

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

KALGOORLIE (AUSTRALIA)

Altitude: 361 m.

Latitude: 30°46'S Longitude: 121°28'E

Temperature observation period.: 1958-1994 (37)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	25.84	33.89	17.78	45.56	8.33	10.2	153.67
Feb.	25.56	33.33	17.78	46.11	8.89	20.3	129.02
Mar.	23.06	30.00	16.11	42.78	6.11	22.9	107.85
Apr.	19.17	25.56	12.78	38.89	2.22	22.9	66.54
May.	15.00	20.56	9.44	33.33	0.00	30.5	38.83
Jun.	12.22	17.22	7.22	27.78	-1.11	30.5	23.97
Jul.	11.39	16.67	6.11	27.22	-2.22	22.9	22.02
Aug.	12.50	18.33	6.67	30.56	-2.22	22.9	28.34
Sep.	15.84	22.78	8.89	35.56	-0.56	12.7	47.64
Oct.	18.34	25.56	11.11	40.56	0.56	17.8	71.74
Nov.	22.50	30.56	14.44	43.89	3.33	15.2	110.37
Dec.	25.00	33.33	16.67	45.00	7.78	17.8	144.94
Year	18.87	25.65	12.08	38.10	2.59	247	944.92

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	416
Compensated thermicity index.....(Itc):	416
Simple continentality index.....(Ic):	14.4
Diurnality index.....(Id):	16.7
Annual ombrothermic index.....(Io):	1.09
Monthly estival ombrothermic index.....(Ios1):	0.39
Bimonthly estival ombrothermic index.....(Ios2):	0.59
Threemonthly estival ombrothermic index.....(Ios3):	0.63
Fourmonthly estival ombrothermic index.....(Ios4):	0.64
Annual ombro-evaporation index.....(Ioe):	0.80
Annual positive temperature.....(Tp):	2264
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	764
Positive precipitation.....(Pp):	247

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	0	3	2	7	0

Latitudinal Belt...: Subtropical

Continentalty.....: Oceanic - High Euoceanic

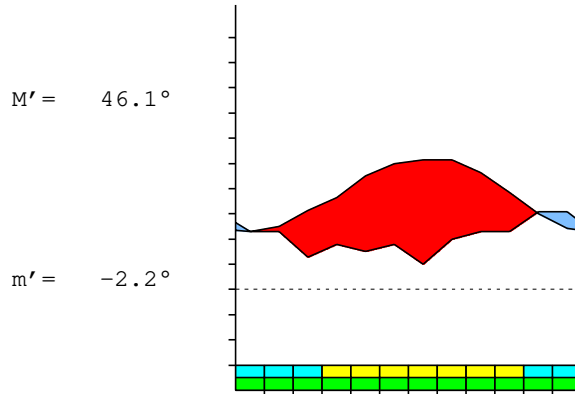
Bioclimate.....: MEDITERRANEAN XERIC-OCEANIC

Bioclimatic Belt...: LOW THERMOMEDITERRANEAN LOW SEMIARID

KALGOORLIE (AUSTRALIA)

361 m

P= 247 30° 46' S 121° 28' E 37/31 y.
 T= 18.9° Ic= 14.4 Tp= 2264 Tn= 0
 m= 6.1° M= 16.7° Itc= 416 Io= 1.1



MEDITERRANEAN XERIC-OCEANIC
 LOW THERMOMEDITERRANEAN LOW SEMIARID

WATER INDEX CARD KALGOORLIE (AUSTRALIA)
 Altitude: 361 m. Latitude: 30° 46' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	11.4	22	23	1	7	22	0	0	0	0.0
Aug.	12.5	28	23	-5	2	28	0	0	0	-0.1
Sep.	15.8	48	13	-2	0	15	33	0	0	-0.7
Oct.	18.3	72	18	0	0	18	54	0	0	-0.7
Nov.	22.5	110	15	0	0	15	95	0	0	-0.8
Dec.	25.0	145	18	0	0	18	127	0	0	-0.8
Jan.	25.8	154	10	0	0	10	143	0	0	-0.9
Feb.	25.6	129	20	0	0	20	109	0	0	-0.8
Mar.	23.1	108	23	0	0	23	85	0	0	-0.7
Apr.	19.2	67	23	0	0	23	44	0	0	-0.6
May.	15.0	39	31	0	0	31	8	0	0	-0.2
Jun.	12.2	24	31	7	7	24	0	0	0	0.2
Year	18.9	945	247	*	*	247	698	0	0	*

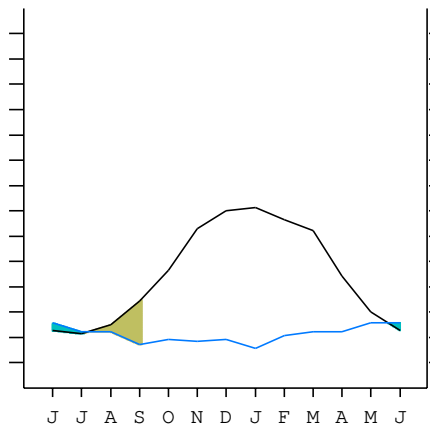
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

KALGOORLIE (AUSTRALIA)

30°46' S 121°28' E 361 m 37/31 y.

