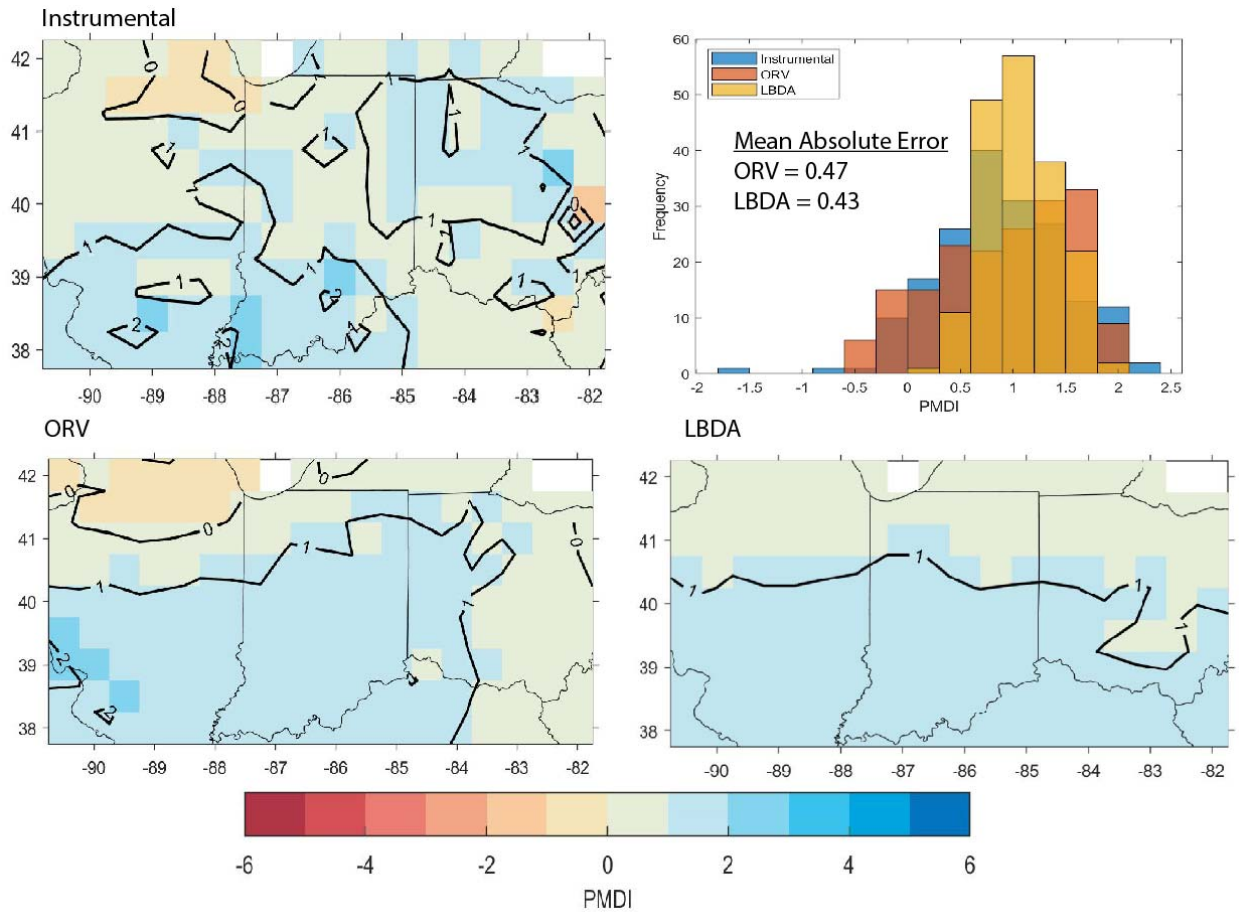
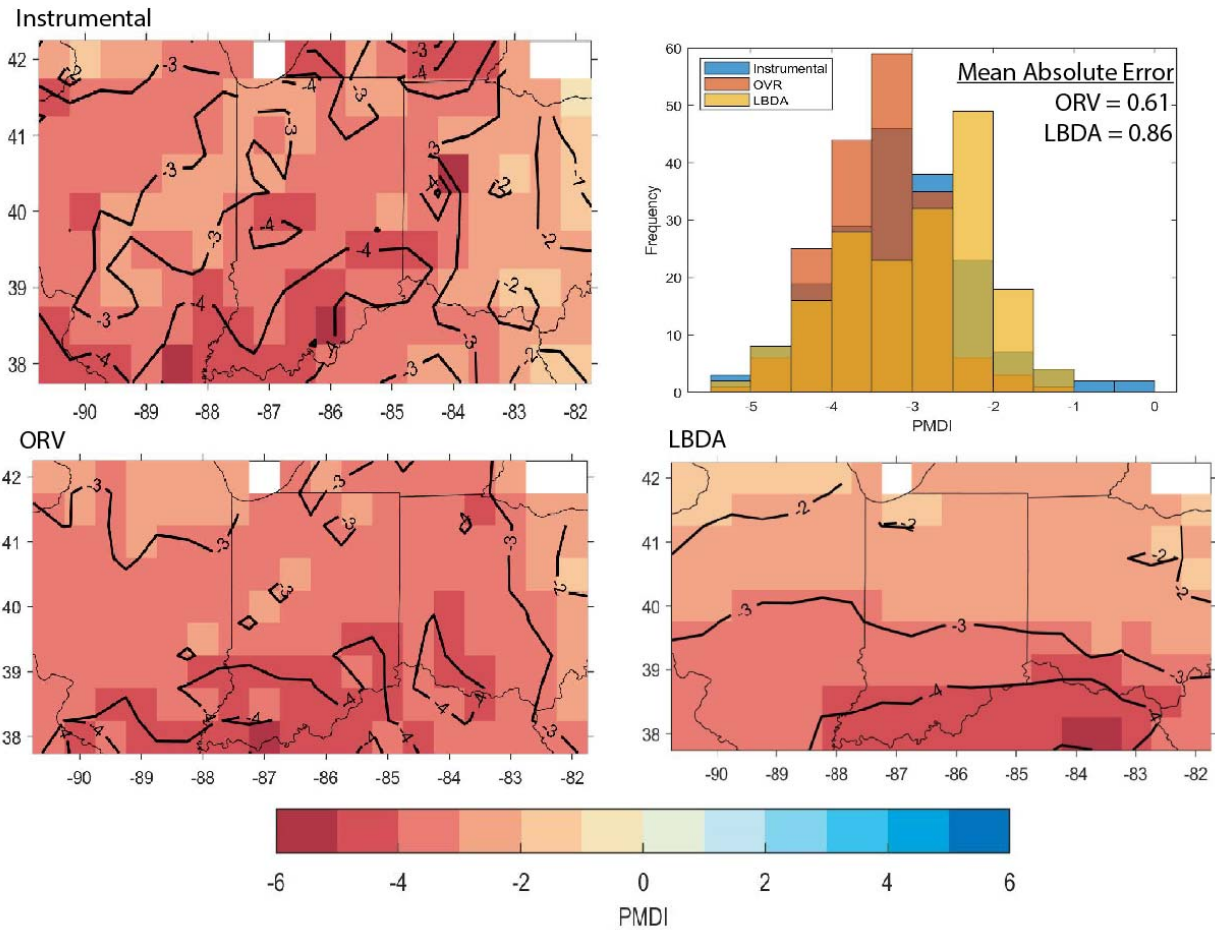


Supplemental Figure 1: A map of PMDI values for the instrumental data, ORV, and LBDA reconstructions for the year 1988. The histogram represents frequency of PMDI values for the instrumental, ORV, and LBDA PMDI values. The mean absolute error values show that the ORV reconstruction better matches the instrumental data compared to the LBDA reconstruction. White grids represent areas over water and therefore no data.



Supplemental Figure 3: A map of PMDI values for the instrumental data, ORV, and LBDA reconstructions for the years 1945-1951. The histogram represents frequency of PMDI values for the instrumental, ORV, and LBDA PMDI values. The mean absolute error values show that the ORV reconstruction better matches the instrumental data compared to the LBDA reconstruction. White grids represent areas over water and therefore no data.



