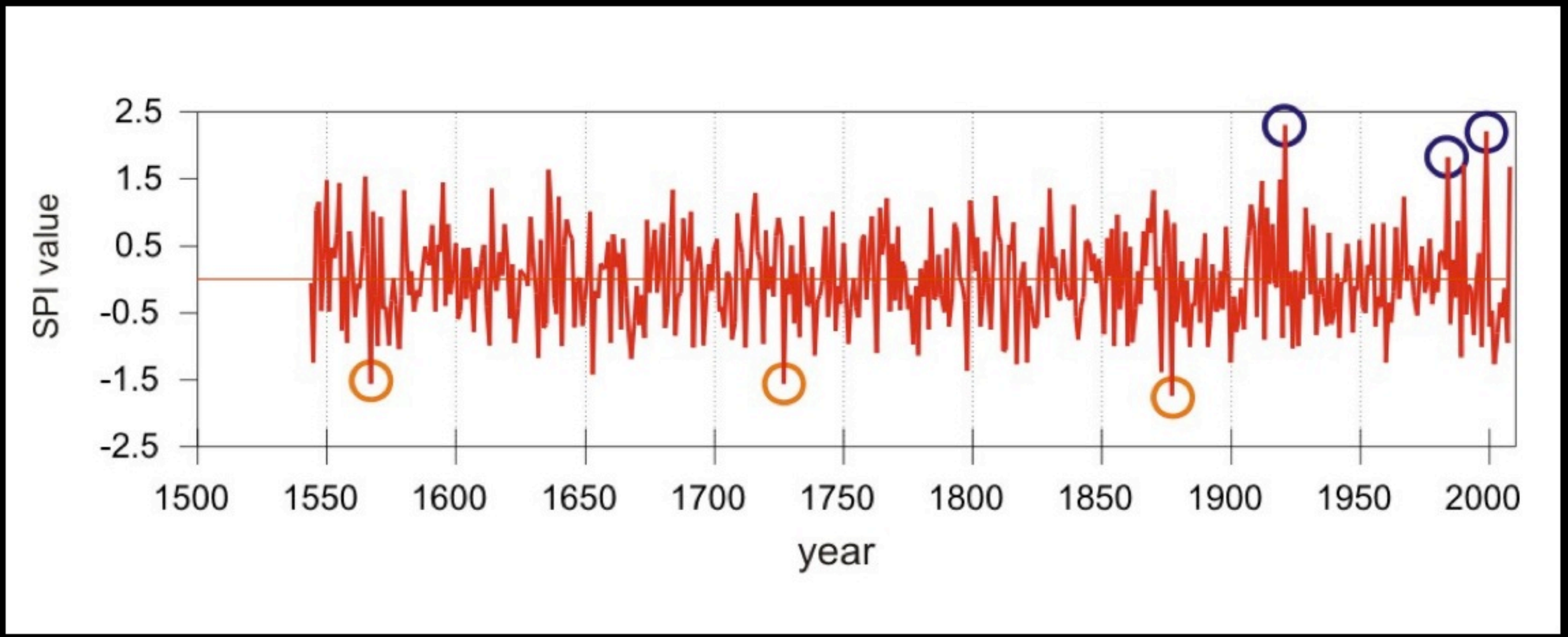
Part 3.

Reconstructions of Monsoon and Cool Season – what do these records tell us?

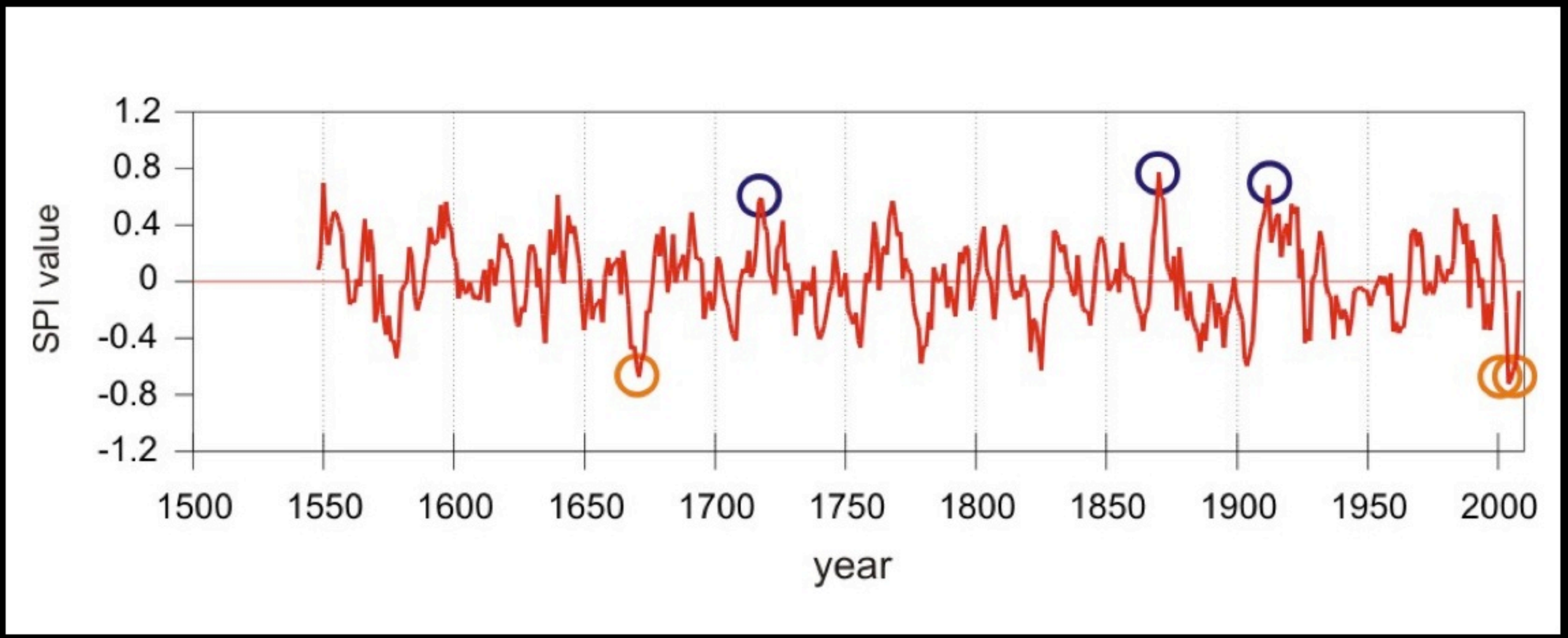
Monsoon Season SPI Reconstruction Analysis

