

**On the use of gridded data products for trend assessment
and aridity classification in a Mediterranean context:
the case of the Apulia region**

SUPPLEMENT

My et al.

Table S1. Meteorological stations considered in the study.

| Station | Longitude [DD] | Latitude [DD] | Elevation [m a.s.l.] | RR | Tm, TX, TN |
|------------------------|-------------------|------------------|-------------------------|----|------------|
| Adelfia | 16.8666 | 41.0003 | 153 | x | |
| Alberona | 15.1234 | 41.4309 | 711 | x | |
| Altamura | 16.5534 | 40.8231 | 458 | x | x |
| Andria | 16.2942 | 41.2205 | 162 | x | x |
| Ascoli Satriano | 15.5646 | 41.2012 | 435 | x | x |
| Bari Presidenza | 16.8820 | 41.1198 | 17 | x | |
| Bari Idrografico | 16.8820 | 41.1198 | 20 | | x |
| Barletta | 16.2748 | 41.3134 | 30 | x | x |
| Biccari | 15.1900 | 41.3920 | 590 | x | |
| Bisceglie | 16.4968 | 41.2382 | 30 | x | |
| Bitonto | 16.6941 | 41.1091 | 126 | x | |
| Borgo Libertà | 15.7156 | 41.1889 | 235 | x | |
| Bosco Umbra | 15.7136 | 41.8170 | 780 | x | x |
| Bovino | 15.3375 | 41.2450 | 596 | x | |
| Brindisi | 17.9269 | 40.4781 | 22 | x | x |
| Cagnano Varano | 15.7696 | 41.8262 | 167 | x | x |
| Canosa di Puglia | 16.0620 | 41.2240 | 116 | x | x |
| Casamassima | 16.9180 | 40.9540 | 229 | x | x |
| Cassano Murge | 16.7709 | 40.8879 | 380 | x | |
| Castel del Monte | 16.2739 | 41.0785 | 470 | x | |
| Castellana Grotte | 17.1654 | 40.8815 | 300 | x | x |
| Castellaneta | 16.9323 | 40.6289 | 236 | x | x |
| Castelluccio dei Sauri | 15.4762 | 41.3027 | 210 | x | |
| Ceglie Messapica | 17.5182 | 40.6452 | 312 | x | |
| Cerignola | 15.9050 | 41.2634 | 134 | x | x |
| Conversano | 17.1141 | 40.9632 | 212 | x | |
| Copertino | 18.0516 | 40.2684 | 34 | x | |
| Corato | 16.4133 | 41.1528 | 249 | x | |
| Crispiano | 17.2358 | 40.5990 | 265 | x | x |
| Fasano | 17.3583 | 40.8380 | 118 | x | x |
| Foggia Osservatorio | 15.5427 | 41.4607 | 94 | x | x |
| Fonte Rosa | 15.7743 | 41.4343 | 25 | x | |
| Galatina | 18.1715 | 40.1720 | 73 | x | |
| Gallipoli | 17.9945 | 40.0545 | 31 | x | |
| Ginosa | 16.7575 | 40.5768 | 254 | x | |
| Ginosa Marina | 16.8844 | 40.4266 | 15 | x | x |
| Gioia del Colle | 16.9231 | 40.8005 | 377 | x | x |
| Grottaglie | 17.4414 | 40.5393 | 165 | x | x |
| Grumo Appula | 16.7104 | 41.0117 | 202 | x | |
| Latiano | 17.7098 | 40.5486 | 114 | x | x |
| Lecce | 18.1675 | 40.3583 | 51 | x | x |
| Lesina | 15.3532 | 41.8622 | 17 | x | x |
| Lizzano | 17.4487 | 40.3874 | 71 | x | x |
| Locorotondo | 17.3383 | 40.7534 | 397 | x | x |
| Lucera | 15.3357 | 41.5107 | 224 | x | x |
| Maglie | 18.2936 | 40.1190 | 102 | x | x |
| Manduria | 17.6352 | 40.3980 | 79 | x | x |
| Manfredonia | 15.8802 | 41.5831 | 2 | x | x |
| Massafra | 17.1084 | 40.5755 | 113 | x | x |
| Masseria Monteruga | 17.8410 | 40.3523 | 92 | x | |
| Masseria S.Chiara | 16.1344 | 41.3364 | 10 | x | |
| Mercadante | 16.7006 | 40.8897 | 395 | x | x |

