Supplemental material

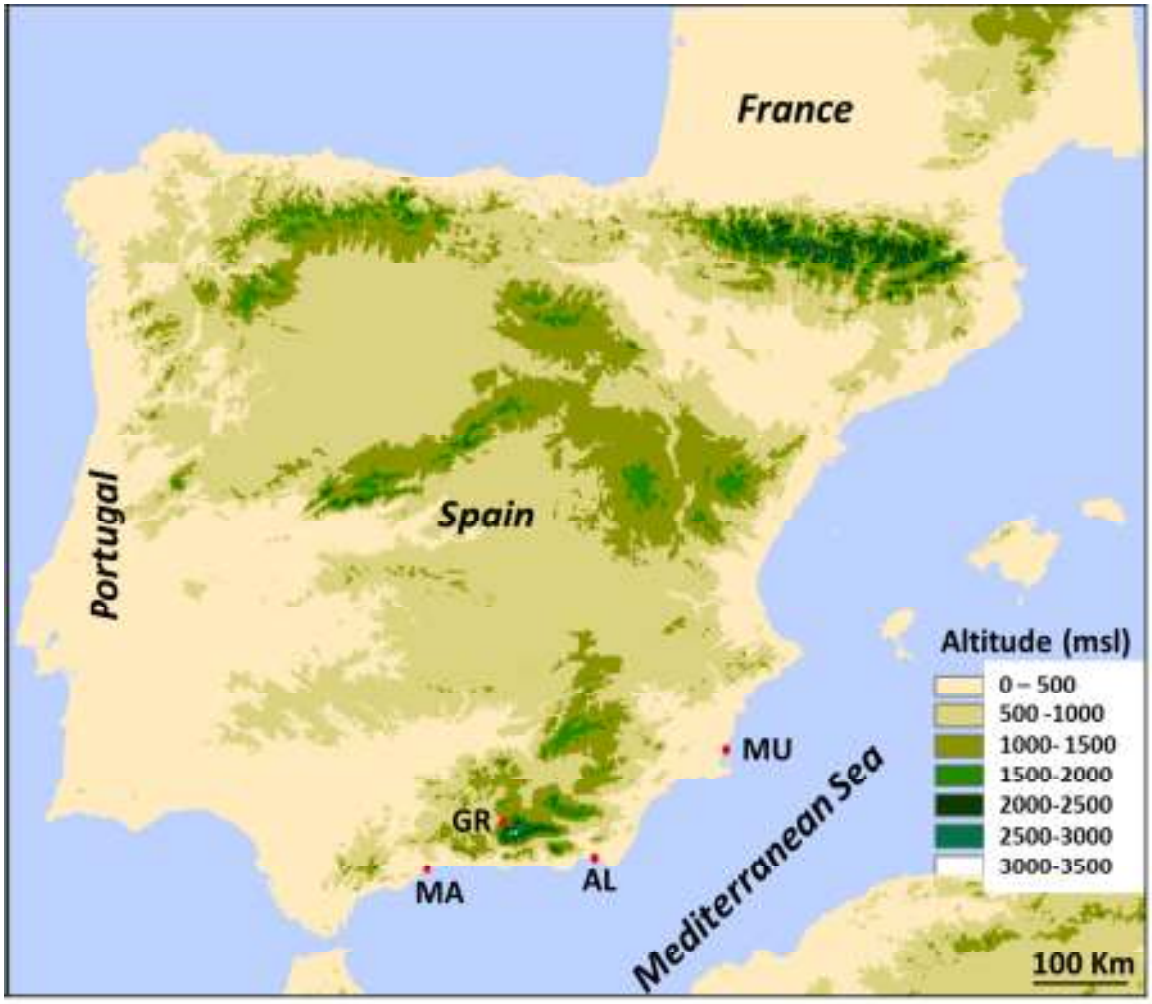

Figure S1. First order stations of the Spanish official meteorological network (AEMET) in SE Spain: AL=Almeria; GR=Granada; MA=Malaga; MU=Murcia (San Javier).

