

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

TARCOOLA (AUSTRALIA)

Altitude: 120 m.

Latitude: 30°42'S Longitude: 134°33'E

Temperature observation period.: 1980-1994 (15)

Rainfall observation period....: 1953-1994 (42)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	25.83	34.44	17.22	46.67	8.89	10.2	153.61
Feb.	25.83	34.44	17.22	45.56	7.22	17.8	131.85
Mar.	23.34	31.67	15.00	41.11	6.11	12.7	110.86
Apr.	18.34	26.11	10.56	37.78	2.78	7.6	61.43
May.	14.72	22.22	7.22	32.22	0.00	12.7	37.96
Jun.	11.11	18.33	3.89	27.78	-3.33	17.8	20.23
Jul.	10.83	18.33	3.33	28.89	-4.44	12.7	20.36
Aug.	12.50	20.00	5.00	33.89	-1.67	17.8	28.90
Sep.	15.56	23.89	7.22	36.11	-1.67	12.7	46.59
Oct.	19.17	27.78	10.56	42.22	2.22	17.8	79.11
Nov.	22.22	31.11	13.33	43.89	5.00	12.7	108.09
Dec.	24.45	33.33	15.56	48.89	7.22	12.7	138.83
Year	18.66	26.80	10.51	38.75	2.36	165	937.80

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	403
Compensated thermicity index.....(Itc):	403
Simple continentality index.....(Ic):	15.0
Diurnality index.....(Id):	17.8
Annual ombrothermic index.....(Io):	0.74
Monthly estival ombrothermic index.....(Ios1):	0.39
Bimonthly estival ombrothermic index.....(Ios2):	0.54
Threemonthly estival ombrothermic index.....(Ios3):	0.53
Fourmonthly estival ombrothermic index.....(Ios4):	0.54
Annual ombro-evaporation index.....(Ioe):	1.03
Annual positive temperature.....(Tp):	2239
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	761
Positive precipitation.....(Pp):	165

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

Latitudinal Belt...: Subtropical

Continentality.....: Oceanic - High Euoceanic

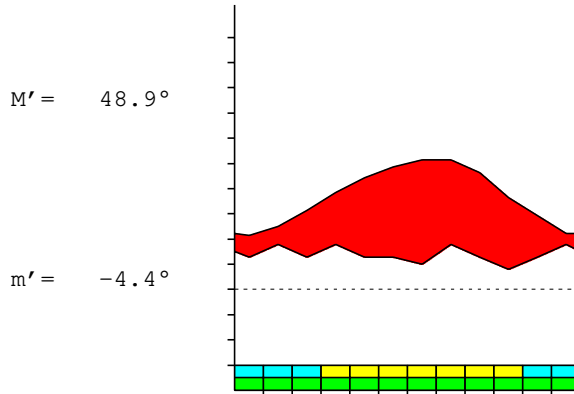
Bioclimate.....: MEDITERRANEAN DESERTIC-OCEANIC

Bioclimatic Belt...: LOW THERMOMEDITERRANEAN UPPER ARID

TARCOOLA (AUSTRALIA)

120 m

P= 165 30° 42' S 134° 33' E 15/42 y.
 T= 18.7° Ic= 15.0 Tp= 2239 Tn= 0
 m= 3.3° M= 18.3° Itc= 403 Io= 0.7



MEDITERRANEAN DESERTIC-OCEANIC
 LOW THERMOMEDITERRANEAN UPPER ARID

WATER INDEX CARD TARCOOLA (AUSTRALIA)
 Altitude: 120 m. Latitude: 30° 42' S

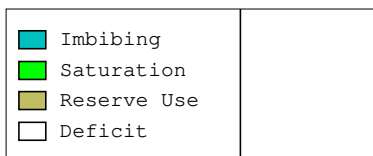
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	10.8	20	13	0	0	13	8	0	0	-0.3
Aug.	12.5	29	18	0	0	18	11	0	0	-0.3
Sep.	15.6	47	13	0	0	13	34	0	0	-0.7
Oct.	19.2	79	18	0	0	18	61	0	0	-0.7
Nov.	22.2	108	13	0	0	13	95	0	0	-0.8
Dec.	24.5	139	13	0	0	13	126	0	0	-0.9
Jan.	25.8	154	10	0	0	10	143	0	0	-0.9
Feb.	25.8	132	18	0	0	18	114	0	0	-0.8
Mar.	23.3	111	13	0	0	13	98	0	0	-0.8
Apr.	18.3	61	8	0	0	8	54	0	0	-0.8
May.	14.7	38	13	0	0	13	25	0	0	-0.6
Jun.	11.1	20	18	0	0	18	2	0	0	-0.1
Year	18.7	938	165	*	*	165	773	0	0	*

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

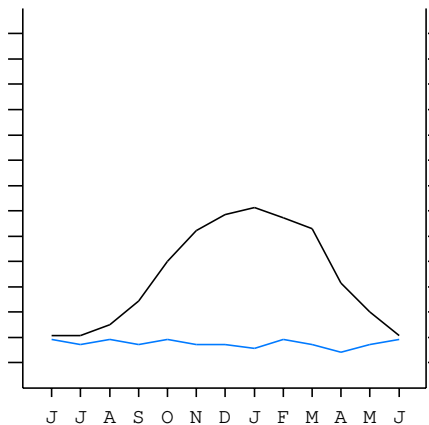
TARCOOLA (AUSTRALIA)

30°42' S 134°33' E 120 m 15/42 y.

