Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

EL ROMPEDIZO (ESP MALAGA) Altitude: 12 m.

Latitude: 36°39'N Longitude: 4°28'W
Temperature observation period.: 1942-1970 (29)
Rainfall observation period....: 1942-1970 (29)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	11.80	16.00	7.70	21.30	2.50	66.0	24.66
Feb.	12.60	17.10	8.10	22.40	2.60	60.0	27.63
Mar.	14.60	19.20	10.10	25.70	5.50	70.0	44.37
Apr.	16.20	21.10	11.30	28.00	6.90	45.0	57.81
May.	19.10	24.10	14.00	31.50	9.10	30.0	87.84
Jun.	22.60	27.80	17.50	34.60	13.40	4.0	122.16
Jul.	24.90	30.00	19.90	38.40	16.50	2.0	149.41
Aug.	25.50	30.50	20.50	38.50	16.20	7.0	146.36
Sep.	23.10	27.70	18.60	33.20	13.90	36.0	106.66
Oct.	19.20	23.50	15.00	28.80	9.70	51.0	70.54
Nov.	15.80	19.90	11.70	24.60	6.80	77.0	42.59
Dec.	12.80	16.60	9.10	21.30	4.20	59.0	27.81
Year	18.18	22.79	13.63	29.02	8.94	507	907.84

BIOCLIMATIC INDICES AND DIAGNOSIS

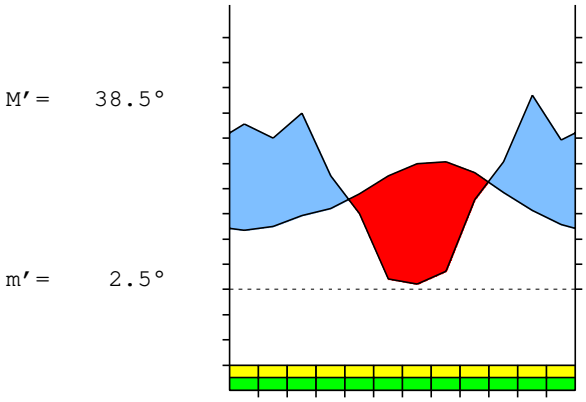
Thermicity index.....(It): 419
Compensated thermicity index.....(Itc): 419
Simple continentality index.....(Ic): 13.7
Diurnality index.....(Id): 10.3
Annual ombrothermic index.....(Io): 2.32
Monthly estival ombrothermic index.....(Ios1): 0.08
Bimonthly estival ombrothermic index.....(Ios2): 0.18
Threemonthly estival ombrothermic index.....(Ios3): 0.18
Fourmonthly estival ombrothermic index.....(Ios4): 0.47
Annual ombro-evaporation index.....(Ioe): 0.34
Annual positive temperature.....(Tp): 2182
Annual negative temperature.....(Tn): 0
Estival temperature.....(Ts): 730
Positive precipitation.....(Pp): 507

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

Latitudinal Belt...: Low eutemperate
Continentality.....: Oceanic - Low Semihyperoceanic
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC
Bioclimatic Belt...: LOW THERMOMEDITERRANEAN LOW DRY

EL ROMPEDIZO (ESP MALAGA) 12 m

P=	507	36° 39'N		4° 28'W		29/29 y.	
T=	18.2°	Ic=	13.7	Tp=	2182	Tn=	0
m=	7.7°	M=	16.0°	Itc=	419	Io=	2.3



MEDITERRANEAN PLUVISEASONAL-OCEANIC
LOW THERMOMEDITERRANEAN LOW DRY

WATER INDEX CARD EL ROMPEDIZO (ESP MALAGA)

Altitude: 12 m. Latitude: 36° 39'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	11.8	25	66	34	100	25	0	7	3	1.6
Feb.	12.6	28	60	0	100	28	0	32	18	1.1
Mar.	14.6	44	70	0	100	44	0	26	22	0.5
Apr.	16.2	58	45	-13	87	58	0	0	11	-0.2
May.	19.1	88	30	-58	29	88	0	0	5	-0.6
Jun.	22.6	122	4	-29	0	33	89	0	3	-0.9
Jul.	24.9	149	2	0	0	2	147	0	1	-0.9
Aug.	25.5	146	7	0	0	7	139	0	1	-0.9
Sep.	23.1	107	36	0	0	36	71	0	0	-0.6
Oct.	19.2	71	51	0	0	51	20	0	0	-0.2
Nov.	15.8	43	77	34	34	43	0	0	0	0.8
Dec.	12.8	28	59	31	66	28	0	0	0	1.1
Year	18.2	908	507	*	*	442	466	65	65	*