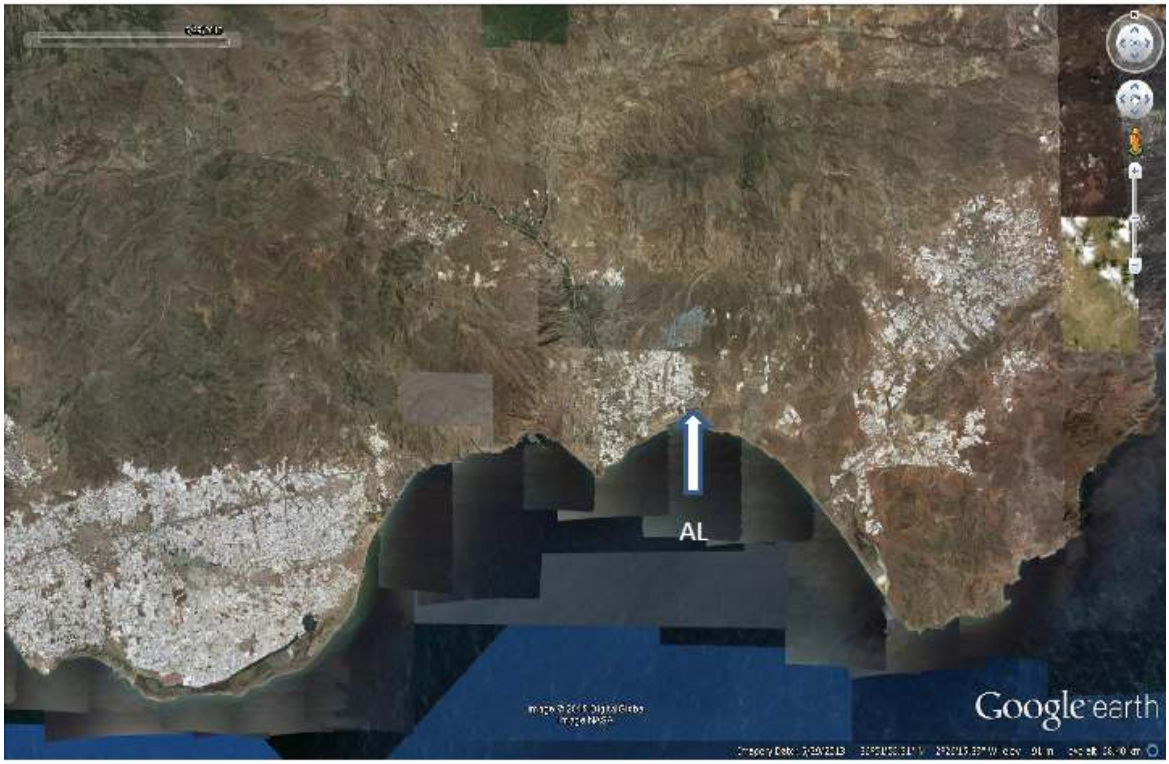

Figure S2. Satellite picture of high albedo greenhouses (in white) next to AEMET Almeria (AL) meteorological station, located at Almeria International airport. 2013 picture taken from 75 km altitude.

Figure S3. Recent land cover and airport traffic changes around the Malaga airport meteorological station (MA) (red circle) by the development of a new terminal and new taxiways. Up: 11/9/2000; Down: 4/8/2014.

Table S1. Uncertainty analysis of piecewise regression fit of annual mean (T_{mean}). Slopes of regression segments in ºC $year^{-1}$.

Data	Parameter	Estimate	Std error	C.I.	T value	p-value
ALMERÍA	Breakpoint	1989	2.625	(1983.7,1994.3)	-4.392	8.34e-05
	Slope 1	0.076	0.0121	(0.051,0.10)	6.219	2.57e-07
	Slope 2	-0.0074	0.007	(-0.015,0.014)	-0.1165	0.9079
GRANADA	Breakpoint	1997	5.86	(1985.2,2008.8)	-2.079	0.0442
	Slope 1	0.055	0.0103	(0.034,0.076)	5.366	3.92e-06
	Slope 2	-0.0034	0.0268	(-0.057,0.051)	-0.126	0.9006
MURCIA	Breakpoint	1982	2.787	(1976.4,1987.6)	-3.045	0.0041
	Slope 1	0.128	0.02919	(0.069,0.187)	4.385	8.52e-05
	Slope 2	0.0272	0.0065	(0.014,0.040)	4.201	0.0001
MÁLAGA	Breakpoint	2013	0.5781	(2011.8,2014.2)	1.756	0.087
	Slope 1	0.0441	0.0043	(0.035,0.053)	10.140	1.72e-12
	Slope 2	0.6505	0.3443	(-0.045,1.346)	1.889	0.0663

