

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

GABO ISLAND (AUSTRALIA)

Altitude: 15 m.

Latitude: 37°34'S Longitude: 149°55'E

Temperature observation period.: 1936-1994 (59)

Rainfall observation period....: 1916-1994 (79)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	18.34	21.11	15.56	39.44	5.00	71.1	97.66
Feb.	18.89	21.67	16.11	38.89	6.11	68.6	86.53
Mar.	18.34	21.11	15.56	38.33	3.33	73.7	83.60
Apr.	16.11	18.89	13.33	31.67	2.78	83.8	59.94
May.	13.89	16.67	11.11	28.89	0.56	99.1	45.00
Jun.	11.95	15.00	8.89	28.33	0.00	106.7	33.10
Jul.	11.11	13.89	8.33	26.67	-0.56	86.4	31.56
Aug.	9.16	10.00	8.33	26.67	0.00	71.1	25.93
Sep.	12.77	16.11	9.44	29.44	0.00	76.2	45.65
Oct.	14.17	17.22	11.11	33.89	2.22	78.7	60.73
Nov.	15.56	18.33	12.78	35.00	1.11	66.0	72.84
Dec.	17.22	20.00	14.44	38.33	3.89	61.0	91.07
Year	14.79	17.50	12.08	32.96	2.04	942	733.60

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	331
Compensated thermicity index.....(Itc):	331
Simple continentality index.....(Ic):	9.7
Diurnality index.....(Id):	6.7
Annual ombrothermic index.....(Io):	5.31
Monthly estival ombrothermic index.....(Ios1):	3.54
Bimonthly estival ombrothermic index.....(Ios2):	3.75
Threemonthly estival ombrothermic index.....(Ios3):	3.69
Fourmonthly estival ombrothermic index.....(Ios4):	3.81
Annual ombro-evaporation index.....(Ioe):	0.82
Annual positive temperature.....(Tp):	1775
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	545
Positive precipitation.....(Pp):	942

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	9	3	0	0	0

Latitudinal Belt...: Low eutemperate

Continentalty.....: Hyperoceanic - High Subhyperoceanic

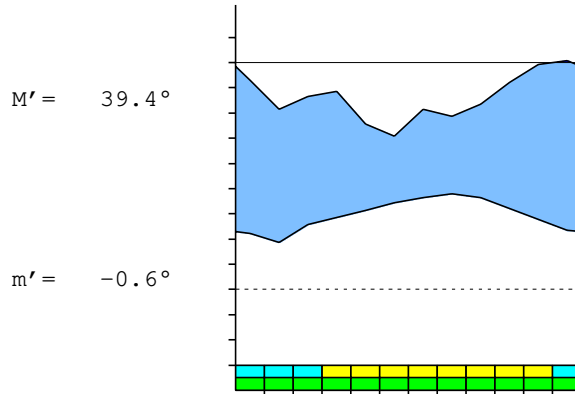
Bioclimate.....: TEMPERATE HYPEROCEANIC

Bioclimatic Belt...: UPPER THERMOTEMPERATE UPPER SUBHUMID

GABO ISLAND (AUSTRALIA)

15 m

P= 942 37° 34'S 149° 55'E 59/79 y.  
 T= 14.8° Ic= 9.7 Tp= 1775 Tn= 0  
 m= 8.3° M= 10.0° Itc= 331 Io= 5.3



TEMPERATE HYPEROCEANIC  
 UPPER THERMOTEMPERATE UPPER SUBHUMID

WATER INDEX CARD  
 Altitude: 15 m.

GABO ISLAND (AUSTRALIA)  
 Latitude: 37° 34'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	11.1	32	86	0	100	32	0	55	43	1.7
Aug.	9.2	26	71	0	100	26	0	45	44	1.7
Sep.	12.8	46	76	0	100	46	0	31	37	0.6
Oct.	14.2	61	79	0	100	61	0	18	28	0.2
Nov.	15.6	73	66	-7	93	73	0	0	14	0.0
Dec.	17.2	91	61	-30	63	91	0	0	7	-0.3
Jan.	18.3	98	71	-27	37	98	0	0	3	-0.2
Feb.	18.9	87	69	-18	19	87	0	0	2	-0.2
Mar.	18.3	84	74	-10	9	84	0	0	1	-0.1
Apr.	16.1	60	84	24	33	60	0	0	0	0.3
May.	13.9	45	99	54	87	45	0	0	0	1.2
Jun.	11.9	33	107	13	100	33	0	60	30	2.2
Year	14.8	734	942	*	*	734	0	209	209	*

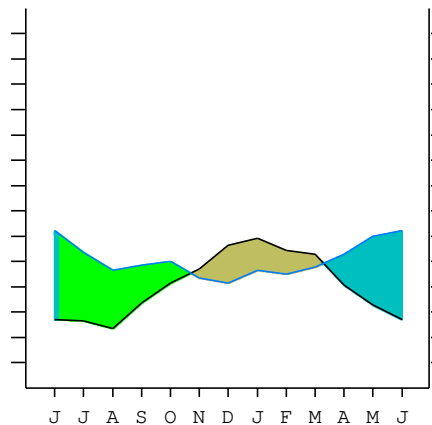
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration  
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

GABO ISLAND (AUSTRALIA)

37°34'S 149°55'E 15 m 59/79 y.

