Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

MT GAMBIER AIRPORT -M.O. (AUSTRALIA) Altitude: 65 m.

Latitude: 37°44'S Longitude: 140°47'E
Temperature observation period.: 1951-1993 (43)
Rainfall observation period....: 1942-1990 (49)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	18.16	25.66	10.39	0.00	0.00	24.4	101.22
Feb.	18.20	24.24	12.21	0.00	0.00	27.1	86.09
Mar.	16.83	20.60	12.80	0.00	0.00	35.8	78.15
Apr.	14.24	19.09	9.66	0.00	0.00	56.7	54.16
May.	11.71	15.55	7.75	0.00	0.00	74.1	38.86
Jun.	9.77	12.16	7.29	0.00	0.00	79.8	27.96
Jul.	9.04	12.11	5.94	0.00	0.00	100.8	26.73
Aug.	9.70	12.85	6.35	0.00	0.00	92.7	32.18
Sep.	10.91	15.26	6.49	0.00	0.00	70.5	40.58
Oct.	12.44	15.75	9.25	0.00	0.00	64.1	55.27
Nov.	14.20	19.13	9.38	0.00	0.00	47.0	69.03
Dec.	16.29	22.25	10.55	0.00	0.00	37.6	89.45
Year	13.46	17.89	9.01	0.00	0.00	711	699.69

BIOCLIMATIC INDICES AND DIAGNOSIS

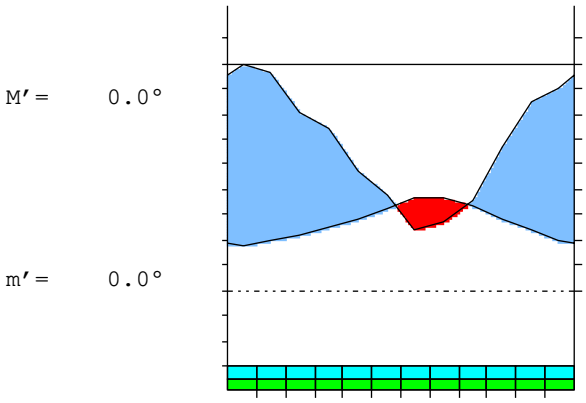
Thermicity index.....(It): 315
Compensated thermicity index.....(Itc): 315
Simple continentality index.....(Ic): 9.2
Diurnality index.....(Id): 15.3
Annual ombrothermic index.....(Io): 4.40
Monthly estival ombrothermic index.....(Ios1): 1.34
Bimonthly estival ombrothermic index.....(Ios2): 1.42
Threemonthly estival ombrothermic index.....(Ios3): 1.69
Fourmonthly estival ombrothermic index.....(Ios4): 2.04
Annual ombro-evaporation index.....(Ioe): 1.02
Annual positive temperature.....(Tp): 1615
Annual negative temperature.....(Tn): 0
Estival temperature.....(Ts): 527
Positive precipitation.....(Pp): 711

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

Latitudinal Belt...: Low Eutemperate
Continentality.....: Hyperoceanic - High Subhyperoceanic
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC
Bioclimatic Belt...: LOW MESOMEDITERRANEAN LOW SUBHUMID

MT GAMBIER AIRPORT -M.O. (AUSTRALIA) 65 m

P= 711 37° 44'S 140° 47'E 43/49 y.
T= 13.5 ° Ic= 9.2 Tp= 1615 Tn= 0
m= 5.9 ° M= 12.1 ° Itc= 315 Io= 4.4



MEDITERRANEAN PLUVISEASONAL-OCEANIC
LOW MESOMEDITERRANEAN LOW SUBHUMID

WATER INDEX CARD MT GAMBIER AIRPORT -M.O. (AUSTRALIA)
Altitude: 65 m. Latitude: 37° 44'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	9.0	27	101	10	100	27	0	64	32	2.7
Aug.	9.7	32	93	0	100	32	0	61	46	1.8
Sep.	10.9	41	70	0	100	41	0	30	38	0.7
Oct.	12.4	55	64	0	100	55	0	9	23	0.1
Nov.	14.2	69	47	-22	78	69	0	0	12	-0.3
Dec.	16.3	89	38	-52	26	89	0	0	6	-0.5
Jan.	18.2	101	24	-26	0	50	51	0	3	-0.7
Feb.	18.2	86	27	0	0	27	59	0	1	-0.6
Mar.	16.8	78	36	0	0	36	42	0	1	-0.5
Apr.	14.2	54	57	3	3	54	0	0	0	0.0
May.	11.7	39	74	35	38	39	0	0	0	0.9
Jun.	9.8	28	80	52	90	28	0	0	0	1.8
Year	13.5	700	711	*	*	548	152	163	163	*