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

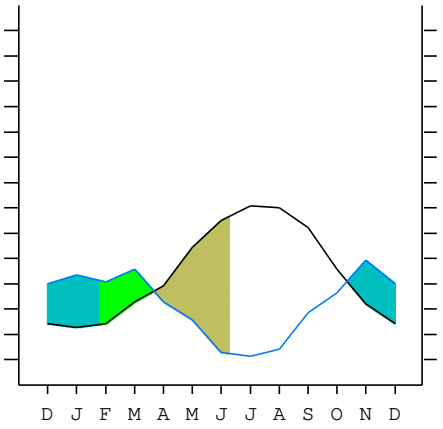
EL ROMPEDIZO (ESP MALAGA)

36°39'N 4°28'W 12 m 29/29 y.

T=	18.2	Ic=	13.7
m=	7.7	Tp=	2182
M=	16.0	Tn=	0
M'=	38.5	Itc=	419
m'=	2.5	Io=	2.3
P=	507	mm	
PE=	908	mm	

MEDITERRANEAN PLUVISEASONAL-OCEANIC
LOW THERMOMEDITERRANEAN
LOW DRY

Imbibing	11 Oct.
Saturation	25 Jan.
Reserve Use	21 Mar.
Deficit	8 Jun.



EL ROMPEDIZO (ESP MALAGA)

Latitude: 36°39'N Longitude: 4°28'W Altitude: 12 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [B1b]
  + Type .....: B. Oceanic
  + Subtype .....: 1. Semihyperoceanic
  + Variant .....: b. Low
Thermic types [B1.A3]
  + Latitudinal zone ....: B. Temperate
  + Latitudinal belt ....: 1. Low eutemperate
  + Thermic type .....: A. Warm
  + Thermic subtype .....: 3. Subwarm
Bioclimatic types [B8.2b.5b]
  + Macrobioclimate .....: B. MEDITERRANEAN
  + Bioclimate .....: 8. PLUVISEASONAL-OCEANIC
  + Bioclimatic variant .:
  + Thermic type.....: 2. THERMOMEDITERRANEAN
  + Thermic subtype.....: b. LOW
  + Ombrothermic type ...: 5. DRY
  + Ombrothermic subtype : b. LOW
Bioclimatic Classification .....: Mehc.Tme.Dry

EL ROMPEDIZO (ESP MALAGA)

Latitude: 36°39'N Longitude: 4°28'W Altitude: 12 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 130
Coldest semester of the year.....(Psw): 377
Warmest four months period of the year.....(Pcm1): 49
Following warmest four months period.....(Pcm2): 253
Positive precipitation dryest 3 months.....(Ppd): 13
Positive precipitation dryest 2 months.....(Ppd2): 6
Positive precipitation dryest 1 month.....(Ppd1): 2
Positive precipitation warmest 3 months.....(Pps): 45
Positive precipitation warmest 2 months.....(Pps2): 9
Positive precipitation warmest 1 month.....(Pps1): 7
Positive precipitation coldest 3 months.....(Ppw): 185
Positive precipitation coldest 2 months.....(Ppw2): 126
Positive precipitation coldest 1 month.....(Ppw1): 66

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	185	145	13	164

Seasonal rainfall rhythms: W > F > P > S

EL ROMPEDIZO (ESP MALAGA)

Latitude: 36°39'N Longitude: 4°28'W Altitude: 12 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 25.5
Average coldest month [T].....(Tmin): 11.8
Maximum temp. warmest month [M].....(Tmmax): 30.5
Minimum temp. coldest month [m].....(Tmmin): 7.7
Absolute Max.temp. warmest month [M'].....(Tamax): 38.5
Absolute Min.temp. coldest month [m'].....(Tamin): 2.5
First warmest contrasted month [M].....(Tcmax): 27.8 (6)
First coldest contrasted month [m].....(Tcmin): 17.5 (6)
Estival temperature.....(Ts): 730
Positive temperature dryest 3 months.....(Tpd): 730
Positive temperature dryest 2 months.....(Tpd2): 475
Positive temperature dryest 1 month.....(Tpd1): 249
Positive temperature warmest 3 months.....(Tps): 735
Positive temperature warmest 2 months.....(Tps2): 504
Positive temperature warmest 1 month.....(Tps1): 255
Positive temperature coldest 3 months.....(Tpw): 372
Positive temperature coldest 2 months.....(Tpw2): 244
Positive temperature coldest 1 month.....(Tpw1): 118

