

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

NORMANTON (AUSTRALIA)

Altitude: 9 m.

Latitude: 17°40'S Longitude: 141°5'E

Temperature observation period.: 1968-1994 (27)

Rainfall observation period....: 1926-1994 (69)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	30.00	35.00	25.00	43.33	16.67	276.9	184.77
Feb.	29.45	33.89	25.00	40.56	17.78	254.0	157.52
Mar.	29.17	34.44	23.89	41.67	15.56	154.9	164.71
Apr.	27.78	33.89	21.67	40.00	12.22	38.1	141.37
May.	25.28	31.67	18.89	38.33	15.00	7.6	105.06
Jun.	22.78	29.44	16.11	35.56	7.22	10.2	65.50
Jul.	21.95	28.89	15.00	36.11	5.56	5.1	58.85
Aug.	23.61	31.11	16.11	36.67	7.78	2.5	82.24
Sep.	26.67	33.89	19.44	40.56	10.56	2.5	136.86
Oct.	29.17	36.11	22.22	43.89	10.56	10.2	170.99
Nov.	30.83	37.22	24.44	43.33	12.22	45.7	183.77
Dec.	30.56	36.11	25.00	43.33	12.78	142.2	191.52
Year	27.27	33.47	21.06	40.28	11.99	950	1643.2

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	712
Compensated thermicity index.....(Itc):	712
Simple continentality index.....(Ic):	8.9
Diurnality index.....(Id):	15.0
Annual ombrothermic index.....(Io):	2.90
Monthly dry ombrothermic index.....(Iod1):	0.11
Bimonthly dry ombrothermic index.....(Iod2):	0.10
Three monthly dry ombrothermic index.....(Iod3):	0.14
Four monthly dry ombrothermic index.....(Iod4):	0.21
Annual ombro-evaporation index.....(Ioe):	13.39
Annual positive temperature.....(Tp):	3273
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	722
Positive precipitation.....(Pp):	950

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	4	0	2	6	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Subhyperoceanic

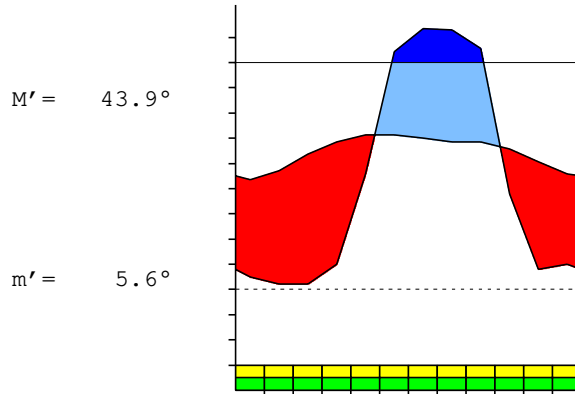
Bioclimate(Variant): TROPICAL XERIC (DRY)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER DRY

NORMANTON (AUSTRALIA)

9 m

P= 950 17° 40'S 141° 5'E 27/69 y.
 T= 27.3° Ic= 8.9 Tp= 3273 Tn= 0
 m= 15.0° M= 28.9° Itc= 712 Io= 2.9



TROPICAL XERIC (DRY)
 UPPER INFRATROPICAL UPPER DRY

WATER INDEX CARD NORMANTON (AUSTRALIA)
 Altitude: 9 m. Latitude: 17° 40'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	22.0	59	5	0	0	5	54	0	1	-0.9
Aug.	23.6	82	3	0	0	3	80	0	1	-0.9
Sep.	26.7	137	3	0	0	3	134	0	0	-0.9
Oct.	29.2	171	10	0	0	10	161	0	0	-0.9
Nov.	30.8	184	46	0	0	46	138	0	0	-0.7
Dec.	30.6	192	142	0	0	142	49	0	0	-0.2
Jan.	30.0	185	277	92	92	185	0	0	0	0.4
Feb.	29.5	158	254	8	100	158	0	89	44	0.6
Mar.	29.2	165	155	-10	90	165	0	0	22	0.0
Apr.	27.8	141	38	-90	0	128	13	0	11	-0.7
May.	25.3	105	8	0	0	8	97	0	6	-0.9
Jun.	22.8	65	10	0	0	10	55	0	3	-0.8
Year	27.3	1643	950	*	*	861	782	89	89	*

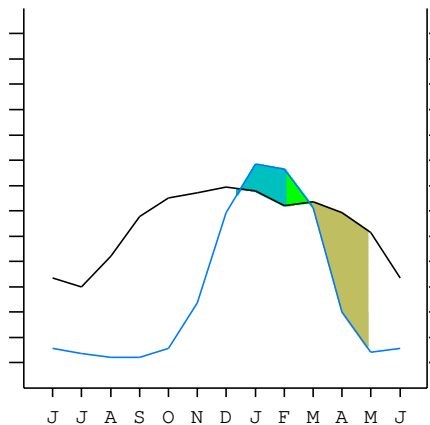
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

NORMANTON (AUSTRALIA)

17°40'S 141°5'E 9 m 27/69 y.

