

	4.2 ka cal BP event (4.43-3.97 ka cal BP)				5.9 ka cal BP event (6.0-5.75 ka cal PB)				
	before event	event		after event	before event	event		after event	
		CH-I, P-I temper ature	P-I AnP			CH-I, P-I temper ature	P-I AnP		
		Temperature and precipitation fluctuations							
1. Hirvijärvi, Finland [144]	5.4-4.7 ka cal BP: higher T Jul values	CH-I T Jul 15.3°C cooling oscillation on 4.2 ka cal BP	no reconstruction	3.9-3.2 ka cal BP: higher T Jul values	6.6 ka cal BP: the same level of T Jul values	CH-I T Jul ca. 17°C	no reconstruction	5.6 ka cal BP: the same level of T Jul values	
2. Medvedevskoe, Russia [8]	5.5 ka cal BP: 14.7°C	CH-I T Jul 14.0°C	no reconstruction	3.8 ka cal BP: 14.1°C	6.35 ka cal BP: the same level of T Jul	CH-I T Jul 14.6°C	no reconstruction	5.6 ka cal BP: the same level of T Jul	
3. Polistovo-Lovatskaya mire system, Russia [13]	4.4-5.2 ka cal BP: TWM similar values, TCM similar to higher records, AnP similar values	P-I TCM ca. - 7°C TWM 17.0-	P-I AnP 670- 700 mm	3.9-3.5 ka cal BP: similar values of TCM, TWM, AnP	6.1-6.4 ka cal BP: TCM and TWM similar values; AnP higher value	P-I TCM - 4°C TWM 18°C	P-I AnP 620 mm	5.6-5.5 ka cal BP: lower TCM, similar TWM and higher to same AnP	

		17.5°C						
4. LLiivjarve Bog, Estonia [145]	5.2-4.6 ka cal BP: similar level of TCM, TWM and AnP	P-I TCM - 11.0°C to - 6.4°C TWM 16.3-16.5°C	P-I AnP 617-640 mm	3.8-3.6 ka cal BP: similar to lower TCM, similar TWM, AnP	6.2-6.5 ka cal BP: similar level of AnP, TCM and TWM	P-I TCM - 9.6°C to - 8.6°C-TWM ca.16.5 °C	P-I AnP ca. 635 mm	5.7-5.2 ka cal BP: lower TCM, similar TWM, AnP
5. Raigastvere Lake, Estonia [146]	5.2-4.6 ka cal BP: similar level of TCM, TWM and AnP	P-I TCM - 10.7°C to - 9.7°C TWM 16.2-16.5°C except one outlier sample.	P-I AnP 640-680 mm except one outlier slampe.	3.8-3.6 ka cal BP: similar to higher TCM, similar TWM, lower AnP	6.4-6.2 ka cal BP: P-I TCM, TWM, AnP reveal similar values at values to 6.0 ka cal BP	P-I TCM - 2.6°C to 1.5°C on 6.0 ka cal BP and 5.85-5.75 ka cal BP, 0.8°C on 5.9 ka cal BP TWM variate	P-I AnP in two phases: ca. 775 mm on 6.0-5.9 ka cal BP and 885 mm on 5.85-5.75 ka cal BP	5.6-5.4 ka cal BP: lower TCM, similar TWM and lower AnP

						within 16.2- 17.4°C		
6. LLake Kurjanova, Latvia [35]	Two phases: first warm (4.43-4.2 ka cal BP) with +0.7°C of P-I sum. T, and second cool oscillation of -1C in P-I summer T at 4.0-3.9 ka cal BP comparing to 4.4-5.0 ka cal BP		no reconst ruction	3.9-3.8 ka cal BP: higher T summer (ca. + 1°C), 3.7-3.5 ka cal BP: similar values of T summer	Gradual decreasing trend of P-I summer T compared to 6.4-6.2 ka cal BP but no clear oscillation.		no reconst ruction	ca. 5.6 ka cal BP: lower T summer by - 0.7°C, 5.5 ka cal BP: similar values of T summer
7. Staroselsky Moch, Russia [137]	5.2-4.5 ka cal BP: similar level	P-I TCM - 9.5- - 5.9°C TWM 17.5- 18.7°C	no reconst ruction	3.9-3.7 ka cal BP: similar values of TCM and TWM	6.1-6.5 ka cal BP: similar level of TWM and much lower TCM	P-I TCM - 4.4°C TWM 17.5°C	no reconst ruction	5.7-5.4 ka cal BP: high variability of TCM and similar values of TWM
8. Peatland Klukva, Russia [14]	5.2-4.5 ka cal BP: similar level of TCM and TWM	P-I TCM - 5.8°C to - 4.4°C TWM 18.0-	no reconst ruction	3.8-3.4 ka cal BP: higher TCM and similar to higher TWM	6.2-6.5 ka cal BP: higher values of TCM and similar level of TWM	P-I TCM - 4.8°C TWM 18.9°C	no reconst ruction	5.6-5.2 ka cal BP: similar TCM and TWM