Summer SPI reconstruction, annual values



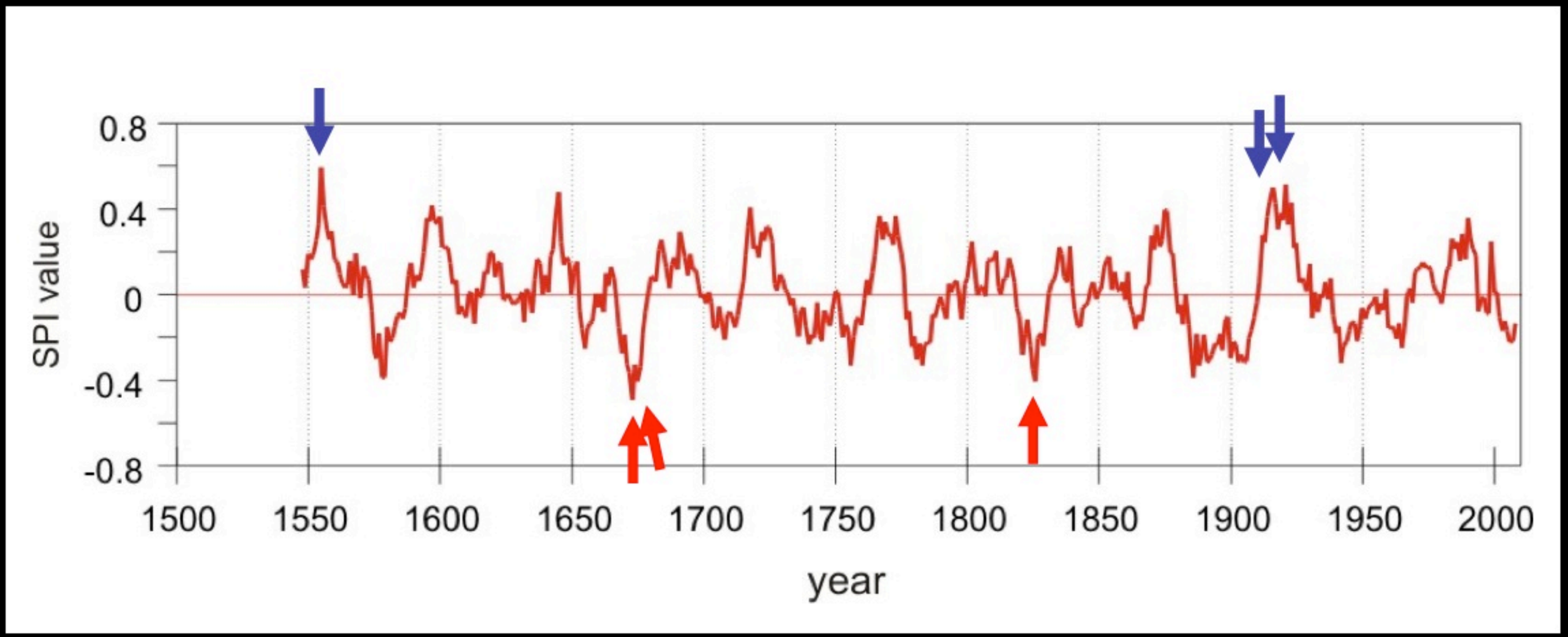
3 wettest (blue circle) and driest (red circle) single years

Summer SPI reconstruction, 5-year moving average



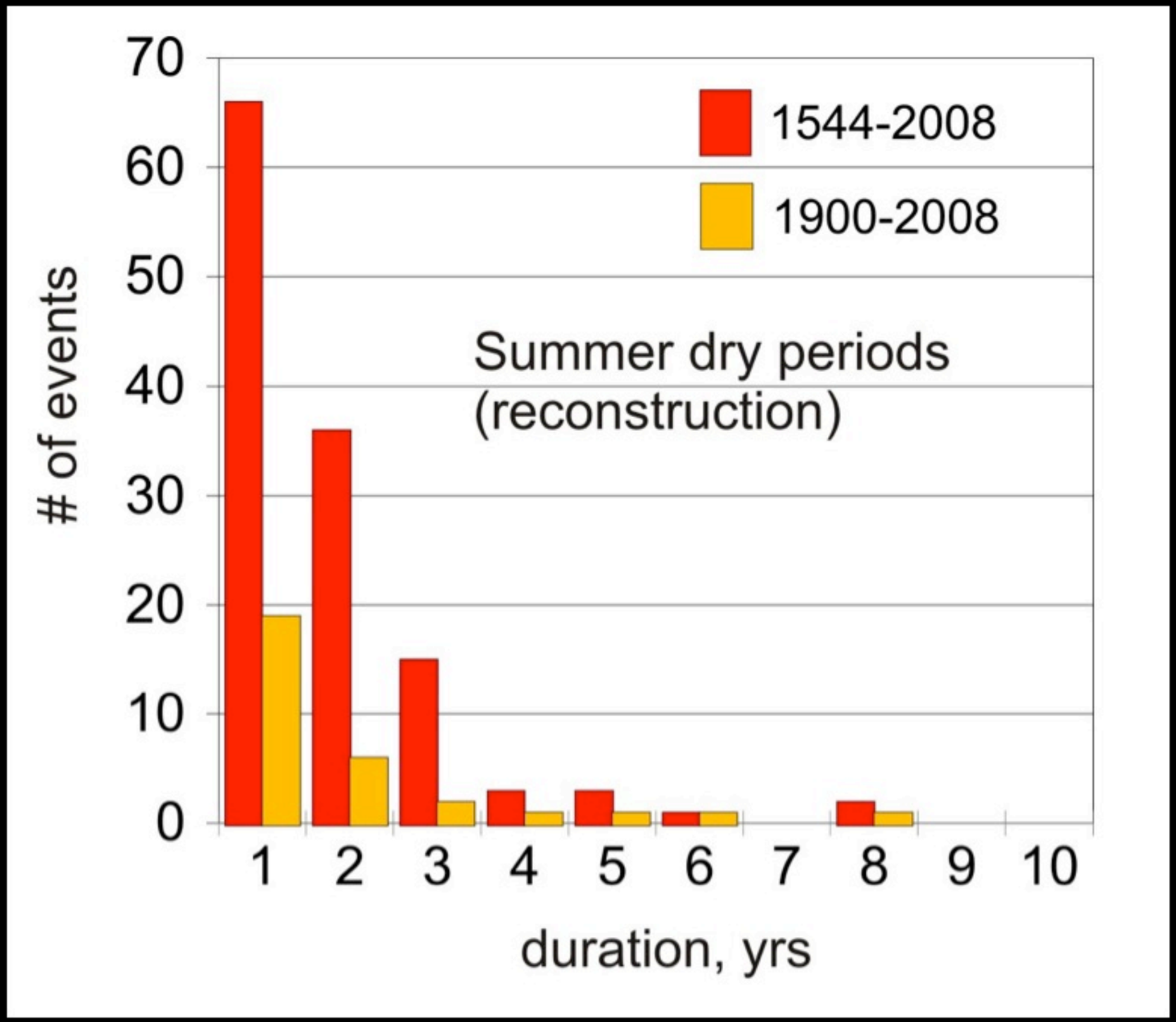
3 wettest (blue circles) and driest (red circles) 5-year periods