| | | | | | |
|----------------------------|---------|---------|-----|---|---|
| Minervino di Lecce | 18.4196 | 40.0913 | 103 | x | |
| Minervino Murge | 16.0840 | 41.0750 | 502 | x | |
| Monteleone di Puglia | 15.2587 | 41.1638 | 828 | x | |
| Nardò | 18.0338 | 40.1728 | 54 | x | x |
| Noci | 17.1229 | 40.7953 | 423 | x | |
| Novoli | 18.0512 | 40.3781 | 51 | x | |
| Ortanova | 15.7068 | 41.3258 | 84 | x | |
| Orsara di Puglia | 15.2665 | 41.2804 | 689 | x | |
| Ostuni | 17.5779 | 40.7257 | 115 | x | x |
| Otranto | 18.4885 | 40.1438 | 27 | x | x |
| Pietramontecorvino | 15.1289 | 41.5434 | 464 | x | x |
| Polignano a Mare | 17.2190 | 40.9912 | 50 | x | x |
| Presicce | 18.2670 | 39.8966 | 105 | x | x |
| Rocchetta S. Antonio | 15.4655 | 41.1050 | 679 | x | |
| Rocchetta S. Antonio Scalo | 15.5493 | 41.0788 | 220 | x | |
| Ruvo di Puglia | 16.4835 | 41.1136 | 274 | x | x |
| San Giorgio Jonico | 17.3822 | 40.4578 | 86 | x | x |
| San Giovanni Rotondo | 15.7199 | 41.7067 | 627 | x | x |
| San Marco in Lamis | 15.6361 | 41.7102 | 564 | x | |
| SanNicandroGarganico | 15.5625 | 41.8371 | 228 | x | |
| San Pancrazio | 17.8398 | 40.4185 | 69 | x | |
| San Pietro Vernotico | 18.0015 | 40.4806 | 49 | x | x |
| San Severo | 15.3838 | 41.6928 | 99 | x | x |
| Sant'Agata | 15.3813 | 41.1492 | 791 | x | |
| Spinazzola | 16.0970 | 40.9616 | 458 | x | |
| Taranto | 17.2504 | 40.4643 | 27 | x | x |
| Taviano | 18.0888 | 39.9818 | 65 | x | x |
| Torremaggiore | 15.2921 | 41.6894 | 184 | x | |
| Troia | 15.3096 | 41.3615 | 436 | x | |
| Turi | 17.0224 | 40.9205 | 268 | x | |
| Vico del Gargano | 15.9583 | 41.8912 | 450 | x | |
| Vieste | 16.1752 | 41.8800 | 33 | x | x |
| Vignacastri | 18.4088 | 40.0118 | 99 | x | x |