EL ROMPEDIZO (ESP MALAGA)

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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)												
Agelid.....[m'> 0](Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0](Pf)	o	o	o	o	o	o	o	o	o	o	o	o

EL ROMPEDIZO (ESP MALAGA)

Latitude: 36°39'N Longitude: 4°28'W Altitude: 12 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.79
Mediterranean index of July.[PE/P].....(Im1): 74.71
Mediterranean index of July & August.....(Im2): 32.86
Mediterranean index of June, July & August....(Im3): 32.15

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	590	660	600	700	450	300	40	20	70	360	510	770
Tp	128	118	126	146	162	191	226	249	255	231	192	158
Io (Iom)	4.61	5.59	4.76	4.79	2.78	1.57	0.18	0.08	0.27	1.56	2.66	4.87

Seasons	Winter	Spring	Summer	Automn
Pp(x10)/Tp	1850 / 372	1450 / 499	130 / 730	1640 / 581
Io (Iot)	4.973	2.906	0.178	2.823

Semesters	December-May	June-November
Pp(x10)/Tp	3300 / 871	1770 / 1311
Io (Iosm)	3.789	1.350

EL ROMPEDIZO (ESP MALAGA)

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5070/2182=2.32 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	590	660	600	700	450	300	40	20	70	360	510	770
Tp [T*10]	128	118	126	146	162	191	226	249	255	231	192	158
Iom [Pp/Tp]	461	559	476	479	278	157	18	8	27	156	266	487
Avm [200-Iom]	***	***	***	***	***	43	182	192	173	44	***	***

Seasons	Winter	Spring	Summer	Automn
Pp / Tp	1850 / 372	1450 / 499	130 / 730	1640 / 581
Iot [Pp/Tp]	497	291	18	282
Avs E[Avm<200]	***	***	547	***

Lower ultrahyperarid [1]	Upper ultrahyperarid [2]
Lower hyperarid [1]	Strong upper semiarid [2]

EL ROMPEDIZO (ESP MALAGA)

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 13.70
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....: 18.62
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....: 18.03
  + Hyperoceanic (-20<CI<20)
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 1.04
  + Oceanic (0.6<CI<1.1)
Rainfall Index of Lang (1925) [R=P/T] .....: 27.88
  + Steppic (40>R>0)
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 17.99
  + Semiarid -mediterranean- (20>Ia>15)
I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)] .....: 58.21
  + Subhumid (90>Q>50)
I of Dantin & Revenga (1940) [DR=100*T/P] .....: 3.59
  + Arid (6>DR>3)
Aridity Index of UNEP [I=P/PE] .....: 0.56
  + Subhumid - dry (0.65>I>0.5)
Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 11.69
  + Very low (K<60)

EL ROMPEDIZO (ESP MALAGA)

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BIOCLIMATIC INDICES II

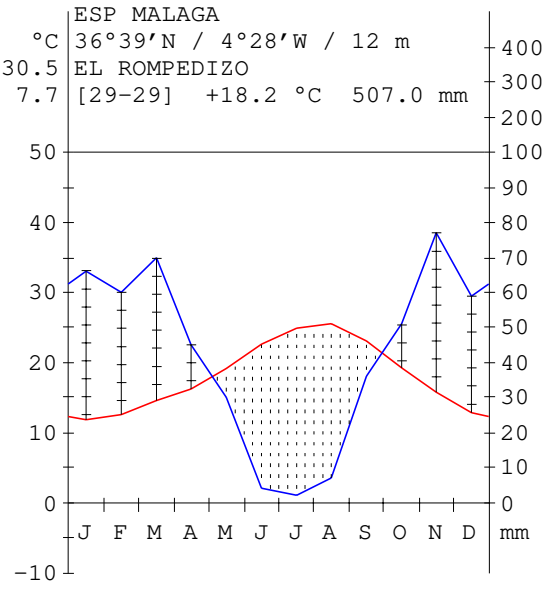
Bioclimatic classification of Gaussen & Bagnouls (1957)
  + Climate ....: A. Warm and temperate warm
  + Region .....: 3. Termoxeroteric (Mediterranean warm)
  + Thermic type: 3. Macro-mesothermic