Summer SPI reconstruction, 10-year moving average

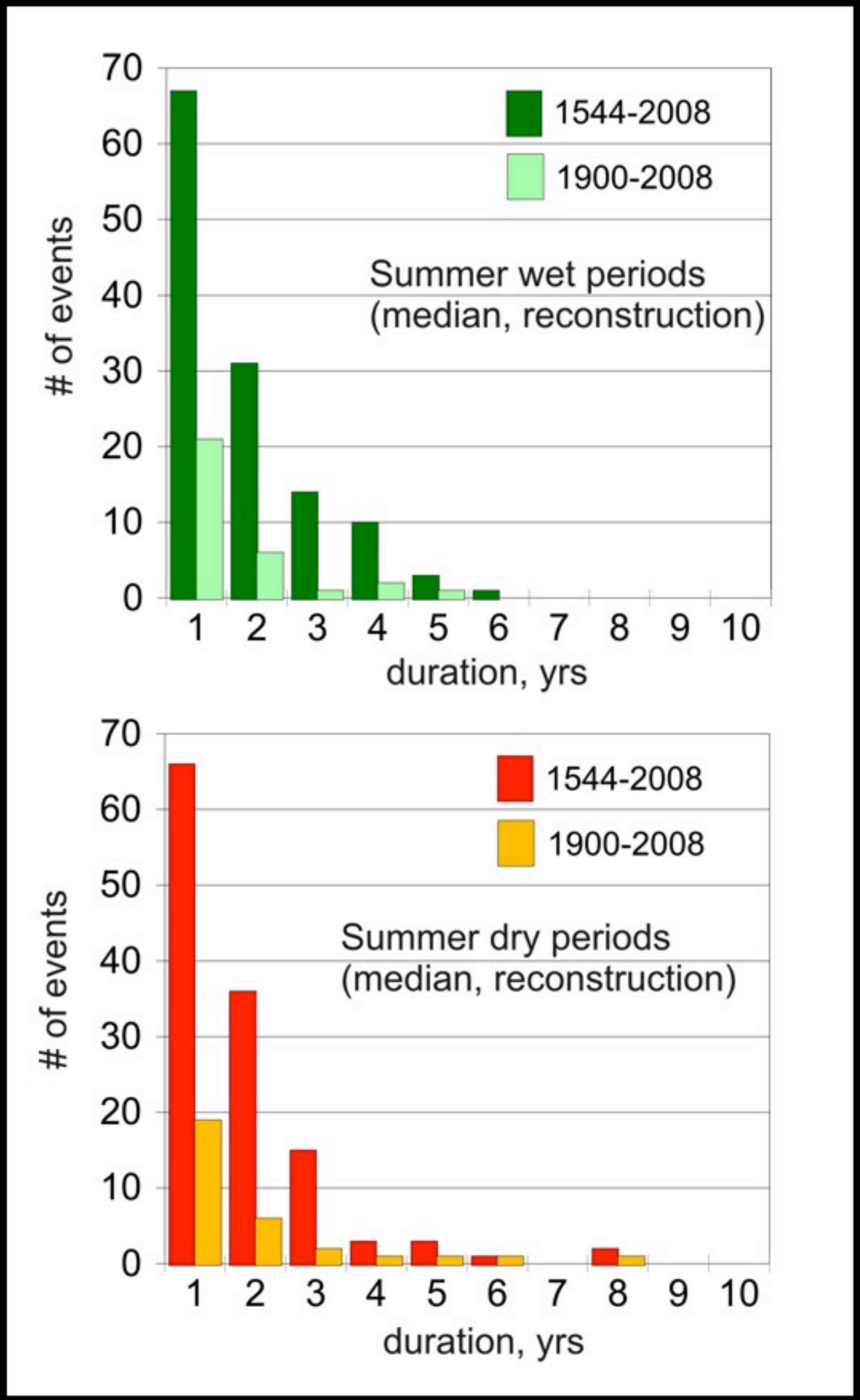


3 wettest (blue arrow) and driest (red arrow) 10-year periods

Summer drought duration and frequency based on reconstruction median



Single and consecutive days below the median

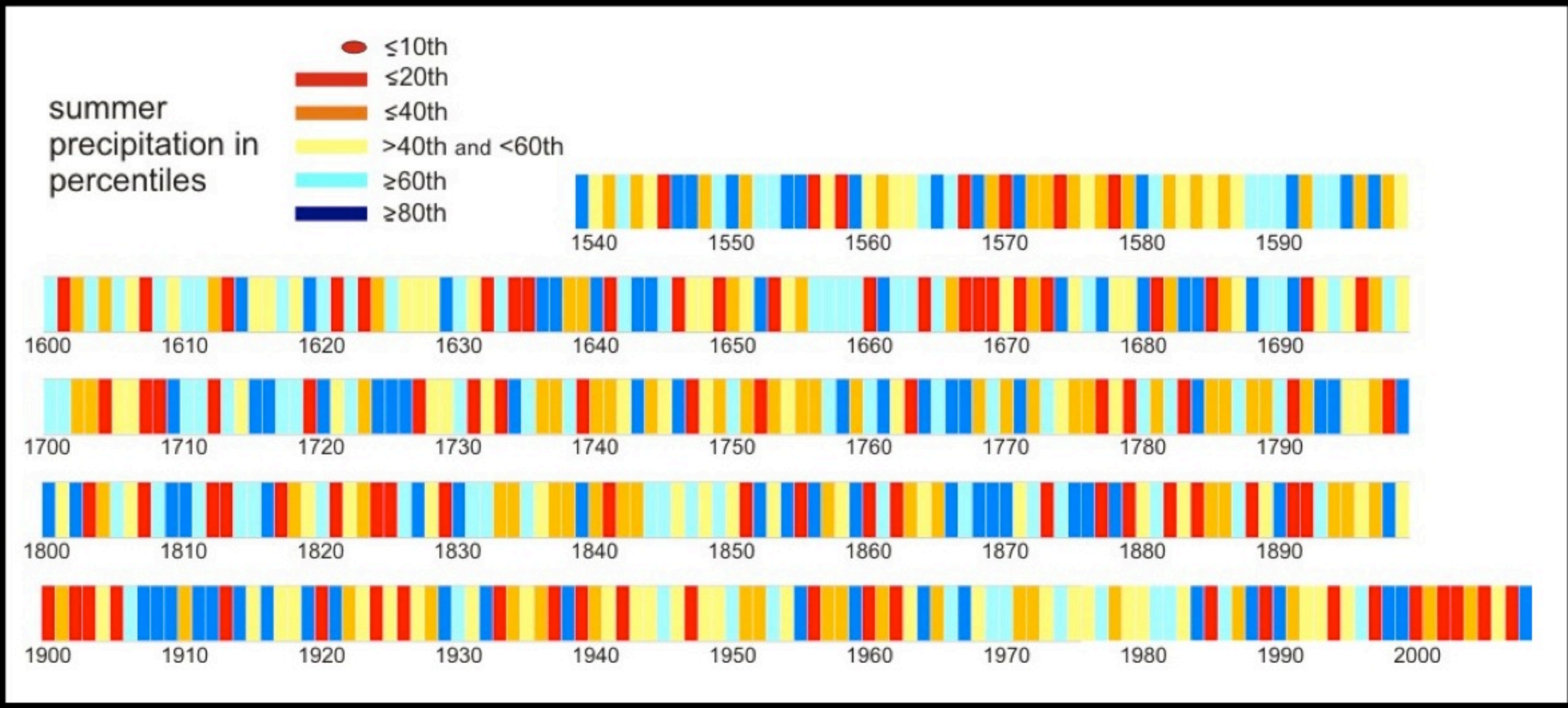


Summer surplus, duration and frequency based on reconstruction median

Summer drought duration and frequency based on reconstruction median

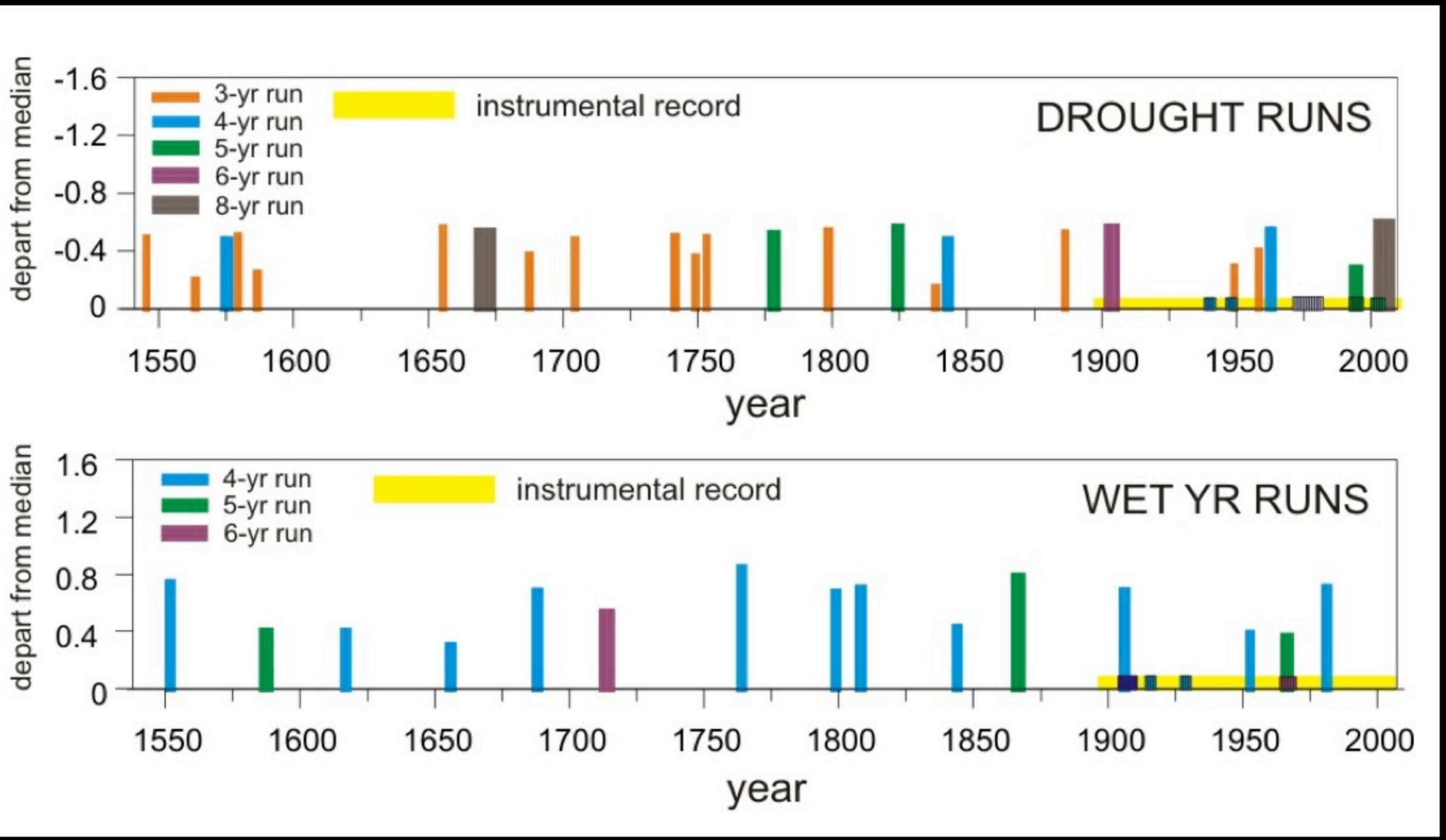
Single and consecutive days above (top) and below (bottom) the median

