

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

PERTH (AUSTRALIA)

Altitude: 60 m.

Latitude: 37°57'S Longitude: 115°51'E

Temperature observation period.: 1930-1980 (51)

Rainfall observation period....: 1950-1980 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	23.40	29.40	17.20	43.70	9.20	7.0	133.17
Feb.	23.90	29.40	17.20	44.60	8.70	12.0	117.51
Mar.	22.20	27.20	16.10	41.30	7.70	22.0	103.25
Apr.	19.20	24.40	13.90	37.60	4.10	52.0	68.30
May.	16.10	20.60	11.70	32.40	1.30	125.0	45.88
Jun.	13.70	17.80	10.00	27.60	1.60	192.0	31.14
Jul.	13.10	17.20	8.90	24.70	1.20	183.0	30.42
Aug.	13.50	17.80	8.90	27.80	1.90	135.0	35.21
Sep.	14.70	19.40	10.00	32.70	2.60	69.0	44.44
Oct.	16.30	21.10	11.70	37.20	4.40	54.0	61.53
Nov.	19.20	24.40	13.90	40.30	5.60	23.0	87.39
Dec.	21.50	27.20	16.10	42.20	8.60	15.0	116.29
Year	18.07	22.99	12.97	36.01	4.74	889	874.53

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	442
Compensated thermicity index.....(Itc):	442
Simple continentality index.....(Ic):	10.8
Diurnality index.....(Id):	12.2
Annual ombrothermic index.....(Io):	4.10
Monthly estival ombrothermic index.....(Ios1):	0.30
Bimonthly estival ombrothermic index.....(Ios2):	0.40
Threemonthly estival ombrothermic index.....(Ios3):	0.49
Fourmonthly estival ombrothermic index.....(Ios4):	0.65
Annual ombro-evaporation index.....(Ioe):	0.17
Annual positive temperature.....(Tp):	2168
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	688
Positive precipitation.....(Pp):	889

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	2	1	4	0

Latitudinal Belt...: Low eutemperate

Continentalty.....: Hyperoceanic - Low Subhyperoceanic

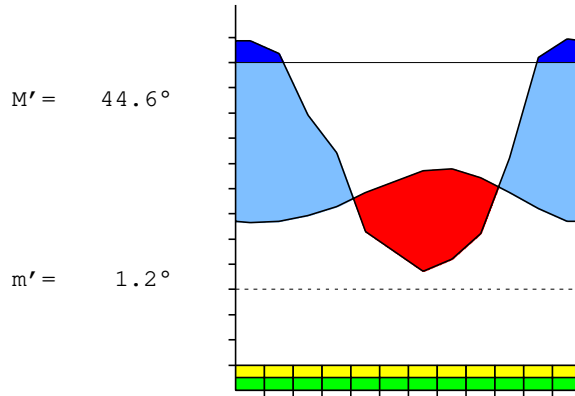
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: LOW THERMOMEDITERRANEAN LOW SUBHUMID

PERTH (AUSTRALIA)

60 m

P= 889 37° 57' S 115° 51' E 51/31 y.
 T= 18.1° Ic= 10.8 Tp= 2168 Tn= 0
 m= 8.9° M= 17.2° Itc= 442 Io= 4.1



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 LOW THERMOMEDITERRANEAN LOW SUBHUMID

WATER INDEX CARD

PERTH (AUSTRALIA)

Altitude: 60 m.

Latitude: 37° 57' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	13.1	30	183	0	100	30	0	153	111	5.0
Aug.	13.5	35	135	0	100	35	0	100	106	2.8
Sep.	14.7	44	69	0	100	44	0	25	65	0.5
Oct.	16.3	62	54	-8	92	62	0	0	33	-0.1
Nov.	19.2	87	23	-64	28	87	0	0	16	-0.7
Dec.	21.5	116	15	-28	0	43	73	0	8	-0.8
Jan.	23.4	133	7	0	0	7	126	0	4	-0.9
Feb.	23.9	118	12	0	0	12	106	0	2	-0.8
Mar.	22.2	103	22	0	0	22	81	0	1	-0.7
Apr.	19.2	68	52	0	0	52	16	0	1	-0.2
May.	16.1	46	125	79	79	46	0	0	0	1.7
Jun.	13.7	31	192	21	100	31	0	140	70	5.1
Year	18.1	875	889	*	*	472	402	417	417	*

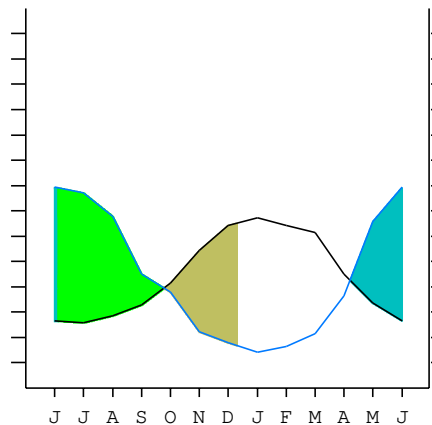
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

PERTH (AUSTRALIA)

37°57' S 115°51' E 60 m 51/31 y.

