

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

WILLIAM CREEK (AUSTRALIA)

Altitude: 75 m.

Latitude: 28°55'S Longitude: 136°21'E

Temperature observation period.: 1950-1994 (45)

Rainfall observation period....: 1964-1994 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	28.06	35.56	20.56	48.33	11.67	12.7	176.10
Feb.	28.34	35.56	21.11	47.22	11.67	15.2	153.23
Mar.	24.72	32.22	17.22	43.89	7.78	7.6	122.34
Apr.	19.73	26.67	12.78	39.44	3.89	7.6	65.73
May.	15.00	21.67	8.33	33.89	-1.67	7.6	34.18
Jun.	12.22	18.33	6.11	30.56	-2.78	12.7	20.06
Jul.	11.67	18.33	5.00	32.22	-3.33	5.1	19.12
Aug.	13.34	20.56	6.11	35.56	-3.89	7.6	27.33
Sep.	16.94	24.44	9.44	38.33	1.67	7.6	48.96
Oct.	21.11	28.89	13.33	43.89	2.78	12.7	89.54
Nov.	25.00	32.78	17.22	45.56	5.00	12.7	133.80
Dec.	27.22	35.00	19.44	46.67	6.11	17.8	169.52
Year	20.28	27.50	13.05	40.46	3.24	127	1059.9

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	436
Compensated thermicity index.....(Itc):	436
Simple continentality index.....(Ic):	16.7
Diurnality index.....(Id):	15.6
Annual ombrothermic index.....(Io):	0.52
Monthly estival ombrothermic index.....(Ios1):	0.45
Bimonthly estival ombrothermic index.....(Ios2):	0.49
Three monthly estival ombrothermic index.....(Ios3):	0.55
Four monthly estival ombrothermic index.....(Ios4):	0.54
Annual ombro-evaporation index.....(Ioe):	1.63
Annual positive temperature.....(Tp):	2434
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	836
Positive precipitation.....(Pp):	127

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	0	0	1	11	0

Latitudinal Belt...: Subtropical

Continentality.....: Oceanic - Low Euoceanic

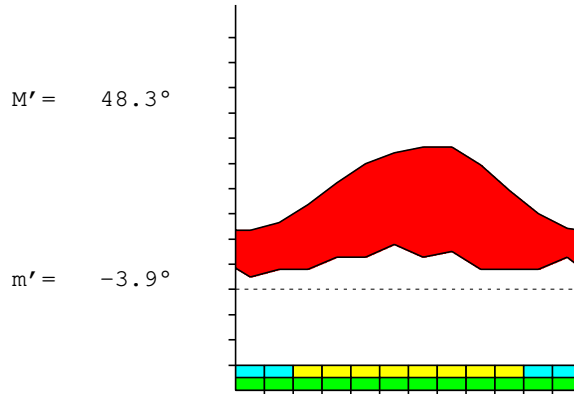
Bioclimate.....: MEDITERRANEAN DESERTIC-OCEANIC

Bioclimatic Belt...: LOW THERMOMEDITERRANEAN LOW ARID

WILLIAM CREEK (AUSTRALIA)

75 m

P= 127 28° 55' S 136° 21' E 45/31 y.
 T= 20.3° Ic= 16.7 Tp= 2434 Tn= 0
 m= 5.0° M= 18.3° Itc= 436 Io= 0.5



MEDITERRANEAN DESERTIC-OCEANIC
 LOW THERMOMEDITERRANEAN LOW ARID

WATER INDEX CARD WILLIAM CREEK (AUSTRALIA)
 Altitude: 75 m. Latitude: 28° 55' S

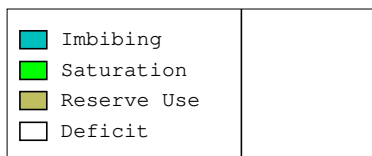
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	11.7	19	5	0	0	5	14	0	0	-0.7
Aug.	13.3	27	8	0	0	8	20	0	0	-0.7
Sep.	16.9	49	8	0	0	8	41	0	0	-0.8
Oct.	21.1	90	13	0	0	13	77	0	0	-0.8
Nov.	25.0	134	13	0	0	13	121	0	0	-0.9
Dec.	27.2	170	18	0	0	18	152	0	0	-0.8
Jan.	28.1	176	13	0	0	13	163	0	0	-0.9
Feb.	28.3	153	15	0	0	15	138	0	0	-0.9
Mar.	24.7	122	8	0	0	8	115	0	0	-0.9
Apr.	19.7	66	8	0	0	8	58	0	0	-0.8
May.	15.0	34	8	0	0	8	27	0	0	-0.7
Jun.	12.2	20	13	0	0	13	7	0	0	-0.3
Year	20.3	1060	127	*	*	127	933	0	0	*

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

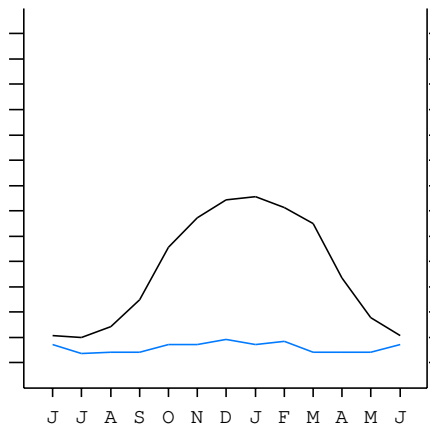
WILLIAM CREEK (AUSTRALIA)

28°55' S 136°21' E 75 m 45/31 y.