Summer SPI reconstruction: Sequences of years



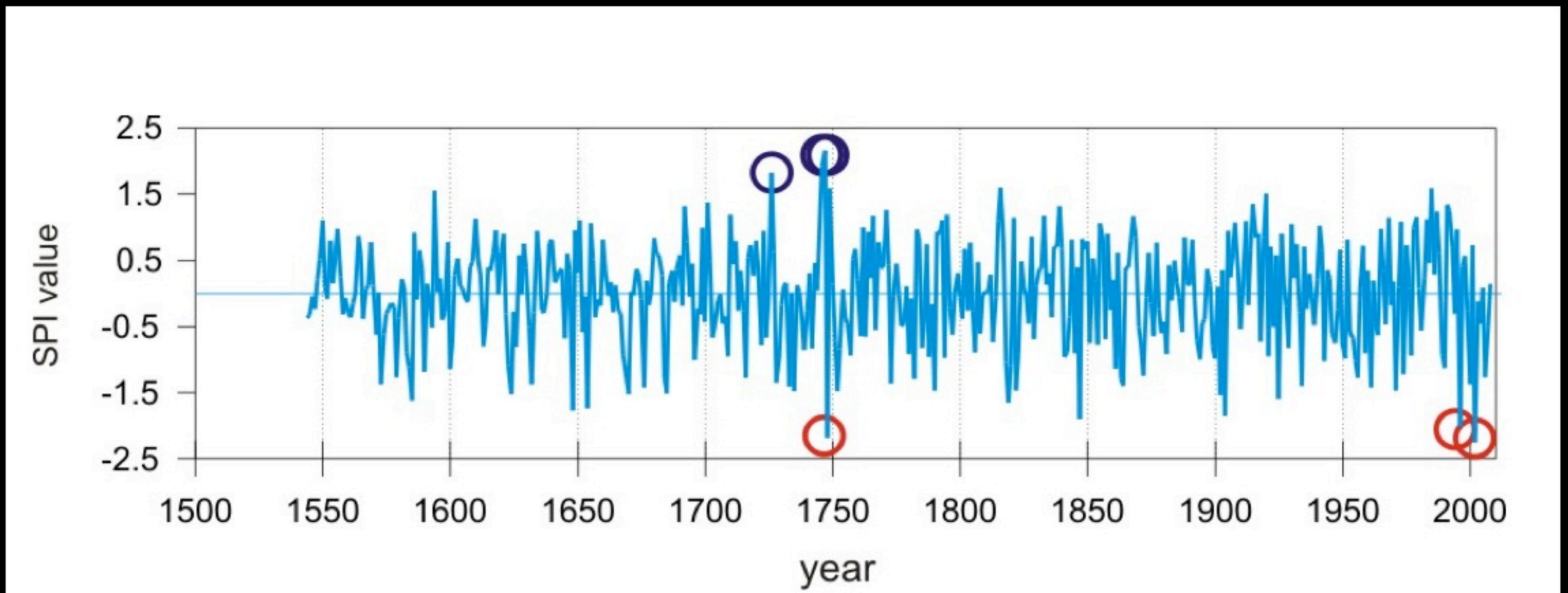
SUMMER

Runs of drought and surplus, magnitude and duration (averaged across years in run)



