

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

S.Rivas-Martinez(+) & S.Rivas-Saenz

(Adapted to Synoptical Table 14/02/2020)

ALBANY (AUSTRALIA)

Altitude: 13 m.

Latitude: 35°2'S Longitude: 117°55'E

Temperature observation period.: 1939-1980 (42)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	19.20	23.30	15.00	41.70	5.70	35.0	99.63
Feb.	19.40	23.30	15.00	44.80	5.00	26.0	86.45
Mar.	18.70	22.20	13.90	40.80	3.70	45.0	82.35
Apr.	16.90	21.10	12.80	37.70	4.20	74.0	62.24
May.	14.70	18.90	10.60	35.20	1.70	135.0	47.27
Jun.	13.10	16.70	8.90	24.60	1.70	138.0	36.31
Jul.	12.10	16.10	7.80	23.10	0.10	152.0	33.98
Aug.	12.40	16.70	8.30	27.20	1.30	138.0	38.16
Sep.	13.40	17.20	8.90	30.60	1.10	108.0	45.89
Oct.	14.60	18.90	10.00	36.20	2.30	83.0	59.38
Nov.	16.40	20.60	11.70	41.10	4.80	42.0	73.88
Dec.	17.90	22.20	13.90	41.10	5.10	31.0	90.63
Year	15.73	19.77	11.40	35.34	3.06	1007	756.17

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	396
Compensated thermicity index.....(Itc):	389
Simple continentality index.....(Ic):	7.3
Diurnality index.....(Id):	8.9
Annual ombrothermic index.....(Io):	5.33
Monthly estival ombrothermic index.....(Ios1):	1.34
Bimonthly estival ombrothermic index.....(Ios2):	1.58
Threemonthly estival ombrothermic index.....(Ios3):	1.63
Fourmonthly estival ombrothermic index.....(Ios4):	1.84
Annual ombro-evaporation index.....(Ioe):	1.33
Annual positive temperature.....(Tp):	1888
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	565
Positive precipitation.....(Pp):	1007

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

Latitudinal Belt...: Subtropical

Continentality.....: Hyperoceanic - Low Euhyperoceanic

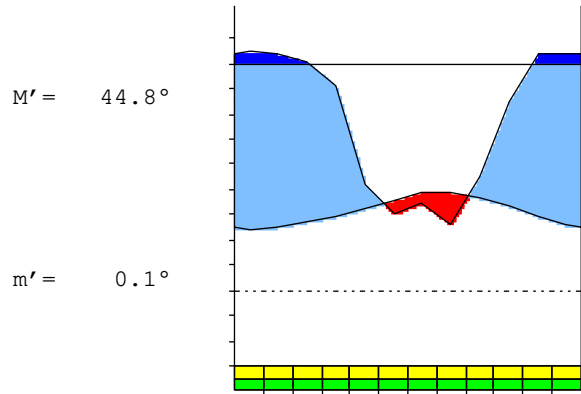
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: UPPER THERMOMEDITERRANEAN UPPER SUBHUMID

ALBANY (AUSTRALIA)

13 m

P= 1007 35° 2'S 117° 55'E 42/31 y.
 T= 15.7 ° Ic= 7.3 Tp= 1888 Tn= 0
 m= 7.8 ° M= 16.1 ° Itc= 389 Io= 5.3



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER THERMOMEDITERRANEAN UPPER SUBHUMID

WATER INDEX CARD

ALBANY (AUSTRALIA)

Altitude: 13 m.

Latitude: 35° 2'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	12.1	34	152	0	100	34	0	118	84	3.4
Aug.	12.4	38	138	0	100	38	0	100	92	2.6
Sep.	13.4	46	108	0	100	46	0	62	77	1.3
Oct.	14.6	59	83	0	100	59	0	24	50	0.3
Nov.	16.4	74	42	-32	68	74	0	0	25	-0.4
Dec.	17.9	91	31	-60	8	91	0	0	13	-0.6
Jan.	19.2	100	35	-8	0	43	56	0	6	-0.6
Feb.	19.4	86	26	0	0	26	60	0	3	-0.6
Mar.	18.7	82	45	0	0	45	37	0	2	-0.4
Apr.	16.9	62	74	12	12	62	0	0	1	0.1
May.	14.7	47	135	88	99	47	0	0	0	1.8
Jun.	13.1	36	138	1	100	36	0	101	51	2.8
Year	15.7	756	1007	*	*	602	154	405	405	*

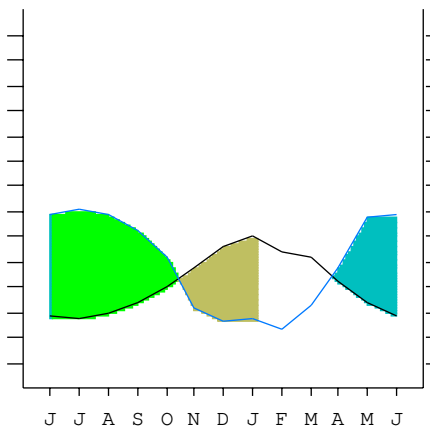
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

ALBANY (AUSTRALIA)

35°2'S 117°55'E 13 m 42/31 y.

