

Supplementary Material

Suppl. Table S1. The table presents trend analysis results for North American coastal sites during the 1948-1970 epoch, featuring the dominant climate index (CI), linear correlation coefficient (r) between coastal sea level and CI, Theil-Sen slope estimator, confidence intervals (CI) for Theil-Sen slope, and Modified Mann-Kendall (MK) trend test p-value for each site. Country and site name are also provided.

CI	r	Theil-Sen Slope	CI1	CI2	Mann-Kendall	Name	Country	Trajectory
EAWR	0.7950	0.2506	0.2234	0.2895	< 0.0001	San Francisco	USA	Increasing
AMO	0.9350	0.2479	0.2466	0.3111	< 0.0001	Halifax	CAN	Increasing
NAO	0.8240	0.0298	-0.0059	0.0518	0.7578	Fernandina Beach	USA	Stable
EAWR	0.7900	-1.1270	-1.6541	-0.9426	0.0100	Trois-Rivieres	CAN	Decreasing
AMO	0.7400	0.2657	0.1904	0.3130	0.0001	Seattle	USA	Increasing
CAR	0.9450	0.1225	0.0912	0.2201	0.0193	Baltimore	USA	Increasing
TSA	0.6720	0.2179	0.1741	0.2436	0.0003	Honolulu	USA	Increasing
WHWP	0.9260	0.1259	0.1065	0.1911	0.0018	San Diego (Quarantine Station)	USA	Increasing
N4	0.8280	0.3704	0.2650	0.4068	0.0003	Galveston II, Pier 21, Tx	USA	Increasing
NOI	0.8490	0.0000	-0.1481	0.0612	0.7030	Tofino	CAN	Stable
NOI	0.9220	0.0957	0.0311	0.1815	0.1939	Victoria	CAN	Stable
PDO	0.8580	0.2248	0.1409	0.3095	0.0170	Prince Rupert	CAN	Increasing
SOI	0.6450	-0.2031	-0.2282	-0.0425	0.5782	Quebec (Lauzon)	CAN	Stable
N4	0.7480	0.0652	0.0632	0.1806	0.0433	Vancouver	CAN	Increasing
AMO	0.8390	0.1745	0.1490	0.2187	< 0.0001	Harrington HBR	CAN	Increasing
CAR	0.8810	0.2582	0.2271	0.3347	< 0.0001	Atlantic City	USA	Increasing
NAO	0.4030	0.0000	-0.0129	0.0761	0.0474	Portland (Maine)	USA	Stable
PNA	0.8920	0.0265	-0.0496	0.0664	0.9875	Key West	USA	Stable
PDO	0.8440	0.0926	0.0787	0.1892	0.0206	Point Atkinson	CAN	Increasing
PDO	0.9340	0.1674	0.1772	0.2659	< 0.0001	Saint John, N.B.	CAN	Increasing
NAO	0.7560	0.1952	0.0843	0.2406	0.1178	Ketchikan	USA	Stable
CAR	0.9560	0.0356	-0.0440	0.0941	0.8438	Charleston I	USA	Stable
AMO	0.7320	0.0627	0.0645	0.1373	0.0010	Boston	USA	Increasing
N12	0.9210	0.0249	-0.0040	0.0840	0.1936	Los Angeles	USA	Stable
CAR	0.9360	0.0294	-0.0701	0.0558	0.5526	Pensacola	USA	Stable
WP	0.7340	-0.3535	-0.3998	-0.2333	0.0020	Astoria (Tongue Point)	USA	Decreasing
WP	0.7890	0.0695	0.0746	0.1475	0.0001	Seavey Island	USA	Increasing
MEI	0.7420	0.1483	0.0499	0.1982	0.3062	Mayport	USA	Stable