T= 14.8 Ic= 9.7 TEMPERATE HYPEROCEANIC  
 m= 8.3 Tp= 1775 UPPER THERMOTEMPERATE  
 M= 10.0 Tn= 0 UPPER SUBHUMID  
 M' = 39.4 Itc= 331  
 m' = -0.6 Io= 5.3  
 P= 942 mm  
 PE= 734 mm

Imbibing	9 Mar.
Saturation	6 Jun.
Reserve Use	22 Oct.
Deficit	



GABO ISLAND (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3a]  
 + Type .....: A. Hyperoceanic  
 + Subtype .....: 3. Subhyperoceanic  
 + Variant .....: a. High  
 Thermic types [B1.B4]  
 + Latitudinal zone ....: B. Temperate  
 + Latitudinal belt ....: 1. Low eutemperate  
 + Thermic type .....: B. Temperate  
 + Thermic subtype .....: 4. Temperate  
 Bioclimatic types [C4.2a.6a]  
 + Macrobioclimate .....: C. TEMPERATE  
 + Bioclimate .....: 4. HYPEROCEANIC  
 + Bioclimatic variant ..:  
 + Thermic type.....: 2. THERMOTEMPERATE  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 6. SUBHUMID  
 + Ombrothermic subtype : a. UPPER  
 Bioclimatic Classification .....: Texe.Tte.Shu

GABO ISLAND (AUSTRALIA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 424  
 Coldest semester of the year.....(Psw): 518  
 Warmest four months period of the year.....(Pcm1): 274  
 Following warmest four months period.....(Pcm2): 376  
 Positive precipitation dryest 3 months.....(Ppd): 198  
 Positive precipitation dryest 2 months.....(Ppd2): 127  
 Positive precipitation dryest 1 month.....(Ppd1): 61  
 Positive precipitation warmest 3 months.....(Pps): 213  
 Positive precipitation warmest 2 months.....(Pps2): 140  
 Positive precipitation warmest 1 month.....(Pps1): 69  
 Positive precipitation coldest 3 months.....(Ppw): 264  
 Positive precipitation coldest 2 months.....(Ppw2): 158  
 Positive precipitation coldest 1 month.....(Ppw1): 71

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	264	220	200	256

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 18.9  
 Average coldest month [T].....(Tmin): 9.2  
 Maximum temp. warmest month [M].....(Tmmax): 21.7  
 Minimum temp. coldest month [m].....(Tmmin): 8.3  
 Absolute Max.temp. warmest month [M'].....(Tamax): 39.4  
 Absolute Min.temp. coldest month [m'].....(Tamin): -0.6  
 First warmest contrasted month [M].....(Tcmax): 16.1 (9)  
 First coldest contrasted month [m].....(Tcmin): 9.4 (9)  
 Estival temperature.....(Ts): 545  
 Positive temperature dryest 3 months.....(Tpd): 511  
 Positive temperature dryest 2 months.....(Tpd2): 328  
 Positive temperature dryest 1 month.....(Tpd1): 172  
 Positive temperature warmest 3 months.....(Tps): 556  
 Positive temperature warmest 2 months.....(Tps2): 372  
 Positive temperature warmest 1 month.....(Tps1): 189  
 Positive temperature coldest 3 months.....(Tpw): 322  
 Positive temperature coldest 2 months.....(Tpw2): 203  
 Positive temperature coldest 1 month.....(Tpw1): 92

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.78  
 Mediterranean index of January.....(Im1): 1.37  
 Mediterranean index of January & February.....(Im2): 1.32  
 Mediterranean index of December to February...(Im3): 1.37

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	610	711	686	737	838	991	1067	864	711	762	787	660
Tp	172	183	189	183	161	139	120	111	92	128	142	156
Io (Iom)	3.54	3.88	3.63	4.02	5.20	7.13	8.93	7.78	7.76	5.97	5.55	4.24
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	2007 / 544			2566 / 483			2642 / 322			2209 / 425		
Io (Iot)	3.686			5.308			8.200			5.198		
Semesters	December-May						June-November					
Pp(x10)/Tp	4573 / 1028						4851 / 747					
Io (Iosm)	4.449						6.492					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 9424/1775=5.31 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	610	711	686	737	838	991	1067	864	711	762	787	660
Tp [T*10]	172	183	189	183	161	139	120	111	92	128	142	156
Iom [Pp/Tp]	354	388	363	402	520	713	893	778	776	597	555	424
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	2007 / 544			2566 / 483			2642 / 322			2209 / 425		
Iot [Pp/Tp]	369			531			820			520		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 9.73  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 6.73  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 8.41  
 + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 0.72  
 + Oceanic (0.6<CI<1.1)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 63.71  
 + Temperate warm (100>R>60)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 38.01  
 + Humid (60>Ia>30)  
 I of Emberger (1930) [Q=100\*P/(Tmax<sup>2</sup>-Tmin<sup>2</sup>)] .....: 235.48  
 + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 1.57  
 + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] .....: 1.28  
 + Humid (I>0.65)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 12.08  
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....: A. Warm and temperate warm  
 + Region .....: 7. Mesoaxeric (Axic temperate)  
 + Thermic type: 4. Mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.30	0.28	0.31	0.38	0.49	0.56	0.46	0.39	0.38	0.37	0.30	0.26
T-E ratio	8.25	8.50	8.25	7.25	6.25	5.38	5.00	4.12	5.75	6.38	7.00	7.75
Precipitation-effectiveness: 44.77						Temperature-efficiency .....: 79.88						
Moisture Index [MI=100*(P-PE)/PE] .....: 28.46 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE] .....: 0.00 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE] .....: 28.45 + Strong surplus (20<HI)												
Potential Evapotranspiration PE .....: 733.60 + Second mesothermic (712<PE<855)												

