

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

GUITIRIZ (ESP LUGO)

Altitude: 460 m.

Latitude: 43°11'N Longitude: 7°53'W

Temperature observation period.: 1947-1954 (8)

Rainfall observation period....: 1947-1954 (8)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	5.60	9.80	1.30	14.90	-6.70	175.0	18.07
Feb.	6.10	11.20	1.00	17.40	-5.70	180.0	20.20
Mar.	8.60	14.90	2.20	23.00	-3.60	116.0	37.43
Apr.	8.90	15.40	2.30	23.40	-4.40	63.0	42.76
May.	11.80	18.20	5.30	24.70	-0.80	103.0	66.72
Jun.	15.20	21.50	8.90	30.30	4.20	65.0	90.91
Jul.	17.30	23.80	10.80	32.00	3.70	12.0	106.46
Aug.	16.90	23.70	10.00	29.90	2.80	37.0	96.38
Sep.	15.00	21.60	8.50	29.80	1.20	74.0	72.74
Oct.	12.40	18.00	6.80	25.20	-1.20	90.0	53.28
Nov.	8.90	14.00	3.80	19.40	-3.10	190.0	30.93
Dec.	5.90	10.30	1.40	16.30	-5.10	213.0	18.25
Year	11.05	16.87	5.19	23.86	-1.56	1318	654.14

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	222
Compensated thermicity index.....(Itc):	222
Simple continentality index.....(Ic):	11.7
Diurnality index.....(Id):	13.7
Annual ombrothermic index.....(Io):	9.94
Monthly estival ombrothermic index.....(Ios1):	0.69
Bimonthly estival ombrothermic index.....(Ios2):	1.43
Threemonthly estival ombrothermic index.....(Ios3):	2.31
Fourmonthly estival ombrothermic index.....(Ios4):	3.55
Annual ombro-evaporation index.....(Ioe):	0.41
Annual positive temperature.....(Tp):	1326
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	494
Positive precipitation.....(Pp):	1318

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	10	1	0	1	0

Latitudinal Belt...: High eutemperate

Continentalty.....: Oceanic - High Semihyperoceanic

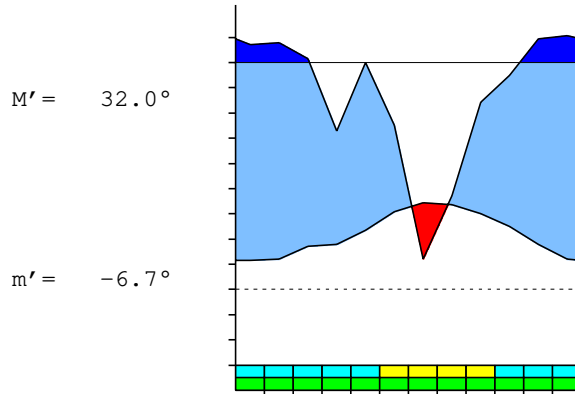
Bioclimate(Variant): TEMPERATE OCEANIC (SUBMEDITERRANEAN)

Bioclimatic Belt...: UPPER MESOTEMPERATE UPPER HUMID

GUITIRIZ (ESP LUGO)

460 m

P= 1318 43° 11'N 7° 53'W 8/8 y.
 T= 11.1° Ic= 11.7 Tp= 1326 Tn= 0
 m= 1.3° M= 9.8° Itc= 222 Io= 9.9



TEMPERATE OCEANIC (SUBMEDITERRANEAN)
 UPPER MESOTEMPERATE UPPER HUMID

WATER INDEX CARD

GUITIRIZ (ESP LUGO)

Altitude: 460 m.

Latitude: 43° 11'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	5.6	18	175	0	100	18	0	157	139	8.6
Feb.	6.1	20	180	0	100	20	0	160	150	7.9
Mar.	8.6	37	116	0	100	37	0	79	114	2.0
Apr.	8.9	43	63	0	100	43	0	20	67	0.4
May.	11.8	67	103	0	100	67	0	36	52	0.5
Jun.	15.2	91	65	-26	74	91	0	0	26	-0.2
Jul.	17.3	106	12	-74	0	86	20	0	13	-0.8
Aug.	16.9	96	37	0	0	37	59	0	6	-0.6
Sep.	15.0	73	74	1	1	73	0	0	3	0.0
Oct.	12.4	53	90	37	38	53	0	0	2	0.6
Nov.	8.9	31	190	62	100	31	0	97	49	5.1
Dec.	5.9	18	213	0	100	18	0	195	122	10.6
Year	11.1	654	1318	*	*	574	80	744	744	*

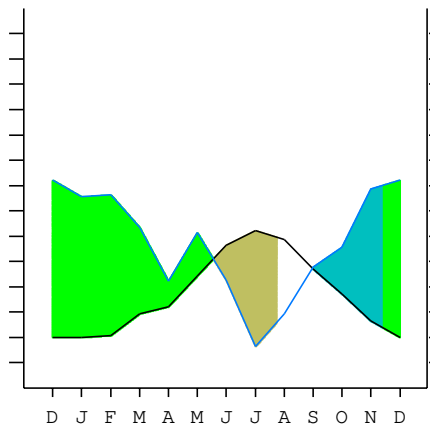
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

GUITIRIZ (ESP LUGO)

43°11'N 7°53'W 460 m 8/8 y.

