et al., 1999
Kozcaronliacute	1	460.00	49.376389	14.025833	terrestrial, mire	-888888	0.001	Pokorný and Kuneš, 2009
Kragso	1	47.00	56.291465	9.091028	lacustrine	1	0.22	Odgaard, 1994
Krepelcí dul	1	357.00	50.931874	14.438233	terrestrial, bog	-888888	6e-04	Bobek et al., 2019
Krimda	1	200.00	35.280000	6.630000	terrestrial, bog	-777777		Damblon, 1991
Krugloe Bog West Siberian Plain	1	100.00	56.895600	84.576100	terrestrial, bog	-888888	-999999	Blyakharchuk et al., 2019a
Kukka Hollow	1	136.00	61.649300	32.752900	terrestrial, small hollow	-888888	0.001	Kuosmanen et al., 2015
Kumata	1	1770.00	42.590400	23.251900	terrestrial, bog		0.001	Feurdean et al., 2020b; Tonkov and Possnert, 2016a; Tonkov and Possnert, 2016b
Kumisi	1	469.00	41.580000	44.830000	lacustrine, tectonic origin	3	5	Connor, 2006
Kunming Lake	2	48.60	39.980000	116.260000	lacustrine	-777777		Huang et al., 1994; Huang, 1996
Kurnell Fen	1	15.00	-34.010000	151.100000	coastal, estuarine	0		Martin, 1994
Kurnell Swamp	1	2.00	-34.030000	151.210000	terrestrial, fen	0		Martin, 1994
Kuttura	1	277.00	68.406140	26.503390	terrestrial, bog	0	0.18	Lisitsyna, Unpublished
Kwasebuge	1	1939.00	-4.292015	37.922840	-777777			Finch et al., 2016
La Laguna	1	560.00	28.492222	-16.318333	-777777			de Nascimento et al., 2009
La Loge a Magnard Chavannes	1	150.00	46.840000	2.360000	terrestrial, mire	-888888	-999999	Vannière and Martineau, 2005; Vannière, 2001
La Yeguada	1	650.00	8.450000	-80.850000	lacustrine	0		Haberle and Ledru, 2001
La-Teta	1	1020.00	3.080000	-76.530000	lacustrine	-999999	-999999	Berrío et al., 2002
Labelle Lake	1	375.00	48.180242	-79.457011	lacustrine	9.6	0.105	Paillard, Unpublished
Lac a Euloge	1	83.00	49.244400	-65.372200	lacustrine	2.2	0.012	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Marcoux and Richard, 1995
Lac a Jean-Marie Boulay	1	276.00	48.969800	-64.486100	-777777			Richard, Unpublished
Lac a l'ange	1	648.00	47.460000	-70.400000	lacustrine			Richard, Unpublished
Lac a la Main	1	730.00	47.700000	-70.622200	lacustrine	-999999	0.096	Bussieres, 1992; Carcaillet and Richard, 2000; Carcaillet et al., 2002
Lac a la Montagne Ronde	1	150.00	48.320800	-68.565300	lacustrine	-999999	0.035	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Richard and Larouche, 1994
Lac a la Pessiere	1	280.00	49.508300	-79.240300	lacustrine	16	0.036	Carcaillet and Richard, 2000; Carcaillet et al., 2001; Carcaillet et al., 2002; Carcaillet et al., 2006; Carcaillet, 1998
Lac a la Tortue	3	125.00	46.542883	-72.615028	terrestrial, bog	-888888	66	Pilote et al., 2018
Lac a Leonard	1	17.00	49.207800	-65.812800	lacustrine	0.6	0.002	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001; Labelle and Richard, 1984
Lac aux Atocas	1	114.00	45.542800	-73.310800	lacustrine	1	0.012	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001; Gauthier, 1981

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Lac Bride	1	437.00	47.313600	-74.504600	-777777			Richard, Unpublished
Lac Caribou	1	116.00	48.197800	-64.940000	lacustrine	2.3	0.026	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001; Jetté and Richard, 1992
Lac Christelle	1	291.00	49.732140	-84.254530	lacustrine	7	0.024	Genries et al., 2012
Lac Clo	1	280.00	48.496900	-79.352800	lacustrine	3	0.007	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Richard, 1980
Lac Daumont	1	607.00	54.882800	-69.402800	lacustrine	3	0.015	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Richard et al., 1982
Lac Delorme	1	538.00	54.423900	-69.929700	lacustrine	4.5	0.011	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Richard et al., 1982
Lac des Ilets	1	120.00	48.190000	-71.240000	terrestrial, mire	0		Simard et al., 2006
Lac Diana	1	114.00	60.980000	-69.950000	lacustrine	-777777		Blarquez et al., 2015; Richard, Unpublished
Lac du Berger	1	479.00	49.418510	-90.475870	lacustrine	4	0.004	Senici et al., 2015
Lac du Lait	1	2180.00	45.310000	6.810000	lacustrine	1		Carcaillet et al., 2009; Genries et al., 2009b
Lac du Loup	1	2032.00	45.180000	6.530000	lacustrine	1.4		Carcaillet et al., 2009
Lac du Loup, Quebec	1	206.00	53.055030	-77.400530	lacustrine	3	0.016	Oris et al., 2014
Lac du Thyl	1	2038.00	45.240000	6.490000	terrestrial, bog	0.5		Carcaillet et al., 2009; Genries et al., 2009a
Lac du Triangle	1	465.00	48.710000	-65.413900	lacustrine	1.6	0.015	Asnong and Richard, 2003; Asnong, 2000; Carcaillet et al., 2002; Carcaillet et al., 2006
Lac du Verney-Dessus	1	2276.00	45.693333	6.872500	lacustrine	1	-999999	Millet et al., 2008a; Miras et al., 2006a
Lac Flevy	1	381.00	48.216900	-71.218900	lacustrine	4.5	0.015	Carcaillet and Richard, 2000
Lac Francis	1	305.00	48.526400	-79.472200	lacustrine, glacial origin	6	0.008	Carcaillet and Richard, 2000; Carcaillet et al., 2001; Carcaillet et al., 2002; Carcaillet et al., 2006; Carcaillet et al., 2007; Carcaillet, 1998
Lac Garot	1	248.00	51.099640	-77.553580	lacustrine	6.9	0.051	Oris et al., 2014
Lac Geai SBL	1	360.00	45.995878	-73.993222	lacustrine	8.2	-999999	Richard, Unpublished
Lac Hertel	1	75.00	45.680000	-74.050000	-777777	0		Richard, Unpublished
Lac Huard	1	343.00	50.164140	-86.826500	lacustrine	8.3	0.037	Genries et al., 2012
Lac Le Caron	2	248.00	52.292611	-75.830500	terrestrial, bog	-888888	2.24	van Bellen et al., 2012
Lac Marcotte	1	503.00	47.070000	-71.420000	lacustrine	-777777		Blarquez et al., 2015; Richard, Unpublished
Lac Marie-Eve	1	296.00	52.061690	-75.516670	lacustrine	8.7	0.165	Oris et al., 2014
Lac Martini	1	242.00	47.475000	-72.764700	lacustrine	-999999	0.002	Carcaillet and Richard, 2000; Carcaillet et al., 2002
Lac Miroir	1	2214.00	44.630000	6.790000	lacustrine	-777777		Carcaillet and Blarquez, 2017
Lac Nano	1	206.00	53.023750	-77.364250	lacustrine	3.2	0.004	Oris et al., 2014
Lac Nans	1	431.00	50.368639	-74.305917	lacustrine	5	0.045	Ali et al., 2012; El-Guellab et al., 2015
Lac Ouellet	1	300.00	47.532800	-68.943900	lacustrine	1.9	0.006	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001; Richard et al., 1992
Lac Perdu	1	152.00	49.170800	-66.323600	lacustrine	7	0.005	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001
Lac Rond	1	360.00	46.000000	-74.000000	lacustrine	-777777		Clark et al., 2001
Lac Schon	1	291.00	50.594920	-77.568360	lacustrine	7	0.028	Oris et al., 2014
Lac St Gabriel	1	250.00	46.275800	-73.475800	lacustrine	1	0.003	Carcaillet and Richard, 2000; Carcaillet et al., 2002; Flannigan et al., 2001; Richard, 1977

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Lac Superieur de Fully	1	2135.00	46.176667	7.093611	lacustrine, glacial origin	2	0.25	Finsinger and Tinner, 2007
Lac Suprin	2	230.00	-22.300000	166.983300	lacustrine	1	0.01	Hope and Pask, 1998
Lac Trefle	1	270.00	51.850140	-76.045140	lacustrine	5.4	0.068	Oris et al., 2014
Lagaccione	1	355.00	42.566700	11.850000	lacustrine, drained lake	-888888	0.6	Magri, 1999; Magri, 2004
Laghi dell'Orgials	1	2240.00	44.230000	7.130000	terrestrial, bog	-888888	-999999	Ortu et al., 2005
Lago Alimini Piccolo	1	1.00	40.180000	18.430000	lacustrine	2	1.05	di Rita and Magri, 2009
Lago Battaglia	1	1.00	41.905278	16.134167	lacustrine, drained lake	-888888	-999999	Caroli and Caldara, 2006
Lago Catemaco	1	340.00	18.666667	-95.000000	lacustrine, volcanic lake	22.5	75	Byrne and Horn, 1989
Lago Chirripo	1	3520.00	9.483000	-83.496000	lacustrine	9	0.05	Horn, 1989; Horn, 1993
Lago Condorito	1	60.00	-41.750000	-73.110000	lacustrine, thermokarst origin	2.7	-999999	Moreno and León, 2003; Moreno et al., 1999
Lago Crispim	1	2.00	-0.620000	-47.640000	lacustrine	1	0.03	Behling and da Costa, 2001
Lago de las Morrenas	1	3480.00	9.480000	-83.480000	lacustrine	8.3	-777777	Horn, 1993
Lago del Greppo	1	1442.00	44.110000	11.660000	lacustrine	1	1.8e-05	Chiarugi, 1936; Vescovi et al., 2010
Lago Dell'Accesa	1	155.00	42.987933	10.895122	lacustrine	37.5	0.226	Vannière et al., 2008
Lago della Costa	2	7.00	45.270278	11.743056	lacustrine	5	0.03	Kaltenrieder et al., 2004; Kaltenrieder et al., 2009; Kaltenrieder et al., 2010
Lago delle Fate	1	2130.00	44.266667	7.100000	lacustrine	3	-999999	Ortu et al., 2005; Ortu et al., 2006; Ortu et al., 2008
Lago di Basso	1	2250.00	46.416700	9.283300	lacustrine	0.8	7e-04	Carcaillet et al., 2002; Wick, 1994
Lago di Fimon	1	23.00	45.466700	11.533300	lacustrine	3.9	0.67	Valsecchi et al., 2008
Lago di Massaciuccoli	1	1.00	43.850000	10.310000	coastal	3	7	Colombaroli et al., 2007
Lago di Muzzano	1	337.00	45.994444	8.927778	lacustrine, glacial origin	3	0.22	Tinner et al., 2005
Lago di Origlio	1	416.00	46.055556	8.944444	lacustrine, glacial origin	5	0.08	Tinner et al., 1999; Tinner et al., 2005
Lago di Pergusa	1	674.00	37.510000	14.300000	lacustrine	1	1.4	Sadori et al., 2008
Lago do Pires	1	390.00	-17.950000	-42.210000	lacustrine	5	0.025	Behling, 1995
Lago Guanaco	1	60.00	-51.130000	-73.100000	lacustrine, glacial origin	16	0.13	François, Unpublished
Lago Huala Hue	1	849.00	-41.510752	-71.507515	lacustrine, glacial origin	-999999	-999999	Iglesias et al., 2012
Lago Lepue	1	152.00	-42.804780	-73.712150	lacustrine, thermokarst origin	10	-999999	Pesce and Moreno, 2014
Lago los Ninos	1	1015.00	-44.007105	-71.494142	lacustrine, glacial origin	-999999	0.8	Iglesias et al., 2016
Lago Lucone	1	249.00	45.550000	10.483300	lacustrine, drained lake	-888888	-999999	Valsecchi et al., 2005

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Lago Mosquito	1	556.00	-42.493858	-71.404047	lacustrine, thermokarst origin	8	4.61	Whitlock et al., 2006
Lago Perso	1	1801.00	44.905833	6.797222	lacustrine	3	0.000408	Blarquez et al., 2010
Lago Piccolo di Avigliana	1	356.00	45.050000	7.383300	lacustrine, glacial origin	12.5	0.6	Finsinger and Tinner, 2006; Valsecchi et al., 2008
Lago Pichilafquen	1	301.00	-39.220472	-72.208021	lacustrine	19	-999999	Jara and Moreno, 2014
Lago Pollux	1	640.00	-45.670000	-71.860000	terrestrial, bog	-888888	-999999	Markgraf et al., 2007
Lago Rogaguado	2	125.00	-4.374611	-79.111528	lacustrine	4	315	Brugger et al., 2016
Lago Tapajos	1	15.00	-2.770000	-55.080000	fluvial	0	2250	Bush et al., 2007a
Lago Theobald	1	678.00	-43.437932	-71.561818	-777777			Iglesias et al., 2014
Lago Trifoglietti	1	1056.00	39.548880	16.022220	lacustrine	1.5	0.00973	de Beaulieu et al., 2017
Lago Verde	1	149.00	18.610000	-95.340000	lacustrine, volcanic lake	4	-999999	Caballero et al., 2006; Lozano-García et al., 2007; Ortega et al., 2006
Lagoa da Curuca	1	35.00	-0.760000	-47.850000	lacustrine	2	0.15	Behling, 2001
Lagoa do Caco	1	120.00	-2.970219	-43.267808	lacustrine	12	1.5	Ledru et al., 2001; Ledru et al., 2002; Ledru et al., 2006
Lagoa Nova	1	390.00	-17.950000	-42.200000	lacustrine	6	0.02	Behling, 2003
Laguna Aculeo	1	350.00	-33.833300	-70.910000	lacustrine, thermokarst origin	6	12	Villa-Martínez et al., 2003; Villa-Martínez et al., 2004
Laguna Azul	2	100.00	-52.120000	-69.520000	lacustrine, volcanic lake	56	-999999	Mayr et al., 2005
Laguna Bella Vista	1	191.00	-13.616700	-61.550000	lacustrine, tectonic origin	2	29	Burbridge et al., 2004; Mayle et al., 2000
Laguna Bonillita	1	450.00	9.990000	-83.610000	lacustrine	20		Northrop and Horn, 1996
Laguna Chaplin	1	200.00	-14.466667	-61.066667	lacustrine, tectonic origin	2	17	Burbridge et al., 2004; Mayle et al., 2000
Laguna Charco Verde	1	33.00	11.470000	-85.630000	lacustrine, volcanic lake	-999999	-999999	Avnery et al., 2011
Laguna Chorreras	2	3700.00	-2.750000	-79.160000	lacustrine, glacial origin	14	0.17	Hansen et al., 2003
Laguna Cocha Caranga	3	2710.00	-4.045861	-79.159583	lacustrine	2	2	Niemann and Behling, 2009b
Laguna Cuzcachapa	1	709.00	13.980000	-89.680000	lacustrine	7		Dull, 2001
Laguna de Chochos	1	3285.00	-7.630000	-77.470000	lacustrine, glacial origin	10	-999999	Bush et al., 2005
Laguna de la Mosca	1	2889.00	37.059700	-3.314700	lacustrine, glacial origin	3.4	0.0048	Manzano et al., 2019
Laguna de la Mula	1	2497.00	37.059700	-3.416800	lacustrine, glacial origin	0.57	0.002	Jiménez-Moreno et al., 2013
Laguna de Rio Seco	1	3020.00	37.052057	-3.345810	lacustrine	3	0.0042	Anderson et al., 2011
Laguna de Salvador	1	990.00	18.795786	-70.886979	lacustrine	2.8	-999999	Lane et al., 2009
Laguna de Tagua Tagua	1	200.00	-34.500000	-71.160000	lacustrine, drained lake	-888888	50	Heusser, 1990a

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Laguna de Valleseco	2	870.00	28.064461	-15.563570	-777777			de Nascimento et al., 2016
Laguna del Condor	1	818.00	-42.350679	-71.288481	lacustrine	8.5	1.75	Iglesias et al., 2011
Laguna EkNaab	1	160.00	17.421145	-89.236475	lacustrine	2.1	0.0017	Wahl et al., 2019
Laguna Grande	2	1250.00	28.116667	-17.250000	-777777			Nogué et al., 2013
Laguna Guallar	2	336.00	41.408300	-0.227800	lacustrine, playa	0.3	0.092	Davis and Stevenson, 2007; Davis, Unpublished
Laguna Herradura	1	-777777.00	22.010000	-98.150000	lacustrine, fluvial origin	-777777		Dull et al., 2010
Laguna la Pava	1	731.00	-44.279673	-71.523314	lacustrine, glacial origin	-999999	-999999	Iglesias et al., 2016
Laguna la Zeta	1	774.00	-42.890163	-71.349370	lacustrine	-999999	-999999	Iglesias et al., 2014
Laguna Las Margaritas	1	290.00	3.380000	-73.430000	lacustrine, fluvial origin	1.5	0.44	Wille et al., 2003
Laguna Lincoln	1	19.00	-45.360000	-74.060000	lacustrine	0		Villa-Martínez et al., 2012
Laguna Llana del Espino	1	700.00	13.950000	-89.520000	lacustrine, tectonic origin	4.6	1	Dull, 2004a
Laguna Lofel	1	13.00	-44.920000	-74.320000	lacustrine	0		Villa-Martínez et al., 2012
Laguna Melli	1	70.00	-42.760000	-73.550000	lacustrine, glacial origin	-777777		Abarzúa and Moreno, 2008; Alloway et al., 2017; Pesce and Moreno, 2014
Laguna Metapan	1	450.00	14.300000	-89.470000	lacustrine, volcanic lake	-999999	-999999	Dull et al., 2010
Laguna Oprasa	1	50.00	-44.355556	-73.655556	lacustrine, thermokarst origin	3.66		Haberle and Bennett, 2004
Laguna Padre Laguna	1	1280.00	-41.359762	-71.508487	lacustrine, glacial origin	-999999	-999999	Iglesias et al., 2012
Laguna Pallcacocha	1	4060.00	-2.750000	-79.160000	lacustrine, glacial origin	8	0.06	Hansen et al., 2003
Laguna Pompal	1	700.00	18.370000	-94.950000	lacustrine	0	-999999	Goman and Byrne, 1998
Laguna Rabadilla de Vaca	1	1990.00	-3.980917	-79.074472	lacustrine	5	0.06	Niemann et al., 2009
Laguna Santa Elena	1	1100.00	8.560000	-82.560000	lacustrine	4		Anchukaitis and Horn, 2005
Laguna Six Minutes	1	15.00	-46.410000	-74.330000	lacustrine	0		Villa-Martínez et al., 2012
Laguna Stibnite	1	15.00	-46.410000	-74.400000	lacustrine	0		Villa-Martínez et al., 2012
Laguna Venus	1	600.00	-45.530000	-72.010000	lacustrine, tectonic origin	5.5	0.004	Szeicz et al., 1998
Laguna Verde	1	1600.00	13.890000	-89.780000	lacustrine	4.15		Dull, 2001; Dull, 2004b
Laguna Volcan	1	1500.00	8.750000	-82.680000	lacustrine, volcanic lake	12	0.01	Behling, 2000
Laguna Zoncho	2	1190.00	8.813000	-82.963000	lacustrine, tectonic origin	2.3	0.0075	Clement and Horn, 2001
Laguna Zurita	1	3155.00	-4.002444	-79.059583	lacustrine	3	2	Niemann and Behling, 2009a
Lagunas Natosas Bosque	1	3495.00	-4.730417	-79.424064	terrestrial, bog		-999999	Rodríguez and Behling, 2012

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Lake Acarabixi	2	33.00	-0.345833	-64.498889	lacustrine, fluvial origin	-999999	0.4	Rodríguez-Zorro et al., 2017b
Lake Aljojuca	1	2376.00	19.091130	-97.533602	lacustrine, volcanic lake	30	0.78	Bhattacharya and Byrne, 2016
Lake Banyoles	1	174.00	42.129100	2.751800	lacustrine	46	1.2	Revelles et al., 2015
Lake Baraba Thirlmere Lakes	1	305.00	-34.230000	150.530000	lacustrine	6	0.128	Black et al., 2006
Lake Biale	1	72.00	52.500000	19.494999	lacustrine	31.3	1.502	Wacnik et al., 2011
Lake Biwa	4	84.00	35.245000	136.054000	lacustrine	63	670	Hayashida et al., 2007; Inoue and Yoshikawa, 2005; Inoue et al., 2001; Inoue et al., 2018; Inoue et al., 2021; Mourguiart and Ledru, 2003; Takemura et al., 2000
Lake Bled	1	475.00	46.364400	14.094700	lacustrine	30	1.45	Andrič et al., 2009; Feurdean et al., 2020b; Lane et al., 2011
Lake Brazi	1	1740.00	45.400000	22.901667	lacustrine	1	0.005	Finsinger et al., 2018
Lake Bucura	1	2040.00	45.360000	22.874167	lacustrine	17.5	0.0892	Vincze et al., 2017
Lake Burg	1	1821.00	42.505000	1.306111	lacustrine, glacial origin	0.4	0.3	Bal et al., 2011
Lake Carana	1	5.00	-2.834645	-55.041785	lacustrine	3	0.7	Maezumi et al., 2018
Lake Chalalan	1	330.00	-14.420000	-67.920000	lacustrine	-777777	-777777	Urrego, 2006
Lake Chignahuapan	1	2570.00	19.160000	-99.530000	lacustrine, volcanic lake	2		Lozano-García et al., 2005
Lake Comprida	1	130.00	-1.620000	-53.990000	lacustrine, fluvial origin	5	0.78	Bush et al., 2000
Lake Condah	1	60.00	-38.060000	141.830000	lacustrine	0.5	1.8	Builth et al., 2008
Lake Couridjah Thirlmere Lakes	1	310.00	-34.230000	150.540000	lacustrine	0		Clark, 1997
Lake Curlip	1	2.00	-37.830000	148.560000	lacustrine	0		Ladd, 1978
Lake Czarne Bog	1	147.00	54.295000	22.059200	terrestrial, bog		0.06	Karpińska-Kołaczek et al., 2014; Karpińska-Kołaczek et al., 2016
Lake Czechowskie	1	109.00	53.874170	18.236670	lacustrine	32	0.77	Dietze et al., 2019
Lake Dojran	1	144.00	41.191225	22.732638	lacustrine	3	43	Masi et al., 2018
Lake Doukoulou	1	400.00	4.252778	18.423611	lacustrine	2.35	0.36	Aleman et al., 2013
Lake Dove	1	934.00	-41.660000	145.960000	lacustrine	157	0.86	Dyson, 1995
Lake Durankulak	1	0.40	43.670000	28.550000	lacustrine	4	3	Marinova and Atanassova, 2006
Lake Eileen	1	3135.00	40.902000	-106.673000	lacustrine	5.73	0.012	Calder et al., 2015
Lake Emily Wisconsin	1	344.00	44.314000	-93.914300	lacustrine	11	0.44	https://www.ncdc.noaa.gov/paleo/study/21056
Lake Euramoo	1	718.00	-17.150000	145.620000	lacustrine, volcanic lake	18	-999999	Haberle, 2005
Lake Eyre	1	-15.00	-28.500000	137.250000	lacustrine, salt lake, permanent	15	9000	Gillespie et al., 1991; Luly, 2001
Lake Facil	1	10.00	-44.325000	-74.283300	lacustrine	3		Szeicz et al., 2003
Lake Farskjon	1	7.00	56.170000	14.990000	-777777			Yu et al., 2004; Yu, 2003

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Lake Flannigan King Island	1	40.00	-39.600000	143.950000	terrestrial, bog	0		D'Costa, 1997
Lake Frome	1	40.00	-30.680000	139.780000	lacustrine, salt lake, permanent	-777777	2550	Luly and Jacobson, 2000; Singh and Luly, 1991
Lake Gbali	1	400.00	4.818611	18.262778	lacustrine	2	0.02	Aleman et al., 2013
Lake George	1	673.00	-35.060000	149.410000	lacustrine	-999999	155	Singh and Geissler, 1985; Singh et al., 1981
Lake Gropile	1	1920.00	47.579700	24.627300	lacustrine, glacial origin	1.15	0.038	Feurdean et al., 2020b; Florescu et al., 2018
Lake Habbema	1	3120.00	-4.110000	138.700000	lacustrine	0		Haberle et al., 2001
Lake Hordern	1	3.00	-38.784000	143.467000	lacustrine	-888888	-999999	Head and Stuart, 1980
Lake Hordorli	1	680.00	-2.530000	140.550000	terrestrial, bog	0		Hope and Tulip, 1994
Lake Huila	2	2608.00	-0.423008	-78.018008	lacustrine, volcanic lake	1.2	-999999	Loughlin et al., 2018b
Lake Ifrah	1	1610.00	33.559294	-4.930555	lacustrine	2	2	Damnati and Reddad, 2017; Reddad et al., 2013
Lake Innu	2	399.00	50.070000	-68.811000	lacustrine	7.7	0.014	Remy et al., 2017; Remy et al., 2018
Lake Johnston	1	900.00	-41.860000	145.550000	lacustrine	0		Anker et al., 2001; Dodson et al., 1998
Lake Khamra	1	340.00	59.990910	112.983730	lacustrine	22	4.6	Glückler et al., 2020a; Glückler et al., 2020b; Glückler et al., 2020c; Glückler et al., 2020d; Glückler et al., 2021
Lake Kharinei	2	108.00	67.370000	62.750000	lacustrine	16	0.5	Jones et al., 2011; Salonen et al., 2011
Lake Kipojarvi	1	159.40	69.300000	27.533333	lacustrine, glacial origin	1.5	1.6	Juutinen et al., 2013; Väliranta et al., 2011; Wohlfarth et al., 2018
Lake Kipojarvi (Kiposuo)	1	159.40	69.300000	27.533333	terrestrial, bog	2.5	1.6	Juutinen et al., 2013; Wohlfarth et al., 2018
Lake Kirjavalampi	1	5.00	61.733300	30.766700	lacustrine	4	0.024	Alenius et al., 2004
Lake Kirkpatrick	1	570.00	-45.027060	168.573740	lacustrine	-999999	0.03	McWethy et al., 2014
Lake Kojle	1	149.00	54.020000	22.880000	terrestrial, bog	33	0.17	Gałka and Obremska, Unpublished
Lake Kumpaka	1	333.00	-2.836389	-77.961389	lacustrine, volcanic lake	19.5	0.1385	Åkesson et al., 2021
Lake Lia	1	1910.00	45.350000	22.876750	lacustrine	4.5	0.0126	Finsinger et al., 2018
Lake Lielais Svetinu	2	96.20	56.760682	27.149276	lacustrine	4	0.188	Feurdean et al., 2017b; Stivrins et al., 2015b
Lake Lisan	2	-430.00	31.510000	35.470000	lacustrine	-999999	760	Kitagawa et al., 2017; Miebach et al., 2019
Lake Llet-Ti	1	50.00	66.538889	59.331389	lacustrine	1.5	-999999	Väliranta et al., 2006
Lake Lucerne	1	434.00	47.050000	8.590000	lacustrine	110	113.6	Thevenon and Anselmetti, 2007
Lake Majo	1	140.00	-1.460000	127.480000	lacustrine	0		Haberle and Ledru, 2001
Lake Martha Wright County	1	295.00	45.142200	-93.739200	lacustrine	6.7	0.38	https://www.ncdc.noaa.gov/paleo/study/21073
Lake Miragoane	1	20.00	18.400000	-73.050000	lacustrine, tectonic origin	41	7.06	Higuera-Gundy et al., 1999
Lake Mountain	1	1450.00	-37.460000	145.870000	terrestrial, bog	0		McKenzie, 1997
Lake Naleng	1	4200.00	31.100000	99.750000	lacustrine	-999999	1.8	Kramer et al., 2010
Lake Nguengue	1	385.00	3.761111	18.121944	lacustrine	2.3	0.14	Aleman et al., 2013
Lake Nicaragua	1	30.00	11.762580	-85.872528	lacustrine, tectonic origin	-777777	8264	Dull et al., 2010

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Lake Njargajavri	1	355.00	69.866667	27.166667	lacustrine	2	-999999	Väliranta et al., 2005
Lake of the Clouds (COHMAP2k)	1	462.00	48.000000	-91.016667	lacustrine	12	0.5	Swain, 1978
Lake Okadensko	1	2475.00	41.780000	23.350000	lacustrine, glacial origin	0	-999999	Atanassova and Stefanova, 2005
Lake Oltina	1	40.00	44.140000	27.630800	lacustrine, fluvial origin	2	33	Feurdean et al., 2020b; Feurdean et al., 2021
Lake Orijarvi, Mikkeli	1	89.70	61.662891	27.211239	lacustrine	5	0.288	Alenius et al., 2007
Lake Ostrezko-2	1	2320.00	42.130000	23.460000	lacustrine	1.5	0.15	Tonkov and Marinova, 2005
Lake Ostrezko-3	1	2340.00	42.130000	23.460000	lacustrine	1.7	0.1	Tonkov and Marinova, 2005
Lake Oswego	1	30.00	45.410000	-122.660000	lacustrine	17	1.64	Walsh et al., 2010b
Lake Pacucha	1	3095.00	-13.607200	-73.495000	lacustrine	30	7.5	Hillyer et al., 2009; Valencia et al., 2010
Lake Parishan	1	823.00	29.513890	51.802220	lacustrine	2.1	-999999	Djamali et al., 2016
Lake Pata	1	300.00	0.260000	-66.060000	lacustrine	7	-999999	Bush and de Oliveira, 2006; Bush, Unpublished; Colinvaux et al., 1996
Lake Pikku Harkajarvi	1	188.00	68.853200	28.644700	lacustrine	6.4	0.0373	Stivrins, Unpublished
Lake Refugio1	1	3401.00	-13.091358	-71.708429	lacustrine	1.6	-999999	Urrego et al., 2011
Lake Refugio2	1	3406.00	-13.094888	-71.705260	lacustrine	2	-999999	Urrego et al., 2011
Lake Refugio3	1	3404.00	-13.099145	-71.703140	lacustrine	2.5	-999999	Urrego et al., 2011
Lake Rosalia	1	180.00	68.912800	28.369200	lacustrine	9	0.03017	Stivrins, Unpublished
Lake Ruskowiejskie	1	144.00	53.950000	21.311700	lacustrine	11.5	0.291	Szal et al., 2017
Lake Rutundu	1	3140.00	-0.040000	37.460000	lacustrine	11	0.4	Wooller et al., 2003
Lake Ryssjon	1	5.00	56.170000	15.080000	-777777			Yu et al., 2008; Yu, 2003
Lake Salet	1	132.00	53.940000	21.322400	lacustrine	17.2	3.277	Szal et al., 2014
Lake Santa Rosa	1	350.00	-14.470000	-67.870000	lacustrine	-777777	-777777	Urrego, 2006
Lake Selina	1	516.00	-41.880000	145.600000	lacustrine	6.5	-999999	Colhoun et al., 1999
Lake Sibaya	1	20.00	-27.200000	32.360000	lacustrine	15		Neumann et al., 2008
Lake Sidi Ali	1	2080.00	33.068430	-4.998376	lacustrine	40	2.8	Campbell et al., 2017
Lake Skogstjern	1	57.20	59.007050	9.638547	lacustrine, glacial origin	4.1	0.026	Wieckowska-Lüth et al., 2017
Lake Skrzynka	1	121.00	53.810000	17.521400	lacustrine	4.3	0.21	Apolinarska et al., 2012
Lake Stiol	1	1670.00	47.570000	24.813600	lacustrine, glacial origin	1.3	0.016	Feurdean et al., 2020b; Haliuc et al., 2016
Lake Stiucii	1	240.00	46.970000	23.899700	lacustrine	6	0.38	Feurdean et al., 2013; Feurdean et al., 2020b
Lake Suchar IV	1	143.00	54.090000	23.024700	lacustrine, glacial origin	8	0.0095	Zawisza et al., 2019
Lake Suho Breznishko	1	1963.00	41.810000	23.350000	lacustrine, glacial origin	1	0.01	Atanassova and Stefanova, 2005
Lake Suminko	1	163.00	54.180000	17.798333	lacustrine	17.2	0.15	Pędziszewska et al., 2015
Lake Surprise	1	93.00	-38.060000	141.920000	lacustrine, volcanic lake	12	0.126	Builth et al., 2008
Lake Svarcenberk	1	412.00	49.145833	14.705000	lacustrine, drained lake	-888888	0.5	Pokorný and Jankovská, 2000; Pokorný, 2002
Lake Tanganyika	1	773.00	-6.550000	29.970000	lacustrine, tectonic origin	309		Tierney et al., 2010

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Lake Teletskoye	1	1900.00	51.529167	87.714722	lacustrine	325	233	Andreev et al., 2007; Kalugin et al., 2005
Lake Teza	1	8.00	-28.510000	32.300000	lacustrine	0		Scott, 2002
Lake Tilla	1	690.00	10.544598	12.131373	lacustrine, volcanic lake	4.5	0.8	Salzmann et al., 2002
Lake Titicaca	1	3810.00	-16.130000	-69.150000	lacustrine, tectonic origin	152	8500	Paduano et al., 2003
Lake Tritrivakely	1	1514.00	-19.780000	46.910000	lacustrine, volcanic lake	0		Burney, 1987
Lake Tulane	2	36.00	27.585000	-81.503600	lacustrine	25	0.36	Grimm et al., 1993; Grimm et al., 2006
Lake Tumbulovaty (Khosedayu mire 1)	1	110.00	67.116667	59.566667	terrestrial, bog	0	-999999	Kultti et al., 2004
Lake Tumbulovaty (Khosedayu mire 2)	1	110.00	67.116667	59.566667	terrestrial, bog	0	-999999	Kultti et al., 2004
Lake Tumbulovaty (Khosedayu mire 3)	2	90.00	67.166667	59.500000	terrestrial, bog	0	-999999	Kultti et al., 2004
Lake Tyrrell	2	42.00	-35.310000	142.780000	lacustrine, salt lake, permanent	0		Luly et al., 1986; Luly, 1993
Lake Urmia	1	1265.00	37.793610	45.375830	lacustrine, tectonic origin	12	5000	Djamali et al., 2008
Lake Van	1	1648.00	38.550000	42.530000	lacustrine, tectonic origin	430		Wick et al., 2003a
Lake Wangoom	1	100.00	-38.350000	142.600000	lacustrine, volcanic lake		1.13	Harle et al., 2002
Lake Wodehouse	1	500.00	7.650000	-77.550000	terrestrial, marsh	0	9	Bush and Colinvaux, 1994
Landing Lake	1	394.00	65.903370	-145.777070	lacustrine	4.2	-999999	Kelly et al., 2013
Lantianyan peat bog	2	902.00	28.430000	119.310000	terrestrial, bog		-999999	Ma et al., 2018b
Lanzahita	1	588.00	40.222200	-4.935800	terrestrial, bog	-888888	0.00015	López-Sáez et al., 2017b
Lanzhot	1	150.00	48.710000	16.950639	terrestrial, fen	-888888	0.45	Jamrichová, Unpublished
Laravita	1	3570.00	-8.390000	147.350000	terrestrial, bog	0		Hope, 2009
Larix Hollow	1	155.00	61.845917	37.756500	terrestrial, small hollow	-888888	0.001	Kuosmanen et al., 2014
Las Animas Mire	2	1403.00	36.685800	-5.030000	terrestrial, bog	-888888	2e-04	Alba-Sánchez et al., 2019
Las Pardillas	1	1850.00	42.033300	-3.033300	lacustrine	1.5	0.005	Sánchez-Goñi and Hannon, 1999
Las Vinuelas	2	761.00	39.374400	-4.488400	terrestrial, bog	-888888	2e-04	Morales-Molino et al., 2019
Lashmars Lagoon	1	2.00	-35.800000	138.067000	lacustrine	-999999	0.5	Clark, 1983
Last Chance	1	250.00	67.070000	-150.750000	lacustrine, thermokarst origin	8.5	0.34	Higuera, 2006
Lasva	1	72.20	57.859444	27.175000	lacustrine	19.15	0.11	Niinemets and Saarse, 2007a
Latitude Lake	1	-999999.00	65.926890	-146.142230	lacustrine	17.5	-999999	Kelly et al., 2013
Lattok Arjeplog	1	480.00	65.956944	18.345000	lacustrine, glacial origin	5.1	0.011	Carcaillet et al., 2007

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Laukutu Swamp	1	20.00	-9.470000	160.080000	terrestrial, bog	0		Haberle, 1996
LB01 (North Quebec)	1	200.00	57.920000	-75.620000	lacustrine	10.28	0.06	Gajewski, 2019
Le Vernay	1	595.00	47.261944	4.079167	terrestrial, bog	-888888	-999999	Jouffroy-Bapicot et al., 2013; Jouffroy-Bapicot, 2010
Lebel	1	22.00	49.098300	-68.221600	terrestrial, bog	-888888	-999999	Magnan et al., 2014
Leguna Castilla	1	976.00	18.797800	-70.876100	lacustrine	4.5	-999999	Lane et al., 2009
Lej da San Murrezzan	1	1768.00	46.490000	9.840000	lacustrine	44	0.78	Gobet et al., 2003
Lena	1	50.00	69.380000	125.130000	terrestrial, bog	-888888	3	Jasinski et al., 1998
Les Amburnex Mire	1	1370.00	46.539720	6.231667	terrestrial, bog	-888888	0.002	Sjögren and Lamentowicz, 2008
Les Comailles	1	215.00	47.660000	3.220000	terrestrial, bog	0		Vannière and Rius, Unpublished
LG4-01	1	470.00	54.035800	-72.872800	lacustrine	-999999	0.003	Carcaillet and Richard, 2000; Carcaillet et al., 2002
LG4-05	1	350.00	54.063300	-72.915300	lacustrine	-999999	0.001	Carcaillet and Richard, 2000; Carcaillet et al., 2002
LG4-06	1	365.00	54.075000	-72.941900	lacustrine	-999999	0.071	Carcaillet and Richard, 2000; Carcaillet et al., 2002
LG4-09	1	442.00	54.901100	-72.777200	lacustrine	-999999	0.053	Carcaillet and Richard, 2000; Carcaillet et al., 2002
LG4-12	1	534.00	52.842800	-73.316400	lacustrine	-999999	0.038	Carcaillet and Richard, 2000; Carcaillet et al., 2002
Liang Jia Cun	2	640.00	34.450000	107.670000	terrestrial, loess		-999999	Tan et al., 2018
Liang Jia Yao	1	640.00	34.450000	107.670000	terrestrial, loess		-999999	Tan et al., 2013
Liangjing village	1	-999999.00	22.950000	114.570000	lacustrine	7.2	0.8	Chen et al., 2014
Liangzhu City	1	-999999.00	30.470000	120.070000	terrestrial		-999999	Liu, 2014
Libouse	1	1806.00	44.590000	6.320000	terrestrial, bog			Court-Picon, 2007
Lielais Vipedis	1	96.00	56.591480	23.000940	lacustrine	4	21	Stivrins, Unpublished
Lijiayuan	1	1850.00	36.110000	104.850000	terrestrial, loess	0		Wang et al., 2005
Lilaste lake	1	0.50	57.179000	24.351639	coastal	2	1.8	Grudzinska et al., 2017; Stivrins, Unpublished
Lili Bog	3	317.00	49.172300	-79.370300	terrestrial, bog	-888888	-999999	Magnan et al., 2020
Lili Lake	1	320.00	49.173750	-79.374147	lacustrine	1.4	0.19	Remy et al., 2018
Lilla Gloppsjon	1	198.00	59.802778	14.627778	lacustrine	27	0.05	Almquist-Jacobson, 1994
Lille Kjelavatn	1	978.00	59.796111	7.001944	lacustrine	3.5	0.005	Eide et al., 2005
Lily Lake Warner Mountains	1	2042.00	41.975800	-120.209700	lacustrine	-999999	0.037	Minckley et al., 2007
Lily Lake Waseca County	1	311.00	44.191200	-93.640100	lacustrine	7	0.46	https://www.ncdc.noaa.gov/paleo/study/21070
Lily Pond New Salem	1	303.00	42.418100	-72.346800	lacustrine	3	-999999	Foster et al., 2002a
Lily Pond Warwick	1	269.00	42.680000	-72.330000	lacustrine	1.32	0.008	Fuller et al., 1998; Parshall and Foster, 2002
Lin	2	2.00	61.480000	-163.430000	lacustrine	1	0.003	Sae-Lim et al., 2019
Lingtai section	1	1400.00	35.000000	107.500000	terrestrial, loess	0		Wang et al., 2005
Linje	2	90.00	53.187352	18.309571	terrestrial, bog	-888888	0.0595	Marcisz et al., 2015
Lios Lairthin Mor	1	270.00	53.080000	-9.210000	terrestrial, bog	-888888	-999999	Jeličić and O'Connell, 1992
Lisletonn	1	520.00	59.343610	7.305000	lacustrine	7.1	-999999	Birks, 2006
Litlvatnet	1	106.00	68.526940	14.930830	lacustrine	6	-999999	Bjune et al., 2008
Little Isac	1	210.00	67.941083	-160.797111	lacustrine	5.4	0.029	Higuera et al., 2011

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Little Lake, Oregon	2	210.00	44.167778	-123.582222	lacustrine, tectonic origin	10	0.015	Grigg and Whitlock, 1998; Long et al., 2007; Worona and Whitlock, 1995
Little Molas Lake	1	3370.00	37.740000	-107.700000	lacustrine	0		Anderson et al., 2008a; Toney and Anderson, 2006
Little Pine Lake (COHMAP2k)	1	334.00	45.283333	-91.483333	lacustrine	5	0.065	Gajewski et al., 1985
Little Pond, Bolton	1	99.00	42.422340	-71.587738	lacustrine	3.2	0.05	Fuller et al., 1998; Oswald, Unpublished; Parshall and Foster, 2002
Little Pond, Royalston	1	302.00	42.675000	-72.191670	lacustrine	-999999	0.04	Oswald et al., 2007; Oswald, Unpublished
Litzelsee	1	413.00	47.770000	8.930600	lacustrine	8	0.013	Rösch and Lechterbeck, 2016
Liupanshan Mountain	1	1400.00	35.870000	106.780000	terrestrial, loess		-999999	Tan et al., 2013
Ljustjarnen	1	183.00	59.750000	14.430000	lacustrine	0		Almquist-Jacobson, 1994
LM01 (North Quebec)	1	320.00	55.620000	-74.580000	lacustrine	7.75	0.02	Gajewski, 2019
Lobsigensee	1	514.00	47.030000	7.290000	lacustrine, glacial origin	3		Ammann, 1989
Loch a'Bhogaidh	1	65.00	55.725000	-6.403333	terrestrial, mire	-888888	0.175	Edwards and Berridge, 1994
Loch a'Phuinnd	1	10.00	57.366667	-7.266667	lacustrine	5.7	0.015	Fossitt, 1996
Loch an Amair	1	315.00	57.280000	-4.890000	lacustrine, glacial origin	3.25	0.008	Froyd, 2006
Loch an t'Suidhe	1	32.00	56.312599	-6.253752	lacustrine	1.5	0.002	Edwards et al., 2007
Loch Buailaval Beag	1	50.00	58.265056	-6.770299	lacustrine	3.5	0.01	Fossitt, 1996
Loch Laxford	1	0.00	58.360000	-5.000000	coastal, estuarine	-888888	-999999	Stefanova et al., 2008; Weiss et al., 2002
Loch of Clickimin	1	1.00	60.150238	-1.165115	coastal	2	0.175	Edwards et al., 2005
Loch of Knitchen	1	160.00	59.130000	-3.000000	-777777			Bunting, 1996
Loch of Torness	1	15.00	58.770000	-3.290000	-777777			Bunting, 1996
Loch Sport Swamp	1	2.00	-37.960000	147.680000	terrestrial, fen	0		Hooley et al., 1980
Lochan na h-Inghinn	1	65.00	58.250000	-5.090000	lacustrine, glacial origin	3.14	0.01	Froyd, 2006
Lombok Ridge Core G6-4 B	1	-3510.00	-10.780000	118.060000	marine	3510		Wang et al., 1999
Lone Pine Lake	1	3016.00	40.232733	-105.731650	lacustrine	10	0.048	Higuera et al., 2014
Long Breach	1	341.00	51.065870	-3.687402	terrestrial, mire	-888888	-999999	Fyfe et al., 2003
Long Gang Volcanic Field	1	500.00	42.310000	126.280000	terrestrial, bog		3.14	Meng et al., 2019
Long Swamp	1	2.00	-38.080000	141.080000	terrestrial, fen	-888888	-999999	Head, 1988
Longgan Lake	1	12.10	30.160000	116.160000	lacustrine	3.78	316	Yang et al., 2002
Loon Lake	1	140.00	67.929269	-161.966944	lacustrine	12.2	0.14	Chipman and Hu, 2017
Lost Lake	1	449.00	45.822988	-123.579517	lacustrine, fluvial origin	6	0.06	Long et al., 2007
Lough Catherine	1	60.00	54.700000	-7.466670	lacustrine	6.5	0.4	Hirons and Edwards, 1986
Lough Maumeen	1	250.00	53.405608	-10.022521	lacustrine, glacial origin	5	0.56	Huang, 2002
Lough Mullaghlahan	1	40.00	54.775000	-8.466944	lacustrine	5.6	0.005	Fossitt, 1994
Lough Nabraddan	1	20.00	55.016700	-8.350000	lacustrine	5.6	0.006	Fossitt, 1994

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Loutre Lake	1	274.00	49.711694	-78.335833	lacustrine	10.63	0.021	Ali et al., 2009
Lovnas Arjeplog	1	515.00	66.310833	17.900833	lacustrine, glacial origin	3.7	0.003	Carcaillet et al., 2007
Lower Gaylor Lake	1	3062.00	37.909380	-119.286309	lacustrine	3.7	0.03	Hallett and Anderson, 2010
LR01 (North Quebec)	1	170.00	58.580000	-75.250000	lacustrine	9.13	0.02	Gajewski, 2019
LR03 (North Quebec)	1	160.00	58.570000	-75.220000	lacustrine	10.8	0.022	Gajewski, 2019
LT01 (North Quebec)	1	150.00	59.140000	-75.150000	lacustrine	3.4	0.075	Gajewski, 2019
Lucky Lake	1	-999999.00	66.017370	-145.525010	lacustrine	9.4	-999999	Kelly et al., 2013
Lugovoe mire Western Sayan Mountains	1	1299.00	52.862500	94.355000	terrestrial, mire	-888888	-999999	Blyakharchuk et al., 2019b
Lugu Lake	1	2692.20	27.680000	100.800000	lacustrine, tectonic origin	44	57.7	Liao, 2017
Luka	1	226.00	49.196806	24.512778	terrestrial, buried fen	-888888	0.06	Kołaczek et al., 2018a
Luoyang basin	1	-999999.00	34.650000	112.650000	archaeological site		-999999	Wang, 2015
Lynchs Crater	2	760.00	-17.360000	145.700000	lacustrine, drained lake	-888888	0.4	Kershaw et al., 2007a; Kershaw, 1983
M14	1	330.00	50.075556	-95.402222	lacustrine	1.2	0.086	Waito et al., 2018
M15	1	337.00	49.785833	-95.190278	lacustrine	5.7	0.053	Waito et al., 2018
M16	1	341.00	49.815833	-95.265556	lacustrine	2.5	0.05	Waito et al., 2018
M34	1	290.00	50.230000	-95.577778	lacustrine	4.5	0.043	Waito et al., 2018
Maardu	1	31.30	59.441667	25.000000	lacustrine	0.9	1.59	Veski, 1998
Madeleine	1	800.00	47.672200	-70.719400	lacustrine	3.8	0.083	Carcaillet and Richard, 2000
Mago Island	1	2.00	-17.440000	179.150000	terrestrial, bog	0		Hope et al., 2009
Mai Maikden I	1	2228.00	13.583833	39.364600	terrestrial	-888888	-999999	Gebru et al., 2009
Mai Maikden II	1	2228.00	13.583625	39.568911	terrestrial	-888888	-999999	Gebru et al., 2009
Mai Maikden III	1	2228.00	13.578578	39.567956	terrestrial	-888888	-999999	Gebru et al., 2009
Main Lake Tower Hill	1	20.00	-38.310000	142.360000	lacustrine	0		D'Costa et al., 1989
Mala niva	1	753.00	48.913760	13.816060	terrestrial, bog	-888888	0.8	Bobek et al., 2019; Kozáková et al., 2021; Svobodová et al., 2001
Maligne Lake	2	1675.00	52.708479	-117.608897	lacustrine	35	19.71	Kearney and Luckman, 1983a; Kearney and Luckman, 1987
Mallard Lake	1	570.00	51.287669	-101.324722	lacustrine	8.78	0.08	Teed et al., 2009
Malo Jezero	1	0.00	42.783300	17.350000	lacustrine	29	0.25	Colombaroli et al., 2009; Jahns and van den Bogaard, 1998; Jahns, 2002
Maluyo Swamp	1	5.00	18.180000	121.580000	terrestrial	-888888		Stevenson, Unpublished
Manaderos	1	1292.00	40.342400	-4.693900	terrestrial, bog	-888888	5e-05	Bisculm et al., 2012
Manic	1	22.00	49.118300	-68.305000	terrestrial, bog	-888888	5.38	Magnan et al., 2014
Mannikjarve	1	90.00	58.866700	26.250000	terrestrial, bog	-888888	3.2	Sillasoo et al., 2007; Sillasoo et al., 2011
Mansell Pond	1	58.00	45.041670	-68.733000	lacustrine	7	0.04	Almquist-Jacobson and Sanger, 1995
Manzherok Lake Altai Mts.	1	423.00	51.820800	85.809700	lacustrine	3	0.5	Blyakharchuk et al., 2017

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Marais du Grand-Chaumet	1	140.00	46.930000	1.900000	terrestrial, fen	-777777		Vannière and Laggoun-Défarge, 2002; Vannière, 2001
Maralay Alas	1	134.00	63.116667	130.600000	lacustrine, thermokarst origin	-888888	1.21	Katamura et al., 2006; Katamura et al., 2009a
Marbore	1	2612.00	42.695631	0.040019	lacustrine	30	0.1	Leunda et al., 2017
Marcacocha	1	3355.00	-13.210000	-72.200000	lacustrine	0		Chepstow-Lusty et al., 1998
Marcella Lake	2	697.00	60.073611	-133.807777	lacustrine	9.7	0.04	Anderson et al., 2005; Edwards et al., 2015; Franklin-Smith, 2007
Mare Tatos	2	21.00	-20.212222	57.772778	-777777			Gosling et al., 2017
Martins	1	1415.00	47.710000	-123.540000	lacustrine	0		Gavin et al., 2001
Marys Pond HF	1	26.00	41.506151	-70.713474	lacustrine	-999999	-999999	Unpublished
Masatjornet	1	841.00	61.562500	10.267770	lacustrine	3.6	-999999	Birks et al., 2012
Masoko	2	770.00	-9.330000	33.750000	lacustrine, volcanic lake	39		Thevenon et al., 2003
Matsabory Ampozalana	1	740.00	-12.500000	49.150000	terrestrial, bog	-888888	-888888	Burney, 1987
Maxus	1	3.00	-0.700000	-76.450000	lacustrine, fluvial origin	0		Athens and Ward, 1999
McGinnis	1	256.00	44.600000	-78.030000	lacustrine	18		Carcaillet et al., 2006
McKay	1	302.00	57.228333	-111.700000	terrestrial, bog	-888888	-999999	Magnan et al., 2018
McKenzie Road Bog	1	50.00	-38.430000	146.760000	terrestrial, bog	0.5		Robertson, 1986
McMurray	1	387.00	56.627778	-111.194167	terrestrial, bog	-888888	-999999	Magnan et al., 2018
MD04-2845	1	-4175.00	45.350000	-5.210000	marine	-888888	-888888	Daniau et al., 2009
MD95-2042	2	-3146.00	37.750000	-10.160000	marine	-888888	-888888	Bard et al., 2013; Chabaud et al., 2014; Daniau et al., 2007
MD96-2098	1	-2909.00	-25.600000	12.630000	marine			Daniau et al., 2013
MD97-2140	1	-2547.00	2.060000	142.260000	marine	2547		Thevenon et al., 2004
Mechacz Wielki	1	200.00	54.331974	22.441504	terrestrial, bog	-888888	1.47	Marcisz et al., 2017
Megali Limni	1	323.00	39.102000	26.321000	lacustrine, drained lake		1.48	Margari et al., 2007; Margari et al., 2009
Mela Swamp	1	20.00	-9.470000	160.080000	terrestrial, bog	0		Haberle, 1996
Micalong Swamp	1	1100.00	-35.330000	148.510000	terrestrial, bog	-888888	1	Kemp and Hope, 2014; Kemp, 1993
Middle Patriarch Swamp	1	19.00	-39.990000	148.180000	lacustrine, drained lake	-888888		Ladd et al., 1992
Middle Rainbow Lake	1	3001.00	40.648000	-106.624000	lacustrine	5.8	0.028	Calder et al., 2015
Migneint	1	440.00	52.820000	-3.820000	terrestrial, mire	-888888	1.2	Ellis and Tallis, 2001
Mildred	1	334.00	56.930556	-111.475000	terrestrial, bog	-888888	-999999	Magnan et al., 2018
Mill Creek	1	4.00	-33.400000	151.030000	terrestrial	-777777		Devoy et al., 1994
Mindelsee	1	406.00	47.755550	9.023050	lacustrine, glacial origin	14	0.99	Rösch et al., 2014; Rösch, 2013
Minnesota Plateau Lake	1	827.00	62.541794	-146.238431	lacustrine	5.4	0.05	Barrett et al., 2013
Minnreg Lake	1	-999999.00	44.690500	-93.319700	lacustrine	-999999	-999999	https://www.ncdc.noaa.gov/paleo/study/21071

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Misask	3	475.00	52.724800	-72.212800	terrestrial, fen	-888888	0.102	Primeau and Garneau, 2021
Mista	1	372.00	50.805900	-63.343200	terrestrial, bog	-888888	0.17	Primeau and Garneau, 2021
Miticka slatina	1	330.00	48.810000	18.108083	terrestrial, bog		-999999	Jamrichová et al., 2018
Mizorogaike Pond	1	75.00	35.058300	135.769400	terrestrial, mire	-888888	0.09	Ogura, 2002; Sasaki and Takahara, 2011
Mlaka	1	150.00	45.500000	15.121900	terrestrial, marsh	0.1	0.07	Andrič, 2007; Feurdean et al., 2020b
Mobutu Sese Seko Lake Albert	1	619.00	1.830000	31.160000	lacustrine, tectonic origin	46	5300	Beuning et al., 1997
Mogielica	1	845.00	49.665906	20.279906	terrestrial, buried fen	-888888	0.00028	Czerwiński et al., 2020
Mojiaoshan site 01	1	-999999.00	30.400000	119.990000	archaeological site		-999999	Wang et al., 2017
Mojiaoshan site 02	1	-999999.00	30.400000	119.980000	archaeological site		-999999	Wang et al., 2017
Molhasul Mare	1	1124.00	46.590000	22.764200	terrestrial, bog		0.08	Feurdean and Willis, 2008; Feurdean et al., 2020b
Mongan Bog	1	45.00	53.330000	-7.930000	terrestrial, bog	-888888	6	Barber et al., 2003
Mont Valin	1	356.00	48.610000	-70.830000	lacustrine	-777777		Couillard et al., 2013
Montezuma Well	1	1125.00	34.000000	-112.000000	lacustrine	0		Davis and Shafer, 1992
Moon Lake	1	456.00	46.857601	-98.158626	lacustrine	12.8	0.35	Clark et al., 1996
Moose	1	1508.00	47.880000	-123.350000	lacustrine	0		Gavin et al., 2001
Moreletta River	1	417.00	-28.820000	30.990000	-777777	0		Scott, 2002
Morro de Itapeva	1	1850.00	-22.780000	-45.570000	terrestrial, bog	0		Behling, 1997a
Morts	1	14.00	50.263300	-63.668300	terrestrial, bog	-888888	-999999	Magnan et al., 2014
Morttjern	1	227.00	59.059720	11.617770	lacustrine	12	-999999	Birks et al., 2012
Mosaik	2	300.00	51.985694	-75.385440	terrestrial, bog	-888888	2.67	van Bellen et al., 2012
Mosquito Hollow	1	155.00	61.851867	37.770283	terrestrial, small hollow	-888888	0.001	Kuosmanen et al., 2014
Motianling peatland	1	1645.00	47.370000	120.650000	terrestrial, bog		0.5	He et al., 2017
Mound G Pond Shiloh Indian Mounds	1	143.00	35.140000	-88.200000	terrestrial, small hollow	0.48		Cridlebaugh, 1984; Delcourt and Delcourt, 1997a; Delcourt and Delcourt, 1997b; Delcourt and Delcourt, 1998; Delcourt et al., 1986; Delcourt et al., 1998; Meeks, 2005
Mount Barr Cirque	1	1376.00	49.260000	-121.510000	lacustrine	9	0.02	Hallett et al., 2003
Mountain Lagoon	1	604.00	-33.500000	150.510000	lacustrine	-777777	-777777	Robbie, 1998
Mozgovitsa River	1	1800.00	41.410000	23.110000	terrestrial, bog	-888888	7e-04	Marinova and Tonkov, 2012; Tonkov, 2003
Mt Constitution C11	1	611.00	48.659979	-122.833612	terrestrial, small hollow	-888888	-999999	Higuera et al., 2005; Sugimura et al., 2008
Mt Constitution C32	1	611.00	48.664006	-122.838676	terrestrial, small hollow	-888888	-999999	Higuera et al., 2005; Sugimura et al., 2008
Mt Constitution C38	1	735.00	48.676420	-122.838074	terrestrial, small hollow	-888888	-999999	Higuera et al., 2005; Sugimura et al., 2008
Mubwindi Swamp	1	2100.00	-1.080000	29.750000	terrestrial, bog	-888888	-999999	Marchant et al., 1997
Muchang	2	308.40	43.030000	122.200000	terrestrial, marsh	0		Li et al., 2003; Zhang et al., 2004a
Muellers Rock	1	1102.00	-35.390000	148.500000	terrestrial, bog	0		Worthy, 2005