T= 18.9 Ic= 14.4 MEDITERRANEAN XERIC-OCEANIC
 m= 6.1 Tp= 2264 LOW THERMOMEDITERRANEAN
 M= 16.7 Tn= 0 LOW SEMIARID
 M' = 46.1 Itc= 416
 m' = -2.2 Io= 1.1
 P= 247 mm
 PE= 945 mm

Imbibing	17 May.
Saturation	5 Jul.
Reserve Use	2 Sep.
Deficit	



KALGOORLIE (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B2a]
 + Type: B. Oceanic
 + Subtype: 2. Euoceanic
 + Variant: a. High
 Thermic types [A3.A3]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm
 Bioclimatic types [B6.2b.4b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 6. XERIC-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 4. SEMIARID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: MepDC.Tme.Sar

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 109
 Coldest semester of the year.....(Psw): 137
 Warmest four months period of the year.....(Pcm1): 71
 Following warmest four months period.....(Pcm2): 107
 Positive precipitation dryest 3 months.....(Ppd): 43
 Positive precipitation dryest 2 months.....(Ppd2): 28
 Positive precipitation dryest 1 month.....(Ppd1): 10
 Positive precipitation warmest 3 months.....(Pps): 48
 Positive precipitation warmest 2 months.....(Pps2): 31
 Positive precipitation warmest 1 month.....(Pps1): 10
 Positive precipitation coldest 3 months.....(Ppw): 76
 Positive precipitation coldest 2 months.....(Ppw2): 53
 Positive precipitation coldest 1 month.....(Ppw1): 23

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	76	45	48	76

Seasonal rainfall rhythms: W > F > S > P

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 25.8
 Average coldest month [T].....(Tmin): 11.4
 Maximum temp. warmest month [M].....(Tmmax): 33.9
 Minimum temp. coldest month [m].....(Tmmin): 6.1
 Absolute Max.temp. warmest month [M'].....(Tamax): 46.1
 Absolute Min.temp. coldest month [m'].....(Tamin): -2.2
 First warmest contrasted month [M].....(Tcmax): 33.3 (12)
 First coldest contrasted month [m].....(Tcmin): 16.7 (12)
 Estival temperature.....(Ts): 764
 Positive temperature dryest 3 months.....(Tpd): 733
 Positive temperature dryest 2 months.....(Tpd2): 508
 Positive temperature dryest 1 month.....(Tpd1): 258
 Positive temperature warmest 3 months.....(Tps): 764
 Positive temperature warmest 2 months.....(Tps2): 514
 Positive temperature warmest 1 month.....(Tps1): 258
 Positive temperature coldest 3 months.....(Tpw): 361
 Positive temperature coldest 2 months.....(Tpw2): 236
 Positive temperature coldest 1 month.....(Tpw1): 114

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 3.83
 Mediterranean index of January.....(Im1): 15.07
 Mediterranean index of January & February.....(Im2): 9.27
 Mediterranean index of December to February...(Im3): 8.85

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	178	102	203	229	229	305	305	229	229	127	178	152
Tp	250	258	256	231	192	150	122	114	125	158	183	225
Io (Iom)	0.71	0.39	0.79	0.99	1.19	2.03	2.50	2.01	1.83	0.80	0.97	0.68
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	483 / 764			763 / 572			763 / 361			457 / 567		
Io (Iot)	0.632			1.333			2.113			0.806		
Semesters	December-May						June-November					
Pp(x10)/Tp	1246 / 1336						1220 / 928					
Io (Iosm)	0.932						1.315					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 2466/2264=1.09 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	178	102	203	229	229	305	305	229	229	127	178	152
Tp [T*10]	250	258	256	231	192	150	122	114	125	158	183	225
Iom [Pp/Tp]	71	39	79	99	119	203	250	201	183	80	97	68
Avm [200-Iom]	129	161	121	101	81	***	***	***	17	120	103	132
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	483 / 764			763 / 572			763 / 361			457 / 567		
Iot [Pp/Tp]	63			133			211			81		
Avs E[Avm<200]	410			***			***			355		
Upper hyperarid [1]						Weak lower arid [2]						
Strong upper arid [2]						Weak upper arid [4]						
Strong lower semiarid [1]						Weak upper semiarid [1]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 14.45
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 27.62
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 23.62
 + 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]: 13.07
 + Steppic (40>R>0)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 8.54
 + Arid -steppic- (15>Ia>5)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 22.19
 + Arid (30>Q>0)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 7.65
 + Extremely arid (DR>6)
 Aridity Index of UNEP [I=P/PE]: 0.26
 + Semiarid (0.5>Im>0.2)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 3.77
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region:
 + Thermic type: 3. Macro-mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.03	0.06	0.08	0.08	0.13	0.14	0.10	0.10	0.05	0.06	0.05	0.05
T-E ratio	11.63	11.50	10.38	8.63	6.75	5.50	5.13	5.63	7.13	8.25	10.13	11.25
Precipitation-effectiveness: 9.32						Temperature-efficiency: 101.89						
Moisture Index [MI=100*(P-PE)/PE]: -73.90 + E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE]: 73.90 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE: 944.92 + Third mesothermic (855<PE<997)												