		18.6°C						
9. Sudoble Lake, Belarus [147]	5.0-4.7 ka cal BP: similar values of P-I TCM, TWM and AnP	P-I TCM - 7.2°C to -8°C TWM 15.9-16.5°C	P-I AnP ca. 632 mm,	3.8-3.4 ka cal BP: TCM, TWM and AnP reveal similar values	6.5-6.2 ka cal BP: TCM values are lower compared to 6.0 ka cal BP and much higher compared to 5.9 ka cal BP; TWM reveal variable values on 6.5-6.2 ka cal BP; AnP reveal big fluctuations.	P-I TCM - 2.7°C on 6.0 ka cal BP -7.2°C on 5.9 ka cal BP TWM 17.6°C on 6.0 ka cal BP 15.9°C on 5.9 ka cal BP	P-I AnP variate from 734 to 630mm (6.0 to 5.9 ka cal BP)	5.7-5.4 ka cal BP: similar to lower TCM, similar and variable TWM and AnP

10. Bebrukas Lake, Lithuania [148]	5.2-4.8 ka cal BP: sharp decrease of TCM and TWM and increase of AnP starting on 4.5 ka cal BP	P-I TCM - 5°C to - 8.5°C TWM 16.2-16.8°C	P-I AnP 590-630 mm;	3.9-3.6 ka cal BP: similar values of TCM, TWM, AnP		no data	no data	
11. Darzlubie Bog, Poland [149]	4.8-4.55 ka cal BP: P-I TCM, TWM on similar level; AnP reveal long-time fluctuations	P-I TCM 1.5°C TWM 16.4-16.8°C;	P-I AnP stays on ca. 815 mm fluctuations from 4.8-4.55 ka cal BP	3.8-3.4 ka cal BP: lower to similar TCM, similar TWM, higher to similar AnP	6.4 ka cal BP: similar values of TCM, higher values of TWM, lower values of AnP	P-I TCM - 0.4°C TWM 17.5°C;	P-I AnP 904 mm;	5.7-5.2 ka cal BP: similar to higher TCM, TWM, similar to lower AnP
12. Lake Spore, Poland [135]	CH-I T Jul variate within 18–19 °C; Slightly higher temperatures, reaching up to 20 °C were reconstructed at ~3.9–4.05 and 4.18–4.27 cal ka BP					no data	no data	
13. Oltush Lake, Belarus [150]	5.6-4.7 ka cal BP: TCM on the similar level, TWM higher	P-I TCM -	P-I AnP 743	3.8-3.4 ka cal BP: similar to lower TCM, TWM, lower AnP	6.4 ka cal BP: TCM, TWM and AnP on similar level	P-I TCM -	P-I AnP 571 mm.	5.6 ka cal BP: similar TCM, TWM and AnP