T= 20.3 Ic= 16.7 MEDITERRANEAN DESERTIC-OCEANIC
 m= 5.0 Tp= 2434 LOW THERMOMEDITERRANEAN
 M= 18.3 Tn= 0 LOW ARID
 M' = 48.3 Itc= 436
 m' = -3.9 Io= 0.5
 P= 127 mm ———
 PE= 1060 mm ———



All over the year,
 there is hydric deficit



WILLIAM CREEK (AUSTRALIA)

Latitude: 28°55'S Longitude: 136°21'E Altitude: 75 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B2b]
 + Type: B. Oceanic
 + Subtype: 2. Euoceanic
 + Variant: b. Low
 Thermic types [A3.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [B4.2b.3b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 4. DESERTIC-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 3. ARID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Mexc.Tme.Ari

WILLIAM CREEK (AUSTRALIA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 79
 Coldest semester of the year.....(Psw): 48
 Warmest four months period of the year.....(Pcm1): 58
 Following warmest four months period.....(Pcm2): 36
 Positive precipitation dryest 3 months.....(Ppd): 20
 Positive precipitation dryest 2 months.....(Ppd2): 13
 Positive precipitation dryest 1 month.....(Ppd1): 5
 Positive precipitation warmest 3 months.....(Pps): 46
 Positive precipitation warmest 2 months.....(Pps2): 28
 Positive precipitation warmest 1 month.....(Pps1): 15
 Positive precipitation coldest 3 months.....(Ppw): 25
 Positive precipitation coldest 2 months.....(Ppw2): 18
 Positive precipitation coldest 1 month.....(Ppw1): 5

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	25	33	45	22

Seasonal rainfall rhythms: S > P > W > F

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.3
 Average coldest month [T].....(Tmin): 11.7
 Maximum temp. warmest month [M].....(Tmmax): 35.6
 Minimum temp. coldest month [m].....(Tmmin): 5.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 48.3
 Absolute Min.temp. coldest month [m'].....(Tamin): -3.9
 First warmest contrasted month [M].....(Tcmax): 28.9 (10)
 First coldest contrasted month [m].....(Tcmin): 13.3 (10)
 Estival temperature.....(Ts): 836
 Positive temperature dryest 3 months.....(Tpd): 420
 Positive temperature dryest 2 months.....(Tpd2): 250
 Positive temperature dryest 1 month.....(Tpd1): 117
 Positive temperature warmest 3 months.....(Tps): 836
 Positive temperature warmest 2 months.....(Tps2): 564
 Positive temperature warmest 1 month.....(Tps1): 283
 Positive temperature coldest 3 months.....(Tpw): 372
 Positive temperature coldest 2 months.....(Tpw2): 239
 Positive temperature coldest 1 month.....(Tpw1): 117

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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): 8.35
 Mediterranean index of January.....(Im1): 13.87
 Mediterranean index of January & February.....(Im2): 11.80
 Mediterranean index of December to February...(Im3): 10.92

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	178	127	152	76	76	76	127	51	76	76	127	127
Tp	272	281	283	247	197	150	122	117	133	169	211	250
Io (Iom)	0.65	0.45	0.54	0.31	0.39	0.51	1.04	0.44	0.57	0.45	0.60	0.51
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	457 / 836			228 / 594			254 / 372			330 / 631		
Io (Iot)	0.547			0.384			0.682			0.523		
Semesters	December-May						June-November					
Pp(x10)/Tp	685 / 1431						584 / 1003					
Io (Iosm)	0.479						0.582					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1269/2434=0.52 Weak lower arid (6) [1755]

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	178	127	152	76	76	76	127	51	76	76	127	127
Tp [T*10]	272	281	283	247	197	150	122	117	133	169	211	250
Iom [Pp/Tp]	65	45	54	31	39	51	104	44	57	45	60	51
Avm [200-Iom]	135	155	146	169	161	149	96	156	143	155	140	149
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	457 / 836			228 / 594			254 / 372			330 / 631		
Iot [Pp/Tp]	55			38			68			52		
Avs E[Avm<200]	436			480			395			444		
Upper hyperarid [3]							Strong lower arid [3]					
Weak lower arid [9]							Strong lower semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 16.67
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 38.21
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 31.11
 + Oceanic (20<CI<40)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.57
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: 6.26
 + Steppic (40>R>0)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 4.19
 + Extremely arid -desert- (5>Ia>0)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 10.24
 + Arid (30>Q>0)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 15.98
 + Extremely arid (DR>6)
 Aridity Index of UNEP [I=P/PE]: 0.12
 + Arid (0.2>Im>0.05)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 2.50
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 1. Termoeremic (Desertic warm)
 + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.03	0.04	0.02	0.02	0.03	0.05	0.02	0.03	0.03	0.04	0.04	0.05
T-E ratio	12.63	12.75	11.12	8.88	6.75	5.50	5.25	6.00	7.62	9.50	11.25	12.25
Precipitation-effectiveness:	4.05					Temperature-efficiency: 109.51						
Moisture Index [MI=100*(P-PE)/PE]: -88.03 + E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE]: 88.03 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE: 1059.92 + Forth mesothermic (997<PE<1440)												