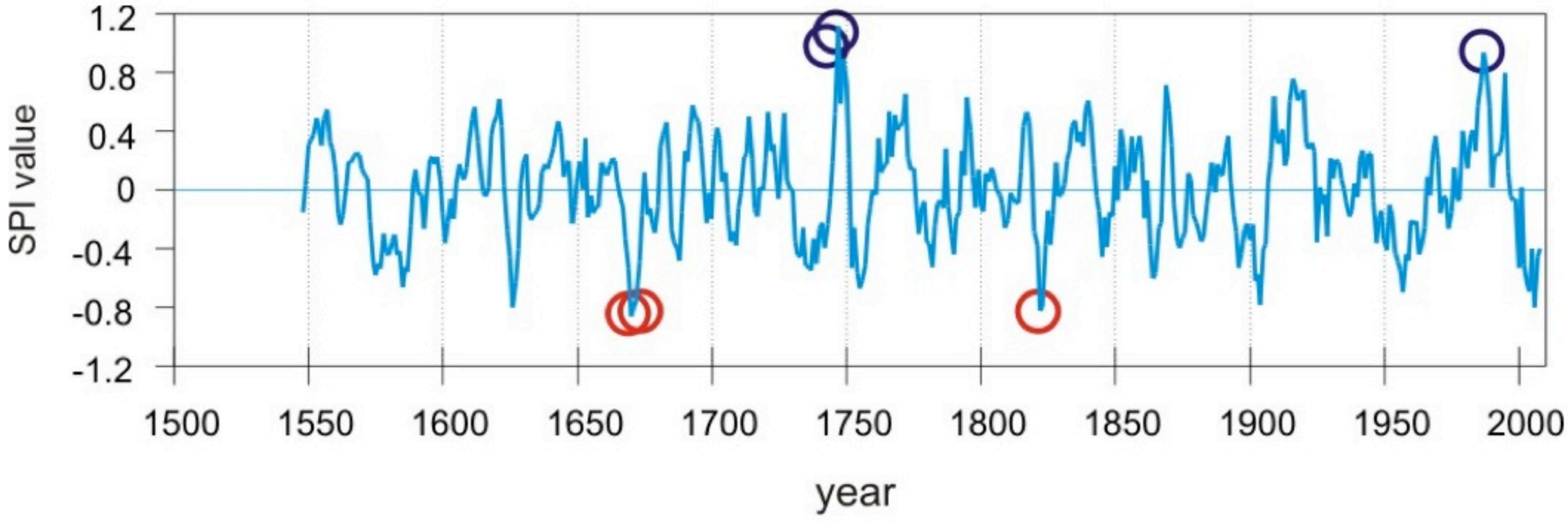
Cool Season SPI Reconstruction Analysis

Winter SPI reconstruction, annual values



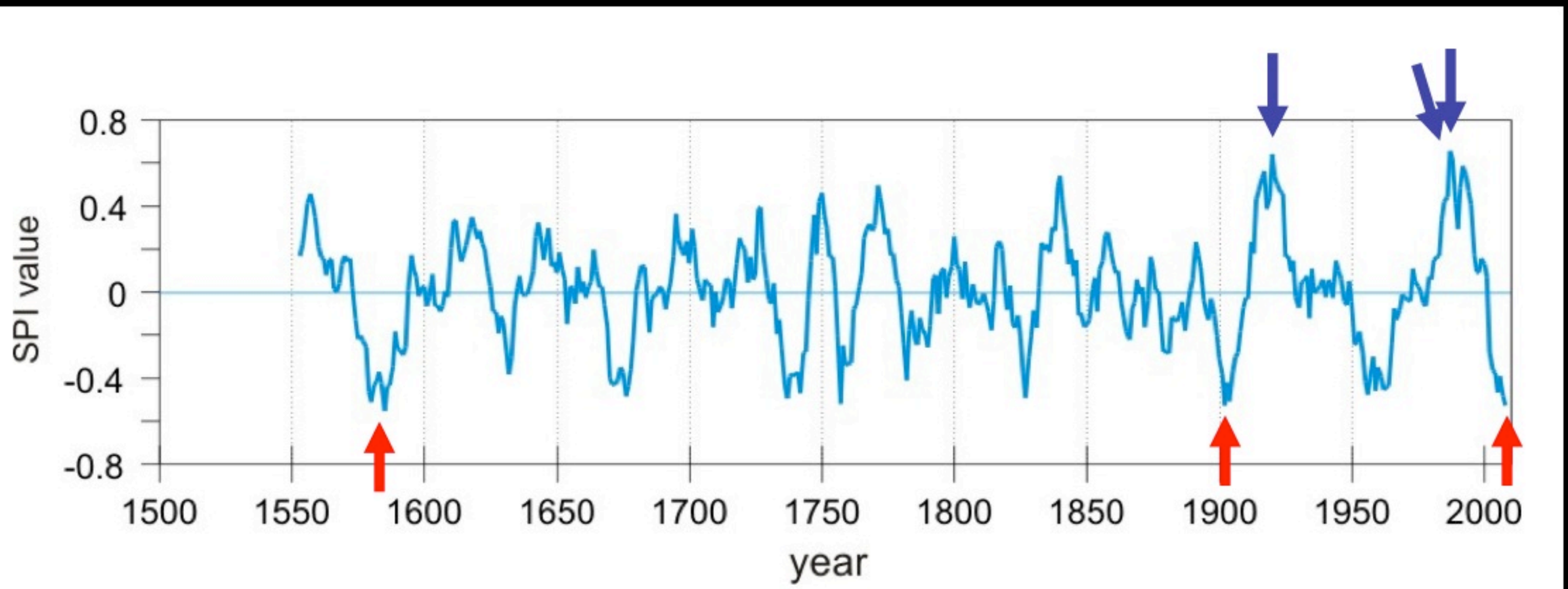
3 wettest (blue circle) and driest (red circle) single years

Winter SPI reconstruction, 5-year moving average



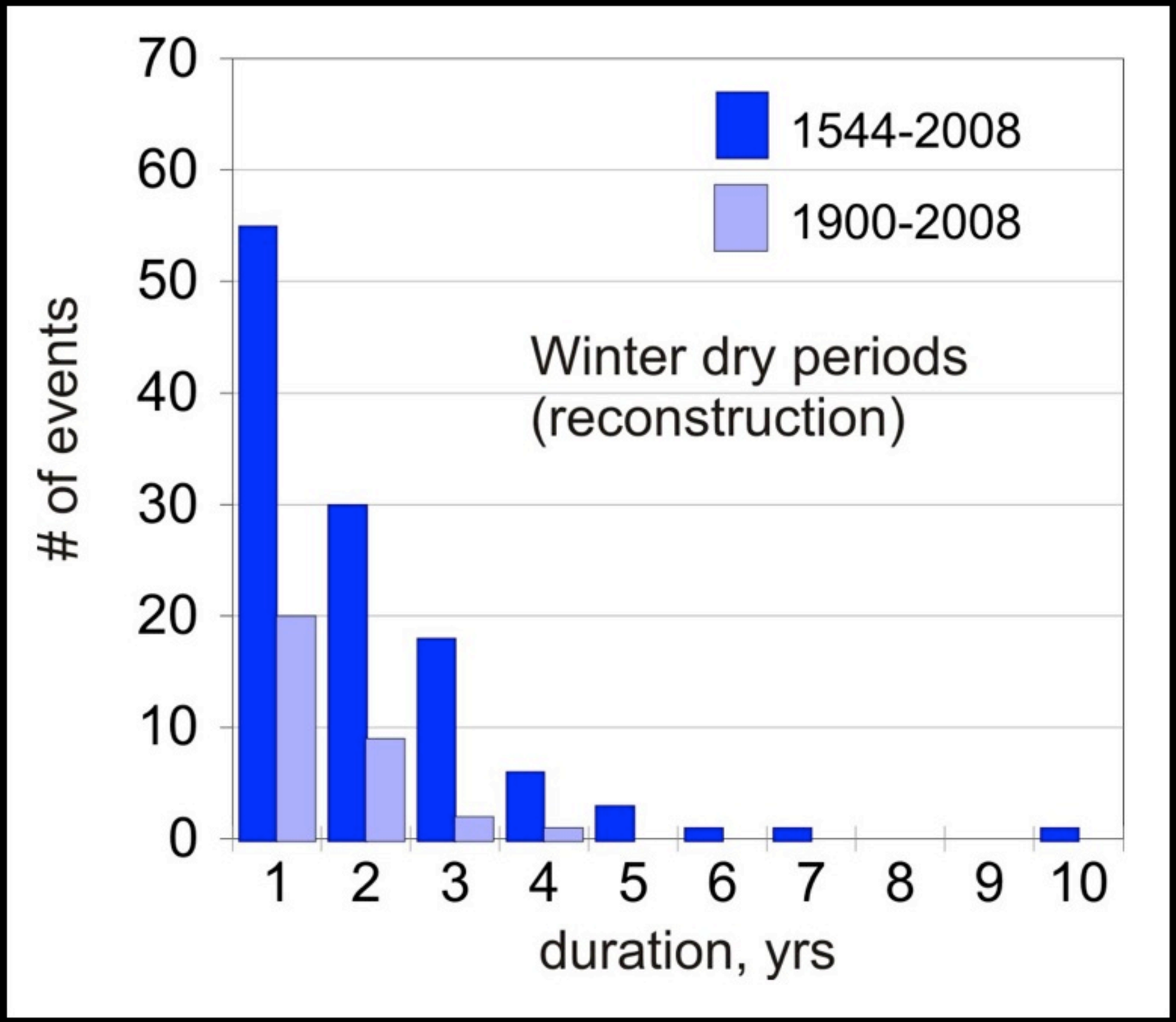
3 wettest (blue circle) and driest (red circle) 5-year periods