T= 11.1 Ic= 11.7 TEMPERATE OCEANIC (SUBMEDITERRANEAN)
 m= 1.3 Tp= 1326 UPPER MESOTEMPERATE
 M= 9.8 Tn= 0 UPPER HUMID
 M' = 32.0 Itc= 222
 m' = -6.7 Io= 9.9
 P= 1318 mm ———
 PE= 654 mm ———

Imbibing	30 Aug.
Saturation	12 Nov.
Reserve Use	18 May.
Deficit	24 Jul.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: a. High

Thermic types [B1.B4]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. High eutemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 4. Temperate

Bioclimatic types [C3b.3a.7a]
 + Macrobioclimate: C. TEMPERATE
 + Bioclimate: 3. OCEANIC
 + Bioclimatic variant .: b. SUBMEDITERRANEAN
 + Thermic type.....: 3. MESOTEMPERATE
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Teco (Sbm) .Mte.Hum

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 381
 Coldest semester of the year.....(Psw): 937
 Warmest four months period of the year.....(Pcm1): 188
 Following warmest four months period.....(Pcm2): 668
 Positive precipitation dryest 3 months.....(Ppd): 114
 Positive precipitation dryest 2 months.....(Ppd2): 49
 Positive precipitation dryest 1 month.....(Ppd1): 12
 Positive precipitation warmest 3 months.....(Pps): 114
 Positive precipitation warmest 2 months.....(Pps2): 49
 Positive precipitation warmest 1 month.....(Pps1): 12
 Positive precipitation coldest 3 months.....(Ppw): 568
 Positive precipitation coldest 2 months.....(Ppw2): 388
 Positive precipitation coldest 1 month.....(Ppw1): 175

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	568	282	114	354

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 17.3
 Average coldest month [T].....(Tmin): 5.6
 Maximum temp. warmest month [M].....(Tmmax): 23.8
 Minimum temp. coldest month [m].....(Tmmin): 1.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 32.0
 Absolute Min.temp. coldest month [m'].....(Tamin): -6.7
 First warmest contrasted month [M].....(Tcmax): 23.7 (8)
 First coldest contrasted month [m].....(Tcmin): 10.0 (8)
 Estival temperature.....(Ts): 494
 Positive temperature dryest 3 months.....(Tpd): 494
 Positive temperature dryest 2 months.....(Tpd2): 342
 Positive temperature dryest 1 month.....(Tpd1): 173
 Positive temperature warmest 3 months.....(Tps): 494
 Positive temperature warmest 2 months.....(Tps2): 342
 Positive temperature warmest 1 month.....(Tps1): 173
 Positive temperature coldest 3 months.....(Tpw): 176
 Positive temperature coldest 2 months.....(Tpw2): 115
 Positive temperature coldest 1 month.....(Tpw1): 56

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.50
 Mediterranean index of July.[PE/P].....(Im1): 8.87
 Mediterranean index of July & August.....(Im2): 4.14
 Mediterranean index of June, July & August....(Im3): 2.58

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	2130	1750	1800	1160	630	1030	650	120	370	740	900	1900
Tp	59	56	61	86	89	118	152	173	169	150	124	89
Io (Iom)	36.1	31.3	29.5	13.5	7.08	8.73	4.28	0.69	2.19	4.93	7.26	21.3
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	5680 / 176			2820 / 293			1140 / 494			3540 / 363		
Io (Iot)	32.27			9.625			2.308			9.752		
Semesters	December-May						June-November					
Pp(x10)/Tp	8500 / 469						4680 / 857					
Io (Iosm)	18.12						5.461					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 13180/1326=9.94 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	2130	1750	1800	1160	630	1030	650	120	370	740	900	1900
Tp [T*10]	59	56	61	86	89	118	152	173	169	150	124	89
Iom [Pp/Tp]	\$\$	\$\$	\$\$	\$\$	708	873	428	69	219	493	726	\$\$
Avm [200-Iom]	***	***	***	***	***	***	***	131	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	5680 / 176			2820 / 293			1140 / 494			3540 / 363		
Iot [Pp/Tp]	\$\$			962			231			975		
Avs E[Avm<200]	***			***			***			***		
Weak lower arid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 11.70
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 8.66
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 10.85
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.76
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 119.28
 + Temperate humid (160>R>100)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 62.61
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 233.09
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 0.84
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 2.01
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 34.42
 + 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: 4. Mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	1.22	1.23	0.69	0.35	0.54	0.29	0.04	0.15	0.34	0.46	1.18	1.49
T-E ratio	2.52	2.74	3.87	4.00	5.31	6.84	7.78	7.60	6.75	5.58	4.00	2.66
Precipitation-effectiveness: 79.87						Temperature-efficiency: 59.67						
Moisture Index [MI=100*(P-PE)/PE]: 101.49 + A.Extremely humid (MI>100)												
Index of dryness [DI=100*d/PE]: 12.18 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]: 113.68 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 654.14 + First mesothermic (570<PE<712)												