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Mukhrino Mire	1	35.00	60.888900	68.702600	terrestrial, bog		10	Lamentowicz et al., 2015
Mulloon Creek Swamp	1	799.00	-35.396667	149.585000	terrestrial, fen	-888888	0.14	Hope, Unpublished
Mumbo Lake	1	1860.00	41.191147	-122.510445	lacustrine	3.2	0.04	Daniels et al., 2005
Murphy Lake St Louis County	1	411.00	44.710500	-93.341700	lacustrine	7.3	1.6	https://www.ncdc.noaa.gov/paleo/study/21072
Mustei Nuur	1	2353.00	51.239230	99.007560	lacustrine	28	0.34	http://www.ncdc.noaa.gov/paleo/study/20514; Robinson, 2007
Mustjarve	1	38.90	59.076944	24.099722	terrestrial, bog	-888888	2.78	Veski, 1998
MV01 (North Quebec)	1	300.00	56.940000	-74.900000	lacustrine	5.06	0.045	Gajewski, 2019
Myrvatnet	1	197.00	68.660550	16.381380	lacustrine	4.8	-999999	Bjune et al., 2008
Mythadi Sacred Grove	1	879.00	12.220278	75.791944	terrestrial, mire	-888888	-999999	Nogué et al., 2017
Na Bahne	1	240.00	50.198889	15.961389	terrestrial, fen	1	0.01	Pokorný and van der Knaap, 2010; Pokorný et al., 2000
Na mahu	1	290.00	45.970000	14.538900	lacustrine, drained lake	-888888	160	Andrič et al., 2008; Feurdean et al., 2020b
Naava hollow	3	156.00	61.241389	25.056111	terrestrial, small hollow	-888888	3e-04	Stivrins et al., 2017a; Stivrins et al., 2019
Nad Dolskym mlynem	1	240.00	50.852500	14.338889	terrestrial, bog	-888888	5e-04	Abraham, 2006; Pokorný et al., 2008
Nadrau	1	680.00	-17.750000	177.880000	terrestrial, bog	0.5	1.5	Hope et al., 2009
Nadym frozen mire north of West Siberia	1	50.00	65.315600	72.874200	terrestrial, mire	-888888	-999999	Blyakharchuk, Unpublished
Nakri	2	48.50	57.895119	26.273144	lacustrine	3.2	0.01	Amon et al., 2011
Nam Co area	1	4718.00	30.920000	90.880000	terrestrial, mire		-999999	Herrmann et al., 2010
Nanwangcun	1	10.00	37.000000	118.000000	terrestrial	-777777		Wang et al., 2003; Wang et al., 2004b
Nar Lake	1	1363.00	38.370000	34.450000	lacustrine, volcanic lake	26	0.7	Turner et al., 2008
Nataloup	1	515.00	47.227500	4.035278	terrestrial, bog	-888888	-999999	Jouffroy-Bapicot et al., 2013; Jouffroy-Bapicot, 2010
Native Companion Lagoon	1	20.00	-27.676040	153.410470	lacustrine	0.5	-999999	Petherick et al., 2008
Navamuno	1	1505.00	40.321300	-5.778600	terrestrial, bog	-888888	0.14	López-Sáez et al., 2020
Navarres	1	225.00	39.100000	-0.683300	terrestrial, bog		-999999	Carrión and Van Geel, 1999
Navatu	1	4.00	-18.070000	178.530000	terrestrial, bog	0.5		Hope et al., 2009
NE Yellowstone National Park	1	2250.00	45.000000	-110.000000	other	-777777		Meyer et al., 1995
Neihuang County	1	57.00	35.730000	114.770000	archaeological site		-999999	Liu, 2012
Nekkeng	1	9.00	7.450000	134.520000	terrestrial	0		Athens and Ward, 2005
Nelson Lake	1	211.00	41.832780	-88.380000	lacustrine, glacial origin	1.2	0.25	Nelson et al., 2006
Neon	1	2875.00	-8.470000	147.300000	terrestrial, bog	0		Hope, 2009
Neublans	1	205.00	46.910000	5.340000	terrestrial, fen	-777777		Vannière et al., 2003; Vannière, 2001
Neume	1	363.00	47.587800	-77.110800	lacustrine	5.5	0.029	Carcaillet and Richard, 2000
Newall Creek	1	140.00	-42.070000	145.440000	terrestrial, bog	-888888	-999999	van de Geer et al., 1989
Newnes Swamp	1	1060.00	-33.382500	150.222200	terrestrial, mire	-888888	-999999	Chalson and Martin, 2009; Chalson, 1991

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Ngardmau	1	10.00	7.600000	134.570000	terrestrial	0		Athens and Ward, 2005
Ngerchau	1	9.00	7.630000	134.520000	terrestrial	0		Athens and Ward, 2005
Ngerdok	1	25.00	7.520000	134.600000	lacustrine	4.6		Athens and Ward, 2005
Ngerkell	1	10.00	7.600000	134.620000	terrestrial	0		Athens and Ward, 2005
Nicole Lake	1	300.00	62.898592	-114.806868	lacustrine	5.6	0.08	Lynch et al., 2004
Nihewan Basin	1	850.00	40.110000	114.450000	fluvial		9000	Hu et al., 2015
Niliq Lake	1	270.00	67.867867	-160.431633	lacustrine	4.3	-999999	Hu and Chipman, 2016; Hu and Chipman, Unpublished
Ninisith Lake	5	225.00	59.580000	-113.000000	lacustrine	3.2	0.01	Larsen et al., 2000
Noir (Quebec Ontario)	1	176.00	45.775000	-75.133000	lacustrine	16.2	0.1	Paquette and Gajewski, 2013
Noir Lake	1	-999999.00	66.002610	-145.926130	lacustrine	15.3	-999999	Kelly et al., 2013
Nong Pa Kho	1	380.00	17.010000	102.930000	terrestrial, fen	3.5	-999999	Penny and Kealhofer, 2005
Noreikora Swamp	1	1750.00	-6.330000	145.830000	terrestrial, marsh	0		Haberle and Ledru, 2001
Noricka graba	1	240.00	46.620000	16.007500	terrestrial, marsh	-888888	0.001	Andrič and Willis, 2003; Feurdean et al., 2020b
North Round Pond	1	317.00	42.847600	-72.451900	lacustrine	3.4	0.043	Francis and Foster, 2001; Kdster and Pienitz, 2006a
North Torbreck	1	564.00	-37.480000	146.940000	fluvial	0		McKenzie, 2002
Northwest Crater Tower Hill	1	20.00	-38.310000	142.360000	lacustrine, volcanic lake	0.36	-999999	D'Costa et al., 1989
Northwest Lake	1	331.00	52.500000	-92.500000	lacustrine	8.1	0.1	Lynch et al., 2004
Notts Swamp	1	682.00	-33.809840	150.407700	terrestrial, mire	-888888	-999999	Chalson and Martin, 2009; Chalson, 1991
Novoalexandrovskoye	1	113.00	55.120000	41.040000	terrestrial, bog		0.17	Feurdean et al., 2020b; Novenko et al., 2016b
Nursery Swamp	1	1092.00	-35.675567	148.967200	terrestrial, bog	-888888	0.26	Rogers and Hope, 2006
Nussbaumersee	1	450.00	47.600000	8.810000	lacustrine	0		Haas and Hadorn, 1998
NW 1	1	120.00	61.845917	-122.400000	terrestrial, bog	-888888	-999999	Väliranta and Piilo, Unpublished
O14	1	332.00	50.028333	-94.824444	lacustrine	8.3	0.07	Waito et al., 2018
O15	1	339.00	50.008056	-94.982500	lacustrine	3.9	0.062	Waito et al., 2018
O4	1	366.00	49.757500	-94.877778	lacustrine	7.2	0.146	Waito et al., 2018
O6	1	361.00	49.821389	-94.783611	lacustrine	3.3	0.063	Waito et al., 2018
Oaks Creek	1	610.00	-37.580000	146.160000	terrestrial, bog	0		McKenzie, 2002
Oberderdingen-Grossvillars	2	207.00	49.042500	8.760278	terrestrial, fen	-888888	-999999	Rösch, 2005
Odersprungmoor	1	811.00	51.771389	10.567778	terrestrial, fen	-888888	-999999	Gałka et al., 2019
Odessa Lake	1	3051.00	40.330367	-105.685400	lacustrine	6.9	0.033	Higuera et al., 2014
ODP Site 820	1	-280.00	-16.630000	146.300000	marine	-888888	-888888	Moss and Kershaw, 2000
ODP-1144	1	-2037.00	20.050000	117.410000	marine	2037	-888888	Luo et al., 2001
ODP-668B	1	-3965.00	-20.920000	4.770000	marine	2693		Bird and Cali, 2002
ODP1078C	1	-426.00	-11.910000	13.400000	marine	-888888	-888888	Dupont et al., 2008
ODP893A	1	-577.00	34.280000	-120.030000	marine			Heusser, 1998; Heusser, 2000; Heusser, Unpublished
Ofuke	1	510.00	38.640000	135.170000	terrestrial, bog	-888888	-999999	Miyoshi and Takahara, Unpublished
Ojos del Tremendal	1	1650.00	40.541700	-2.045000	terrestrial, bog	-888888	0.6	Stevenson, 2000
OK Lake	1	108.00	54.800000	-95.250000	lacustrine	16.4	0.1	Lynch et al., 2004

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Okame-ike Swamp	1	712.00	34.480000	135.930000	terrestrial, mire	1	0.024	Inoue et al., 2012
Okarito Pakihi	1	70.00	-43.241700	170.216700	terrestrial, bog	-888888	-999999	Newnham et al., 2007b; Vandergoes et al., 2005
Okna	1	277.00	50.532070	14.675930	terrestrial, fen	-888888	0.12	Bobek et al., 2019
Olbed	1	20.00	7.500000	134.540000	terrestrial	0		Athens and Ward, 2005
Old Lake Coomboo Depression	1	86.40	-25.230500	153.179900	lacustrine	-777777	-999999	Longmore and Heijnis, 1999; Longmore, 1997
Olga Hollow	1	200.00	61.201600	37.590500	terrestrial, small hollow	-888888	0.001	Kuosmanen et al., 2014
Oops	1	488.00	65.440000	-147.630000	lacustrine	-777777		Finney and Krumhardt, 2004
Ortino river basin	4	NA	68.000000	54.000000	terrestrial, bog	0	-999999	Väliranta et al., 2003
Otter Pond	1	107.00	42.650000	-72.530000	lacustrine	2.6	0.031	Fuller et al., 1998; Parshall and Foster, 2002
Ours	2	458.00	54.049780	-72.454060	terrestrial, fen	-888888	0.01	van Bellen et al., 2013
Oygardtjonn	1	665.00	59.625830	7.986660	lacustrine	12.5	-999999	Birks, 2006
Pancavska louka	1	1336.00	50.766389	15.541111	terrestrial, bog	-888888	0.28	
Panggu Town	1	495.00	52.550000	123.740000	terrestrial, mire		-999999	Zhao and Li, 2012
Panther Potholes	1	1100.00	48.650000	-121.033300	lacustrine	5	0.004	Prichard et al., 2009
Paoay Lake	2	15.00	18.200000	120.540000	lacustrine	4		Stevenson et al., 2009
Paradox Lake	1	68.00	60.623074	-150.757767	lacustrine	15.8	0.12	Anderson et al., 2006
Parika	1	48.50	58.490278	25.774167	terrestrial, bog	-888888	34.26	Niinemets et al., 2002
Parizske Mire	2	123.00	47.870000	18.465300	terrestrial, bog		-999999	Jamrichová et al., 2014; Jamrichová et al., 2017
Park Pond 1	1	2705.00	43.468056	-109.959444	lacustrine	0.5	-999999	Lynch, 1998
Park Pond 2	1	2714.00	43.450000	-109.940000	lacustrine	0.5	-999999	Lynch, 1998
Park Pond 3	1	2739.00	43.450000	-109.920000	lacustrine	0.5	-999999	Lynch, 1998
Parker Lake	1	276.00	-12.140000	-69.020000	lacustrine	2	0.33	Bush et al., 2007b
Pas-de-Fond	1	290.00	48.808300	-78.808300	lacustrine, glacial origin	11	0.02	Carcaillet et al., 2001; Carcaillet et al., 2002; Carcaillet et al., 2006
Path (Nova Scotia)	1	15.00	45.869000	63.077000	lacustrine	7	0.219	Neil et al., 2014
Patterson Lake Warner Mountains	1	2743.00	41.386700	-120.223600	lacustrine, glacial origin	-999999	0.12	Minckley et al., 2007
Pechora	1	127.00	62.000000	52.000000	terrestrial, bog	-777777		Väliranta et al., 2003
Pecker Pond	1	370.00	42.713300	-71.965000	lacustrine	4.8	0.165	Francis and Foster, 2001
Pemerak Swamp	1	40.00	0.780000	112.050000	terrestrial, bog	-888888	-999999	Anshari et al., 2001
Pena da Cadela	1	970.00	42.830000	-7.170000	terrestrial, bog	-888888	0.005	Martínez Cortizas et al., 2002
Pena Negra	1	1000.00	40.334700	-5.792200	terrestrial, bog	-888888	-999999	Abel-Schaad and López-Sáez, 2012
Penningholmen Lake Uddjaure	1	425.00	66.030000	17.430000	terrestrial, soil	-888888	-999999	Bradshaw and Zackrisson, 1990
Penrith Lakes	1	18.00	-33.710000	150.670000	lacustrine	-777777	-777777	Chalson, 1991
Perch Lake	1	400.00	68.941494	-150.499372	lacustrine	12.6	0.14	Chipman et al., 2015
Petit Lac Bouchard	1	145.00	48.853900	-64.597800	lacustrine	1.5	0.02	Asnong and Richard, 2003; Carcaillet et al., 2002; Carcaillet et al., 2006
Petresiunai	1	107.00	55.850000	25.702800	lacustrine	5	0.02	Stančikaitė et al., 2019b
Peyre	1	1100.00	44.960000	2.710000	terrestrial, mire	-777777		Miras et al., 2006b
Pian di Gembro	1	1350.00	46.160000	10.150000	terrestrial, fen	-888888	0.625	Pini, 2002
Pian Segna	1	1162.00	46.180000	8.630000	terrestrial, bog	0		Valsecchi, 2005
Piano	1	1439.00	46.320000	8.620000	terrestrial, bog		0.002	Valsecchi and Tinner, 2010; Valsecchi et al., 2010

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Picea Lake	1	269.00	65.881620	-145.587680	lacustrine	7.3	-999999	Kelly et al., 2013
Piermont Marsh	1	29.00	41.000000	-73.916700	terrestrial, marsh		1.1	Pederson et al., 2005
Pimenta Bueno	1	229.00	-11.816600	-61.166600	terrestrial, soil	0		Ruiz Pessenda et al., 1998
Pine Camp	1	21.40	-34.750000	141.130000	lacustrine, playa	0.2	0.5	Cupper, 2005; Cupper, 2006
Pine hollow	3	155.00	61.870278	37.993611	terrestrial, small hollow	-888888	1e-06	Stivrins, Unpublished
Pintlar	1	1921.00	45.840000	-113.440000	lacustrine	0		Brunelle et al., 2005; Brunelle-Daines, 2002
Piston Core RC24-07	1	-3899.00	-11.910000	1.350000	marine	3899		Verardo and Ruddiman, 1996
Pixie Lake	1	70.00	48.595187	-124.197301	lacustrine, glacial origin	-999999	0.053	Brown and Hebda, 2002; Brown et al., 2006
Pla de l'Orri	1	2100.00	42.500000	1.880000	terrestrial, mire	0		Vannière et al., 2001; Vannière, 2001
Plaani	1	244.10	57.676944	27.077222	lacustrine	4.4	0.24	Niinemets and Saarse, 2007b
Plaine	1	34.00	50.275000	-63.538300	terrestrial, bog	-888888	-999999	Magnan et al., 2014
Plan Bouchet	1	2405.00	45.240000	6.560000	terrestrial, bog	-777777		Carcaillet et al., 2009; Genries et al., 2009b
Plotnikovo Mire	1	120.00	56.835520	83.284014	terrestrial, bog		-999999	Feurdean et al., 2019a; Feurdean et al., 2020a
Plum Swamp	1	40.00	-22.260000	166.610000	terrestrial, bog	0		Stevenson, 1998
Poets Hill	1	600.00	-41.880000	145.550000	lacustrine, glacial origin	0		Colhoun, 1992
Poiana Stiol	1	1520.00	47.590000	24.811900	terrestrial, bog	-888888	0.006	Feurdean et al., 2017a; Feurdean et al., 2020b
Poktovik Lake	2	160.00	68.031778	-161.374722	lacustrine	13.4	0.063	Higuera et al., 2011
Poley Creek	1	630.00	-37.400000	145.210000	terrestrial, mire	-888888	-777777	Pittock, 1989
Polomovy dul	1	313.00	50.882869	14.317496	terrestrial, bog	-888888	5e-04	Bobek et al., 2019
Polttiais hollow	3	140.00	62.275833	36.750833	terrestrial, small hollow	-888888	1e-06	Stivrins et al., 2017a; Stivrins et al., 2019
Pontes e Lacerda	1	260.00	-15.260000	-59.210000	terrestrial, soil	0		Marques Gouveia et al., 2002
Porphyry	1	1100.00	48.900916	-123.835013	lacustrine	-999999	0.0035	Brown and Hebda, 2003
Portage Lake	1	75.00	60.716667	-150.533300	lacustrine	15.6	0.116	Lynch et al., 2002
Porter Lake	1	73.00	44.440000	-123.240000	lacustrine	3	0.014	Walsh et al., 2010b
Porto Velho	1	90.00	-8.350000	-63.950000	terrestrial, soil	-888888	-888888	de Freitas et al., 2001
Poselsky rybník	1	274.00	50.544398	14.675370	terrestrial, fen	-888888	0.085	Bobek et al., 2019
Posy Lake	1	2653.00	37.950000	-111.700000	lacustrine	-999999	-999999	Shafer, 1989
Potrok Aike	2	100.00	-51.960000	-70.380000	lacustrine, volcanic lake	100	9.46	Haberzettl et al., 2005; Haberzettl et al., 2006
Pout Pond	1	232.00	43.420000	-71.500000	lacustrine	-777777		Clark and Hussey, 1996
Powelltown	1	168.00	-37.860000	145.700000	terrestrial, bog	0		McKenzie, 2002
Pozo de la Nieve	1	1600.00	40.353200	-4.551600	terrestrial, bog	-888888	0.0381	Robles-López et al., 2017
Prapoce	1	480.00	45.420000	14.122300	terrestrial, marsh	-888888	0.28	Andrič and Willis, 2003; Andrič, 2004; Andrič, 2006b; Feurdean et al., 2020b
Prasilske Jezero	1	1079.00	49.060000	13.400000	lacustrine	14.8	0.037	Carter et al., 2018
Pravcicky dul	1	382.00	50.884236	14.296834	terrestrial, bog	-888888	1e-04	Bobek et al., 2019
Profond Lake	1	270.00	49.861139	-78.613306	lacustrine	20	0.006	Ali et al., 2009
Pryskyricny dul	1	423.00	50.887778	14.413333	terrestrial, bog	-888888	0.002	Abraham and 'y, 2008; Kuneš et al., 2007
Puerto de Serranillos	2	1700.00	40.307200	-4.934200	terrestrial, bog	-888888	0.024	López-Sáez et al., 2017b

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Puerto del Hambre	1	6.25	-53.600000	-70.910000	terrestrial, bog	-888888	-999999	McCulloch and Davies, 2001
Puerto del Pico	2	1395.00	40.323300	-5.014500	terrestrial, bog	-888888	2e-04	López-Sáez et al., 2016b
Puerto Haberton	1	20.00	-54.880000	-67.160000	terrestrial, bog	-777777		Heusser, 1990b
Puerto Octay	4	120.00	-40.933333	-72.900000	terrestrial, bog		-999999	Moreno, 1993
Puklina	1	386.00	50.932394	14.439768	terrestrial, small hollow	-888888	1e-04	Bobek et al., 2019
Punta Arenas	1	75.00	-53.150000	-70.950000	terrestrial, mire	-888888	0.5	Heusser, 1995
Putaanlampi	1	230.00	66.380000	29.410000	lacustrine	1	0.01	Sarmaja-Korjonen, 1998
Qiaocun village	1	-999999.00	35.100000	107.500000	archaeological site		-999999	Zhou et al., 2011
Qindeli peat	1	74.00	47.920000	133.220000	terrestrial, mire	80		Li et al., 2005
Qinghai Lake	2	1885.00	25.130000	98.570000	lacustrine, volcanic lake	6.3	0.25	Xiao et al., 2017
Qishan County	1	608.00	32.430000	107.750000	archaeological site		-999999	Tan et al., 2010
Quambie Lagoon	3	20.00	-12.500000	131.170000	lacustrine	1		Stevenson, Unpublished
Quart du Bois	1	420.00	46.892500	4.034167	terrestrial, bog	-888888	-999999	Jouffroy-Bapicot et al., 2013; Jouffroy-Bapicot, 2010
Queens Swamp	1	665.00	-33.900000	150.590000	terrestrial, fen	0		Mooney, Unpublished
Quilichao	1	1020.00	3.100000	-76.510000	lacustrine	-999999	3	Berrío et al., 2002
Quoyloo Meadow	2	33.00	59.060000	-3.310000	terrestrial, mire		0.18	Abrook et al., 2020; Bunting, 1994; Timms et al., 2017; Timms et al., 2019
Rabadilla de Vaca mire	1	2590.00	-3.974667	-79.117611	terrestrial, bog		0.6	Rodríguez and Behling, 2010
Radisson	1	174.00	53.724400	-77.703100	terrestrial, bog	-888888	-888888	Magnan et al., 2012
Raigejegge Arjeplog	1	480.00	66.156944	18.213333	lacustrine, glacial origin	5.1	0.004	Carcaillet et al., 2007
Rainbow Lake A	1	225.00	59.800000	-112.160000	lacustrine	10	0.027	Larsen and MacDonald, 1998; Larsen et al., 2000; Larsen, 1994
Rajus	1	824.00	12.178611	75.817500	terrestrial, mire	-888888	-999999	Nogué et al., 2017
Raseliniste Jizery	1	843.00	50.861706	15.301881	terrestrial, bog	-888888	0.03	Bobek et al., 2019
Rasna	1	679.00	49.227306	15.374528	terrestrial, bog		-999999	Szabó et al., 2017
Ratasjoen	1	1169.00	62.266660	9.833330	lacustrine, glacial origin	8.3	0.125	Velle et al., 2005
Raven Lake	1	118.00	68.009028	-162.035694	lacustrine	4.9	0.057	Higuera et al., 2011
Rawa Danau	1	100.00	-6.183300	105.966700	lacustrine	1	25	Haberle and Ledru, 2001; van der Kaars et al., 2001
Raynald Lake	1	250.00	49.809278	-78.535833	lacustrine	10.3	0.015	Ali et al., 2009
Red Lake Kobuk Valley	1	-999999.00	68.081317	-162.121617	lacustrine	8.2	0.03	Higuera, Unpublished; Hu, 2015
Redhead Lagoon	1	65.00	-32.990000	151.720000	lacustrine	2	-777777	Williams, 2005
Reiarsdalsvatn	1	245.00	58.326380	7.785830	lacustrine	9.2	-999999	Birks, 2006
Reidh-lochan	1	160.00	58.030000	-4.120000	lacustrine, glacial origin	4.57	0.008	Froyd, 2006
Rennix Gap	1	1570.00	-36.220000	148.300000	terrestrial	0		Hope, Unpublished
Rentukka Hollow	1	150.00	61.192300	25.152600	terrestrial, small hollow	-888888	0.001	Kuosmanen et al., 2016

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Reservoir	1	2161.00	45.130000	-113.460000	lacustrine	-777777		Clark et al., 2001
Resnikov prekop	2	290.00	45.970000	14.540000	archaeological site	-888888	-999999	Andrič, 2006a
Reunion Lake	1	306.00	66.009250	-146.107800	lacustrine	7.7	-999999	Kelly et al., 2013
Rice Lake Ward county	1	620.00	48.009420	-101.539720	lacustrine	10	0.75	Umbanhowar Jr, 2004
Richard Lake	1	432.00	50.619417	-74.686083	lacustrine	5.3	0.04	Ali et al., 2012; El-Guellab et al., 2015
Rietvlei Dam	1	112.00	-29.820000	30.990000	-777777	0		Scott and Vogel, 1983
Rifugio Mondovi	1	1760.00	44.183333	7.733333	terrestrial, bog	-888888	-999999	Ortu et al., 2003; Ortu et al., 2008
Ringarooma River	4	885.00	-41.300000	147.610000	terrestrial	0		Dodson et al., 1998
Rio Curua	1	3.00	-1.730000	-51.450000	fluvial	5	-999999	Behling and da Costa, 2000
Rio Rubens Bog	1	220.00	-52.137500	-71.881389	terrestrial, bog	-888888	0.25	Huber and Markgraf, 2003; Huber et al., 2004
Robinson Lake	1	-999999.00	65.971580	-145.699250	lacustrine	8.1	-999999	Kelly et al., 2013
Rock Arch Swamp	1	575.00	-34.300000	150.390000	terrestrial, fen	0.1		Hope and Macphail, 2005
Rock Lake	1	285.00	60.416667	-150.250000	lacustrine	5.3	0.03	Lynch et al., 2002
Rockslide Lake	1	1539.00	49.550849	-117.520880	lacustrine	14.1	0.032	Gavin et al., 2006
Rojkov	1	472.00	49.150000	19.155000	terrestrial, bog	-888888	-999999	Jamrichová, Unpublished
Romaine	1	24.00	50.294700	-63.715700	terrestrial, bog	-888888	-999999	Magnan et al., 2014
Romoty	1	119.00	53.800000	22.632800	lacustrine, drained lake		13.36	Mirosław-Grabowska et al., 2015
Rotten Swamp	2	1445.00	-35.700000	148.883300	terrestrial, fen	-888888	0.28	Clark, 1986; Hope and Clark, 2008
Rouge-Tougjarv	1	109.00	57.738889	26.905000	lacustrine	17	0.044	Veski et al., 2005
Round Lake Mount Zirkel	1	3071.00	40.473000	-106.663000	lacustrine	11.83	0.062	Calder et al., 2015
Round Pond	1	548.00	44.000000	-74.000000	lacustrine	-777777		Clark et al., 2001
Round Pond Truro	1	4.00	41.971000	-70.011000	lacustrine	7.5	0.016	Oswald et al., 2020; Parshall et al., 2003
Ruby Lake (COHMAP2k)	1	330.00	45.266667	-91.450000	lacustrine	3	0.129	Gajewski et al., 1985
Rue des Boîteux–Rue d'Argent	1	17.00	50.850000	4.350000	terrestrial, bog	-888888	-999999	Marinova et al., 2021
Ruila	2	43.80	59.175833	24.429722	lacustrine	0.9	0.46	Poska and Saarse, 2002a
Rumuiku Swamp	1	2154.00	-0.185800	37.919300	lacustrine	0.5	0.018	Rucina et al., 2009
Ruppert Lake	1	230.00	67.071111	-154.245833	lacustrine, glacial origin	-999999	0.03	Higuera et al., 2009
Rusaka Swamp	1	2070.00	-3.430000	29.610000	terrestrial, bog	-888888	-999999	Bonnefille et al., 1995
Ryans Swamp	1	8.00	-35.090000	150.390000	terrestrial, bog	1		Radclyffe, 1993
Rynholec	1	478.00	50.129444	13.929722	terrestrial, bog	1	0.03	Pokorný, 2005
Sacramento Mountains	1	2400.00	32.840000	-105.700000	terrestrial, soil	0		Frechette, 2007; New, 2007
Sacred Lake	1	2350.00	0.040000	37.520000	lacustrine	5	0.51	Wooller et al., 2000
Sagistalsee	1	1953.00	46.680000	7.980000	-777777			Wick et al., 2003b
Saint Louis Lac	1	3.00	-22.230000	166.550000	terrestrial, bog	-999999	-999999	Stevenson, 2004
Sakhare	1	800.00	41.580000	45.310000	lacustrine, playa	0.5	0.1	Connor, 2006

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Salitre	1	970.00	-19.000000	-46.760000	terrestrial, soil	0		Ruiz Pessenda et al., 2001; Ruiz Pessenda et al., 2004
Salmo Lake	2	866.00	60.445555	-133.561389	lacustrine	8	-999999	Edwards et al., 2015
San Joaquin Marsh	1	2.00	33.650000	-117.850000	lacustrine	-999999	-999999	Davis, 1992
Sand Beach Lake	1	3140.00	40.218767	-105.601800	lacustrine	9.3	0.049	Higuera et al., 2014
Sands of Time	1	256.00	66.028500	-147.549000	lacustrine	10	0.7	Edwards, Unpublished
Sandy Hill Pond	1	16.00	41.689600	-70.364800	lacustrine	3	0.024	Oswald et al., 2020; Parshall et al., 2003
Sanger Lake CA	1	1547.00	41.900000	-123.640000	lacustrine	7.19		Briles et al., 2008
Sanjiang Plain HE	1	71.00	47.580000	133.500000	terrestrial, bog	0.5	-999999	Zhang et al., 2015
Sanjin Nuur	1	2250.00	51.231830	99.023280	lacustrine	17.4	0.08	http://www.ncdc.noaa.gov/paleo/study/20515; Robinson, 2007
Santa Maria	1	17.00	-1.570000	-53.600000	lacustrine	0		Bush et al., 2007a
Sao Francisco de Assis	1	100.00	-29.580000	-55.210000	terrestrial, mire	0		Behling et al., 2005
Sapphire Swamp	1	1260.00	-30.030000	151.560000	terrestrial, bog	0		Dodson et al., 1986
Saquinho	1	480.00	-10.400000	-43.210000	terrestrial, fen	-999999	-999999	de Oliveira et al., 1999
Saracuri	1	18.00	-1.670000	-53.570000	lacustrine, fluvial origin	0	-999999	Bush et al., 2007a
Sari	1	67.00	-16.630000	179.500000	terrestrial, bog	0.5		Hope et al., 2009
Sarup So	1	-888888.00	55.200000	10.060000	lacustrine	4.1	0.036	Bjerring et al., 2012
Savkarrs mosse	1	65.00	59.160000	18.300000	terrestrial, bog	-888888	0.05	von Stedingk, 1999
Sayram Lake	1	2071.90	44.580000	81.150000	lacustrine	86	453	Jiang et al., 2012
Scotty Lake	1	305.00	54.710000	-101.680000	lacustrine	10	0.12	Lynch et al., 2004
Screaming Lynx Lake	1	276.00	66.068150	-145.404400	lacustrine	7.4	0.035	Kelly et al., 2013
Sears HF	1	2.00	40.884500	-72.578300	lacustrine	-999999	0.061	Oswald et al., 2018; Oswald et al., 2020
Seba	1	807.00	53.476111	-114.878611	terrestrial, bog	-888888	-999999	Magnan et al., 2018
Seedorf	1	609.00	46.795220	7.040450	lacustrine	7.5	0.135	Richoz et al., 1994; Richoz, 1998
Selikhovo	1	209.00	53.230000	35.770000	terrestrial, bog		0.01	Feurdean et al., 2020b; Novenko et al., 2016a
Semenic	1	1500.00	45.180000	22.059444	terrestrial, bog		-999999	Rösch and Fischer, 2000
Serra Campos Gerais	2	1200.00	-24.660000	-50.210000	terrestrial, bog	-888888	0.07	Behling, 1997b
Serra da Bocaina	1	1500.00	-22.740000	-44.550000	terrestrial, bog	-777777		Behling et al., 2007
Serra do Tepequem	1	635.00	3.792011	-61.704331	terrestrial, soil			Rodríguez-Zorro et al., 2017a
Seven Lake	1	307.00	43.613705	-88.143562	lacustrine	7	0.1	Long et al., 2011b
Seven Lake Mount Zirkel	1	3276.00	40.896000	-106.681000	lacustrine	5.75	0.032	Calder et al., 2015
Shanghai City	1	6.00	31.130000	120.910000	fluvial		-999999	Itzstein-Davey et al., 2007
Sharkey Lake	1	305.00	44.590000	-93.410000	lacustrine, glacial origin	15	0.28	Camill et al., 2003; Geiss et al., 2003; Umbanhowar Jr et al., 2006
Shenjiadian peatland, Sanjiang Plain	1	-999999.00	46.580000	130.660000	terrestrial, bog		-999999	Gao et al., 2014
Shishou City	1	-999999.00	29.850000	112.570000	lacustrine, fluvial origin	20	-999999	Gao, 2017
Shuangchi Lake	1	40.00	19.940000	110.190000	lacustrine, volcanic lake	1	0.02	Dodson et al., 2019

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Shuizhuyang peat bog	2	1007.00	26.770000	119.030000	terrestrial, bog		-999999	Ma et al., 2018b
Shuttle	1	276.00	59.846160	-97.635100	lacustrine	3.31	0.957	Umbanhowar Jr et al., 2021
Siberia	1	2920.00	-17.833333	-64.718889	terrestrial, bog	-888888	0.2	Mourguiart and Ledru, 2003
Sidlings Copse	1	53.00	51.782709	-1.193905	terrestrial, fen	-888888	-999999	Day, 1991
Sierra de Gador	1	1530.00	36.900000	-2.916700	lacustrine, drained lake	-888888	0.14	Carrión et al., 2003
Siesta Lake	1	2430.00	37.850000	-119.660000	lacustrine	1.35	0.13	Brunelle and Anderson, 2003
Siles Lake	1	1320.00	38.400000	-2.500000	lacustrine	3.5	0.0027	Carrión, 2002
Siroki Nyirjes To	1	200.00	47.926352	20.183213	terrestrial, fen	-888888	0.009	Gardner, 2002
Skanso	1	8.00	56.509377	8.828720	lacustrine	8.5	0.115	Odgaard, 1994
Sky Lake	1	145.00	56.483601	-94.787937	lacustrine	5	0.12	Lynch et al., 2004
Slack Lake Michigan	1	282.00	42.871670	-83.610420	lacustrine	9.45	0.19	Ballard, 2009
Slough Creek Pond	1	1884.00	44.910000	-110.340000	lacustrine	-999999	-999999	Whitlock and Bartlein, 1993
Slowinskie Blota Bog	1	20.00	54.580000	16.920000	terrestrial, bog	-888888	-999999	de Vleeschouwer et al., 2009
Small Lake, Ontario	1	478.00	49.581111	-90.385556	lacustrine	3.9	0.005	Senici et al., 2013
Smygen Bay Blekinge coast	1	-1.00	56.150000	15.116700	coastal, estuarine	1.4	-888888	Yu et al., 2005
Snobs Creek	1	775.00	-37.550000	145.920000	terrestrial, bog	0		McKenzie, 1997
Snowy Flats	1	1618.00	-35.565500	148.864167	terrestrial, bog	-888888	0.12	Hope et al., 2005
Soleve	1	2.00	-17.250000	-179.490000	terrestrial, bog	0.5	-999999	Clark and Hope, 1997
Solomons Jewel Lake	1	1185.00	-41.800000	146.260000	lacustrine	-999999	-999999	Dodson, 2001
Solso	1	41.00	56.128367	8.613735	lacustrine	6.5	0.02	Odgaard, 1994
Sondambile	1	2850.00	-6.340000	147.110000	lacustrine, glacial origin	4.8		Haberle et al., 2005
Sonenuma Swamp	1	86.00	35.230000	136.190000	lacustrine	2	0.2	Hayashi et al., 2012; Inoue et al., 2005
Song Mu Ping Swamp (Jinggang Mountains)	1	1269.00	26.580000	114.080000	fluvial		-999999	Huang et al., 2014
SONNE95	1	-1727.00	20.110000	117.380000	marine	-888888	-888888	Sun et al., 2000
Soppensee	1	596.00	47.091667	8.083333	lacustrine, glacial origin	27	0.24	Lotter, 1999; Tinner et al., 2005
South Fork Payette	1	1984.00	44.200000	-115.500000	other	-777777		Pierce et al., 2004
South Salvation Creek Swamp	1	132.00	-33.630000	151.250000	terrestrial, fen	0		Kodela and Dodson, 1988
Spearman	1	368.00	46.543900	-78.502800	lacustrine	1.5	0.031	Carcaillet and Richard, 2000
Spring Lake	1	NA	48.577778	-80.880722	-777777			Senici et al., 2013
Spruce Pond	1	223.00	41.239400	-74.204167	lacustrine	5	0.026	Maenza-Gmelch, 1997a; Maenza-Gmelch, 1997b
St Francois	1	358.00	48.290000	-72.140000	lacustrine	-777777		Blarquez et al., 2015; Richard, Unpublished
Stara jimka	1	1129.00	49.068764	13.402947	lacustrine, drained lake	-888888	0.04	Bobek et al., 2019
Stavsakra Bog	1	187.00	57.024167	14.813056	terrestrial, bog	-888888	0.02	Greisman and Gaillard, 2009
Stazki bog	1	195.00	54.430000	18.084400	terrestrial, bog		-999999	Gałka et al., 2013
Steel Lake, Hubbard County	1	425.00	46.973100	-94.683700	lacustrine, glacial origin	21	0.23	Nelson et al., 2003
Steerenmoos	1	1000.00	47.816700	8.183300	terrestrial, bog	-888888	0.2	Rösch, 2000
Steeve Lake	1	548.00	51.939972	-68.155333	lacustrine	3.5	0.034	Remy et al., 2017

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Steregoiu	1	790.00	47.810000	23.540000	-777777			Björkman et al., 2003; Feurdean, 2005
Sterne	2	304.00	52.045388	-75.158944	terrestrial, bog	-888888	1.72	van Bellen et al., 2012
Stockyard Swamp Hunter Island	1	65.00	-40.550000	144.750000	terrestrial, bog	0.1		Hope, 1999
Stoll (Quebec Ontario)	1	303.00	44.967000	-77.283000	lacustrine	5	0.37	Keizer et al., 2015
Storasjo	1	225.00	56.933330	15.266670	lacustrine	-999999	0.025	Olsson and Lemdahl, 2010; Olsson et al., 2010
Storm Creek	1	1177.00	-37.444170	145.800600	terrestrial, fen	-888888	0.2	McKenzie, 1997
Storsandvatnet	1	106.00	63.457500	8.454440	lacustrine	0.7	-999999	Birks et al., 2012
Stubno-Nakło	1	186.50	49.863056	22.968889	lacustrine, drained lake	-888888	0.1	Kołaczek et al., 2018b
Studencheskoe	1	124.00	55.266400	40.201400	terrestrial, bog	0.2	0.27	Feurdean et al., 2020b; Kupriyanov and Novenko, 2019
Subei Basin	1	50.00	33.400000	119.550000	terrestrial		32800	Chen, 2017
Sudenpesä Hollow	1	167.00	61.183300	25.150000	terrestrial, small hollow	-888888	0.001	Clear et al., 2015
Sugun Lake	1	198.00	62.080000	129.480000	lacustrine	1.6	0.48	Katamura et al., 2009b
Sulphur (Yukon)	2	847.00	60.959000	-137.852000	lacustrine	10	1.5	Gajewski et al., 2014
Summit Lake Mount Zirkel	1	3149.00	40.545000	-106.682000	lacustrine	5.85	0.019	Calder et al., 2015
Sundown Swamp	1	10.00	-41.160000	144.660000	terrestrial, bog	0		Hope, 1999
Sungai Buluh	1	18.00	-1.236110	103.620000	terrestrial, bog	-888888	180	Hapsari et al., 2018
Super Cub Lake	1	486.00	62.296611	-145.347172	lacustrine	4.7	0.03	Barrett et al., 2013
Supulah Hill	1	1580.00	-4.110000	138.960000	terrestrial, bog	1	-888888	Haberle et al., 1991; Hope, 1998
Surucucho	2	3180.00	-3.060000	-78.000000	lacustrine	14	-777777	Colinvaux et al., 1997
Surusoo	1	43.00	58.529722	22.423056	terrestrial, bog	-888888	1.08	Veski, 1998
Sutherland Pond	1	380.00	41.391400	-74.037700	lacustrine	2.57	0.0405	Maenza-Gmelch, 1997a
Svartvatnet	1	183.00	63.351380	8.877770	lacustrine	10	-999999	Birks et al., 2012
Swamp Lake Yosemite	1	1554.00	37.950000	-119.816667	lacustrine	20	0.08	Smith and Anderson, 1992
Swift Lake Michigan	1	286.00	42.885200	-83.622810	lacustrine	9.75	0.02	Ballard, 2009
Tadpole Swamp	1	60.00	-38.130000	145.270000	terrestrial, bog	0		Aitken and Kershaw, 1993
Tagamaucia	1	820.00	-16.490000	-179.560000	lacustrine	2		Hope, 1996b
Taibai Lake	2	10.00	30.000000	115.810000	lacustrine	1.5	28.98	Tong et al., 2009
Taihu Lake	1	1.30	30.980000	120.580000	terrestrial		24.2	Li, 2014
Tajga	1	817.00	50.026100	12.680355	terrestrial, bog	-888888	0.65	Bobek et al., 2019
Takhilt Nuur	1	1502.00	48.806400	96.806200	lacustrine	5.4	4.82	Umbanhowar Jr et al., 2009
Talita Kupai	2	33.00	-10.100000	142.120000	coastal, estuarine	0		Rowe, 2006a
Tashkol Lake Ulagan plateau	1	2150.00	50.450000	87.670800	lacustrine, glacial origin	6.25	-999999	Blyakharchuk et al., 2004
Taul Muced	1	1340.00	47.573900	24.544600	terrestrial, bog		0.015	Feurdean et al., 2015; Feurdean et al., 2020b
Tawney (Quebec Ontario)	1	276.00	44.817000	-77.183000	lacustrine	3	0.02	Keizer et al., 2015
Taylor Lake CA	1	1979.00	41.361440	-122.968648	lacustrine	9.45	0.05	Briles et al., 2011
Taylor Lake, Oregon	1	4.00	46.100556	123.906667	lacustrine	4.5	0.04	Long and Whitlock, 2002

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Tea Shettigeri	1	820.00	12.046667	75.975556	terrestrial, mire	-888888	-999999	Nogué et al., 2017
Tea Tree Swamp	3	900.00	-37.210000	148.830000	terrestrial, fen	-888888	0.2	Gell et al., 1993
Teal Lake Colorado	1	2689.00	40.583000	-106.608000	lacustrine	13.09	0.061	Calder et al., 2015
Teici bog	1	114.00	56.622408	26.440808	terrestrial, bog	-888888	144	Stivrins et al., 2017b; Stivrins, Unpublished
Tempest Lake Yukon	1	-999999.00	69.942250	-159.383300	lacustrine	4.8	0.115	Higuera, Unpublished; Hu, 2015
Three Creeks	1	1996.00	44.090000	-121.620000	lacustrine			Long et al., 2011b
Thunder Lake	1	3231.00	40.221900	-105.647283	lacustrine	12	0.06	Higuera et al., 2014
Tiago Lake Mount Zirkel	1	2700.00	40.579000	-106.613000	lacustrine	15	0.042	Calder et al., 2015
Tiam Point	1	3.00	-10.120000	142.180000	coastal, salt marsh	-888888	-999999	Rowe, 2006a; Rowe, 2007
Tianchi Lake	1	2430.00	35.260000	106.310000	lacustrine	8.2	0.02	Zhao et al., 2010
Tianluoshan site	1	-999999.00	30.020000	121.380000	archaeological site		-999999	Ma et al., 2018a
Tiavatnet	1	464.00	63.059720	9.416940	lacustrine	7	-999999	Birks et al., 2012
Tiger Snake Swamp	1	60.00	-38.130000	145.270000	terrestrial, fen	0		Aitken and Kershaw, 1993
Tisice	1	160.00	50.236944	14.532778	lacustrine, fluvial origin	-888888	0.01	Dreslerová et al., 2004; Pokorný and Kuneš, 2005; Pokorný, 2005
Todd Lake	1	1875.00	44.020000	-121.680000	lacustrine			Long et al., 2011b
Tom Burns	2	1075.00	-37.385560	145.818100	terrestrial, mire	-888888	0.2	McKenzie, 1997
Tom Gregory Swamp	1	1024.00	-35.648330	148.830500	terrestrial, bog	-888888	0.013	Hope, 2005
Tompuda bog	1	459.00	55.130000	109.760000	terrestrial, bog	-888888	-999999	Krivonogov et al., 2004; Ogura et al., Unpublished
Tonquin Creek	2	1935.00	52.733333	-118.366667	terrestrial, bog	-888888	-999999	Kearney and Luckman, 1983a; Kearney and Luckman, 1983b
Torbiera del Biecai	1	1920.00	44.200000	7.700000	terrestrial, bog	-888888	-999999	Ortu et al., 2008
Torres del Paine	1	100.00	-51.080000	-73.060000	lacustrine	1	0.01	Heusser, 1995
Torveraz	1	2345.00	45.695696	6.863743	terrestrial, bog	-888888	-999999	Millet et al., 2008b; Miras et al., 2000
Tourbiere de La Lande	1	1040.00	43.560000	2.960000	terrestrial, bog	-888888	-999999	Pulido, 2006
Tourbiere des Narses Morte	1	1400.00	44.430000	3.600000	terrestrial, bog	-888888	-999999	Pulido, 2006
Tourbiere du Peschio	1	1370.00	44.450000	3.600000	terrestrial, bog	-888888	-999999	Pulido, 2006
Toushe Basin	2	650.00	23.820000	120.880000	terrestrial, bog		1.75	Huang et al., 2020a; Huang et al., 2020b; Huang et al., 2020c
Trail	1	2362.00	44.280000	-110.170000	lacustrine	0		Whitlock et al., 2003
Trebol Lake	1	758.00	-41.070000	-71.490000	lacustrine	10.5	0.4	Whitlock et al., 2006
Trettetjorn	1	810.00	60.716700	7.000000	lacustrine	7.5	0.008	Bjune et al., 2005; Bjune, 2005
Trikatas lake	2	50.00	57.541160	25.714468	lacustrine	4	0.13	Stivrins et al., 2015a
Trygasen	1	549.00	61.770000	13.300000	terrestrial, fen	0		Segerström, 1997
Tsagaan Nuur	1	1382.00	48.911800	94.867000	lacustrine	6.6	12.42	Umbanhowar Jr et al., 2009
Tsavkisi	1	1100.00	41.680000	44.710000	terrestrial, bog	0.5	0.03	Connor and Kvavadze, 2005; Connor, 2006
Tsogtoo Nuur	1	2063.00	51.345630	98.897360	lacustrine	4	0.38	http://www.ncdc.noaa.gov/paleo/study/20516; Robinson, 2007

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Tswaing Crater	1	1100.00	-25.415800	28.100600	lacustrine	3	0.4	Partridge et al., 1997; Scott et al., 2008; Scott, Unpublished
Tubilla del Lago	1	900.00	41.808400	-3.572700	terrestrial, bog		0.05	Morales-Molino et al., 2017b
Tugupugua	1	2300.00	-5.660000	142.610000	terrestrial, fen	0		Haberle and Ledru, 2001
Tumalo Lake	1	1536.00	44.040833	-121.903056	lacustrine	-999999	0.07	Long et al., 2011a
Tungak Lake	1	25.00	61.430000	-164.200000	lacustrine	15.4	1.17	Chipman et al., 2015
Tuqiang Town	1	468.00	52.940000	122.860000	terrestrial, mire		-999999	Xin and Yiyin, 2015
Turbuta	1	275.00	47.372500	23.498600	lacustrine, drained lake		0.015	Feurdean et al., 2007
Turtle Lake	1	80.00	49.327300	-124.961100	lacustrine	10	0.15	Brown et al., 2006
Tuskegee Pond	1	240.00	35.580000	-84.210000	lacustrine	0.4		Cridlebaugh, 1984; Delcourt and Delcourt, 1997a; Delcourt and Delcourt, 1997b; Delcourt and Delcourt, 1998; Delcourt et al., 1983; Delcourt et al., 1986; Delcourt et al., 1998; Meeks, 2004; Meeks, 2005
Twin Lake	1	376.00	50.952472	-74.575333	lacustrine	5.7	0.029	El-Guellab et al., 2015
Two Hill Lake	1	200.00	55.980000	-97.280000	lacustrine	16	0.1	Lynch et al., 2004
Tyrendarra Swamp	1	13.00	-38.190000	141.760000	terrestrial, marsh	0.3	0.12	Builth et al., 2008
Uchugrak	2	216.00	68.050000	-161.720000	lacustrine	9.2	0.092	Higuera et al., 2011
Umpawaug HF	1	138.00	41.306100	-73.449700	lacustrine	-999999	0.053	Oswald et al., 2018; Oswald et al., 2020
Uncle Seth's HF	1	13.00	41.433100	-70.664700	lacustrine	-999999	0.046	Oswald et al., 2018; Oswald et al., 2020
Union Lake Rice County	1	306.00	44.461100	-93.307400	lacustrine	3	1.61	https://www.ncdc.noaa.gov/paleo/study/21074
Unit Lake	1	249.00	59.404000	-97.493000	lacustrine	11.4	0.644	Camill et al., 2012
Upper Capsule Lake	1	800.00	68.628600	-149.413528	lacustrine	5.7	0.011	Chipman et al., 2015
Upper Rocket Creek Bog	2	1710.00	47.040000	-115.880000	terrestrial, mire		-999999	Benson and Mensing, Unpublished
Upper Squaw Lake	1	930.00	42.030000	-123.010000	lacustrine	14.1	0.072	Colombaroli and Gavin, 2010
UpperFly (Yukon)	2	1326.00	61.040000	-138.090000	lacustrine	4	0.105	Gajewski et al., 2014
Utikuma	1	675.00	56.076389	-115.475278	terrestrial, bog	-888888	-999999	Magnan et al., 2018
Uzunkol Lake	1	1985.00	50.483300	87.108300	lacustrine, glacial origin	5.9	-999999	Blyakharchuk et al., 2004
Vaike Juusa	2	122.00	58.050000	26.500000	lacustrine	6	0.03	Kangur, 2009; Punning et al., 2005
Valle di Castiglione	1	44.00	41.891700	12.759700	lacustrine, drained lake	0	0.8	Alessio et al., 1986; Magri, 2004
Valle do Lobo Ribeira de Carcavai	2	2.30	37.057965	-8.074734	coastal, estuarine	-888888	-888888	Schneider et al., 2010; Schneider et al., 2016
Valle Pequeno	1	2520.00	-3.975000	-79.073611	terrestrial, bog		0.08	Rodríguez and Behling, 2010
Vapsko-2	1	2120.00	42.070000	23.524500	terrestrial, bog	-888888	0.002	Feurdean et al., 2019b; Feurdean et al., 2020b
Vargas Lake	1	246.00	-12.370000	-68.890000	lacustrine	2	0.8	Bush et al., 2007b
Vedruka	1	21.00	58.330278	22.060556	terrestrial, bog	-888888	0.9	Poska and Saarse, 2002b
Vega Nandu	1	200.00	-50.930000	-72.760000	terrestrial, mire	-888888	-999999	Villa-Martínez and Moreno, 2007
Velise	1	26.40	58.756667	24.460278	terrestrial, bog	1	0.32	Veski, 1998
Velke ohbí	1	528.00	50.604057	16.127125	terrestrial, bog	-888888	0.02	Bobek et al., 2019

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Verdeospesoa	1	1015.00	43.055000	-2.861400	terrestrial, bog	-888888	0.000516	Pérez-Díaz and López-Sáez, 2017; Pérez-Díaz and López-Sáez, 2019
Verijarv	1	90.00	57.808333	27.058333	lacustrine	19.3	0.25	Niinemets and Saarse, 2006
Verny des Brulons	1	565.00	47.317778	4.122778	terrestrial, bog	-888888	-999999	Jouffroy-Bapicot et al., 2013; Jouffroy-Bapicot, 2010
Vesijako Hollow	1	160.00	61.383300	25.033300	terrestrial, small hollow	-888888	0.001	Clear et al., 2013
Vestre Oykjamyrtorn	1	570.00	59.816700	6.000000	lacustrine	8	0.018	Bjune et al., 2005; Bjune, 2005
Viitna Pikkjarv	2	76.50	59.446389	26.010556	lacustrine	4.2	0.16	Saarse et al., 1998
Vilamora Ribeira de Quarteira	2	3.50	37.085422	-8.136923	coastal, estuarine	-888888	-888888	Schneider et al., 2010; Schneider et al., 2016
Villaverde	1	870.00	38.800000	-2.366700	terrestrial, fen	-888888	1	Carrión et al., 2001a
Villebois	3	272.00	49.421100	-79.003000	terrestrial, bog	-888888	-999999	Magnan et al., 2020
Vinillos	2	2090.00	-0.591412	-77.858561	terrestrial	-888888	-999999	Loughlin et al., 2018a
Vlcek	1	769.00	50.039798	12.731939	terrestrial, fen	-888888	0.165	Bobek et al., 2019
Voli Voli	1	2.00	-18.160000	177.480000	terrestrial, bog	0.5	0.2	Dickinson et al., 1998
Vrbka	1	189.00	50.386660	14.130550	terrestrial, bog	-888888	-999999	Pokorný, 2016
Vunimoli	1	251.00	-18.220000	177.880000	terrestrial, bog	0.5		Hope et al., 2009
Vuoskkujarvi	1	384.00	68.345550	19.100000	lacustrine	18	0.68	Bigler et al., 2002
Wadi Shallalah	2	385.00	32.590000	35.940000	fluvial	0	-999999	Cordova, 2008
Wadian village	1	-999999.00	34.190000	113.400000	archaeological site		1.06	Li et al., 2017
Waikaremoana	1	582.00	-38.774500	177.112400	lacustrine, tectonic origin	248	56	Newnham et al., 1998
Waitabu	1	43.00	-18.230000	-178.780000	other	0.5		Latham et al., 1983
Walker Lake	1	950.00	48.529101	-124.003118	lacustrine	-999999	0.0038	Brown and Hebda, 2003
Wanda	1	440.00	-2.330000	121.230000	terrestrial, bog	0	0.05	Hope, 2001
Wanum	1	35.00	-6.630000	146.790000	lacustrine	3.5		Haberle et al., 2005
Ware HF	1	4.00	42.482500	-70.882500	lacustrine	-999999	0.011	Oswald et al., 2018; Oswald et al., 2020
Warner Lake	1	590.00	44.240000	-122.950000	lacustrine	18	0.155	Walsh et al., 2010b
Warrananga	1	22.00	-33.970000	141.560000	lacustrine, salt lake, permanent	0.2		Cupper, 2005; Cupper, 2006
Warrimoo Swamp	1	195.00	-33.720000	150.610000	terrestrial, mire	-888888	-999999	Chalson and Martin, 2009; Chalson, 1991
Waruid	2	5.00	-10.400000	142.090000	coastal	0.5	-999999	Rowe, 2006a; Rowe, 2007
Weinan	1	650.00	34.060000	109.000000	terrestrial, loess	0		Wang et al., 2005
Wentworth Lake	1	47.00	48.016667	-124.533333	lacustrine	27	0.19	Gavin and Brubaker, 2015
Werth Lake	1	302.00	-11.740000	-69.230000	lacustrine	1.5	0.25	Bush et al., 2007b
West Crazy Lake	1	-999999.00	65.891420	-145.621950	lacustrine	6.1	-999999	Kelly et al., 2013
West Lomond	1	522.00	56.250000	-3.280000	terrestrial, bog	-888888	-999999	Edwards and Whittington, 1997
West Olaf Lake	1	402.00	46.610000	-96.180000	lacustrine	18	0.58	Nelson et al., 2003
Westside HF	1	390.00	41.855600	-73.256600	lacustrine	-999999	0.157	Oswald et al., 2018; Oswald et al., 2020
Wet Lagoon	1	700.00	-34.470000	149.250000	terrestrial, bog	0		Dodson, 1986

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Whale Lake Mount Zirkel	1	3059.00	40.556000	-106.675000	lacustrine	11.48	0.039	Calder et al., 2015
Whitehaven Swamp	1	45.00	-20.300000	148.900000	terrestrial, fen	1.1	-999999	Genever et al., 2003
Whyac Lake	1	15.00	48.672200	-124.844400	lacustrine, glacial origin	-999999	0.025	Brown and Hebda, 2002; Brown et al., 2006
Wickett Pond	1	330.00	42.570000	-72.431670	lacustrine	2.25	0.115	Francis and Foster, 2001
Wilcox Pass	2	2355.00	52.241667	-117.216667	terrestrial	-888888	-999999	Beaudoin and King, 1986; Beaudoin and King, 1990; Beaudoin, 1984
wild tussock	1	250.00	67.150000	-151.860000	lacustrine, thermokarst origin	-999999	0.02	Higuera et al., 2009
Wild Tussock Lake	1	290.00	67.128000	-151.382000	lacustrine, glacial origin	-999999	0.15	Higuera et al., 2009
Wildcat Lake	1	67.00	37.960000	-122.780000	lacustrine	8.65	-999999	Scott and Woodborne, 2007
Wilder See am Ruhestein	1	910.00	48.569700	8.236900	lacustrine, glacial origin	11.5	0.021	Rösch, 2009
Wildes Meadow Swamp	1	670.00	-34.620000	150.510000	terrestrial, fen	0		Kodela, 1996
Wildseemoor bei Kaltenbronn	2	909.00	48.719700	8.458900	lacustrine	-999999	0.0115	Rösch, 2007
Wildwood Lake	1	5.00	40.892000	-72.673300	lacustrine	18	0.26	Oswald et al., 2010; Oswald et al., 2020
Wilson Bog	1	425.00	-34.970000	138.690000	terrestrial, bog	0		Buckman et al., 2009
Windy Lake	1	-999999.00	66.041690	-145.754710	lacustrine	11.6	-999999	Kelly et al., 2013
Wingecarribee Swamp	1	685.00	-34.560000	150.510000	terrestrial, fen	0		de Montford, 2008
Wonderkrater	2	1100.00	-24.433600	28.751900	archaeological site		-999999	McCarthy et al., 2010; Scott et al., 2003; Scott et al., 2008; Scott, 2002
Worimi Swamp	1	8.00	-32.510000	152.330000	terrestrial, bog	0.1		Mooney and Maltby, 2006
Wulan Pond	1	-999999.00	45.150000	121.950000	terrestrial, bog		76	He et al., 2015
Wyelangta	1	450.00	-38.647220	143.461400	fluvial	-888888	-999999	McKenzie and Kershaw, 2000
Xere Wapo	3	220.00	-22.290000	166.970000	lacustrine	2	0.85	Stevenson and Hope, 2005; Stevenson et al., 2010
Xiadawu	1	3988.00	35.000000	99.260000	archaeological site		-999999	Zhao et al., 2016
Xialu peatland	1	-999999.00	21.300000	109.820000	terrestrial, bog		-999999	Xue et al., 2015
Xiang'ao village	1	5.00	30.010000	121.370000	archaeological site		-999999	Shuyun et al., 2010
Xiangcheng County	1	-999999.00	33.950000	113.480000	terrestrial, loess		-999999	Mu et al., 2017
Xiaoshan district, Hangzhou	1	-999999.00	30.150000	120.220000	fluvial		-999999	Shu et al., 2010
Xindi Lake	1	240.00	67.111667	152.491667	lacustrine, glacial origin	-999999	0.07	Higuera et al., 2009

Site name	Entities (#)	Elevation (m)	Latitude (°)	Longitude (°)	Site Type	Water depth (m)	Basin size (km^2)	Citation(s)
Xindian, Guanzhong Basin	1	608.00	34.380000	107.800000	terrestrial, loess		-999999	Li et al., 2009
Xingyun Lake	1	1723.00	24.330000	102.770000	lacustrine	7.3	34.329	Ji et al., 2018
Xinwopu Village	1	-999999.00	34.570000	109.530000	terrestrial, loess		-999999	Mu et al., 2016
Xishan relic site	2	130.00	34.910000	113.530000	terrestrial, loess	0		Wang et al., 2004a
Xishuangbanna	1	900.00	21.500000	101.500000	terrestrial, fen	1		Gu et al., 2007
Xujianan	1	1620.00	35.500000	106.000000	-777777	0		Huang et al., 2006
Xujiannian	1	1620.00	35.400000	105.800000	archaeological site		-999999	Huang et al., 2006
Yacata Pond	1	2.00	-17.150000	-179.510000	terrestrial, bog	0.5	-999999	Hope et al., 2009
Yaguaru	1	195.00	-15.600000	-63.210000	lacustrine	1.1		Taylor et al., 2010; Taylor, 2005
Yahoo Lake	1	710.00	47.683333	-124.016667	lacustrine	18	0.037	Gavin et al., 2013
Yaila-Crimea	1	1205.00	44.480000	34.050000	terrestrial	0		Cordova and Lehman, 2005
Yaksha2	2	140.00	61.700000	55.570000	terrestrial, mire		0.04	Barhoumi et al., 2019
Yaksha3	2	130.00	61.730000	55.490000	terrestrial, mire		0.024	Barhoumi et al., 2019
Yamaska	1	265.00	45.457800	-72.871900	lacustrine	3.5	0.002	Carcaillet and Richard, 2000
Yangjiawan paleosoil	1	1219.00	39.460000	110.170000	other	0		Xu et al., 2002
Yano	1	40.00	7.380000	134.540000	terrestrial	0		Athens and Ward, 2005
Yao He Cun, Guanzhong Basin	1	850.00	35.450000	109.750000	terrestrial, loess		-999999	Tan et al., 2013
Yaouk Swamp	1	1100.00	-35.490000	148.500000	lacustrine, drained lake	0	2.55	Keaney and Hope, 2003
Yawi Ti	1	1150.00	-6.610000	143.880000	terrestrial, bog	0		Haberle, 2007
Yelle	1	356.00	48.503900	-79.637800	lacustrine	-999999	0.032	Carcaillet and Richard, 2000
Ylimmainen Kuivajarvi	1	255.00	66.350000	29.616700	lacustrine	1.5	0.18	Sarmaja-Korjonen, 1998
Yuanchi (Changbai Mountains)	1	1282.00	42.000000	128.400000	terrestrial, bog		4.04	Gao et al., 2016
Yucheng village	1	-999999.00	29.670000	111.660000	terrestrial		-999999	Tan et al., 2017
Zadeikiai Bog	1	120.00	56.170000	21.980000	terrestrial, bog	-888888	1.92	Stančikaitė et al., 2003
Zagas Nuur	1	2376.00	48.506100	90.609900	lacustrine	15.9	0.64	Umbanhowar Jr et al., 2009
Zahaji	1	232.00	50.379444	14.115556	terrestrial, fen	-888888	-999999	Pokorný et al., 2010; Pokorný, 2005
Zeller See	1	577.00	48.002222	9.646667	lacustrine, glacial origin	3.6	0.033	Rösch and Marinova, 2020
Zhongzhouzi Lake	1	-999999.00	29.800000	112.750000	lacustrine, fluvial origin	4	-999999	Gao, 2017
Zhouyuan Qishan Mountain	1	-999999.00	34.430000	107.750000	terrestrial, loess		-999999	Han, 2000
Zofinsky prales	1	785.00	48.664442	14.705347	terrestrial, small hollow	-888888	0.009	Bobek et al., 2018
Zoige Basin	1	3467.00	33.450000	102.630000	terrestrial, bog		4500	Zhao et al., 2017b
Zurath Islet Swamp	2	3.00	-10.160000	142.060000	terrestrial, bog	-888888	-999999	Rowe, 2006a; Rowe, 2007

SI Table 2. List of pre-defined valid choices for restricted fields in the Reading Palaeofire Database version 1 (RPDv1).