Winter SPI reconstruction, 10-year moving average



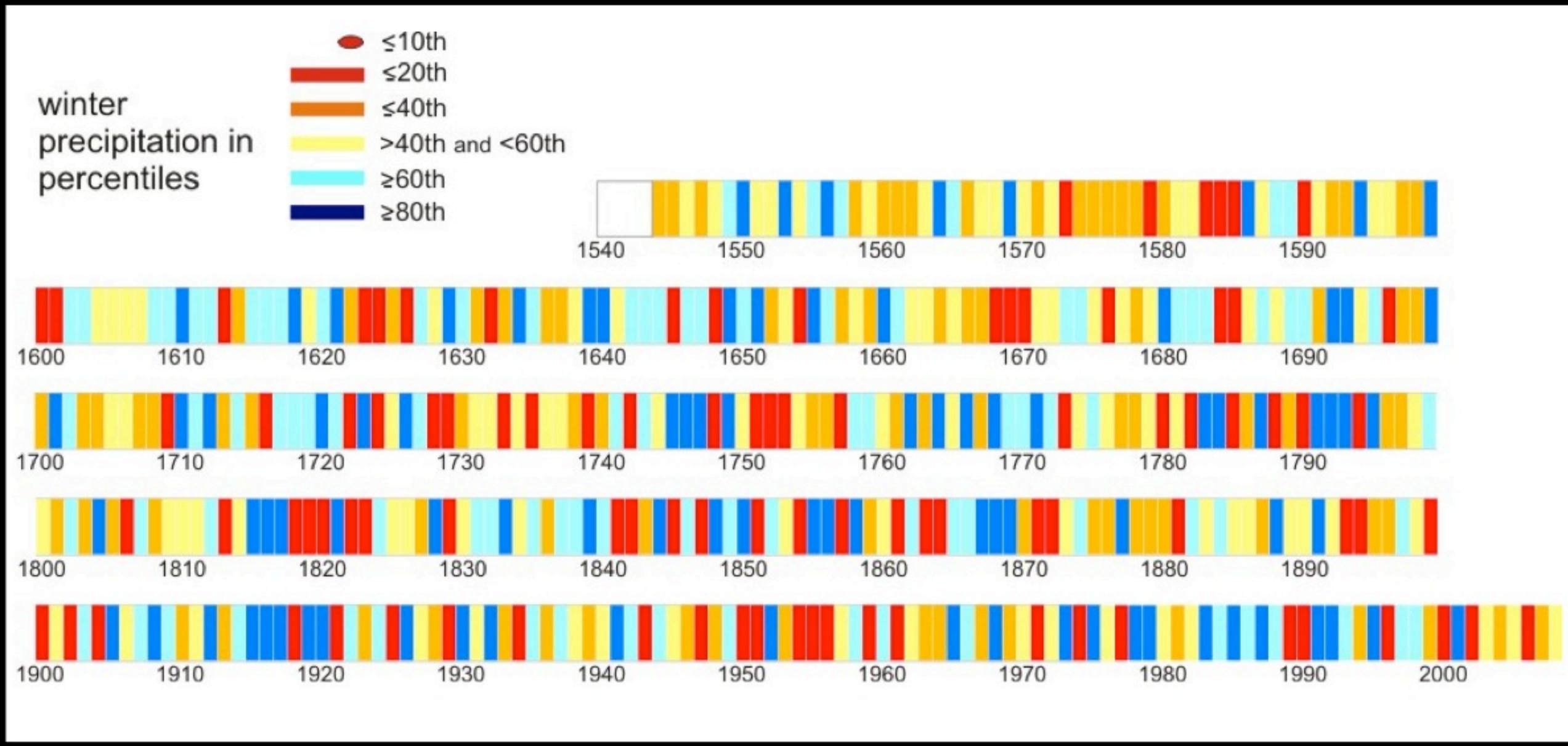
3 wettest (blue arrow) and driest (red arrow) 10-year periods

Winter drought duration and frequency based on reconstruction median



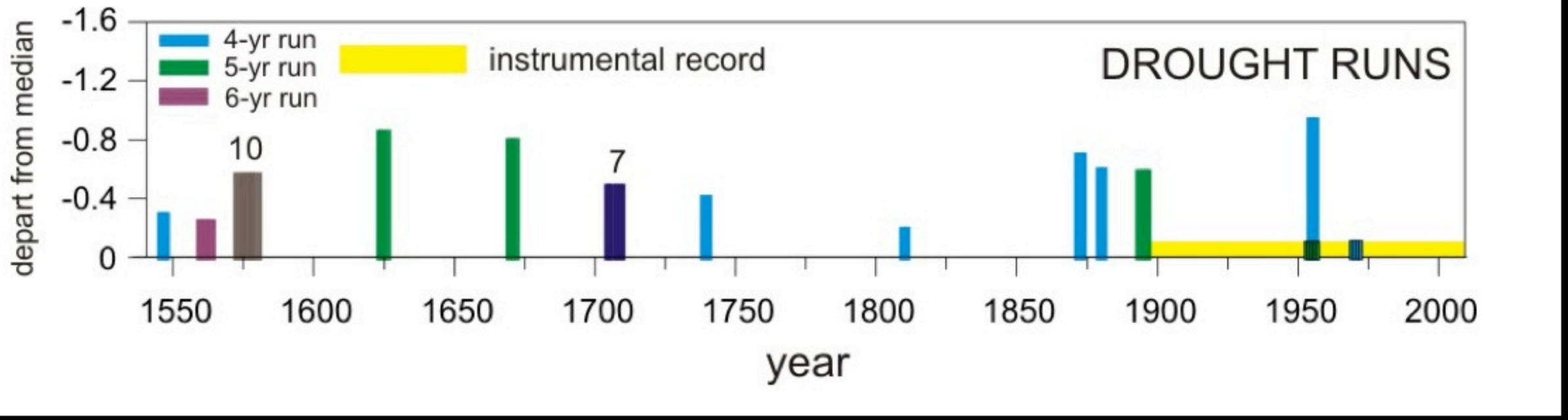
Single and consecutive days below the median