T= 15.7 Ic= 7.3 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 7.8 Tp= 1888 UPPER THERMOMEDITERRANEAN
 M= 16.1 Tn= 0 UPPER SUBHUMID
 M' = 44.8 Itc= 389
 m' = 0.1 Io= 5.3
 P= 1007 mm ———
 PE= 756 mm ———

Imbibing	23 Mar.
Saturation	1 Jun.
Reserve Use	13 Oct.
Deficit	4 Jan.



ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A2b]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: b. Low

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

Bioclimatic types [B8.2a.6a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant .:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : a. UPPER

Bioclimatic ClassificationMepo.Tme.Shu.Eho

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 253
 Coldest semester of the year.....(Psw): 754
 Warmest four months period of the year.....(Pcm1): 137
 Following warmest four months period.....(Pcm2): 499
 Positive precipitation dryest 3 months.....(Ppd): 92
 Positive precipitation dryest 2 months.....(Ppd2): 61
 Positive precipitation dryest 1 month.....(Ppd1): 26
 Positive precipitation warmest 3 months.....(Pps): 106
 Positive precipitation warmest 2 months.....(Pps2): 61
 Positive precipitation warmest 1 month.....(Pps1): 26
 Positive precipitation coldest 3 months.....(Ppw): 428
 Positive precipitation coldest 2 months.....(Ppw2): 290
 Positive precipitation coldest 1 month.....(Ppw1): 152

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	428	233	92	254

Seasonal rainfall rhythms: W > F > P > S

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 19.4
 Average coldest month [T].....(Tmin): 12.1
 Maximum temp. warmest month [M].....(Tmax): 23.3
 Minimum temp. coldest month [m].....(Tmin): 7.8
 Absolute Max.temp. warmest month [M'].....(Tamax): 44.8
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.1
 First warmest contrasted month [M].....(Tcmax): 18.9 (10)
 First coldest contrasted month [m].....(Tcmin): 10.0 (10)
 Estival temperature.....(Ts): 565
 Positive temperature dryest 3 months.....(Tpd): 565
 Positive temperature dryest 2 months.....(Tpd2): 386
 Positive temperature dryest 1 month.....(Tpd1): 194
 Positive temperature warmest 3 months.....(Tps): 573
 Positive temperature warmest 2 months.....(Tps2): 386
 Positive temperature warmest 1 month.....(Tps1): 194
 Positive temperature coldest 3 months.....(Tpw): 376
 Positive temperature coldest 2 months.....(Tpw2): 245
 Positive temperature coldest 1 month.....(Tpw1): 121

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 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)	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

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.75
 Mediterranean index of January.....(Im1): 2.85
 Mediterranean index of January & February....(Im2): 3.05
 Mediterranean index of December to February...(Im3): 3.01

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	310	350	260	450	740	1350	1380	1520	1380	1080	830	420
Tp	179	192	194	187	169	147	131	121	124	134	146	164
Io (Iom)	1.73	1.82	1.34	2.41	4.38	9.18	10.5	12.6	11.1	8.06	5.68	2.56
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	920 / 565			2540 / 503			4280 / 376			2330 / 444		
Io (Iot)	1.628			5.050			11.38			5.248		
Semesters	December-May						June-November					
Pp(x10)/Tp	3460 / 1068						6610 / 820					
Io (Iosm)	3.240						8.061					

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 10070/1888=5.33 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	310	350	260	450	740	1350	1380	1520	1380	1080	830	420
Tp [T*10]	179	192	194	187	169	147	131	121	124	134	146	164
Iom [Pp/Tp]	173	182	134	241	438	918	\$\$	\$\$	\$\$	806	568	256
Avm [200-Iom]	27	18	66	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	920 / 565			2540 / 503			4280 / 376			2330 / 444		
Iot [Pp/Tp]	163			505			1138			525		
Avs E[Avm<200]	111			***			***			***		
Weak lower semiarid [1]							Strong upper semiarid [1]					
Weak upper semiarid [2]												

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	7.30
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		1.22
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		3.54
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.58
+ Hyperoceanic (0<CI<0.6)		
Rainfall Index of Lang (1925) [R=P/T]		64.00
+ Temperate warm (100>R>60)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		39.13
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		208.90
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.56
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		1.33
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P].....		22.94
+ Very low (K<60)		

ALBANY (AUSTRALIA)

Latitude: 35°2'S Longitude: 117°55'E Altitude: 13 m

BIOCLIMATIC INDICES II

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

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.13	0.09	0.18	0.32	0.67	0.72	0.83	0.74	0.55	0.39	0.17	0.12
T-E ratio	8.64	8.73	8.42	7.60	6.61	5.90	5.45	5.58	6.03	6.57	7.38	8.05
Precipitation-effectiveness: 49.23						Temperature-efficiency: 84.96						
Moisture Index [MI=100*(P-PE)/PE]												
+ B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]												
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]												
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												
+ Second mesothermic (712<PE<855)												