T= 27.3 Ic= 8.9 TROPICAL XERIC (DRY)
 m= 15.0 Tp= 3273 UPPER INFRATROPICAL
 M= 28.9 Tn= 0 UPPER DRY
 M' = 43.9 Itc= 712
 m' = 5.6 Io= 2.9
 P= 950 mm ———
 PE= 1643 mm ———

Imbibing	11 Dec.
Saturation	3 Feb.
Reserve Use	28 Feb.
Deficit	27 Apr.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3a]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: a. High
 Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A3.1a.5a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 3. XERIC
 + Bioclimatic variant .:
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Trxe.Itr.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 884
 Coldest semester of the year.....(Psw): 66
 Warmest four months period of the year.....(Pcm1): 719
 Following warmest four months period.....(Pcm2): 211
 Positive precipitation dryest 3 months.....(Ppd): 10
 Positive precipitation dryest 2 months.....(Ppd2): 5
 Positive precipitation dryest 1 month.....(Ppd1): 3
 Positive precipitation warmest 3 months.....(Pps): 465
 Positive precipitation warmest 2 months.....(Pps2): 188
 Positive precipitation warmest 1 month.....(Pps1): 46
 Positive precipitation coldest 3 months.....(Ppw): 18
 Positive precipitation coldest 2 months.....(Ppw2): 15
 Positive precipitation coldest 1 month.....(Ppw1): 5

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	17	58	673	200

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 30.8
 Average coldest month [T].....(Tmin): 22.0
 Maximum temp. warmest month [M].....(Tmmax): 37.2
 Minimum temp. coldest month [m].....(Tmmin): 15.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 43.9
 Absolute Min.temp. coldest month [m'].....(Tamin): 5.6
 First warmest contrasted month [M].....(Tcmax): 31.1 (8)
 First coldest contrasted month [m].....(Tcmin): 16.1 (8)
 Dry station temperature.....(Td): 722
 Positive temperature dryest 3 months.....(Tpd): 722
 Positive temperature dryest 2 months.....(Tpd2): 503
 Positive temperature dryest 1 month.....(Tpd1): 236
 Positive temperature warmest 3 months.....(Tps): 914
 Positive temperature warmest 2 months.....(Tps2): 614
 Positive temperature warmest 1 month.....(Tps1): 308
 Positive temperature coldest 3 months.....(Tpw): 683
 Positive temperature coldest 2 months.....(Tpw2): 447
 Positive temperature coldest 1 month.....(Tpw1): 220

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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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.73
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February.....(Im2): No
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1422	2769	2540	1549	381	76	102	51	25	25	102	457
Tp	306	300	295	292	278	253	228	220	236	267	292	308
Io (Iom)	4.65	9.23	8.62	5.31	1.37	0.30	0.45	0.23	0.11	0.09	0.35	1.48
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	6731 / 900			2006 / 822			178 / 683			584 / 867		
Io (Iot)	7.478			2.439			0.260			0.674		
Semesters	December-May						June-November					
Pp(x10)/Tp	8737 / 1722						762 / 1550					
Io (Iosm)	5.073						0.492					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 9499/3273=2.90 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1422	2769	2540	1549	381	76	102	51	25	25	102	457
Tp [T*10]	306	300	295	292	278	253	228	220	236	267	292	308
Iom [Pp/Tp]	465	923	862	531	137	30	45	23	11	9	35	148
Avm [200-Iom]	***	***	***	***	63	170	155	177	189	191	165	52
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	6731 / 900			2006 / 822			178 / 683			584 / 867		
Iot [Pp/Tp]	748			244			26			67		
Avs E[Avm<200]	***			***			521			407		
Lower ultrahyperarid [1]						Upper ultrahyperarid [1]						
Lower hyperarid [2]						Upper hyperarid [2]						
Strong lower arid [1]						Weak lower arid [1]						
Weak lower semiarid [2]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	8.88
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		29.34
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		18.51
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.29
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		34.83
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		25.49
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		81.86
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.87
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		0.58
+ Subhumid - dry (0.65>I>0.5)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		80.72
+ Low (60<K<90)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 1. Megathermic

Thornthwaite (1948)													
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
P-E ratio	1.03	0.94	0.55	0.12	0.02	0.03	0.01	0.01	0.01	0.03	0.14	0.48	
T-E ratio	13.50	13.25	13.13	12.50	11.38	10.25	9.88	10.62	12.00	13.13	13.87	13.75	
Precipitation-effectiveness:	33.59					Temperature-efficiency							147.26
Moisture Index [MI=100*(P-PE)/PE]	-42.19												
+ D.Semiarid (-66.7<MI<-33.3)													
Index of dryness [DI=100*d/PE]	47.58												
+ Strong deficit (33.3<DI)													
Index of humidity [HI=100*s/PE]	5.39												
+ No surplus (0<HI<10)													
Potential Evapotranspiration PE	1643.16												
+ Megathermic (PE>1440)													