Winter SPI reconstruction: Sequences of years

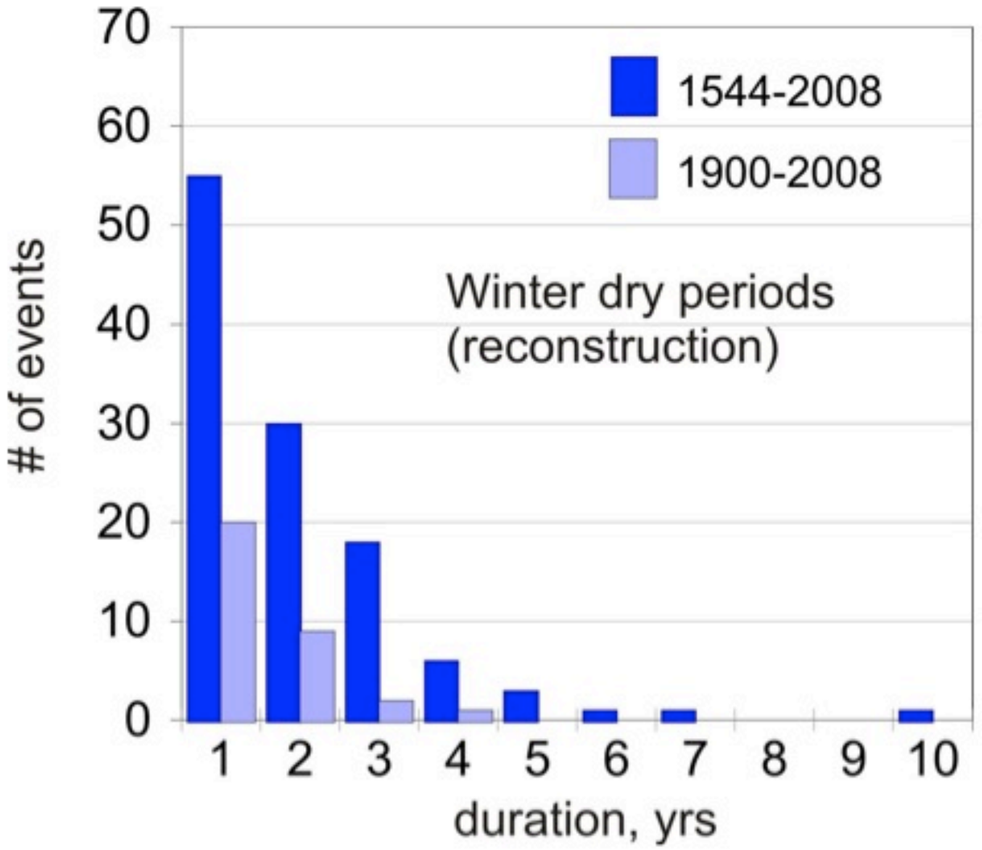


WINTER

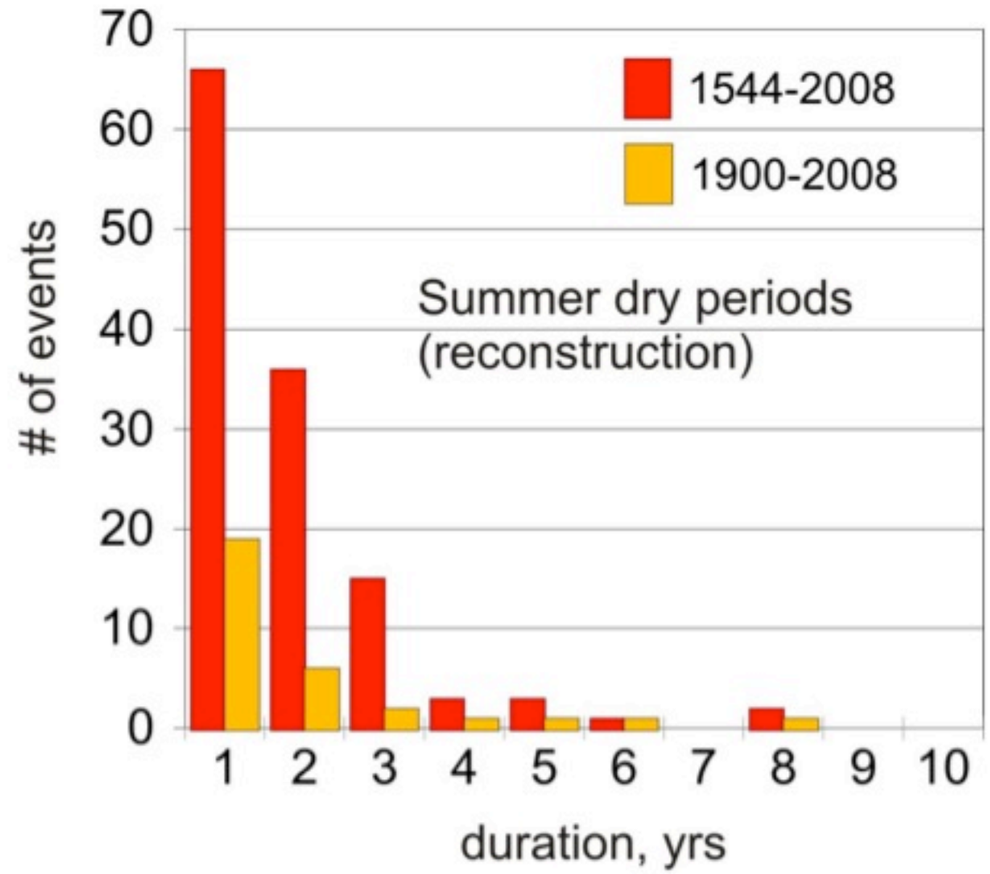
Runs of drought, magnitude and duration (averaged across years in run)



Comparison of Winter and Summer SPI Reconstructions



Winter drought duration and frequency based on reconstruction median



Summer drought duration and frequency based on reconstruction median

Single and consecutive days below the median

Ranked single, 3-yr, 5-yr, and 10-yr averages, for summer and winter, wettest and driest 3 events

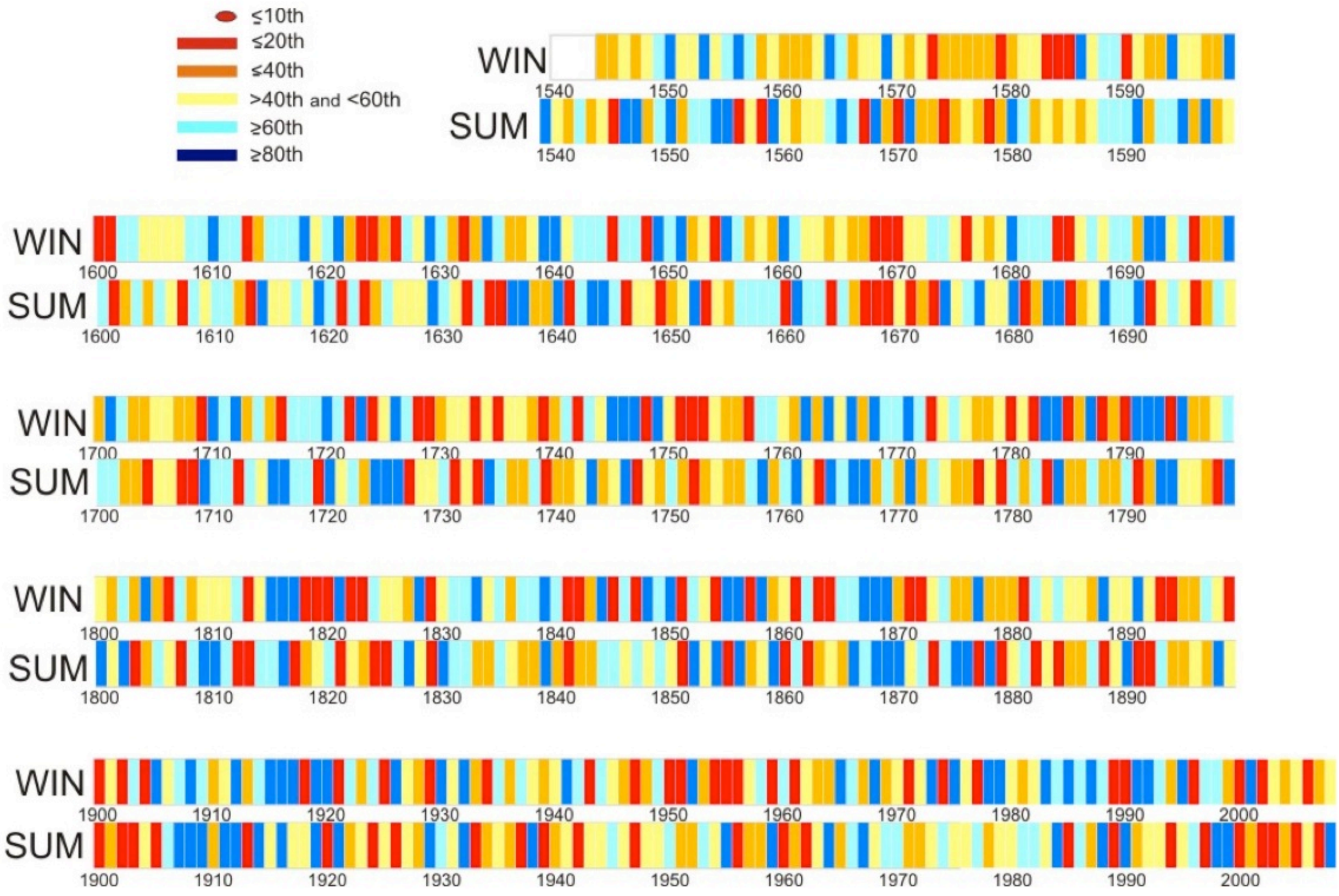
SUMMER

DRY	single		3yr		5yr		10yr	
1	1877	-1.726	1669	-0.865	2004	-0.717	1673	-0.489
2	1567	-1.560	2003	-0.847	2005	-0.692	1826	-0.405
3	1727	-1.555	2002	-0.810	1671	-0.674	1675	-0.405
WET								
3	1984	1.820	1717	0.890	1912	0.685	1916	0.501
2	1999	2.218	1921	0.977	1550	0.701	1921	0.517
1	1921	2.307	1870	0.983	1870	0.774	1555	0.595

