

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

BATHURST (AUSTRALIA)

Altitude: 741 m.

Latitude: 33°25'S Longitude: 149°39'E

Temperature observation period.: 1960-1994 (35)

Rainfall observation period....: 1922-1994 (73)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	21.67	30.00	13.33	0.00	0.00	61.0	122.19
Feb.	21.11	29.44	12.78	0.00	0.00	54.1	101.13
Mar.	18.62	26.67	10.56	0.00	0.00	52.1	86.00
Apr.	14.17	22.22	6.11	0.00	0.00	40.1	51.43
May.	9.73	16.67	2.78	0.00	0.00	42.9	28.63
Jun.	6.94	12.78	1.11	0.00	0.00	49.0	16.22
Jul.	6.11	12.22	0.00	0.00	0.00	43.9	14.31
Aug.	7.50	14.44	0.56	0.00	0.00	41.9	20.76
Sep.	10.56	17.78	3.33	0.00	0.00	43.9	35.80
Oct.	13.89	22.22	5.56	0.00	0.00	54.1	60.07
Nov.	17.50	26.11	8.89	0.00	0.00	54.1	85.32
Dec.	20.00	28.89	11.11	0.00	0.00	56.1	110.64
Year	13.98	21.62	6.34	0.00	0.00	593	732.50

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	262
Compensated thermicity index.....(Itc):	262
Simple continentality index.....(Ic):	15.6
Diurnality index.....(Id):	17.8
Annual ombrothermic index.....(Io):	3.54
Monthly estival ombrothermic index.....(Ios1):	2.56
Bimonthly estival ombrothermic index.....(Ios2):	2.69
Three monthly estival ombrothermic index.....(Ios3):	2.73
Four monthly estival ombrothermic index.....(Ios4):	2.81
Annual ombro-evaporation index.....(Ioe):	1.15
Annual positive temperature.....(Tp):	1678
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	628
Positive precipitation.....(Pp):	593

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	7	0	0	0

Latitudinal Belt...: Subtropical

Continentalty.....: Oceanic - Low Euoceanic

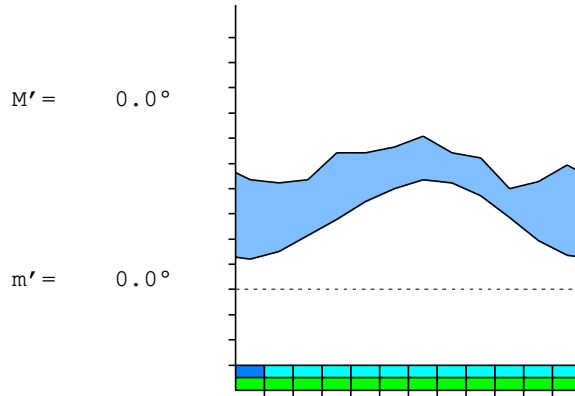
Bioclimate(Variant): TEMPERATE XERIC (SUBMEDITERRANEAN)

Bioclimatic Belt...: LOW MESOTEMPERATE UPPER DRY

BATHURST (AUSTRALIA)

741 m

P= 593 33° 25' S 149° 39' E 35/73 y.
 T= 14.0° Ic= 15.6 Tp= 1678 Tn= 0
 m= 0.0° M= 12.2° Itc= 262 Io= 3.5



TEMPERATE XERIC (SUBMEDITERRANEAN)
 LOW MESOTEMPERATE UPPER DRY

WATER INDEX CARD

BATHURST (AUSTRALIA)

Altitude: 741 m.

Latitude: 33° 25' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	6.1	14	44	30	77	14	0	0	0	2.0
Aug.	7.5	21	42	21	98	21	0	0	0	1.0
Sep.	10.6	36	44	2	100	36	0	6	3	0.2
Oct.	13.9	60	54	-6	94	60	0	0	1	0.0
Nov.	17.5	85	54	-31	63	85	0	0	1	-0.3
Dec.	20.0	111	56	-55	8	111	0	0	0	-0.4
Jan.	21.7	122	61	-8	0	69	53	0	0	-0.5
Feb.	21.1	101	54	0	0	54	47	0	0	-0.4
Mar.	18.6	86	52	0	0	52	34	0	0	-0.3
Apr.	14.2	51	40	0	0	40	11	0	0	-0.2
May.	9.7	29	43	14	14	29	0	0	0	0.4
Jun.	6.9	16	49	33	47	16	0	0	0	2.0
Year	14.0	733	593	*	*	587	145	6	6	*

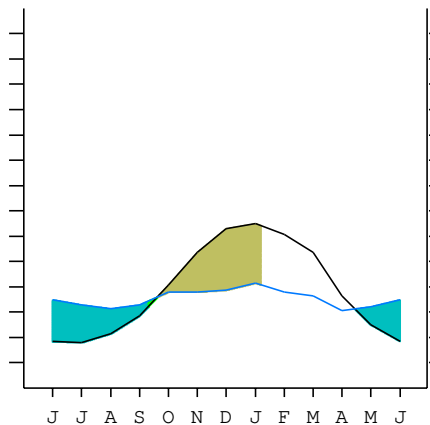
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

BATHURST (AUSTRALIA)

33°25' S 149°39' E 741 m 35/73 y.

