

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

S.Rivas-Martinez(+) & S.Rivas-Saenz

(Adapted to Synoptical Table 14/02/2020)

COBAR (AUSTRALIA)

Altitude: 264 m.

Latitude: 31°29'S Longitude: 145°49'E

Temperature observation period.: 1962-1993 (32)

Rainfall observation period....: 1962-1993 (32)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	26.67	34.79	18.86	0.00	0.00	53.3	164.23
Feb.	26.59	35.17	17.63	0.00	0.00	39.9	140.31
Mar.	23.47	27.88	19.43	0.00	0.00	39.9	111.80
Apr.	18.92	22.80	15.00	0.00	0.00	30.3	64.87
May.	14.33	17.89	11.06	0.00	0.00	34.3	35.48
Jun.	11.09	15.23	6.78	0.00	0.00	24.3	19.76
Jul.	10.25	15.13	5.38	0.00	0.00	30.0	17.85
Aug.	11.84	15.84	7.71	0.00	0.00	40.8	25.46
Sep.	15.01	19.36	10.59	0.00	0.00	22.4	42.81
Oct.	19.04	23.78	14.03	0.00	0.00	32.8	77.46
Nov.	22.39	28.06	16.69	0.00	0.00	29.6	109.34
Dec.	25.31	31.90	18.90	0.00	0.00	41.1	148.61
Year	18.74	23.99	13.50	0.00	0.00	419	957.98

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	393
Compensated thermicity index.....(Itc):	393
Simple continentality index.....(Ic):	16.4
Diurnality index.....(Id):	17.5
Annual ombrothermic index.....(Io):	1.86
Monthly estival ombrothermic index.....(Ios1):	1.50
Bimonthly estival ombrothermic index.....(Ios2):	1.75
Threemonthly estival ombrothermic index.....(Ios3):	1.71
Fourmonthly estival ombrothermic index.....(Ios4):	1.62
Annual ombro-evaporation index.....(Ioe):	0.44
Annual positive temperature.....(Tp):	2249
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	786
Positive precipitation.....(Pp):	419

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	0	4	8	0	0

Latitudinal Belt...: Subtropical

Continentality.....: Oceanic - Low Euoceanic

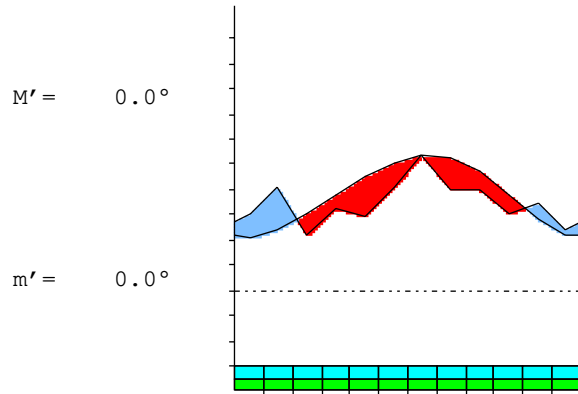
Bioclimate.....: MEDITERRANEAN XERIC-OCEANIC

Bioclimatic Belt...: UPPER THERMOMEDITERRANEAN UPPER SEMIARID

COBAR (AUSTRALIA)

264 m

P= 419      31° 29' S      145° 49' E      32/32 y.  
 T= 18.7 °    Ic= 16.4      Tp= 2249      Tn= 0  
 m= 5.4 °    M= 15.1 °    Itc= 393      Io= 1.9



MEDITERRANEAN XERIC-OCEANIC  
 UPPER THERMOMEDITERRANEAN UPPER SEMIARID

WATER INDEX CARD      COBAR (AUSTRALIA)  
 Altitude: 264 m.      Latitude: 31° 29' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	10.3	18	30	12	17	18	0	0	0	0.6
Aug.	11.8	25	41	15	32	25	0	0	0	0.6
Sep.	15.0	43	22	-20	12	43	0	0	0	-0.4
Oct.	19.0	77	33	-12	0	45	33	0	0	-0.5
Nov.	22.4	109	30	0	0	30	80	0	0	-0.7
Dec.	25.3	149	41	0	0	41	107	0	0	-0.7
Jan.	26.7	164	53	0	0	53	111	0	0	-0.6
Feb.	26.6	140	40	0	0	40	100	0	0	-0.7
Mar.	23.5	112	40	0	0	40	72	0	0	-0.6
Apr.	18.9	65	30	0	0	30	35	0	0	-0.5
May.	14.3	35	34	0	0	34	1	0	0	0.0
Jun.	11.1	20	24	5	5	20	0	0	0	0.2
Year	18.7	958	419	*	*	419	539	0	0	*

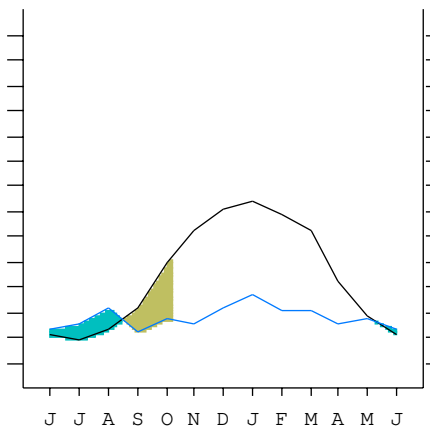
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

COBAR (AUSTRALIA)

31°29' S 145°49' E      264 m 32/32 y.