Table	Field	Valid choices
date_info	age_used	no yes not known not recorded
	date_type	AMS Radiocarbon date Annual laminations Cs IRSL Liquid Scintillation Counting OSL Palaeomagnetic date Pb TL Uranium Thorium dating Other Top of core known Publication date used as estimate of top of core age (1950 AD = 0) Archaeological dating Pollen correlation Stratigraphic correlation Tephra Known Fire Hiatus not known not recorded

	material_dated	archaeological artifact bulk sediment bulk sediment, calcareous deposits bulk sediment, diatomaceous bulk sediment, gyttja bulk sediment, organic lake deposits bulk sediment, peat charcoal feldspar foraminifera organic matter pollen shells soil aquatic plant macrofossil terrestrial plant macrofossil undifferentiated plant macrofossil wood other not applicable not known not recorded

	reason_age_not_used	<empty> age too old age too young contamination suspected inconsistent with other dates infinite age probably reworked reworked small sample other not applicable not known not recorded
entity	core_location	central core marginal core not applicable not known not recorded
	depositional_context	archaeological bog sediment buried organic sediment buried surface estuarine sediment fluvial/alluvial sediment lake sediment loess marine sediment small hollow soil other not known not recorded

	measurement_method	Acidification of sample using gas chromatography to measure elemental carbon (Verardo et al., 1990) Charcoal particles identified by imaging software Charcoal particles identified in thin slides (soil micromorphology) Charcoal separated by heavy liquid preparation Cumulative probability (95% confidence interval) alluvial soil charcoal GRAVIMETRIC chemical assay (Winkler method) Hand picked charcoal from soil samples Pollen slide Sieved Other not known not recorded
	source	author Arctic Data Center EPD Global Charcoal Database Version 3 Global Charcoal Database Version 4 Global Charcoal Database Web version IMPD Neotoma NOAA Pangaea digitized from publication
	TYPE	charcoal area concentration count raw count influx per unit weight pollen concentration other

model_name	model_name	BACON_INTCAL13 calib 5.0.2 calpal 2007 hulu curve fairbanks0107 linear interpolation OxCal P_Sequence polynomial interpolation smoothing spline interpolation other not known not recorded
site	basin_size_class	very large (more than 500 km2) large (50.1-500 km2) medium (1.1-50 km2) small (0.01-1 km2) very small (less than 0.01 km2) not applicable not known not recorded
	catch_size_class	large (more than 500 km2) medium (10.1-500 km2) small (less than 10 km2) not applicable not known not recorded
	flow_type	closed - no inflow or outflow in and out flow inflow only outflow only not applicable not known not recorded

	site_type	archaeological site coastal coastal, estuarine coastal, salt marsh fluvial lacustrine lacustrine, drained lake lacustrine, fluvial origin lacustrine, glacial origin lacustrine, playa lacustrine, salt lake, permanent lacustrine, tectonic origin lacustrine, thermokarst origin lacustrine, volcanic lake marine terrestrial terrestrial, bog terrestrial, buried fen terrestrial, fen terrestrial, loess terrestrial, marsh terrestrial, mire terrestrial, mound spring or spring terrestrial, small hollow terrestrial, soil other not known not recorded

SI Table 3: List of charcoal measurement units currently used in the reading Palaeofire Database version 1

UNIT
% BC concentration
% concentration of pollen sum <40µm
% concentration of pollen sum >20µm
% dry weight
% of pollen sum
% of pollen sum <125µm
% of pollen sum <25µm
% of pollen sum >120µm
% of pollen sum >25µm
% of pollen sum 25-80µm
% of pollen sum 5-150µm
% of pollen sum 5-50µm
% of pollen sum 50-200µm
% of sample >125µm
% total organic fraction
<180µm x 10^4 relective graminoid cuticle area
>100 µm
25-50 µm/ml
50-100 µm/ml
area >180µm mm-2 cm-3
area >180µm mm-2 ml-1
area 10-150µm µm-2 cm-3
area 45-95µm µm-2 cm-3
area cm-2 yr-1
area cm-3
area ml-1*1000
area mm-2 g-1
charcoal concentration *1000
charcoal concentration *10000
charcoal probability*100
cm-2 cm-3
cm-2 cm-3 *10

cm-2 ml-1
concentration
cumulative probability (95 % CI) for alluvial fan soil charcoal
Delta 13C soil charcoal
frag/cm3 (conc)
fragments
fragments 10-125µm
fragments 10-150µm
fragments 10-150µm cm-3
fragments 10-50µm cm-3
fragments 5-150µm
fragments 5-200µm cm-3
fragments <100µm
fragments <100µm cm-3
fragments <120µm cm-2 yr-1
fragments <120µm cm-3
fragments <125µm
fragments <125µm cm-2 cm-3
fragments <125µm cm-2 yr-1
fragments <150µm
fragments <150µm cm-3
fragments <25µm cm-2
fragments <25µm*0.1
fragments <40µm
fragments <40µm (concentration)
fragments <50µm (concentration)
fragments <50µm cm-2 yr-1
fragments <50µm g-1
fragments <50µm*0.1 (concentration)
fragments >1000µm
fragments >1000µm cm-2 yr-1
fragments >1000µm cm-3
fragments >100µm
fragments >100µm cm-2
fragments >100µm cm-2 yr-1

fragments >100µm cm-2 yr-1
fragments >100µm cm-3
fragments >100µm g-1
fragments >10µm
fragments >10µm (concentration)
fragments >10µm cm-2 yr-1
fragments >10µm cm-3
fragments >10µm g-1*1000
fragments >125µm
fragments >125µm cm-2 yr-1
fragments >125µm cm-3
fragments >125µm g-1
fragments >125µm ml-1
fragments >125µm normalized
fragments >150µm
fragments >150µm (ordinal scale 0 to 8)
fragments >150µm cm-2 yr-1
fragments >150µm cm-3
fragments >150µm g-1
fragments >150µm influx
fragments >15µm
fragments >15µm cm-3
fragments >160µm cm-2 yr-1
fragments >180µm
fragments >180µm cm-2 yr-1
fragments >180µm cm-3
fragments >180µm ml-1
fragments >1mm
fragments >200µm
fragments >200µm cm-3
fragments >20µm g-1*1000
fragments >24µm
fragments >250µm
fragments >250µm cm-2 yr-1
fragments >250µm cm-3
fragments >250µm ml-1

fragments >25cm-3
fragments >25µm
fragments >25µm %pollen sum
fragments >25µm*0.1
fragments >30µm
fragments >30µm cm-2 yr-1
fragments >355µm
fragments >37µm
fragments >40µm (concentration)
fragments >500µm
fragments >500µm cm-2 yr-1
fragments >50µm
fragments >53µm
fragments >5µm (concentration)
fragments >5µm g-1
fragments >6µm
fragments >8µm ml-1
fragments 0-25µm ml-1
fragments 0.5cm-3
fragments 10-100µm cm-2 yr-1
fragments 10-100µm cm-3
fragments 10-150µm cm-2 yr-1
fragments 10-150µm ml-1
fragments 10-160µm cm-2 yr-1
fragments 100-150µm cm-2 yr-1
fragments 100-150µm ml-1
fragments 100-200µm (concentration)
fragments 12-20µm
fragments 120-250µm cm-2 yr-1
fragments 125-250µm
fragments 125-250µm cm-2 yr-1
fragments 125-250µm cm-3
fragments 125-250µm ml-1
fragments 14-24µm
fragments 150-500µm (concentration)
fragments 2-150µm cm-2 yr-1

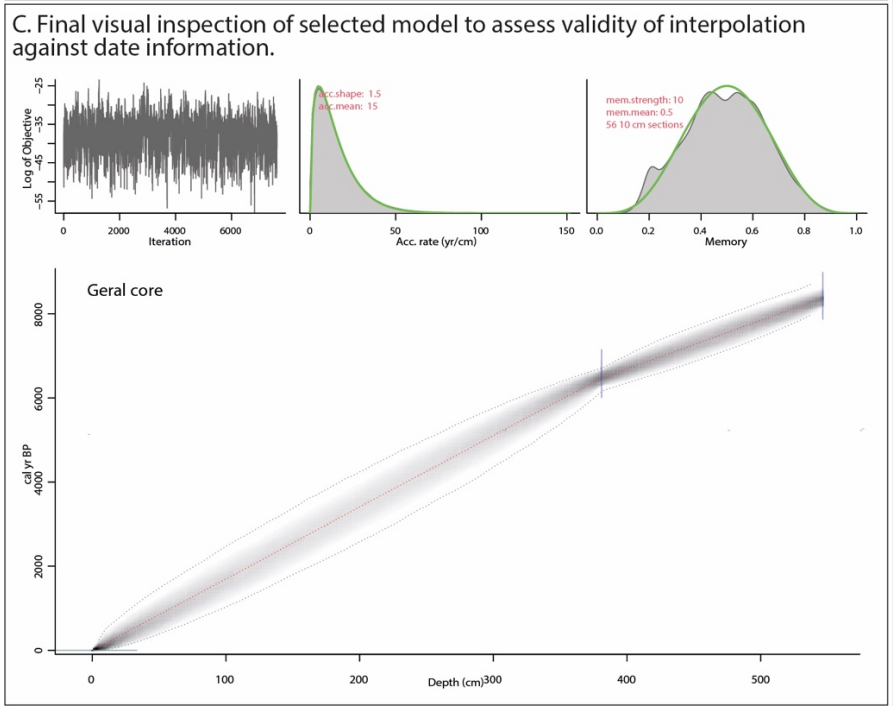
fragments 20-60µm ml-1
fragments 25-50µm (concentration)
fragments 25-50µm ml-1
fragments 30-100µm (concentration)
fragments 30-100µm cm-2 yr-1
fragments 38-63µm cm-2 yr-1
fragments 5-50µm (concentration)
fragments 50-100µm cm-2 yr-1
fragments 50-100µm g-1
fragments 50-100µm ml-1
fragments 50-125µm g-1
fragments 50-150µm cm-3
fragments 50-250µm cm-3
fragments abundance scale
fragments cm-2
fragments cm-2 g-1
fragments cm-2 yr-1
fragments cm-2 yr-1*100
fragments cm-3
fragments cm-3*1000
fragments g-1
fragments g-1 m-2 yr-1
fragments g-1 yr-1
fragments g-1*0.001
fragments ml-1
fragments:pollen (C:P ratio)
fragments:pollen (C:P ratio) *1000
fragments:pollen (C:P ratio) >20µm
fragments:pollen (C:P ratio) 10-180µm
g-1 100g-1
g-1 cm-2 yr-1
g-1 m-2 yr-1
mg-1 g-1
mm-2
mm-2 100g-1
mm-2 cm-2 kyr-1

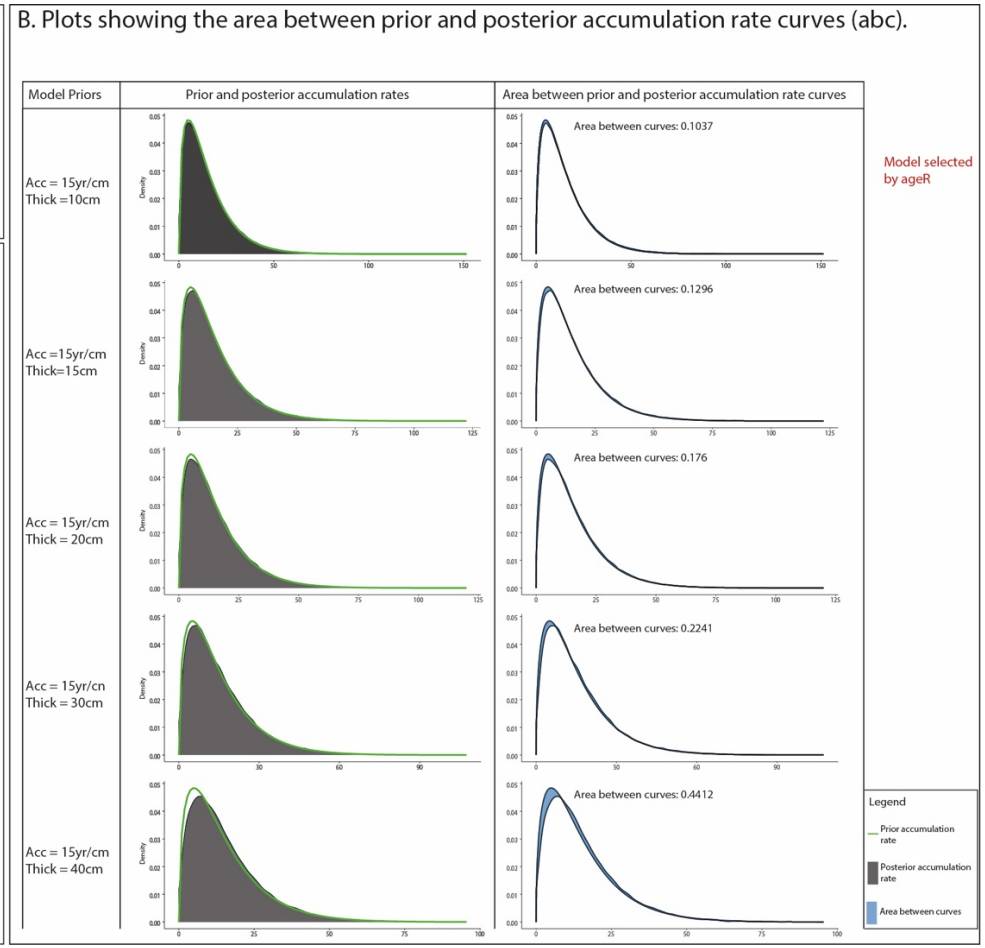
mm-2 cm-2 yr-1
mm-2 cm-3
mm-2 g-1
mm-2 ml-1
ordinal scale (Oz charcoal standardized)
other
Oxidation Resistant Elemental Carbon OREC % of dry weight
particles >125 µm cm-3
parts per million
point count <50µm cm-2 cm-3
point count >20µm cm-2 cm-3
point count >20µm cm-2 cm-3 *1000
point count >50µm
point count cm-2 cm-3
point count cm-3 yr-1
point count mm-2 cm-3
pollen concentration µm-2 (area:pollen ratio)
presence absence
Total Charcoal when multiple fragment size counts exist
weight >2mm kg-1
µm-1 cm-2 yr-1
µm-2 cm-2 yr-1
µm-2 cm-3
µm-2 g-1
µm-2 ml-1

SI Figure 1. Summary of the stages used to select the optimum RBacon age models for from ageR. Plots A.-C. show the modelling output from ageR for an example entity from the RPD (Geral core), where the optimum age model selected by ageR A. is a table ranking the age model scenarios by the lowest area between the prior and posterior accumulation rate curves. Note that only the top 5 model scenarios of a total of 25 run for this entity are listed B. Shows the plots for the prior and posterior accumulation rates and the area between curves for the top 5 model scenarios. C. Is the top ranked RBacon age model (Accumulation rate = 15, thickness = 10) which was visually checked to verify that the interpolation through the dates was valid and consistent with the dates. In this example, the top ranked model scenario selected by ageR (Accumulation rate = 15, thickness= 10) was accepted as the chosen model scenario as the interpolation through the dates is valid.

A. Models ranked by AgeR using the area between prior and posterior accumulation rate curves (top 5 models of 25 shown)

AgeR model ranking	acc. Rate	thickness	area between curves
1	15	10	0.1037
2	15	15	0.1296
3	15	20	0.1760
4	15	30	0.2241
5	15	40	0.4412



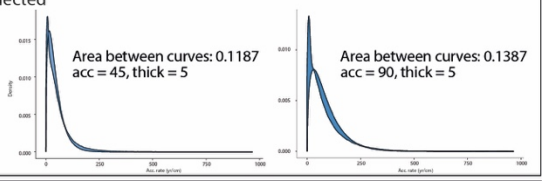


SI Figure 2. An example of alternative model scenario selection where the top ranked ageR model scenario is deemed to be inaccurate. In this example, the top ranked model scenario from King Tableland Swamp (accumulation rate = 45, thickness = 5)(A.) with the lowest area between the prior and posterior accumulation rate curves (B.) does not accurately represent the date at 157.5cm. This age was included by the original authors and lies in stratigraphic order with the other dates. Therefore, this model is rejected in favour of the model with the next lowest abc score which accurately reflects the dates included (ageR model ranking 3 in A.). The RBacon plot for this age model scenario is shown in D. (accumulation rate = 90, thickness = 5) and is more accurately and precisely modelled through the dates than the model selected by ageR.

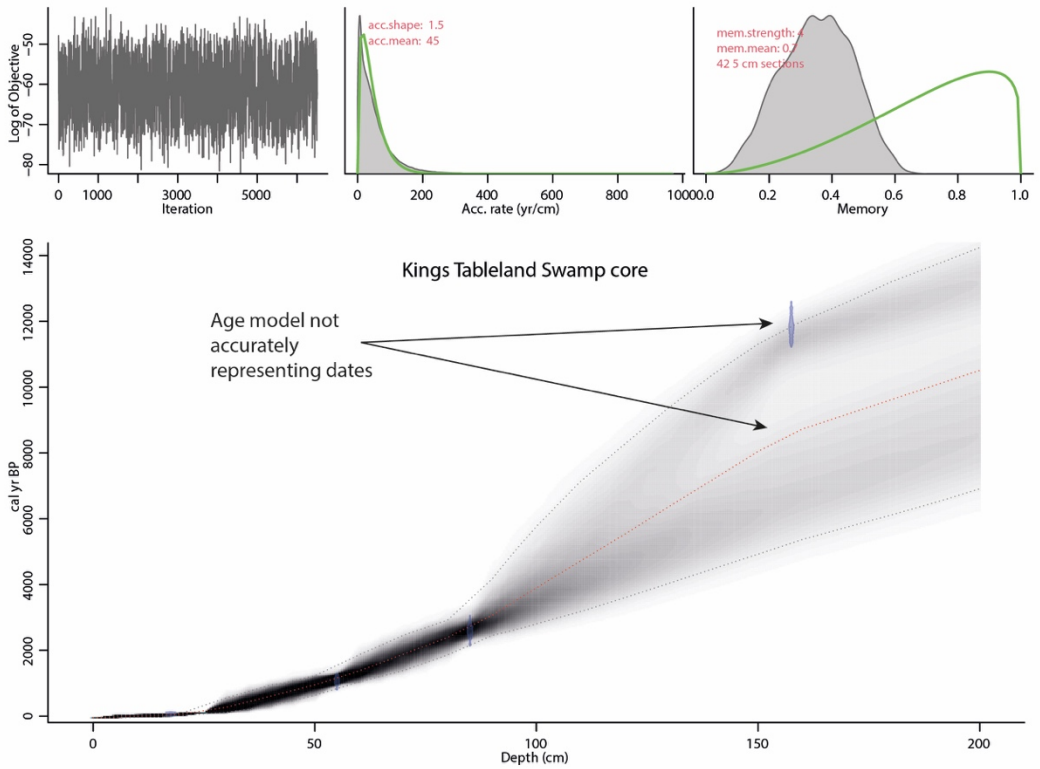
A. Model scenarios ranked by AgeR using area between prior and posterior accumulation rate curves (top 5 models of 33 shown)

AgeR model ranking	acc. Rate	thickness	abc	Model selection
1	45	5	0.1187	ageR selection
2	40	5	0.1319	
3	90	5	0.1387	manual selection
4	35	5	0.1581	
5	60	5	0.1586	

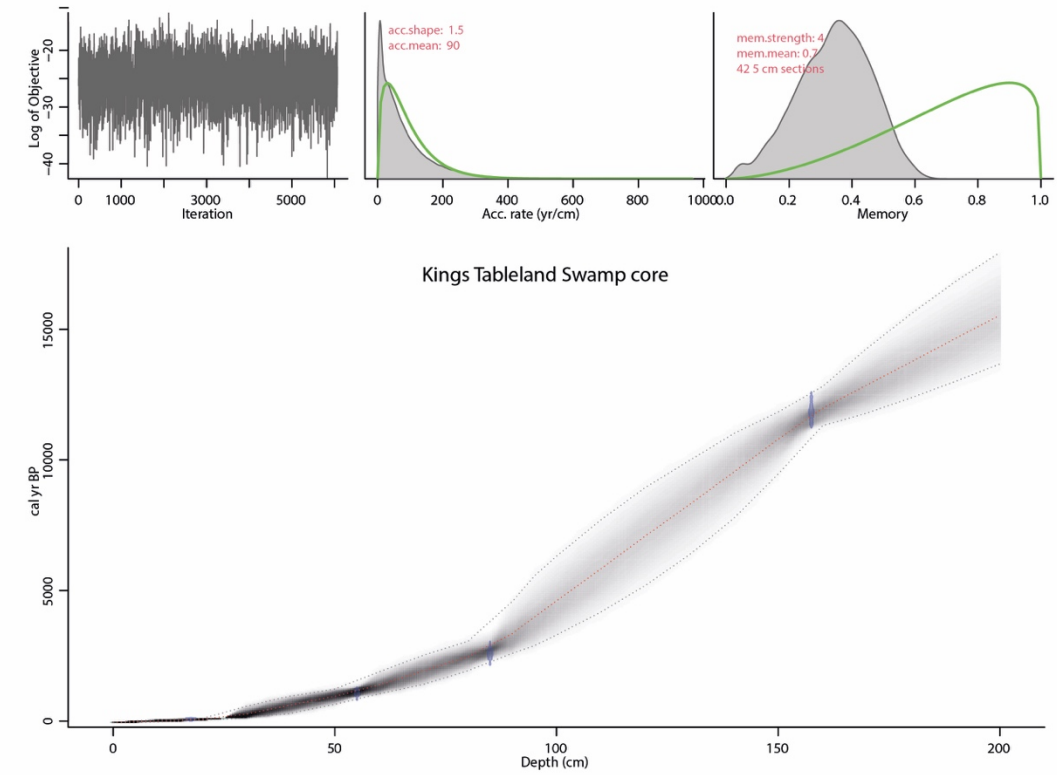
B. abc in the scenario chosen by ageR (left) and the scenario manually selected



C. RBacon model for ageR selected model (acc=45, thick = 5).



D. RBacon model for manually selected model (acc=90, thick = 5).



Supplementary References

Abarzúa, A.M., Moreno, P.I., 2008. Changing fire regimes in the temperate rainforest region of southern Chile over the last 16,000 yr. Quaternary Research 69, 62–71. *https://doi.org/10.1016/j.yqres.2007.09.004*

Abel-Schaad, D., López-Sáez, J.A., 2012. Vegetation changes in relation to fire history and human activities at the Peña Negra mire (Bejar Range, Iberian Central Mountain System, Spain) during the past 4,000 years. Vegetation History and Archaeobotany 22, 199–214. *https://doi.org/10.1007/s00334-012-0368-9*

Abraham, V., 2006. Přirozená vegetace a její změny v důsledku kolonizace a lesnického hospodaření v Českém Švýcarsku – The natural vegetation of Bohemian Switzerland and its changes as an impact of habitation and forest management (MSc thesis). Charles University, Prague, Czech Republic.

Abraham, V., Pokorný, P., 2008. Vegetační změny v Českém Švỳcarsku jako důsledek lesnického hospodaření – pokus o kvantitativní rekonstrukci (Vegetation changes in Czech Switzerland as a result of forestry management – An attempt at quantitative reconstruction on the basis of pollen analyses and historical sources), in: Beneš, J., Pokorný, P., Budějovice, C. (Eds.), Bioarchaeologie v České Republice – Bioarchaeology in the Czech Republic. Jihočeská univerzita v Českých Budějovicích, Archeologický ústav Akademie věd České republiky, Praha, Czech Republic, pp. 443–470. *https://doi.org/10.13140/RG.2.1.1742.8889*

Abrook, A.M., Matthews, I.P., Milner, A.M., Candy, I., Palmer, A.P., Timms, R.G.O., 2020. Environmental variability in response to abrupt climatic change during the Last Glacial–Interglacial Transition (16–8 cal ka BP): evidence from Mainland, Orkney. Scottish Journal of Geology 56, 30–46. *https://doi.org/10.1144/sjg2019-006*

Aitken, D.L., Kershaw, A.P., 1993. Holocene vegetation and environmental history of Cranbourne Botanic Garden, Victoria. Proceedings of the Royal Society of Victoria 67–80.

Alba-Sánchez, F., López-Sáez, J.A., Abel-Schaad, D., Sabariego Ruiz, S., Pérez-Díaz, S., González-Hernández, A., Linares, J.C., 2019. The impact of climate and land-use changes on the most southerly fir forests (Abies pinsapo) in Europe. The Holocene 29, 1176–1188.

Aleman, J.C., Blarquez, O., Bentaleb, I., Bonté, P., Brossier, B., Carcaillet, C., Gond, V., Gourlet-Fleury, S., Kpolita, A., Lefèvre, I., Oslisly, R., Power, M.J., Yongo, O., Bremond, L., Favier, C., 2013. Tracking land-cover changes with sedimentary charcoal in the Afrotropics. The Holocene 23, 1853–1862. *https://doi.org/10.1177/0959683613508159*

Alenius, T., Grönlund, E., Simola, H., Saksa, A., 2004. Land-use history of Riekkalansaari Island in the northern archipelago of Lake Ladoga, Karelian Republic, Russia. Vegetation History and Archaeobotany 13, 23–31. *https://doi.org/10.1007/s00334-003-0030-7*

Alenius, T., Mikkola, E., Ojala, A.E.K., 2007. History of agriculture in Mikkeli Orijärvi, eastern Finland as reflected by palynological and archaeological data. Vegetation History and Archaeobotany 17, 171–183. *https://doi.org/10.1007/s00334-007-0099-5*

Alessio, M., Allegri, L., Bella, F., Calderoni, G., Cortesi, C., Dai Pra, G., de Rita, D., Esu, D., Follieri, M., Improta, S., Magri, D., Narcisi, B., Petrone, V., Sadori, L., 1986. ^{14}C dating, geochemical features, faunistic and pollen analyses of the uppermost 10 m core from Valle di Castiglione (Rome, Italy). Geologica Romana 25, 287–308. *https://doi.org/10013/epic.51621.d001*

Ali, A.A., n.d. Unpublished data.

Ali, A.A., Asselin, H., Larouche, A.C., Bergeron, Y., Carcaillet, C., Richard, P.J.H., 2008. Changes in fire regime explain the Holocene rise and fall of Abies balsamea in the coniferous forests of western Québec, Canada. The Holocene 18, 693–703. *https://doi.org/10.1177/0959683608091780*

Ali, A.A., Blarquez, O., Girardin, M.P., Hély, C., Tinquaut, F., El-Guellab, A., Valsecchi, V., Terrier, A., Bremond, L., Genries, A., Gauthier, S., Bergeron, Y., 2012. Control of the multimillennial wildfire size

in boreal North America by spring climatic conditions. Proceedings of the National Academy of Sciences 109, 20966–20970. *https://doi.org/10.1073/pnas.1203467109*

Ali, A.A., Carcaillet, C., Bergeron, Y., 2009. Long-term fire frequency variability in the eastern Canadian boreal forest: the influences of climate vs. local factors. Global Change Biology 15, 1230–1241. *https://doi.org/10.1111/j.1365-2486.2009.01842.x*

Allen, C.D., Anderson, R.S., Brunner Jass, R.M., Toney, J.L., Baisan, C.H., 2008. Paired charcoal and tree-ring records of high-frequency Holocene fire from two New Mexico bog sites. International Journal of Wildland Fire 17, 115–130. *https://doi.org/10.1071/wf07165*

Alloway, B.V., Moreno, P.I., Pearce, N.J.G., De Pol-Holz, R., Henríquez, W.I., Pesce, O.H., Sagredo, E., Villarosa, G., Outes, V., 2017. Stratigraphy, age and correlation of Lepué Tephra: a widespread c. 11 000 cal a BP marker horizon sourced from the Chaitén Sector of southern Chile. Journal of Quaternary Science 32, 795–829. *https://doi.org/10.1002/jqs.2976*

Almquist-Jacobson, H., 1994. Interaction of the Holocene Climate, Water Balance, Vegetation, and Fire, and the Cultural Land-Use in Swedish Borderland (MSc thesis). Lund University, Lund, Sweden.

Almquist-Jacobson, H., Sanger, D., 1995. Holocene climate and vegetation in the Milford drainage basin, Maine, U.S.A., and their implications for human history. Vegetation History and Archaeobotany 4, 211–222. *https://doi.org/10.1007/bf00235752*

Ammann, B., 1989. Late-Quaternary palynology at Lobsigensee: regional vegetation history and local lake development. Dissertationes Botanicae 137, 1–157.

Amon, L., Veski, S., Heinsalu, A., Saarse, L., 2011. Timing of Lateglacial vegetation dynamics and respective palaeoenvironmental conditions in southern Estonia: evidence from the sediment record of Lake Nakri. Journal of Quaternary Science 27, 169–180. *https://doi.org/10.1002/jqs.1530*

Anchukaitis, K.J., Horn, S.P., 2005. A 2000-year reconstruction of forest disturbance from southern Pacific Costa Rica. Palaeogeography, Palaeoclimatology, Palaeoecology 221, 35–54. *https://doi.org/10.1016/j.palaeo.2005.02.003*

Anderson, L., Abbott, M.B., Finney, B.P., Edwards, M.E., 2005. Palaeohydrology of the Southwest Yukon Territory, Canada, based on multiproxy analyses of lake sediment cores from a depth transect. The Holocene 15, 1172–1183. *https://doi.org/10.1191/0959683605hl889rp*

Anderson, L., Edwards, M.E., Shapley, M.D., Finney, B.P., Langdon, C., 2019. Holocene thermokarst lake dynamics in northern interior Alaska: the interplay of climate, fire, and subsurface hydrology. Frontiers in Earth Science 7. *https://doi.org/10.3389/feart.2019.00053*

Anderson, R.S., n.d. Unpublished data.

Anderson, R.S., 2005. Contrasting vegetation and fire histories on the Point Reyes Peninsula during the pre-settlement and settlement periods. Final report to the Point Reyes National Seashore, National Park Service.

Anderson, R.S., Allen, C.D., Toney, J.L., Brunner Jass, R.M., Bair, A.N., 2008. Holocene vegetation and fire regimes in subalpine and mixed conifer forests, southern Rocky Mountains, USA. International Journal of Wildland Fire 17, 96. *https://doi.org/10.1071/wf07028*

Anderson, R.S., Brunner Jass, R.M., Toney, J.L., Allen, C.D., Cisneros-Dozal, L.M., Hess, M., Heikoop, J., Fessenden, J., 2008. Development of the mixed conifer forest in northern New Mexico and its relationship to Holocene environmental change. Quaternary Research 69, 263–275. *https://doi.org/10.1016/j.yqres.2007.12.002*

Anderson, R.S., Hallett, D.J., Berg, E., Brunner Jass, R.M., Toney, J.L., de Fontaine, C.S., DeVolder, A., 2006. Holocene development of boreal forests and fire regimes on the Kenai Lowlands of Alaska. The Holocene 16, 791–803. *https://doi.org/10.1191/0959683606hol966rp*

Anderson, R.S., Jiménez-Moreno, G., Carrión, J.S., Pérez-Martínez, C., 2011. Postglacial history of alpine vegetation, fire, and climate from Laguna de Río Seco, Sierra Nevada, southern Spain. Quaternary Science Reviews 30, 1615–1629. *https://doi.org/10.1016/j.quascirev.2011.03.005*

Andreev, A.A., Pierau, R., Kalugin, I.A., Daryin, A.V., Smolyaninova, L.G., Diekmann, B., 2007. Environmental changes in the northern Altai during the last millennium documented in Lake Teletskoye pollen record. Quaternary Research 67, 394–399. *https://doi.org/10.1016/j.yqres.2006.11.004*

Andrič, M., n.d. Unpublished data.

Andrič, M., 2011. Poznoglacialna vegetacija v okolici Blejskega jezera in Gribelj (Bela krajina): primerjava v zadnjem stadialu poledenele in nepoledenele pokrajine. Lateglacial vegetation at Lake Bled and Griblje Marsh (Slovenia): a comparison of (in Last Glacial Maximum) glaciated and non-glaciated landscapes, in: Drobci Ledenodobnega Okolja: Zbornik Ob Življenjskem Jubileju Ivana Turka - Proceedings in Honour of Ivan Turk's Jubilee. Opera Instituti Archaeologici Sloveniae - Inštitut za arheologijo ZRC SAZU, Ljubljana, pp. 235–249.

Andrič, M., 2007. Holocene vegetation development in Bela krajina (Slovenia) and the impact of first farmers on the landscape. The Holocene 17, 763–776. *https://doi.org/10.1177/0959683607080516*

Andrič, M., 2006a. Ali lahko analiza pelodnega zapisa v kulturni plasti arheološkega najdišča pove, kakšna vegetacija je rasla v okolici? Primer: Resnikov prekop – Does pollen record in archaeological 'cultural layer' tell us what vegetation was growing around the settlement? Case study: 'Resnikov Prekop', in: Velušček, A. (Ed.), Resnikov prekop. Najstarejša koliščarska naselbina na Ljubljanskem barju – The oldest pile-dwelling settlement in the Ljubljansko barje. Opera Instituti Archaeologici Sloveniae - Inštitut za arheologijo ZRC SAZU, pp. 103–113. *https://doi.org/10.3986/9789612545154*

Andrič, M., 2006b. Prapoče pollen core and Holocene vegetation change in northern Istria, in: Prehistoric Herders in Istria (Croatia): the Archaeology of Pupićina Cave, Monografije I Katalozi - Arheološki Muzej Istre. Archaeological Museum of Istria. Arheološki muzej Istre, Pula, pp. 31–62.

Andrič, M., 2004. Paleookolje v Sloveniji in severnemu delu hrvaške Istrev pozni prazgodovini. The vegetation of Slovenia and northern Istria in late prehistory. Arheološki vestnik 55, 509–525.

Andrič, M., Kroflič, B., Toman, M.J., Ogrinc, N., Dolenec, T., Dobnikar, M., Čermelj, B., 2008. Late Quaternary vegetation and hydrological change at Ljubljansko barje (Slovenia). Palaeogeography, Palaeoclimatology, Palaeoecology 270, 150–165. *https://doi.org/10.1016/j.palaeo.2008.09.008*

Andrič, M., Massaferro, J., Eicher, U., Ammann, B., Leuenberger, M.C., Martinčič, A., Marinova, E., Brancelj, A., 2009. A multi-proxy Late-glacial palaeoenvironmental record from Lake Bled, Slovenia. Hydrobiologia 631, 121–141. *https://doi.org/10.1007/s10750-009-9806-9*

Andrič, M., Willis, K.J., 2003. The phytogeographical regions of Slovenia: a consequence of natural environmental variation or prehistoric human activity? Journal of Ecology 91, 807–821.

Anker, S.A., Colhoun, E.A., Barton, C.E., Peterson, M., Barbetti, M., 2001. Holocene vegetation and paleoclimatic and paleomagnetic history from Lake Johnston, Tasmania. Quaternary Research 56, 264–274. *https://doi.org/10.1006/qres.2001.2233*

Anshari, G., Kershaw, A.P., van der Kaars, S., 2001. A Late Pleistocene and Holocene pollen and charcoal record from peat swamp forest, Lake Sentarum Wildlife Reserve, west Kalimantan, Indonesia. Palaeogeography, Palaeoclimatology, Palaeoecology 171, 213–228. *https://doi.org/10.1016/s0031-0182(01)00246-2*

Apolinarska, K., Woszczyk, M., Obremska, M., 2012. Late Weichselian and Holocene palaeoenvironmental changes in northern Poland based on the Lake Skrzynka record. Boreas 41, 292–307. *https://doi.org/10.1111/j.1502-3885.2011.00235.x*

Asnong, H., 2000. Histoire Postglaciaire de la Végétation, des Feux et des Niveaux Lacustres en Gaspésie, Québec (MSc thesis). Département de Géographie, Université de Montréal, Montréal, Canada.

Asnong, H., Richard, P.J.H., 2003. La végétation et le climat postglaciaires du centre et de l'est de la Gaspésie, au Québec. Géographie physique et Quaternaire 57, 37–63. *https://doi.org/10.7202/010330ar*

Atanassova, J., Stefanova, I., 2005. Studien zur jüngeren postglazialen vegetations-und siedlungsgeschichte im östlichen Schleswig-Holstein. Geologica Carpathica 56, 447–453.

Athens, J.S., Ward, J.V., 2005. Palau Compact Road Archaeological Investigations, Babeldaob Island, Republic of Palau.
Athens, J.S., Ward, J.V., 1999. The Late Quaternary of the Western Amazon: climate, vegetation and humans. Antiquity 73, 287–302. *https://doi.org/10.1017/s0003598x00088256*
Atherden, M.A., Hall, J.A., 1999. Human impact on vegetation in the White Mountains of Crete since AD 500. The Holocene 9, 183–193. *https://doi.org/10.1191/095968399673523574*
Aucour, A.-M., Hillaire-Marcel, C., Bonnefille, R., 1994. Late Quaternary biomass changes from ^{13}C measurements in a highland peatbog from Equatorial Africa (Burundi). Quaternary Research 41, 225–233. *https://doi.org/10.1006/qres.1994.1024*
Avnery, S., Dull, R.A., Keitt, T.H., 2011. Human versus climatic influences on late-Holocene fire regimes in southwestern Nicaragua. The Holocene 21, 699–706. *https://doi.org/10.1177/0959683610391314*
Axelsson, 1995. Unpublished MS thesis.
Åkesson, C.M., McMichael, C.N.H., Raczka, M.F., Huisman, S.N., Palmeira, M., Vogel, J., Neill, D., Veizaj, J., Bush, M.B., 2021. Long-term ecological legacies in western Amazonia. Journal of Ecology 109, 432–446. *https://doi.org/10.1111/1365-2745.13501*
Bair, A.N., 2004. A 15,000 Year Vegetation and Fire History Record from the Southern Sangre de Cristo Mountains of Northern New Mexico (MSc thesis). Northern Arizona University, Flagstaff, Arizona, USA.
Bal, M.-C., Pelachs, A., Perez-Obiol, R., Julia, R., Cunill, R., 2011. Fire history and human activities during the last 3300 cal yr BP in Spain's Central Pyrenees: The case of the Estany de Burg. Palaeogeography, Palaeoclimatology, Palaeoecology 300, 179–190. *https://doi.org/10.1016/j.palaeo.2010.12.023*
Balbo, A.L., n.d. Unpublished data.
Balbo, A.L., Andrič, M., Rubinić, J., Moscariello, A., Miracle, P.T., 2006. Palaeoenvironmental and archaeological implications of a sediment core from Polje Čepić, Istria, Croatia. Geologia Croatica 59, 109–124.
Ballard, J., 2009. A Lateglacial Paleofire Record for East-central Michigan (MSc thesis). University of Cincinnati, Cincinnati, Ohio, USA.
Barber, K.E., Chambers, F.M., Maddy, D., 2003. Holocene palaeoclimates from peat stratigraphy: macrofossil proxy climate records from three oceanic raised bogs in England and Ireland. Quaternary Science Reviews 22, 521–539. *https://doi.org/10.1016/S0277-3791(02)00185-3*
Barber, V.A., Finney, B.P., 2000. Late Quaternary paleoclimatic reconstructions for interior Alaska based on paleolake-level data and hydrologic models. Journal of Paleolimnology 24, 29–41. *https://doi.org/10.1023/A:1008113715703*
Bard, E., Ménot, G., Rostek, F., Licari, L., Böning, P., Edwards, R.L., Cheng, H., Wang, Y., Heaton, T.J., 2013. Radiocarbon calibration/comparison records based on marine sediments from the Pakistan and Iberian margins. Radiocarbon 55, 1999–2019. *https://doi.org/10.2458/azu_js_rc.55.17114*
Barhoumi, C., Peyron, O., Joannin, S., Subetto, D., Kryshen, A., Drobyshev, I., Girardin, M.P., Brossier, B., Paradis, L., Pastor, T., Alleaume, S., Ali, A.A., 2019. Gradually increasing forest fire activity during the Holocene in the northern Ural region (Komi Republic, Russia). The Holocene 29, 1906–1920. *https://doi.org/10.1177/0959683619865593*
Barrett, C.M., Kelly, R., Higuera, P.E., Hu, F.S., 2013. Climatic and land cover influences on the spatiotemporal dynamics of Holocene boreal fire regimes. Ecology 94, 389–402. *https://doi.org/10.1890/12-0840.1*
Beaudoin, A.B., 1984. Holocene Environmental Change in the Sunwapta Pass Area, Jasper National Park (PhD thesis). University of Western Ontario, London, Ontario, Canada.
Beaudoin, A.B., King, R.H., 1990. Late Quaternary vegetation history of Wilcox Pass, Jasper National Park, Alberta. Palaeogeography, Palaeoclimatology, Palaeoecology 80, 129–144. *https://doi.org/10.1016/0031-0182(90)90125-q*

Beaudoin, A.B., King, R.H., 1986. Using discriminant function analysis to identify Holocene tephras based on magnetite composition: a case study from the Sunwapta Pass area, Jasper National Park. Canadian Journal of Earth Sciences 23, 804–812. *https://doi.org/10.1139/e86-082*

Beaulne, J., Garneau, M., Magnan, G., Boucher, 2021. Peat deposits store more carbon than trees in forested peatlands of the boreal biome. Scientific Reports 11, 1–11. *https://doi.org/10.1038/s41598-021-82004-x*

Beer, R., n.d. Unpublished data.

Beer, R., Tinner, W., 2008. Four thousand years of vegetation and fire history in the spruce forests of northern Kyrgyzstan (Kungey Alatau, Central Asia). Vegetation History and Archaeobotany 17, 629–638. *https://doi.org/10.1007/s00334-008-0142-1*

Behling, H., 2007. Late Quaternary vegetation, fire and climate dynamics of Serra do Araçatuba in the Atlantic coastal mountains of Paraná State, southern Brazil. Vegetation History and Archaeobotany 16, 77–85. *https://doi.org/10.1007/s00334-006-0078-2*

Behling, H., 2003. Late Glacial and Holocene vegetation, climate and fire history inferred from Lagoa Nova in the southeastern Brazilian lowland. Vegetation History and Archaeobotany 12, 263–270. *https://doi.org/10.1007/s00334-003-0020-9*

Behling, H., 2001. Late Quaternary environmental changes in the Lagoa da Curuça region (eastern Amazonia, Brazil) and evidence of Podocarpus in the Amazon lowland. Vegetation History and Archaeobotany 10, 175–183. *https://doi.org/10.1007/PL00006929*

Behling, H., 2000. A 2860-year high-resolution pollen and charcoal record from the Cordillera de Talamanca in Panama: a history of human and volcanic forest disturbance. The Holocene 10, 387–393. *https://doi.org/10.1191/095968300668797683*

Behling, H., 1997a. Late Quaternary vegetation, climate and fire history from the tropical mountain region of Morro de Itapeva, SE Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology 129, 407–422. *https://doi.org/10.1016/s0031-0182(97)88177-1*

Behling, H., 1997b. Late Quaternary vegetation, climate and fire history of the Araucaria forest and campos region from Serra Campos Gerais, Paraná State (South Brazil). Review of Palaeobotany and Palynology 97, 109–121. *https://doi.org/10.1016/s0034-6667(96)00065-6*

Behling, H., 1995. A high resolution Holocene pollen record from Lago do Pires, SE Brazil: vegetation, climate and fire history. Journal of Paleolimnology 14, 253–268. *https://doi.org/10.1007/BF00682427*

Behling, H., da Costa, M.L., 2001. Holocene vegetational and coastal environmental changes from the Lago Crispim record in northeastern Pará State, eastern Amazonia. Review of Palaeobotany and Palynology 114, 145–155. *https://doi.org/10.1016/S0034-6667(01)00044-6*

Behling, H., da Costa, M.L., 2000. Holocene environmental changes from the Rio Curuá record in the Caxiuanã region, eastern Amazon Basin. Quaternary Research 53, 369–377. *https://doi.org/10.1006/qres.1999.2117*

Behling, H., Dupont, L., Safford, H.D., Wefer, G., 2007. Late Quaternary vegetation and climate dynamics in the Serra da Bocaina, southeastern Brazil. Quaternary International 161, 22–31. *https://doi.org/10.1016/j.quaint.2006.10.021*

Behling, H., Girardi Bauermann, S., Pereira Neves, P.C., 2001. Holocene environmental changes in the São Francisco de Paula region, southern Brazil. Journal of South American Earth Sciences 14, 631–639. *https://doi.org/10.1016/S0895-9811(01)00040-2*

Behling, H., Jantz, N., Safford, H.D., 2020. Mid-and late Holocene vegetation, climate and fire dynamics in the Serra do Itatiaia, Rio de Janeiro State, southeastern Brazil. Review of Palaeobotany and Palynology 274, 104152. *https://doi.org/10.1016/j.revpalbo.2019.104152*

Behling, H., Lichte, M., 1997. Evidence of dry and cold climatic conditions at glacial times in tropical southeastern Brazil. Quaternary Research 48, 348–358. *https://doi.org/10.1006/qres.1997.1932*

Behling, H., Pillar, V.D., Girardi Bauermann, S., 2005. Late Quaternary grassland (Campos), gallery forest, fire and climate dynamics, studied by pollen, charcoal and multivariate analysis of the São Francisco de Assis core in western Rio Grande do Sul (southern Brazil). Review of Palaeobotany and Palynology 133, 235–248. *https://doi.org/10.1016/j.revpalbo.2004.10.004*

Behling, H., Pillar, V.D., Orlóci, L., Girardi Bauermann, S., 2004. Late Quaternary Araucaria forest, grassland (Campos), fire and climate dynamics, studied by high-resolution pollen, charcoal and multivariate analysis of the Cambará do Sul core in southern Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology 203, 277–297. *https://doi.org/10.1016/s0031-0182(03)00687-4*

Bennett, K.D., Boreham, S., Sharp, M.J., Switsur, V.R., 1992. Holocene history of environment, vegetation and human settlement on Catta Ness, Lunnasting, Shetland. The Journal of Ecology 80, 241–273. *https://doi.org/10.2307/2261010*

Benson, L.V., Mensing, S.A., n.d. Unpublished data.

Berrío, J.C., Hooghiemstra, H., Marchant, R., Rangel, O., 2002. Late-glacial and Holocene history of the dry forest area in the south Colombian Cauca Valley. Journal of Quaternary Science 17, 667–682. *https://doi.org/10.1002/jqs.701*

Beuning, K.R.M., Talbot, M.R., Kelts, K., 1997. A revised 30,000-year paleoclimatic and paleohydrologic history of Lake Albert, East Africa. Palaeogeography, Palaeoclimatology, Palaeoecology 136, 259–279. *https://doi.org/10.1016/s0031-0182(97)00034-5*

Bhattacharya, T., Byrne, R., 2016. Late Holocene anthropogenic and climatic influences on the regional vegetation of Mexico's Cuenca Oriental. Global and Planetary Change 138, 56–69. *https://doi.org/10.1016/j.gloplacha.2015.12.005*

Bigler, C., Larocque, I., Peglar, S.M., Birks, H.J.B., Hall, R.I., 2002. Quantitative multiproxy assessment of long-term patterns of Holocene environmental change from a small lake near Abisko, northern Sweden. The Holocene 12, 481–496. *https://doi.org/10.1191/0959683602hl559rp*

Bird, M.I., Cali, J.A., 2002. A revised high-resolution oxygen-isotope chronology for ODP-668B: implications for Quaternary biomass burning in Africa. Global and Planetary Change 33, 73–76. *https://doi.org/10.1016/s0921-8181(02)00062-0*

Birks, H.H., Birks, H.J.B., Bjune, A.E., Felde, V.A., 2012. Internal report. XXXVI international bog ('moor') excursion of the Institute of Plant Sciences, University of Bern, southern and south-eastern Norway, 8-13 September 2012, Excursion Guide. Bjerknes Centre for Climate Research, University of Bergen, Bergen, Norway.

Birks, H.J.B., 2006. Estimating the amount of compositional change in late-Quaternary pollen-stratigraphical data. Vegetation History and Archaeobotany 16, 197–202. *https://doi.org/10.1007/s00334-006-0079-1*

Bisculm, M., Colombaroli, D., Vescovi, E., van Leeuwen, J.F.N., Henne, P.D., Rothen, J., Procacci, G., Pasta, S., La Mantia, T., Tinner, W., 2012. Holocene vegetation and fire dynamics in the supra-mediterranean belt of the Nebrodi Mountains (Sicily, Italy). Journal of Quaternary Science 27, 687–698. *https://doi.org/10.1002/jqs.2551*

Bjerring, R., Olsen, J., Jeppesen, E., Buchardt, B., Heinemeier, J., McGowan, S., Leavitt, P.R., Enevold, R., Odgaard, B.V., 2012. Climate-driven changes in water level: a decadal scale multi-proxy study recording the 8.2-ka event and ecosystem responses in Lake Sarup (Denmark). Journal of Paleolimnology 49, 267–285. *https://doi.org/10.1007/s10933-012-9673-7*

Björkman, L., Feurdean, A., Wohlfarth, B., 2003. Late-glacial and Holocene forest dynamics at Steregoiu in the Gutaiului Mountains, Northwest Romania. Review of Palaeobotany and Palynology 124, 79–111. *https://doi.org/10.1016/S0034-6667(02)00249-X*

Bjune, A.E., 2005. Holocene vegetation history and tree-line changes on a north–south transect crossing major climate gradients in southern Norway—evidence from pollen and plant macrofossils in lake sediments. Review of Palaeobotany and Palynology 133, 249–275. *https://doi.org/10.1016/j.revpalbo.2004.10.005*

Bjune, A.E., Bakke, J., Nesje, A., Birks, H.J.B., 2005. Holocene mean July temperature and winter precipitation in western Norway inferred from palynological and glaciological lake-sediment proxies. The Holocene 15, 177–189. *https://doi.org/10.1191/0959683605hl798rp*

Bjune, A.E., Birks, H.J.B., Seppä, H., 2004. Holocene vegetation and climate history on a continental-oceanic transect in northern Fennoscandia based on pollen and plant macrofossils. Boreas 33, 211–223. *https://doi.org/10.1080/03009480410001244*

Bjune, A.E., Seppä, H., Birks, H.J.B., 2008. Quantitative summer-temperature reconstructions for the last 2000 years based on pollen-stratigraphical data from northern Fennoscandia. Journal of Paleolimnology 41, 43–56. *https://doi.org/10.1007/s10933-008-9254-y*

Black, M.P., 2001. Fire, vegetation, humans and climate: A record of change during the past millennium from the Kings Tablelands (BSc (Hons) thesis). School of Geography, University of New South Wales, Sydney, Australia.

Black, M.P., Mooney, S.D., 2006. Holocene fire history from the Greater Blue Mountains World Heritage Area, New South Wales, Australia: the climate, humans and fire nexus. Regional Environmental Change 6, 41–51. *https://doi.org/10.1007/s10113-005-0003-8*

Black, M.P., Mooney, S.D., Martin, H.A., 2006. A >43,000-year vegetation and fire history from Lake Baraba, New South Wales, Australia. Quaternary Science Reviews 25, 3003–3016. *https://doi.org/10.1016/j.quascirev.2006.04.006*

Blarquez, O., Ali, A.A., Girardin, M.P., Grondin, P., Fréchette, B., Bergeron, Y., Hély, C., 2015. Regional paleofire regimes affected by non-uniform climate, vegetation and human drivers. Scientific Reports 5, 1–13. *https://doi.org/10.1038/srep13356*

Blarquez, O., Bremond, L., Carcaillet, C., 2010. Holocene fires and a herb-dominated understorey track wetter climates in subalpine forests. Journal of Ecology 98, 1358–1368. *https://doi.org/10.1111/j.1365-2745.2010.01721.x*

Blarquez, O., Talbot, J., Paillard, J., Lapointe-Elmrabti, L., Pelletier, N., St-Pierre, C.G., 2018. Late Holocene influence of societies on the fire regime in southern Québec temperate forests. Quaternary Science Reviews 180, 63–74. *https://doi.org/10.1016/j.quascirev.2017.11.022*

Blyakharchuk, T.A., n.d. Unpublished data.

