

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

LINARES (ESP JAEN)

Altitude: 419 m.

Latitude: 38°5'N Longitude: 3°38'W

Temperature observation period.: 1931-1968 (38)

Rainfall observation period....: 1931-1968 (38)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	8.30	13.10	3.60	19.20	-1.60	67.0	12.71
Feb.	9.80	15.30	4.20	21.40	-0.50	64.0	17.20
Mar.	13.00	18.80	7.10	26.00	2.30	76.0	36.02
Apr.	15.90	22.10	9.60	29.20	5.10	51.0	56.31
May.	20.00	26.70	13.20	33.90	8.40	52.0	97.21
Jun.	24.50	31.50	17.50	39.20	12.00	16.0	143.89
Jul.	28.30	36.10	20.60	41.60	15.40	3.0	187.38
Aug.	28.20	35.90	20.60	40.90	16.30	5.0	174.46
Sep.	24.30	31.20	17.50	37.70	12.50	26.0	118.83
Oct.	18.20	24.10	12.40	31.30	6.80	57.0	63.46
Nov.	12.60	17.50	7.70	23.70	2.40	57.0	27.69
Dec.	8.50	13.10	3.90	18.80	-1.30	67.0	12.99
Year	17.63	23.78	11.49	30.24	6.48	541	948.15

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	343
Compensated thermicity index.....(Itc):	353
Simple continentality index.....(Ic):	20.0
Diurnality index.....(Id):	15.5
Annual ombrothermic index.....(Io):	2.56
Monthly estival ombrothermic index.....(Ios1):	0.11
Bimonthly estival ombrothermic index.....(Ios2):	0.14
Threemonthly estival ombrothermic index.....(Ios3):	0.30
Fourmonthly estival ombrothermic index.....(Ios4):	0.75
Annual ombro-evaporation index.....(Ioe):	0.42
Annual positive temperature.....(Tp):	2116
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	810
Positive precipitation.....(Pp):	541

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	3	1	3	0

Latitudinal Belt...: Low eutemperate

Continentalty.....: Oceanic - High Semicontinental

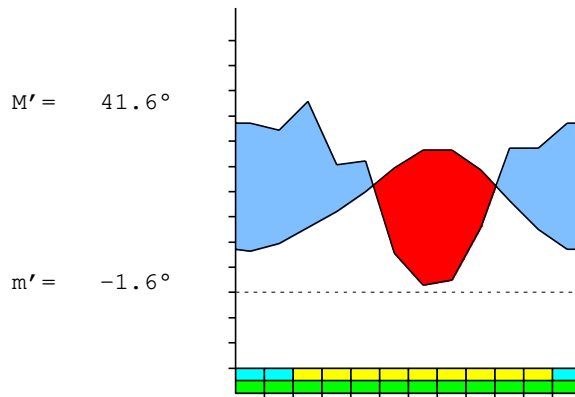
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: UPPER THERMOMEDITERRANEAN LOW DRY

LINARES (ESP JAEN)

419 m

P= 541 38° 5'N 3° 38'W 38/38 y.
 T= 17.6° Ic= 20.0 Tp= 2116 Tn= 0
 m= 3.6° M= 13.1° Itc= 353 Io= 2.6



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER THERMOMEDITERRANEAN LOW DRY

WATER INDEX CARD
 Altitude: 419 m.

LINARES (ESP JAEN)
 Latitude: 38° 5'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	8.3	13	67	17	100	13	0	38	19	4.2
Feb.	9.8	17	64	0	100	17	0	47	33	2.7
Mar.	13.0	36	76	0	100	36	0	40	36	1.1
Apr.	15.9	56	51	-5	95	56	0	0	18	0.0
May.	20.0	97	52	-45	49	97	0	0	9	-0.4
Jun.	24.5	144	16	-49	0	65	78	0	5	-0.8
Jul.	28.3	187	3	0	0	3	184	0	2	-0.9
Aug.	28.2	174	5	0	0	5	169	0	1	-0.9
Sep.	24.3	119	26	0	0	26	93	0	1	-0.7
Oct.	18.2	63	57	0	0	57	6	0	0	-0.1
Nov.	12.6	28	57	29	29	28	0	0	0	1.0
Dec.	8.5	13	67	54	83	13	0	0	0	4.1
Year	17.6	948	541	*	*	417	532	124	124	*

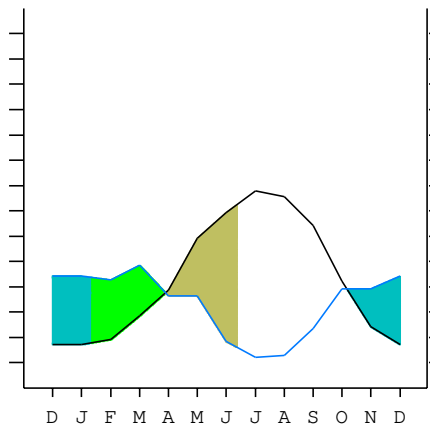
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

LINARES (ESP JAEN)

38°5'N 3°38'W 419 m 38/38 y.

