

**Table 1.** List of all the 46 tree-ring reconstructions, extending back at least to 1000 CE, published as calibrated hydroclimatic reconstructions. The abbreviation code for tree species follows the standard used in the International Tree-Ring Data Bank (ITRDB; Grissino-Mayer et al., 1997) as listed in Grissino-Mayer (1993).

Reconstruction	Reference	Long.	Lat.	Species	Signal	Season
1. Albemarle Sound, USA (EW)	Stahle et al. (2013)	-76.00	36.00	TADI	PHDI	July
2. A'nyêmaqên, China	Gou et al. (2010)	99.50	34.50	JUPR	Streamflow	August–July
3. Atlas Mountains, Morocco	Esper et al. (2007)	-5.07	33.02	COAT	PDSI	February–June
4. Barranca de Amealco, Mexico	Stahle et al. (2011)	-100.07	20.21	TAMU	PDSI	June
5. Bear River, USA	DeRose et al. (2015)	-110.85	40.97	JUOS	Streamflow	October–September
6. Central Chile	Garreaud et al. (2017)	-70.34	-34.35	AUCH	Precipitation	June–December
7. Central Europe	Büntgen et al. (2011)	9.00	50.00	QUSP	Precipitation	
8. Choctawhatchee River, USA (EW)	Stahle et al. (2012)	-85.88	30.47	TADI	Precipitation	April–May
9. Choctawhatchee River, USA (LW)	Stahle et al. (2012)	-85.88	30.47	TADI	Precipitation	June–July
10. Colorado River, USA	MacDonald et al. (2008)	-114.50	33.50	PIAR, PILO, PIFL, LALY, PSME	Streamflow	October–September
11. Delingha, China	Shao et al. (2005)	97.80	37.10	JUPR	Precipitation	July–June
12. Dulan, China	Sheppard et al. (2004)	99.00	37.00	SBPI	Precipitation	July–June
13. East Anglia, UK	Cooper et al. (2013)	1.00	52.50	QUPE, QURO	Precipitation	March–July
14. El Malpais, USA	Grissino-Mayer (1995)	-108.18	34.97	PSME, PIPO	Precipitation	July–July
15. El Malpais, USA (EW)	Stahle et al. (2009)	-108.18	34.97	PSME, PIPO	Precipitation	September–May
16. El Malpais, USA (LW)	Stahle et al. (2009)	-108.18	34.97	PSME, PIPO	Precipitation	June–July
17. Flowerpot, Canada	Buckley et al. (2004)	-81.50	45.10	THOC	Precipitation	June–July
18. Georgia, USA	Stahle and Cleaveland (1992)	-81.80	31.62	TADI	Precipitation	March–July
19. Heihe River Basin, China	Yang et al. (2012)	100.00	38.20	SBPI	Streamflow	August–July
20. Hexi Corridor, China	Yang et al. (2019)	98.03	39.55	JUPR	scPDSI	May–June
21. Jemez Mountains, USA	Touchan et al. (2011)	-106.50	36.00	PSME, PISF, PIPO	Precipitation	October–June
22. Khorgo, Mongolia	Hessl et al. (2018)	99.87	48.17	PISI	PDSI	June–September
23. Lee Ferry, USA	Meko et al. (2007)	-111.58	36.85	PSME, PIED	Streamflow	
24. Little Snake River, USA	Gray et al. (2011)	-107.75	40.75	PSME, PIMO	Streamflow	October–September
25. Mesa Verde, USA	Stahle et al. (2015)	-108.48	37.18	PSME	Moisture balance	September–May
26. Mesa Verde, USA	Stahle et al. (2015)	-108.48	37.18	PSME	Moisture balance	June–July
27. Mount San Gorgonio, USA	MacDonald (2007)	-116.80	34.12	PIJE	PDSI	January–April
28. Mount Smolikas, Greece	Klippel et al. (2018)	20.75	40.25	PIHE	SPI	June–July
29. Northeastern Tibetan Plateau, China	Yang et al. (2014)	98.00	37.00	JUPR	Precipitation	July–June
30. Pamir–Alay Mountains, Tajikistan	Opala-Owczarek and Niedźwiedz (2018)	69.00	39.00	JUSM	Precipitation	December–February
31. Potomac River, USA	Maxwell et al. (2011)	-77.53	39.27	CYOV, JUVI, LITU, MAAG, PCRU, QUAL, QUPR, TADI, TSCA	Streamflow	May–September
32. Qilian Mountains, China	Zhang et al. (2011)	99.50	38.50	JUPR	Precipitation	August–July
33. Sacramento River, USA	MacDonald et al. (2008)	-121.63	38.70	PILO, PIFL, JUOC	Streamflow	
34. Southern Colorado Plateau, USA	Salzer and Kipfmüller (2005)	-111.40	35.20	PSME, PIED	Precipitation	October–July
35. Southern Finland	Helama et al. (2009)	28.50	61.50	PISY	Precipitation	May–June
36. Southern Sierra Nevada, USA	Graumlich (1993)	-118.90	36.90	JUOC	Precipitation	December–February
37. Southerncentral England, UK	Wilson et al. (2013)	-1.50	52.00	QUPE, QURO	Precipitation	March–July
38. Summitville, USA	Routson et al. (2011)	-106.59	37.43	PIAR	Precipitation	March–July
39. Tavaputs Plateau, USA	Knight et al. (2010)	-110.40	39.70	PSME	Precipitation	July–June
40. Upper Arkansas River Basin, USA	Woodhouse et al. (2011)	-106.00	38.50	PSME, PIPO, PIED	Moisture availability	October–September
41. Upper Klamath River Basin, USA	Malevich et al. (2013)	-121.78	42.20	JUOC, PIPO, PIJE, QUDG	Precipitation	October–September

42. Uurgat, Mongolia	<a href="#">Hessl et al. (2018)</a>	101.77	46.68	PISI	PDSI	June–September
43. Whirlpool point, Canada	<a href="#">Case and MacDonald (2003)</a>	–116.45	52.00	PIFL, PCMA	Streamflow	October–September
44. White Mountains, USA	<a href="#">Hughes and Graumlich (1996)</a>	–118.17	37.45	PILO	Precipitation	July–June
45. White River, USA	<a href="#">Gray et al. (2011)</a>	–108.00	40.00	PSME, PIMO	Streamflow	October–September
46. Yampa River, USA	<a href="#">Gray et al. (2011)</a>	–108.33	40.48	PSME, PIMO	Streamflow	October–September