Blyakharchuk, T.A., Eirikh, A., Mitrofanova, E., Li, H.-C., Kang, S.-C., 2017. High resolution palaeoecological records for climatic and environmental changes during the last 1350 years from Manzherok Lake, western foothills of the Altai Mountains, Russia. Quaternary International 447, 59–74. *https://doi.org/10.1016/j.quaint.2017.06.014*

Blyakharchuk, T.A., Kurina, I.V., Pologova, N.N., 2019. Late-Holocene dynamics of vegetation cover and humidity of climate in the southeastern sector of the West Siberian Plain according to the data of palynological and rhizopod research of peat deposits. Tomsk State University Journal of Biology 45, 164–189. *https://doi.org/10.17223/19988591/45/9*

Blyakharchuk, T.A., Prikhodko, V., Kilunovskaya, M., Li, H.-C., 2019. Vegetation and climate reconstruction based on pollen and microbial records derived from burial mounds soil in Tuva Republic, Central Asia. Quaternary International 507, 108–123. *https://doi.org/10.1016/j.quaint.2018.09.028*

Blyakharchuk, T.A., Wright, H.E., Borodavko, P.S., van der Knaap, W.O., Ammann, B., 2007. Late Glacial and Holocene vegetational history of the Altai Mountains (southwestern Tuva Republic, Siberia). Palaeogeography, Palaeoclimatology, Palaeoecology 245, 518–534. *https://doi.org/10.1016/j.palaeo.2006.09.010*

Blyakharchuk, T.A., Wright, H.E., Borodavko, P.S., van der Knaap, W.O., Ammann, B., 2004. Late Glacial and Holocene vegetational changes on the Ulagan high-mountain plateau, Altai Mountains, southern Siberia. Palaeogeography, Palaeoclimatology, Palaeoecology 209, 259–279. *https://doi.org/10.1016/j.palaeo.2004.02.011*

Bobek, P., Svobodová, H.S., Werchan, B., Švarcová, M.G., Kuneš, P., 2017. Human-induced changes in fire regime and subsequent alteration of the sandstone landscape of Northern Bohemia (Czech Republic). The Holocene 28, 427–443. *https://doi.org/10.1177/0959683617729443*

Bobek, P., Svobodová-Svitavská, H., Pokorný, P., Šamonil, P., Kuneš, P., Kozáková, R., Abraham, V., Klinerová, T., Švarcová, M.G., Jamrichová, E., Krauseová, E., Wild, J., 2019. Divergent fire history trajectories in Central European temperate forests revealed a pronounced influence of broadleaved trees on fire dynamics. Quaternary Science Reviews 222, 105865. *https://doi.org/10.1016/j.quascirev.2019.105865*

Bobek, P., Šamonil, P., Jamrichová, E., 2018. Biotic controls on Holocene fire frequency in a temperate mountain forest, Czech Republic. Journal of Quaternary Science 33, 892–904. *https://doi.org/10.1002/jqs.3067*

Bonnefille, R., Riollet, G., Buchet, G., Icole, M., Lafont, R., Arnold, M., Jolly, D., 1995. Glacial/Interglacial record from intertropical Africa, high resolution pollen and carbon data at Rusaka, Burundi. Quaternary Science Reviews 14, 917–936. *https://doi.org/10.1016/0277-3791(95)00071-2*

Boyd, W.E., 1990. Quaternary pollen analysis in the arid zone of Australia: Dalhousie Springs, Central Australia. Review of Palaeobotany and Palynology 64, 331–341. *https://doi.org/10.1016/0034-6667(90)90149-d*

Bradshaw, E.G., Rasmussen, P., Odgaard, B.V., 2005. Mid-to late-Holocene land-use change and lake development at Dallund So, Denmark: synthesis of multiproxy data, linking land and lake. The Holocene 15, 1152–1162. *https://doi.org/10.1191/0959683605hl887rp*

Bradshaw, R.H.W., Zackrisson, O., 1990. A two thousand year history of a northern Swedish boreal forest stand. Journal of Vegetation Science 1, 519–528. *https://doi.org/10.2307/3235786*

Briles, C.E., Whitlock, C., Bartlein, P.J., 2005. Postglacial vegetation, fire, and climate history of the Siskiyou Mountains, Oregon, USA. Quaternary Research 64, 44–56. *https://doi.org/10.1016/j.yqres.2005.03.001*

Briles, C.E., Whitlock, C., Bartlein, P.J., Higuera, P.E., 2008. Regional and local controls on postglacial vegetation and fire in the Siskiyou Mountains, northern California, USA. Palaeogeography, Palaeoclimatology, Palaeoecology 265, 159–169. *https://doi.org/10.1016/j.palaeo.2008.05.007*

Briles, C.E., Whitlock, C., Skinner, C.N., Mohr, J., 2011. Holocene forest development and maintenance on different substrates in the Klamath Mountains, northern California, USA. Ecology 92, 590–601. *https://doi.org/10.1890/09-1772.1*

Brown, A.G., Hatton, J., O'Brien, C.E., Selby, K.A., Langdon, P.G., Stuijts, I., Caseldine, C.J., 2005. Vegetation, landscape and human activity in Midland Ireland: mire and lake records from the Lough Kinale-Derragh Lough area, central Ireland. Vegetation History and Archaeobotany 14, 81–98. *https://doi.org/10.1007/s00334-005-0063-1*

Brown, K.J., Clark, J.S., Grimm, E.C., Donovan, J.J., Mueller, P.G., Hansen, B.C.S., Stefanova, I., 2005. Fire cycles in North American interior grasslands and their relation to prairie drought. Proceedings of the National Academy of Sciences 102, 8865–8870. *https://doi.org/10.1073/pnas.0503621102*

Brown, K.J., Fitton, R.J., Schoups, G., Allen, G.B., Wahl, K.A., Hebda, R.J., 2006. Holocene precipitation in the coastal temperate rainforest complex of southern British Columbia, Canada. Quaternary Science Reviews 25, 2762–2779. *https://doi.org/10.1016/j.quascirev.2006.02.020*

Brown, K.J., Giesecke, T., 2014. Holocene fire disturbance in the boreal forest of central Sweden. Boreas 43, 639–651. *https://doi.org/10.1111/bor.12056*

Brown, K.J., Hebda, R.J., 2003. Coastal rainforest connections disclosed through a Late Quaternary vegetation, climate, and fire history investigation from the mountain hemlock zone on southern Vancouver Island, British Colombia, Canada. Review of Palaeobotany and Palynology 123, 247–269. *https://doi.org/10.1016/s0034-6667(02)00195-1*

Brown, K.J., Hebda, R.J., 2002. Origin, development, and dynamics of coastal temperate conifer rainforests of southern Vancouver Island, Canada. Canadian Journal of Forest Research 32, 353–372. *https://doi.org/10.1139/x01-197*

Brugger, S.O., Gobet, E., van Leeuwen, J.F.N., Ledru, M.-P., Colombaroli, D., van der Knaap, W.O., Lombardo, U., Escobar-Torrez, K., Finsinger, W., Rodrigues, L., Giesche, A., 2016. Long-term man–environment interactions in the Bolivian Amazon: 8000 years of vegetation dynamics. Quaternary Science Reviews 132, 114–128. *https://doi.org/10.1016/j.quascirev.2015.11.001*

Brunelle, A., Anderson, R.S., 2003. Sedimentary charcoal as an indicator of late-Holocene drought in the Sierra Nevada, California, and its relevance to the future. The Holocene 13, 21–28. *https://doi.org/10.1191/0959683603hl591rp*

Brunelle, A., Whitlock, C., 2003. Postglacial fire, vegetation, and climate history in the Clearwater Range, Northern Idaho, USA. Quaternary Research 60, 307–318. *https://doi.org/10.1016/j.yqres.2003.07.009*

Brunelle, A., Whitlock, C., Bartlein, P.J., Kipfmueller, K., 2005. Holocene fire and vegetation along environmental gradients in the Northern Rocky Mountains. Quaternary Science Reviews 24, 2281–2300. *https://doi.org/10.1016/j.quascirev.2004.11.010*

Brunelle-Daines, A.R., 2002. Holocene Changes in Fire, Climate and Vegetation in the Northern Rocky Mountains of Idaho and Western Montana (PhD thesis). University of Oregon, Eugene, Oregon, USA.

Brunner Jass, R.M., 1999. Fire occurrence and paleoecology at Alamo Bog and Chihuahueños Bog, Jemez Mountains, New Mexico, USA (PhD thesis). Northern Arizona University, Flagstaff, Arizona, USA.

Brunschön, C., Behling, H., 2009. Late Quaternary vegetation, fire and climate history reconstructed from two cores at Cerro Toledo, Podocarpus National Park, southeastern Ecuadorian Andes. Quaternary Research 72, 388–399. *https://doi.org/10.1016/j.yqres.2009.07.001*

Buckman, S., Brownlie, K.C., Bourman, R.P., Murray-Wallace, C.V., Morris, R.H., Lachlan, T.J., Roberts, R.G., Arnold, L.J., Cann, J.H., 2009. Holocene palaeofire records in a high-level, proximal valley-fill (Wilson Bog), Mount Lofty Ranges, South Australia. The Holocene 19, 1017–1029. *https://doi.org/10.1177/0959683609340998*

Builth, H., Kershaw, A.P., White, C., Roach, A., Hartney, L., McKenzie, M., Lewis, T., Jacobsen, G., 2008. Environmental and cultural change on the Mt Eccles lava-flow landscapes of southwest Victoria, Australia. The Holocene 18, 413–424. *https://doi.org/10.1177/0959683607087931*

Bunting, M.J., 1996. The development of heathland in Orkney, Scotland: pollen records from Loch of Knitchen (Rousay) and Loch of Torness (Hoy). The Holocene 6, 193–212. *https://doi.org/10.1177/095968369600600206*

Bunting, M.J., 1994. Vegetation history of Orkney, Scotland; pollen records from two small basins in west Mainland. New Phytologist 128, 771–792. *https://doi.org/10.1111/j.1469-8137.1994.tb04039.x*

Burbridge, R.E., Mayle, F.E., Killeen, T.J., 2004. Fifty-thousand-year vegetation and climate history of Noel Kempff Mercado National Park, Bolivian Amazon. Quaternary Research 61, 215–230. *https://doi.org/10.1016/j.yqres.2003.12.004*

Burney, D.A., 1987. Late Quaternary stratigraphic charcoal records from Madagascar. Quaternary Research 28, 274–280. *https://doi.org/10.1016/0033-5894(87)90065-2*

Bush, M.B., n.d. Unpublished data.

Bush, M.B., Colinvaux, P.A., 1994. Tropical forest disturbance: paleoecological records from Darien, Panama. Ecology 75, 1761–1768. *https://doi.org/10.2307/1939635*

Bush, M.B., de Oliveira, P.E., 2006. The rise and fall of the Refugial Hypothesis of Amazonian speciation: a paleoecological perspective. Biota Neotropica 6. *https://doi.org/10.1590/s1676-06032006000100002*

Bush, M.B., Hansen, B.C.S., Rodbell, D.T., Seltzer, G.O., Young, K.R., León, B., Abbott, M.B., Silman, M.R., Gosling, W.D., 2005. A 17 000-year history of Andean climate and vegetation change from Laguna de Chochos, Peru. Journal of Quaternary Science 20, 703–714. *https://doi.org/10.1002/jqs.983*

Bush, M.B., Miller, M.C., de Oliveira, P.E., Colinvaux, P.A., 2000. Two histories of environmental change and human disturbance in eastern lowland Amazonia. The Holocene 10, 543–553. *https://doi.org/10.1191/095968300672647521*

Bush, M.B., Silman, M.R., de Toledo, M.B., Listopad, C., Gosling, W.D., Williams, C., de Oliveira, P.E., Krisel, C., 2007. Holocene fire and occupation in Amazonia: records from two lake districts. Philosophical Transactions of the Royal Society B: Biological Sciences 362, 209–218. *https://doi.org/10.1098/rstb.2006.1980*

Bush, M.B., Silman, M.R., Listopad, C.M.C.S., 2007. A regional study of Holocene climate change and human occupation in Peruvian Amazonia. Journal of Biogeography 34, 1342–1356. *https://doi.org/10.1111/j.1365-2699.2007.01704.x*

Bussieres, B., 1992. La Déforestation Subalpine au Mont du Lac a l'Empeche, Charlevoix, Québec (PhD thesis). Université Laval, Québec, Canada.

Byrne, R., Horn, S.P., 1989. Prehistoric agriculture and forest clearance in the Sierra de los Tuxtlas, Veracruz, Mexico. Palynology 13, 181–193. *https://doi.org/10.1080/01916122.1989.9989360*

Caballero, M., Vázquez, G., Lozano-García, M. d.S., Rodríguez, A., Sosa-Nájera, S., Ruiz-Fernández, A.C., Ortega, B., 2006. Present limnological conditions and recent (ca. 340 yr) palaeolimnology of a tropical lake in the Sierra de Los Tuxtlas, eastern Mexico. Journal of Paleolimnology 35, 83–97. *https://doi.org/10.1007/s10933-005-7427-5*

Cai, Y.F., Miao, X.M., Jin, H.L., Bing, L., Yan, Y., 2015. Mid-Holocene charcoal records and fire history in the east edge of the Mu Us Sandy Land, China. Journal of Desert Research 35, 1156–1162.

Calder, W.J., Parker, D., Stopka, C.J., Jiménez-Moreno, G., Shuman, B.N., 2015. Medieval warming initiated exceptionally large wildfire outbreaks in the Rocky Mountains. Proceedings of the National Academy of Sciences 112, 13261–13266. *https://doi.org/10.1073/pnas.1500796112*

Camarero, J.J., Sangüesa-Barreda, G., Pérez-Díaz, S., Montiel-Molina, C., Seijo, F., López-Sáez, J.A., 2019. Abrupt regime shifts in post-fire resilience of Mediterranean mountain pinewoods are fuelled by land use. International Journal of Wildland Fire 28, 329–341. *https://doi.org/10.1071/WF18160*

Camill, P., Umbanhowar Jr, C.E., Geiss, C., Hobbs, W.O., Edlund, M.B., Shinneman, A.L.C., Dorale, J.A., Lynch, J., 2012. Holocene climate change and landscape development from a low-Arctic tundra lake in the western Hudson Bay region of Manitoba, Canada. Journal of Paleolimnology 48, 175–192. *https://doi.org/10.1007/s10933-012-9619-0*

Camill, P., Umbanhowar Jr, C.E., Teed, R., Geiss, C.E., Aldinger, J., Dvorak, L., Kenning, J., Limmer, J., Walkup, K., 2003. Late-glacial and Holocene climatic effects on fire and vegetation dynamics at the prairie–forest ecotone in south-central Minnesota. Journal of Ecology 91, 822–836. *https://doi.org/10.1046/j.1365-2745.2003.00812.x*

Campbell, J.F.E., Fletcher, W.J., Joannin, S., Hughes, P.D., Rhanem, M., Zielhofer, C., 2017. Environmental drivers of Holocene forest development in the Middle Atlas, Morocco. Frontiers in Ecology and Evolution 5. *https://doi.org/10.3389/fevo.2017.00113*

Cao, X.Y., 2008. Sediment Records on Environment Changes and Human Activities Since the Holocene in Huanhe Valley, Henan Province, China (PhD thesis). Hebei Normal University, Shijiazhuang, China.

Carcaillet, C., 1998. A spatially precise study of Holocene fire history, climate and human impact within the Maurienne valley, North French Alps. Journal of Ecology 86, 384–396. *https://doi.org/10.1046/j.1365-2745.1998.00267.x*

Carcaillet, C., Ali, A.A., Blarquez, O., Genries, A., Mourier, B., Bremond, L., 2009. Spatial variability of fire history in subalpine forests: from natural to cultural regimes. Ecoscience 16, 1–12. *https://doi.org/10.2980/16-1-3189*

Carcaillet, C., Almquist, H., Asnong, H., Bradshaw, R.H.W., Carrión, J.S., Gaillard, M.-J., Gajewski, K., Haas, J.N., Haberle, S.G., Hadorn, P., Müller, S.D., Richard, P.J.H., Richoz, I., Rösch, M., Sánchez-Goñi, M.F., von Stedingk, H., Stevenson, A.C., Talon, B., Tardy, C., Tinner, W., Tryterud, E., Wick, L., Willis, K.J., 2002. Holocene biomass burning and global dynamics of the carbon cycle. Chemosphere 49, 845–863. *https://doi.org/10.1016/S0045-6535(02)00385-5*

Carcaillet, C., Bergeron, Y., Richard, P.J.H., Fréchette, B., Gauthier, S., Prairie, Y.T., 2001. Change of fire frequency in the eastern Canadian boreal forests during the Holocene: does vegetation composition or climate trigger the fire regime? Journal of Ecology 89, 930–946. *https://doi.org/10.1111/j.1365-2745.2001.00614.x*

Carcaillet, C., Bergman, I., Delorme, S., Hornberg, G., Zackrisson, O., 2007. Long-term fire frequency not linked to prehistoric occupations in northern Swedish boreal forest. Ecology 88, 465–477. *https://doi.org/10.1890/0012-9658(2007)88[465:Lffnlt]2.0.Co;2*

Carcaillet, C., Blarquez, O., 2017. Fire ecology of a tree glacial refugium on a nunatak with a view on Alpine glaciers. New Phytologist 216, 1281–1290. *https://doi.org/10.1111/nph.14721*

Carcaillet, C., Richard, P.J.H., 2000. Holocene changes in seasonal precipitation highlighted by fire incidence in eastern Canada. Climate Dynamics 16, 549–559. *https://doi.org/10.1007/s003820000062*

Carcaillet, C., Richard, P.J.H., Asnong, H., Capece, L., Bergeron, Y., 2006. Fire and soil erosion history in East Canadian boreal and temperate forests. Quaternary Science Reviews 25, 1489–1500. *https://doi.org/10.1016/j.quascirev.2006.01.004*

Carlson, L.J., Finney, B.P., 2004. A 1300-year history of vegetation and environmental change at Jan Lake, east-central Alaska. The Holocene 14, 818–827. *https://doi.org/10.1191/0959683604hl762rp*

Caroli, I., Caldara, M., 2006. Vegetation history of Lago Battaglia (eastern Gargano coast, Apulia, Italy) during the middle-late Holocene. Vegetation History and Archaeobotany 16, 317–327. *https://doi.org/10.1007/s00334-006-0045-y*

Carrión, J.S., 2002. Patterns and processes of Late Quaternary environmental change in a montane region of southwestern Europe. Quaternary Science Reviews 21, 2047–2066. *https://doi.org/10.1016/s0277-3791(02)00010-0*

Carrión, J.S., Andrade, A., Bennett, K.D., Navarro, C., Munuera, M., 2001. Crossing forest thresholds: inertia and collapse in a Holocene sequence from south-central Spain. The Holocene 11, 635–653. *https://doi.org/10.1191/09596830195672*

Carrión, J.S., Fuentes, N., González-Sampériz, P., Sánchez Quirante, L., Finlayson, J.C., Fernández, S., Andrade, A., 2007. Holocene environmental change in a montane region of southern Europe with a long history of human settlement. Quaternary Science Reviews 26, 1455–1475. *https://doi.org/10.1016/j.quascirev.2007.03.013*

Carrión, J.S., Munuera, M., Dupre, M., Andrade, A., 2001. Abrupt vegetation changes in the Segura Mountains of southern Spain throughout the Holocene. Journal of Ecology 89, 783–797. *https://doi.org/10.1046/j.0022-0477.2001.00601.x*

Carrión, J.S., Sánchez-Gómez, P., Mota, J.F., Yll, R., Chaín, C., 2003. Holocene vegetation dynamics, fire and grazing in the Sierra de Gádor, southern Spain. The Holocene 13, 839–849. *https://doi.org/10.1191/0959683603hl662rp*

Carrión, J.S., Van Geel, B., 1999. Fine-resolution Upper Weichselian and Holocene palynological record from Navarrés (Valencia, Spain) and a discussion about factors of Mediterranean forest succession. Review of Palaeobotany and Palynology 106, 209–236. *https://doi.org/10.1016/s0034-6667(99)00009-3*

Carter, V.A., Moravcová, A., Chiverrell, R.C., Clear, J.L., Finsinger, W., Dreslerová, D., Halsall, K., Kuneš, P., 2018. Holocene-scale fire dynamics of central European temperate spruce-beech forests. Quaternary Science Reviews 191, 15–30. *https://doi.org/10.1016/j.quascirev.2018.05.001*

Cedric, P., 2008. Dynamique des marges forestières de milieux tourbeux du Haut-Boreal, Quebec nordique (PhD thesis). Université Laval, Quebec, Canada.

Chabaud, L., Sánchez-Goñi, M.F., Desprat, S., Rossignol, L., 2014. Land–sea climatic variability in the eastern North Atlantic subtropical region over the last 14,200 years: atmospheric and oceanic processes at different timescales. The Holocene 24, 787–797. *https://doi.org/10.1177/0959683614530439*

Chalson, J.M., 1991. The Late Quaternary Vegetation and Climatic History of the Blue Mountains, N.S.W. Australia (PhD thesis). University of New South Wales, Sydney, Australia.

Chalson, J.M., Martin, H.A., 2009. A Holocene history of the vegetation of the Blue Mountains, New South Wales, in: Proceedings of the Linnean Society of New South Wales. pp. 77–109.

Chen, B., Zheng, Z., Huang, K., Zheng, Y., Zhang, G., Zhang, Q., Huang, X., 2014. Radionuclide dating of recent sediment and the validation of pollen-environment reconstruction in a small watershed reservoir in southeastern China. Catena 115, 29–38. *https://doi.org/10.1016/j.catena.2013.11.010*

Chen, J.R., 2017. Holocene Fire History and Environmental Evolution in Subei Basin. Nanjing (PhD thesis). Nanjing Normal University, Nanjing, China.

Chepstow-Lusty, A.J., Bennett, K.D., Fjeldså, J., Kendall, A., Galiano, W., Tupayachi Herrera, A., 1998. Tracing 4,000 Years of environmental history in the Cuzco area, Peru, from the pollen record. Mountain Research and Development 18, 159. *https://doi.org/10.2307/3673971*

Chiarugi, A., 1936. Ricerche sulla vegetazione dell'Etruria Marittima: I.—Cicli forestali postglaciali nell'Appennino Etrusco Attraverso l'analist pollinica di torbe e depositi lacustri presso L'Alpe Delle Tre Potenze E Il M. Rondinaio. Plant Biosystem 43, 3–61. *https://doi.org/10.1080/11263503609438721*

Chipman, M.L., Hu, F.S., 2017. Linkages among climate, fire, and thermoerosion in Alaskan tundra over the past three millennia. Journal of Geophysical Research: Biogeosciences 122, 3362–3377. *https://doi.org/10.1002/2017jg004027*

Chipman, M.L., Hudspith, V., Higuera, P.E., Duffy, P.A., Kelly, R., Oswald, W.W., Hu, F.S., 2015. Spatiotemporal patterns of tundra fires: late-Quaternary charcoal records from Alaska. Biogeosciences 12, 4017–4027. *https://doi.org/10.5194/bg-12-4017-2015*

Chu, G.Q., 2001. Sediment flux change of charcoal and human activities over 2000 years in the Huguangyan Maar Lake. Quaternary Sciences 21, 183.

Clark, D.J., 1997. A Palaeoenvironmental Study of Thirlmere Lakes: Applications to Contemporary Vegetation Management (BSc (Hons) thesis). School of Geography, University of New South Wales, Sydney, Australia.

Clark, G., Hope, G.S., 1997. Preliminary report on archaeological and palaeoenvironmental investigations in northern Lau (Mago, Yacata-Kaibu and Vatuvara). Report to the Fiji Museum, Suva.

Clark, J.S., Grimm, E.C., Lynch, J., Mueller, P.G., 2001. Effects of Holocene climate change on the C4 grassland/woodland boundary in the Northern Plains, USA. Ecology 82, 620–636. *https://doi.org/10.2307/2680184*

Clark, J.S., Hussey, T.C., 1996. Estimating the mass flux of charcoal from sedimentary records: effects of particle size, morphology, and orientation. The Holocene 6, 129–144. *https://doi.org/10.1177/095968369600600201*

Clark, J.S., Royall, P.D., 1996. Local and regional sediment charcoal evidence for fire regimes in presettlement north-eastern North America. The Journal of Ecology 84, 365–382. *https://doi.org/10.2307/2261199*

Clark, J.S., Stocks, B.J., Richard, P.J.H., 1996. Climate implications of biomass burning since the 19th century in eastern North America. Global Change Biology 2, 433–442. *https://doi.org/10.1111/j.1365-2486.1996.tb00093.x*

Clark, R.L., 1986. The Fire History of Rotten Swamp (Unpublished Report). ACT Parks; Conservation Service, CSIRO, Canberra, Australia.

Clark, R.L., 1983. Pollen and charcoal evidence for the effects of Aboriginal burning on the vegetation of Australia. Archaeology in Oceania 18, 32–37. *https://doi.org/10.1002/arco.1983.18.1.32*

Clear, J.L., Seppä, H., Kuosmanen, N., Bradshaw, R.H.W., 2015. Holocene stand-scale vegetation dynamics and fire history of an old-growth spruce forest in southern Finland. Vegetation History and Archaeobotany 24, 731–741. *https://doi.org/10.1007/s00334-015-0533-z*

Clear, J.L., Seppä, H., Kuosmanen, N., Bradshaw, R.H.W., 2013. Holocene fire frequency variability in Vesijako, Strict Nature Reserve, Finland, and its application to conservation and management. Biological Conservation 166, 90–97. *https://doi.org/10.1016/j.biocon.2013.06.008*

Clement, R.M., Horn, S.P., 2001. Pre-Columbian land-use history in Costa Rica: a 3000-year record of forest clearance, agriculture and fires from Laguna Zoncho. The Holocene 11, 419–426. *https://doi.org/10.1191/095968301678302850*

Cole, K.L., Liu, G.-W., 1994. Holocene paleoecology of an estuary on Santa Rosa Island, California. Quaternary Research 41, 326–335. *https://doi.org/10.1006/qres.1994.1037*

Cole, K.L., Taylor, R.S., 1995. Past and current trends of change in a dune prairie/oak savanna reconstructed through a multiple-scale history. Journal of Vegetation Science 6, 399–410. *https://doi.org/10.2307/3236239*

Colhoun, E.A., 1992. Late Glacial and Holocene vegetation history at Poets Hill lake, western Tasmania. Australian Geographer 23, 11–23. *https://doi.org/10.1080/00049189208703049*

Colhoun, E.A., 1985. Pre-last glaciation maximum vegetation history at Henty Bridge, western Tasmania. New Phytologist 100, 681–690. *https://doi.org/10.1111/j.1469-8137.1985.tb02812.x*

Colhoun, E.A., Pola, J.S., Barton, C.E., Heijnis, H., 1999. Late Pleistocene vegetation and climate history of Lake Selina, western Tasmania. Quaternary International 57-58, 5–23. *https://doi.org/10.1016/s1040-6182(98)00046-9*

Colhoun, E.A., van de Geer, G., Hannan, D., 1991. Late Glacial and Holocene vegetation history at Dublin Bog north-central Tasmania. Australian Geographical Studies 29, 337–354. *https://doi.org/10.1111/j.1467-8470.1991.tb00724.x*

Colinvaux, P.A., Bush, M.B., Steinitz-Kannan, M., Miller, M.C., 1997. Glacial and postglacial pollen records from the Ecuadorian Andes and Amazon. Quaternary Research 48, 69–78. *https://doi.org/10.1006/qres.1997.1908*

Colinvaux, P.A., de Oliveira, P.E., Moreno, J.E., Miller, M.C., Bush, M.B., 1996. A long pollen record from lowland Amazonia: Forest and cooling in glacial times. Science 274, 85–88. *https://doi.org/10.1126/science.274.5284.85*

Colombaroli, D., Gavin, D.G., 2010. Highly episodic fire and erosion regime over the past 2,000 y in the Siskiyou Mountains, Oregon. Proceedings of the National Academy of Sciences 107, 18909–18914. *https://doi.org/10.1073/pnas.1007692107*

Colombaroli, D., Marchetto, A., Tinner, W., 2007. Long-term interactions between Mediterranean climate, vegetation and fire regime at Lago di Massaciuccoli (Tuscany, Italy). Journal of Ecology 95, 755–770. *https://doi.org/10.1111/j.1365-2745.2007.01240.x*

Colombaroli, D., Tinner, W., van Leeuwen, J.F.N., Noti, R., Vescovi, E., Vannière, B., Magny, M., Schmidt, R., Bugmann, H., 2009. Response of broadleaved evergreen Mediterranean forest vegetation to fire disturbance during the Holocene: insights from the peri-Adriatic region. Journal of Biogeography 36, 314–326. *https://doi.org/10.1111/j.1365-2699.2008.01987.x*

Connor, S.E., n.d. Unpublished data.

Connor, S.E., 2006. A promethean legacy: late quaternary vegetation history of southern Georgia, Caucasus (PhD thesis). Faculty of Arts, Social and Environmental Enquiry, University of Melbourne, Victoria, Australia. *https://doi.org/11343/39418*

Connor, S.E., Araújo, J., van der Knaap, W.O., van Leeuwen, J.F.N., 2012. A long-term perspective on biomass burning in the Serra da Estrela, Portugal. Quaternary Science Reviews 55, 114–124. *https://doi.org/10.1016/j.quascirev.2012.08.007*

Connor, S.E., Kvavadze, E.V., 2005. Climatic and human influences on vegetation dynamics around Tbilisi over the past 6000 years. Proceedings of the Georgian Academy of Sciences: Biological series B 3, 64–76.
Connor, S.E., Sagona, A., 2007. Environment and society in the late prehistory of southern Georgia, Caucasus. Les Cultures du Caucase: leurs relations avec le Proche-Orient 21–36.
Connor, S.E., Thomas, I., Kvavadze, E.V., 2007. A 5600-yr history of changing vegetation, sea levels and human impacts from the Black Sea coast of Georgia. The Holocene 17, 25–36. *https://doi.org/10.1177/0959683607073270*
Connor, S.E., Thomas, I., Kvavadze, E.V., Arabuli, G.J., Avakov, G.S., Sagona, A., 2004. A survey of modern pollen and vegetation along an altitudinal transect in southern Georgia, Caucasus region. Review of Palaeobotany and Palynology 129, 229–250. *https://doi.org/10.1016/j.revpalbo.2004.02.003*
Cordeiro, R.C., Turcq, B., Suguio, K., Oliveira da Silva, A., Sifeddine, A., Volkmer-Ribeiro, C., 2008. Holocene fires in East Amazonia (Carajás), new evidences, chronology and relation with paleoclimate. Global and Planetary Change 61, 49–62. *https://doi.org/10.1016/j.gloplacha.2007.08.005*
Cordova, C.E., 2008. Floodplain degradation and settlement history in Wadi al-Wala and Wadi ash-Shallalah, Jordan. Geomorphology 101, 443–457. *https://doi.org/10.1016/j.geomorph.2007.04.026*
Cordova, C.E., Lehman, P.H., 2005. Holocene environmental change in southwestern Crimea (Ukraine) in pollen and soil records. The Holocene 15, 263–277. *https://doi.org/10.1191/0959683605hl791rp*
Couillard, P.-L., Payette, S., Grondin, P., 2013. Long-term impact of fire on high-altitude balsam fir (Abies balsamea) forests in south-central Quebec deduced from soil charcoal. Canadian Journal of Forest Research 43, 188–199. *https://doi.org/10.1139/cjfr-2012-0414*
Courtney-Mustaphi, C.J., Shoemaker, A.C., Githumbi, E.N., Kariuki, R., Muriuki, R.M., Rucina, S., Marchant, R., 2015. Historical ecology perspectives of changes in Amboseli, Kenya. GLP News 12, 26–29.
Court-Picon, M., 2007. Mise en place du paysage dans un milieu de moyenne et haute montagne du tardiglaciaire à l'époque actuelle: analyse du signal palynologique en Champsaur (Hautes-Alpes, France) à l'interface des dynamiques naturelles et des dynamiques sociales (PhD thesis). Universitè de Franche-Comtè, Bescançon, France.
Cridlebaugh, P.A., 1984. American Indian and Euro-American Impact upon Holocene Vegetation in the Lower Little Tennessee River Valley, East Tennessee (PhD thesis). Department of Anthropology, University of Tennessee, Knoxville, Tennessee, USA.
Cupper, M.L., 2006. Luminescence and radiocarbon chronologies of playa sedimentation in the Murray Basin, southeastern Australia. Quaternary Science Reviews 25, 2594–2607. *https://doi.org/10.1016/j.quascirev.2005.09.011*
Cupper, M.L., 2005. Last Glacial to Holocene evolution of semi-arid rangelands in southeastern Australia. The Holocene 15, 541–553. *https://doi.org/10.1191/0959683605hl829rp*
Czerwiński, S., Guzowski, P., Karpińska-Kołaczek, M., Lamentowicz, M., Gałka, M., Kołaczek, P., Izdebski, A., Poniat, R., 2019. Znaczenie wspólnych badań historycznych i paleoekologicznych nad wpływem człowieka na środowisko. Przykład ze stanowiska Kazanie we wschodniej Wielkopolsce - The Importance of Collaborative Historical and Palaeoecological Research on Human Impact on the Environment: The Case of the Kazanie Site in Eastern Greater Poland (Eastern Wielkopolska). Studia Geohistorica 56–74.
Czerwiński, S., Guzowski, P., Lamentowicz, M., Gałka, M., Karpińska-Kołaczek, M., Poniat, R., Lokas, E., Diaconu, A.-C., Schwarzer, J., Miecznik, M., Kołaczek, P., 2021. Environmental implications of past socioeconomic events in Greater Poland during the last 1200 years. Synthesis of paleoecological and historical data. Quaternary Science Reviews 259, 106902. *https://doi.org/10.1016/j.quascirev.2021.106902*
Czerwiński, S., Margielewski, W., Gałka, M., Kołaczek, P., 2020. Late Holocene transformations of lower montane forest in the Beskid Wyspowy Mountains (Western Carpathians, Central Europe): a case

study from Mount Mogielica. Palynology 44, 355–368. https://doi.org/10.1080/01916122.2019.1617207
Damblon, F., 1991. Contribution pollenanalytique à l'histoire des forêts de chêne liège au Maroc: La subéraie de Krinda, in: Proceedings of the Symposium on African Palynology. pp. 171–183.
Damnati, B., Reddad, H., 2017. Les microcharbons dans les sédiments du lac Ifrah moyen atlas (Maroc): significations climatiques depuis 24 000 ans cal. bp. Quaternaire 28, 225–229. https://doi.org/10.4000/quaternaire.8082
Daniau, A.-L., Sánchez-Goñi, M.F., Beaufort, L., Laggoun-Défarge, F., Loutre, M.-F., Duprat, J., 2007. Dansgaard–Oeschger climatic variability revealed by fire emissions in southwestern Iberia. Quaternary Science Reviews 26, 1369–1383. https://doi.org/10.1016/j.quascirev.2007.02.005
Daniau, A.-L., Sánchez-Goñi, M.F., Duprat, J., 2009. Last glacial fire regime variability in western France inferred from microcharcoal preserved in core MD04-2845, Bay of Biscay. Quaternary Research 71, 385–396. https://doi.org/10.1016/j.yqres.2009.01.007
Daniau, A.-L., Sánchez-Goñi, M.F., Martínez, P., Urrego, D.H., Bout-Roumazeilles, V., Desprat, S., Marlon, J.R., 2013. Orbital-scale climate forcing of grassland burning in southern Africa. Proceedings of the National Academy of Sciences 110, 5069–5073. https://doi.org/10.1073/pnas.1214292110
Daniels, M.L., Anderson, S., Whitlock, C., 2005. Vegetation and fire history since the Late Pleistocene from the Trinity Mountains, northwestern California, USA. The Holocene 15, 1062–1071. https://doi.org/10.1191/0959683605hl878ra
Dark, P., 2005. Mid- to late-Holocene vegetational and land-use change in the Hadrian's Wall region: a radiocarbon-dated pollen sequence from Crag Lough, Northumberland, England. Journal of Archaeological Science 32, 601–618. https://doi.org/10.1016/j.jas.2004.11.009
Davis, B.A.S., n.d. Unpublished data.
Davis, B.A.S., Stevenson, A.C., 2007. The 8.2ka event and early–mid Holocene forests, fires and flooding in the Central Ebro Desert, NE Spain. Quaternary Science Reviews 26, 1695–1712. https://doi.org/10.1016/j.quascirev.2007.04.007
Davis, O.K., 1992. Rapid climatic change in coastal southern California inferred from pollen analysis of San Joaquin Marsh. Quaternary Research 37, 89–100. https://doi.org/10.1016/0033-5894(92)90008-7
Davis, O.K., Shafer, D.S., 1992. A Holocene climatic record for the Sonoran Desert from pollen analysis of Montezuma Well, Arizona, USA. Palaeogeography, Palaeoclimatology, Palaeoecology 92, 107–119. https://doi.org/10.1016/0031-0182(92)90137-t
Day, S.P., 1991. Post-glacial vegetational history of the Oxford region. New Phytologist 119, 445–470. https://doi.org/10.1111/j.1469-8137.1991.tb00045.x
D'Costa, D.M., 1997. The Reconstruction of Quaternary Vegetation and Climate on King Island, Bass Strait, Australia (PhD thesis). Monash University, Australia.
D'Costa, D.M., Edney, P., Kershaw, A.P., de Deckker, P., 1989. Late Quaternary palaeoecology of Tower Hill, Victoria, Australia. Journal of Biogeography 16, 461–482. https://doi.org/10.2307/2845109
D'Costa, D.M., Grindrod, J., Ogden, R., 1993. Preliminary environmental reconstructions from late Quaternary pollen and mollusc assemblages at Egg Lagoon, King Island, Bass Strait. Austral Ecology 18, 351–366. https://doi.org/10.1111/j.1442-9993.1993.tb00462.x
de Beaulieu, J.-L., Brugiapaglia, E., Joannin, S., Guiter, F., Zanchetta, G., Wulf, S., Peyron, O., Bernardo, L., Didier, J., Stock, A., Magny, D.R.M., 2017. Lateglacial-Holocene abrupt vegetation changes at Lago Trifoglietti in Calabria, Southern Italy: The setting of ecosystems in a refugial zone. Quaternary Science Reviews 158, 44–57. https://doi.org/10.1016/j.quascirev.2016.12.013
Deforce, K., 2011. Middle and late Holocene vegetation and landscape evolution of the Scheldt estuary: a palynological study of a peat deposit from Doel (Belgium). Geologica Belgica 14, 277–288.
de Freitas, H.A., Ruiz Pessenda, L.C., Aravena, R., Marques Gouveia, S.E., de Souza Ribeiro, A., Boulet, R., 2001. Late Quaternary vegetation dynamics in the southern Amazon basin inferred from carbon

isotopes in soil organic matter. Quaternary Research 55, 39–46. *https://doi.org/10.1006/qres.2000.2192*

Delcourt, H.R., Delcourt, P.A., 1997. Pre-Columbian Native American use of fire on Southern Appalachian landscapes. Conservation Biology 11, 1010–1014. *https://doi.org/10.1046/j.1523-1739.1997.96338.x*

Delcourt, H.R., Delcourt, P.A., Spiker, E.C., 1983. A 12 000-year record of forest history form Cahaba Pond, St. Clair County, Alabama. Ecology 64, 874–887. *https://doi.org/10.2307/1937210*

Delcourt, P.A., Delcourt, H.R., 1998. Forest Dynamics and Fire History at Curt Pond, Pulaski County, Kentucky. USDA Forest Service, Daniel Boone National Forest, Winchester, Kentucky, USA.

Delcourt, P.A., Delcourt, H.R., 1997. Report of Paleoecological Investigations, Cliff Palace Pond, Jackson County, Kentucky. USDA Forest Service, Daniel Boone National Forest, Winchester, Kentucky, USA.

Delcourt, P.A., Delcourt, H.R., Cridlebaugh, P.A., Chapman, J., 1986. Holocene ethnobotanical and paleoecological record of human impact on vegetation in the Little Tennessee River Valley, Tennessee. Quaternary Research 25, 330–349. *https://doi.org/10.1016/0033-5894(86)90005-0*

Delcourt, P.A., Delcourt, H.R., Ison, C.R., Sharp, W.E., Gremillion, K.J., 1998. Prehistoric human use of fire, the Eastern Agricultural Complex, and Appalachian oak-chestnut forests: Paleoecology of Cliff Palace Pond, Kentucky. American Antiquity 63, 263–278. *https://doi.org/10.2307/2694697*

de Montford, M., 2008. Late Holocene Fire History: Human Impacts and Climate Variability at Wingecarribee Swamp (BSc (Hons) thesis). School of Biological, Earth & Environmental Sciences, University of New South Wales, Sydney, Australia.

de Nascimento, L., Nogué, S., Criado, C., Ravazzi, C., Whittaker, R.J., Willis, K.J., Fernández-Palacios, J.M., 2016. Reconstructing Holocene vegetation on the island of Gran Canaria before and after human colonization. The Holocene 26, 113–125. *https://doi.org/10.1177/0959683615596836*

de Nascimento, L., Willis, K.J., Fernández-Palacios, J.M., Criado, C., Whittaker, R.J., 2009. The long-term ecology of the lost forests of La Laguna, Tenerife (Canary Islands). Journal of Biogeography 36, 499–514. *https://doi.org/10.1111/j.1365-2699.2008.02012.x*

de Oliveira, P.E., Barreto, A.M.F., Suguio, K., 1999. Late Pleistocene/Holocene climatic and vegetational history of the Brazilian caatinga: the fossil dunes of the middle São Francisco River. Palaeogeography, Palaeoclimatology, Palaeoecology 152, 319–337. *https://doi.org/10.1016/S0031-0182(99)00061-9*

de Vleeschouwer, F., Piotrowska, N., Sikorski, J., Pawlyta, J., Cheburkin, A., Roux, G., Lamentowicz, M., Fagel, N., Mauquoy, D., 2009. Multiproxy evidence of Ìittle Ice Age' palaeoenvironmental changes in a peat bog from northern Poland. The Holocene 19, 625–637. *https://doi.org/10.1177/0959683609104027*

Devoy, R.J., Dodson, J.R., Thom, B.G., Nichol, S., 1994. Holocene environments in the Hawkesbury valley, New South Wales: a comparison of terrestrial and marine records. Quaternary Science Reviews 13, 241–256. *https://doi.org/10.1016/0277-3791(94)90028-0*

Dickinson, W.R., Burley, D.V., Nunn, P.D., Anderson, A., Hope, G.S., De Biran, A., Burke, C., Matararaba, S., 1998. Geomorphic and archaeological landscapes of the Sigatoka dune site, Viti Levu, Fiji: interdisciplinary investigations. Asian Perspectives 37, 1–31.

Dietze, E., Brykała, D., Schreuder, L.T., Jażdżewski, K., Blarquez, O., Brauer, A., Dietze, M., Obremska, M., Ott, F., Pieńczewska, A., Schouten, S., Hopmans, E.C., Slowinski, M., 2019. Human-induced fire regime shifts during 19th century industrialization: A robust fire regime reconstruction using northern Polish lake sediments. PLOS ONE 14, e0222011.

di Rita, F., Magri, D., 2009. Holocene drought, deforestation and evergreen vegetation development in the central Mediterranean: a 5500 year record from Lago Alimini Piccolo, Apulia, southeast Italy. The Holocene 19, 295–306. *https://doi.org/10.1177/0959683608100574*

Djamali, M., de Beaulieu, J.-L., Andrieu-Ponel, V., Berberian, M., Miller, N.F., Gandouin, E., Lahijani, H., Shah-Hosseini, M., Ponel, P., Salimian, M., Guiter, F., 2009. A late Holocene pollen record from Lake

Almalou in NW Iran: evidence for changing land-use in relation to some historical events during the last 3700 years. Journal of Archaeological Science 36, 1364–1375. *https://doi.org/10.1016/j.jas.2009.01.022*

Djamali, M., de Beaulieu, J.-L., Shah-hosseini, M., Andrieu-Ponel, V., Ponel, P., Amini, A., Akhani, H., Leroy, S.A.G., Stevens, L., Lahijani, H., Brewer, S., 2008. A late Pleistocene long pollen record from Lake Urmia, NW Iran. Quaternary Research 69, 413–420. *https://doi.org/10.1016/j.yqres.2008.03.004*

Djamali, M., Jones, M.D., Migliore, J., Balatti, S., Fader, M., Contreras, D., Gondet, S., Hosseini, Z., Lahijani, H., Naderi, A., Shumilovskikh, L.S., 2016. Olive cultivation in the heart of the Persian Achaemenid Empire: new insights into agricultural practices and environmental changes reflected in a late Holocene pollen record from Lake Parishan, SW Iran. Vegetation History and Archaeobotany 25, 255–269. *https://doi.org/10.1007/s00334-015-0545-8*

Djamali, M., Ponel, P., Andrieu-Ponel, V., Jacques-Louis Beaulieu, Guibal, F., Miller, N.F., Ramezani, E., Berberian, M., Lahijani, H., Lak, R., 2010. Notes on arboricultural and agricultural practices in ancient Iran based on new pollen evidence. Paléorient 36, 175–188. *https://doi.org/10013/epic.44366.d088*

Dodson, J., Li, J., Lu, F., Zhang, W., Yan, H., Cao, S., 2019. A Late Pleistocene and Holocene vegetation and environmental record from Shuangchi Maar, Hainan Province, South China. Palaeogeography, Palaeoclimatology, Palaeoecology 523, 89–96. *https://doi.org/10.1016/j.palaeo.2019.03.026*

Dodson, J.R., 2001. A vegetation and fire history in a subalpine woodland and rain-forest region, Solomons Jewel Lake, Tasmania. The Holocene 11, 111–116. *https://doi.org/10.1191/095968301670253295*

Dodson, J.R., 1986. Holocene vegetation and environments near Goulburn, New South Wales. Australian Journal of Botany 34, 231–249. *https://doi.org/10.1071/bt9860231*

Dodson, J.R., de Salis, T., Myers, C.A., Sharp, A.J., 1994. A thousand years of environmental change and human impact in the alpine zone at Mt Kosciusko, New South Wales. Australian Geographer 25, 77–87. *https://doi.org/10.1080/00049189408703100*

Dodson, J.R., Frank, K., Fromme, M., Hickson, D., McRae, V., Mooney, S.D., Smith, J.D., 1994. Environmental systems and human impact at Cobrico Crater, south-western Victoria. Australian Geographical Studies 32, 27–40. *https://doi.org/10.1111/j.1467-8470.1994.tb00658.x*

Dodson, J.R., Greenwood, P.W., Jones, R.L., 1986. Holocene forest and wetland vegetation dynamics at Barrington Tops, New South Wales. Journal of Biogeography 13, 561–585. *https://doi.org/10.2307/2844819*

Dodson, J.R., Hickson, S., Khoo, R., Li, X.-Q., Toia, J., Zhou, W.-J., 2006. Vegetation and environment history for the past 14 000 yr BP from Dingnan, Jiangxi Province, South China. Journal of Integrative Plant Biology 48, 1018–1027. *https://doi.org/10.1111/j.1744-7909.2006.00274.x*

Dodson, J.R., Lu, J.J., 2000. A Late Holocene vegetation and environment record from Byenup Lagoon, south-western Australia. Australian Geographer 31, 41–54. *https://doi.org/10.1080/00049180093529*

Dodson, J.R., McRae, V.M., Molloy, K., Roberts, F., Smith, J.D., 1993. Late Holocene human impact on two coastal environments in New South Wales, Australia: a comparison of Aboriginal and European impacts. Vegetation History and Archaeobotany 2, 89–100. *https://doi.org/10.1007/bf00202186*

Dodson, J.R., Mitchell, F.J.G., Bogeholz, H., Julian, N., 1998. Dynamics of temperate rainforest from fine resolution pollen analysis, Upper Ringarooma River, northeastern Tasmania. Austral Ecology 23, 550–561. *https://doi.org/10.1111/j.1442-9993.1998.tb00765.x*

Dodson, J.R., Roberts, F.K., de Salis, T., 1994. Palaeoenyironments and human impact at Burraga Swamp in montane rainforest, Barrington Tops National Park, New South Wales, Australia. Australian Geographer 25, 161–169. *https://doi.org/10.1080/00049189408703115*

Dodson, J., Shi, G., Lu, F., Yan, H., 2021. A 40,000 year record of vegetation, environment and climate change from Chongqing, Central China. Palaeogeography, Palaeoclimatology, Palaeoecology 573, 110441.0. *https://doi.org/10.1016/j.palaeo.2021.110441*

Donders, T.H., Wagner, F., Visscher, H., 2006. Late Pleistocene and Holocene subtropical vegetation dynamics recorded in perched lake deposits on Fraser Island, Queensland, Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 241, 417–439. *https://doi.org/10.1016/j.palaeo.2006.04.008*

Dörfler, W., Feeser, I., van den Bogaard, C., Dreibrodt, S., Erlenkeuser, H., Kleinmann, A., Merkt, J., Wiethold, J., 2012. A high-quality annually laminated sequence from Lake Belau, northern Germany: revised chronology and its implications for palynological and tephrochronological studies. The Holocene 22, 1413–1426. *https://doi.org/10.1177/0959683612449756*

Dreslerová, D., Břízová, E., Růžičková, E., Zeman, A., 2004. Holocene environmental processes and alluvial archaeology in the middle Labe (Elbe) valley, in: Gojda, M. (Ed.), Ancient Landscape, Settlement Dynamics and Non-destructive Archaeology. Academia, Praha, Czech Republic, p. 484.0.

Dull, R.A., 2004a. A Holocene record of Neotropical savanna dynamics from El Salvador. Journal of Paleolimnology 32, 219–231. *https://doi.org/10.1023/B:JOPL.0000042906.46791.9c*

Dull, R.A., 2004b. An 8000-year record of vegetation, climate, and human disturbance from the Sierra de Apaneca, El Salvador. Quaternary Research 61, 159–167. *https://doi.org/10.1016/j.yqres.2004.01.002*

Dull, R.A., 2001. El Bosque Perdido: A Cultural-Ecological History of Holocene Environmental Change in Western El Salvador (PhD thesis). University of California–Berkeley, Berkeley, California, USA.

Dull, R.A., Nevle, R.J., Woods, W.I., Bird, D.K., Avnery, S., Denevan, W.M., 2010. The Columbian Encounter and the Little Ice Age: abrupt land use change, fire, and greenhouse forcing. Annals of the Association of American Geographers 100, 755–771. *https://doi.org/10.1080/00045608.2010.502432*

Dunnette, P.V., Higuera, P.E., McLauchlan, K.K., Derr, K.M., Briles, C.E., Keefe, M.H., 2014. Biogeochemical impacts of wildfires over four millennia in a Rocky Mountain subalpine watershed. New Phytologist 203, 900–912. *https://doi.org/10.1111/nph.12828*

Dupont, L.M., Behling, H., Kim, J.H., 2008. Thirty thousand years of vegetation development and climate change in Angola (Ocean Drilling Program Site 1078). Climate of the Past 4, 107–124. *https://doi.org/10.5194/cp-4-107-2008*

Dyson, W.D., 1995. A Pollen and Vegetation History from Lake Dove, Western Tasmania (BSc (Hons) thesis). Department of Geography, University of New South Wales, Sydney, Australia.

Edwards, K.J., Berridge, J.M.A., 1994. The Late-Quaternary vegetational history of Loch a'Bhogaidh, Rinns of Islay SSSI, Scotland. New Phytologist 128, 749–769. *https://doi.org/10.1111/j.1469-8137.1994.tb04038.x*

Edwards, K.J., Langdon, P.G., Sugden, H., 2007. Separating climatic and possible human impacts in the early Holocene: biotic response around the time of the 8200 cal. yr BP event. Journal of Quaternary Science 22, 77–84. *https://doi.org/10.1002/jqs.1018*

Edwards, K.J., Whittington, G., 2000. Multiple charcoal profiles in a Scottish lake: taphonomy, fire ecology, human impact and inference. Palaeogeography, Palaeoclimatology, Palaeoecology 164, 67–86. *https://doi.org/10.1016/S0031-0182(00)00176-0*

Edwards, K.J., Whittington, G., 1997. A 12 000-year record of environmental change in the Lomond Hills, Fife, Scotland: vegetational and climatic variability. Vegetation History and Archaeobotany 6, 133–152. *https://doi.org/10.1007/BF01372567*

Edwards, K.J., Whittington, G., Robinson, M., Richter, D., 2005. Palaeoenvironments, the archaeological record and cereal pollen detection at Clickimin, Shetland, Scotland. Journal of Archaeological Science 32, 1741–1756. *https://doi.org/10.1016/j.jas.2005.06.004*

Edwards, K.J., Whittington, G., Tipping, R., 2000. The incidence of microscopic charcoal in late glacial deposits. Palaeogeography, Palaeoclimatology, Palaeoecology 164, 247–262. *https://doi.org/10.1016/S0031-0182(00)00189-9*

Edwards, M.E., n.d. Unpublished data.

Edwards, M., Franklin-Smith, L., Clarke, C., Baker, J., Hill, S., Gallagher, K., 2015. The role of fire in the mid-Holocene arrival and expansion of lodgepole pine (Pinus contorta var. latifolia Engelm. ex S. Watson) in Yukon, Canada. The Holocene 25, 64–78. *https://doi.org/10.1177/0959683614556389*

Eide, W., Birks, H.H., Bigelow, N.H., Peglar, S.M., Birks, H.J.B., 2005. Holocene forest development along the Setesdal valley, southern Norway, reconstructed from macrofossil and pollen evidence. Vegetation History and Archaeobotany 15, 65–85. *https://doi.org/10.1007/s00334-005-0025-7*

Ejarque, A., Julià, R., Reed, J.M., Mesquita-Joanes, F., Marco-Barba, J., Riera, S., 2016. Coastal evolution in a Mediterranean microtidal zone: mid to late Holocene natural dynamics and human management of the Castelló lagoon, NE Spain. PLOS ONE 11, e0155446. *https://doi.org/10.1371/journal.pone.0155446*

El-Guellab, A., Asselin, H., Gauthier, S., Bergeron, Y., Ali, A.A., 2015. Holocene variations of wildfire occurrence as a guide for sustainable management of the northeastern Canadian boreal forest. Forest Ecosystems 2, 1–7. *https://doi.org/10.1186/s40663-015-0039-2*

Ellis, C.J., Tallis, J.H., 2001. Climatic control of peat erosion in a North Wales blanket mire. New Phytologist 152, 313–324. *https://doi.org/10.1046/j.0028-646x.2001.00259.x*

Ellis, C.J., Tallis, J.H., 2000. Climatic control of blanket mire development at Kentra Moss, north-west Scotland. Journal of Ecology 88, 869–889. *https://doi.org/10.1046/j.1365-2745.2000.00495.x*

Ellison, J., 2005. Holocene palynology and sea-level change in two estuaries in Southern Irian Jaya. Palaeogeography, Palaeoclimatology, Palaeoecology 220, 291–309. *https://doi.org/10.1016/j.palaeo.2005.01.008*

Fan, B., Zhang, W., Zhang, R., Yang, X., Li, Y., Li, B., Ding, G., 2019. Characteristics of dry-wet changes and human activities in the North China Plain since the Little Ice Age. Quaternary Sciences 39, 483–496. *https://doi.org/10.11928/j.issn.1001-7410.2019.02.20*

Feurdean, A., 2005. Long-term forest fires reconstruction and vegetation dynamics in the Gutaiului Mountains. Studia Universitatis Ÿasile GoldisÄrad. Seria Stiintele Vietii (Life Sciences Series) 15, 99–104.