AMO	0.9400	0.0938	0.0656	0.1830	0.0439	Washington DC	USA	Increasing
CAR	0.9480	0.2289	0.2036	0.3056	< 0.0001	Sandy Hook	USA	Increasing
WHWP	0.8070	0.1126	0.0135	0.1613	0.4206	Fort Pulaski	USA	Stable
CAR	0.9450	-0.8077	-0.8744	-0.7506	< 0.0001	Juneau	USA	Decreasing
CAR	0.9770	0.1480	0.1302	0.2433	0.0037	Solomon's Island (Biol. Lab.)	USA	Increasing
NP	0.7050	-0.0217	-0.0835	0.0681	0.8198	Sitka	USA	Stable
PDO	0.8290	0.2553	0.2591	0.3244	< 0.0001	Charlottetown	CAN	Increasing
QBO	0.8510	0.0645	0.0604	0.1483	0.0038	New London	USA	Increasing
NOI	0.9700	0.1406	0.1276	0.2025	< 0.0001	Alameda (Naval Air Station)	USA	Increasing
CAR	0.9300	0.7920	0.7184	0.8279	< 0.0001	Eugene Island	USA	Increasing
PDO	0.9230	0.1940	0.1761	0.2941	0.0001	Adak Sweeper Cove	USA	Increasing
AMO	0.7220	-1.2544	-1.3028	-1.1296	< 0.0001	Skagway	USA	Decreasing
AMO	0.6890	0.1667	0.1223	0.2351	0.0134	Port Isabel	USA	Increasing
MEI	0.8630	0.1234	0.0510	0.1596	0.1797	St. Petersburg	USA	Stable

Suppl. Table S2. As in Suppl. Table 1 but for the 1971-1994 epoch.

CI	r	Theil-Sen Slope	CI1	CI2	Mann-Kendall	Name	Country	Trajectory
NOI	0.9070	0.3119	0.2545	0.3319	< 0.0001	San Francisco	USA	Increasing
CAR	0.9910	0.0746	0.0724	0.1570	0.0310	Halifax	CAN	Increasing
TSA	0.9510	0.1515	0.1343	0.1806	< 0.0001	Fernandina Beach	USA	Increasing

NOI	0.8400	-1.2876	-1.7753	-1.1599	< 0.0001	Trois-Rivieres	CAN	Decreasing
N12	0.8560	0.0680	0.0682	0.1681	0.0106	Seattle	USA	Increasing
TNA	0.8190	0.1328	0.0485	0.1706	0.3031	Philadelphia (Pier 9N)	USA	Stable
WHWP	0.8620	0.1757	0.1015	0.2271	0.0355	Baltimore	USA	Increasing
QBO	0.6470	0.1324	0.1104	0.1873	0.0002	Honolulu	USA	Increasing
SOI	0.9300	0.3764	0.3167	0.4052	< 0.0001	San Diego (Quarantine Station)	USA	Increasing
N4	0.8600	0.5735	0.4793	0.6054	< 0.0001	Galveston II, Pier 21, Tx	USA	Increasing
N12	0.7920	0.0000	0.0222	0.1498	0.2137	Victoria	CAN	Stable
N12	0.8640	0.0925	0.0484	0.2034	0.1252	Prince Rupert	CAN	Stable
WP	0.8080	0.0000	-0.0638	0.0441	0.9829	Vancouver	CAN	Stable
CAR	0.7620	-0.0795	-0.1176	-0.0572	0.0222	Portland (Maine)	USA	Decreasing
EAWR	0.8530	0.1561	0.1451	0.2476	0.0002	Key West	USA	Increasing
EAWR	0.8780	-0.0811	-0.1094	0.0031	0.6126	Point Atkinson	CAN	Stable
TNI	0.7810	-0.8509	-1.1589	-0.7423	0.0003	Deschaillons	CAN	Decreasing
TNA	0.7840	0.2183	0.1606	0.2676	0.0065	Lewes (Breakwater Harbor)	USA	Increasing