Supplemental Figure 3: A map of PMDI values for the instrumental data, ORV, and LBDA reconstructions for the year 1936. The histogram represents frequency of PMDI values for the instrumental, ORV, and LBDA PMDI values. The mean absolute error values show that the ORV reconstruction better matches the instrumental data compared to the LBDA reconstruction. White grids represent areas over water and therefore no data.

Supplemental Table 1: List of tree ring chronologies included in the ORV reconstruction.

Site	State	Species	Lat	Lon	Study	Drought Atlas
Babler State Park	MO	ACSA	38.61	-90.69	Au et al. XX	ORV
Babler State Park	MO	CAOV	38.61	-90.69	Unpublished	ORV
Babler State Park	MO	QUAL	38.61	-90.69	Strange et al. 2019	Both
Beall Woods	IL	ACSA	38.35	-87.82	Au et al. XX	ORV
Beall Woods	IL	LITU	38.35	-87.82	Leblanc et al. XXX	ORV
Beall Woods	IL	QUAL	38.35	-87.82	Strange et al. 2019	ORV
Bendix Woods	IN	ACSA	41.66471	-86.5082	Unpublished	ORV
Canterbury Woods	IN	LITU	41.12	-85.1	Strange et al. 2019	ORV
Clear Fork Ridge	OH	PIST	40.60567	-82.2836	Unpublished	ORV
Dale & Jackie Riddle State Natl	OH	LITU	39.3494	-82.0724	Leblanc et al. XXX	ORV
Dale & Jackie Riddle State Natl	OH	QUAL	39.3494	-82.0724	Unpublished	ORV
Dale & Jackie Riddle State Natl	OH	QUMO	39.3494	-82.0724	Unpublished	ORV
Davey Woods	IN	LITU	40.13756	-83.9079	Leblanc et al. XXX	ORV
Donaldson Woods	IN	ACSA	38.73	-86.41	Au et al. XX	ORV
Donaldson Woods	IN	COAV	38.73	-86.41	Maxwell and Harley 2017	ORV
Donaldson Woods	IN	LITU	38.73	-86.41	Maxwell and Harley 2017	ORV
Donaldson Woods	IN	QUAL	38.73	-86.41	Maxwell and Harley 2017	ORV
Donaldson Woods	IN	QURU	38.73	-86.41	Maxwell and Harley 2017	ORV
Donaldson Woods	IN	QUVE	38.73	-86.41	Maxwell and Harley 2017	ORV
Douglas	IN	QUAL	41.5183	-84.8661	Unpublished	ORV
Feryne Cliffe Nature Preserve	IL	LITU	37.5294	-88.9828	Leblanc et al. XXX	ORV
Feryne Cliffe Nature Preserve	IL	QUAL	37.5294	-88.9828	Unpublished	Both
Fox Ridge	IL	ACSA	39.39556	-88.1613	Au et al. XX	ORV
Fox Ridge	IL	QUAL	39.39556	-88.1613	Strange et al. 2019	Both
Giant City State Park	IL	QUAL	37.6	-89.2	Matheus and Maxwell 2018	Both
Ginn Woods	IN	LITU	40.34806	-85.4388	Leblanc et al. XXX	ORV
Goll Woods	OH	CAOV	41.55399	-84.3621	Unpublished	ORV
Goll Woods	OH	QUAL	41.55399	-84.3621	Unpublished	ORV
Goll Woods	OH	QUMA	41.55399	-84.3621	Unpublished	ORV
Hemmer Woods	IN	ACSA	38.22909	-87.3665	Au et al. XX	ORV
Hemmer Woods	IN	QUAL	38.22909	-87.3665	Strange et al. 2019	ORV
Hoot Woods Site Easement	IN	CAOV	39.25	-86.89	Maxwell and Harley 2017	ORV
Hoot Woods Site Easement	IN	FRAM	39.25	-86.89	Maxwell and Harley 2017	ORV