T= 18.7    Ic= 16.4      MEDITERRANEAN XERIC-OCEANIC  
 m= 5.4    Tp= 2249      UPPER THERMOMEDITERRANEAN  
 M= 15.1    Tn= 0      UPPER SEMIARID  
 M' = 0.0    Itc= 393  
 m' = 0.0    Io= 1.9  
 P= 419      mm ———  
 PE= 958     mm ———

Imbibing	7 May.
Saturation	13 Aug.
Reserve Use	8 Oct.
Deficit	



COBAR (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [B2b]  
 + Type .....: B. Oceanic  
 + Subtype .....: 2. Euoceanic  
 + Variant .....: b. Low

Thermic types [A3.A3]  
 + Latitudinal zone ....: A. Warm  
 + Latitudinal belt ....: 3. Subtropical  
 + Thermic type .....: A. Warm  
 + Thermic subtype .....: 3. Subwarm

Bioclimatic types [B6.2a.4a]  
 + Macrobioclimate .....: B. MEDITERRANEAN  
 + Bioclimate .....: 6. XERIC-OCEANIC  
 + Bioclimatic variant .:  
 + Thermic type.....: 2. THERMOMEDITERRANEAN  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 4. SEMIARID  
 + Ombrothermic subtype : a. UPPER

Bioclimatic Classification .....Mexo.Tme.Sar.Euo

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 237  
 Coldest semester of the year.....(Psw): 182  
 Warmest four months period of the year.....(Pcm1): 174  
 Following warmest four months period.....(Pcm2): 119  
 Positive precipitation dryest 3 months.....(Ppd): 85  
 Positive precipitation dryest 2 months.....(Ppd2): 54  
 Positive precipitation dryest 1 month.....(Ppd1): 22  
 Positive precipitation warmest 3 months.....(Pps): 134  
 Positive precipitation warmest 2 months.....(Pps2): 93  
 Positive precipitation warmest 1 month.....(Pps1): 53  
 Positive precipitation coldest 3 months.....(Ppw): 95  
 Positive precipitation coldest 2 months.....(Ppw2): 54  
 Positive precipitation coldest 1 month.....(Ppw1): 30

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	95	84	134	104

Seasonal rainfall rhythms: S > F > W > P

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.7  
 Average coldest month [T].....(Tmin): 10.3  
 Maximum temp. warmest month [M].....(Tmmax): 35.2  
 Minimum temp. coldest month [m].....(Tmmin): 5.4  
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0  
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.0  
 First warmest contrasted month [M].....(Tcmax): 35.2 (2)  
 First coldest contrasted month [m].....(Tcmin): 17.6 (2)  
 Estival temperature.....(Ts): 786  
 Positive temperature dryest 3 months.....(Tpd): 564  
 Positive temperature dryest 2 months.....(Tpd2): 213  
 Positive temperature dryest 1 month.....(Tpd1): 150  
 Positive temperature warmest 3 months.....(Tps): 786  
 Positive temperature warmest 2 months.....(Tps2): 533  
 Positive temperature warmest 1 month.....(Tps1): 267  
 Positive temperature coldest 3 months.....(Tpw): 332  
 Positive temperature coldest 2 months.....(Tpw2): 213  
 Positive temperature coldest 1 month.....(Tpw1): 103

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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)												
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 2.29  
 Mediterranean index of January.....(Im1): 3.08  
 Mediterranean index of January & February....(Im2): 3.27  
 Mediterranean index of December to February...(Im3): 3.37

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	411	533	399	399	303	343	243	300	408	224	328	296
Tp	253	267	266	235	189	143	111	103	118	150	190	224
Io (Iom)	1.63	2.00	1.50	1.70	1.60	2.39	2.19	2.93	3.45	1.49	1.72	1.32
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	1343 / 786			1045 / 567			952 / 332			848 / 564		
Io (Iot)	1.710			1.842			2.869			1.502		
Semesters	December-May						June-November					
Pp(x10)/Tp	2388 / 1353						1800 / 896					
Io (Iosm)	1.765						2.008					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 4188/2249=1.86 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	411	533	399	399	303	343	243	300	408	224	328	296
TP [T*10]	253	267	266	235	189	143	111	103	118	150	190	224
Iom [Pp/TP]	163	200	150	170	160	239	219	293	345	149	172	132
Avm [200-Iom]	37	0	50	30	40	***	***	***	***	51	28	68
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	1343 / 786			1045 / 567			952 / 332			848 / 564		
Iot [Pp/TP]	171			184			287			150		
Avs E[Avm<200]	88			***			***			146		
Weak lower semiarid [2]							Strong upper semiarid [4]					
Weak upper semiarid [3]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 16.42  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 33.05  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 28.14  
 + Oceanic (20<CI<40)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 1.43  
 + Subcontinental (1.1<CI<1.7)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 22.35  
 + Steppic (40>R>0)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 14.57  
 + Arid -steppic- (15>Ia>5)  
 I of Emberger (1930) [Q=100\*P/(Tmax<sup>2</sup>-Tmin<sup>2</sup>)] .....: 34.67  
 + Semiarid (50>Q>30)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 4.48  
 + Arid (6>DR>3)  
 Aridity Index of UNEP [I=P/PE] .....: 0.44  
 + Semiarid (0.5>Im>0.2)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 6.77  
 + 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	0.18	0.13	0.14	0.11	0.15	0.11	0.15	0.19	0.09	0.12	0.10	0.14
T-E ratio	12.00	11.97	10.56	8.51	6.45	4.99	4.61	5.33	6.75	8.57	10.08	11.39
Precipitation-effectiveness: 16.08						Temperature-efficiency .....: 101.21						
Moisture Index [MI=100*(P-PE)/PE] .....: -56.28 + D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE] .....: 56.27 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE .....: 957.98 + Third mesothermic (855<PE<997)												