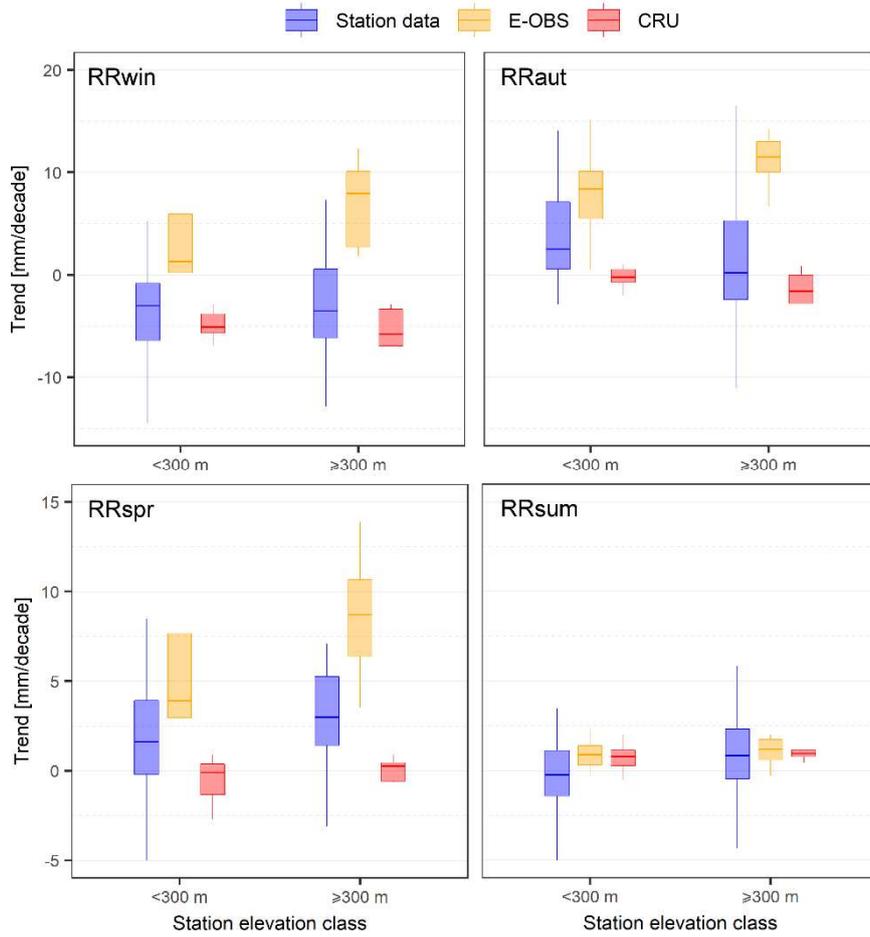


Figure S1. Calculated trend rates for seasonal precipitation using the three considered databases.

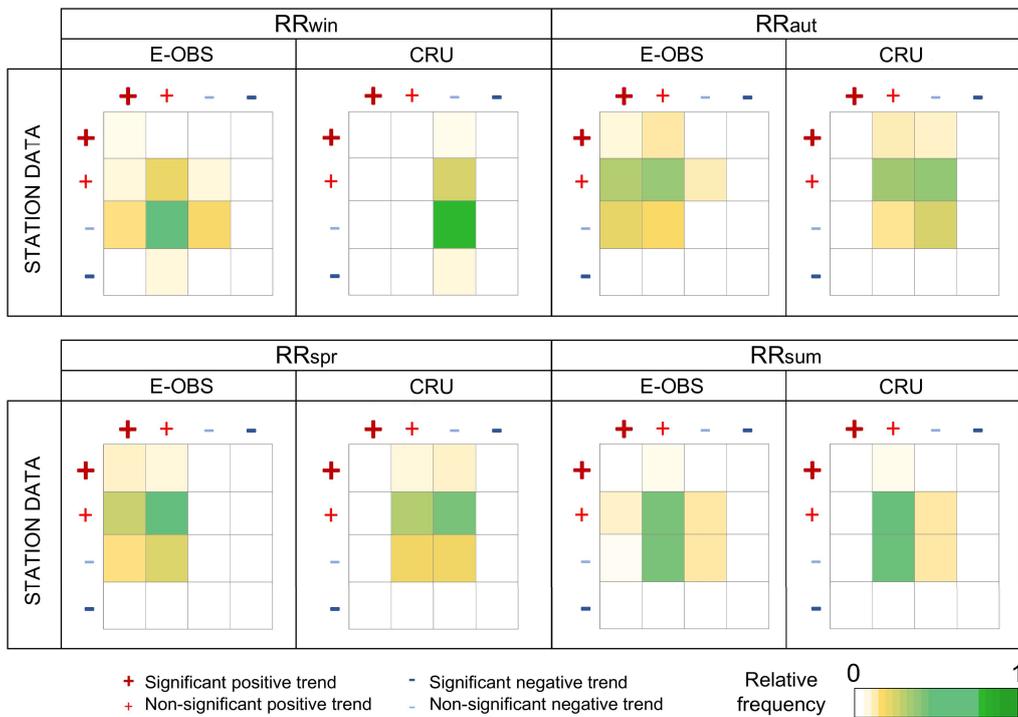


Figure S2. Normalized contingency matrices for detected trend sign for seasonal precipitation using the three considered databases.