Hoot Woods Site Easement	IN	LITU	39.25	-86.89	Maxwell and Harley 2017	ORV
Hoot Woods Site Easement	IN	QURU	39.25	-86.89	Maxwell and Harley 2017	ORV
Hueston Woods	OH	FAGR	39.57825	-84.739	Unpublished	ORV
Hueston Woods	OH	LITU	39.57825	-84.739	Leblanc et al. XXX	ORV
Johnson State Nature Preserve	OH	QUAL	40.88	-81.75	Matheus and Maxwell 2018	Both
Johnson State Nature Preserve	OH	QURU	40.88	-81.75	Unpublished	ORV
Kankakee River State Park	IL	QUAL	41.20082	-87.9742	Updated	Both
Kickapoo Recreation Area	IL	ACSA	40.13829	-87.7458	Au et al. XX	ORV
Kickapoo Recreation Area	IL	QUAL	40.13829	-87.7458	Strange et al. 2019	Both
Latimer Woods	IN	LITU	39.1583	-86.4934	Wilde and Maxwell 2018	ORV
Lilly Dickey Woods	IN	ACSA	39.2361	-86.2204	Au et al. XX	ORV
Lilly Dickey Woods	IN	CAOV	39.2361	-86.2204	Maxwell and Harley 2017	ORV
Lilly Dickey Woods	IN	LITU	39.2361	-86.2204	Maxwell and Harley 2017	ORV
Lilly Dickey Woods	IN	QUAL	39.2361	-86.2204	Maxwell and Harley 2017	ORV
Lilly Dickey Woods	IN	QUMO	39.2361	-86.2204	Maxwell and Harley 2017	ORV
Lilly Dickey Woods	IN	QUVE	39.2361	-86.2204	Maxwell and Harley 2017	ORV
Lincoln's New Salem	IL	ACSA	39.98286	-89.8524	Au et al. XX	ORV
Lincoln's New Salem	IL	QUAL	39.98286	-89.8524	Strange et al. 2019	Both
Meltzer Woods	IN	ACSA	39.50506	-85.6691	Au et al. XX	ORV
Meltzer Woods	IN	CAOV	39.50506	-85.6691	Strange et al. 2019	ORV
Meltzer Woods	IN	FRNI	39.50506	-85.6691	Strange et al. 2019	ORV
Meltzer Woods	IN	LITU	39.50506	-85.6691	Strange et al. 2019	ORV
Meltzer Woods	IN	QUMA	39.50506	-85.6691	Strange et al. 2019	ORV
Oppenheim Woods	IN	COAV	41.33948	-85.7635	Unpublished	ORV
Oppenheim Woods	IN	LITU	41.33948	-85.7635	Leblanc et al. XXX	ORV
Oppenheim Woods	IN	QURU	41.33948	-85.7635	Unpublished	ORV
Pine Hills	IN	TSCA	39.93892	-87.0555	Maxwell and Harley 2017	ORV
Pionner Mothers Research Natl	IN	ACSA	38.54	-86.45	Au et al. XX	ORV
Pionner Mothers Research Natl	IN	CAOV	38.54	-86.45	Maxwell et al. 2015	ORV
Pionner Mothers Research Natl	IN	JUNI	38.54	-86.45	Maxwell et al. 2015	ORV
Pionner Mothers Research Natl	IN	LITU	38.54	-86.45	Maxwell et al. 2015	ORV
Pionner Mothers Research Natl	IN	QUAL	38.54	-86.45	Maxwell et al. 2015	ORV
Pionner Mothers Research Natl	IN	QURU	38.54	-86.45	Maxwell et al. 2015	ORV
Saunders Woods	IN	CAOV	38.37071	-87.7173	Strange et al. 2019	ORV
Saunders Woods	IN	QUPA	38.37071	-87.7173	Strange et al. 2019	ORV
Starved Rock	IL	QUAL	41.307161	-88.9938	Updated	Both
Starved Rock	IL	QURU	41.307161	-88.9938	Updated	Both
Warren Woods	MI	FAGR	41.82778	-86.6233	Unpublished	ORV
Wesselman Woods	IN	LITU	37.98473	-87.5125	Strange et al. 2019	ORV