T= 18.7 Ic= 15.0 MEDITERRANEAN DESERTIC-OCEANIC
 m= 3.3 Tp= 2239 LOW THERMOMEDITERRANEAN
 M= 18.3 Tn= 0 UPPER ARID
 M' = 48.9 Itc= 403
 m' = -4.4 Io= 0.7
 P= 165 mm
 PE= 938 mm



All over the year,
 there is hydric deficit



TARCOOLA (AUSTRALIA)

Latitude: 30°42'S Longitude: 134°33'E Altitude: 120 m

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 [B4.2b.3a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 4. DESERTIC-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 3. ARID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Mexc.Tme.Ari

TARCOOLA (AUSTRALIA)

Latitude: 30°42'S Longitude: 134°33'E Altitude: 120 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 84
 Coldest semester of the year.....(Psw): 81
 Warmest four months period of the year.....(Pcm1): 53
 Following warmest four months period.....(Pcm2): 51
 Positive precipitation dryest 3 months.....(Ppd): 33
 Positive precipitation dryest 2 months.....(Ppd2): 20
 Positive precipitation dryest 1 month.....(Ppd1): 8
 Positive precipitation warmest 3 months.....(Pps): 41
 Positive precipitation warmest 2 months.....(Pps2): 28
 Positive precipitation warmest 1 month.....(Pps1): 10
 Positive precipitation coldest 3 months.....(Ppw): 48
 Positive precipitation coldest 2 months.....(Ppw2): 31
 Positive precipitation coldest 1 month.....(Ppw1): 13

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	48	43	40	33

Seasonal rainfall rhythms: W > P > S > F

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 25.8
 Average coldest month [T].....(Tmin): 10.8
 Maximum temp. warmest month [M].....(Tmmax): 34.4
 Minimum temp. coldest month [m].....(Tmmin): 3.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 48.9
 Absolute Min.temp. coldest month [m'].....(Tamin): -4.4
 First warmest contrasted month [M].....(Tcmax): 31.1 (11)
 First coldest contrasted month [m].....(Tcmin): 13.3 (11)
 Estival temperature.....(Ts): 761
 Positive temperature dryest 3 months.....(Tpd): 564
 Positive temperature dryest 2 months.....(Tpd2): 417
 Positive temperature dryest 1 month.....(Tpd1): 183
 Positive temperature warmest 3 months.....(Tps): 761
 Positive temperature warmest 2 months.....(Tps2): 517
 Positive temperature warmest 1 month.....(Tps1): 258
 Positive temperature coldest 3 months.....(Tpw): 344
 Positive temperature coldest 2 months.....(Tpw2): 219
 Positive temperature coldest 1 month.....(Tpw1): 108

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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

TARCOOLA (AUSTRALIA)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 5.68
 Mediterranean index of January.....(Im1): 15.06
 Mediterranean index of January & February.....(Im2): 10.20
 Mediterranean index of December to February...(Im3): 10.42

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	127	102	178	127	76	127	178	127	178	127	178	127
Tp	245	258	258	233	183	147	111	108	125	156	192	222
Io (Iom)	0.52	0.39	0.69	0.54	0.41	0.86	1.60	1.17	1.42	0.82	0.93	0.57
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	407 / 761			330 / 564			483 / 344			432 / 570		
Io (Iot)	0.535			0.585			1.402			0.759		
Semesters	December-May						June-November					
Pp(x10)/Tp	737 / 1325						915 / 914					
Io (Iosm)	0.556						1.001					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1652/2239=0.74 [Weak upper arid \(8\) \[1406\]](#)

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	127	102	178	127	76	127	178	127	178	127	178	127
Tp [T*10]	245	258	258	233	183	147	111	108	125	156	192	222
Iom [Pp/Tp]	52	39	69	54	41	86	160	117	142	82	93	57
Avm [200-Iom]	148	161	131	146	159	114	40	83	58	118	107	143
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	407 / 761			330 / 564			483 / 344			432 / 570		
Iot [Pp/Tp]	53			59			140			76		
Avs E[Avm<200]	440			418			180			368		
Upper hyperarid [1]							Strong lower arid [1]					
Weak lower arid [6]							Strong upper arid [1]					
Weak upper arid [3]							Strong lower semiarid [1]					
Weak lower semiarid [2]							Strong upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	15.00
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		29.55
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		25.10
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.34
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		8.85
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		5.76
+ Arid -steppic- (15>Ia>5)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		14.06
+ Arid (30>Q>0)		
I of Dantin & Revenga (1940) [DR=100*T/P]		11.29
+ Extremely arid (DR>6)		
Aridity Index of UNEP [I=P/PE]		0.18
+ Arid (0.2>Im>0.05)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		1.92
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate
- + 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	0.05	0.04	0.02	0.05	0.08	0.05	0.08	0.05	0.06	0.04	0.04	
T-E ratio	11.62	11.62	10.50	8.25	6.62	5.00	4.87	5.63	7.00	8.63	10.00	11.00	
Precipitation-effectiveness:	5.91					Temperature-efficiency							100.76
Moisture Index [MI=100*(P-PE)/PE]	-82.38												
+ E.Dry (-110<MI<-66.7)													
Index of dryness [DI=100*d/PE]	82.38												
+ Strong deficit (33.3<DI)													
Index of humidity [HI=100*s/PE]	0.00												
+ No surplus (0<HI<10)													
Potential Evapotranspiration PE	937.80												
+ Third mesothermic (855<PE<997)													