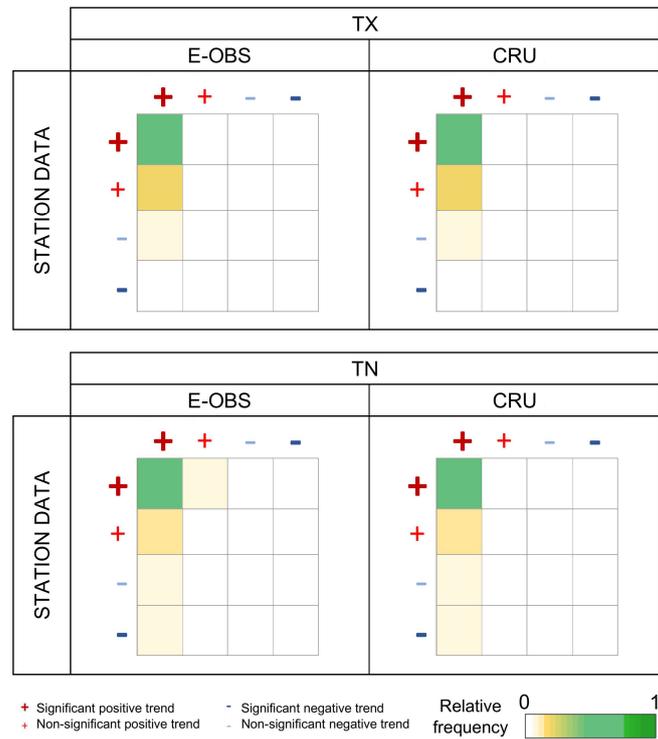


Figure S3. Normalized contingency matrices for detected trend signs for annual maximum (TX) and minimum (TN) temperatures using the three considered databases.

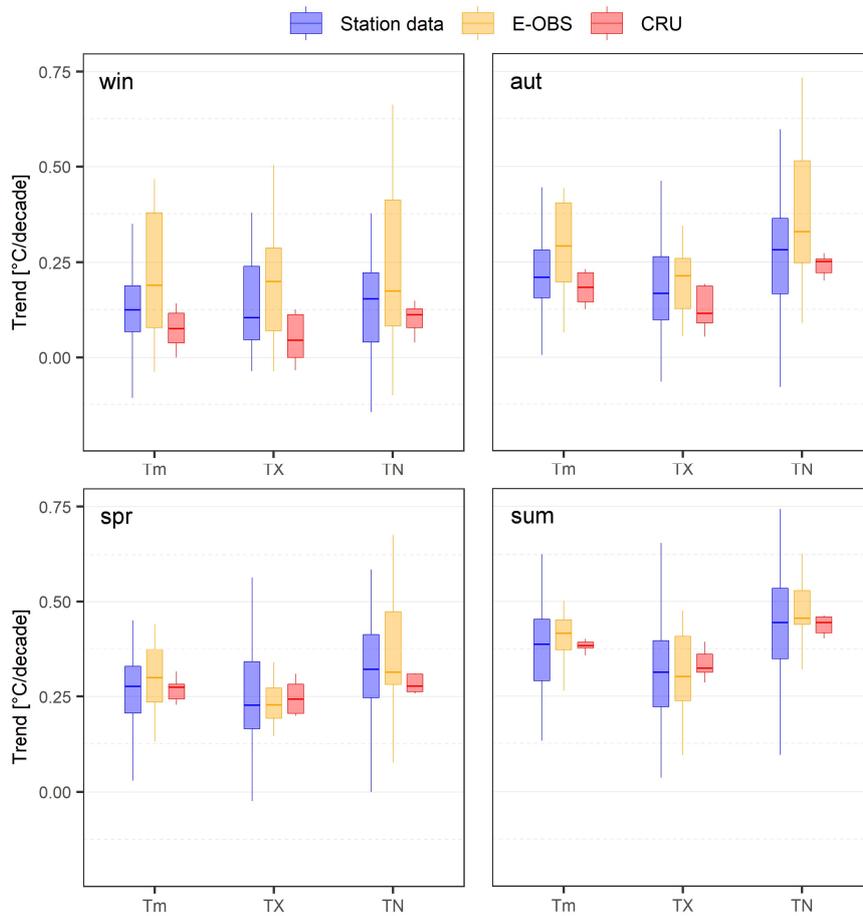


Figure S4. Calculated trend rates for seasonal mean (T_m), maximum (TX) and minimum (TN) temperatures using the three considered databases.