Feurdean, A., Florescu, G., Tanţău, I., Vannière, B., Diaconu, A.-C., Pfeiffer, M., Warren, D., Hutchinson, S.M., Gorina, N., Gałka, M., Kirpotin, S., 2020. Recent fire regime in the southern boreal forests of western Siberia is unprecedented in the last five millennia. Quaternary Science Reviews 244, 106495. *https://doi.org/10.1016/j.quascirev.2020.106495*

Feurdean, A., Florescu, G., Vannière, B., Tanţău, I., O'Hara, R.B., Pfeiffer, M., Hutchinson, S.M., Gałka, M., Moskal-del Hoyo, M., Hickler, T., 2017. Fire has been an important driver of forest dynamics in the Carpathian Mountains during the Holocene. Forest Ecology and Management 389, 15–26. *https://doi.org/10.1016/j.foreco.2016.11.046*

Feurdean, A., Gałka, M., Florescu, G., Diaconu, A.-C., Tanţău, I., Kirpotin, S., Hutchinson, S.M., 2019. 2000 years of variability in hydroclimate and carbon accumulation in western Siberia and the relationship with large-scale atmospheric circulation: a multi-proxy peat record. Quaternary Science Reviews 226, 105948. *https://doi.org/10.1016/j.quascirev.2019.105948*

Feurdean, A., Gałka, M., Kuske, E., Tanţău, I.I., Lamentowicz, M., Florescu, G., Liakka, J., Hutchinson, S.M., Mulch, A., Hickler, T., 2015. Last millennium hydro-climate variability in central–eastern Europe (northern Carpathians, Romania). The Holocene 25, 1179–1192. *https://doi.org/10.1177/0959683615580197*

Feurdean, A., Grindean, R., Florescu, G., Tanţău, I., Niedermeyer, E.M., Diaconu, A.-C., Hutchinson, S.M., Nielsen, A.B., Sava, T., Panait, A., Braun, M., Hickler, T., 2021. The transformation of the forest steppe in the lower Danube Plain of southeastern Europe: 6000 years of vegetation and land use dynamics. Biogeosciences 18, 1081–1103. *https://doi.org/10.5194/bg-18-1081-2021*

Feurdean, A., Liakka, J., Vannière, B., Marinova, E., Hutchinson, S.M., Mosburgger, V., Hickler, T., 2013. 12,000-Years of fire regime drivers in the lowlands of Transylvania (Central-Eastern Europe): a data-

model approach. Quaternary Science Reviews 81, 48–61. https://doi.org/10.1016/j.quascirev.2013.09.014
Feurdean, A., Mosbrugger, V., Onac, B.P., Polyak, V., Veres, D., 2007. Younger Dryas to mid-Holocene environmental history of the lowlands of NW Transylvania, Romania. Quaternary Research 68, 364–378. https://doi.org/10.1016/j.yqres.2007.08.003
Feurdean, A.N., Willis, K.J., Astaloş, C., 2009. Legacy of the past land-use changes and management on the 'natural'upland forest composition in the Apuseni Natural Park, Romania. The Holocene 19, 967–981. https://doi.org/10.1177/0959683609337358
Feurdean, A., Tonkov, S., Pfeiffer, M., Panait, A., Warren, D., Vannière, B., Marinova, E., 2019. Fire frequency and intensity associated with functional traits of dominant forest type in the Balkans during the Holocene. European Journal of Forest Research 138, 1049–1066. https://doi.org/10.1007/s10342-019-01223-0
Feurdean, A., Vannière, B., Finsinger, W., Warren, D., Connor, S.C., Forrest, M., Liakka, J., Panait, A., Werner, C., Andrič, M., Bobek, P., Carter, V.A., Davis, B., Diaconu, A.-C., Dietze, E., Feeser, I., Florescu, G., Gałka, M., Giesecke, T., Jahns, S., Jamrichová, E., Kajukało, K., Kaplan, J., Karpińska-Kołaczek, M., Kołaczek, P., Kuneš, P., Kupriyanov, D., Lamentowicz, M., Lemmen, C., Magyari, E.K., Marcisz, K., Marinova, E., Niamir, A., Novenko, E., Obremska, M., Pędziszewska, A., Pfeiffer, M., Poska, A., Rösch, M., Słowiński, M., Stančikaitė, M., Szal, M., Święta-Musznicka, J., Tanţău, I., Theuerkauf, M., Tonkov, S., Valkó, O., Vassiljev, J., Veski, S., Vincze, I., Wacnik, A., Wiethold, J., Hickler, T., 2020. Fire hazard modulation by long-term dynamics in land cover and dominant forest type in eastern and central Europe. Biogeosciences 17, 1213–1230. https://doi.org/10.5194/bg-17-1213-2020
Feurdean, A., Veski, S., Florescu, G., Vannière, B., Pfeiffer, M., O'Hara, R.B., Stivrins, N., Amon, L., Heinsalu, A., Vassiljev, J., Hickler, T., 2017. Broadleaf deciduous forest counterbalanced the direct effect of climate on Holocene fire regime in hemiboreal/boreal region (NE Europe). Quaternary Science Reviews 169, 378–390. https://doi.org/10.1016/j.quascirev.2017.05.024
Feurdean, A., Willis, K.J., 2008. The usefulness of a long-term perspective in assessing current forest conservation management in the Apuseni Natural Park, Romania. Forest Ecology and Management 256, 421–430. https://doi.org/10.1016/j.foreco.2008.04.050
Field, J.H., Dodson, J.R., Prosser, I.P., 2002. A Late Pleistocene vegetation history from the Australian semi-arid zone. Quaternary Science Reviews 21, 1023–1037. https://doi.org/10.1016/s0277-3791(01)00057-9
Finch, J., Marchant, R., Mustaphi, C.J.C., 2016. Ecosystem change in the South Pare Mountain bloc, Eastern Arc Mountains of Tanzania. The Holocene 27, 796–810. https://doi.org/10.1177/0959683616675937
Finney, B.P., Krumhardt, A.P., 2004. Sediment, pollen, and charcoal analyses of an unnamed lake in the White Mountains recreational area, interior Alaska of Land Management northern field office, Fairbanks, Alaska. The Bureau.
Finsinger, W., Fevre, J., Orbán, I., Pál, I., Vincze, I., Hubay, K., Birks, H.H., Braun, M., Tóth, M., Magyari, E.K., 2018. Holocene fire-regime changes near the treeline in the Retezat Mts. (Southern Carpathians, Romania). Quaternary International 477, 94–105. https://doi.org/10.1016/j.quaint.2016.04.029
Finsinger, W., Tinner, W., 2007. Pollen and plant macrofossils at Lac de Fully (2135 m a.s.l.): Holocene forest dynamics on a highland plateau in the Valais, Switzerland. The Holocene 17, 1119–1127. https://doi.org/10.1177/0959683607082552
Finsinger, W., Tinner, W., 2006. Holocene vegetation and land-use changes in response to climatic changes in the forelands of the southwestern Alps, Italy. Journal of Quaternary Science 21, 243–258. https://doi.org/10.1002/jqs.971

Flannigan, M., Campbell, I., Wotton, M., Carcaillet, C., Richard, P.J.H., Bergeron, Y., 2001. Future fire in Canada's boreal forest: paleoecology results and general circulation model - regional climate model simulations. Canadian Journal of Forest Research 31, 854–864. *https://doi.org/10.1139/x01-010*

Florescu, G., Hutchinson, S.M., Kern, Z., Mîndrescu, M., Cristea, I.A., Mihăilă, D., Lokas, E., Feurdean, A., 2017. Last 1000 years of environmental history in southern Bucovina, Romania: A high resolution multi-proxy lacustrine archive. Palaeogeography, Palaeoclimatology, Palaeoecology 473, 26–40. *https://doi.org/10.1016/j.palaeo.2017.01.047*

Florescu, G., Vannière, B., Feurdean, A., 2018. Exploring the influence of local controls on fire activity using multiple charcoal records from northern Romanian Carpathians. Quaternary International 488, 41–57. *https://doi.org/10.1016/j.quaint.2018.03.042*

Fossitt, J.A., 1996. Late Quaternary vegetation history of the Western Isles of Scotland. New Phytologist 132, 171–196. *https://doi.org/10.1111/j.1469-8137.1996.tb04522.x*

Fossitt, J.A., 1994. Late-glacial and Holocene vegetation history of western Donegal, Ireland, in: Biology and Environment: Proceedings of the Royal Irish Academy. JSTOR, pp. 1–31.

Foster, D.R., Clayden, S., Orwig, D.A., Hall, B., Barry, S., 2002. Oak, chestnut and fire: climatic and cultural controls of long-term forest dynamics in New England, USA. Journal of Biogeography 29, 1359–1379. *https://doi.org/10.1046/j.1365-2699.2002.00760.x*

Foster, D.R., Hall, B., Barry, S., Clayden, S., Parshall, T., 2002. Cultural, environmental and historical controls of vegetation patterns and the modern conservation setting on the island of Martha's Vineyard, USA. Journal of Biogeography 29, 1381–1400. *https://doi.org/10.1046/j.1365-2699.2002.00761.x*

Francis, D.R., Foster, D.R., 2001. Response of small New England ponds to historic land use. The Holocene 11, 301–312. *https://doi.org/10.1191/095968301666282469*

Franco-Múgica, F., García-Antón, M., Maldonado-Ruiz, J., Morla-Juaristi, C., Sainz-Ollero, H., 2005. Ancient pine forest on inland dunes in the Spanish northern meseta. Quaternary Research 63, 1–14. *https://doi.org/10.1016/j.yqres.2004.08.004*

François, n.d. Unpublished data.

Franklin-Smith, L., 2007. Boreal Forest Fire History in Alaska and the Yukon (PhD thesis). University of Southampton, Southampton, UK.

Frechette, J.D., 2007. Millennial-Scale Changes in Fan Deposition and Fire Severity in Ponderosa Pine Forests, Sacramento Mountains, New Mexico (MSc thesis). Department of Earth; Planetary Sciences, University of New Mexico, Albuquerque, New Mexico, USA.

Froyd, C.A., 2006. Holocene fire in the Scottish Highlands: evidence from macroscopic charcoal records. The Holocene 16, 235–249. *https://doi.org/10.1191/0959683606hl910rp*

Fuller, J.L., 1997. Holocene forest dynamics in southern Ontario, Canada: fine-resolution pollen data. Canadian Journal of Botany 75, 1714–1727. *https://doi.org/10.1139/b97-886*

Fuller, J.L., Foster, D.R., McLachlan, J.S., Drake, N., 1998. Impact of human activity on regional forest composition and dynamics in central New England. Ecosystems 1, 76–95. *https://doi.org/10.1007/s100219900007*

Fyfe, R.M., Brown, A.G., Rippon, S.J., 2003. Mid-to late-Holocene vegetation history of Greater Exmoor, UK: estimating the spatial extent of human-induced vegetation change. Vegetation History and Archaeobotany 12, 215–232. *https://doi.org/10.1007/s00334-003-0018-3*

Gajewski, K., 2019. Environmental history of the northwestern Québec treeline. Quaternary Science Reviews 206, 29–43. *https://doi.org/10.1016/j.quascirev.2018.12.025*

Gajewski, K., Bunbury, J., Vetter, M., Kroeker, N., Khan, A.H., 2014. Paleoenvironmental studies in southwestern Yukon. Arctic 67, 58–70. *https://doi.org/10.14430/arctic.2012.12-105*

Gajewski, K., Swain, A.M., Peterson, G.M., 1987. Late Holocene pollen stratigraphy in four northeastern United States lakes. Géographie physique et Quaternaire 41, 377–386. *https://doi.org/10.7202/032693ar*

Gajewski, K., Winkler, M.G., Swain, A.M., 1985. Vegetation and fire history from three lakes with varved sediments in northwestern Wisconsin (U.S.A.). Review of Palaeobotany and Palynology 44, 277–292. *https://doi.org/10.1016/0034-6667(85)90021-1*

Galop, D., Carozza, L., Marembert, F., Bal, M.-C., 2004. Activités agropastorales et climat durant l'Âge du Bronze dans les Pyrénées: l'état de la question à la lumière des données environnementales et archéologiques, in: Eclipse 2ëmprises et déprises agricoles, expension et régression des sociétés entre 3500 et 2500 BP). CTHS, pp. 107–119.

Gao, C., Knorr, K.-H., Yu, Z., He, J., Zhang, S., Lu, X., Wang, G., 2016. Black carbon deposition and storage in peat soils of the Changbai Mountain, China. Geoderma 273, 98–105. *https://doi.org/10.1016/j.geoderma.2016.03.021*

Gao, C., Lin, Q., Zhang, S., He, J., Lu, X., Wang, G., 2014. Historical trends of atmospheric black carbon on Sanjiang Plain as reconstructed from a 150-year peat record. Scientific Reports 4, 1–7. *https://doi.org/10.1038/srep05723*

Gao, X., 2017. Recent 100-yr Environmental Evolution in Oxbow Lake of Yangtze River Recorded by Pollen and Charcoal: a Case Study in Oxbow Lakes of the Middle Yangtze River Located in Jingzhou City, Hubei Province (PhD thesis). Shanghai Normal University, Shanghai, China.

Gardner, A.R., 2002. Neolithic to Copper Age woodland impacts in northeast Hungary? Evidence from the pollen and sediment chemistry records. The Holocene 12, 541–553. *https://doi.org/10.1191/0959683602hl561rp*

Gauthier, R., 1981. Histoire de la Colonisation Végétale des Montérégiennes: Deux Sites du Mont Saint-Bruno (MSc thesis). Université de Montréal, Montreal, Quebec, Canada.

Gavin, D.G., Brubaker, L.B., 2015. Late Quaternary vegetation and fire history of the Olympic Peninsula, in: Gavin, D.G., Brubaker, L.B. (Eds.), Late Pleistocene and Holocene Environmental Change on the Olympic Peninsula, Washington, Ecological Studies. Springer International Publishing, Cham, Switzerland, pp. 61–106. *https://doi.org/10.1007/978-3-319-11014-1_4*

Gavin, D.G., Brubaker, L.B., Greenwald, D.N., 2013. Postglacial climate and fire-mediated vegetation change on the western Olympic Peninsula, Washington (USA). Ecological Monographs 83, 471–489. *https://doi.org/10.1890/12-1742.1*

Gavin, D.G., Brubaker, L.B., Lertzman, K.P., 2003. An 1800-year record of the spatial and temporal distribution of fire from the west coast of Vancouver Island, Canada. Canadian Journal of Forest Research 33, 573–586. *https://doi.org/10.1139/x02-196*

Gavin, D.G., Hu, F.S., Lertzman, K., Corbett, P., 2006. Weak climatic control of stand-scale fire history during the late Holocene. Ecology 87, 1722–1732. *https://doi.org/10.1890/0012-9658(2006)87[1722:wccosf]2.0.co;2*

Gavin, D.G., McLachlan, J.S., Brubaker, L.B., Young, K.A., 2001. Postglacial history of subalpine forests, Olympic Peninsula, Washington, USA. The Holocene 11, 177–188. *https://doi.org/10.1191/095968301670879949*

Gałka, M., Aunina, L., Feurdean, A., Hutchinson, S., Kołaczek, P., Apolinarska, K., 2017. Rich fen development in CE Europe, resilience to climate change and human impact over the last ca. 3500 years. Palaeogeography, Palaeoclimatology, Palaeoecology 473, 57–72. *https://doi.org/10.1016/j.palaeo.2017.02.030*

Gałka, M., Aunina, L., Tobolski, K., Feurdean, A., 2016. Development of rich fen on the SE Baltic Coast, Latvia, during the last 7500 years, using paleoecological proxies: implications for plant community development and paleoclimatic research. Wetlands 36, 689–703. *https://doi.org/10.1007/s13157-016-0779-y*

Gałka, M., Miotk-Szpiganowicz, G., Goslar, T., Jęśko, M., van der Knaap, W.O., Lamentowicz, M., 2013. Palaeohydrology, fires and vegetation succession in the southern Baltic during the last 7500 years reconstructed from a raised bog based on multi-proxy data. Palaeogeography, Palaeoclimatology, Palaeoecology 370, 209–221. *https://doi.org/10.1016/j.palaeo.2012.12.011*

Gałka, M., Obremska, M., n.d. Unpublished data.
Gałka, M., Szal, M., Broder, T., Loisel, J., Knorr, K.-H., 2019. Peatbog resilience to pollution and climate change over the past 2700 years in the Harz Mountains, Germany. Ecological Indicators 97, 183–193. *https://doi.org/10.1016/j.ecolind.2018.10.015*
Geantă, A., Gałka, M., Tanţău, I., Hutchinson, S.M., Mîndrescu, M., Feurdean, A., 2014. High mountain region of the Northern Romanian Carpathians responded sensitively to Holocene climate and land use changes: a multi-proxy analysis. The Holocene 24, 944–956. *https://doi.org/10.1177/0959683614534747*
Gearey, B.R., Charman, D.J., Kent, M., 2000. Palaeoecological evidence for the prehistoric settlement of Bodmin Moor, Cornwall, southwest England. Part I: The status of woodland and early human impacts. Journal of Archaeological Science 27, 423–438. *https://doi.org/10.1006/jasc.1999.0472*
Gebru, T., Eshetu, Z., Huang, Y., Woldemariam, T., Strong, N., Umer, M., DiBlasi, M., Terwilliger, V.J., 2009. Holocene palaeovegetation of the Tigray Plateau in northern Ethiopia from charcoal and stable organic carbon isotopic analyses of gully sediments. Palaeogeography, Palaeoclimatology, Palaeoecology 282, 67–80. *https://doi.org/10.1016/j.palaeo.2009.08.011*
Geiss, C.E., Umbanhowar Jr, C.E., Camill, P., Banerjee, S.K., 2003. Sediment magnetic properties reveal Holocene climate change along the Minnesota prairie-forest ecotone. Journal of Paleolimnology 30, 151–166. *https://doi.org/10.1023/A:1025574100319*
Gell, P.A., Stuart, I.-M., Smith, J.D., 1993. The response of vegetation to changing fire regimes and human activity in East Gippsland, Victoria, Australia. The Holocene 3, 150–160. *https://doi.org/10.1177/095968369300300206*
Genever, M., Grindrod, J., Barker, B., 2003. Holocene palynology of Whitehaven Swamp, Whitsunday Island, Queensland, and implications for the regional archaeological record. Palaeogeography, Palaeoclimatology, Palaeoecology 201, 141–156. *https://doi.org/10.1016/S0031-0182(03)00542-X*
Genries, A., Finsinger, W., Asnong, H., Bergeron, Y., Carcaillet, C., Garneau, M., Hély, C., Ali, A.A., 2012. Local versus regional processes: can soil characteristics overcome climate and fire regimes by modifying vegetation trajectories? Journal of Quaternary Science 27, 745–756. *https://doi.org/10.1002/jqs.2560*
Genries, A., Mercier, L., Lavoie, M., Muller, S.D., Radakovitch, O., Carcaillet, C., 2009. The effect of fire frequency on local cembra pine populations. Ecology 90, 476–486. *https://doi.org/10.1890/07-1740.1*
Genries, A., Muller, S., Bircker, L., Mercier, L., Carcaillet, C., 2009. Local-scale processes control spatial variability of subalpine vegetation trajectories during the Holocene in the Maurienne valley (French Alps). Ecoscience 16, 13–24.
Giesecke, T., 2005a. Holocene dynamics of the southern boreal forest in Sweden. The Holocene 15, 858–872. *https://doi.org/10.1191/0959683605hl859ra*
Giesecke, T., 2005b. Holocene forest development in the central Scandes Mountains, Sweden. Vegetation History and Archaeobotany 14, 133–147. *https://doi.org/10.1007/s00334-005-0070-2*
Giesecke, T., 2001. Pollenanalytische und sedimentchemische Untersuchungen zur natürlichen und anthropogenen Geschichte im Schlaubetal. Sitz Naturforsch Freunde Berlin 39, 89–112.
Gill, J.L., Williams, J.W., Jackson, S.T., Lininger, K.B., Robinson, G.S., 2009. Pleistocene megafaunal collapse, novel plant communities, and enhanced fire regimes in North America. Science 326, 1100–1103. *https://doi.org/10.1126/science.1179504*
Gillespie, R., Magee, J.W., Luly, J.G., Dlugokencky, E., Sparks, R.J., Wallace, G., 1991. AMS radiocarbon dating in the study of arid environments: examples from Lake Eyre, South Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 84, 333–338. *https://doi.org/10.1016/0031-0182(91)90052-S*

Gil-Romera, G., Adolf, C., Benito, B.M., Bittner, L., Johansson, M.U., Grady, D.A., Lamb, H.F., Lemma, B., Fekadu, M., Glaser, B., Mekonnen, B., Sevilla-Callejo, M., Zech, M., Zech, W., Miehe, G., 2019. Long-term fire resilience of the Ericaceous belt, Bale Mountains, Ethiopia. Biology Letters 15, 20190357.

Githumbi, E.N., Kariuki, R., Shoemaker, A., Courtney-Mustaphi, C.J., Chuhilla, M., Richer, S., Lane, P., Marchant, R., 2018. Pollen, people and place: multidisciplinary perspectives on ecosystem change at Amboseli, Kenya. Frontiers in Earth Science 5. *https://doi.org/10.3389/feart.2017.00113*

Githumbi, E.N., Mustaphi, C.J.C., Yun, K.J., Muiruri, V., Rucina, S.M., Marchant, R., 2018. Late Holocene wetland transgression and 500 years of vegetation and fire variability in the semi-arid Amboseli landscape, southern Kenya. Ambio 47, 682–696. *https://doi.org/10.1007/s13280-018-1014-2*

Glückler, R., Herzschuh, U., Kruse, S., Andreev, A., Vyse, S.A., Winkler, B., Biskaborn, B.K., Pestryakova, L., Dietze, E., 2021. Wildfire history of the boreal forest of southwestern Yakutia (Siberia) over the last two millennia documented by a lake-sedimentary charcoal record. Biogeosciences 18, 4185–4209. *https://doi.org/10.5194/bg-18-4185-2021*

Glückler, R., Herzschuh, U., Kruse, S., Andreev, A., Vyse, S.A., Winkler, B., Biskaborn, B.K., Pestryakova, L., Dietze, E., 2020. Macroscopic charcoal record from Lake Khamra, Yakutia, Russia. *https://doi.org/10.1594/PANGAEA.923773*

Glückler, R., Herzschuh, U., Vyse, S.A., Dietze, E., 2020a. Macroscopic charcoal counts from Lake Khamra, Yakutia, Russia. *https://doi.org/10.1594/PANGAEA.923769*

Glückler, R., Herzschuh, U., Vyse, S.A., Dietze, E., 2020b. Radiocarbon age dating results from Lake Khamra, Yakutia, Russia. *https://doi.org/10.1594/PANGAEA.923772*

Glückler, R., Herzschuh, U., Vyse, S.A., Dietze, E., 2020c. Radiometric age dating results for 210Pb and 137Cs from Lake Khamra, Yakutia, Russia. *https://doi.org/10.1594/PANGAEA.923770*

Gobet, E., Tinner, W., Hochuli, P.A., van Leeuwen, J.F.N., Ammann, B., 2003. Middle to Late Holocene vegetation history of the Upper Engadine (Swiss Alps): the role of man and fire. Vegetation History and Archaeobotany 12, 143–163. *https://doi.org/10.1007/s00334-003-0017-4*

Goman, M., Byrne, R., 1998. A 5000-year record of agriculture and tropical forest clearance in the Tuxtlas, Veracruz, Mexico. The Holocene 8, 83–89. *https://doi.org/10.1191/095968398670396093*

González-Sampériz, P., Valero-Garcés, B.L., Moreno, A., Jalut, G., García-Ruiz, J.M., Martí-Bono, C., Delgado-Huertas, A., Navas, A., Otto, T., Dedoubat, J.J., 2006. Climate variability in the Spanish Pyrenees during the last 30,000 yr revealed by the El Portalet sequence. Quaternary Research 66, 38–52. *https://doi.org/10.1016/j.yqres.2006.02.004*

Gosling, W.D., de Kruif, J., Norder, S.J., de Boer, E.J., Hooghiemstra, H., Rijsdijk, K.F., McMichael, C.N.H., 2017. Mauritius on fire: tracking historical human impacts on biodiversity loss. Biotropica 49, 778–783. *https://doi.org/10.1111/btp.12490*

Greisman, A., Gaillard, M.-J., 2009. The role of climate variability and fire in early and mid Holocene forest dynamics of southern Sweden. Journal of Quaternary Science 24, 593–611. *https://doi.org/10.1002/jqs.1241*

Grigg, L.D., Whitlock, C., 1998. Late-glacial vegetation and climate change in western Oregon. Quaternary Research 49, 287–298. *https://doi.org/10.1006/qres.1998.1966*

Grimm, E.C., 2011. High-resolution age model based on AMS radiocarbon ages for Kettle Lake, North Dakota, USA. Radiocarbon 53, 39–53. *https://doi.org/10.1017/s0033822200034342*

Grimm, E.C., Donovan, J.J., Brown, K.J., 2011. A high-resolution record of climate variability and landscape response from Kettle Lake, northern Great Plains, North America. Quaternary Science Reviews 30, 2626–2650. *https://doi.org/10.1016/j.quascirev.2011.05.015*

Grimm, E.C., Jacobson, G.L., Watts, W.A., Hansen, B.C.S., Maasch, K.A., 1993. A 50,000-year record of climate oscillations from Florida and its temporal correlation with the Heinrich events. Science 261, 198–200. *https://doi.org/10.1126/science.261.5118.198*

Grimm, E.C., Watts, W.A., Jacobson Jr., G.L., Hansen, B.C.S., Almquist, H.R., Dieffenbacher-Krall, A.C., 2006. Evidence for warm wet Heinrich events in Florida. Quaternary Science Reviews 25, 2197–2211. *https://doi.org/10.1016/j.quascirev.2006.04.008*

Grudzinska, I., Vassiljev, J., Saarse, L., Reitalu, T., Veski, S., 2017. Past environmental change and seawater intrusion into coastal Lake Lilaste, Latvia. Journal of Paleolimnology 57, 257–271. *https://doi.org/10.1007/s10933-017-9945-3*

Gu, Y., Pearsall, D.M., Xie, S., Yu, J., 2007. Vegetation and fire history of a Chinese site in southern tropical Xishuangbanna derived from phytolith and charcoal records from Holocene sediments. Journal of Biogeography 0, 070821084123002–??? *https://doi.org/10.1111/j.1365-2699.2007.01763.x*

Haas, J.N., Hadorn, P., 1998. Die vegetations-und kulturlandschaftsgeschichte des Seebachtals von der Mittelsteinzeit bis zum frühmittelalter anhand von pollenanalysen. Das Seebachtal–Eine archäaologische und paläaokologische bestandesaufnahme. Archäaologie im Thurgau 221–255.

Haberle, S.G., 2007. Was the early Holocene characterised by Ël Niño-likeör L̈a Niña-likeconditions? Evidence from terrestrial archives in the Western Pacific Warm Pool region, in: XVII INQUA Congress. Quaternary International, Cairns, Queensland, Australia, p. 150.

Haberle, S.G., 2005. A 23,000-yr pollen record from Lake Euramoo, wet tropics of NE Queensland, Australia. Quaternary Research 64, 343–356. *https://doi.org/10.1016/j.yqres.2005.08.013*

Haberle, S.G., 1996. Explanations for palaeoecological changes on the northern plains of Guadalcanal, Solomon Islands: the last 3200 years. The Holocene 6, 333–338. *https://doi.org/10.1177/095968369600600307*

Haberle, S.G., Bennett, K.D., 2004. Postglacial formation and dynamics of North Patagonian rainforest in the Chonos Archipelago, Southern Chile. Quaternary Science Reviews 23, 2433–2452. *https://doi.org/10.1016/j.quascirev.2004.03.001*

Haberle, S.G., Hope, G.S., DeFretes, Y., 1991. Environmental change in the Baliem Valley, montane Irian Jaya, Republic of Indonesia. Journal of Biogeography 18, 25–40. *https://doi.org/10.2307/2845242*

Haberle, S.G., Hope, G.S., van der Kaars, S., 2001. Biomass burning in Indonesia and Papua New Guinea: natural and human induced fire events in the fossil record. Palaeogeography, Palaeoclimatology, Palaeoecology 171, 259–268. *https://doi.org/10.1016/S0031-0182(01)00248-6*

Haberle, S.G., Ledru, M.-P., 2001. Correlations among charcoal records of fires from the past 16,000 years in Indonesia, Papua New Guinea, and Central and South America. Quaternary Research 55, 97–104. *https://doi.org/10.1006/qres.2000.2188*

Haberle, S.G., Stevenson, J., Black, M.P., Mooney, S.D., Sniderman, J.M.K., Willis, K.J., Bennett, K.D., 2005. Fire in the Tropics: a paleoclimatic assessment of charcoal records from the Western Pacific Warm Pool region, in: Prog. abstr. of the AGU Chapman Conference on Tropical-Extratropical Climate Teleconnections, A Long-Term Perspective. University of Hawaii, Honolulu, Hawaii, USA.

Haberzettl, T., Fey, M., Lücke, A., Maidana, N., Mayr, C., Ohlendorf, C., Schäbitz, F., Schleser, G.H., Wille, M., Zolitschka, B., 2005. Climatically induced lake level changes during the last two millennia as reflected in sediments of Laguna Potrok Aike, southern Patagonia (Santa Cruz, Argentina). Journal of Paleolimnology 33, 283–302. *https://doi.org/10.1007/s10933-004-5331-z*

Haberzettl, T., Wille, M., Fey, M., Janssen, S., Lücke, A., Mayr, C., Ohlendorf, C., Schäbitz, F., Schleser, G.H., Zolitschka, B., 2006. Environmental change and fire history of southern Patagonia (Argentina) during the last five centuries. Quaternary international 158, 72–82. *https://doi.org/10.1016/j.quaint.2006.05.029*

Hajdas, I., Lowe, D.J., Newnham, R.M., Bonani, G., 2006. Timing of the late-glacial climate reversal in the Southern Hemisphere using high-resolution radiocarbon chronology for Kaipo Bog, New Zealand. Quaternary Research 65, 340–345. *https://doi.org/10.1016/j.yqres.2005.08.028*

Haliuc, A., Hutchinson, S.M., Florescu, G., Feurdean, A., 2016. The role of fire in landscape dynamics: an example of two sediment records from the Rodna Mountains, northern Romanian Carpathians. Catena 137, 432–440. *https://doi.org/10.1016/j.catena.2015.10.021*

Hallett, D.J., Anderson, R.S., 2010. Paleofire reconstruction for high-elevation forests in the Sierra Nevada, California, with implications for wildfire synchrony and climate variability in the late Holocene. Quaternary Research 73, 180–190. *https://doi.org/10.1016/j.yqres.2009.11.008*

Hallett, D.J., Lepofsky, D.S., Mathewes, R.W., Lertzman, K.P., 2003. 11,000 years of fire history and climate in the mountain hemlock rain forests of southwestern British Columbia based on sedimentary charcoal. Canadian Journal of Forest Research 33, 292–312. *https://doi.org/10.1139/x02-177*

Hallett, D., Walker, R., 2000. Paleoecology and its application to fire and vegetation management in Kootenay National Park, British Columbia. Journal of Paleolimnology 24, 401–414. *https://doi.org/10.1023/A:1008110804909*

Han, Y.P., 2000. Vegetation and Environment Change During Holocene in Zhouyuan (Qishan) Region (PhD thesis). Shanxi Normal University, Xi'an, China.

Hansen, B.C.S., Rodbell, D.T., Seltzer, G.O., León, B., Young, K.R., Abbott, M., 2003. Late-glacial and Holocene vegetational history from two sites in the western Cordillera of southwestern Ecuador. Palaeogeography, Palaeoclimatology, Palaeoecology 194, 79–108. *https://doi.org/10.1016/S0031-0182(03)00272-4*

Hapsari, K.A., Biagioni, S., Jennerjahn, T.C., Reimer, P., Saad, A., Sabiham, S., Behling, H., 2018. Resilience of a peatland in Central Sumatra, Indonesia to past anthropogenic disturbance: Improving conservation and restoration designs using palaeoecology. Journal of Ecology 106, 2473–2490. *https://doi.org/10.1111/1365-2745.13000*

Harle, K.J., Heijnis, H., Chisari, R., Kershaw, A.P., Zoppi, U., Jacobsen, G., 2002. A chronology for the long pollen record from Lake Wangoom, western Victoria (Australia) as derived from uranium/thorium disequilibrium dating. Journal of Quaternary Science 17, 707–720. *https://doi.org/10.1002/jqs.684*

Harvey, W.J., Nogué, S., Stansell, N., Petrokofsky, G., Steinman, B., Willis, K.J., 2019. The legacy of Pre–Columbian fire on the pine–oak forests of upland Guatemala. Frontiers in Forests and Global Change 2, 34. *https://doi.org/10.3389/ffgc.2019.00034*

Hayashi, R., Inoue, J., Makino, M., Takahara, H., 2012. Vegetation history during the last 17,000 years around Sonenuma Swamp in the eastern shore area of Lake Biwa, western Japan: With special reference to changes in species composition of Quercus subgenus Lepidobalanus trees based on SEM pollen morphology. Quaternary International 254, 99–106. *https://doi.org/10.1016/j.quaint.2010.08.011*

Hayashida, A., Ali, M., Kuniko, Y., Kitagawa, H., Torii, M., Takemura, K., 2007. Environmental magnetic record and paleosecular variation data for the last 40 kyrs from the Lake Biwa sediments, Central Japan. Earth, Planets and Space 59, 807–814. *https://doi.org/10.1186/BF03352743*

Hájková, P., Jamrichová, E., Horsák, M., Hájek, M., 2013. Holocene history of a Cladium mariscus-dominated calcareous fen in Slovakia: vegetation stability and landscape development. Preslia 85, 289–315.

Håkansson, S., 1984. University of Lund Radiocarbon Dates XVII. Radiocarbon 26, 392–411. *https://doi.org/10.1017/s0033822200006767*

He, J., Gao, C., Cong, J., Zhong, J., Han, D., Wang, G., 2017. Historical pyrogenic sources of black carbon during the last 150 years in the Great Hinggan Mountains, northeast China. Journal of Soils and Sediments 18, 708–717. *https://doi.org/10.1007/s11368-017-1825-y*

He, J., Gao, C., Lin, Q., Zhang, S., Zhao, W., Lu, X., Wang, G., 2015. Temporal and spatial changes in black carbon sedimentary processes in wetlands of Songnen Plain, northeast of China. PLOS ONE 10, e0140834. *https://doi.org/10.1371/journal.pone.0140834*

Head, L., 1988. Holocene vegetation, fire and environmental history of the Discovery Bay region, south-western Victoria. Austral Ecology 13, 21–49. *https://doi.org/10.1111/j.1442-9993.1988.tb01415.x*

Head, L., Stuart, I.-M.F., 1980. Change in the Aire - Palaeoecology and prehistory in the Aire Basin, southwestern Victoria. Monash Publications in Geography 1–97.

Herrmann, M., Lu, X., Berking, J., Schütt, B., Yao, T., Mosbrugger, V., 2010. Reconstructing Holocene vegetation and climate history of Nam Co area (Tibet), using pollen and other palynomorphs. Quaternary International 218, 45–57. *https://doi.org/10.1016/j.quaint.2009.05.007*

Heusser, C.J., 1995. Three Late Quaternary pollen diagrams from Southern Patagonia and their palaeoecological implications. Palaeogeography, Palaeoclimatology, Palaeoecology 118, 1–24. *https://doi.org/10.1016/0031-0182(94)00138-X*

Heusser, C.J., 1990a. Ice age vegetation and climate of subtropical Chile. Palaeogeography, Palaeoclimatology, Palaeoecology 80, 107–127. *https://doi.org/10.1016/0031-0182(90)90124-P*

Heusser, C.J., 1990b. Late-glacial and Holocene vegetation and climate of subantarctic South America. Review of Palaeobotany and Palynology 65, 9–15. *https://doi.org/10.1016/0034-6667(90)90051-J*

Heusser, L.E., n.d. Unpublished data.

Heusser, L.E., 2000. Rapid oscillations in western North America vegetation and climate during Oxygen Isotope Stage 5 inferred from pollen data from Santa Barbara Basin (Hole 893A). Palaeogeography, Palaeoclimatology, Palaeoecology 161, 407–421. *https://doi.org/10.1016/S0031-0182(00)00096-1*

Heusser, L.E., 1998. Direct correlation of millennial-scale changes in western North American vegetation and climate with changes in the California Current system over the past 60 kyr. Paleoceanography 13, 252–262. *https://doi.org/10.1029/98PA00670*

Heusser, L.E., Shackleton, N.J., 1994. Tropical climatic variation on the Pacific slopes of the Ecuadorian Andes based on a 25,000-year pollen record from deep-sea sediment core Tri 163-31B. Quaternary Research 42, 222–225. *https://doi.org/10.1006/qres.1994.1072*

Higuera, P.E., n.d. Unpublished data.

Higuera, P.E., 2006. Late Glacial and Holocene Fire History in the Southcentral Brooks Range, Alaska: Direct and Indirect Impacts of Climatic Change on Fire Regimes (PhD thesis). University of Washington, Seattle, Washington.

Higuera, P.E., Briles, C.E., Whitlock, C., 2014. Fire-regime complacency and sensitivity to centennial- through millennial-scale climate change in Rocky Mountain subalpine forests, Colorado, USA. Journal of Ecology 102, 1429–1441. *https://doi.org/10.1111/1365-2745.12296*

Higuera, P.E., Brubaker, L.B., Anderson, P.M., Hu, F.S., Brown, T.A., 2009. Vegetation mediated the impacts of postglacial climate change on fire regimes in the south-central Brooks Range, Alaska. Ecological Monographs 79, 201–219. *https://doi.org/10.1890/07-2019.1*

Higuera, P.E., Chipman, M.L., Barnes, J.L., Urban, M.A., Hu, F.S., 2011. Variability of tundra fire regimes in Arctic Alaska: millennial-scale patterns and ecological implications. Ecological Applications 21, 3211–3226. *https://doi.org/10.1890/11-0387.1*

Higuera, P.E., Sprugel, D.G., Brubaker, L.B., 2005. Reconstructing fire regimes with charcoal from small-hollow sediments: a calibration with tree-ring records of fire. The Holocene 15, 238–251. *https://doi.org/10.1191/0959683605hl789rp*

Higuera-Gundy, A., Brenner, M., Hodell, D.A., Curtis, J.H., Leyden, B.W., Binford, M.W., 1999. A 10,300 ^{14}C yr record of climate and vegetation change from Haiti. Quaternary Research 52, 159–170. *https://doi.org/10.1006/qres.1999.2062*

Hillyer, R., Valencia, B.G., Bush, M.B., Silman, M.R., Steinitz-Kannan, M., 2009. A 24,700-yr paleolimnological history from the Peruvian Andes. Quaternary Research 71, 71–82. *https://doi.org/10.1016/j.yqres.2008.06.006*

Hirons, K.R., Edwards, K.J., 1990. Pollen and related studies at Kinloch, Isle of Rhum, Scotland, with particular reference to possible early human impacts on vegetation. New Phytologist 116, 715–727. *https://doi.org/10.1111/j.1469-8137.1990.tb00558.x*

Hirons, K.R., Edwards, K.J., 1986. Events at and around the first and second Ulmus declines: palaeoecological investigations in Co. Tyrone, Northern Ireland. New Phytologist 104, 131–153. *https://doi.org/10.1111/j.1469-8137.1986.tb00641.x*

Hooley, A.D., Southern, W., Kershaw, A.P., 1980. Holocene vegetation and environments of Sperm Whale Head, Victoria, Australia. Journal of Biogeography 7, 349. *https://doi.org/10.2307/2844655*
Hope, G.S., n.d. Unpublished data.
Hope, G.S., 2010. Fire histories from charcoal and palaeoecology in sedge and shrub bogs, in: Balmer, J. (Ed.), Proceedings of the 2007 Buttongrass Moorland Management Workshop. Nature Conservation Report 2010/4. Department of Primary Industries, Parks, Water; Environment, Hobart, Tasmania, pp. 36–41.
Hope, G.S., 2009. Environmental change and fire in the Owen Stanley ranges, Papua New Guinea. Quaternary Science Reviews 28, 2261–2276. *https://doi.org/10.1016/j.quascirev.2009.04.012*
Hope, G.S., 2007a. Palaeoecology and palaeoenvironments of Papua, in: Marshall, A.J., Beehler, B.M. (Eds.), The Ecology of Papua. Periplus, Singapore, pp. 255–266.
Hope, G.S., 2007b. The history of human impact on New Guinea, in: Marshall, A.J., Beehler, B.M. (Eds.), The Ecology of Papua Part Two. Periplus, Singapore, pp. 1087–1097.
Hope, G.S., 2005. Tom Gregory Bog, an infilled meander of the upper Cotter River, Australian Capital Territory. Unpublished report to ECOWISE ACT and Environment ACT.
Hope, G.S., 2001. Environmental change in the Late Pleistocene and later Holocene at Wanda site, Soroako, South Sulawesi, Indonesia. Palaeogeography, Palaeoclimatology, Palaeoecology 171, 129–145. *https://doi.org/10.1016/s0031-0182(01)00243-7*
Hope, G.S., 1999. Vegetation and fire response to late Holocene human occupation in island and mainland north west Tasmania. Quaternary International 59, 47–60. *https://doi.org/10.1016/S1040-6182(98)00071-8*
Hope, G.S., 1998. Early fire and forest change in the Baliem Valley, Irian Jaya, Indonesia. Journal of Biogeography 25, 453–461. *https://doi.org/10.1046/j.1365-2699.1998.2530453.x*
Hope, G.S., 1996a. A reconnaissance survey of potential sites for pollen analysis on Aneityum Island, southern Vanuatu. Unpublished report to the Vanuatu Cultural Centre, Vanuatu.
Hope, G.S., 1996b. Quaternary change and historical biogeography of the Pacific Islands, in: Keast, A., Miller, S.E. (Eds.), The Origin and Evolution of Pacific Island Biotas, New Guinea to Eastern Polynesia: Patterns and Processes. SPB Academic Publishing, Amsterdam, pp. 165–190.
Hope, G.S., Aplin, K., 2005. Environmental change in the Aru Islands, in: Spriggs, M., O'Connor, S., Veth, P. (Eds.), The Archaeology of the Aru Islands, Eastern Indonesia., Terra Australis 22. Pandanus Press, Canberra, pp. 25–40.
Hope, G.S., Clark, R., 2008. A tale of two swamps: sub-alpine peatlands in the Kelly-Scabby area of Namadgi National Park, in: McCue, K., Lenz, S. (Eds.), Corridors for Survival in a Changing World Proceedings of the NPA ACT Symposium. National Parks Association of the ACT Inc., Canberra, pp. 61–76.
Hope, G.S., Coddington, J., O'Dea, D., 2006. Estuarine development and human occupation at Bobundara Swamp, Tilba Tilba, New South Wales, Australia, in: Lillie, M., Ellis, S. (Eds.), Wetland Archaeology & Environments: Regional Issues, Global Perspectives. Oxbow Books Limited, pp. 258–274.
Hope, G.S., Macphail, M., 2005. Rock Arch and Gallaher's Swamps: Core Samples Collected In The Avon/Robertson Catchments 17 March 2005.
Hope, G.S., Macphail, M., Keaney, B., 2005. Snowy Flat and Ginini Bogs, Brindabella Range, Australian Capital Territory. Unpublished report to Environment ACT and Ecowise Services.
Hope, G.S., O'Dea, D., Southern, W., 1999. Holocene vegetation histories in the Western Pacific: alternative records of human impact, in: Lilley, I., Galipaud, J.-C. (Eds.), Colonisation of the Pacific 3000-2000 BP. ORSTOM, Port Vila, pp. 387–406.
Hope, G.S., Pask, J., 1998. Tropical vegetational change in the late Pleistocene of New Caledonia. Palaeogeography, Palaeoclimatology, Palaeoecology 142, 1–21. *https://doi.org/10.1016/S0031-0182(97)00140-5*
Hope, G.S., Stevenson, J., Haberle, S.G., 2006. Palaeoecology of Blundells Flat, Australian Capital Territory. Unpublished report to Ecowise Services and ACT Forests.

Hope, G.S., Stevenson, J., Southern, W., 2009. Vegetation histories from the Fijian Islands: alternative records of human impact, in: Clark, G., Anderson, A. (Eds.), The Early Prehistory of Fiji, Terra Australis 31. ANU ePress, Canberra, Australia, pp. 63–86. *https://doi.org/10.22459/TA31.12.2009.04*

Hope, G.S., Tulip, J., 1994. A long vegetation history from lowland Irian Jaya, Indonesia. Palaeogeography, Palaeoclimatology, Palaeoecology 109, 385–398. *https://doi.org/10.1016/0031-0182(94)90187-2*

Horn, D., 2005. The Fire History of Broughton Island (BSc (Hons) thesis). School of Biological, Earth & Environmental Sciences, University of New South Wales, Sydney, Australia.

Horn, S.P., 1993. Postglacial vegetation and fire history in the Chirripó Páramo of Costa Rica. Quaternary Research 40, 107–116. *https://doi.org/10.1006/qres.1993.1061*

Horn, S.P., 1989. Prehistoric fires in the Chirripó highlands of Costa Rica: Sedimentary charcoal evidence. Revista de Biología Tropical 37, 139–148.

Horn, S.P., Boehm, M.S., Ballard, J.P., 2019. An improved chronology for the microscopic charcoal and pollen records from Anderson Pond, Tennessee, USA. Palynology 43, 517–522. *https://doi.org/10.1080/01916122.2018.1509150*

https://www.ncdc.noaa.gov/paleo-search/study/21050, n.d.

https://www.ncdc.noaa.gov/paleo-search/study/21051, n.d.

https://www.ncdc.noaa.gov/paleo/study/21017, n.d.

https://www.ncdc.noaa.gov/paleo/study/21054, n.d.

https://www.ncdc.noaa.gov/paleo/study/21055, n.d.

https://www.ncdc.noaa.gov/paleo/study/21056, n.d.

https://www.ncdc.noaa.gov/paleo/study/21058, n.d.

https://www.ncdc.noaa.gov/paleo/study/21064, n.d.

https://www.ncdc.noaa.gov/paleo/study/21066, n.d.

https://www.ncdc.noaa.gov/paleo/study/21067, n.d.

https://www.ncdc.noaa.gov/paleo/study/21069, n.d.

https://www.ncdc.noaa.gov/paleo/study/21070, n.d.

https://www.ncdc.noaa.gov/paleo/study/21071, n.d.

https://www.ncdc.noaa.gov/paleo/study/21072, n.d.

https://www.ncdc.noaa.gov/paleo/study/21073, n.d.

https://www.ncdc.noaa.gov/paleo/study/21074, n.d.

http://www.ncdc.noaa.gov/paleo/study/20513, n.d.

http://www.ncdc.noaa.gov/paleo/study/20514, n.d.

http://www.ncdc.noaa.gov/paleo/study/20515, n.d.

http://www.ncdc.noaa.gov/paleo/study/20516, n.d.

http://www.ncdc.noaa.gov/paleo/study/21057, n.d.

Hu, F.S., 2015. Lake-sediment charcoal counts and chronological data from Alaskan tundra ecosystems: Erethizon, Fox, Red, and Tempest lakes. *https://doi.org/10.18739/A2G05D*

Hu, F.S., Chipman, M.L., n.d. Unpublished data.

Hu, F.S., Chipman, M.L., 2016. Charcoal, geochemical, and isotope records from Alaskan tundra lakes. *https://doi.org/10.18739/A2G05D*

Hu, F.S., Higuera, P.E., Walsh, J.E., Chapman, W.L., Duffy, P.A., Brubaker, L.B., Chipman, M.L., 2010. Tundra burning in Alaska: linkages to climatic change and sea ice retreat. Journal of Geophysical Research: Biogeosciences 115. *https://doi.org/10.1029/2009JG001270*

Hu, Y.N., Xu, Q.H., Zhang, S.R., Mu, H.S., Li, Y., Li, M.Y., 2015. Environmental changes and human impact since 6400 cal. a BP from Jijitan profile in Nihewan Basin. Quaternary Sciences 35, 946–959. *https://doi.org/10.11928/j.issn.1001-7410.2015.04.16*

Huang, C.-C., 2002. Holocene landscape development and human impact in the Connemara Uplands, western Ireland. Journal of Biogeography 29, 153–165. *https://doi.org/10.1046/j.1365-2699.2002.00661.x*

Huang, C.-C., Pang, J., Chen, S., Su, H., Han, J., Cao, Y., Zhao, W., Tan, Z., 2006. Charcoal records of fire history in the Holocene loess–soil sequences over the southern Loess Plateau of China. Palaeogeography, Palaeoclimatology, Palaeoecology 239, 28–44. *https://doi.org/10.1016/j.palaeo.2006.01.004*

Huang, C., Kong, Z., Min, L., Pang, Q., Pu, Q., Ji, C., Liu, C., Mao, Y., Yang, A., Yin, Z., 1994. Natural environmental changes singe 3ka BP reflected by bottom sediments in Kunming lake of Summer Palace, Beijing. Marine Geology & Quaternary Geology 14, 39–46.

Huang, C.Y., 1996. Studies on Sediments of the Last 3500 Years in Kunming Lake of Summer Palace. China Ocean Press 91–160.

Huang, K., Zheng, Z., Liao, W., Cao, L., Zheng, Y., Zhang, H., Zhu, G., Zhang, Z., Cheddadi, R., 2014. Reconstructing late Holocene vegetation and fire histories in monsoonal region of southeastern China. Palaeogeography, Palaeoclimatology, Palaeoecology 393, 102–110. *https://doi.org/10.1016/j.palaeo.2013.11.005*

Huang, Z., Ma, C., Chyi, S.-J., Tang, L., Zhao, L., 2020a. Charcoal in the Toushe Basin (Fig2A). *https://doi.org/10.1594/PANGAEA.911581*

Huang, Z., Ma, C., Chyi, S.-J., Tang, L., Zhao, L., 2020b. Data of Paleofire, Vegetation, and Climate Reconstructions of the Middle to Late Holocene From Lacustrine Sediments of the Toushe Basin, Taiwan. *https://doi.org/10.1594/PANGAEA.911595*

Huang, Z., Ma, C., Chyi, S.-J., Tang, L., Zhao, L., 2020c. Paleofire, vegetation, and climate reconstructions of the middle to late Holocene from lacustrine sediments of the Toushe Basin, Taiwan. Geophysical Research Letters 47, e2020GL090401. *https://doi.org/10.1029/2020GL090401*

Huber, U.M., Markgraf, V., 2003. European impact on fire regimes and vegetation dynamics at the steppe-forest ecotone of southern Patagonia. The Holocene 13, 567–579. *https://doi.org/10.1191/0959683603hl647rp*

Huber, U.M., Markgraf, V., Schäbitz, F., 2004. Geographical and temporal trends in Late Quaternary fire histories of Fuego-Patagonia, South America. Quaternary Science Reviews 23, 1079–1097. *https://doi.org/10.1016/j.quascirev.2003.11.002*

Iglesias, V., Markgraf, V., Whitlock, C., 2016. 17,000 years of vegetation, fire and climate change in the eastern foothills of the Andes (lat. 44°S). Palaeogeography, Palaeoclimatology, Palaeoecology 457, 195–208. *https://doi.org/10.1016/j.palaeo.2016.06.008*

Iglesias, V., Whitlock, C., Bianchi, M.M., Villarosa, G., Outes, V., 2012. Climate and local controls of long-term vegetation dynamics in northern Patagonia (lat. 41°S). Quaternary Research 78, 502–512. *https://doi.org/10.1016/j.yqres.2012.07.004*

Iglesias, V., Whitlock, C., Bianchi, M.M., Villarosa, G., Outes, V., 2011. Holocene climate variability and environmental history at the Patagonian forest/steppe ecotone: Lago Mosquito (42°29'37.89"S, 71°24'14.57"W) and Laguna del Cóndor (42°20'47.22"S, 71°17'07.62"W). The Holocene 22, 1297–1307. *https://doi.org/10.1177/0959683611427330*

Iglesias, V., Whitlock, C., Markgraf, V., Bianchi, M.M., 2014. Postglacial history of the Patagonian forest/steppe ecotone (41–43°S). Quaternary Science Reviews 94, 120–135. *https://doi.org/10.1016/j.quascirev.2014.04.014*

Innes, J.B., Blackford, J.J., Davey, P.J., 2003. Dating the introduction of cereal cultivation to the British Isles: early palaeoecological evidence from the Isle of Man. Journal of Quaternary Science 18, 603–613. *https://doi.org/10.1002/jqs.792*

Inoue, J., Nishimura, R., Takahara, H., 2012. A 7500-year history of intentional fires and changing vegetation on the Soni Plateau, Central Japan, reconstructed from macroscopic charcoal and pollen

records within mire sediment. Quaternary International 254, 12–17. *https://doi.org/10.1016/j.quaint.2010.08.012*

Inoue, J., Okuyama, C., Hayashi, R., Inouchi, Y., 2021. Postglacial anthropogenic fires related to cultural changes in central Japan, inferred from sedimentary charcoal records spanning glacial–interglacial cycles. Journal of Quaternary Science 36, 628–637. *https://doi.org/10.1002/jqs.3308*

Inoue, J., Okuyama, C., Takemura, K., 2018. Long-term fire activity under the East Asian monsoon responding to spring insolation, vegetation type, global climate, and human impact inferred from charcoal records in Lake Biwa sediments in central Japan. Quaternary Science Reviews 179, 59–68. *https://doi.org/10.1016/j.quascirev.2017.11.007*

Inoue, J., Takahara, H., Chijiwa, K., Yoshikawa, S., 2005. Fire history since 17,000 yr BP reconstructed from charcoal particles analysis of the Sonenuma Swamp sediments, Shiga Prefecture, Japan. Japanese Journal of Historical Botany 13, 47–54.

Inoue, J., Takahara, H., Yoshikawa, S., Inouchi, Y., 2001. Reconstruction of fire history during the last 130ka by analysis of microscopic charcoal in Lake Biwa sediment. The Quaternary Research (Daiyonki-Kenkyu) 40, 97–104. *https://doi.org/10.4116/jaqua.40.9*

Inoue, J., Yoshikawa, S., 2005. Research on black plant particles in ando-soils distributed around Lake Biwa, Central Japan, with a new avenue of research on charcoal particles in ando-soils. The Quaternary Research (Daiyonki-Kenkyu) 44, 289–296. *https://doi.org/10.4116/jaqua.44.289*

Itzstein-Davey, F., Atahan, P., Dodson, J., Taylor, D., Zheng, H., 2007. Environmental and cultural changes during the terminal Neolithic: Qingpu, Yangtze delta, eastern China. The Holocene 17, 875–887. *https://doi.org/10.1177/0959683607080517*

Jahns, S., 2005. The later Holocene history of vegetation, land-use and settlements around the Ahlequellmoor in the Solling area, Germany. Vegetation History and Archaeobotany 15, 57–63. *https://doi.org/10.1007/s00334-004-0055-6*

Jahns, S., 2002. An improved time scale for the Holocene history of vegetation and environment on the South Dalmatian Island of Mljet. Vegetation History and Archaeobotany 11, 315–316. *https://doi.org/10.1007/s003340200043*

Jahns, S., 2000. Late-glacial and Holocene woodland dynamics and land-use history of the Lower Oder valley, north-eastern Germany, based on two AMS^{14}C-dated pollen profiles. Vegetation History and Archaeobotany 9, 111–123. *https://doi.org/10.1007/bf01300061*

Jahns, S., van den Bogaard, C., 1998. New palynological and tephrostratigraphical investigations of two salt lagoons on the island of Mljet, south Dalmatia, Croatia. Vegetation History and Archaeobotany 7, 219–234. *https://doi.org/10.1007/bf01146195*

Jamrichová, E., n.d. Unpublished data.

Jamrichová, E., Bobek, P., Šolcová, A., Tkáč, P., Hédl, R., Valachovič, M., 2019. Lowland pine forests in the northwestern Pannonian Basin: between natural vegetation and modern plantations. Regional Environmental Change 19, 2395–2409. *https://doi.org/10.1007/s10113-019-01555-y*

Jamrichová, E., Gálová, A., Gašpar, A., Horsák, M., Frodlová, J., Hájek, M., Hajnalová, M., Hájková, P., 2018. Holocene development of two calcareous spring fens at the Carpathian-Pannonian interface controlled by climate and human impact. Folia Geobotanica 53, 243–263. *https://doi.org/10.1007/s12224-018-9324-5*

Jamrichová, E., Hédl, R., Kolář, J., Tóth, P., Bobek, P., Hajnalová, M., Procházka, J., Kadlec, J., Szabó, P., 2017. Human impact on open temperate woodlands during the middle Holocene in Central Europe. Review of Palaeobotany and Palynology 245, 55–68. *https://doi.org/10.1016/j.revpalbo.2017.06.002*

Jamrichová, E., Potůčková, A., Horsák, M., Hajnalová, M., Barta, P., Tóth, P., Kuneš, P., 2014. Early occurrence of temperate oak-dominated forest in the northern part of the Little Hungarian Plain, SW Slovakia. The Holocene 24, 1810–1824. *https://doi.org/10.1177/0959683614551225*

Jara, I.A., Moreno, P.I., 2014. Climatic and disturbance influences on the temperate rainforests of northwestern Patagonia (40 °S) since ~14,500 cal yr BP. Quaternary Science Reviews 90, 217–228. *https://doi.org/10.1016/j.quascirev.2014.01.024*

Jasinski, J.P.P., Warner, B.G., Andreev, A.A., Aravena, R., Gilbert, S.E., Zeeb, B.A., Smol, J.P., Velichko, A.A., 1998. Holocene environmental history of a peatland in the Lena River valley, Siberia. Canadian Journal of Earth Sciences 35, 637–648. *https://doi.org/10.1139/e98-015*

Jeličić, L., O'Connell, M., 1992. History of vegetation and land use from 3200 B.P. to the present in the north-west Burren, a karstic region of western Ireland. Vegetation History and Archaeobotany 1, 119–140. *https://doi.org/10.1007/bf00191553*

Jenkins, M.A., 1992. A Late Holocene Vegetation Record From an Interdunal Swamp, Mornington Peninsula, Victoria (M.Env.Sci thesis). Department of Geography; Environmental Science, Monash University, Melbourne, Australia.

Jensen, C., 2004. The vegetation history of a coastal stone-age and iron-age settlement at 70°N, Norway. Vegetation History and Archaeobotany 13, 269–284. *https://doi.org/10.1007/s00334-004-0046-7*

Jensen, K., Lynch, E.A., Calcote, R., Hotchkiss, S.C., 2007. Interpretation of charcoal morphotypes in sediments from Ferry Lake, Wisconsin, USA: do different plant fuel sources produce distinctive charcoal morphotypes? The Holocene 17, 907–915. *https://doi.org/10.1177/0959683607082405*

Jetté, Richard, P.J.H., 1992. Contribution à l'histoire postglaciaire de la végétation en Gaspésie méridionale, Québec. Géographie physique et Quaternaire 46, 273–284. *https://doi.org/10.7202/032914ar*

Ji, M., Shen, J., Zhang, E.L., 2018. Biomass burning patterns around Lake Xingyun during the last 137 years based on a high-resolution analysis of macroscopic charcoal of lake sediment. Quaternary Sciences 38, 963–970. *https://doi.org/10.11928/j.issn.1001-7410.2018.04.14*

Jiang, Q., Ji, J., Shen, J., Matsumoto, R., Tong, G., Qian, P., Ren, X., Yan, D., 2012. Holocene vegetational and climatic variation in westerly-dominated areas of Central Asia inferred from the Sayram Lake in northern Xinjiang, China. Science China Earth Sciences 56, 339–353. *https://doi.org/10.1007/s11430-012-4550-9*

Jiang, W., Leroy, S.A.G., Ogle, N., Chu, G., Wang, L., Liu, J., 2008. Natural and anthropogenic forest fires recorded in the Holocene pollen record from a Jinchuan peat bog, northeastern China. Palaeogeography, Palaeoclimatology, Palaeoecology 261, 47–57. *https://doi.org/10.1016/j.palaeo.2008.01.007*

Jiang, Y.-y., E, C.-y., Hou, G.-l., Sun, Y.-j., Fan, L., Zhao, Y.-j., Yang, L., 2015. Charcoal concentration reflect of environment change and human activities in Qinghai-Lake JXG2 relic. Journal of Earth Environment 98–105.