T= 17.6 Ic= 20.0 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 3.6 Tp= 2116 UPPER THERMOMEDITERRANEAN
 M= 13.1 Tn= 0 LOW DRY
 M' = 41.6 Itc= 353
 m' = -1.6 Io= 2.6
 P= 541 mm ———
 PE= 948 mm ———

Imbibing	6 Oct.
Saturation	10 Jan.
Reserve Use	27 Mar.
Deficit	12 Jun.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1b]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: b. High

Thermic types [B1.A3]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm

Bioclimatic types [B8.2a.5b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Mehc.Tme.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 159
 Coldest semester of the year.....(Psw): 382
 Warmest four months period of the year.....(Pcm1): 50
 Following warmest four months period.....(Pcm2): 248
 Positive precipitation dryest 3 months.....(Ppd): 24
 Positive precipitation dryest 2 months.....(Ppd2): 8
 Positive precipitation dryest 1 month.....(Ppd1): 3
 Positive precipitation warmest 3 months.....(Pps): 24
 Positive precipitation warmest 2 months.....(Pps2): 8
 Positive precipitation warmest 1 month.....(Pps1): 3
 Positive precipitation coldest 3 months.....(Ppw): 198
 Positive precipitation coldest 2 months.....(Ppw2): 134
 Positive precipitation coldest 1 month.....(Ppw1): 67

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	198	179	24	140

Seasonal rainfall rhythms: W > P > F > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.3
 Average coldest month [T].....(Tmin): 8.3
 Maximum temp. warmest month [M].....(Tmmax): 36.1
 Minimum temp. coldest month [m].....(Tmmin): 3.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 41.6
 Absolute Min.temp. coldest month [m'].....(Tamin): -1.6
 First warmest contrasted month [M].....(Tcmax): 36.1 (7)
 First coldest contrasted month [m].....(Tcmin): 20.6 (7)
 Estival temperature.....(Ts): 810
 Positive temperature dryest 3 months.....(Tpd): 810
 Positive temperature dryest 2 months.....(Tpd2): 565
 Positive temperature dryest 1 month.....(Tpd1): 283
 Positive temperature warmest 3 months.....(Tps): 810
 Positive temperature warmest 2 months.....(Tps2): 565
 Positive temperature warmest 1 month.....(Tps1): 283
 Positive temperature coldest 3 months.....(Tpw): 266
 Positive temperature coldest 2 months.....(Tpw2): 168
 Positive temperature coldest 1 month.....(Tpw1): 83

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SEASONAL PARAMETERS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)					o	o	o	o	o	o		
Dryest semester....(Smd)				o	o	o	o	o	o			
Warmest 4 months...(Cm1)						o	o	o	o			
Dryest 4 months....(Cmd)						o	o	o	o			
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)												
Pregelid.....[m' <=0] (Pf)	o	o										o
Agelid.....[m' > 0] (Pf)			o	o	o	o	o	o	o	o	o	
HiperAgelid..[all>0] (Pf)			o	o	o	o	o	o	o	o	o	

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.75
 Mediterranean index of July.[PE/P].....(Im1): 62.46
 Mediterranean index of July & August.....(Im2): 45.23
 Mediterranean index of June, July & August....(Im3): 21.07

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	670	670	640	760	510	520	160	30	50	260	570	570
Tp	85	83	98	130	159	200	245	283	282	243	182	126
Io (Iom)	7.88	8.07	6.53	5.85	3.21	2.60	0.65	0.11	0.18	1.07	3.13	4.52
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1980 / 266			1790 / 489			240 / 810			1400 / 551		
Io (Iot)	7.444			3.661			0.296			2.541		
Semesters	December-May						June-November					
Pp(x10)/Tp	3770 / 755						1640 / 1361					
Io (Iosm)	4.993						1.205					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5410/2116=2.56 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	670	670	640	760	510	520	160	30	50	260	570	570
Tp [T*10]	85	83	98	130	159	200	245	283	282	243	182	126
Iom [Pp/Tp]	788	807	653	585	321	260	65	11	18	107	313	452
Avm [200-Iom]	***	***	***	***	***	***	135	189	182	93	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1980 / 266			1790 / 489			240 / 810			1400 / 551		
Iot [Pp/Tp]	744			366			30			254		
Avs E[Avm<200]	***			***			506			***		
Upper ultrahyperarid [2]						Upper hyperarid [1]						
Weak lower arid [1]						Strong lower semiarid [1]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 20.00
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 34.72
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 31.69
 + Oceanic (20<CI<40)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.46
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: 30.68
 + Steppic (40>R>0)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 19.58
 + Semiarid -mediterranean- (20>Ia>15)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 41.93
 + Semiarid (50>Q>30)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 3.26
 + Arid (6>DR>3)
 Aridity Index of UNEP [I=P/PE]: 0.57
 + Subhumid - dry (0.65>I>0.5)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 10.68
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 3. Macro-mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.38	0.34	0.37	0.22	0.20	0.05	0.01	0.01	0.08	0.23	0.27	0.38
T-E ratio	3.74	4.41	5.85	7.15	9.00	11.02	12.73	12.69	10.93	8.19	5.67	3.82
Precipitation-effectiveness: 25.52						Temperature-efficiency: 95.22						
Moisture Index [MI=100*(P-PE)/PE]: -42.94 + D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]: 56.06 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 13.11 + Moderate surplus (10<HI<20)												
Potential Evapotranspiration PE: 948.15 + Third mesothermic (855<PE<997)												