T= 14.0 Ic= 15.6 TEMPERATE XERIC (SUBMEDITERRANEAN)
 m= 0.0 Tp= 1678 LOW MESOTEMPERATE
 M= 12.2 Tn= 0 UPPER DRY
 M' = 0.0 Itc= 262
 m' = 0.0 Io= 3.5
 P= 593 mm ———
 PE= 733 mm ———

Imbibing	14 Apr.
Saturation	9 Sep.
Reserve Use	18 Sep.
Deficit	5 Jan.



BATHURST (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B2b]
 + Type: B. Oceanic
 + Subtype: 2. Euoceanic
 + Variant: b. Low
 Thermic types [A3.B4]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: B. Temperate
 + Thermic subtype: 4. Temperate
 Bioclimatic types [C1b.3b.5a]
 + Macrobioclimate: C. TEMPERATE
 + Bioclimate: 1. XERIC
 + Bioclimatic variant .: b. SUBMEDITERRANEAN
 + Thermic type.....: 3. MESOTEMPERATE
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Teho (Sbm) .Mte.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 318
 Coldest semester of the year.....(Psw): 276
 Warmest four months period of the year.....(Pcm1): 223
 Following warmest four months period.....(Pcm2): 176
 Positive precipitation dryest 3 months.....(Ppd): 130
 Positive precipitation dryest 2 months.....(Ppd2): 83
 Positive precipitation dryest 1 month.....(Ppd1): 40
 Positive precipitation warmest 3 months.....(Pps): 171
 Positive precipitation warmest 2 months.....(Pps2): 115
 Positive precipitation warmest 1 month.....(Pps1): 61
 Positive precipitation coldest 3 months.....(Ppw): 135
 Positive precipitation coldest 2 months.....(Ppw2): 93
 Positive precipitation coldest 1 month.....(Ppw1): 44

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	134	152	171	135

Seasonal rainfall rhythms: S > P > F > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 21.7
 Average coldest month [T].....(Tmin): 6.1
 Maximum temp. warmest month [M].....(Tmmax): 30.0
 Minimum temp. coldest month [m].....(Tmmin): 0.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.0
 First warmest contrasted month [M].....(Tcmax): 28.9 (12)
 First coldest contrasted month [m].....(Tcmin): 11.1 (12)
 Estival temperature.....(Ts): 628
 Positive temperature dryest 3 months.....(Tpd): 242
 Positive temperature dryest 2 months.....(Tpd2): 239
 Positive temperature dryest 1 month.....(Tpd1): 142
 Positive temperature warmest 3 months.....(Tps): 628
 Positive temperature warmest 2 months.....(Tps2): 428
 Positive temperature warmest 1 month.....(Tps1): 217
 Positive temperature coldest 3 months.....(Tpw): 206
 Positive temperature coldest 2 months.....(Tpw2): 131
 Positive temperature coldest 1 month.....(Tpw1): 61

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.23
 Mediterranean index of January.....(Im1): 2.00
 Mediterranean index of January & February.....(Im2): 1.94
 Mediterranean index of December to February...(Im3): 1.95

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	561	610	541	521	401	429	490	439	419	439	541	541
Tp	200	217	211	186	142	97	69	61	75	106	139	175
Io (Iom)	2.81	2.81	2.56	2.80	2.83	4.41	7.06	7.18	5.59	4.16	3.89	3.09
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	1712 / 628			1351 / 425			1348 / 206			1521 / 420		
Io (Iot)	2.727			3.177			6.560			3.626		
Semesters	December-May						June-November					
Pp(x10)/Tp	3063 / 1053						2869 / 625					
Io (Iosm)	2.909						4.590					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5932/1678=3.54 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	561	610	541	521	401	429	490	439	419	439	541	541
Tp [T*10]	200	217	211	186	142	97	69	61	75	106	139	175
Iom [Pp/Tp]	281	281	256	280	283	441	706	718	559	416	389	309
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	1712 / 628			1351 / 425			1348 / 206			1521 / 420		
Iot [Pp/Tp]	273			318			656			363		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 15.56
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	27.63
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	24.49
+ Oceanic (20<CI<40)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.28
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	42.42
+ Semiarid (60>R>40)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	24.73
+ Subhumid (30>Ia>20)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	65.91
+ Subhumid (90>Q>50)	
I of Dantin & Revenga (1940) [DR=100*T/P]	2.36
+ Semiarid (3>DR>2)	
Aridity Index of UNEP [I=P/PE]	0.81
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	6.27
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 4. Mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.23	0.20	0.21	0.18	0.22	0.28	0.26	0.23	0.22	0.25	0.22	0.22
T-E ratio	9.75	9.50	8.38	6.38	4.38	3.12	2.75	3.38	4.75	6.25	7.88	9.00
Precipitation-effectiveness: 27.22						Temperature-efficiency						75.51
Moisture Index [MI=100*(P-PE)/PE]												-19.02
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												19.81
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]												0.79
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												732.50
+ Second mesothermic (712<PE<855)												