WINTER

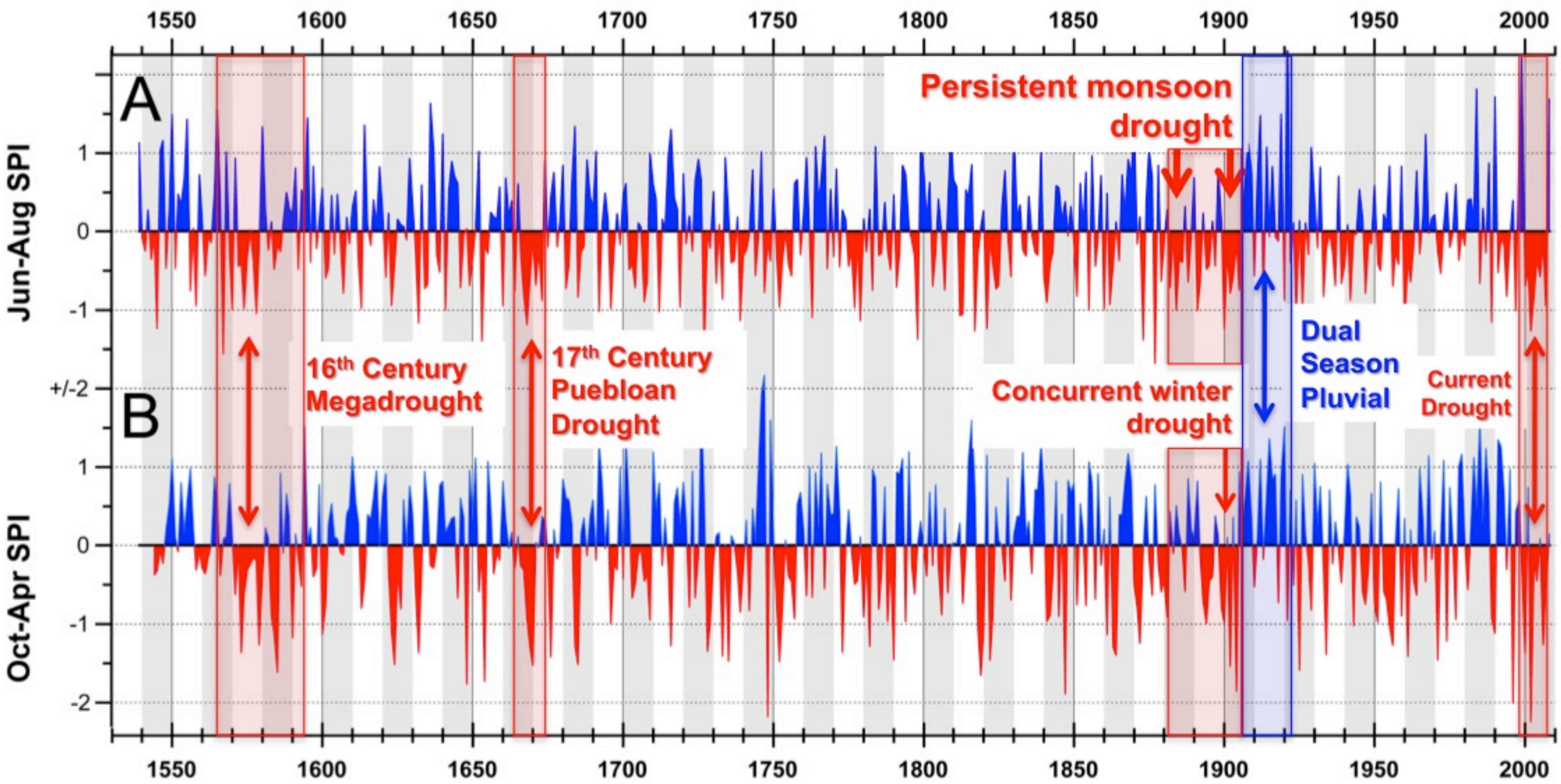
DRY	single		3yr		5yr		10yr	
1	2002	-2.242	1820	-1.258	1670	-0.858	1585	-0.550
2	1748	-2.180	1670	-1.242	1822	-0.817	2008	-0.525
3	1996	-2.011	1585	-1.203	1671	-0.800	1902	-0.523
WET								
3	1726	1.821	1993	1.103	1749	0.898	1988	0.623
2	1746	1.928	1817	1.150	1987	0.939	1920	0.644
1	1747	2.167	1747	1.692	1747	1.118	1987	0.661

Winter and summer SPI: Sequences of years

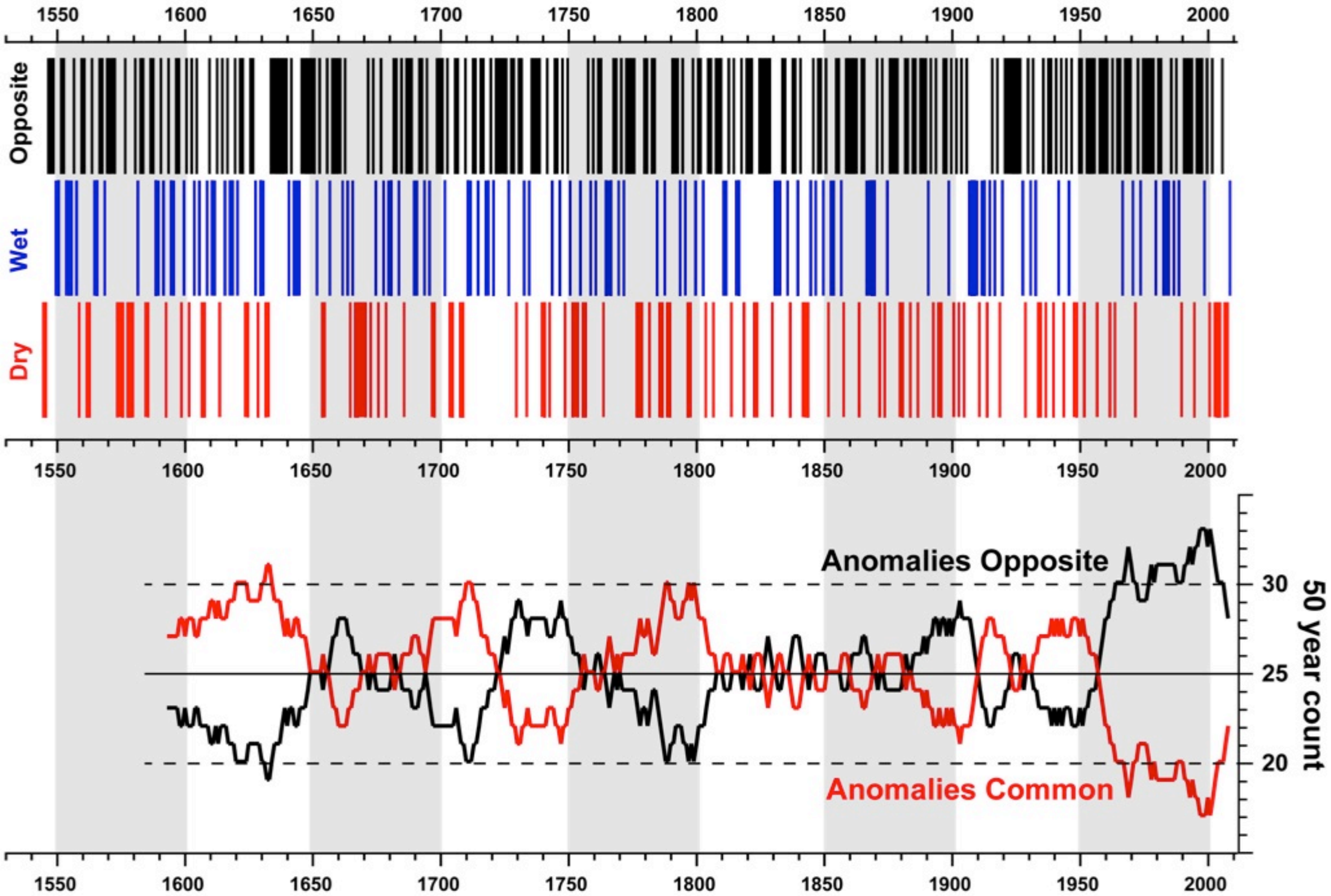


NAME Region 2 SPI Reconstructions: 1539-2008
Seasonality of Drought

Griffin et al. (in prep.)



Summer vs. Winter



Questions?

For Discussion after lunch break, think about:

- Metrics and climate variables,
- Reconstruction areas
- Types of analysis
- Data and analysis on TreeFlow?

Part 4.

Discussion