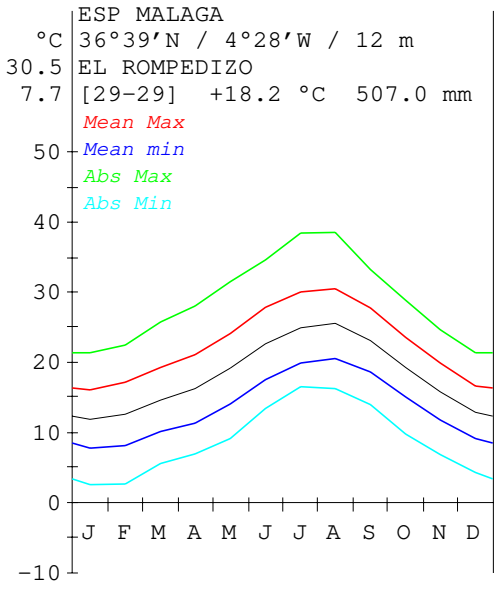
Thornthwaite (1948)

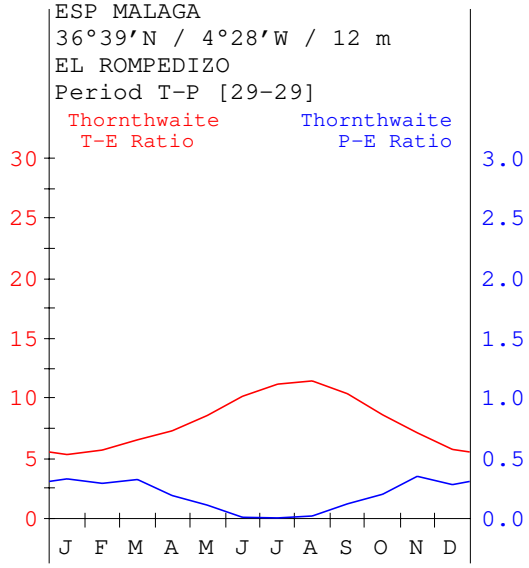
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.33	0.29	0.32	0.19	0.11	0.01	0.00	0.02	0.12	0.20	0.35	0.28
T-E ratio	5.31	5.67	6.57	7.29	8.60	10.17	11.20	11.48	10.40	8.64	7.11	5.76

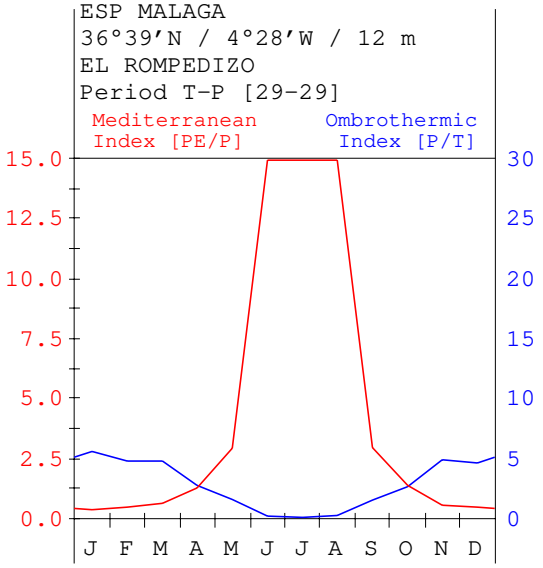
Precipitation-effectiveness: 22.41 Temperature-efficiency ....: 98.19

Moisture Index [MI=100*(P-PE)/PE] .....: -44.15
  + D.Semiarid (-66.7<MI<-33.3)
Index of dryness [DI=100*d/PE] .....: 51.30
  + Strong deficit (33.3<DI)
Index of humidity [HI=100*s/PE] .....: 7.15
  + No surplus (0<HI<10)
Potential Evapotranspiration PE .....: 907.84
  + Third mesothermic (855<PE<997)




ESP MALAGA
°C 36°39'N / 4°28'W / 12 m
30.5 EL ROMPEDIZO
7.7 [29-29] +18.2 °C 507.0 mm
Mean Max
Mean min
Abs Max
Abs Min
50
40
30
20
10
0
-10
J F M A M J J A S O N D


ESP MALAGA
36°39'N / 4°28'W / 12 m
EL ROMPEDIZO
Period T-P [29-29]
Thornthwaite T-E Ratio
Thornthwaite P-E Ratio
30
25
20
15
10
5
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J F M A M J J A S O N D


ESP MALAGA
36°39'N / 4°28'W / 12 m
EL ROMPEDIZO
Period T-P [29-29]
Mediterranean Index [PE/P]
Ombrothermic Index [P/T]
15.0
12.5
10.0
7.5
5.0
2.5
0.0
30
25
20
15
10
5
0
J F M A M J J A S O N D