Jiménez-Moreno, G., García-Alix, A., Hernández-Corbalán, M.D., Anderson, R.S., Delgado-Huertas, A., 2013. Vegetation, fire, climate and human disturbance history in the southwestern Mediterranean area during the late Holocene. Quaternary Research 79, 110–122. *https://doi.org/10.1016/j.yqres.2012.11.008*

Jing, Z., Sumin, W., Jing, L.V., 2003. Climatic and environmental changes from the sediment record of Erhai Lake over the past 10000 years. Journal of Lake Sciences 15, 105–111. *https://doi.org/10.18307/2003.0202*

Jodry, M.A., Shafer, D.S., Stanford, D.J., Davis, O.K., 1989. Late Quaternary environments and human adaptation in the San Luis Valley, south-central Colorado, in: Harmon, E.J. (Ed.), Water in the Valley, A 1989 Perspective on Water Supplies, Issues, & Solutions in the San Luis Valley, Colorado, 8th Annual Field Trip. Colorado Ground-Water Association, pp. 189–208.

Jones, R.L., 1990. Late Holocene vegetational changes on the Illawarra coastal plain, New South Wales, Australia. Review of Palaeobotany and Palynology 65, 37–46. *https://doi.org/10.1016/0034-6667(90)90054-M*

Jones, V.J., Solovieva, N., Self, A.E., McGowan, S., Rosén, P., Salonen, J.S., Seppä, H., Väliranta, M., Parrott, E., Brooks, S.J., 2011. The influence of Holocene tree-line advance and retreat on an Arctic lake

ecosystem: a multi-proxy study from Kharinei Lake, North Eastern European Russia. Journal of Paleolimnology 46, 123–137. *https://doi.org/10.1007/s10933-011-9528-7*

Jouffroy-Bapicot, I., 2010. Évolution de la Végétation du Massif du Morvan (Bourgogne-France) depuis la Dernière Glaciation à partir de L'analyse Pollinique. Variations Climatiques et Impact des Activités Anthropiques (PhD thesis). Université de Franche-Comté, Besanc con, France.

Jouffroy-Bapicot, I., Vannière, B., Gauthier, Richard, H., Monna, F., Petit, C., 2013. 7000 years of vegetation history and land-use changes in the Morvan Mountains (France): a regional synthesis. The Holocene 23, 1888–1902. *https://doi.org/10.1177/0959683613508161*

Jouffroy-Bapicot, I., Vannière, B., Iglesias, V., Debret, M., Delarras, J.-F., 2016. 2000 years of grazing history and the making of the Cretan mountain landscape, Greece. PLOS ONE 11, e0156875. *https://doi.org/10.1371/journal.pone.0156875*

Juutinen, S., Väliranta, M., Kuutti, V., Laine, A.M., Virtanen, T., Seppä, H., Weckström, J., Tuittila, E.-S., 2013. Short-term and long-term carbon dynamics in a northern peatland-stream-lake continuum: a catchment approach. Journal of Geophysical Research: Biogeosciences 118, 171–183. *https://doi.org/10.1002/jgrg.20028*

Juvigné, E.H., 1986. Late-Quaternary sediments at Battle Ground Lake, Southern Puget Trough, Washington. Northwest Science 60, 210–217.

Kaakinen, A., Salonen, V.-P., Artimo, A., Saraperä, S., 2010. Holocene groundwater table fluctuations in a small perched aquifer inferred from sediment record of Kankaanjärvi, SW Finland. Boreal Environment Research 58–68.

Kaal, J., Carrión Marco, Y., Asouti, E., Martín Seijo, M., Martínez Cortizas, A., Costa-Casáis, M., Criado-Boado, F., 2011. Long-term deforestation in NW Spain: linking the Holocene fire history to vegetation change and human activities. Quaternary Science Reviews 30, 161–175. *https://doi.org/10.1016/j.quascirev.2010.10.006*

Kaal, J., Costa-Casais, M., Ferro-Vázquez, C., Pontevedra-Pombal, X., Martínez Cortizas, A., 2008. Soil formation of "Atlantic Rankers" from NW Spain — A high resolution aluminium and iron fractionation study. Pedosphere 18, 441–453. *https://doi.org/10.1016/s1002-0160(08)60035-1*

Kaal, J., Criado-Boado, F., Costa-Casais, M., López-Sáez, J.A., López-Merino, L., Mighall, T., Carrión, Y., Silva Sánchez, N., Martínez Cortizas, A., 2013. Prehistoric land use at an archaeological hot-spot (the rock art park of Campo Lameiro, NW Spain) inferred from charcoal, synanthropic pollen and non-pollen palynomorph proxies. Journal of Archaeological Science 40, 1518–1527. *https://doi.org/10.1016/j.jas.2012.09.024*

Kajukało, K., Fiałkiewicz-Kozieł, B., Gałka, M., Kołaczek, P., Lamentowicz, M., 2016. Abrupt ecological changes in the last 800 years inferred from a mountainous bog using testate amoebae traits and multi-proxy data. European Journal of Protistology 55, 165–180. *https://doi.org/10.1016/j.ejop.2016.04.003*

Kaltenrieder, P., Belis, C.A., Hofstetter, S., Ammann, B., Ravazzi, C., Tinner, W., 2009. Environmental and climatic conditions at a potential glacial refugial site of tree species near the Southern Alpine glaciers. New insights from multiproxy sedimentary studies at Lago della Costa (Euganean Hills, Northeastern Italy). Quaternary Science Reviews 28, 2647–2662. *https://doi.org/10.1016/j.quascirev.2009.05.025*

Kaltenrieder, P., Procacci, G., Vannière, B., Tinner, W., 2010. Vegetation and fire history of the Euganean Hills (Colli Euganei) as recorded by Lateglacial and Holocene sedimentary series from Lago della Costa (northeastern Italy). The Holocene 20, 679–695. *https://doi.org/10.1177/0959683609358911*

Kaltenrieder, P., Tinner, W., Ammann, B., Ravazzi, C., 2004. Did temperate European trees survive the full glacial (LGM) near the Alps? First palynological evidences from Colli Euganei near Padova, Northern Italy, in: Proceedings of the 2nd Swiss Geoscience Meeting. Lausanne, Switzerland.

Kalugin, I., Selegei, V., Goldberg, E., Seret, G., 2005. Rhythmic fine-grained sediment deposition in Lake Teletskoye, Altai, Siberia, in relation to regional climate change. Quaternary International 136, 5–13. *https://doi.org/10.1016/j.quaint.2004.11.003*

Kangur, M., 2009. Spatio-temporal distribution of pollen in Lake Väike-Juusa (South Estonia) sediments. Review of Palaeobotany and Palynology 153, 354–359. *https://doi.org/10.1016/j.revpalbo.2008.10.003*

Kaniewski, D., Paulissen, E., de Laet, V., Waelkens, M., 2008. Late Holocene fire impact and post-fire regeneration from the Bereket Basin, Taurus Mountains, southwest Turkey. Quaternary Research 70, 228–239. *https://doi.org/10.1016/j.yqres.2008.04.002*

Karpińska-Kołaczek, M., Kołaczek, P., Stachowicz-Rybka, R., 2014. Pathways of woodland succession under low human impact during the last 13,000 years in northeastern Poland. Quaternary International 328–329, 196–212. *https://doi.org/10.1016/j.quaint.2013.11.038*

Karpińska-Kołaczek, M., Stachowicz-Rybka, R., Obidowicz, A., Woszczyk, M., Kołaczek, P., 2016. A lake-bog succession vs. climate changes from 13,300 to 5900 cal. BP in NE Poland in the light of palaeobotanical and geochemical proxies. Review of Palaeobotany and Palynology 233, 199–215. *https://doi.org/10.1016/j.revpalbo.2016.06.001*

Katamura, F., Fukuda, M., Bosikov, N.P., Desyatkin, R.V., 2009. Charcoal records from thermokarst deposits in central Yakutia, eastern Siberia: implications for forest fire history and thermokarst development. Quaternary Research 71, 36–40. *https://doi.org/10.1016/j.yqres.2008.08.003*

Katamura, F., Fukuda, M., Bosikov, N.P., Desyatkin, R.V., 2009. Forest fires and vegetation during the Holocene in central Yakutia, eastern Siberia. Journal of Forest Research 14, 30–36. *https://doi.org/10.1007/s10310-008-0099-z*

Katamura, F., Fukuda, M., Bosikov, N.P., Desyatkin, R.V., Nakamura, T., Moriizumi, J., 2006. Thermokarst formation and vegetation dynamics inferred from a palynological study in central Yakutia, Eastern Siberia, Russia. Arctic, Antarctic, and Alpine Research 38, 561–570. *https://doi.org/10.1657/1523-0430(2006)38[561:tfavdi]2.0.co;2*

Kdster, D., Pienitz, R., 2006a. Late-Holocene environmental history of two New England ponds: natural dynamics versus human impacts. The Holocene 16, 519–532. *https://doi.org/10.1191/0959683606hl947rp*

Kdster, D., Pienitz, R., 2006b. Seasonal diatom variability and paleolimnological inferences – a case study. Journal of Paleolimnology 35, 395–416. *https://doi.org/10.1007/s10933-005-1334-7*

Keaney, B., Hope, G.S., 2003. The Holocene vegetation history of Yaouk Swamp, New South Wales. Unpublished manuscript.

Kearney, M.S., Luckman, B.H., 1987. A mid-Holocene vegetational and climatic record from the subalpine zone of the Maligne Valley, Jasper National Park, Alberta (Canada). Palaeogeography, Palaeoclimatology, Palaeoecology 59, 227–242. *https://doi.org/10.1016/0031-0182(87)90082-4*

Kearney, M.S., Luckman, B.H., 1983a. Holocene timberline fluctuations in Jasper National Park, Alberta. Science 221, 261–263. *https://doi.org/10.1126/science.221.4607.261*

Kearney, M.S., Luckman, B.H., 1983b. Postglacial vegetational history of Tonquin Pass, British Columbia. Canadian Journal of Earth Sciences 20, 776–786. *https://doi.org/10.1139/e83-069*

Keizer, P.S., Gajewski, K., McLeman, R., 2015. Forest dynamics in relation to multi-decadal late-Holocene climatic variability, eastern Ontario, Canada. Review of Palaeobotany and Palynology 219, 106–115. *https://doi.org/10.1016/j.revpalbo.2015.04.001*

Kelly, R., Chipman, M.L., Higuera, P.E., Stefanova, I., Brubaker, L.B., Hu, F.S., 2013. Recent burning of boreal forests exceeds fire regime limits of the past 10,000 years. Proceedings of the National Academy of Sciences 110, 13055–13060. *https://doi.org/10.1073/pnas.1305069110*

Kemp, J., 1993. The end of the Pleistocene in the Southern Tablelands, Southeastern Australia (BSc thesis). Department of Geography, The Australian National University, Canberra, Australia.

Kemp, J., Hope, G.S., 2014. Vegetation and environments since the Last Glacial Maximum in the Southern Tablelands, New South Wales. Journal of Quaternary Science 29, 778–788. *https://doi.org/10.1002/jqs.2749*

Kennedy, L.M., Horn, S.P., 2007. A late Holocene pollen and charcoal record from La Selva Biological Station, Costa Rica. Biotropica 40, 11–19. *https://doi.org/10.1111/j.1744-7429.2007.00334.x*

Kennedy, L.M., Horn, S.P., Orvis, K.H., 2006. A 4000-year record of fire and forest history from Valle de Bao, Cordillera Central, Dominican Republic. Palaeogeography, Palaeoclimatology, Palaeoecology 231, 279–290. *https://doi.org/10.1016/j.palaeo.2005.08.002*

Kenyon, C.E., 1989. A Late Pleistocene and Holocene Palaeoecological Record from Boulder Flat, East Gippsland (BSc (Hons) thesis). Department of Botany; Zoology, Monash University, Melbourne, Australia.

Kershaw, A.P., 1983. A Holocene pollen diagram from Lynch's Crater, north-eastern Queensland, Australia. New Phytologist 94, 669–682. *https://doi.org/10.1111/j.1469-8137.1983.tb04875.x*

Kershaw, A.P., Bretherton, S.C., van der Kaars, S., 2007. A complete pollen record of the last 230 ka from Lynch's Crater, north-eastern Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 251, 23–45. *https://doi.org/10.1016/j.palaeo.2007.02.015*

Kershaw, A.P., McKenzie, G.M., Porch, N., Roberts, R.G., Brown, J., Heijnis, H., Orr, M.L., Jacobsen, G., Newall, P.R., 2007. A high-resolution record of vegetation and climate through the last glacial cycle from Caledonia Fen, southeastern highlands of Australia. Journal of Quaternary Science 22, 481–500. *https://doi.org/10.1002/jqs.1127*

Kitagawa, H., Stein, M., Goldstein, S.L., Nakamura, T., Lazar, B., 2017. Radiocarbon chronology of the DSDDP core at the deepest floor of the Dead Sea. Radiocarbon 59, 383–394. *https://doi.org/10.1017/RDC.2016.120*

Kodela, P.G., 1996. The Vegetation of the Robertson Plateau, New South Wales: Historical and Contemporary Issues (PhD thesis). University of New South Wales, Sydney, Australia.

Kodela, P.G., Dodson, J.R., 1988. Late Holocene vegetation and fire record from Ku-ring-gai Chase National Park, New South Wales, in: Proceedings of the Linnean Society of New South Wales. pp. 317–326.

Kozáková, R., Bobek, P., Dreslerová, D., Abraham, V., Svobodová-Svitavská, H., 2021. The prehistory and early history of the Šumava Mountains (Czech Republic) as seen through anthropogenic pollen indicators and charcoal data. The Holocene 31, 145–159. *https://doi.org/10.1177/0959683620961484*

Kołaczek, P., Gałka, M., Apolinarska, K., Płóciennik, M., Gąsiorowski, M., Brooks, S.J., Hutchinson, S.M., Karpińska-Kołaczek, M., 2018. A multi-proxy view of exceptionally early postglacial development of riparian woodlands with Ulmus in the Dniester River valley, western Ukraine. Review of Palaeobotany and Palynology 250, 27–43. *https://doi.org/10.1016/j.revpalbo.2017.12.001*

Kołaczek, P., Karpińska-Kołaczek, M., Madeja, J., Kalinovych, N., Szczepanek, K., Gębica, P., Harmata, K., 2016. Interplay of climate–human–vegetation on the north-eastern edge of the Carpathians (Western Ukraine) between 7500 and 3500 calibrated years BP. Biological Journal of the Linnean Society 119, 609–629. *https://doi.org/10.1111/bij.12732*

Kołaczek, P., Margielewski, W., Gałka, M., Apolinarska, K., Płóciennik, M., Gk asiorowski, M., Buczek, K., Karpińska-Kołaczek, M., 2017. Five centuries of the Early Holocene forest development and its interactions with palaeoecosystem of small landslide lake in the Beskid Makowski Mountains (Western Carpathians, Poland)–high resolution multi-proxy study. Review of Palaeobotany and Palynology 244, 113–127. *https://doi.org/10.1016/j.revpalbo.2017.05.002*

Kołaczek, P., Margielewski, W., Gałka, M., Karpińska-Kołaczek, M., Buczek, K., Lamentowicz, M., Borek, A., Zernitskaya, V., Marcisz, K., 2020. Towards the understanding the impact of fire on the lower montane forest in the Polish Western Carpathians during the Holocene. Quaternary Science Reviews 229, 106137. *https://doi.org/10.1016/j.quascirev.2019.106137*

Kołaczek, P., Płóciennik, M., Gałka, M., Apolinarska, K., Tosik, K., Gąsiorowski, M., Brooks, S.J., Karpińska-Kołaczek, M., 2018. Persist or take advantage of global warming: a development of Early Holocene riparian forest and oxbow lake ecosystems in Central Europe. Quaternary Science Reviews 200, 191–211. *https://doi.org/10.1016/j.quascirev.2018.09.031*

Königsson, L.K., Saarse, L., Veski, S., 1998. Holocene history of vegetation and landscape on the Kõpu Peninsula, Hiiumaa Island, Estonia. Proceedings of the Estonian Academy of Sciences, Geology 47, 3–19.

Kramer, A., Herzschuh, U., Mischke, S., Zhang, C., 2010. Holocene treeline shifts and monsoon variability in the Hengduan Mountains (southeastern Tibetan Plateau), implications from palynological investigations. Palaeogeography, Palaeoclimatology, Palaeoecology 286, 23–41. *https://doi.org/10.1016/j.palaeo.2009.12.001*

Krivonogov, S.K., Takahara, H., Kuzmin, Y.V., Orlova, L.A., Jull, A.J.T., Nakamura, T., Miyoshi, N., Kawamuro, K., Bezrukova, E.V., 2004. Radiocarbon chronology of the Late Pleistocene–Holocene paleogeographic events in Lake Baikal region (Siberia). Radiocarbon 46, 745–754. *https://doi.org/10.1017/s0033822200035785*

Kultti, S., Oksanen, P., Väliranta, M., 2004. Holocene tree line, permafrost, and climate dynamics in the Nenets Region, East European Arctic. Canadian Journal of Earth Sciences 41, 1141–1158. *https://doi.org/10.1139/e04-058*

Kuneš, P., Pokorný, P., Jankovská, V., 2007. Post-glacial vegetation development in sandstone areas of the Czech Republic, in: Härtel, H., Cílek, V., Herben, T., Jackson, A., Williams, R. (Eds.), Sandstone Landscapes. Academia, Praha, Czech Republic, pp. 244–257.

Kuosmanen, N., Fang, K., Bradshaw, R.H.W., Clear, J.L., Seppä, H., 2014. Role of forest fires in Holocene stand-scale dynamics in the unmanaged taiga forest of northwestern Russia. The Holocene 24, 1503–1514. *https://doi.org/10.1177/0959683614544065*

Kuosmanen, N., Seppä, H., Alenius, T., Bradshaw, R.H.W., Clear, J. l., Filimonova, L., Heikkilä, M., Renssen, H., Tallavaara, M., Reitalu, T., 2016. Importance of climate, forest fires and human population size in the Holocene boreal forest composition change in northern Europe. Boreas 45, 688–702. *https://doi.org/10.1111/bor.12183*

Kuosmanen, N., Seppä, H., Reitalu, T., Alenius, T., Bradshaw, R.H.W., Clear, J.L., Filimonova, L., Kuznetsov, O., Zaretskaya, N., 2015. Long-term forest composition and its drivers in taiga forest in NW Russia. Vegetation History and Archaeobotany 25, 221–236. *https://doi.org/10.1007/s00334-015-0542-y*

Kupriyanov, D.A., Novenko, E.Y., 2019. Reconstruction of the Holocene dynamics of forest fires in the central part of Meshcherskaya lowlands according to antracological analysis. Contemporary Problems of Ecology 12, 204–212. *https://doi.org/10.1134/S1995425519030065*

Labelle, C., Richard, P.J.H., 1984. Histoire postglaciaire de la végétation dans la région de Mont-Saint-Pierre, Gaspésie, Québec. Géographie physique et Quaternaire 38, 257–274. *https://doi.org/10.7202/032567ar*

Ladd, P.G., 1978. Vegetation history at Lake Curlip in lowland eastern Victoria, from 5200 B.P. to present. Australian Journal of Botany 26, 393–414. *https://doi.org/10.1071/bt9780393*

Ladd, P.G., Orchiston, D.W., Joyce, E.B., 1992. Holocene vegetation history of Flinders Island. New Phytologist 122, 757–767. *https://doi.org/10.1111/j.1469-8137.1992.tb00104.x*

Lafontaine-Boyer, K., Gajewski, K., 2014. Vegetation dynamics in relation to late Holocene climate variability and disturbance, Outaouais, Québec, Canada. The Holocene 24, 1515–1526. *https://doi.org/10.1177/0959683614544054*

Lamentowicz, M., Kołaczek, P., Mauquoy, D., Kittel, P., Lokas, E., Słowiński, M., Jassey, V.E.J., Niedziółka, K., Kajukało-Drygalska, K., Marcisz, K., 2019. Always on the tipping point–a search for signals of past societies and related peatland ecosystem critical transitions during the last 6500 years in N Poland. Quaternary Science Reviews 225, 105954. *https://doi.org/10.1016/j.quascirev.2019.105954*

Lamentowicz, M., Słowiński, M., Marcisz, K., Zielińska, M., Kaliszan, K., Lapshina, E., Gilbert, D., Buttler, A., Fiałkiewicz-Kozieł, B., Jassey, V.E.J., Laggoun-Defarge, F., Kołaczek, P., 2015. Hydrological dynamics and fire history of the last 1300 years in western Siberia reconstructed from a high-resolution, ombrotrophic peat archive. Quaternary Research 84, 312–325. *https://doi.org/10.1016/j.yqres.2015.09.002*

Lane, C.S., Andrič, M., Cullen, V.L., Blockley, S.P.E., 2011. The occurrence of distal Icelandic and Italian tephra in the Lateglacial of Lake Bled, Slovenia. Quaternary Science Reviews 30, 1013–1018. *https://doi.org/10.1016/j.quascirev.2011.02.014*

Lane, C.S., Horn, S.P., Mora, C.I., Orvis, K.H., 2009. Late-Holocene paleoenvironmental change at mid-elevation on the Caribbean slope of the Cordillera Central, Dominican Republic: a multi-site, multi-proxy analysis. Quaternary Science Reviews 28, 2239–2260. *https://doi.org/10.1016/j.quascirev.2009.04.013*

Larmon, J.T., 2013. The Pacific Coast of Guatemala: a Palynological Investigation of Climate Change and Human Occupation (MSc thesis). Washington State University, Pullman, Washington, USA.

Larsen, C.P.S., 1994. Spatial and Temporal Variations in Fire Frequency in the Boreal Forest of Northern Alberta (PhD thesis). Department of Geography, McMaster University, Hamilton, Ontario, Canada.

Larsen, C.P.S., MacDonald, G.M., 1998. Fire and vegetation dynamics in a jack pine and black spruce forest reconstructed using fossil pollen and charcoal. Journal of Ecology 86, 815–828. *https://doi.org/10.1046/j.1365-2745.1998.8650815.x*

Larsen, C.P.S., Morris, W.A., MacDonald, G.M., 2000. Records of geomagnetic secular variation since 1200 AD and the potential for chronological control of lake sediments in northern Alberta. Canadian Journal of Earth Sciences 37, 1711–1722. *https://doi.org/10.1139/e00-052*

Latałowa, M., Pędziszewska, A., Maciejewska, E., Święta-Musznicka, J., 2013. Tilia forest dynamics, Kretzschmaria deusta attack, and mire hydrology as palaeoecological proxies for mid-Holocene climate reconstruction in the Kashubian Lake District (N Poland). The Holocene 23, 667–677. *https://doi.org/10.1177/0959683612467484*

Latham, M., Hughes, P.J., Hope, G.S., Brookfield, H.C., 1983. Sedimentation in the swamps of Lakeba and its implications for erosion and human occupation of the island, in: Latham, M., Brookfield, H.C. (Eds.), The Eastern Islands of Fiji, a Study of the Natural Environment, Its Use, and Man's Influence on Its Evolution. ORSTOM, Paris, pp. 103–120.

Laul, S., Kihno, K., 1999. Prehistoric land use and settlement history on the Haanja Heights, southeastern Estonia, with special reference to the Siksali-Hino area, in: Miller, U., Hackens, T., Lang, V., Raukas, A., Hicks, S. (Eds.), Environmental and Cultural History of the Eastern Baltic Region. PACT (Rixensart), pp. 239–254.

Laumets, L., Kalm, V., Poska, A., Kele, S., Lasberg, K., Amon, L., 2013. Palaeoclimate inferred from $delta^{18}$O and palaeobotanical indicators in freshwater tufa of Lake Äntu Sinijärv, Estonia. Journal of Paleolimnology 51, 99–111. *https://doi.org/10.1007/s10933-013-9758-y*

Lazarova, M., Marinova, E., Tonkov, S., Snowball, I., 2015. A 5000-year pollen and plant macrofossil record from the Osogovo Mountain, Southwestern Bulgaria: Vegetation history and human impact. Review of Palaeobotany and Palynology 223, 1–9. *https://doi.org/10.1016/j.revpalbo.2015.08.005*

Leahy, P.J., Tibby, J., Kershaw, A.P., Heijnis, H., Kershaw, J.S., 2005. The impact of European settlement on Bolin Billabong, a Yarra River floodplain lake, Melbourne, Australia. River Research and Applications 21, 131–149. *https://doi.org/10.1002/rra.837*

Ledru, M.-P., Ceccantini, G., Marques Gouveia, S.E., López-Sáez, J.A., Ruiz Pessenda, L.C., de Souza Ribeiro, A., 2006. Millenial-scale climatic and vegetation changes in a northern Cerrado (Northeast, Brazil) since the Last Glacial Maximum. Quaternary Science Reviews 25, 1110–1126. *https://doi.org/10.1016/j.quascirev.2005.10.005*

Ledru, M.-P., Cordeiro, R.C., Dominguez, J.M.L., Martin, L., Mourguiart, P., Sifeddine, A., Turcq, B., 2001. Late-Glacial cooling in Amazonia inferred from pollen at Lagoa do Caçó, Northern Brazil. Quaternary Research 55, 47–56. *https://doi.org/10.1006/qres.2000.2187*

Ledru, M.-P., Mourguiart, P., Ceccantini, G., Turcq, B., Sifeddine, A., 2002. Tropical climates in the game of two hemispheres revealed by abrupt climatic change. Geology 30, 275–278. *https://doi.org/10.1130/0091-7613(2002)030<0275:TCITGO>2.0.CO;2*

Leunda, M., González-Sampériz, P., Gil-Romera, G., Aranbarri, J., Moreno, A., Oliva-Urcia, B., Sevilla-Callejo, M., Valero-Garcés, B., 2017. The Late-Glacial and Holocene Marboré Lake sequence (2612 m a.s.l., Central Pyrenees, Spain): Testing high altitude sites sensitivity to millennial scale vegetation and climate variability. Global and Planetary Change 157, 214–231. *https://doi.org/10.1016/j.gloplacha.2017.08.008*

Li, B., 2014. Environmental Evolution of Eastern Taihu Plain During the Holocene Achived by Pingwang Core (PhD thesis). Nangjing University, Nanjing, China.

Li, J., Mackay, A.W., Zhang, Y., Li, J., 2013. A 1000-year record of vegetation change and wildfire from maar lake Erlongwan in northeast China. Quaternary International 290-291, 313–321. *https://doi.org/10.1016/j.quaint.2012.08.2104*

Li, J., Wang, N., 2020. Holocene grassland fire dynamics and forcing factors in continental interior of China. Geophysical Research Letters 47, 1–9. *https://doi.org/10.1029/2020GL088049*

Li, X.Q., Shang, X., Dodson, J., Zhou, X.Y., 2009. Holocene agriculture in the Guanzhong Basin in NW China indicated by pollen and charcoal evidence. The Holocene 19, 1213–1220. *https://doi.org/10.1177/0959683609345083*

Li, X.Q., Zhao, H.L., Yan, M.H., Wang, S.Z., 2005. Fire variations and relationship on fire and vegetation and climate during Holocene at Sanjiang Plain, northeast China. Scientia Geographica Sinica 25, 177–182.

Li, Y.H., Yin, H.N., Zhang, X.Y., Chen, Z.J., 2003. The environment disaster events and the evolution of man-land relation in the west Liaoning during 5000 aBP. Journal of Glaciology and Geocryology 25, 19–26.

Li, Y., Zhang, Y., Wang, J., Wang, L., Li, Y., Chen, L., Zhao, L., Kong, Z., 2019. Preliminary study on pollen, charcoal records and environmental evolution of Alahake Saline Lake in Xinjiang since 4,700 cal yr BP. Quaternary International 513, 8–17. *https://doi.org/10.1016/j.quaint.2019.01.014*

Li, Z.X., Wu, G.X., Sun, Y.L., Zhang, M., Gu, L., 2017. Environmental and anthropogenic records of Late Longshan period at the Wadian Site. Marine Geology and Quaternary Geology 37, 180–186.

Liao, J., 2017. Vegetational and Environmental Changes During Last Glacial Maximum (LGM) in Lugu Lake (PhD thesis). Yunnan Normal University, Kunming, China.

Lindbladh, M., Bradshaw, R., Holmqvist, B.H., 2000. Pattern and process in south Swedish forests during the last 3000 years, sensed at stand and regional scales. Journal of Ecology 88, 113–128. *https://doi.org/10.1046/j.1365-2745.2000.00429.x*

Lindbladh, M., Oswald, W.W., Foster, D.R., Faison, E.K., Hou, J., Huang, Y., 2007. A late-glacial transition from Picea glauca to Picea mariana in southern New England. Quaternary Research 67, 502–508. *https://doi.org/10.1016/j.yqres.2007.01.010*

Ling, G.J., Jia, Y.L., Ma, C.M., 2016. Mid-late Holocene (3580~1630 cal. a BP) climate and environment records from Huangqi Lake in Inner Mongolia. Quaternary Sciences 36, 257–267. *https://doi.org/10.11928/j.issn.1001-7410.2016.02.02*

Lisitsyna, n.d. Unpublished data.

Liu, Y., 2014. Environmental Change of Hangzhou Bay Coast since the Mid Holocene – A Highlight to the Formation of Liangzhu City Complex (PhD thesis). East China Normal University, Shanghai, China.

Liu, Y.L., 2012. Holocene Climate Change and Flood Events Documented by Sedimentary Record in Sanyangzhuang Site (PhD thesis). Hebei Normal University, Shijiazhuang, China.

Long, C.J., Power, M.J., Bartlein, P.J., 2011. The effects of fire and tephra deposition on forest vegetation in the Central Cascades, Oregon. Quaternary Research 75, 151–158. *https://doi.org/10.1016/j.yqres.2010.08.010*

Long, C.J., Power, M.J., McDonald, B., 2011. Millennial-scale fire and vegetation history from a mesic hardwood forest of southeastern Wisconsin, USA. Journal of Quaternary Science 26, 318–325. *https://doi.org/10.1002/jqs.1456*

Long, C.J., Whitlock, C., 2002. Fire and vegetation history from the coastal rain forest of the western Oregon Coast Range. Quaternary Research 58, 215–225. *https://doi.org/10.1006/qres.2002.2378*

Long, C.J., Whitlock, C., Bartlein, P.J., 2007. Holocene vegetation and fire history of the Coast Range, western Oregon, USA. The Holocene 17, 917–926. *https://doi.org/10.1177/0959683607082408*

Longmore, M.E., 1997. Quaternary palynological records from perched lake sediments, Fraser Island, Queensland, Australia: rainforest, forest history and climatic control. Australian Journal of Botany 45, 507–526. *https://doi.org/10.1071/bt96109*

Longmore, M.E., Heijnis, H., 1999. Aridity in Australia: Pleistocene records of palaeohydrological and palaeoecological change from the perched lake sediments of Fraser Island, Queensland, Australia. Quaternary International 57-58, 35–47. *https://doi.org/10.1016/s1040-6182(98)00048-2*

Lotter, A.F., 1999. Late-glacial and Holocene vegetation history and dynamics as shown by pollen and plant macrofossil analyses in annually laminated sediments from Soppensee, central Switzerland. Vegetation History and Archaeobotany 8, 165–184. *https://doi.org/10.1007/BF02342718*

Loughlin, N.J.D., Gosling, W.D., Coe, A.L., Gulliver, P., Mothes, P., Montoya, E., 2018. Landscape-scale drivers of glacial ecosystem change in the montane forests of the eastern Andean flank, Ecuador. Palaeogeography, Palaeoclimatology, Palaeoecology 489, 198–208. *https://doi.org/10.1016/j.palaeo.2017.10.011*

Loughlin, N.J.D., Gosling, W.D., Mothes, P., Montoya, E., 2018. Ecological consequences of post-Columbian indigenous depopulation in the Andean–Amazonian corridor. Nature Ecology & Evolution 2, 1233–1236. *https://doi.org/10.1038/s41559-018-0602-7*

Lozano-García, M. d.S., Caballero, M., Ortega, B., Rodríguez, A., Sosa-Nájera, S., 2007. Tracing the effects of the Little Ice Age in the tropical lowlands of eastern Mesoamerica. Proceedings of the National Academy of Sciences 104, 16200–16203. *https://doi.org/10.1073/pnas.0707896104*

Lozano-García, M. d.S., Sosa-Nájera, S., Sugiura, Y., Caballero, M., 2005. 23,000 yr of vegetation history of the Upper Lerma, a tropical high-altitude basin in Central Mexico. Quaternary Research 64, 70–82. *https://doi.org/10.1016/j.yqres.2005.02.010*

López-Merino, L., Silva Sánchez, N., Kaal, J., López-Sáez, J.A., Martínez Cortizas, A., 2012. Post-disturbance vegetation dynamics during the Late Pleistocene and the Holocene: an example from NW Iberia. Global and Planetary Change 92-93, 58–70. *https://doi.org/10.1016/j.gloplacha.2012.04.003*

López-Sáez, J.A., Abel-Schaad, D., Robles-López, S., Pérez-Díaz, S., Alba-Sánchez, F., Nieto-Lugilde, D., 2016. Landscape dynamics and human impact on high-mountain woodlands in the western Spanish Central System during the last three millennia. Journal of Archaeological Science: Reports 9, 203–218. *https://doi.org/10.1016/j.jasrep.2016.07.027*

López-Sáez, J.A., Alba-Sánchez, F., Robles-López, S., Pérez-Díaz, S., Abel-Schaad, D., Sabariego-Ruiz, S., Glais, A., 2016. Exploring seven hundred years of transhumance, climate dynamic, fire and human activity through a historical mountain pass in central Spain. Journal of Mountain Science 13, 1139–1153. *https://doi.org/10.1007/s11629-016-3885-7*

López-Sáez, J.A., Carrasco, R.M., Turu, V., Ruiz-Zapata, B., Gil-García, M.J., Luelmo-Lautenschlaeger, R., Pérez-Díaz, S., Alba-Sánchez, F., Abel-Schaad, D., Ros, X., Pedraza, J., 2020. Late Glacial-early holocene vegetation and environmental changes in the western Iberian Central System inferred from a key site: The Navamuño record, Béjar range (Spain). Quaternary Science Reviews 230, 106167. *https://doi.org/10.1016/j.quascirev.2020.106167*

López-Sáez, J.A., Figueiral, I., Cruz, D., 2017. Palaeoenvironment and vegetation dynamics in Serra da Nave (Alto Paiva, Beira Alta, Portugal) during the Late Pleistocene and the Holocene, in: Cruz, D.J. (Ed.), Actas da Mesa-Redonda Ä Pre-história e a Proto-historia no Centro de Portugal: Avaliacao e Perspectivas de Futuro¨, Edition 1. Centro de Estudos Pré-históricos.

López-Sáez, J.A., Pérez-Díaz, S., Rodríguez-Ramírez, A., Blanco-González, A., Villarías-Robles, J.J.R., Luelmo-Lautenschlaeger, R., Jiménez-Moreno, G., Celestino-Pérez, S., Cerrillo-Cuenca, E., Pérez-Asensio, J.N., León, 2018. Mid-late Holocene environmental and cultural dynamics at the south-west tip of Europe (Doñana National Park, SW Iberia, Spain). Journal of Archaeological Science: Reports 22, 58–78. *https://doi.org/10.1016/j.jasrep.2018.09.014*

López-Sáez, J.A., Vargas, G., Ruiz-Fernández, J., Blarquez, O., Alba-Sánchez, F., Oliva, M., Pérez-Díaz, S., Robles-López, S., Abel-Schaad, D., 2017. Paleofire dynamics in Central Spain during the Late Holocene: The role of climatic and anthropogenic forcing. Land Degradation & Development 29, 2045–2059. *https://doi.org/10.1002/ldr.2751*

Luelmo-Lautenschlaeger, R., Blarquez, O., Pérez-Díaz, S., Morales-Molino, C., López-Sáez, J.A., 2019. The Iberian Peninsula's burning heart —- Long-term fire history in the Toledo Mountains (Central Spain). Fire 2, 54. *https://doi.org/10.3390/fire2040054*

Luelmo-Lautenschlaeger, R., Pérez-Díaz, S., Alba-Sánchez, F., Abel-Schaad, D., López-Sáez, J., 2018. Vegetation history in the Toledo Mountains (Central Iberia): human impact during the last 1300 years. Sustainability 10, 2575. *https://doi.org/10.3390/su10072575*

Luelmo-Lautenschlaeger, R., Pérez-Díaz, S., Blarquez, O., Morales-Molino, C., López-Sáez, J.A., 2019. The Toledo Mountains: a resilient landscape and a landscape for resilience? Hazards and strategies in a mid-elevation mountain region in Central Spain. Quaternary 2, 35. *https://doi.org/10.3390/quat2040035*

Luly, J.G., 2001. On the equivocal fate of late Pleistocene Callitris Vent. (Cupressaceae) woodlands in arid south Australia. Quaternary International 83–85, 155–168. *https://doi.org/10.1016/S1040-6182(01)00037-4*

Luly, J.G., 1993. Holocene palaeoenvironments near Lake Tyrrell, semi-arid northwestern Victoria, Australia. Journal of Biogeography 587–598. *https://doi.org/10.2307/2845516*

Luly, J.G., Bowler, J.M., Head, M.J., 1986. A radiocarbon chronology from the playa Lake Tyrrell, northwestern Victoria, Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 54, 171–180. *https://doi.org/10.1016/0031-0182(86)90123-9*

Luly, J.G., Jacobson, G., 2000. Two new AMS radiocarbon dates from Lake Frome, arid South Australia. Quaternary Australasia 18, 29–33.

Luo, Y.L., Chen, H.C., Wu, G.X., Sun, X.J., 2001. Records of natural fire and climate history during the last three glacial-interglacial cycles around the South China Sea – Charcoal record from the ODP 1144. Science in China Series D: Earth Sciences 44, 897–904. *https://doi.org/10.1007/bf02907081*

Lynch, E.A., 1998. Origin of a park–forest vegetation mosaic in the Wind River Range, Wyoming. Ecology 79, 1320–1338. *https://doi.org/10.1890/0012-9658(1998)079[1320:ooapfv]2.0.co;2*

Lynch, E.A., 1995. Origin of a Park-Forest Vegetation Mosaic in the Wind River Range, Wyoming (PhD dissertation). University of Minnesota, Minneapolis, Minnesota, USA.

Lynch, J.A., Clark, J.S., Bigelow, N.H., Edwards, M.E., Finney, B.P., 2002. Geographic and temporal variations in fire history in boreal ecosystems of Alaska. Journal of Geophysical Research: Atmospheres 107, FFR 8–1–FFR8–17. *https://doi.org/10.1029/2001JD000332*

Lynch, J.A., Clark, J.S., Stocks, B.J., 2004. Charcoal production, dispersal, and deposition from the Fort Providence experimental fire: interpreting fire regimes from charcoal records in boreal forests. Canadian Journal of Forest Research 34, 1642–1656. *https://doi.org/10.1139/x04-071*

Ma, C., Wang, B., Liu, Z., Zhao, L., Hu, Z.J., Sun, G.P., Yang, Q., Zhou, Y.S., Zheng, H.B., 2018. A preliminary study on vegetation, environment and human activity of pollen records during middle-late

Holocene in Tianluoshan site, Ningshao Plain. Quaternary Sciences 38, 1304–1312. https://doi.org/10.11928/j.issn.1001-7410.2018.05.22
Ma, T., Zheng, Z., Man, M., Dong, Y., Li, J., Huang, K., 2018. Holocene fire and forest histories in relation to climate change and agriculture development in southeastern China. Quaternary International 488, 30–40. https://doi.org/10.1016/j.quaint.2017.07.035
Maenza-Gmelch, T.E., 1997a. Holocene vegetation, climate, and fire history of the Hudson Highlands, southeastern New York, USA. The Holocene 7, 25–37. https://doi.org/10.1177/095968369700700103
Maenza-Gmelch, T.E., 1997b. Vegetation, climate, and fire during the late-glacial–Holocene Transition at Spruce Pond, Hudson Highlands, southeastern New York, USA. Journal of Quaternary Science 12, 15–24. https://doi.org/10.1002/(SICI)1099-1417(199701/02)12:1<15::AID-JQS283>3.0.CO;2-T
Maezumi, S.Y., Robinson, M., de Souza, J., Urrego, D.H., Schaan, D., Alves, D., Iriarte, J., 2018. New insights from Pre-Columbian land use and fire management in Amazonian dark earth forests. Frontiers in Ecology and Evolution 6. https://doi.org/10.3389/fevo.2018.00111
Magnan, G., Garneau, M., Le Stum-Boivin, Grondin, P., Bergeron, Y., 2020. Long-term carbon sequestration in boreal forested peatlands in eastern Canada. Ecosystems 1–13. https://doi.org/10.1007/s10021-020-00483-x
Magnan, G., Garneau, M., Payette, S., 2014. Holocene development of maritime ombrotrophic peatlands of the St. Lawrence North Shore in eastern Canada. Quaternary Research 82, 96–106. https://doi.org/10.1016/j.yqres.2014.04.016
Magnan, G., Lavoie, M., Payette, S., 2012. Impact of fire on long-term vegetation dynamics of ombrotrophic peatlands in northwestern Québec, Canada. Quaternary Research 77, 110–121. https://doi.org/10.1016/j.yqres.2011.10.006
Magnan, G., van Bellen, S., Davies, L., Froese, D., Garneau, M., Mullan-Boudreau, G., Zaccone, C., Shotyk, W., 2018. Impact of the Little Ice Age cooling and 20th century climate change on peatland vegetation dynamics in central and northern Alberta using a multi-proxy approach and high-resolution peat chronologies. Quaternary Science Reviews 185, 230–243. https://doi.org/10.1016/j.quascirev.2018.01.015
Magri, D., 2004. Two long micro-charcoal records from central Italy, in: Charcoals from the Past: Cultural and Palaeoenvironmental Implications. Proceedings of the Third International Meeting of Anthracology. Cavallino, Lecce, Italy, pp. 265–272.
Magri, D., 1999. Late Quaternary vegetation history at Lagaccione near Lago di Bolsena (central Italy). Review of Palaeobotany and Palynology 106, 171–208. https://doi.org/10.1016/S0034-6667(99)00006-8
Manabe, T., Takahara, H., n.d. Unpublished data.
Manzano, S., Carrión, J.S., López-Merino, L., Jiménez-Moreno, G., Toney, J.L., Amstrong, H., Anderson, R.S., García-Alix, A., Guerrero Pérez, J.L., Sánchez-Mata, D., 2019. A palaeoecological approach to understanding the past and present of Sierra Nevada, a southwestern European biodiversity hotspot. Global and Planetary Change 175, 238–250. https://doi.org/10.1016/j.gloplacha.2019.02.006
Marchant, R., Taylor, D., Hamilton, A., 1997. Late Pleistocene and Holocene history at Mubwindi Swamp, Southwest Uganda. Quaternary Research 47, 316–328. https://doi.org/10.1006/qres.1997.1887
Marcisz, K., Gałka, M., Pietrala, P., Miotk-Szpiganowicz, G., Obremska, M., Tobolski, K., Lamentowicz, M., 2017. Fire activity and hydrological dynamics in the past 5700 years reconstructed from Sphagnum peatlands along the oceanic–continental climatic gradient in northern Poland. Quaternary Science Reviews 177, 145–157. https://doi.org/10.1016/j.quascirev.2017.10.018
Marcisz, K., Kołaczek, P., Gałka, M., Diaconu, A.-C., Lamentowicz, M., 2020. Exceptional hydrological stability of a Sphagnum-dominated peatland over the late Holocene. Quaternary Science Reviews 231, 106180. https://doi.org/10.1016/j.quascirev.2020.106180

Marcisz, K., Lamentowicz, M., Gałka, M., Colombaroli, D., Adolf, C., Tinner, W., 2019. Responses of vegetation and testate amoeba trait composition to fire disturbances in and around a bog in central European lowlands (northern Poland). Quaternary Science Reviews 208, 129–139. *https://doi.org/10.1016/j.quascirev.2019.02.003*

Marcisz, K., Tinner, W., Colombaroli, D., Kołaczek, P., Słowiński, M., Fiałkiewicz-Kozieł, B., Lokas, E., Lamentowicz, M., 2015. Long-term hydrological dynamics and fire history over the last 2000 years in CE Europe reconstructed from a high-resolution peat archive. Quaternary Science Reviews 112, 138–152. *https://doi.org/10.1016/j.quascirev.2015.01.019*

Marcoux, N., Richard, P.J.H., 1995. Végétation et fluctuations climatiques postglaciaires sur la côte septentrionale gaspésienne, Québec. Canadian Journal of Earth Sciences 32, 79–96. *https://doi.org/10.1139/e95-008*

Margari, V., Gibbard, P.L., Bryant, C.L., Tzedakis, P.C., 2009. Character of vegetational and environmental changes in southern Europe during the last glacial period; evidence from Lesvos Island, Greece. Quaternary Science Reviews 28, 1317–1339. *https://doi.org/10.1016/j.quascirev.2009.01.008*

Margari, V., Pyle, D.M., Bryant, C., Gibbard, P.L., 2007. Mediterranean tephra stratigraphy revisited: results from a long terrestrial sequence on Lesvos Island, Greece. Journal of Volcanology and Geothermal Research 163, 34–54. *https://doi.org/10.1016/j.jvolgeores.2007.02.002*

Marinova, E., n.d. Unpublished data.

Marinova, E., Atanassova, J., 2006. Anthropogenic impact on vegetation and environment during the Bronze Age in the area of Lake Durankulak, NE Bulgaria: pollen, microscopic charcoal, non-pollen palynomorphs and plant macrofossils. Review of Palaeobotany and Palynology 141, 165–178. *https://doi.org/10.1016/j.revpalbo.2006.03.011*

Marinova, E., Devos, Y.G., Speleers, L., Modrie, S., 2021. The peat profile of Rue des Boîteux–Rue d'Argent (BR295), Senne valley, Brussels (Belgium). Grana.

Marinova, E., Tonkov, S., 2012. A contribution to the Holocene vegetation history in the Northwestern Pirin Mountain (Bulgaria): the plant macrofossil record from peat-bog Mozgovitsa. Comptes rendus de l'Académie bulgare des Sciences 65, 1087–1094.

Markgraf, V., Whitlock, C., Haberle, S.G., 2007. Vegetation and fire history during the last 18,000 cal yr BP in Southern Patagonia: Mallín Pollux, Coyhaique, Province Aisén (45°41'30S̈, 71°50'30Ẅ, 640 m elevation). Palaeogeography, Palaeoclimatology, Palaeoecology 254, 492–507. *https://doi.org/10.1016/j.palaeo.2007.07.008*

Marques Gouveia, S.E., Ruiz Pessenda, L.C., Aravena, R., Boulet, R., Scheel-Ybert, R., Bendassoli, J.A., de Souza Ribeiro, A., de Freitas, H.A., 2002. Carbon isotopes in charcoal and soils in studies of paleovegetation and climate changes during the late Pleistocene and the Holocene in the southeast and centerwest regions of Brazil. Global and Planetary change 33, 95–106. *https://doi.org/10.1016/S0921-8181(02)00064-4*

Martin, A.R.H., 1994. Kurnell Fen: an eastern Australian coastal wetland, its Holocene vegetation, relevant to sea-level change and aboriginal land use. Review of Palaeobotany and Palynology 80, 311–332. *https://doi.org/10.1016/0034-6667(94)90008-6*

Martínez Cortizas, A., García-Rodeja, E., Pontevedra Pombal, X., Nóvoa Muñoz, J.C., Weiss, D., Cheburkin, A., 2002. Atmospheric Pb deposition in Spain during the last 4600 years recorded by two ombrotrophic peat bogs and implications for the use of peat as archive. Science of The Total Environment 292, 33–44. *https://doi.org/10.1016/s0048-9697(02)00031-1*

Masi, A., Francke, A., Pepe, C., Thienemann, M., Wagner, B., Sadori, L., 2018. Vegetation history and paleoclimate at Lake Dojran (FYROM/Greece) during the Late Glacial and Holocene. Climate of the Past 14, 351–367. *https://doi.org/10.5194/cp-14-351-2018*

Mason, S., 2004. Late Holocene Fire Activity at Melling Swamp, Wollemi National Park, NSW (BSc (Hons) thesis). School of Biological, Earth & Environmental Sciences, University of New South Wales, Sydney, Australia.

Mayle, F.E., Burbridge, R., Killeen, T.J., 2000. Millennial-scale dynamics of southern Amazonian rain forests. Science 290, 2291–2294. *https://doi.org/10.1126/science.290.5500.2291*

Mayr, C., Fey, M., Haberzettl, T., Janssen, S., Lücke, A., Maidana, N.I., Ohlendorf, C., Schäbitz, F., Schleser, G.H., Struck, U., Wille, M., Zolitschka, B., 2005. Palaeoenvironmental changes in southern Patagonia during the last millennium recorded in lake sediments from Laguna Azul (Argentina). Palaeogeography, Palaeoclimatology, Palaeoecology 228, 203–227. *https://doi.org/10.1016/j.palaeo.2005.06.001*

McCarthy, T.S., Ellery, W.N., Backwell, L., Marren, P., de Klerk, B., Tooth, S., Brandt, D., Woodborne, S., 2010. The character, origin and palaeoenvironmental significance of the Wonderkrater spring mound, South Africa. Journal of African Earth Sciences 58, 115–126. *https://doi.org/10.1016/j.jafrearsci.2010.02.004*

McCulloch, R.D., Davies, S.J., 2001. Late-glacial and Holocene palaeoenvironmental change in the central Strait of Magellan, southern Patagonia. Palaeogeography, Palaeoclimatology, Palaeoecology 173, 143–173. *https://doi.org/10.1016/s0031-0182(01)00316-9*

McGlone, M.S., 2009. Postglacial history of New Zealand wetlands and implications for their conservation. New Zealand Journal of Ecology 33, 1–23.

McGlone, M.S., 2001. The origin of the indigenous grasslands of southeastern South Island in relation to pre-human woody ecosystems. New Zealand Journal of Ecology 25, 1–15.

McGlone, M.S., Turney, C.S.M., Wilmshurst, J.M., 2004. Late-glacial and Holocene vegetation and climatic history of the Cass Basin, central South Island, New Zealand. Quaternary Research 62, 267–279. *https://doi.org/10.1016/j.yqres.2004.09.003*

McGlone, M.S., Wilmshurst, J.M., 1999. A Holocene record of climate, vegetation change and peat bog development, east Otago, South Island, New Zealand. Journal of Quaternary Science 14, 239–254. *https://doi.org/10.1002/(sici)1099-1417(199905)14:3<239::aid-jqs438>3.0.co;2-9*

McKenzie, G.M., 2002. The late Quaternary vegetation history of the south-central highlands of Victoria, Australia. II. Sites below 900 m. Austral Ecology 27, 32–54. *https://doi.org/10.1046/j.1442-9993.2002.01155.x*

McKenzie, G.M., 1997. The late Quaternary vegetation history of the south-central highlands of Victoria, Australia. I. Sites above 900 m. Australian Journal of Ecology 22, 19–36. *https://doi.org/10.1111/j.1442-9993.1997.tb00638.x*

McKenzie, G.M., Kershaw, A.P., 2004. A Holocene pollen record from cool temperate rainforest, Aire crossing, the Otway region of Victoria, Australia. Review of Palaeobotany and Palynology 132, 281–290. *https://doi.org/10.1016/j.revpalbo.2004.07.006*

McKenzie, G.M., Kershaw, A.P., 2000. The last glacial cycle from Wyelangta, the Otway region of Victoria, Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 155, 177–193. *https://doi.org/10.1016/S0031-0182(99)00100-5*

McKenzie, G.M., Kershaw, A.P., 1997. A vegetation history and quantitative estimate of Holocene climate from Chapple Vale, in the Otway Region of Victoria, Australia. Australian Journal of Botany 45, 565–581. *https://doi.org/10.1071/bt96051*

McWethy, D.B., Wilmshurst, J.M., Whitlock, C., Wood, J.R., McGlone, M.S., 2014. A high-resolution chronology of rapid forest transitions following Polynesian arrival in New Zealand. PLOS ONE 9, e111328. *https://doi.org/10.1371/journal.pone.0111328*

Meeks, S.C., 2005. Paleoecological Analysis of Sediments from Mound G Pond, Shiloh Indian Mounds, Tennessee. National Park Service.

Meeks, S.C., 2004. The Influence of Pre-Euro American Fires on Long Leaf Pine Forests in the Southern Appalachians: Evidence from 10,000-Year Pollen and Charcoal Records from the Cahaba Pond Site, East-Central Alabama.

Meng, M., Jie, D.M., Li, N.N., 2019. The Holocene fire evolution based on charcoal of Gushantun peatland in the Changbai Mountain, Northeast China. Acta Micropalaeontologica Sinica 70–78.

Meyer, G.A., Wells, S.G., Jull, A.J.T., 1995. Fire and alluvial chronology in Yellowstone National Park: Climatic and intrinsic controls on Holocene geomorphic processes. Geological Society of America Bulletin 107, 1211–1230. *https://doi.org/10.1130/0016-7606(1995)107<1211:faaciy>2.3.co;2*

Miao, Y.F., Zhang, D.J., Cai, X.M., Li, F., Jin, H.L., Wang, Y.P., Liu, B., 2017. Holocene fire on the northeast Tibetan Plateau in relation to climate change and human activity. Quaternary International 443, 124–131. *https://doi.org/10.1016/j.quaint.2016.05.029*

Miebach, A., Stolzenberger, S., Wacker, L., Hense, A., Litt, T., 2019. A new Dead Sea pollen record reveals the last glacial paleoenvironment of the southern Levant. Quaternary Science Reviews 214, 98–116. *https://doi.org/10.1016/j.quascirev.2019.04.033*

Millet, L., Ortu, E., Miras, Y., Heiri, O., Magny, M., de Beaulieu, J.-L., 2008a. Les assemblages de Chironomidae et les cortèges polliniques, outils de reconstitutions quantitatives des changements du climat holocène: une approche croisée au Col du Petit St Bernard, lac Ďessus-Verneÿ, 2280 m – Quantitative reconstruction of Holocene climate from Chironomid and pollen assemblages, Lake Dessus-Verney (Col du Petit St Bernard, 2280 m a.s.l) as a case study. Collection EDYTEM. Cahiers de géographie 6, 65–76. *https://doi.org/10.3406/edyte.2008.1029*

Millet, L., Ortu, E., Miras, Y., Heiri, O., Magny, M., de Beaulieu, J.-L., 2008b. Les assemblages de Chironomidae et les cortèges polliniques, outils de reconstitutions quantitatives des changements du climat holocène: une approche croisée au Col du Petit St Bernard, lac guillemotleftDessus-Verneyguillemotright, 2280 m. Collection EDYTEM. Cahiers de géographie 6, 65–76.

Millspaugh, S.H., 1997. Late-Glacial and Holocene Variations in Fire Frequency in the Central Plateau and Yellowstone-Lamar Provinces of Yellowstone National Park (PhD thesis). University of Oregon, Eugene, Oregon, USA.

Millspaugh, S.H., Whitlock, C., Bartlein, P.J., 2000. Variations in fire frequency and climate over the past 17 000 yr in central Yellowstone National Park. Geology 28, 211–214. *https://doi.org/10.1130/0091-7613(2000)28<211:viffac>2.0.co;2*

Minckley, T.A., Whitlock, C., Bartlein, P.J., 2007. Vegetation, fire, and climate history of the northwestern Great Basin during the last 14,000 years. Quaternary Science Reviews 26, 2167–2184. *https://doi.org/10.1016/j.quascirev.2007.04.009*

Miras, Y., Millet, L., Guiter, F., Ponel, P., de Beaulieu, J.-L., Gozlar, T., 2006. Dynamique des écosystèmes et impact de l'homme dans le secteur du col du Petit Saint Bernard au cours de l'Holocène, in:. pp. 31–50. *https://doi.org/10013/epic.44366.d491*

Miras, Y., Millet, L., Guiter, F., Ponel, P., de Beaulieu, J.-L., Gozlar, T., 2000. Dynamique des écosystèmes et impact de l'homme dans le secteur du col du Petit Saint Bernard au cours de l'Holocène. Actes Du Séminaire de Clôture Du Programme INTERREG III A ALCOTRA 2006, 31–50.

Miras, Y., Surmely, F., Guenet, P., Vannière, B., Walter-Simonnet, A.-V., Tzortzis, S., 2006. Dynamiques d'occupation et histoire de l'environnement d'un terroir de moyenne montagne: la tourbière de Peyre (Lacapelle-Barrès, Cantal, Massif Central) et ses alentours, in: Miras, Y., Surmely, F. (Eds.), Environnement et peuplement de la moyenne montagne du tardiglaciaire à nos jours. pp. 157–184.

Mirosław-Grabowska, J., Zawisza, E., Jaskółka, A., Obremska, M., 2015. Natural transformation of the Romoty paleolake (NE Poland) during the Late Glacial and Holocene based on isotopic, pollen, cladoceran and geochemical data. Quaternary International 386, 171–185. *https://doi.org/10.1016/j.quaint.2015.06.040*

Mitchell, F.J.G., 1988. The vegetational history of the Killarney oakwoods, SW Ireland: Evidence from fine spatial resolution pollen analysis. The Journal of Ecology 76, 415–436. *https://doi.org/10.2307/2260603*

Mitchell, F.J.G., Cole, E., 1998. Reconstruction of long-term successional dynamics of temperate woodland in Bialowieza Forest, Poland. Journal of Ecology 86, 1042–1059. *https://doi.org/10.1046/j.1365-2745.1998.00323.x*

Miyoshi, S., Takahara, H., n.d. Unpublished data.