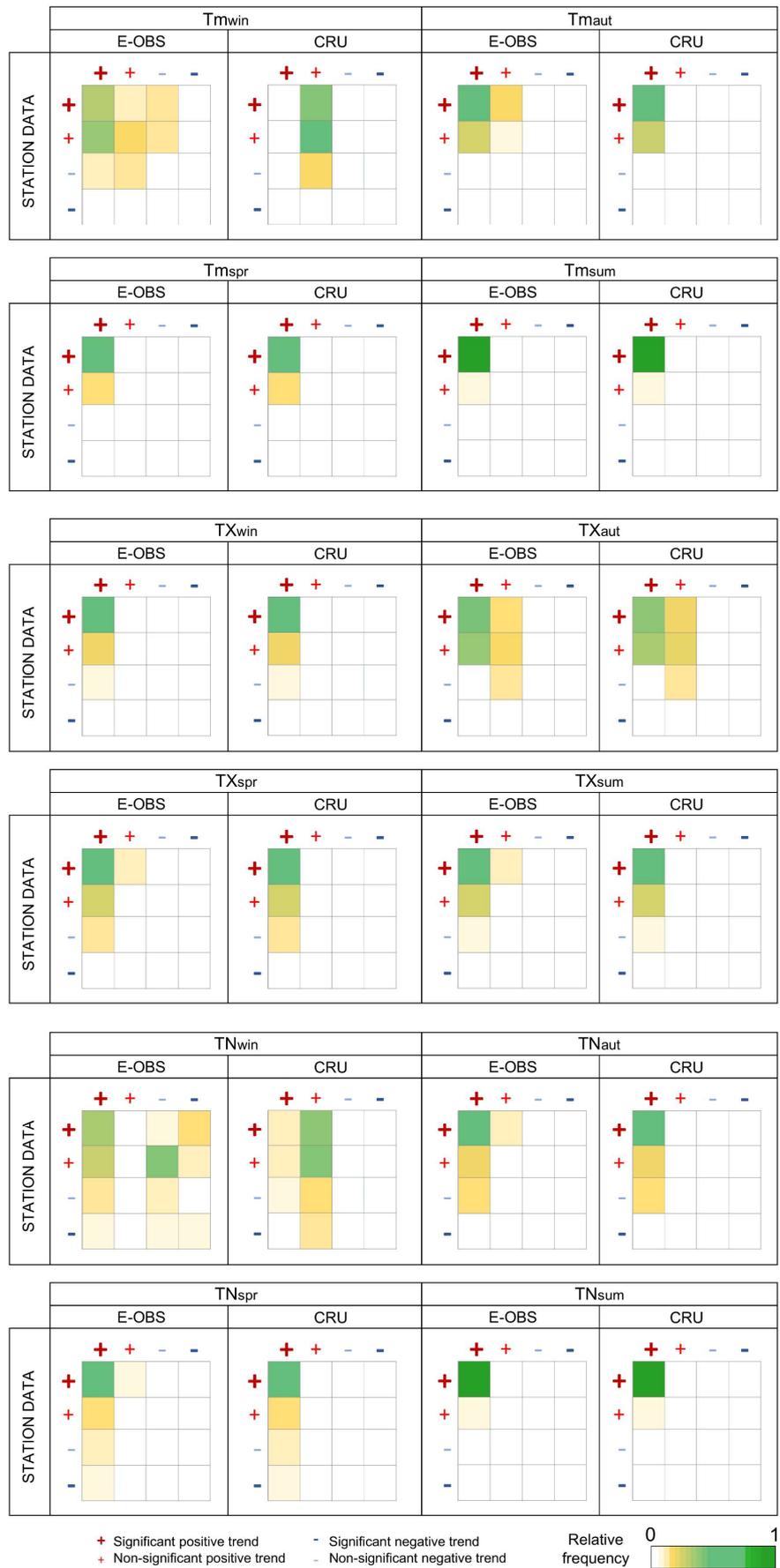


Figure S5. Normalized contingency matrices for detected trend signs for seasonal mean (Tm), maximum (TX) and minimum (TN) temperatures using the three considered databases.