PNA	0.8060	0.1084	0.0533	0.1802	0.0834	Ketchikan	USA	Stable
WHWP	0.7040	0.2291	0.1785	0.3101	0.0020	Charleston I	USA	Increasing
WP	0.8020	0.0814	0.0311	0.0993	0.4458	Boston	USA	Stable
NOI	0.9640	0.1999	0.1555	0.2438	0.0001	Los Angeles	USA	Increasing
TNA	0.6970	0.0000	-0.0547	0.0705	0.9375	Pensacola	USA	Stable
N34	0.8860	0.4435	0.3912	0.4750	< 0.0001	La Jolla (Scripps Pier)	USA	Increasing
N12	0.7500	-0.1877	-0.2332	-0.0738	0.0746	Astoria (Tongue Point)	USA	Stable
WHWP	0.7070	0.1754	0.0940	0.2105	0.0322	Annapolis (Naval Academy)	USA	Increasing
EAWR	0.8250	0.1972	0.1645	0.2984	0.0093	Mayport	USA	Increasing
TNA	0.6280	0.1947	0.1555	0.2204	0.0004	Newport	USA	Increasing
WHWP	0.8330	0.1442	0.0563	0.1947	0.3266	Washington DC	USA	Stable
PDO	0.8940	0.1190	0.0769	0.1443	0.0824	Woods Hole (Ocean. Inst.)	USA	Stable
NOI	0.9150	0.0000	-0.0586	0.0522	0.9932	Crescent City	USA	Stable
N12	0.8900	0.0882	0.0775	0.1840	0.0111	Friday Harbor (Ocean. Labs.)	USA	Increasing
NP	0.7960	-0.3600	-0.3211	-0.1584	0.0110	Neah Bay	USA	Decreasing
EAWR	0.8130	0.0968	0.0369	0.1445	0.3571	Wilmington	USA	Stable
WHWP	0.8420	-0.9525	-1.0034	-0.9021	< 0.0001	Juneau	USA	Decreasing
EAWR	0.7860	0.2824	0.1989	0.3063	0.0011	Solomon's Island (Biol. Lab.)	USA	Increasing
PNA	0.8930	-0.1984	-0.2546	-0.1280	0.0126	Sitka	USA	Decreasing
N12	0.8480	0.2509	0.1961	0.2791	< 0.0001	Port San Luis	USA	Increasing
EAWR	0.7140	0.2317	0.1889	0.2896	0.0002	St. Petersburg	USA	Increasing
N12	0.7250	-0.1746	-0.1967	-0.0736	0.0205	Port Alberni	CAN	Decreasing
MEI	0.7840	0.2515	0.2129	0.3245	0.0006	Gloucester Point	USA	Increasing
NAO	0.9180	0.3693	0.3519	0.4768	< 0.0001	Freeport	USA	Increasing
NOI	0.7150	0.1235	0.0999	0.1803	0.0011	Nawiliwili Bay, Kauai Island	USA	Increasing
WHWP	0.8270	-0.7756	-0.8871	-0.7305	< 0.0001	Seldovia	USA	Decreasing
N12	0.8370	0.0137	0.0275	0.1608	0.0972	South Beach	USA	Stable
NOI	0.6950	0.0000	-0.0204	0.1355	0.4282	Bamfield	CAN	Stable
EAWR	0.8520	0.1716	0.0883	0.1998	0.0540	Cambridge II	USA	Stable
NP	0.5930	-0.2007	-0.2765	-0.1546	0.0006	Campbell River	CAN	Decreasing
N3	0.7600	0.0279	0.0454	0.1699	0.0377	Port Townsend	USA	Increasing
WHWP	0.6990	0.2960	0.2331	0.3364	< 0.0001	Beaufort, North Carolina	USA	Increasing
WHWP	0.8000	0.3333	0.2692	0.3822	< 0.0001	Lewisetta, Virginia	USA	Increasing

Suppl. Table S3. As in Suppl. Table 1 but for the 1995-2018 epoch.