Moeyersons, J., Nyssen, J., Poesen, J., Deckers, J., Haile, M., 2006. Age and backfill/overfill stratigraphy of two tufa dams, Tigray Highlands, Ethiopia: evidence for Late Pleistocene and Holocene wet conditions. Palaeogeography, Palaeoclimatology, Palaeoecology 230, 165–181. *https://doi.org/10.1016/j.palaeo.2005.07.013*

Mohr, J.A., Whitlock, C., Skinner, C.N., 2000. Postglacial vegetation and fire history, eastern Klamath Mountains, California, USA. The Holocene 10, 587–601. *https://doi.org/10.1191/095968300675837671*

Molinari, C., 2002. 2500 Years of Forest Dynamics at Sondre Skog, a Semi-Natural Forest on Hollands Vaddero Island, Southern Sweden (MSc thesis). Turin University, Torino, Italy.

Molinari, C., Bradshaw, R.H.W., Risbol, O., Lie, M., Ohlson, M., 2005. Long-term vegetational history of a Picea abies stand in south-eastern Norway: implications for the conservation of biological values. Biological Conservation 126, 155–165. *https://doi.org/10.1016/j.biocon.2005.05.007*

Mooney, S.D., n.d. Unpublished data.

Mooney, S.D., Maltby, E.L., 2006. Two proxy records revealing the late Holocene fire history at a site on the central coast of New South Wales, Australia. Austral Ecology 31, 682–695. *https://doi.org/10.1111/j.1442-9993.2006.01594.x*

Mooney, S.D., Watson, J.R., Dodson, J.R., 1997. Late Holocene environmental change in an upper montane area of the Snowy Mountains, New South Wales. Australian Geographer 28, 185–200. *https://doi.org/10.1080/00049189708703192*

Mooney, S.D., Webb, M., Attenbrow, V., 2007. A comparison of charcoal and archaeological information to address the influences on Holocene fire activity in the Sydney Basin. Australian Geographer 38, 177–194. *https://doi.org/10.1080/00049180701392774*

Morales-Molino, C., Colombaroli, D., Tinner, W., Perea, R., Valbuena-Carabaña, M., Carrión, J.S., Gil, L., 2018. Vegetation and fire dynamics during the last 4000 years in the Cabañeros National Park (central Spain). Review of Palaeobotany and Palynology 253, 110–122. *https://doi.org/10.1016/j.revpalbo.2018.04.001*

Morales-Molino, C., Colombaroli, D., Valbuena-Carabaña, M., Tinner, W., Salomón, R.L., Carrión, J.S., Gil, L., 2017. Land-use history as a major driver for long-term forest dynamics in the Sierra de Guadarrama National Park (central Spain) during the last millennia: implications for forest conservation and management. Global and Planetary Change 152, 64–75. *https://doi.org/10.1016/j.gloplacha.2017.02.011*

Morales-Molino, C., Tinner, W., García-Antón, M., Colombaroli, D., 2017. The historical demise of Pinus nigra forests in the Northern Iberian Plateau (south-western Europe). Journal of Ecology 105, 634–646. *https://doi.org/10.1111/1365-2745.12702*

Morales-Molino, C., Tinner, W., Perea, R., Carrión, J.S., Colombaroli, D., Valbuena-Carabaña, M., Zafra, E., Gil, L., 2019. Unprecedented herbivory threatens rear-edge populations of Betula in southwestern Eurasia. Ecology 100, e02833. *https://doi.org/10.1002/ecy.2833*

Moreno, P.I., 1997. Vegetation and climate near Lago Llanquihue in the Chilean Lake District between 20200 and 9500 ^{14}C yr BP. Journal of Quaternary Science 12, 485–500. *https://doi.org/10.1002/(sici)1099-1417(199711/12)12:6<485::aid-jqs330>3.3.co;2-w*

Moreno, P.I., 1993. Vegetation and Climate near Lago Llanquihue in the Chilean Lake District (MSc thesis). University of Maine, Orono, Maine, USA.

Moreno, P.I., León, A.L., 2003. Abrupt vegetation changes during the Last Glacial to Holocene transition in mid-latitude South America. Journal of Quaternary Science 18, 787–800. *https://doi.org/10.1002/jqs.801*

Moreno, P.I., Lowell, T.V., Jacobson Jr, G.L., Denton, G.H., 1999. Abrupt vegetation and climate changes during the Last Glacial Maximum and Last Termination in the Chilean Lake District: a case study from Canal De La Puntilla (41°S). Geografiska Annaler, Series A: Physical Geography 81, 285–311. *https://doi.org/10.1111/j.0435-3676.1999.00059.x*

Moreno, P.I., Videla, J., 2016. Centennial and millennial-scale hydroclimate changes in northwestern Patagonia since 16,000 yr BP. Quaternary Science Reviews 149, 326–337. *https://doi.org/10.1016/j.quascirev.2016.08.008*

Moss, P.T., Kershaw, A.P., 2000. The last glacial cycle from the humid tropics of northeastern Australia: comparison of a terrestrial and a marine record. Palaeogeography, Palaeoclimatology, Palaeoecology 155, 155–176. *https://doi.org/10.1016/s0031-0182(99)00099-1*

Moss, P.T., Thomas, I., Macphail, M., 2007. Late Holocene vegetation and environments of the Mersey Valley, Tasmania. Australian Journal of Botany 55, 74–82. *https://doi.org/10.1071/bt06010*

Mourguiart, P., Ledru, M.-P., 2003. Last glacial maximum in an Andean cloud forest environment (Eastern Cordillera, Bolivia). Geology 31, 195–198. *https://doi.org/10.1130/0091-7613(2003)031<0195:lgmiaa>2.0.co;2*

Mu, Y., Qin, X., Zhang, L., Xu, B., 2017. Link between black carbon, fires, climate change, and human activity during the Holocene period shown in the loess-paleosol sequence from Henan, China. Quaternary Research 87, 288–297. *https://doi.org/10.1017/qua.2016.18*

Mu, Y., Qin, X., Zhang, L., Xu, B., 2016. Holocene climate change evidence from high-resolution loess/paleosol records and the linkage to fire–climate change–human activities in the Horqin dunefield in northern China. Journal of Asian Earth Sciences 121, 1–8. *https://doi.org/10.1016/j.jseaes.2016.01.017*

Neil, K., Gajewski, K., Betts, M., 2014. Human-ecosystem interactions in relation to Holocene environmental change in Port Joli Harbour, southwestern Nova Scotia, Canada. Quaternary Research 81, 203–212. *https://doi.org/10.1016/j.yqres.2014.01.001*

Nelson, D.M., Hu, F.S., Grimm, E.C., Curry, B.B., Slate, J.E., 2006. The influence of aridity and fire on Holocene prairies communities in the eastern Prairie Peninsula. Ecology 87, 2523–2536. *https://doi.org/10.1890/0012-9658(2006)87[2523:tioaaf]2.0.co;2*

Nelson, D.M., Hu, F.S., Tian, J., Stefanova, I., Brown, T.A., 2003. Response of C3 and C4 plants to middle-Holocene climatic variation near the prairie-forest ecotone of Minnesota. Proceedings of the National Academy of Sciences 101, 562–567. *https://doi.org/10.1073/pnas.0307450100*

Neumann, F.H., Stager, J.C., Scott, L., Venter, H.J.T., Weyhenmeyer, C., 2008. Holocene vegetation and climate records from lake Sibaya, KwaZulu-Natal (South Africa). Review of Palaeobotany and Palynology 152, 113–128. *https://doi.org/10.1016/j.revpalbo.2008.04.006*

New, J., 2007. Holocene Charcoal-based Alluvial Fire Chronology and Geomorphic Implications in Caballero Canyon, Sacramento Mountains, New Mexico (MSc thesis). Department of Earth; Planetary Sciences, University of New Mexico, Albuquerque, New Mexico, USA.

Newnham, R.M., Lowe, D.J., 2000. Fine-resolution pollen record of late-glacial climate reversal from New Zealand. Geology 28, 759–762. *https://doi.org/10.1130/0091-7613(2000)028<0759:frprol>2.3.co;2*

Newnham, R.M., Lowe, D.J., Giles, T., Alloway, B.V., 2007. Vegetation and climate of Auckland, New Zealand, since ca. 32 000 cal. yr ago: support for an extended LGM. Journal of Quaternary Science 22, 517–534. *https://doi.org/10.1002/jqs.1137*

Newnham, R.M., Lowe, D.J., Matthews, B.W., 1998. A late-Holocene and prehistoric record of environmental change from Lake Waikaremoana, New Zealand. The Holocene 8, 443–454. *https://doi.org/10.1191/095968398672490834*

Newnham, R.M., Vandergoes, M.J., Hendy, C.H., Lowe, D.J., Preusser, F., 2007. A terrestrial palynological record for the last two glacial cycles from southwestern New Zealand. Quaternary Science Reviews 26, 517–535. *https://doi.org/10.1016/j.quascirev.2006.05.005*

Niemann, H., Behling, H., 2009a. Late Holocene environmental change and human impact inferred from three soil monoliths and the Laguna Zurita multi-proxi record in the southeastern Ecuadorian Andes. Vegetation History and Archaeobotany 19, 1–15. *https://doi.org/10.1007/s00334-009-0226-6*

Niemann, H., Behling, H., 2009b. Late Pleistocene and Holocene environmental change inferred from the Cocha Caranga sediment and soil records in the southeastern Ecuadorian Andes. Palaeogeography, Palaeoclimatology, Palaeoecology 276, 1–14. *https://doi.org/10.1016/j.palaeo.2009.02.018*

Niemann, H., Behling, H., 2008. Late Quaternary vegetation, climate and fire dynamics inferred from the El Tiro record in the southeastern Ecuadorian Andes. Journal of Quaternary Science 23, 203–212. *https://doi.org/10.1002/jqs.1134*

Niemann, H., Haberzettl, T., Behling, H., 2009. Holocene climate variability and vegetation dynamics inferred from the (11700 cal. yr BP) Laguna Rabadilla de Vaca sediment record, southeastern Ecuadorian Andes. The Holocene 19, 307–316. *https://doi.org/10.1177/0959683608100575*

Niinemets, E., Saarse, L., 2007a. Fine-resolution pollen-based evidences of farming and forest development, south-eastern Estonia. Polish Journal of Ecology 55, 283–296.

Niinemets, E., Saarse, L., 2007b. Mid- and late-Holocene land-use changes inferred from pollen records, in a south-eastern Estonian upland area. Review of Palaeobotany and Palynology 146, 51–73. *https://doi.org/10.1016/j.revpalbo.2007.03.004*

Niinemets, E., Saarse, L., 2006. Holocene forest dynamics and human impact in southeastern Estonia. Vegetation History and Archaeobotany 16, 1–13. *https://doi.org/10.1007/s00334-005-0030-x*

Niinemets, E., Saarse, L., Poska, A., 2002. Vegetation history and human impact in the Parika area, Central Estonia, in: Proceedings of the Estonian Academy of Sciences, Geology. pp. 241–258.

Nishimura, R., n.d. Unpublished data.

Nogué, S., de Nascimento, L., Fernández-Palacios, J.M., Whittaker, R.J., Willis, K.J., 2013. The ancient forests of La Gomera, Canary Islands, and their sensitivity to environmental change. Journal of Ecology 101, 368–377. *https://doi.org/10.1111/1365-2745.12051*

Nogué, S., Tovar, C., Bhagwat, S.A., Finsinger, W., Willis, K.J., 2017. Exploring the ecological history of a tropical agroforestry landscape using fossil pollen and charcoal analysis from four sites in Western Ghats, India. Ecosystems 21, 45–55. *https://doi.org/10.1007/s10021-017-0132-1*

Norström, E., Scott, L., Partridge, T.C., Risberg, J., Holmgren, K., 2009. Reconstruction of environmental and climate changes at Braamhoek wetland, eastern escarpment South Africa, during the last 16,000 years with emphasis on the Pleistocene–Holocene transition. Palaeogeography, Palaeoclimatology, Palaeoecology 271, 240–258. *https://doi.org/10.1016/j.palaeo.2008.10.018*

Northrop, L.A., Horn, S.P., 1996. PreColumbian agriculture and forest disturbance in Costa Rica: palaeoecological evidence from two lowland rainforest lakes. The Holocene 6, 289–299. *https://doi.org/10.1177/095968369600600304*

Noti, R., van Leeuwen, J.F.N., Colombaroli, D., Vescovi, E., Pasta, S., La Mantia, T., Tinner, W., 2009. Mid- and late-Holocene vegetation and fire history at Biviere di Gela, a coastal lake in southern Sicily, Italy. Vegetation History and Archaeobotany 18, 371–387. *https://doi.org/10.1007/s00334-009-0211-0*

Novenko, E.Y., Tsyganov, A.N., Payne, R.J., Mazei, N.G., Volkova, E.M., Chernyshov, V.A., Kupriyanov, D.A., Mazei, Y.A., 2018. Vegetation dynamics and fire history at the southern boundary of the forest vegetation zone in European Russia during the middle and late Holocene. The Holocene 28, 308–322. *https://doi.org/10.1177/0959683617721331*

Novenko, E.Y., Tsyganov, A.N., Rudenko, O.V., Volkova, E.V., Zuyganova, I.S., Babeshko, K.V., Olchev, A.V., Losbenev, N.I., Payne, R.J., Mazei, Y.A., 2016. Mid-and late-Holocene vegetation history, climate and human impact in the forest-steppe ecotone of European Russia: new data and a regional synthesis. Biodiversity and Conservation 25, 2453–2472. *https://doi.org/10.1007/s10531-016-1051-8*

Novenko, E.Y., Tsyganov, A.N., Volkova, E.M., Kupriyanov, D.A., Mironenko, I.V., Babeshko, K.V., Utkina, A.S., Popov, V., Mazei, Y.A., 2016. Mid-and Late Holocene vegetation dynamics and fire history in the boreal forest of European Russia: A case study from Meshchera Lowlands. Palaeogeography, Palaeoclimatology, Palaeoecology 459, 570–584. *https://doi.org/10.1016/j.palaeo.2016.08.004*

Odgaard, B.V., 1994. The Holocene vegetation history of northern West Jutland, Denmark. Nordic Journal of Botany 14, 546.0. *https://doi.org/10.1111/j.1756-1051.1994.tb00649.x*

Ogden, J., Basher, L., McGlone, M., 1998. Botanical briefing fire, forest regeneration and links with early human habitation: evidence from New Zealand. Annals of Botany 81, 687–696. *https://doi.org/10.1006/anbo.1998.0637*

Ogura, A., Krivonogov, S.K., Takahara, H., n.d. Unpublished data.

Ogura, J., 2002. A study of microscopic charcoal particles included in the samples used for the pollen analysis of Midoroga-ike Pond. Journal of Kyoto Seika University 21, 268–288.

Olsson, F., Gaillard, M.-J., Lemdahl, G., Greisman, A., Lanos, P., Marguerie, D., Marcoux, N., Skoglund, P., Wäglind, J., 2010. A continuous record of fire covering the last 10,500 calendar years from southern Sweden—The role of climate and human activities. Palaeogeography, Palaeoclimatology, Palaeoecology 291, 128–141. *https://doi.org/10.1016/j.palaeo.2009.07.013*

Olsson, F., Lemdahl, G., 2010. A forest history for the last 10 900 years at the site Storasjö, southern Sweden: implications from beetle assemblages. Journal of Quaternary Science 25, 1211–1221. *https://doi.org/10.1002/jqs.1400*

Oris, F., Asselin, H., Finsinger, W., Hély, C., Blarquez, O., Ferland, M.-E., Bergeron, Y., Ali, A.A., 2014. Long-term fire history in northern Quebec: implications for the northern limit of commercial forests. Journal of Applied Ecology 51, 675–683. *https://doi.org/10.1111/1365-2664.12240*

Ortega, B., Caballero, M., Lozano-García, M. d.S, Vilaclara, G., Rodríguez, A., 2006. Rock magnetic and geochemical proxies for iron mineral diagenesis in a tropical lake: Lago Verde, Los Tuxtlas, East–Central Mexico. Earth and Planetary Science Letters 250, 444–458. *https://doi.org/10.1016/j.epsl.2006.08.020*

Ortu, E., Brewer, S., Peyron, O., 2006. Pollen-inferred palaeoclimate reconstructions in mountain areas: problems and perspectives. Journal of Quaternary Science 21, 615–627. *https://doi.org/10.1002/jqs.998*

Ortu, E., David, F., Caramiello, R., 2005. Effet des paramètres locaux sur le développement de la végétation dans le Vallon de St. Anna di Vinadio (Alpes Maritimes; Italie). Ecoscience 12, 122–135. *https://doi.org/10.2980/i1195-6860-12-1-122.1*

Ortu, E., David, F., Caramiello, R., 2003. Rôle de l'homme dans l'histoire de la végétation de la vallée Ellero (Alpes maritimes, Italie) – Man's role in the vegetation history in the Ellero Valley (Maritime Alps, Italy). Comptes Rendus Biologies 326, 631–637. *https://doi.org/10.1016/S1631-0691(03)00155-0*

Ortu, E., Peyron, O., Bordon, A., de Beaulieu, J.-L., Siniscalco, C., Caramiello, R., 2008. Lateglacial and Holocene climate oscillations in the South-western Alps: an attempt at quantitative reconstruction. Quaternary International 190, 71–88. *https://doi.org/10.1016/j.quaint.2008.04.004*

Oswald, W.W., n.d. Unpublished data.

Oswald, W.W., Faison, E.K., Foster, D.R., Doughty, E.D., Hall, B.R., Hansen, B.C.S., 2007. Post-glacial changes in spatial patterns of vegetation across southern New England. Journal of Biogeography 34, 900–913. *https://doi.org/10.1111/j.1365-2699.2006.01650.x*

Oswald, W.W., Foster, D.R., 2013. Lake Sediment Pollen from Blood Pond in Dudley MA from 15000 BP to Present. *https://doi.org/10.6073/pasta/e21028d656c7dad6c50e2b3539825f23*

Oswald, W.W., Foster, D.R., Doughty, E.D., Macdonald, D., 2010. A record of Holocene environmental and ecological changes from Wildwood Lake, Long Island, New York. Journal of Quaternary Science 25, 967–974. *https://doi.org/10.1002/jqs.1381*

Oswald, W.W., Foster, D.R., Shuman, B.N., Chilton, E.S., Doucette, D.L., Duranleau, D.L., 2020. Conservation implications of limited Native American impacts in pre-contact New England. Nature Sustainability 3, 241–246. *https://doi.org/10.1038/s41893-019-0466-0*

Oswald, W.W., Foster, D.R., Shuman, B.N., Doughty, E.D., Faison, E.K., Hall, B.R., Hansen, B.C.S., Lindbladh, M., Marroquin, A., Truebe, S.A., 2018. Subregional variability in the response of New England

vegetation to postglacial climate change. Journal of Biogeography 45, 2375–2388. https://doi.org/10.1111/jbi.13407
Paduano, G.M., Bush, M.B., Baker, P.A., Fritz, S.C., Seltzer, G.O., 2003. A vegetation and fire history of Lake Titicaca since the Last Glacial Maximum. Palaeogeography, Palaeoclimatology, Palaeoecology 194, 259–279. https://doi.org/10.1016/S0031-0182(03)00281-5
Paillard, J., n.d. Unpublished data.
Paquette, N., Gajewski, K., 2013. Climatic change causes abrupt changes in forest composition, inferred from a high-resolution pollen record, southwestern Quebec, Canada. Quaternary Science Reviews 75, 169–180. https://doi.org/10.1016/j.quascirev.2013.06.007
Parshall, T., Foster, D.R., 2002. Fire on the New England landscape: regional and temporal variation, cultural and environmental controls. Journal of Biogeography 29, 1305–1317. https://doi.org/10.1046/j.1365-2699.2002.00758.x
Parshall, T., Foster, D.R., Faison, E., MacDonald, D., Hansen, B.C.S., 2003. Long-term history of vegetation and fire in pitch pine–oak forests on Cape Cod, Massachusetts. Ecology 84, 736–748. https://doi.org/10.1890/0012-9658(2003)084[0736:LTHOVA]2.0.CO;2
Partridge, T.C., Demenocal, P.B., Lorentz, S.A., Paiker, M.J., Vogel, J.C., 1997. Orbital forcing of climate over South Africa: a 200,000-year rainfall record from the Pretoria Saltpan. Quaternary Science Reviews 16, 1125–1133. https://doi.org/10.1016/S0277-3791(97)00005-X
Pederson, D.C., Peteet, D.M., Kurdyla, D., Guilderson, T., 2005. Medieval Warming, Little Ice Age, and European impact on the environment during the last millennium in the lower Hudson Valley, New York, USA. Quaternary Research 63, 238–249. https://doi.org/10.1016/j.yqres.2005.01.001
Penny, D., Kealhofer, L., 2005. Microfossil evidence of land-use intensification in north Thailand. Journal of Archaeological Science 32, 69–82. https://doi.org/10.1016/j.jas.2004.07.002
Pesce, O.H., Moreno, P.I., 2014. Vegetation, fire and climate change in central-east Isla Grande de Chiloé (43°S) since the Last Glacial Maximum, northwestern Patagonia. Quaternary Science Reviews 90, 143–157. https://doi.org/10.1016/j.quascirev.2014.02.021
Petersen, K.L., 1988. Climate and the Dolores River Anasazi: A paleoenvironmental reconstruction from a 10,000-Year pollen record, La Plata Mountains, southwestern Colorado. University of Utah Anthropological Papers 113, 152.0.
Petherick, L., McGowan, H., Moss, P., 2008. Climate variability during the Last Glacial Maximum in eastern Australia: evidence of two stadials? Journal of Quaternary Science 23, 787–802. https://doi.org/10.1002/jqs.1186
Pérez-Díaz, S., López-Sáez, J.A., 2019. The Western Pyrenean (Northern Iberian Peninsula) during the Upper Paleolithic: a palaeoenvironmental approach, in: Schmidt, I., Cascalheira, J., Bicho, N., Weniger, G.-C. (Eds.), Human Adaptations to the Last Glacial Maximum: The Solutrean and its Neighbors. Cambridge Scholars Publishing.
Pérez-Díaz, S., López-Sáez, J.A., 2017. 33. Verdeospesoa mire (Basque Country, Northern Iberian Peninsula, Spain). Grana 56, 315–317. https://doi.org/10.1080/00173134.2016.1271824
Pérez-Díaz, S., López-Sáez, J.A., Núñez de la Fuente, S., Ruiz-Alonso, M., 2018. Early farmers, megalithic builders and the shaping of the cultural landscapes during the Holocene in Northern Iberian mountains. A palaeoenvironmental perspective. Journal of Archaeological Science: Reports 18, 463–474. https://doi.org/10.1016/j.jasrep.2018.01.043
Pérez-Sanz, A., González-Sampériz, P., Moreno, A., Valero-Garcés, B., Gil-Romera, G., Rieradevall, M., Tarrats, P., Lasheras-Álvarez, L., Morellón, M., Belmonte, A., Sancho, C., Sevilla-Callejo, M., Navas, A., 2013. Holocene climate variability, vegetation dynamics and fire regime in the central Pyrenees: the Basa de la Mora sequence (NE Spain). Quaternary Science Reviews 73, 149–169. https://doi.org/10.1016/j.quascirev.2013.05.010
Pędziszewska, A., Latałowa, M., 2016. Stand-scale reconstruction of late Holocene forest succession on the Gdańsk Upland (N. Poland) based on integrated palynological and macrofossil data from paired

sites. Vegetation History and Archaeobotany 25, 239–254. https://doi.org/10.1007/s00334-015-0546-7
Pędziszewska, A., Tylmann, W., Witak, M., Piotrowska, N., Maciejewska, E., Latałowa, M., 2015. Holocene environmental changes reflected by pollen, diatoms, and geochemistry of annually laminated sediments of Lake Suminko in the Kashubian Lake District (N Poland). Review of Palaeobotany and Palynology 216, 55–75. https://doi.org/10.1016/j.revpalbo.2015.01.008
Pierce, J.L., Meyer, G.A., Jull, A.J.T., 2004. Fire-induced erosion and millennial-scale climate change in northern ponderosa pine forests. Nature 432, 87–90. https://doi.org/10.1038/nature03058
Pilote, L.-M., Garneau, M., van Bellen, S., Lamothe, M., 2018. Multiproxy analysis of inception and development of the Lac-à-la-Tortue peatland complex, St Lawrence Lowlands, eastern Canada. Boreas 47, 1084–1101. https://doi.org/10.1111/bor.12337
Pini, R., 2002. A high-resolution Late-Glacial–Holocene pollen diagram from Pian di Gembro (Central Alps, Northern Italy). Vegetation History and Archaeobotany 11, 251–262. https://doi.org/10.1007/s003340200038
Pini, R., Ravazzi, C., Donegana, M., 2009. Pollen stratigraphy, vegetation and climate history of the last 215ka in the Azzano Decimo core (plain of Friuli, north-eastern Italy). Quaternary Science Reviews 28, 1268–1290. https://doi.org/10.1016/j.quascirev.2008.12.017
Pittock, J., 1989. Palaeoenvironments of the Mt. Disappointment Plateau (Kinglake West, Victoria), from the Late Pleistocene (BSc (Hons) thesis). Department of Geography; Environmental Science, Monash University, Melbourne, Australia.
Pokorný, P., 2016. 29. Vrbka (Czech Republic): Pollen record of secondary steppe vegetation development within the Bronze Age agricultural landscape. Grana 55, 246–249. https://doi.org/10.1080/00173134.2015.1120342
Pokorný, P., 2005. Role of man in the development of Holocene vegetation in Central Bohemia. Preslia 77, 113–128. https://doi.org/10013/epic.44114.d007
Pokorný, P., 2002. A high-resolution record of Late-Glacial and Early-Holocene climatic and environmental change in the Czech Republic. Quaternary International 91, 101–122. https://doi.org/10.1016/S1040-6182(01)00105-7
Pokorný, P., Jankovská, V., 2000. Long-term vegetation dynamics and the infilling process of a former lake (Švarcenberk, Czech Republic). Folia Geobotanica 35, 433–457. https://doi.org/10.1007/BF02803554
Pokorný, P., Klimešová, J., Klimeš, L., 2000. Late Holocene history and vegetation dynamics of a floodplain alder carr: a case study from eastern Bohemia, Czech Republic. Folia Geobotanica 35, 43–58. https://doi.org/10.1007/BF02803086
Pokorný, P., Kuneš, P., 2009. 5. Kožlí (S. Bohemia, Czech Republic). Grana 48, 77–78. https://doi.org/10.1080/00173130902759816
Pokorný, P., Kuneš, P., 2005. Holocene acidification process recorded in three pollen profiles from Czech sandstone and river terrace environments. Ferrantia 44, 107–112. https://doi.org/10013/epic.44114.d010
Pokorný, P., Kuneš, P., Abraham, V., 2008. Holocenní vývoj vegetace v Českém Svýcarsku, in: Bauer, P., Kopecký, V., Smucar, J. (Eds.), Labské pískovce - historie, příroda a ochrana území. Agentura ochrany přírody a krajiny České republiky, Správa CHKO Labské pískovce, Děčín, Czech Republic, pp. 35–49.
Pokorný, P., Sádlo, J., Bernardová, A., 2010. Holocene history of Cladium mariscus (L.) Pohl in the Czech Republic. Implications for species population dynamics and palaeoecology. Acta Palaeobotanica 50, 65–76.
Pokorný, P., van der Knaap, W.O., 2011. 15. Brve (Czech Republic): Vegetation development over the last about 2.5 millennia in the Bohemian Lowland close to Prague. Grana 50, 311–313. https://doi.org/10.1080/00173134.2011.645551

Pokorný, P., van der Knaap, W.O., 2010. 10. Na Bahně (Czech Republic): Vegetation development over the last 2.5 millennia in the Eastern Bohemian lowland. Grana 49, 79–81. *https://doi.org/10.1080/00173130903435846*

Polach, H., Singh, G., 1980. Contemporary ^{14}C levels and their significance to sedimentary history of Bega Swamp, New South Wales. Radiocarbon 22, 398–409. *https://doi.org/10.1017/s0033822200009693*

Pompeani, D.P., Cooke, C.A., Abbott, M.B., Drevnick, P.E., 2018. Climate, fire, and vegetation mediate mercury delivery to midlatitude lakes over the Holocene. Environmental Science & Technology 52, 8157–8164. *https://doi.org/10.1021/acs.est.8b01523*

Poska, A., 1994. Three Pollen Diagrams from Coastal Estonia: Sediments, Vegetational Development, Climatic Events and the Environmental Impact of Man. Uppsala universitet.

Poska, A., Saarse, L., 2006. New evidence of possible crop introduction to north-eastern Europe during the Stone Age. Vegetation History and Archaeobotany 15, 169–179. *https://doi.org/10.1007/s00334-005-0024-8*

Poska, A., Saarse, L., 2002a. Biostratigraphy and ^{14}C dating of a lake sediment sequence on the north-west Estonian carbonaceous plateau, interpreted in terms of human impact in the surroundings. Vegetation History and Archaeobotany 11, 191–200. *https://doi.org/10.1007/s003340200022*

Poska, A., Saarse, L., 2002b. Vegetation development and introduction of agriculture to Saaremaa Island, Estonia: the human response to shore displacement. The Holocene 12, 555–568. *https://doi.org/10.1191/0959683602hl567rp*

Poska, A., Saarse, L., 1999. Holocene vegetation and land-use history in the environs of Lake Kahala, northern Estonia. Vegetation History and Archaeobotany 8, 185–197. *https://doi.org/10.1007/bf02342719*

Power, M.J., n.d. Unpublished data.

Power, M.J., 1998. Unpublished data (MSc thesis). Northern Arizona University, Flagstaff, Arizona, USA.

Power, M.J., Whitlock, C., Bartlein, P.J., Stevens, L.R., 2006. Fire and vegetation history during the last 3800 years in northwestern Montana. Geomorphology 75, 420–436. *https://doi.org/10.1016/j.geomorph.2005.07.025*

Premathilake, R., 2006. Relationship of environmental changes in central Sri Lanka to possible prehistoric land-use and climate changes. Palaeogeography, Palaeoclimatology, Palaeoecology 240, 468–496. *https://doi.org/10.1016/j.palaeo.2006.03.001*

Prichard, S.J., Gedalof, Z., Oswald, W.W., Peterson, D.L., 2009. Holocene fire and vegetation dynamics in a montane forest, North Cascade Range, Washington, USA. Quaternary Research 72, 57–67. *https://doi.org/10.1016/j.yqres.2009.03.008*

Primeau, G., Garneau, M., n.d. Unpublished data.

Primeau, G., Garneau, M., 2021. Carbon accumulation in peatlands along a boreal to subarctic transect in eastern Canada. The Holocene 31, 858–869. *https://doi.org/10.1177/0959683620988031*

Pulido, M.G., 2006. Conséquences de L'anthropisation sur la Dynamique Postglaciaire de la Végétation dans le sud du Massif Central, France (PhD thesis). Université d'Aix-Marseille, Marseille, France.

Punning, J.-M., Koff, T., Kadastik, E., Mikomägi, A., 2005. Holocene lake level fluctuations recorded in the sediment composition of Lake Juusa, southeastern Estonia. Journal of Paleolimnology 34, 377–390. *https://doi.org/10.1007/s10933-005-6751-0*

Radclyffe, E., 1993. Fire and People in Jervis Bay: Toward a Fire History in an Occupied Landscape (BSc (Hons) thesis). Department of Geography, The Australian National University, Canberra, Australia.

Raine, J.I., 1974. Pollen Sedimentation in Relation to Quaternary Vegetation History of the Snowy Mountains of New South Wales (PhD thesis). Australian National University, Canberra.

Rainville, R.A., Gajewski, K., 2013. Holocene environmental history of the Aishihik Region, Yukon, Canada. Canadian Journal of Earth Sciences 50, 397–405. *https://doi.org/10.1139/cjes-2012-0103*

Ramos-Román, M.J., Jiménez-Moreno, G., Anderson, R.S., García-Alix, A., Toney, J.L., Jiménez-Espejo, F.J., Carrión, J.S., 2016. Centennial-scale vegetation and North Atlantic Oscillation changes during the

late Holocene in the southern Iberia. Quaternary Science Reviews 143, 84–95. https://doi.org/10.1016/j.quascirev.2016.05.007
Rasmussen, P., Bradshaw, E.G., 2005. Mid-to late-Holocene land-use change and lake development at Dallund So, Denmark: study aims, natural and cultural setting, chronology and soil erosion history. The Holocene 15, 1105–1115. https://doi.org/10.1191/0959683605hl883rp
Rayle, C.M., Franklin, S.B., Lu, Z., 2015. Fire occurrence in relation to bamboo dominance in the Qinling Mountains of China: Evidence from phytolith and charcoal records in Holocene sediments. Science China Earth Sciences 58, 1182–1190. https://doi.org/10.1007/s11430-015-5060-3
Reddad, H., Etabaai, I., Rhoujjati, A., Taieb, M., Thevenon, F., Damnati, B., 2013. Fire activity in North West Africa during the last 30,000 cal years BP inferred from a charcoal record from Lake Ifrah (Middle Atlas–Morocco): climatic implications. Journal of African Earth Sciences 84, 47–53. https://doi.org/10.1016/j.jafrearsci.2013.03.007
Reid, M.A., Sayer, C.D., Kershaw, A.P., Heijnis, H., 2006. Palaeolimnological evidence for submerged plant loss in a floodplain lake associated with accelerated catchment soil erosion (Murray River, Australia). Journal of Paleolimnology 38, 191–208. https://doi.org/10.1007/s10933-006-9067-9
Remy, C.C., Fouquemberg, C., Asselin, H., Andrieux, B., Magnan, G., Brossier, B., Grondin, P., Bergeron, Y., Talon, B., Girardin, M.P., Blarquez, O., Bajolle, L., Ali, A.A., 2018. Guidelines for the use and interpretation of palaeofire reconstructions based on various archives and proxies. Quaternary Science Reviews 193, 312–322. https://doi.org/10.1016/j.quascirev.2018.06.010
Remy, C.C., Lavoie, M., Girardin, M.P., Hély, C., Bergeron, Y., Grondin, P., Oris, F., Asselin, H., Ali, A.A., 2017. Wildfire size alters long-term vegetation trajectories in boreal forests of eastern North America. Journal of Biogeography 44, 1268–1279. https://doi.org/10.1111/jbi.12921
Revelles, J., Cho, S., Iriarte, E., Burjachs, F., van Geel, B., Palomo, A., Piqué, R., Peña-Chocarro, L., Terradas, X., 2015. Mid-Holocene vegetation history and Neolithic land-use in the Lake Banyoles area (Girona, Spain). Palaeogeography, Palaeoclimatology, Palaeoecology 435, 70–85. https://doi.org/10.1016/j.palaeo.2015.06.002
Richard, P.J.H., n.d. Unpublished data.
Richard, P.J.H., 1980. Histoire postglaciaire de la végétation au sud du lac Abitibi, Ontario et Québec. Géographie physique et Quaternaire 34, 77. https://doi.org/10.7202/1000385ar
Richard, P.J.H., 1977. Histoire Post-Wisconsinienne de la Végétation du Québec Méridional par L'analyse Pollinique. Service de la recherche, Direction générale des forêts, Ministère des Terres et Forets.
Richard, P.J.H., Larouche, A., Bouchard, M.A., 1982. Âge de la déglaciation finale et histoire postglaciaire de la végétation dans la partie centrale du Nouveau-Québec. Géographie physique et Quaternaire 36, 63. https://doi.org/10.7202/032470ar
Richard, P.J.H., Larouche, A.C., 1994. Histoire postglaciaire de la végétation et du climat dans la région de Rimouski, Québec, in: Chapdelaine, C. (Ed.), I1 y a 8000 ans Q Rimouski: Paleoecologie et Archeologic d'un site de la Culture Piano. Recherches Amériendiennes au Québec, Coll. Paléo-Québec, pp. 49–89.
Richard, P.J.H., Larouche, A., Lortie, G., 1992. Paléophytogéographie et paléoclimats postglaciaires dans l'ouest du Bas-Saint-Laurent, Québec. Géographie physique et Quaternaire 46, 151–172. https://doi.org/10.7202/032900ar
Richoz, I., 1998. Etude paléoécologique du lac de Seedorf (Fribourg, Suisse). Histoire de la végétaion et du Mlieu Durant l'Holocène: le rôle de L'homme et du Climat (Thèse de doctorat). Université de Lausanne, Lausanne, Switzerland.
Richoz, I., Gaillard, M.-J., Magny, M., 1994. The influence of human activities and climate on the development of vegetation at Seedorf, southern Swiss Plateau, during the Holocene: a case study. Dissertationes Botanicae 243, 423–445.

Riera-Mora, S., Esteban-Amat, A., 1994. Vegetation history and human activity during the last 6000 years on the central Catalan coast (northeastern Iberian Peninsula). Vegetation History and Archaeobotany 3, 7–23. *https://doi.org/10.1007/bf00208885*

Rimantienė, R., 1992. The Neolithic of the eastern Baltic. Journal of World Prehistory 6, 97–143. *https://doi.org/10.1007/bf00997586*

Rius, D., Vannière, B., Galop, D., 2009. Fire frequency and landscape management in the northwestern Pyrenean piedmont, France, since the early Neolithic (8000 cal. BP). The Holocene 19, 847–859. *https://doi.org/10.1177/0959683609105299*

Robbie, A., 1998. The History of the Vegetation from the Palynology of Mountain Lagoon, Blue Mountains, New South Wales (BSc thesis). University of New South Wales, Sydney, Australia.

Robertson, M., 1986. Fire Regimes and Vegetation Dynamics: a Case Study Examining the Potential of Fine Resolution Palaeoecological Techniques (BSc (Hons) thesis). Department of Geography; Environmental Science, Monash University, Melbourne, Australia.

Robinson, G.S., Burney, L.P., Burney, D.A., 2005. Landscape paleoecology and magafaunal extinction in southeastern New York State. Ecological Monographs 75, 295–315. *https://doi.org/10.1890/03-4064*

Robinson, K.D., 2007. A Holistic Paleolimnological Study of North-Central Mongolian Lakes (PhD thesis). University of Pittsburgh, Pittsburgh, Pennsylvania, USA.

Robitaille, M., Garneau, M., van Bellen, S., Sanderson, N.K., 2021. Long-term and recent ecohydrological dynamics of patterned peatlands in north-central Quebec (Canada). The Holocene 31, 844–857. *https://doi.org/10.1177/0959683620988051*

Robles-López, S., Luelmo-Lautenschlaeger, R., Pérez-Díaz, S., Abel-Schaad, D., Alba-Sánchez, F., Ruiz-Alonso, M., López-Sáez, J.A., 2017. Vulnerabilidad y resiliencia de los pinares de alta montaña de la Sierra de Gredos (Ávila, Sistema Central): dos mil años de dinámica socioecológica. Cuaternario y Geomorfología 31, 51. *https://doi.org/10.17735/cyg.v31i3-4.55594*

Robles-López, S., Martín-Consuegra, A.F., Pérez-Díaz, S., Alba-Sánchez, F., Broothaerts, N., Abel-Schaad, D., López-Sáez, J.A., 2018. The dialectic between deciduous and coniferous forests in central Iberia: a palaeoenvironmental perspective during the late Holocene in the Gredos range. Quaternary International 470, 148–165. *https://doi.org/10.1016/j.quaint.2017.05.012*

Rodríguez, F., Behling, H., 2012. Late Quaternary vegetation, climate and fire dynamics, and evidence of early to mid-Holocene Polylepis forests in the Jimbura region of the southernmost Ecuadorian Andes. Palaeogeography, Palaeoclimatology, Palaeoecology 350-352, 247–257. *https://doi.org/10.1016/j.palaeo.2012.07.004*

Rodríguez, F., Behling, H., 2010. Late Holocene vegetation, fire, climate and upper forest line dynamics in the Podocarpus National Park, southeastern Ecuador. Vegetation History and Archaeobotany 20, 1–14. *https://doi.org/10.1007/s00334-010-0252-4*

Rodríguez-Zorro, P.A., da Costa, M.L., Behling, H., 2017. Mid-Holocene vegetation dynamics with an early expansion of Mauritia flexuosa palm trees inferred from the Serra do Tepequém in the savannas of Roraima State in Amazonia, northwestern Brazil. Vegetation History and Archaeobotany 26, 455–468. *https://doi.org/10.1007/s00334-017-0605-3*

Rodríguez-Zorro, P.A., Ledru, M.-P., Bard, E., Aquino-Alfonso, O., Camejo, A., Daniau, A.-L., Favier, C., Garcia, M., Mineli, T.D., Rostek, F., Ricardi-Branco, F., 2020. Shut down of the South American summer monsoon during the penultimate glacial. Scientific Reports 10, 1–11. *https://doi.org/10.1038/s41598-020-62888-x*

Rodríguez-Zorro, P.A., Turcq, B., Cordeiro, R.C., Moreira, L.S., Costa, R.L., McMichael, C.H., Behling, H., 2017. Forest stability during the early and late Holocene in the igapó floodplains of the Rio Negro, northwestern Brazil. Quaternary Research 89, 75–89. *https://doi.org/10.1017/qua.2017.99*

Rogers, J., Hope, G.S., 2006. The Holocene infill of Nursery Swamp, a large sedgeland in the Australian Capital Territory. Unpublished report to Environment ACT.

Roos-Barraclough, F., van der Knaap, W.O., van Leeuwen, J.F.N., Shotyk, W., 2004. A Late-glacial and Holocene record of climatic change from a Swiss peat humification profile. The Holocene 14, 7–19. *https://doi.org/10.1191/0959683604hl685rp*

Rowe, C., 2007. A palynological investigation of Holocene vegetation change in Torres Strait, seasonal tropics of northern Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 251, 83–103. *https://doi.org/10.1016/j.palaeo.2007.02.019*

Rowe, C., 2006a. A Holocene History of Vegetation Change in the Western Torres Strait Region, Queensland, Australia (PhD thesis). School of Geography; Environmental Science, Monash University, Melbourne, Australia.

Rowe, C., 2006b. Landscapes in western Torres Strait history, in: David, B., Barker, B., McNiven, I. (Eds.), The Social Archaeology of Australian Indigenous Societies. Aboriginal Studies Press, Canberra, pp. 270–287.

Rowe, J.S., Spittlehouse, D., Johnson, E., Jasieniuk, M., 1975. Fire studies in the Upper Mackenzie Valley and adjacent Precambrian uplands. Department of Indian and Northern Affairs; INA Publication QS-8045-000-EE-A1, Ottawa, Ontario, Canada.

Rösch, M., 2013. Change of land use during the last two millennia as indicated in the pollen record of a profundal core from Mindelsee, Lake Constance Region, Southwest Germany. Von Sylt bis Kastanas: Festschrift für Helmut Johannes Kroll. Offa 69, 335–370.

Rösch, M., 2012. Vegetation und Waldnutzung im Nordschwarzwald während sechs Jahrtausenden anhand von Profundalkernen aus dem Herrenwieser See. Mitt. Ver. für Forstl. Standortskunde und Forstpflanzenzüchtung 47, 43–64. *https://doi.org/10013/epic.44366.d024*

Rösch, M., 2009. Zur vorgeschichtlichen Besiedlung und Landnutzung im nördlichen Schwarzwald aufgrund vegetationsgeschichtlicher Untersuchungen in zwei Karseen - Prehistoric settlement and land use history of the Northern Black Forest as indicated by pollenanalytical investigations in two cirque lakes. Mitt. Ver. für Forstl. Standortskunde und Forstpflanzenzüchtung 46, 15–24.

Rösch, M., 2007. Botanical evidence for prehistoric and medieval land use in the Black Forest, in: Medieval Rural Settlement in Marginal Landscapes: Peuplement rural dans les territoires marginaux au Moyen Âge. Mittelalterliche Siedlung in ländlichen Randgebieten. Brepols Publishers, Cardiff, Wales, UK, pp. 335–343. *https://doi.org/10.1484/M.RURALIA-EB.3.1181*

Rösch, M., 2005. Zur Vegetationsgeschichte des südlichen Kraichgaus – Botanische Untersuchungen bei Grossvillars, Gemeinde Oberderdingen, Landkreis Karlsruhe. Fundberichte aus Baden-Württemberg 28, 839–870.

Rösch, M., 2000. Long-term human impact as registered in an upland pollen profile from the southern Black Forest, south-western Germany. Vegetation History and Archaeobotany 9, 205–218. *https://doi.org/10.1007/BF01294635*

Rösch, M., 1997. Holocene sediment accumulation in the shallow water zone of Lower Lake Constance. Archiv für Hydrobiologie. Supplementband. Monographische Beiträge 107, 541–562.

Rösch, M., 1993. Prehistoric land use as recorded in a lake-shore core at Lake Constance. Vegetation History and Archaeobotany 2, 213–232. *https://doi.org/10.1007/BF00198163*

Rösch, M., 1992. Human impact as registered in the pollen record: some results from the western Lake Constance region, southern Germany. Vegetation History and Archaeobotany 1, 101–109. *https://doi.org/10.1007/bf00206090*

Rösch, M., 1986. Zwei Moore im westlichen Bodenseegebiet als Zeugen prähistorischer Landschaftsveränderungen. Telma 16, 83–111.

Rösch, M., Fischer, E., 2000. A radiocarbon dated Holocene pollen profile from the Banat mountains (Southwestern Carpathians, Romania). Flora 195, 277–286. *https://doi.org/10.1016/S0367-2530(17)30981-7*

Rösch, M., Kleinmann, A., Lechterbeck, J., Wick, L., 2014. Botanical off-site and on-site data as indicators of different land use systems: a discussion with examples from Southwest Germany. Vegetation history and archaeobotany 23, 121–133. *https://doi.org/10.1007/s00334-014-0437-3*

Rösch, M., Lechterbeck, J., 2016. Seven millennia of human impact as reflected in a high resolution pollen profile from the profundal sediments of Litzelsee, Lake Constance region, Germany. Vegetation History and Archaeobotany 25, 339–358. *https://doi.org/10.1007/s00334-015-0552-9*

Rösch, M., Marinova, E., 2020. 51. Zeller See. Grana 1–3. *https://doi.org/10.1080/00173134.2020.1821765*

Rösch, M., Tserendorj, G., 2011a. Der Nordschwarzwald–früher besiedelt als gedacht? Pollenprofile belegen ausgedehnte vor-geschichtliche Besiedlung und Landnutzung. Denkmalpflege in Baden-Württemberg 40, 66–73.

Rösch, M., Tserendorj, G., 2011b. Florengeschichtliche Beobachtungen im Nordschwarzwald (Südwestdeutschland). Hercynia N.F. 44, 53–71.

Rösch, M., Volk, H., Wieland, G., 2005. Frühe Waldnutzung und das Alter des Naturwaldes im Schwarzwald. AFZ (Allgemeine Forstzeitschrift).-Der Wald 12, 636–638.

Rucina, S.M., Muiruri, V.M., Kinyanjui, R.N., McGuiness, K., Marchant, R., 2009. Late Quaternary vegetation and fire dynamics on Mount Kenya. Palaeogeography, Palaeoclimatology, Palaeoecology 283, 1–14. *https://doi.org/10.1016/j.palaeo.2009.08.008*

Rue, D., Webster, D., Traverse, A., 2002. Late Holocene fire and agriculture in the Copan Valley, Honduras. Ancient Mesoamerica 13, 267–272. *https://doi.org/10.1017/S095653610213210X*

Ruiz Pessenda, L.C., Gomes, B.M., Aravena, R., de Souza Ribeiro, A., Boulet, R., Marques Gouveia, S.E., 1998. The carbon isotope record in soils along a forest-cerrado ecosystem transect: implications for vegetation changes in the Rondonia state, southwestern Brazilian Amazon region. The Holocene 8, 599–603. *https://doi.org/10.1191/095968398673187182*

Ruiz Pessenda, L.C., Marques Gouveia, S.E., Aravena, R., 2001. Radiocarbon dating of total soil organic matter and humin fraction and its comparison with ^{14}C ages of fossil charcoal. Radiocarbon 43, 595–601. *https://doi.org/10.1017/S0033822200041242*

Ruiz Pessenda, L.C., Marques Gouveia, S.E., Aravena, R., Boulet, R., Valencia, E.P.E., 2004. Holocene fire and vegetation changes in southeastern Brazil as deduced from fossil charcoal and soil carbon isotopes. Quaternary International 114, 35–43. *https://doi.org/10.1016/S1040-6182(03)00040-5*

Rypins, S., Reneau, S.L., Byrne, R., Montgomery, D.R., 1989. Palynologic and geomorphic evidence for environmental change during the Pleistocene-Holocene transition at Point Reyes Peninsula, central coastal California. Quaternary Research 32, 72–87. *https://doi.org/10.1016/0033-5894(89)90033-1*

Saarse, L., Poska, A., Kaup, E., Heinsalu, A., 1998. Holocene environmental events in the Viitna area, North Estonia, in: Proceedings of the Estonian Academy of Sciences, Geology. Estonian Academy Publishers, pp. 31–44.

Sadori, L., Zanchetta, G., Giardini, M., 2008. Last Glacial to Holocene palaeoenvironmental evolution at Lago di Pergusa (Sicily, Southern Italy) as inferred by pollen, microcharcoal, and stable isotopes. Quaternary International 181, 4–14. *https://doi.org/10.1016/j.quaint.2007.02.024*

Sae-Lim, J., Russell, J.M., Vachula, R.S., Holmes, R.M., Mann, P.J., Schade, J.D., Natali, S.M., 2019. Temperature-controlled tundra fire severity and frequency during the last millennium in the Yukon-Kuskokwim Delta, Alaska. The Holocene 29, 1223–1233.

Salgado-Labouriau, M.L., Casseti, V., Ferraz-Vicentini, K.R., Martin, L., Soubiès, F., Suguio, K., Turcq, B., 1997. Late Quaternary vegetational and climatic changes in cerrado and palm swamp from Central Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology 128, 215–226. *https://doi.org/10.1016/S0031-0182(96)00018-1*

Salonen, J.S., Seppä, H., Väliranta, M., Jones, V.J., Self, A., Heikkilä, M., Kultti, S., Yang, H., 2011. The Holocene thermal maximum and late-Holocene cooling in the tundra of NE European Russia. Quaternary Research 75, 501–511. *https://doi.org/10.1016/j.yqres.2011.01.007*

Salzmann, U., Hoelzmann, P., Morczinek, I., 2002. Late Quaternary climate and vegetation of the Sudanian zone of northeast Nigeria. Quaternary Research 58, 73–83. *https://doi.org/10.1006/qres.2002.2356*
Sarmaja-Korjonen, K., 1998. Latitudinal differences in the influx of microscopic charred particles to lake sediments in Finland. The Holocene 8, 589–597. *https://doi.org/10.1191/095968398666296639*
Sasaki, N., Takahara, H., n.d. Unpublished data.
Sasaki, N., Takahara, H., 2012. Fire and human impact on the vegetation of the western Tamba Highlands, Kyoto, Japan during the late Holocene. Quaternary International 254, 3–11. *https://doi.org/10.1016/j.quaint.2010.12.003*
Sasaki, N., Takahara, H., 2011. Late Holocene human impact on the vegetation around Mizorogaike Pond in northern Kyoto Basin, Japan: a comparison of pollen and charcoal records with archaeological and historical data. Journal of Archaeological Science 38, 1199–1208. *https://doi.org/10.1016/j.jas.2010.12.013*
Sánchez-Goñi, M.F., Hannon, G.E., 1999. High-altitude vegetational pattern on the Iberian Mountain Chain (north-central Spain) during the Holocene. The Holocene 9, 39–57. *https://doi.org/10.1191/095968399671230625*
Scharf, E.A., 2010. A statistical evaluation of the relative influences of climate, vegetation, and prehistoric human population on the charcoal record of Five Lakes, Washington (USA). Quaternary International 215, 74–86. *https://doi.org/10.1016/j.quaint.2009.09.021*
Schneider, H., Höfer, D., Trog, C., Busch, S., Schneider, M., Baade, J., Daut, G., Mäusbacher, R., 2010. Holocene estuary development in the Algarve Region (Southern Portugal) – A reconstruction of sedimentological and ecological evolution. Quaternary International 221, 141–158. *https://doi.org/10.1016/j.quaint.2009.10.004*
Schneider, H., Höfer, D., Trog, C., Mäusbacher, R., 2016. Holocene landscape development along the Portuguese Algarve coast – A high resolution palynological approach. Quaternary International 407, 47–63. *https://doi.org/10.1016/j.quaint.2016.02.039*
Scott, L., n.d. Unpublished data.
Scott, L., 2002. Microscopic charcoal in sediments: Quaternary fire history of the grassland and savanna regions in South Africa. Journal of Quaternary Science 17, 77–86. *https://doi.org/10.1002/jqs.641*
Scott, L., Holmgren, K., Partridge, T.C., 2008. Reconciliation of vegetation and climatic interpretations of pollen profiles and other regional records from the last 60 thousand years in the savanna biome of southern Africa. Palaeogeography, Palaeoclimatology, Palaeoecology 257, 198–206. *https://doi.org/10.1016/j.palaeo.2007.10.018*
Scott, L., Holmgren, K., Talma, A.S., Woodborne, S., Vogel, J.C., 2003. Age interpretation of the Wonderkrater spring sediments and vegetation change in the Savanna Biome, Limpopo province, South Africa. South African Journal of Science 99, 484–488.
Scott, L., Vogel, J.C., 1983. Late Quaternary pollen profile from the Transvaal highveld South Africa. South African Journal of Science 79, 266–272.
Scott, L., Woodborne, S., 2007. Pollen analysis and dating of Late Quaternary faecal deposits (hyraceum) in the Cederberg, Western Cape, South Africa. Review of Palaeobotany and Palynology 144, 123–134. *https://doi.org/10.1016/j.revpalbo.2006.07.004*
Segerström, U., 1997. Long-term dynamics of vegetation and disturbance of a southern boreal spruce swamp forest. Journal of Vegetation Science 8, 295–306. *https://doi.org/10.2307/3237359*
Senici, D., Chen, H.Y.H., Bergeron, Y., Ali, A.A., 2015. The effects of forest fuel connectivity on spatiotemporal dynamics of Holocene fire regimes in the central boreal forest of North America. Journal of Quaternary Science 30, 365–375. *https://doi.org/10.1002/jqs.2790*
Senici, D., Lucas, A., Chen, H.Y.H., Bergeron, Y., Larouche, A., Brossier, B., Blarquez, O., Ali, A.A., 2013. Multi-millennial fire frequency and tree abundance differ between xeric and mesic boreal forests in central Canada. Journal of Ecology 101, 356–367. *https://doi.org/10.1111/1365-2745.12047*

Shafer, D.S., 1989. The Timing of Late Quaternary Monsoon Precipitation Maxima in the Southwest United States (PhD thesis). The University of Arizona, Tucson, Arizona.
Shaw, H., Tipping, R., 2006. Recent pine woodland dynamics in east Glen Affric, northern Scotland, from highly resolved palaeoecological analyses. Forestry 79, 331–340. *https://doi.org/10.1093/forestry/cpl020*
Shi, N., Dupont, L.M., Beug, H.-J., Schneider, R., 1998. Vegetation and climate changes during the last 21 000 years in S.W. Africa based on a marine pollen record. Vegetation History and Archaeobotany 7, 127–140. *https://doi.org/10.1007/BF01374001*
Shichi, K., Takahara, H., Krivonogov, S.K., Bezrukova, E.V., Kashiwaya, K., Takehara, A., Nakamura, T., 2009. Late Pleistocene and Holocene vegetation and climate records from Lake Kotokel, central Baikal region. Quaternary International 205, 98–110. *https://doi.org/10.1016/j.quaint.2009.02.005*
Shu, J., Wang, W., Jiang, L., Takahara, H., 2010. Early Neolithic vegetation history, fire regime and human activity at Kuahuqiao, Lower Yangtze River, East China: new and improved insight. Quaternary International 227, 10–21. *https://doi.org/10.1016/j.quaint.2010.04.010*
Shuman, B., Bravo, J., Kaye, J., Lynch, J.A., Newby, P., Webb III, T., 2001. Late Quaternary water-level variations and vegetation history at Crooked Pond, southeastern Massachusetts. Quaternary Research 56, 401–410. *https://doi.org/10.1006/qres.2001.2273*
Shuman, B., Henderson, A., Mechenich, M.F., Stefanova, V., 2006. Late-Holocene moisture and fire history in the Park Range, northern Colorado, in: Proceedings of the 2006 American Quaternary Association Bi-annual Meeting, Bozeman Program.
Shumilovskikh, L.S., Schlütz, F., Achterberg, I., Bauerochse, A., Leuschner, H.H., 2015. Non-pollen palynomorphs from mid-Holocene peat of the raised bog Borsteler Moor (Lower Saxony, Germany). Studia Quaternaria 32, 5–18. *https://doi.org/10.1515/squa-2015-0001*
Shuyun, W., Duowen, M., Guoping, S., Chenxi, S., Minglin, L., Yunfei, Z., Longjiang, M., 2010. Environmental context of ancient human activity in Tianluoshan Site, Yuyao City, Zhejiang Province: fossil evidence of phytolith and diatom. Quaternary Sciences 30, 326–334. *https://doi.org/10.3969/j.issn.1001-7410.2010.02.09*
Sillasoo, Mauquoy, D., Blundell, A., Charman, D., Blaauw, M., Daniell, J.R.G., Toms, P., Newberry, J., Chambers, F.M., Karofeld, E., 2007. Peat multi-proxy data from Männikjärve bog as indicators of late Holocene climate changes in Estonia. Boreas 36, 20–37. *https://doi.org/10.1111/j.1502-3885.2007.tb01177.x*
Sillasoo, Väliranta, M., Tuittila, E.-S., 2011. Fire history and vegetation recovery in two raised bogs at the Baltic Sea. Journal of Vegetation Science 22, 1084–1093. *https://doi.org/10.1111/j.1654-1103.2011.01307.x*
Silva Sánchez, N., Martínez Cortizas, A., Abel-Schaad, D., López-Sáez, J.A., Mighall, T.M., 2016. Influence of climate change and human activities on the organic and inorganic composition of peat during the "Little Ice Age" (El Payo mire, W Spain). The Holocene 26, 1290–1303. *https://doi.org/10.1177/0959683616638439*
Simard, I., Morin, H., Lavoie, C., 2006. A millennial-scale reconstruction of spruce budworm abundance in Saguenay, Québec, Canada. The Holocene 16, 31–37. *https://doi.org/10.1191/0959683606hl904rp*
Singh, G., Geissler, E.A., 1985. Late Cainozoic history of vegetation, fire, lake levels and climate at Lake George, New South Wales, Australia. Philosophical Transactions of the Royal Society B: Biological Sciences 311, 379–447. *https://doi.org/10.1098/rstb.1985.0156*
Singh, G., Kershaw, A.P., Clark, R., 1981. Quaternary vegetation and fire history in Australia, in: Gill, A.M., Groves, R.A., Noble, I.R. (Eds.), Fire and the Australian Biota. Australian Academy of Science, Canberra, pp. 23–54.
Singh, G., Luly, J.G., 1991. Changes in vegetation and seasonal climate since the last full glacial at Lake Frome, south Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 84, 75–86. *https://doi.org/10.1016/0031-0182(91)90036-Q*

Sjögren, P., Lamentowicz, M., 2008. Human and climatic impact on mires: a case study of Les Amburnex mire, Swiss Jura Mountains. Vegetation History and Archaeobotany 17, 185–197. *https://doi.org/10.1007/s00334-007-0095-9*

Smeulders, D.M., 1999. A Late Holocene Environmental Reconstruction Using Lake Sediments From Hopwood's Lagoon, NSW. (BSc (Hons) thesis). School of Geography, University of New South Wales, Sydney, Australia.