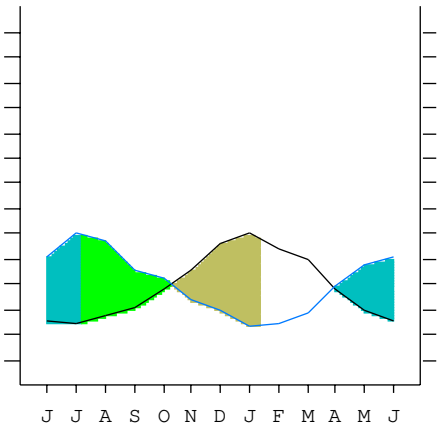
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
DR = Drainage HC = Humidity coeficient DF = Deficit SP = Superavit

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)
37°44'S 140°47'E 65 m 43/49 y.

T= 13.5 Ic= 9.2
m= 5.9 Tp= 1615
M= 12.1 Tn= 0
M'= 0.0 Itc= 315
m'= 0.0 Io= 4.4
P= 711 mm
PE= 700 mm

MEDITERRANEAN PLUVISEASONAL-OCEANIC
LOW MESOMEDITERRANEAN
LOW SUBHUMID

Imbibing	29 Mar.
Saturation	5 Jul.
Reserve Use	9 Oct.
Deficit	11 Jan.



MT GAMBIER AIRPORT –M.O. (AUSTRALIA)

Latitude: 37°44’S Longitude: 140°47’E Altitude: 65 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3a]
- + Type .....: A. Hyperoceanic
- + Subtype .....: 3. Subhyperoceanic
- + Variant .....: a. High

Thermic types [B1.B4]
- + Latitudinal zone ....: B. Temperate
- + Latitudinal belt ....: 1. Low Eutemperate
- + Thermic type .....: B. Temperate
- + Thermic subtype .....: 4. Temperate

Bioclimatic types [B8.3b.6b]
- + Macrobioclimate .....: B. MEDITERRANEAN
- + Bioclimate .....: 8. PLUVISEASONAL-OCEANIC
- + Bioclimatic variant .:
- + Thermic type.....: 3. MESOMEDITERRANEAN
- + Thermic subtype.....: b. LOW
- + Ombrothermic type ...: 6. SUBHUMID
- + Ombrothermic subtype : b. LOW

Bioclimatic Classification .....Mepo.Mme.Shu.Sho

MT GAMBIER AIRPORT –M.O. (AUSTRALIA)

Latitude: 37°44’S Longitude: 140°47’E Altitude: 65 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 229
Coldest semester of the year.....(Psw): 482
Warmest four months period of the year.....(Pcm1): 125
Following warmest four months period.....(Pcm2): 311
Positive precipitation dryest 3 months.....(Ppd): 87
Positive precipitation dryest 2 months.....(Ppd2): 51
Positive precipitation dryest 1 month.....(Ppd1): 24
Positive precipitation warmest 3 months.....(Pps): 87
Positive precipitation warmest 2 months.....(Pps2): 51
Positive precipitation warmest 1 month.....(Pps1): 27
Positive precipitation coldest 3 months.....(Ppw): 273
Positive precipitation coldest 2 months.....(Ppw2): 194
Positive precipitation coldest 1 month.....(Ppw1): 101

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	273	181	89	166

Seasonal rainfall rhythms: W > P > F > S

MT GAMBIER AIRPORT –M.O. (AUSTRALIA)

Latitude: 37°44’S Longitude: 140°47’E Altitude: 65 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 18.2
Average coldest month [T].....(Tmin): 9.0
Maximum temp. warmest month [M].....(Tmmax): 25.7
Minimum temp. coldest month [m].....(Tmmin): 5.9
Absolute Max.temp. warmest month [M’].....(Tamax): 0.0
Absolute Min.temp. coldest month [m’].....(Tamin): 0.0
First warmest contrasted month [M].....(Tcmax): 25.7 (1)
First coldest contrasted month [m].....(Tcmin): 10.4 (1)
Estival temperature.....(Ts): 527
Positive temperature dryest 3 months.....(Tpd): 532
Positive temperature dryest 2 months.....(Tpd2): 364
Positive temperature dryest 1 month.....(Tpd1): 182
Positive temperature warmest 3 months.....(Tps): 532
Positive temperature warmest 2 months.....(Tps2): 364
Positive temperature warmest 1 month.....(Tps1): 182
Positive temperature coldest 3 months.....(Tpw): 285
Positive temperature coldest 2 months.....(Tpw2): 187
Positive temperature coldest 1 month.....(Tpw1): 90