T= 18.1 Ic= 10.8 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 8.9 Tp= 2168 LOW THERMOMEDITERRANEAN
 M= 17.2 Tn= 0 LOW SUBHUMID
 M' = 44.6 Itc= 442
 m' = 1.2 Io= 4.1
 P= 889 mm ———
 PE= 875 mm ———

Imbibing	6 Apr.
Saturation	4 Jun.
Reserve Use	23 Sep.
Deficit	9 Dec.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low

Thermic types [B1.A3]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm

Bioclimatic types [B8.2b.6b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Mehc.Tme.Shu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 131
 Coldest semester of the year.....(Psw): 758
 Warmest four months period of the year.....(Pcm1): 56
 Following warmest four months period.....(Pcm2): 552
 Positive precipitation dryest 3 months.....(Ppd): 34
 Positive precipitation dryest 2 months.....(Ppd2): 19
 Positive precipitation dryest 1 month.....(Ppd1): 7
 Positive precipitation warmest 3 months.....(Pps): 41
 Positive precipitation warmest 2 months.....(Pps2): 19
 Positive precipitation warmest 1 month.....(Pps1): 12
 Positive precipitation coldest 3 months.....(Ppw): 510
 Positive precipitation coldest 2 months.....(Ppw2): 318
 Positive precipitation coldest 1 month.....(Ppw1): 183

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	510	146	34	199

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.9
 Average coldest month [T].....(Tmin): 13.1
 Maximum temp. warmest month [M].....(Tmmax): 29.4
 Minimum temp. coldest month [m].....(Tmmin): 8.9
 Absolute Max.temp. warmest month [M'].....(Tamax): 44.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 1.2
 First warmest contrasted month [M].....(Tcmax): 29.4 (1)
 First coldest contrasted month [m].....(Tcmin): 17.2 (1)
 Estival temperature.....(Ts): 688
 Positive temperature dryest 3 months.....(Tpd): 688
 Positive temperature dryest 2 months.....(Tpd2): 473
 Positive temperature dryest 1 month.....(Tpd1): 234
 Positive temperature warmest 3 months.....(Tps): 695
 Positive temperature warmest 2 months.....(Tps2): 473
 Positive temperature warmest 1 month.....(Tps1): 239
 Positive temperature coldest 3 months.....(Tpw): 403
 Positive temperature coldest 2 months.....(Tpw2): 266
 Positive temperature coldest 1 month.....(Tpw1): 131

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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): 0.98
 Mediterranean index of January.....(Im1): 19.02
 Mediterranean index of January & February.....(Im2): 13.19
 Mediterranean index of December to February...(Im3): 10.79

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	150	70	120	220	520	1250	1920	1830	1350	690	540	230
Tp	215	234	239	222	192	161	137	131	135	147	163	192
Io (Iom)	0.70	0.30	0.50	0.99	2.71	7.76	14.0	14.0	10.0	4.69	3.31	1.20
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	340 / 688			1990 / 575			5100 / 403			1460 / 502		
Io (Iot)	0.494			3.461			12.66			2.908		
Semesters	December-May						June-November					
Pp(x10)/Tp	2330 / 1263						6560 / 905					
Io (Iosm)	1.845						7.249					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 8890/2168=4.10 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	150	70	120	220	520	1250	1920	1830	1350	690	540	230
Tp [T*10]	215	234	239	222	192	161	137	131	135	147	163	192
Iom [Pp/Tp]	70	30	50	99	271	776	\$\$	\$\$	\$\$	469	331	120
Avm [200-Iom]	130	170	150	101	***	***	***	***	***	***	***	80
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	340 / 688			1990 / 575			5100 / 403			1460 / 502		
Iot [Pp/Tp]	49			346			1266			291		
Avs E[Avm<200]	450			***			***			***		
Lower hyperarid [1]						Strong lower arid [1]						
Weak lower arid [2]						Weak upper arid [1]						
Strong lower semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	10.80
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		9.45
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		10.73
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.79
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		49.21
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		31.67
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		113.23
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.03
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		1.02
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		41.47
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 3. Macro-mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.02	0.04	0.07	0.21	0.59	1.02	0.99	0.70	0.32	0.23	0.08	0.05
T-E ratio	10.53	10.75	9.99	8.64	7.25	6.16	5.90	6.07	6.61	7.33	8.64	9.67
Precipitation-effectiveness: 43.19						Temperature-efficiency						97.56
Moisture Index [MI=100*(P-PE)/PE]												1.65
+ C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]												46.01
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												47.67
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												874.53
+ Third mesothermic (855<PE<997)												