CI	r	Theil-Sen Slope	CI1	CI2	Mann-Kendall	Name	Country	Trajectory
WHWP	0.9440	0.1756	0.1556	0.2406	0.0000	San Francisco	USA	Increasing
WHWP	0.4900	0.2697	0.0779	0.7302	0.3464	Trois-Rivieres	CAN	Stable
WHWP	0.9030	0.2127	0.1610	0.2551	0.0001	Seattle	USA	Increasing
EAWR	0.8120	0.4281	0.3350	0.4708	0.0000	Philadelphia (Pier 9N)	USA	Increasing
WHWP	0.8140	0.4149	0.3282	0.4622	0.0000	Baltimore	USA	Increasing
N4	0.8440	0.1749	0.1300	0.2102	0.0000	Honolulu	USA	Increasing

WHWP	0.9680	0.4180	0.3932	0.4773	0.0000	San Diego (Quarantine Station)	USA	Increasing
CAR	0.9330	0.7057	0.6219	0.7589	0.0000	Galveston II, Pier 21, TX	USA	Increasing
N12	0.7560	0.0000	-0.1116	0.0623	0.9468	Tofino	CAN	Stable
WHWP	0.9880	0.1802	0.1273	0.2322	0.0031	Victoria	CAN	Increasing
NTA	0.7830	0.0000	-0.0234	0.1452	0.4596	Prince Rupert	CAN	Stable
WHWP	0.9630	0.2500	0.2046	0.3015	0.0001	Vancouver	CAN	Increasing
EAWR	0.9110	0.3075	0.2626	0.3353	0.0000	Portland (Maine)	USA	Increasing
EAWR	0.9820	0.4645	0.4022	0.4943	0.0000	Key West	USA	Increasing
WHWP	0.6740	0.2391	0.1695	0.4077	0.1006	Neuville	CAN	Stable
WHWP	0.9820	0.1869	0.1575	0.2495	0.0010	Point Atkinson	CAN	Increasing
WHWP	0.5730	0.2146	0.1374	0.5932	0.2087	Deschailons	CAN	Stable
EAWR	0.9110	0.4478	0.3925	0.4894	0.0000	Lewes (Breakwater Harbor)	USA	Increasing
PNA	0.6160	-0.2050	-0.2301	-0.0865	0.0577	Ketchikan	USA	Stable
WHWP	0.8970	0.4504	0.3750	0.5009	0.0000	Charleston I	USA	Increasing
NP	0.7870	0.4291	0.3794	0.4487	0.0000	Boston	USA	Increasing
WHWP	0.9710	0.2510	0.2185	0.3003	0.0000	Los Angeles	USA	Increasing
WHWP	0.9440	0.2677	0.2334	0.3186	0.0000	La Jolla (Scripps Pier)	USA	Increasing
N12	0.7940	0.1009	-0.0050	0.1563	0.7428	Astoria (Tongue Point)	USA	Stable
EAWR	0.9570	-0.3695	-0.4603	-0.2946	0.0003	Seward	USA	Decreasing
WP	0.8910	0.4249	0.3498	0.4820	0.0000	Annapolis (Naval Academy)	USA	Increasing
EAWR	0.9540	0.3567	0.3061	0.3861	0.0000	Newport	USA	Increasing
WP	0.8910	0.3574	0.2930	0.4461	0.0000	Washington Dc	USA	Increasing
WHWP	0.9740	0.2394	0.2152	0.3012	0.0000	Santa Monica (Municipal Pier)	USA	Increasing
SOI	0.9380	-0.0611	-0.1368	-0.0327	0.2235	Crescent City	USA	Stable
WHWP	0.9620	0.2000	0.1387	0.2349	0.0006	Friday Harbor (Ocean. Labs.)	USA	Increasing
NOI	0.6440	-0.1484	-0.2246	-0.0821	0.0599	Neah Bay	USA	Stable
NTA	0.9870	0.1553	0.1523	0.2637	0.0169	St. John's, Nfld.	CAN	Increasing
EAWR	0.9370	0.4167	0.3423	0.4708	0.0000	Fort Pulaski	USA	Increasing
WHWP	0.9800	0.3919	0.3353	0.4508	0.0000	Wilmington	USA	Increasing
EAWR	0.9070	-1.0762	-1.1651	-1.0555	0.0000	Juneau	USA	Decreasing
NAO	0.8970	0.4881	0.4421	0.5535	0.0000	Solomon's Island (Biol. Lab.)	USA	Increasing