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)

Latitude: 37°44'S Longitude: 140°47'E Altitude: 65 m

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)												
HiperAgelid..[all>0](Pf)	o	o	o	o	o	o	o	o	o	o	o	o

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)

Latitude: 37°44'S Longitude: 140°47'E Altitude: 65 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.98
Mediterranean index of January.....(Im1): 4.16
Mediterranean index of January & February.....(Im2): 3.64
Mediterranean index of December to February...(Im3): 3.11

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	376	244	271	358	567	741	798	1008	927	705	641	470
Tp	163	182	182	168	142	117	98	90	97	109	124	142
Io (Iom)	2.31	1.34	1.49	2.12	3.98	6.33	8.17	11.2	9.56	6.46	5.15	3.31
Seasons	Summer			Automn			Winter			Spring		
Pp(x10)/Tp	891 / 527			1666 / 428			2734 / 285			1816 / 376		
Io (Iot)	1.692			3.894			9.589			4.835		
Semesters	December-May						June-November					
Pp(x10)/Tp	2557 / 954						4549 / 661					
Io (Iosm)	2.679						6.887					

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)

Latitude: 37°44'S Longitude: 140°47'E Altitude: 65 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 7106/1615=4.40 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	376	244	271	358	567	741	798	1008	927	705	641	470
Tp [T*10]	163	182	182	168	142	117	98	90	97	109	124	142
Iom [Pp/Tp]	231	134	149	212	398	633	817	$$	956	646	515	331
Avm [200-Iom]	***	66	51	***	***	***	***	***	***	***	***	***
Seasons	Summer			Automn			Winter			Spring		
Pp / Tp	891 / 527			1666 / 428			2734 / 285			1816 / 376		
Iot [Pp/Tp]	169			389			959			484		
Avs E[Avm<200]	***			***			***			***		
Weak lower semiarid [2]												

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)

Latitude: 37°44'S Longitude: 140°47'E Altitude: 65 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 9.16
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....: 5.04
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....: 7.04
  + Hyperoceanic (-20<CI<20)
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 0.67
  + Oceanic (0.6<CI<1.1)
Rainfall Index of Lang (1925) [R=P/T] .....: 52.80
  + Semiarid (60>R>40)
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 30.29
  + Humid (60>Ia>30)
I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)] .....: 114.03
  + Humid (Q>90)
I of Dantin & Revenga (1940) [DR=100*T/P] .....: 1.89
  + Humid (2>DR>0)
Aridity Index of UNEP [I=P/PE] .....: 1.02
  + Humid (I>0.65)
Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 14.30
  + Very low (K<60)

MT GAMBIER AIRPORT -M.O. (AUSTRALIA)

Latitude: 37°44'S Longitude: 140°47'E Altitude: 65 m

BIOCLIMATIC INDICES II

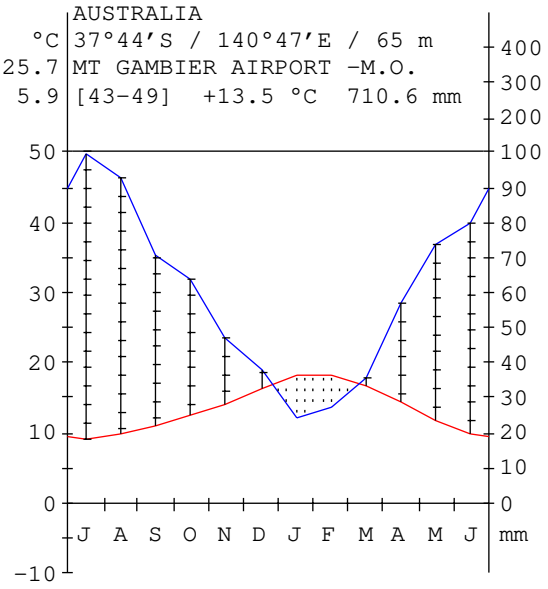
Bioclimatic classification of Gaussen & Bagnouls (1957)
  + Climate ....: A. Warm and temperate warm
  + Region .....: 3. Termoxeroteric (Mediterranean warm)
  + Thermic type: 4. Mesothermic