Table S2. Uncertainty analysis of piecewise regression fit of annual average maximum temperature series (T_{max}). Slopes of regression segments in ºC $year^{-1}$

Data	Parameter	Estimate	Std error	C.I.	T value	p-value
ALMERÍA	Breakpoint	1987	1.701	(1983.6,1990.4)	-6.365	1.61e-07
	Slope 1	0.1084	0.0166	(0.075,0.142)	6.517	9.93e-08
	Slope 2	-0.0316	0.0077	(-0.047,-0.016)	-4.1157	0.0002
GRANADA	Breakpoint	2013	0.4974	(2012,2014)	2.538	0.0153
	Slope 1	0.0288	0.0084	(0.012,0.046)	3.428	0.0014
	Slope 2	1.7222	0.6651	(0.379,3.066)	2.589	0.0134
MURCIA	Breakpoint	1983	3.56	(1975.81,1990.19)	-2.770	0.0085
	Slope 1	0.0821	0.0206	(0.040,0.124)	3.984	0.0003
	Slope 2	0.0157	0.0054	(0.005,0.027	2.9	0.0061

Table S3. Uncertainty analysis of piecewise regression fit of annual average minimum temperature series (T_{min}). Slopes of regression segments in ºC $year^{-1}$

Data	Parameter	Estimate	Std error	C.I.	T value	p-value
ALMERÍA	Breakpoint	1998	5.646	(1986.6.2009.4)	-2.131	0.0395
	Slope 1	0.0578	0.0082	(0.041.0.074)	7.056	1.8e-08
	Slope 2	0.0156	0.0138	(-0.012.0.044)	1.128	0.2663
GRANADA	Breakpoint	1997	4.533	(1987.84,2006.16)	-2.630	0.0122
	Slope 1	0.0626	0.0137	(0.035,0.090)	4.556	5.03e-05
	Slope 2	-0.0184	0.0206	(-0.060,0.023)	-0.894	0.3766
MURCIA	Breakpoint	1981	2.475	(1976,1986)	-2.969	0.0051
	Slope 1	0.1921	0.0691	(0.053,0.332)	2.782	0.0083
	Slope 2	0.0384	0.0087	(0.021,0.056)	4.423	7.59e-05
MÁLAGA	Breakpoint	1977	5.31	(1966.27,1987.73)	-0.862	0.394
	Slope 1	0.1257	0.0788	(-0.033,0.285)	1.595	0.1187
	Slope 2	0.0557	0.0054	(0.045,0.067)	10.25	1.26e-12

Table S4. Uncertainty analysis of piecewise regression fit of difference temperature series (DTR). Slopes of regression segments in ºC $year^{-1}$

Data	Parameter	Estimate	Std error	C.I.	T value	p-value
ALMERÍA	Breakpoint	1982	1.3	(1979.4.1984.6)	-6.353	1.67e-07
	Slope 1	0.1306	0.0267	(0.077.0.185)	4.899	1.723e-05
	Slope 2	-0.0614	0.0059	(-0.073.-0.049)	-10.374	8.967e-13
GRANADA	Breakpoint	2011	1,155	(2008.7,2013.3)	3.189	0.0028
	Slope 1	-0.0094	0.0088	(-0.027,0.008)	-1.068	0.2922
	Slope 2	0.5962	0.1864	(0.22,0.973)	3.199	0.0027
MURCIA	Breakpoint	1981	4.111	(1972.7,1989.3)	1.965	0.0565
	Slope 1	-0.1012	0.0371	(-0.176,-0.026)	-2.724	0.0096
	Slope 2	-0.0204	0.0069	(-0.034,-0.006)	-2.961	0.0052
MÁLAGA	Breakpoint	2012	1.589	(2008.8,2015.2)	1.759	0.0865
	Slope 1	-0.0279	0.0043	(-0.037,-0.019)	-6.546	9.06e-08
	Slope 2	0.2413	0.1516	(-0.065,0.548)	1.591	0.1196