	values ca. 18.0°C; AnP - much lower values	2.3°C TWM 17.3°C	mm;			2.9°C TWM 18.0°C		
14. Błędowo Lake, Poland [151]	5.2-4.5 ka cal BP: TCM and TWM keep decreasing trend toward 4.2 ka cal BP event;	P-I TCM - 4.4°C to - 0.8°C TWM decrease from 20°C to 15.51°C;	At first phase the same P-I AnP compared to 5.7-4.43 ka cal BP (622-706 mm), at second phase increase to 894 mm	3.9-3.6 ka cal BP: similar values of TCM and TWM but much lower variability; AnP of similar values to first phase of 4.2 ka cal BP event and much lower than in the second phase of one	6.5-6.1 ka cal BP: higher TCM; 6.1 ka cal BP higher TWM; 6.5-6.2 ka cal BP higher AnP	P-I TCM - 6.0°C on 5.9 ka cal BP TWM 15.7°C on 5.8 ka cal BP Clear cold oscillation summer	P-I AnP ca. 620 mm exactly on 6.0-5.8 ka cal BP	after 5.9 ka cal BP event TCM and TWM sharply increase, AnP variable
15. Żabieniec Bog, Poland [20]	5.0-4.6 ka cal BP: T Jul reveal slightly higher values - ca. 16.7-17.2°C	CH-I T Jul fluctuates 15.9-	No data	3.9-3.5 ka cal BP: generally similar values of T Jul: 15.3-16.9°C except outlier on 3.8 ka	6.6-6.2 ka cal BP: values higher then on 6.0 ka cal BP	CH-I TJul is 14.0°C exactly on 6.0	No data	5.6-5.2 ka cal BP: similar values as in second phase of 5.9 ka cal BP event

		16.9°C		cal BP (13.8°C)		ka cal BP, in second phase of 5.9 ka event, temperature increases to 16.5°C;		
16. Biskupińskie Lake, Poland [152]	5.2 -4.5 ka cal BP: TCM and TWM on similar level; AnP at similar level to second phase of 4.2 event	P-I TCM - 5.0°C to - 3.0°C TWM with increasing trend from 15.8°C to 19.2°C;	P-I AnP: at first phase high value (818 mm) then much lower ca. 550 mm;	3.9-3.6 ka cal BP: TCM, TWM ranging in variability of 4.2 ka cal BP event to higher values, AnP higher	6.0-6.4 ka cal BP: TCM, TWM and AnP on the similar level	P-I TCM - 3.7°C to - 5.1°C TWM 18.0-17.1°C;	P-I AnP: ca 590 mm	5.7-5.2 ka cal BP: TCM, TWM similar to lower values, AnP similar to higher values

17. Zalozhtsy, Ukraine [153]	5.1 ka cal BP: TCM lower, TWM higher and AnP substantially lower then on 4.2 ka event	P-I TCM - 0.9°C TWM 15.3°C	P-I AnP 1110 mm	3.4 ka cal BP: TCM, AnP reveal lower, TWM higher values	6.6 ka cal BP: TCM and TWM on similar level, substantially higher AnP	P-I TCM - 3.9°C TWM 16.0°C	P-I AnP 830mm	5.1 ka cal BP: TCM, AnP reveal higher, TWM similar values
18. Verněřovice, Czech Republic [154]	4.9 ka cal BP: similar values of TCM and TWM, slightly higher values of AnP	P-I TCM - 9.0 °C TWM 16.3°C	P-I AnP 654 mm	3.3 ka cal BP: TCM, AnP reveal much higher, TWM lower values	6.3 ka cal BP: lower TCM, higher TWM and lower AnP (630 mm)	P-I TCM - 7.8°C TWM 15.8°C	P-I AnP: ca. 760 mm	5.8 ka cal BP: TCM, AnP reveal higher, TWM similar values
fluctuations of water level								
	before event	4.2 ka cal BP event (4.43-3.97 ka cal BP)	after event	before event	5.9 ka cal BP event (6.0-5.75 ka cal PB)	after event		
19. Männikjärve bog, Estonia [155]	no data	TA-I DWT (Testate Amoebae-Inferred water table depth (cm)) reveal wet oscillation	3.9-3.7 ka cal BP: DWT reveal much drier conditions with tendency to decrease of water table		no data			

20. Głębocek, Poland [156]	DWT on 4.2 ka cal BP event similar water level comparing to 4.3-4.5 ka cal BP and 3.8-3.4 ka cal BP, wetter than multi-millennial mean			6.2 ka cal BP: wet oscillation	DWT on 5.9 ka cal BP event on multi-millennial mean	5.4 ka cal BP: dry oscillation
21. Stążki, Poland [34]	3.7-3.4 ka cal BP: increase of water table	TA-I DWT dry oscillation	4.4.-4.7 ka cal BP: water level on multi-century mean			
22. Gązwa, Poland [33]	4.4-4.8 ka cal BP: water level on multi-millennial mean	TA-I DWT small fluctuations	3.9-3.5 ka cal BP: water level on multi-millennial mean		TA-I DWT clear dry oscillation	5.8: clear wet oscillation then water level stays on multi-millennial mean