WP	0.7930	-0.4294	-0.5085	-0.3605	0.0000	Sitka	USA	Decreasing
EAWR	0.9590	0.3708	0.3148	0.3992	0.0000	New London	USA	Increasing
CAR	0.9410	0.1009	0.0752	0.1626	0.0228	Alameda (Naval Air Station)	USA	Increasing
EAWR	0.8910	-1.4478	-1.5133	-1.3600	0.0000	Yakutat	USA	Decreasing
NTA	0.8000	-0.2712	-0.4324	-0.2657	0.0002	Churchill	CAN	Decreasing
N12	0.8690	-0.1745	-0.2339	-0.1355	0.0055	Adak Sweeper Cove	USA	Decreasing
WHWP	0.9110	-1.7259	-1.7955	-1.6633	0.0000	Skagway	USA	Decreasing
EAWR	0.9130	0.3835	0.3367	0.4382	0.0000	Port Isabel	USA	Increasing
WHWP	0.9740	0.2381	0.2099	0.3009	0.0000	Port San Luis	USA	Increasing
CAR	0.9080	0.4581	0.4202	0.5163	0.0000	St. Petersburg	USA	Increasing
PDO	0.8970	0.1366	0.1228	0.2022	0.0000	Kahului Harbor, Maui Island	USA	Increasing
CAR	0.9560	0.8077	0.7337	0.8442	0.0000	Grand Isle	USA	Increasing
WHWP	0.9020	0.6154	0.5439	0.6839	0.0000	Rockport	USA	Increasing
NP	0.6940	-0.1224	-0.1871	-0.0237	0.3830	Cordova	USA	Stable
EAWR	0.9770	-0.7834	-0.8319	-0.7240	0.0000	Kodiak Island, Womens Bay	USA	Decreasing
NOI	0.9350	-0.0346	-0.1276	0.0030	0.4614	Unalaska	USA	Stable
TNI	0.7900	0.2887	0.2242	0.3552	0.0003	Reedy Point	USA	Increasing
CAR	0.9550	0.1493	0.1298	0.2335	0.0007	Queen Charlotte City	CAN	Increasing
N12	0.6630	0.2158	0.1406	0.4206	0.2032	Portneuf	CAN	Stable
WHWP	0.7760	0.0000	-0.0803	0.0922	0.9263	Bella Bella	CAN	Stable
EAWR	0.9600	-0.2818	-0.3231	-0.1890	0.0042	Anchorage	USA	Decreasing
NAO	0.8730	0.3241	0.2733	0.3705	0.0000	Bridgeport	USA	Increasing
EAWR	0.9710	-0.7366	-0.8026	-0.6438	0.0000	Seldovia	USA	Decreasing
AMO	0.7970	0.0000	-0.0848	0.0758	0.8508	Port Hardy	CAN	Stable
EAWR	0.9590	0.4652	0.4246	0.4978	0.0000	Nantucket Island	USA	Increasing
WHWP	0.9250	0.1581	0.1179	0.2228	0.0034	Patricia Bay	CAN	Increasing

EAWR	0.9180	0.4539	0.3955	0.4921	0.0000	Cape May	USA	Increasing
NTA	0.9420	0.4444	0.3959	0.4555	0.0000	Yarmouth	CAN	Increasing
WHWP	0.9480	0.1966	0.1194	0.2533	0.0147	South Beach	USA	Increasing
PDO	0.8840	0.0000	-0.1175	0.0368	0.7347	Bamfield	CAN	Stable
WHWP	0.8760	0.1762	0.1590	0.4106	0.0394	New Westminster	CAN	Increasing
WHWP	0.8570	0.0913	0.0192	0.1393	0.1808	Charleston II	USA	Stable
WP	0.8360	0.3966	0.3425	0.4489	0.0000	Cambridge II	USA	Increasing
WP	0.8840	0.4546	0.4311	0.5075	0.0000	North Sydney	CAN	Increasing
NAO	0.9000	-0.1691	-0.2572	-0.1748	0.0000	Sept-Iles	CAN	Decreasing
TNA	0.6300	0.0000	-0.1136	0.0394	0.2986	Campbell River	CAN	Stable
WHWP	0.9520	0.1878	0.1325	0.2308	0.0020	Port Townsend	USA	Increasing
EAWR	0.9600	-1.0631	-1.1135	-0.9714	0.0000	Nikiski, Alaska	USA	Decreasing
CAR	0.9440	0.2521	0.2264	0.3117	0.0000	Monterey	USA	Increasing