Smith, S.J., Anderson, R.S., 1992. Late Wisconsin paleoecologic record from Swamp Lake, Yosemite National Park, California. Quaternary Research 38, 91–102. *https://doi.org/10.1016/0033-5894(92)90032-e*

Speranza, A., Hanke, J., van Geel, B., Fanta, J., 2000. Late-Holocene human impact and peat development in the Černá Hora bog, Krkonoše Mountains, Czech Republic. The Holocene 10, 575–585. *https://doi.org/10.1191/095968300668946885*

Stahli, M., Finsinger, W., Tinner, W., Allgower, B., 2006. Wildfire history and fire ecology of the Swiss National Park (Central Alps): new evidence from charcoal, pollen and plant macrofossils. The Holocene 16, 805–817. *https://doi.org/10.1191/0959683606hol967rp*

Stančikaitė, M., Baltrūnas, V., Šinkūnas, P., Kisielienė, D., Ostrauskas, T., 2006. Human response to the Holocene environmental changes in the Biržulis Lake region, NW Lithuania. Quaternary International 150, 113–129. *https://doi.org/10.1016/j.quaint.2006.01.010*

Stančikaitė, M., Gedminienė, L., Edvardsson, J., Stoffel, M., Corona, C., Gryguc, G., Uogintas, D., Zinkutė, R., Skuratovič, Taraškevičius, R., 2019. Holocene vegetation and hydroclimatic dynamics in SE Lithuania – implications from a multi-proxy study of the Čepkeliai bog. Quaternary International 501, 219–239. *https://doi.org/10.1016/j.quaint.2017.08.039*

Stančikaitė, M., Kisielienė, D., Moe, D., Vaikutienė, G., 2009. Lateglacial and early Holocene environmental changes in northeastern Lithuania. Quaternary International 207, 80–92. *https://doi.org/10.1016/j.quaint.2008.10.009*

Stančikaitė, M., Kisielienė, D., Strimaitienė, A., 2004. Vegetation response to the climatic and human impact changes during the Late Glacial and Holocene: case study of the marginal area of Baltija Upland, NE Lithuania. Baltica 17, 17–33.

Stančikaitė, M., Milkevièius, M., Kisielienė, D., 2003. Palaeoenvironmental changes in the environs of Žadeikiai Bog, NW Lithuania, during the Late Glacial and the Holocene according to palaeobotanical and ^{14}C data. Geologija Vilnius 43, 47–60.

Stančikaitė, M., Simniškytė, A., Skuratovič, Gedminienė, L., Kazakauskas, V., Uogintas, D., 2019. Reconstruction of the mid-to Late- Holocene history of vegetation and land-use in Petrešiūnai, north-east Lithuania: implications from palaeobotanical and archaeological data. Quaternary International 516, 5–20. *https://doi.org/10.1016/j.quaint.2018.09.029*

Stančikaitė, M., Šeirienė, V., Kisielienė, D., Martma, T., Gryguc, G., Zinkutė, R., Mažeika, J., Šinkūnas, P., 2015. Lateglacial and early Holocene environmental dynamics in northern Lithuania: a multi-proxy record from Ginkūnai Lake. Quaternary International 357, 44–57. *https://doi.org/10.1016/j.quaint.2014.08.036*

Stefanova, I., van Leeuwen, J.F.N., van der Knaap, W.O., 2008. 2. Loch Laxford (north-west Scotland, UK). Grana 47, 78–79. *https://doi.org/10.1080/00173130801987740*

Steinberga, D., Stivrins, N., 2021. Fire frequency during the Holocene in central Latvia, northeastern Europe. Estonian Journal of Earth Sciences 70, 127–139. *https://doi.org/10.3176/earth.2021.09*

Stevenson, A.C., 2000. The Holocene forest history of the Montes Universales, Teruel, Spain. The Holocene 10, 603–610. *https://doi.org/10.1191/095968300670543500*

Stevenson, J., n.d. Unpublished data.

Stevenson, J., 2004. A late-Holocene record of human impact from the southwest coast of New Caledonia. The Holocene 14, 888–898. *https://doi.org/10.1191/0959-683604hl755rp*

Stevenson, J., 1998. Late Quaternary Environmental Change and the Impact of Melanesian Colonisation in New Caledonia (PhD thesis). Department of Geography, University of New South Wales, Sydney, Australia.
Stevenson, J., Gillespie, R., Hope, G.S., Jacobsen, G., Fallon, S., Levchenko, V., 2010. The archaic and puzzling record of Lake Xere Wapo, New Caledonia, in: Stevenson, J., Haberle, S.G., Prebble, M. (Eds.), Altered Ecologies: Fire, Climate and Human Influence on Terrestrial Landscapes, Terra Australis 32. ANU Press, pp. 381–393.
Stevenson, J., Hope, G.S., 2005. A comparison of late Quaternary forest changes in New Caledonia and northeastern Australia. Quaternary Research 64, 372–383. *https://doi.org/10.1016/j.yqres.2005.08.011*
Stevenson, J., Siringan, F., Finn, J., Madulid, D., Heijnis, H., 2009. Paoay Lake, northern Luzon, the Philippines: a record of Holocene environmental change. Global Change Biology 16, 1672–1688. *https://doi.org/10.1111/j.1365-2486.2009.02039.x*
Stivrins, N., n.d. Unpublished data.
Stivrins, N., Aakala, T., Ilvonen, L., Pasanen, L., Kuuluvainen, T., Vasander, H., Gałka, M., Disbrey, H.R., Liepins, J., Holmström, L., Seppä, H., 2019. Integrating fire-scar, charcoal and fungal spore data to study fire events in the boreal forest of northern Europe. The Holocene 29, 1480–1490. *https://doi.org/10.1177/0959683619854524*
Stivrins, N., Brown, A., Reitalu, T., Veski, S., Heinsalu, A., Banerjea, R.Y., Elmi, K., 2014. Landscape change in central Latvia since the Iron Age: multi-proxy analysis of the vegetation impact of conflict, colonization and economic expansion during the last 2,000 years. Vegetation History and Archaeobotany 24, 377–391. *https://doi.org/10.1007/s00334-014-0502-y*
Stivrins, N., Brown, A., Veski, S., Ratniece, V., Heinsalu, A., Austin, J., Liiv, M., Ceriņa, A., 2015. Palaeoenvironmental evidence for the impact of the crusades on the local and regional environment of medieval (13th–16th century) northern Latvia, eastern Baltic. The Holocene 26, 61–69. *https://doi.org/10.1177/0959683615596821*
Stivrins, N., Buchan, M.S., Disbrey, H.R., Kuosmanen, N., Latałowa, M., Lempinen, J., Muukkonen, P., Słowiński, M., Veski, S., Seppä, H., 2017. Widespread, episodic decline of alder (Alnus) during the medieval period in the boreal forest of Europe. Journal of Quaternary Science 32, 903–907. *https://doi.org/10.1002/jqs.2984*
Stivrins, N., Kołaczek, P., Reitalu, T., Seppä, H., Veski, S., 2015. Phytoplankton response to the environmental and climatic variability in a temperate lake over the last 14,500 years in eastern Latvia. Journal of Paleolimnology 54, 103–119. *https://doi.org/10.1007/s10933-015-9840-8*
Stivrins, N., Ozola, I., Gałka, M., Kuske, E., Alliksaar, T., Andersen, T.J., Lamentowicz, M., Wulf, S., Reitalu, T., 2017. Drivers of peat accumulation rate in a raised bog: impact of drainage, climate, and local vegetation composition. Mires and Peat 19, 1–19. *https://doi.org/10.19189/MaP.2016.OMB.262*
Stivrins, N., Wulf, S., Wastegård, S., Lind, E.M., Alliksaar, T., Gałka, M., Andersen, T.J., Heinsalu, A., Seppä, H., Veski, S., 2016. Detection of the Askja AD 1875 cryptotephra in Latvia, eastern Europe. Journal of Quaternary Science 31, 437–441. *https://doi.org/10.1002/jqs.2868*
Sugimura, W.Y., Sprugel, D.G., Brubaker, L.B., Higuera, P.E., 2008. Millennial-scale changes in local vegetation and fire regimes on Mount Constitution, Orcas Island, Washington, USA, using small hollow sediments. Canadian Journal of Forest Research 38, 539–552. *https://doi.org/10.1139/x07-186*
Sun, Q.F., Shen, C.M., Wang, M., Meng, H., Zhang, H., 2018. Pollen/charcoal record over the past 13,300 years from Fuxian Lake in the Yunnan-Guizhou Plateau. Acta Palaeontologica Sinica 249–259.
Sun, X.J., Li, X., Chen, H.C., 2000. Evidence for natural fire and climate history since 37 ka BP in the northern part of the South China Sea. Science in China Series D: Earth Sciences 43, 487–493. *https://doi.org/10.1007/bf02875310*

Svobodová, H., Reille, M., Goeury, C., 2001. Past vegetation dynamics of Vltavský luh, upper Vltava river valley in the Šumava mountains. Czech Republic. Vegetation History and Archaeobotany 10, 185–199. *https://doi.org/10.1007/pl00006930*

Swain, A.M., 1978. Environmental changes during the past 2000 years in north-central Wisconsin: analysis of pollen, charcoal, and seeds from varved lake sediments. Quaternary Research 10, 55–68. *https://doi.org/10.1016/0033-5894(78)90013-3*

Swain, A.M., 1973. A history of fire and vegetation in northeastern Minnesota as recorded in lake sediments. Quaternary Research 3, 383–396. *https://doi.org/10.1016/0033-5894(73)90004-5*

Szabó, P., Kuneš, P., Svobodová-Svitavská, H., Švarcová, M.G., Křížová, L., Suchánková, S., Müllerová, J., Hédl, R., 2017. Using historical ecology to reassess the conservation status of coniferous forests in Central Europe. Conservation Biology 31, 150–160. *https://doi.org/10.1111/cobi.12763*

Szal, M., Kupryjanowicz, M., Tylmann, W., Piotrowska, N., 2017. Was it "terra desolata"? Conquering and colonizing the medieval Prussian wilderness in the context of climate change. The Holocene 27, 465–480. *https://doi.org/10.1177/0959683616660167*

Szal, M., Kupryjanowicz, M., Wyczółkowski, M., Tylmann, W., 2014. The Iron Age in the Mrągowo Lake District, Masuria, NE Poland: the Salęt settlement microregion as an example of long-lasting human impact on vegetation. Vegetation History and Archaeobotany 23, 419–437. *https://doi.org/10.1007/s00334-014-0465-z*

Szeicz, J.M., Haberle, S.G., Bennett, K.D., 2003. Dynamics of North Patagonian rainforests from fine-resolution pollen, charcoal and tree-ring analysis, Chonos Archipelago, Southern Chile. Austral Ecology 28, 413–422. *https://doi.org/10.1046/j.1442-9993.2003.01299.x*

Szeicz, J.M., Zeeb, B.A., Bennett, K.D., Smol, J.P., 1998. High-resolution paleoecological analysis of recent disturbance in a southern Chilean Nothofagus forest. Journal of Paleolimnology 20, 235–252. *https://doi.org/10.1023/A:1007950905200*

Święta-Musznicka, J., Badura, M., Pędziszewska, A., Latałowa, M., 2021. Environmental changes and plant use during the 5th-14th centuries in medieval Gdańsk, northern Poland. Vegetation History and Archaeobotany 30, 363–381. *https://doi.org/10.1007/s00334-020-00789-9*

Takahara, H., Krivonogov, S., n.d. Unpublished data.

Takemura, K., Hayashida, A., Okamura, M., Matsuoka, H., Ali, M., Kuniko, Y., Torii, M., 2000. Stratigraphy of multiple piston-core sediments for the last 30,000 years from Lake Biwa, Japan. Journal of Paleolimnology 23, 185–199. *https://doi.org/10.1023/A:1008079418715*

Tan, Z., Han, Y., Cao, J., Huang, C.-C., Mao, L., Liu, Z., An, Z., 2018. The linkages with fires, vegetation composition and human activity in response to climate changes in the Chinese Loess Plateau during the Holocene. Quaternary International 488, 18–29. *https://doi.org/10.1016/j.quaint.2018.03.041*

Tan, Z.-H., Huang, C.-C., Pang, J.-L., Zhang, Z.-P., 2010. Charcoal records of Holocene loess-soil sequences and its palaeoenvironmental significance in Weihe River Drainage. Chinese Journal of Eco-Agriculture 18, 25–30. *https://doi.org/10.3724/sp.j.1011.2010.00025*

Tan, Z.H., Long, Y.X., Mao, L.J., Mo, D.W., Bin, L., Liu, Z., 2017. Records of the dark brown soil profile by charcoal and black carbon (char and soot) sedimentary archives from Dongting Basin since the Middle-late Last Glacial Period. Journal of Capital Normal University (Natural Science Edition) 38, 77–84.

Tan, Z., Huang, C.-C., Pang, J., Zhou, Y., 2013. Wildfire history and climatic change in the semi-arid loess tableland in the middle reaches of the Yellow River of China during the Holocene: evidence from charcoal records. The Holocene 23, 1466–1476. *https://doi.org/10.1177/0959683613493936*

Taylor, D., Marchant, R.A., Robertshaw, P., 1999. A sediment-based history of medium altitude forest in central Africa: a record from Kabata Swamp, Ndale volcanic field, Uganda. Journal of Ecology 87, 303–315. *https://doi.org/10.1046/j.1365-2745.1999.00347.x*

Taylor, Z.P., 2005. Environmental History at Laguna Yaguarú, Bolivia: Evidence from Pollen, Stable Carbon Isotopes, and an Embedded Mineral Facies (MSc thesis). University of Tennessee, Knoxville, Tennessee, USA.

Taylor, Z.P., Horn, S.P., Mora, C.I., Orvis, K.H., Cooper, L.W., 2010. A multi-proxy palaeoecological record of late-Holocene forest expansion in lowland Bolivia. Palaeogeography, Palaeoclimatology, Palaeoecology 293, 98–107. *https://doi.org/10.1016/j.palaeo.2010.05.004*

Teed, R., Umbanhower Jr, C.E., Camill, P., 2009. Multiproxy lake sediment records at the northern and southern boundaries of the Aspen Parkland region of Manitoba, Canada. The Holocene 19, 937–948. *https://doi.org/10.1177/0959683609336569*

Thevenon, F., Anselmetti, F.S., 2007. Charcoal and fly-ash particles from Lake Lucerne sediments (Central Switzerland) characterized by image analysis: anthropologic, stratigraphic and environmental implications. Quaternary Science Reviews 26, 2631–2643. *https://doi.org/10.1016/j.quascirev.2007.05.007*

Thevenon, F., Bard, E., Williamson, D., Beaufort, L., 2004. A biomass burning record from the West Equatorial Pacific over the last 360 ky: methodological, climatic and anthropic implications. Palaeogeography, Palaeoclimatology, Palaeoecology 213, 83–99. *https://doi.org/10.1016/s0031-0182(04)00364-5*

Thevenon, F., Williamson, D., Vincens, A., Taieb, M., Merdaci, O., Decobert, M., Buchet, G., 2003. A late-Holocene charcoal record from Lake Masoko, SW Tanzania: climatic and anthropologic implications. The Holocene 13, 785–792. *https://doi.org/10.1191/0959683603hl665rr*

Thomas, I., Hope, G.S., 1994. An example of Holocene vegetation stability from Camerons Lagoon, a near treeline site on the Central Plateau, Tasmania. Australian Journal of Ecology 19, 150–158. *https://doi.org/10.1111/j.1442-9993.1994.tb00478.x*

Tierney, J.E., Mayes, M.T., Meyer, N., Johnson, C., Swarzenski, P.W., Cohen, A.S., Russell, J.M., 2010. Late-twentieth-century warming in Lake Tanganyika unprecedented since AD 500. Nature Geoscience 3, 422–425. *https://doi.org/10.1038/ngeo865*

Timms, R.G.O., Matthews, I.P., Lowe, J.J., Palmer, A.P., Weston, D.J., MacLeod, A., Blockley, S.P.E., 2019. Establishing tephrostratigraphic frameworks to aid the study of abrupt climatic and glacial transitions: a case study of the Last Glacial-Interglacial Transition in the British Isles (c. 16-8 ka BP). Earth-Science Reviews 192, 34–64. *https://doi.org/10.1016/j.earscirev.2019.01.003*

Timms, R.G.O., Matthews, I.P., Palmer, A.P., Candy, I., Abel, L., 2017. A high-resolution tephrostratigraphy from Quoyloo Meadow, Orkney, Scotland: implications for the tephrostratigraphy of NW Europe during the Last Glacial-Interglacial Transition. Quaternary Geochronology 40, 67–81. *https://doi.org/10.1016/j.quageo.2016.06.004*

Tinner, W., 2008. Unpublished data.

Tinner, W., Conedera, M., Ammann, B., Lotter, A.F., 2005. Fire ecology north and south of the Alps since the last ice age. The Holocene 15, 1214–1226. *https://doi.org/10.1191/0959683605hl892rp*

Tinner, W., Hubschmid, P., Wehrli, M., Ammann, B., Conedera, M., 1999. Long-term forest fire ecology and dynamics in southern Switzerland. Journal of Ecology 87, 273–289. *https://doi.org/10.1046/j.1365-2745.1999.00346.x*

Tinner, W., Lotter, A., 2006. Holocene expansions of Fagus silvatica and Abies alba in central Europe: where are we after eight decades of debate? Quaternary Science Reviews 25, 526–549. *https://doi.org/10.1016/j.quascirev.2005.03.017*

Tipping, R., Edmonds, M., Sheridan, A., 1993. Palaeoenvironmental investigations directly associated with a Neolithic axe 'quarry' on Beinn Lawers, near Killin, Perthshire, Scotland. New Phytologist 123, 585–597. *https://doi.org/10.1111/j.1469-8137.1993.tb03771.x*

Toney, J.L., Anderson, R.S., 2006. A postglacial palaeoecological record from the San Juan Mountains of Colorado USA: fire, climate and vegetation history. The Holocene 16, 505–517. *https://doi.org/10.1191/0959683606hl946rp*

Tong, X.F., Xiao, X.Y., Yang, X.D., Wang, S.M., Xiao, J.Y., 2009. Climatic changes and human activities revealed by pollen records in Lake Taibai, Hubei Province, the middle and lower reaches of the Yangtze River region over the past 1500 years. Journal of Lake Sciences 21, 732–740. *https://doi.org/10.18307/2009.0519*

Tonkov, S., 2003. Holocene palaeovegetation of the Northwestern Pirin Mountains (Bulgaria) as reconstructed from pollen analysis. Review of Palaeobotany and Palynology 124, 51–61. *https://doi.org/10.1016/s0034-6667(02)00247-6*

Tonkov, S., Marinova, E., 2005. Pollen and plant macrofossil analyses of radiocarbon dated mid-Holocene profiles from two subalpine lakes in the Rila Mountains, Bulgaria. The Holocene 15, 663–671. *https://doi.org/10.1191/0959683605hl842rp*

Tonkov, S., Possnert, G., 2016. 30. Peat bog Kumata-1, Vitosha Mountain (Bulgaria). Grana 55, 250–252. *https://doi.org/10.1080/00173134.2016.1146330*

Tonkov, S., Possnert, G., 2016. A new late Holocene pollen diagram from Vitosha Mountain. Vegetation history and anthropogenic impact. Comptes rendus de l'Académie bulgare des Sciences 69, 327–337.

Tryterud, E., 2000. Holocene Forest Fire History in South and Central Norway (PhD thesis). Norwegian University of Life Sciences, Ås, Norway.

Turner, R., Roberts, N., Eastwood, W.J., Jenkins, E., Rosen, A., 2010. Fire, climate and the origins of agriculture: micro-charcoal records of biomass burning during the Last Glacial-Interglacial Transition in Southwest Asia. Journal of Quaternary Science 25, 371–386. *https://doi.org/10.1002/jqs.1332*

Turner, R., Roberts, N., Jones, M.D., 2008. Climatic pacing of Mediterranean fire histories from lake sedimentary microcharcoal. Global and Planetary Change 63, 317–324. *https://doi.org/10.1016/j.gloplacha.2008.07.002*

Umbanhowar Jr, C.E., n.d. Unpublished data.

Umbanhowar Jr, C.E., 2004. Interactions of climate and fire at two sites in the northern Great Plains, USA. Palaeogeography, Palaeoclimatology, Palaeoecology 208, 141–152. *https://doi.org/10.1016/j.palaeo.2004.03.001*

Umbanhowar Jr, C.E., Camill, P., 2020. Climate and Fire History of the past approximately 10000 years in central Labrador based on sediments from Canoe and 'Big Beer' Lakes. *https://doi.org/10.18739/A2JM23H02*

Umbanhowar Jr, C.E., Camill, P., Edlund, M., Geiss, C., Hobbs, W., Shinneman, A., Stefanova, I., Lynch, J., 2021. Holocene landscape change at the northern Manitoba tundra-forest border 2003-2009. *https://doi.org/10.18739/A2V11VM5G*

Umbanhowar Jr, C.E., Camill, P., Geiss, C.E., Teed, R., 2006. Asymmetric vegetation responses to mid-Holocene aridity at the prairie–forest ecotone in south-central Minnesota. Quaternary Research 66, 53–66. *https://doi.org/10.1016/j.yqres.2006.03.005*

Umbanhowar Jr, C.E., Shinneman, A.L.C., Tserenkhand, G., Hammon, E.R., Lor, P., Nail, K., 2009. Regional fire history based on charcoal analysis of sediments from nine lakes in western Mongolia. The Holocene 19, 611–624. *https://doi.org/10.1177/0959683609104039*

Unpublished data, n.d.

Urrego, D.H., 2006. Long-term Vegetation and Climate Change in Western Amazonia (PhD Dissertation). Biological Sciences. Florida Institute of Technology, Melbourne, FL.

Urrego, D.H., Niccum, B.A., La Drew, C.F., Silman, M.R., Bush, M.B., 2011. Fire and drought as drivers of early Holocene tree line changes in the Peruvian Andes. Journal of Quaternary Science 26, 28–36. *https://doi.org/10.1002/jqs.1422*

Vachula, R.S., Huang, Y., Longo, W.M., Dee, S.G., Daniels, W.C., Russell, J.M., 2019. Evidence of Ice Age humans in eastern Beringia suggests early migration to North America. Quaternary Science Reviews 205, 35–44. *https://doi.org/10.1016/j.quascirev.2018.12.003*

Valencia, B.G., Urrego, D.H., Silman, M.R., Bush, M.B., 2010. From ice age to modern: a record of landscape change in an Andean cloud forest. Journal of Biogeography 37, 1637–1647. *https://doi.org/10.1111/j.1365-2699.2010.02318.x*

Valsecchi, V., 2005. Holocene Vegetation Dynamics in the Northern Italian Peninsula and in Syria Using Palaeoecological Analyses: Human Impact on Vegetation versus Climate Changes (PhD thesis). University of Milan; University of Bern; Milan, Italy; Bern, Switzerland.

Valsecchi, V., Carraro, G., Conedera, M., Tinner, W., 2010. Late-Holocene vegetation and land-use dynamics in the Southern Alps (Switzerland) as a basis for nature protection and forest management. The Holocene 20, 483–495. *https://doi.org/10.1177/0959683609355178*

Valsecchi, V., Finsinger, W., Tinner, W., Ammann, B., 2008. Testing the influence of climate, human impact and fire on the Holocene population expansion of Fagus sylvatica in the southern Prealps (Italy). The Holocene 18, 603–614. *https://doi.org/10.1177/0959683608089213*

Valsecchi, V., Tinner, W., 2010. Vegetation responses to climatic variability in the Swiss Southern Alps during the Misox event at the early–mid Holocene transition. Journal of Quaternary Science 25, 1248–1258. *https://doi.org/10.1002/jqs.1403*

Valsecchi, V., Tinner, W., Finsinger, W., Ammann, B., 2005. Human impact during the Bronze Age on the vegetation at Lago Lucone (northern Italy). Vegetation History and Archaeobotany 15, 99–113. *https://doi.org/10.1007/s00334-005-0026-6*

van Bellen, S., Garneau, M., Ali, A.A., Bergeron, Y., 2012. Did fires drive Holocene carbon sequestration in boreal ombrotrophic peatlands of eastern Canada? Quaternary Research 78, 50–59. *https://doi.org/10.1016/j.yqres.2012.03.009*

van Bellen, S., Garneau, M., Ali, A.A., Lamarre, A., C. Robert, Magnan, G., Asnong, H., Pratte, S., 2013. Poor fen succession over ombrotrophic peat related to late Holocene increased surface wetness in subarctic Quebec, Canada. Journal of Quaternary Science 28, 748–760. *https://doi.org/10.1002/jqs.2670*

van de Geer, G., Fitzsimons, S.J., Colhoun, E.A., 1989. Holocene to middle last glaciation vegetation history at Newall Creek, western Tasmania. New Phytologist 111, 549–558. *https://doi.org/10.1111/j.1469-8137.1989.tb00717.x*

Vandergoes, M.J., Newnham, R.M., Denton, G.H., Blaauw, M., Barrell, D.J.A., 2013. The anatomy of Last Glacial Maximum climate variations in south Westland, New Zealand, derived from pollen records. Quaternary Science Reviews 74, 215–229. *https://doi.org/10.1016/j.quascirev.2013.04.015*

Vandergoes, M.J., Newnham, R.M., Preusser, F., Hendy, C.H., Lowell, T.V., Fitzsimons, S.J., Hogg, A.G., Kasper, H.U., Schlüchter, C., 2005. Regional insolation forcing of late Quaternary climate change in the Southern Hemisphere. Nature 436, 242–245. *https://doi.org/10.1038/nature03826*

van der Kaars, S., de Deckker, P., 2002. A Late Quaternary pollen record from deep-sea core Fr10/95, GC17 offshore Cape Range Peninsula, northwestern Western Australia. Review of Palaeobotany and Palynology 120, 17–39. *https://doi.org/10.1016/s0034-6667(02)00075-1*

van der Kaars, S., Penny, D., Tibby, J., Fluin, J., Dam, R.A.C., Suparan, P., 2001. Late Quaternary palaeoecology, palynology and palaeolimnology of a tropical lowland swamp: Rawa Danau, West-Java, Indonesia. Palaeogeography, Palaeoclimatology, Palaeoecology 171, 185–212. *https://doi.org/10.1016/s0031-0182(01)00245-0*

van der Kaars, S., Wang, X., Kershaw, A.P., Guichard, F., Setiabudi, D.A., 2000. A Late Quaternary palaeoecological record from the Banda Sea, Indonesia: patterns of vegetation, climate and biomass burning in Indonesia and northern Australia. Palaeogeography, Palaeoclimatology, Palaeoecology 155, 135–153. *https://doi.org/10.1016/s0031-0182(99)00098-x*

van der Knaap, W.O., van Leeuwen, J.F.N., 1997. Late Glacial and early Holocene vegetation succession, altitudinal vegetation zonation, and climatic change in the Serra da Estrela, Portugal. Review of Palaeobotany and Palynology 97, 239–285. *https://doi.org/10.1016/s0034-6667(97)00008-0*

van der Knaap, W.O., van Leeuwen, J.F.N., 1995. Holocene vegetation succession and degradation as responses to climatic change and human activity in the Serra de Estrela, Portugal. Review of Palaeobotany and Palynology 89, 153–211. *https://doi.org/10.1016/0034-6667(95)00048-0*

van Leeuwen, J.F.N., van der Knaap, W.O., 2008. 3. Fleck's Loch Bog (Foula, Shetland, Scotland, UK). Grana 47, 171–173. *https://doi.org/10.1080/00173130802113809*

Vannière, B., 2001. Fire, Agropastoralism and Environmental Dynamics in France during the Holocene (PhD thesis). National Agronomic Institute of Paris, Paris, France.

Vannière, B., Bossuet, G., Walter-Simonnet, A.-V., Gauthier, E., Barral, P., Petit, C., Buatier, M., Daubigney, A., 2003. Land use change, soil erosion and alluvial dynamic in the lower Doubs Valley over the 1st millenium AD (Neublans, Jura, France). Journal of Archaeological Science 30, 1283–1299. *https://doi.org/10.1016/S0305-4403(03)00017-7*

Vannière, B., Colombaroli, D., Chapron, E., Leroux, A., Tinner, W., Magny, M., 2008. Climate versus human-driven fire regimes in Mediterranean landscapes: the Holocene record of Lago dell'Accesa (Tuscany, Italy). Quaternary Science Reviews 27, 1181–1196. *https://doi.org/10.1016/j.quascirev.2008.02.011*

Vannière, B., Galop, D., Rendu, C., Davasse, B., 2001. Feu et pratiques agro-pastorales dans les Pyrénées-Orientales: le cas de la montagne d'Enveitg (Cerdagne, Pyrénées-Orientales, France). Sud-Ouest Européen 11, 29–42.

Vannière, B., Laggoun-Défarge, F., 2002. Première contribution à l'étude des évolutions paléohydrologiques et à l'histoire des feux en Champagne berrichonne durant l'Holocène. Le cas du Marais du Grand-Chaumet (Indre, France). Histoire des rivières et des lacs de Lascaux à nos jours 101–124.

Vannière, B., Martineau, R., 2005. Histoire des feux et pratiques agraires du Néolithique à l'âge du Fer en région Centre : implications territoriales, démographiques et environnementales. Gallia préhistoire 47, 167–186. *https://doi.org/10.3406/galip.2005.2049*

Vannière, B., Rius, D., n.d. Unpublished data.

Väliranta, M., Kaakinen, A., Kuhry, P., 2003. Holocene climate and landscape evolution east of the Pechora Delta, East-European Russian Arctic. Quaternary Research 59, 335–344. *https://doi.org/10.1016/S0033-5894(03)00041-3*

Väliranta, M., Korhola, A., Seppä, H., Tuittila, E.-S., Sarmaja-Korjonen, K., Laine, J., Alm, J., 2007. High-resolution reconstruction of wetness dynamics in a southern boreal raised bog, Finland, during the late Holocene: a quantitative approach. The Holocene 17, 1093–1107. *https://doi.org/10.1177/0959683607082550*

Väliranta, M., Kultti, S., Nyman, M., Sarmaja-Korjonen, K., 2005. Holocene development of aquatic vegetation in shallow Lake Njargajavri, Finnish Lapland, with evidence of water-level fluctuations and drying. Journal of Paleolimnology 34, 203–215. *https://doi.org/10.1007/s10933-005-1840-7*

Väliranta, M., Kultti, S., Seppä, H., 2006. Vegetation dynamics during the Younger Dryas-Holocene transition in the extreme northern taiga zone, northeastern European Russia. Boreas 35, 202–212. *https://doi.org/10.1111/j.1502-3885.2006.tb01150.x*

Väliranta, M., Piilo, S., n.d. Unpublished data.

Väliranta, M., Piilo, S., Kuosmanen, N., n.d. Unpublished data.

Väliranta, M., Weckström, J., Siitonen, S., Seppä, H., Alkio, J., Juutinen, S., Tuittila, E.-S., 2011. Holocene aquatic ecosystem change in the boreal vegetation zone of northern Finland. Journal of Paleolimnology 45, 339–352. *https://doi.org/10.1007/s10933-011-9501-5*

Velle, G., Larsen, J., Eide, W., Peglar, S.M., Birks, H.J.B., 2005. Holocene environmental history and climate of Råtåsjoen, a low-alpine lake in south-central Norway. Journal of Paleolimnology 33, 129–153. *https://doi.org/10.1007/s10933-004-2689-x*

Verardo, D.J., Ruddiman, W.F., 1996. Late Pleistocene charcoal in tropical Atlantic deep-sea sediments: climatic and geochemical significance. Geology 24, 855–857. *https://doi.org/10.1130/0091-7613(1996)024<0855:lpcita>2.3.co;2*

Vescovi, E., Ammann, B., Ravazzi, C., Tinner, W., 2010. A new Late-glacial and Holocene record of vegetation and fire history from Lago del Greppo, northern Apennines, Italy. Vegetation History and Archaeobotany 19, 219–233. *https://doi.org/10.1007/s00334-010-0243-5*

Veski, S., 1998. Vegetation History, Human Impact and Palaeogeography of West Estonia: Pollen Analytical Studies of Lake and Bog Sediments (PhD thesis). Societas Upsaliensis pro geologia quaternaria [Kvartärgeologiska fören], Uppsala, Sweden.

Veski, S., Koppel, K., Poska, A., 2005. Integrated palaeoecological and historical data in the service of fine-resolution land use and ecological change assessment during the last 1000 years in Rõuge, southern Estonia. Journal of Biogeography 32, 1473–1488. *https://doi.org/10.1111/j.1365-2699.2005.01290.x*

Vélez, M.I., Berrío, J.C., Hooghiemstra, H., Metcalfe, S., Marchant, R., 2005. Palaeoenvironmental changes during the last ca. 8590 calibrated yr (7800 radiocarbon yr) in the dry forest ecosystem of the Patía Valley, Southern Colombian Andes: a multiproxy approach. Palaeogeography, Palaeoclimatology, Palaeoecology 216, 279–302. *https://doi.org/10.1016/j.palaeo.2004.11.006*

Villa-Martínez, R., Moreno, P.I., 2007. Pollen evidence for variations in the southern margin of the westerly winds in SW Patagonia over the last 12,600 years. Quaternary Research 68, 400–409. *https://doi.org/10.1016/j.yqres.2007.07.003*

Villa-Martínez, R., Moreno, P.I., Valenzuela, M.A., 2012. Deglacial and postglacial vegetation changes on the eastern slopes of the central Patagonian Andes (47°S). Quaternary Science Reviews 32, 86–99. *https://doi.org/10.1016/j.quascirev.2011.11.008*

Villa-Martínez, R., Villagrán, C., Jenny, B., 2004. Pollen evidence for late-Holocene climatic variability at Laguna de Aculeo, Central Chile (lat. 34°S). The Holocene 14, 361–367. *https://doi.org/10.1191/0959683604hl712rp*

Villa-Martínez, R., Villagrán, C., Jenny, B., 2003. The last 7500 cal yr B.P. of westerly rainfall in Central Chile inferred from a high-resolution pollen record from Laguna Aculeo (34°S). Quaternary Research 60, 284–293. *https://doi.org/10.1016/j.yqres.2003.07.007*

Villota, A., Behling, H., 2014. Late Glacial and Holocene environmental change inferred from the Páramo of Cajanuma in the Podocarpus National Park, southern Ecuador: Cambios ambientales durante el Último Glacial y Holoceno inferidos del páramo de Cajanuma en el Parque Nacional Podocarpus, sur del Ecuador. Caldasia 36, 345–365. *https://doi.org/10.15446/caldasia/v36n2.47491*

Villota, A., León-Yánez, S., Behling, H., 2015. Mid-and late Holocene vegetation and environmental dynamics in the Llanganates National Park, Anteojos Valley, central Ecuadorian Andes. Palynology 39, 350–361. *https://doi.org/10.1080/01916122.2014.977404*

Vincze, I., Orbán, I., Birks, H.H., Pál, I., Finsinger, W., Hubay, K., Marinova, E., Jakab, G., Braun, M., Biró, T., and Tóth, M., 2017. Holocene treeline and timberline changes in the South Carpathians (Romania): Climatic and anthropogenic drivers on the southern slopes of the Retezat Mountains. The Holocene 27, 1613–1630. *https://doi.org/10.1177/0959683617702227*

von Stedingk, H., 1999. Vegetationsutveckling och brandhistorik i Tyresta under 9000 år: en pollenanalytisk studie av en skvattramtallmyr i Tyresta nationalpark, Södermanland. Institutionen för skoglig vegetationsekologi.

Wacnik, A., Ralska-Jasiewiczowa, M., Madeyska, E., 2011. Late Glacial and Holocene history of vegetation in Gostynin area, central Poland. Acta Palaeobotanica 51, 249–278.

Wahl, D., Anderson, L., Estrada-Belli, F., Tokovinine, A., 2019. Palaeoenvironmental, epigraphic and archaeological evidence of total warfare among the Classic Maya. Nature Human Behaviour 3, 1049–1054.

Waito, J., Girardin, M.P., Tardif, J.C., Conciatori, F., Bergeron, Y., Ali, A.A., 2018. Recent fire activity in the boreal eastern interior of North America is below that of the past 2000 yr. Ecosphere 9, e02287. *https://doi.org/10.1002/ecs2.2287*

Walsh, M.K., Pearl, C.A., Whitlock, C., Bartlein, P.J., Worona, M.A., 2010. An 11 000-year-long record of fire and vegetation history at Beaver Lake, Oregon, central Willamette Valley. Quaternary Science Reviews 29, 1093–1106. *https://doi.org/10.1016/j.quascirev.2010.02.011*

Walsh, M.K., Whitlock, C., Bartlein, P.J., 2010. 1200 years of fire and vegetation history in the Willamette Valley, Oregon and Washington, reconstructed using high-resolution macroscopic charcoal and pollen analysis. Palaeogeography, Palaeoclimatology, Palaeoecology 297, 273–289. *https://doi.org/10.1016/j.palaeo.2010.08.007*

Walsh, M.K., Whitlock, C., Bartlein, P.J., 2008. A 14,300-year-long record of fire–vegetation–climate linkages at Battle Ground Lake, southwestern Washington. Quaternary Research 70, 251–264. *https://doi.org/10.1016/j.yqres.2008.05.002*

Wang, X.C., Mo, D.W., Li, C.H., Yu, S.Y., Xue, B., Liu, B., Wang, H., Shi, C.X., 2017. Environmental changes and human activities at a fortified site of the Liangzhu culture in eastern China: evidence from pollen and charcoal records. Quaternary International 438, 189–197. *https://doi.org/10.1016/j.quaint.2017.05.001*

Wang, X.L., He, Y., Jia, T.F., Q., L.R., 2004. Living environment of ancient man since 7000 a B.P. at Xishan Relic Site of Zhengzhou in Henan Province. Journal of Palaeogeography 6, 234–240.

Wang, X., Peng, P.A., Ding, Z.L., 2005. Black carbon records in Chinese Loess Plateau over the last two glacial cycles and implications for paleofires. Palaeogeography, Palaeoclimatology, Palaeoecology 223, 9–19. *https://doi.org/10.1016/j.palaeo.2005.03.023*

Wang, X., van der Kaars, S., Kershaw, A.P., Bird, M., Jansen, F., 1999. A record of fire, vegetation and climate through the last three glacial cycles from Lombok Ridge core G6-4, eastern Indian Ocean, Indonesia. Palaeogeography, Palaeoclimatology, Palaeoecology 147, 241–256. *https://doi.org/10.1016/s0031-0182(98)00169-2*

Wang, X., Xiao, J., Cui, L., Ding, Z., 2013. Holocene changes in fire frequency in the Daihai Lake region (north-central China): indications and implications for an important role of human activity. Quaternary Science Reviews 59, 18–29. *https://doi.org/10.1016/j.quascirev.2012.10.033*

Wang, Y.J., Liu, D.S., Liu, L.J., Gu, D.Q., 2004. Distinction of human activities from natural processes-with reference to Lijin Profile, Shandong, China. Acta Oceanologica Sinica 26, 106–115.

Wang, Y.J., Xu, X., Li, F.L., 2003. Geologist's concern over environmental effect of human activities: with reference to charcoal fragment analysis for the Yellow River Delta. Advances in Marine Science 21, 251–258.

Wang, Y.W., 2015. The History of Fire and Human Activities in Taixue Village of Luoyang Basin (PhD thesis). Xi'an Polytechnic University, Xi'an, China.

Weiss, D., Shotyk, W., Boyle, E.A., Kramers, J.D., Appleby, P.G., Cheburkin, A.K., 2002. Comparative study of the temporal evolution of atmospheric lead deposition in Scotland and eastern Canada using blanket peat bogs. Science of The Total Environment 292, 7–18. *https://doi.org/10.1016/s0048-9697(02)00025-6*

Wells, C., Huckerby, E., Hall, V., 1997. Mid- and late-Holocene vegetation history and tephra studies at Fenton Cottage, Lancashire, U.K. Vegetation History and Archaeobotany 6, 153–166. *https://doi.org/10.1007/bf01372568*

Werner, K., Andreev, A., Diekmann, B., Kienast, F., Zech, W., 2005. Holocene vegetation history of the Verkhoyansk Mountains Foreland, north-eastern Siberia, in: Proceedings of the 22th International Polar Meeting. Jena, Germany.

Whitlock, C., Bartlein, P.J., 1993. Spatial variations of Holocene climatic change in the Yellowstone region. Quaternary Research 39, 231–238. *https://doi.org/10.1006/qres.1993.1026*

Whitlock, C., Bianchi, M.M., Bartlein, P.J., Markgraf, V., Marlon, J., Walsh, M., McCoy, N., 2006. Postglacial vegetation, climate, and fire history along the east side of the Andes (lat 41–42.5°S), Argentina. Quaternary Research 66, 187–201. *https://doi.org/10.1016/j.yqres.2006.04.004*

Whitlock, C., Dean, W., Rosenbaum, J., Stevens, L., Fritz, S., Bracht, B., Power, M., 2008. A 2650-year-long record of environmental change from northern Yellowstone National Park based on a comparison of multiple proxy data. Quaternary International 188, 126–138. *https://doi.org/10.1016/j.quaint.2007.06.005*

Whitlock, C., Shafer, S.L., Marlon, J., 2003. The role of climate and vegetation change in shaping past and future fire regimes in the northwestern US and the implications for ecosystem management. Forest Ecology and Management 178, 5–21. *https://doi.org/10.1016/s0378-1127(03)00051-3*

Whitlock, C., Skinner, C.N., Bartlein, P.J., Minckley, T., Mohr, J.A., 2004. Comparison of charcoal and tree-ring records of recent fires in the eastern Klamath Mountains, California, USA. Canadian Journal of Forest Research 34, 2110–2121. *https://doi.org/10.1139/x04-084*

Whittington, G., Edwards, K.J., Cundill, P.R., 1991. Late-and post-glacial vegetational change at Black Loch, Fife, eastern Scotland–a multiple core approach. New Phytologist 118, 147–166. *https://doi.org/10.1111/j.1469-8137.1991.tb00575.x*

Wick, L., 1994. Early-Holocene reforestation and vegetation change at a lake near the alpine forest limit: Lago Basso (2250 m asl), northern Italy. Dissertationes Botanicae 234, 555–563.

Wick, L., Lemcke, G., Sturm, M., 2003. Evidence of Lateglacial and Holocene climatic change and human impact in eastern Anatolia: high-resolution pollen, charcoal, isotopic and geochemical records from the laminated sediments of Lake Van, Turkey. The Holocene 13, 665–675. *https://doi.org/10.1191/0959683603hl653rp*

Wick, L., van Leeuwen, J.F.N., van der Knaap, W.O., Lotter, A.F., 2003. Holocene vegetation development in the catchment of Sägistalsee (1935 m asl), a small lake in the Swiss Alps. Journal of Paleolimnology 30, 261–272. *https://doi.org/10.1023/A:1026088914129*

Wieckowska-Lüth, M., Kirleis, W., Doerfler, W., 2017. Holocene history of landscape development in the catchment of Lake Skogstjern, southeastern Norway, based on a high-resolution multi-proxy record. The Holocene 27, 1928–1947. *https://doi.org/10.1177/0959683617715691*

Wiethold, J., 1998. Studien zur jüngeren postglazialen Vegetations-und Siedlungsgeschichte im östlichen Schleswig-Holstein. Archäologische Informationen 21, 191–196.

Wille, M., Hooghiemstra, H., van Geel, B., Behling, H., de Jong, A., van der Borg, K., 2003. Submillennium-scale migrations of the rainforest–savanna boundary in Colombia: ^{14}C wiggle-matching and pollen analysis of core Las Margaritas. Palaeogeography, Palaeoclimatology, Palaeoecology 193, 201–223. *https://doi.org/10.1016/S0031-0182(03)00226-8*

Williams, N.J., 2005. The Environmental Reconstruction of the Last Glacial Cycle at Redhead Lagoon in Coastal, Eastern Australia (PhD thesis). University of Sydney, Sydney, Australia.

Willis, K.J., Braun, M., Sumegi, P., Toth, A., 1997. Does soil change cause vegetation change or vice versa? A temporal perspective from Hungary. Ecology 78, 740–750. *https://doi.org/10.2307/2266054*

Willis, K.J., Sümegi, P., Braun, M., Tóth, A., 1995. The late Quaternary environmental history of Bátorliget, N.E. Hungary. Palaeogeography, Palaeoclimatology, Palaeoecology 118, 25–47. *https://doi.org/10.1016/0031-0182(95)00004-6*

Winkler, M.G., 1985. A 12,000-year history of vegetation and climate for Cape Cod, Massachusetts. Quaternary Research 23, 301–312. *https://doi.org/10.1016/0033-5894(85)90037-7*

Wohlfarth, B., Luoto, T.P., Muschitiello, F., Väliranta, M., Björck, S., Davies, S.M., Kylander, M., Ljung, K., Reimer, P.J., Smittenberg, R.H., 2018. Climate and environment in southwest Sweden 15.5–11.3 cal. ka BP. Boreas 47, 687–710. *https://doi.org/10.1111/bor.12310*

Wohlfarth, B., Muschitiello, F., Greenwood, S.L., Andersson, A., Kylander, M., Smittenberg, R.H., Steinthorsdottir, M., Watson, J., Whitehouse, N.J., 2017. ǻsseldala–a key site for Last Termination climate events in northern Europe. Boreas 46, 143–161. *https://doi.org/10.1111/bor.12207*

Wooller, M.J., Street-Perrott, F.A., Agnew, A.D.Q., 2000. Late Quaternary fires and grassland palaeoecology of Mount Kenya, East Africa: evidence from charred grass cuticles in lake sediments.

Palaeogeography, Palaeoclimatology, Palaeoecology 164, 207–230. https://doi.org/10.1016/s0031-0182(00)00187-5
Wooller, M.J., Swain, D.L., Ficken, K.J., Agnew, A.D.Q., Street-Perrott, F.A., Eglinton, G., 2003. Late Quaternary vegetation changes around Lake Rutundu, Mount Kenya, East Africa: evidence from grass cuticles, pollen and stable carbon isotopes. Journal of Quaternary Science 18, 3–15. https://doi.org/10.1002/jqs.725
Worona, M.A., Whitlock, C., 1995. Late Quaternary vegetation and climate history near Little Lake, central Coast Range, Oregon. Geological Society of America Bulletin 107, 867–876. https://doi.org/10.1130/0016-7606(1995)107<0867:LQVACH>2.3.CO;2
Worthy, M., 2005. Mountain occupation project mires of the Australian capital territory: environmental change of the alluvial infill of Muellers Rock Creek, Upper Cotter Valley.
Wu, J., Liu, Q., 2013. Charcoal-recorded climate changes from Moon Lake in late-glacial. Chinese Journal of Geology 48, 860–869. https://doi.org/10.3969/j.issn.0563-5020.2013.03.021
Wu, L., Wang, X.Y., Zhang, G.S., Xiao, X.Y., 2008. Vegetation evolution and climate change since the Holocene recorded by pollen-charcoal assemblages from lacustrine sediments of Chaohu Lake in Anhui Province. Journal of Palaeogeography 10, 183–192.
Xia, J., Haskell, B.J., Engstrom, D.R., Ito, E., 1997. Holocene climate reconstructions from tandem trace-element and stable-isotope composition of ostracodes from Coldwater Lake, North Dakota, USA. Journal of Paleolimnology 17, 85–100. https://doi.org/10.1023/A:1007921328712
Xiao, X., Haberle, S.G., Li, Y.L., Liu, E., Shen, J., Zhang, E., Yin, J., Wang, S., 2018. Evidence of Holocene climatic change and human impact in northwestern Yunnan Province: high-resolution pollen and charcoal records from Chenghai Lake, southwestern China. The Holocene 28, 127–139. https://doi.org/10.1177/0959683617715692
Xiao, X., Haberle, S.G., Shen, J., Xue, B., Burrows, M., Wang, S., 2017. Postglacial fire history and interactions with vegetation and climate in southwestern Yunnan Province of China. Climate of the Past 13, 613–627. https://doi.org/10.5194/cp-13-613-2017
Xin, X., Yiyin, L., 2015. Comparison of the fire history reconstructions from three different kinds of charcoal data on the same site, Daxing'an Mountain. Quaternary Sciences 35, 960–966. https://doi.org/10.11928/j.issn.1001-7410.2015.04.17
Xu, Q.H., Kong, Z.C., Chen, X.D., Yang, X.L., Liang, W.D., Sun, L.M., 2002. Discussion on the environment changes and the effects of human impacts in the east Ordos Planteau since 4000a B.P. Quaternary Sciences 22, 105–112.
Xue, J., Zhong, W., Xie, L., Unkel, I., 2015. Millennial-scale variability in biomass burning covering the interval ~41,000–7050cal BP in the tropical Leizhou Peninsula (south China). Palaeogeography, Palaeoclimatology, Palaeoecology 438, 344–351. https://doi.org/10.1016/j.palaeo.2015.08.037
Yang, X.D., Wang, S., Shen, J., Zhu, Y., Zhang, Z., Wu, Y., 2002. Lacustrine environment responses to human activities in the past 300 years in Longgan Lake catchment, southeast China. Science in China Series D: Earth Sciences 45, 709–718. https://doi.org/10.1007/bf02878428
Yasuda, Y., Kitagawa, H., Nakagawa, T., 2000. The earliest record of major anthropogenic deforestation in the Ghab Valley, northwest Syria: a palynological study. Quaternary International 73-74, 127–136. https://doi.org/10.1016/s1040-6182(00)00069-0
Yu, S., 2003. The Littorina Transgression in Southeastern Sweden and its Relation to Mid-Holocene Climate Variability(No. 51) (PhD thesis). Lund University, Lund, Sweden.
Yu, S.-Y., Andrén, E., Barnekow, L., Berglund, B.E., Sandgren, P., 2008. Holocene palaeoecology and shoreline displacement on the Biskopsmåla Peninsula, southeastern Sweden. Boreas 32, 578–589. https://doi.org/10.1111/j.1502-3885.2003.tb01237.x
Yu, S.-Y., Berglund, B.E., Andrén, E., Sandgren, P., 2004. Mid-Holocene Baltic Sea transgression along the coast of Blekinge, SE Sweden – ancient lagoons correlated with beach ridges. GFF 126, 257–272. https://doi.org/10.1080/11035890401263257

Yu, S.-Y., Berglund, B.E., Sandgren, P., Fritz, S.C., 2005. Holocene palaeoecology along the Blekinge coast, SE Sweden, and implications for climate and sea-level changes. The Holocene 15, 278–292. *https://doi.org/10.1191/0959683605hl792rp*

Zawisza, E., Zawiska, I., Szeroczynska, K., Correa-Metrio, A., Mirosław-Grabowska, J., Obremska, M., Rzodkiewicz, M., Słowinski, M., Woszczyk, M., 2019. Dystrophication of lake Suchar IV (NE Poland): an alternative way of lake development. Limnetica 38, 391–416. *https://doi.org/10.23818/limn.38.23*

Zhang, H., Zhang, Y., Kong, Z., Yang, Z., Li, Y., Tarasov, P.E., 2014. Late Holocene climate change and anthropogenic activities in north Xinjiang: Evidence from a peatland archive, the Caotanhu wetland. The Holocene 25, 323–332. *https://doi.org/10.1177/0959683614558646*

Zhang, J.H., Kong, Z.C., Du, N., 1999. Vegetation and environmental changes in the Fangshan area of Beijing from 16000-7000 years B.P. Acta Micropaleontologica Sinica 16, 421–430.

Zhang, J.H., Kong, Z.C., Du, N., 1997. Charcoal analysis and fire changes at Dongganchi of Fangshan in Beijing since 15000 Years BP. Chinese Journal of Plant Ecology 21, 161–168.

Zhang, J.H., Kong, Z.C., Du, N.Q., 1996. Disastrous abrupt climate events of environment change in Beijing in recent 15,000 years. Journal of Catastrophology 11, 71–75.

Zhang, X.Y., Li, Y.H., Liu, G.N., Yin, H.N., 2004. Environmental change in the northwest area of Liaoning Province during the middle Holocene. Marine Geology & Quaternary Geology 24, 115–120.

Zhang, Y., Kong, Z.C., Yang, Z.J., Shun, Y., Ni, J., 2004. Vegetation changes and environmental evolution in the Urumqi River Head, central Tianshan Mountains since 3.6 ka BP: a case study of Daxigou profile. Journal of Integrative Plant Biology 46, 655–667.

Zhang, Z., Zhong, J., Lv, X., Tong, S., Wang, G., 2015. Paleofire, vegetation, and climate reconstructions of the middle to late Holocene from lacustrine sediments of the Toushe Basin, Taiwan. Palaeogeography, Palaeoclimatology, Palaeoecology 438, 1–8. *https://doi.org/10.1016/j.palaeo.2015.07.028*

Zhao, H.L., Li, X.Q., Hall, V.A., 2015. Holocene vegetation change in relation to fire and volcanic events in Jilin, Northeastern China. Science China Earth Sciences 58, 1404–1419. *https://doi.org/10.1007/s11430-015-5068-8*

Zhao, K.L., Li, X.Q., Zhou, X.Y., 2011. Agricultural activities and its impact on the environment in lower Xiajiadian culture period of the Chengzishan Site west Liaoning Province. Quaternary Sciences 31, 8–15.

Zhao, L., Ma, C., Leipe, C., Long, T., Liu, K.-b., Lu, H., Tang, L., Zhang, Y., Wagner, M., Tarasov, P.E., 2017. Holocene vegetation dynamics in response to climate change and human activities derived from pollen and charcoal records from southeastern China. Palaeogeography, Palaeoclimatology, Palaeoecology 485, 644–660. *https://doi.org/10.1016/j.palaeo.2017.06.035*

Zhao, P.F., Li, Y.Y., 2012. The records of Sphagnum spore and charcoal in the peatland of Daxing'an Mountain since 1300 years and their paleoenvironment implication. Quaternary Sciences 32, 563–564.

Zhao, W.Y., 2005. Studies on the Wildfire and the Pedogenical Environment Changes of Holocene in the Middle Reaches of the Jinghe River. Xi'an (PhD thesis). Shanxi Normal University, Xi'an, China.

Zhao, W., Zhao, Y., Qin, F., 2017. Holocene fire, vegetation, and climate dynamics inferred from charcoal and pollen record in the eastern Tibetan Plateau. Journal of Asian Earth Sciences 147, 9–16. *https://doi.org/10.1016/j.jseaes.2017.07.017*

Zhao, Y., Chen, F., Zhou, A., Yu, Z., Zhang, K., 2010. Vegetation history, climate change and human activities over the last 6200 years on the Liupan Mountains in the southwestern Loess Plateau in central China. Palaeogeography, Palaeoclimatology, Palaeoecology 293, 197–205. *https://doi.org/10.1016/j.palaeo.2010.05.020*

Zhao, Y., Hou, G., E, C., Yang, L., Wang, Q., 2016. Charcoal concentration reflect of environment change and human activities in Xiadawu Relic, Qinghai-Tibet Plateau. Journal of Earth Environment 1, 19–26. *https://doi.org/10.7515/JEE201601003*

Zhou, X.Y., Li, X.Q., Zhao, K.L., Dodson, J., Sun, N., Yang, Q., 2011. Early agricultural development and environmental effects in the Neolithic Longdong basin (eastern Gansu). Chinese Science Bulletin 56, 762–771. *https://doi.org/10.1007/s11434-010-4286-x*

Zhu, X.H., Li, B., Ma, C.M., Zhu, C., Wu, L., Liu, H., 2017. Late Neolithic phytolith and charcoal records of human activities and vegetation change in Shijiahe culture, Tanjialing site, China. PLOS ONE 12, e0177287. *https://doi.org/10.1371/journal.pone.0177287*