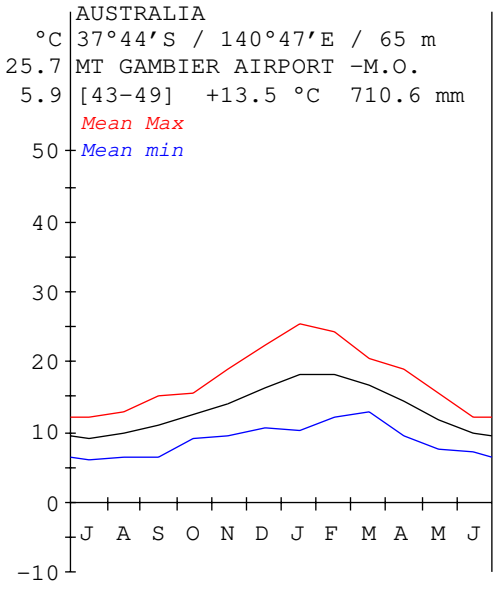
Thornthwaite (1948)

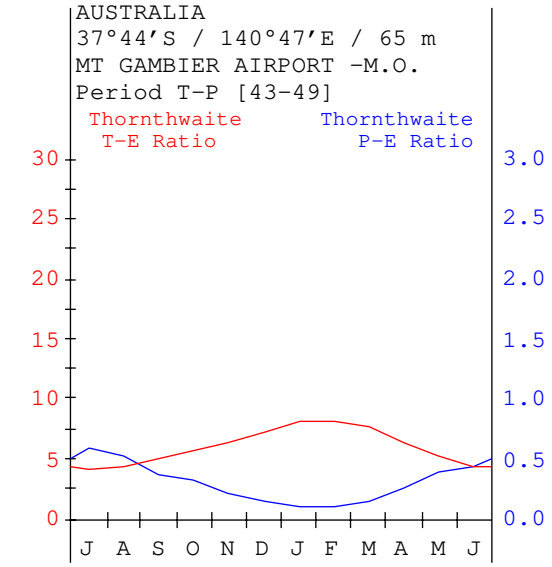
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.09	0.10	0.14	0.26	0.38	0.44	0.58	0.52	0.37	0.31	0.21	0.16
T-E ratio	8.17	8.19	7.57	6.41	5.27	4.40	4.07	4.36	4.91	5.60	6.39	7.33

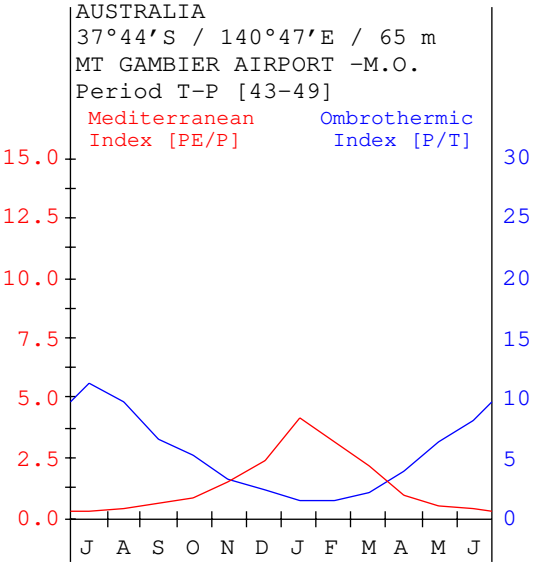
Precipitation-effectiveness: 35.60 Temperature-efficiency ....: 72.67

Moisture Index [MI=100*(P-PE)/PE] .....: 1.56
  + C2.Subhumid humid (0<MI<20)
Index of dryness [DI=100*d/PE] .....: 21.74
  + Moderate deficit (16.7<DI<33.3)
Index of humidity [HI=100*s/PE] .....: 23.30
  + Strong surplus (20<HI)
Potential Evapotranspiration PE .....: 699.69
  + First mesothermic (570<PE<712)




AUSTRALIA
°C 37°44'S / 140°47'E / 65 m
25.7 MT GAMBIER AIRPORT -M.O.
5.9 [43-49] +13.5 °C 710.6 mm
Mean Max
Mean min
50
40
30
20
10
0
-10
J A S O N D J F M A M J


AUSTRALIA
37°44'S / 140°47'E / 65 m
MT GAMBIER AIRPORT -M.O.
Period T-P [43-49]
Thornthwaite T-E Ratio
Thornthwaite P-E Ratio
30
25
20
15
10
5
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J A S O N D J F M A M J


AUSTRALIA
37°44'S / 140°47'E / 65 m
MT GAMBIER AIRPORT -M.O.
Period T-P [43-49]
Mediterranean Index [PE/P]
Ombrothermic Index [P/T]
15.0
12.5
10.0
7.5
5.0
2.5
0.0
30
25
20
15
10
5
0
J A S O N D J F M A M J