EAWR	0.9730	-0.8295	-0.8646	-0.7214	0.0000	Valdez	USA	Decreasing
AO	0.7700	-0.2185	-0.2946	-0.1244	0.0850	Toke Point, Willipa Bay, WA	USA	Stable
WHWP	0.9500	0.2655	0.2196	0.3136	0.0000	Point Reyes	USA	Increasing
EAWR	0.9560	0.0199	0.0085	0.1198	0.9214	Rimouski	CAN	Stable
CAR	0.9630	0.0212	-0.0098	0.0906	0.2101	Cherry Point	USA	Stable
N4	0.9700	0.1512	0.0862	0.2615	0.0263	Sand Point, Popof Is., AK	USA	Increasing
EAWR	0.8540	0.4268	0.3673	0.4689	0.0000	Chesapeake Bay Br. Tun.	USA	Increasing
WHWP	0.9360	0.4486	0.4043	0.4997	0.0000	N. Spit, Humboldt Bay	USA	Increasing
N12	0.9860	0.4754	0.4158	0.5376	0.0000	Panama City, St.Andrews Bay, Fl	USA	Increasing
EAWR	0.6950	0.3366	0.1398	0.6683	0.3011	Becancour	CAN	Stable
CAR	0.8670	0.0000	-0.1044	0.0900	0.9526	Winter Harbour	CAN	Stable
WHWP	0.8890	0.1660	0.1404	0.2377	0.0003	Arena Cove, California	USA	Increasing
N12	0.8250	0.0887	0.0303	0.1405	0.1389	Port Angeles, Washington	USA	Stable
WHWP	0.9130	0.4602	0.3857	0.4963	0.0000	Beaufort, North Carolina	USA	Increasing
NAO	0.9530	0.3290	0.2856	0.4081	0.0000	Tolchester Beach, Maryland	USA	Increasing
EAWR	0.8920	0.5420	0.4750	0.5896	0.0000	Lewisetta, Virginia	USA	Increasing
WHWP	0.9310	0.4963	0.4402	0.5476	0.0000	Oregon Inlet Marina, North Carolina	USA	Increasing
WHWP	0.6670	0.1543	0.1194	0.2169	0.0032	Port Chicago, California	USA	Increasing
EAWR	0.9730	-0.8295	-0.8646	-0.7214	0.0000	Valdez	USA	Decreasing
AO	0.7700	-0.2185	-0.2946	-0.1244	0.0850	Toke Point, Willipa Bay, WA	USA	Stable
WHWP	0.9500	0.2655	0.2196	0.3136	0.0000	Point Reyes	USA	Increasing
EAWR	0.9560	0.0199	0.0085	0.1198	0.9214	Rimouski	CAN	Stable
CAR	0.9630	0.0212	-0.0098	0.0906	0.2101	Cherry Point	USA	Stable
N4	0.9700	0.1512	0.0862	0.2615	0.0263	Sand Point, Popof Is., AK	USA	Increasing
EAWR	0.8540	0.4268	0.3673	0.4689	0.0000	Chesapeake Bay Br. Tun.	USA	Increasing
WHWP	0.9360	0.4486	0.4043	0.4997	0.0000	N. Spit, Humboldt Bay	USA	Increasing
N12	0.9860	0.4754	0.4158	0.5376	0.0000	Panama City, St.Andrews Bay, Fl	USA	Increasing
EAWR	0.6950	0.3366	0.1398	0.6683	0.3011	Becancour	CAN	Stable
CAR	0.8670	0.0000	-0.1044	0.0900	0.9526	Winter Harbour	CAN	Stable
WHWP	0.8890	0.1660	0.1404	0.2377	0.0003	Arena Cove, California	USA	Increasing
N12	0.8250	0.0887	0.0303	0.1405	0.1389	Port Angeles, Washington	USA	Stable
WHWP	0.9130	0.4602	0.3857	0.4963	0.0000	Beaufort, North Carolina	USA	Increasing
NAO	0.9530	0.3290	0.2856	0.4081	0.0000	Tolchester Beach, Maryland	USA	Increasing
EAWR	0.8920	0.5420	0.4750	0.5896	0.0000	Lewisetta, Virginia	USA	Increasing
WHWP	0.6670	0.1543	0.1194	0.2169	0.0032	Port Chicago, California	USA	Increasing