

# Phytosociological Research Center

www.globalbioclimatics.org

## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

THURSDAY ISLAND (AUSTRALIA)

Altitude: 61 m.

Latitude: 10°35'S Longitude: 142°13'E

Temperature observation period.: 1963-1994 (32)

Rainfall observation period....: 1945-1994 (50)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	27.78	30.56	25.00	36.11	21.11	462.3	158.86
Feb.	27.78	30.56	25.00	34.44	21.11	401.3	141.37
Mar.	27.78	30.56	25.00	33.89	21.11	353.1	153.03
Apr.	27.50	30.00	25.00	34.44	21.11	203.2	142.07
May.	26.94	29.44	24.44	33.33	18.89	40.6	139.02
Jun.	26.11	28.89	23.33	31.67	17.78	12.7	119.47
Jul.	25.28	27.78	22.78	32.22	17.78	10.2	108.57
Aug.	25.28	27.78	22.78	31.67	20.00	5.1	111.86
Sep.	26.11	28.89	23.33	33.89	17.78	2.5	124.45
Oct.	27.22	30.00	24.44	35.56	21.11	7.6	149.74
Nov.	28.06	31.11	25.00	35.56	21.67	38.1	155.39
Dec.	28.62	31.67	25.56	36.67	21.11	177.8	167.72
Year	27.04	29.77	24.31	34.12	20.05	1714	1671.6

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	776
Compensated thermicity index.....(Itc):	776
Simple continentality index.....(Ic):	3.3
Diurnality index.....(Id):	6.1
Annual ombrothermic index.....(Io):	5.28
Monthly dry ombrothermic index.....(Iod1):	0.10
Bimonthly dry ombrothermic index.....(Iod2):	0.15
Three monthly dry ombrothermic index.....(Iod3):	0.19
Four monthly dry ombrothermic index.....(Iod4):	0.24
Annual ombro-evaporation index.....(Ioe):	20.79
Annual positive temperature.....(Tp):	3245
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	786
Positive precipitation.....(Pp):	1715

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

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

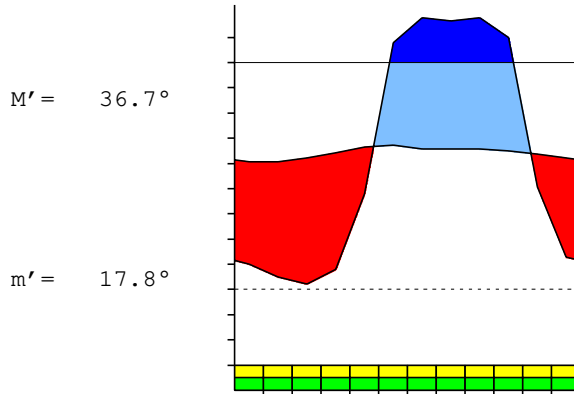
Bioclimate(Variant): TROPICAL PLUVISEASONAL (XEROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER SUBHUMID

THURSDAY ISLAND (AUSTRALIA)

61 m

P= 1714      10° 35' S      142° 13' E      32/50 y.  
 T= 27.0°      Ic= 3.3      Tp= 3245      Tn= 0  
 m= 22.8°      M= 27.8°      Itc= 776      Io= 5.3



TROPICAL PLUVISEASONAL (XEROPHYTIC)  
 UPPER INFRATROPICAL UPPER SUBHUMID

WATER INDEX CARD

THURSDAY ISLAND (AUSTRALIA)

Altitude: 61 m.

Latitude: 10° 35' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	25.3	109	10	0	0	10	98	0	16	-0.9
Aug.	25.3	112	5	0	0	5	107	0	8	-0.9
Sep.	26.1	124	3	0	0	3	122	0	4	-0.9
Oct.	27.2	150	8	0	0	8	142	0	2	-0.9
Nov.	28.1	155	38	0	0	38	117	0	1	-0.7
Dec.	28.6	168	178	10	10	168	0	0	0	0.0
Jan.	27.8	159	462	90	100	159	0	214	107	1.9
Feb.	27.8	141	401	0	100	141	0	260	183	1.8
Mar.	27.8	153	353	0	100	153	0	200	192	1.3
Apr.	27.5	142	203	0	100	142	0	61	126	0.4
May.	26.9	139	41	-98	2	139	0	0	63	-0.7
Jun.	26.1	119	13	-2	0	14	105	0	32	-0.8
Year	27.0	1672	1714	*	*	980	692	735	735	*

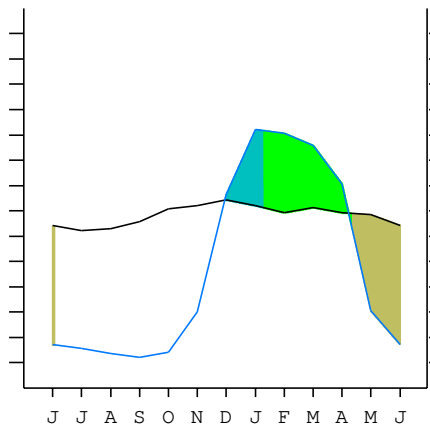
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

THURSDAY ISLAND (AUSTRALIA)

10°35' S 142°13' E      61 m 32/50 y.

T= 27.0      Ic= 3.3      TROPICAL PLUVISEASONAL (XEROPHYTIC)  
 m= 22.8      Tp= 3245      UPPER INFRATROPICAL  
 M= 27.8      Tn= 0      UPPER SUBHUMID  
 M' = 36.7      Itc= 776  
 m' = 17.8      Io= 5.3  
 P= 1714      mm      ———  
 PE= 1672      mm      ———

Imbibing	28 Nov.
Saturation	9 Jan.
Reserve Use	12 Apr.
Deficit	1 Jun.



THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A1b]  
 + Type .....: A. Hyperoceanic  
 + Subtype .....: 1. Ultrahyperoceanic  
 + Variant .....: b. Low  
 Thermic types [A2.A1]  
 + Latitudinal zone ....: A. Warm  
 + Latitudinal belt ....: 2. Eutropical  
 + Thermic type .....: A. Warm  
 + Thermic subtype .....: 1. Torrid  
 Bioclimatic types [A4.1a.6a]  
 + Macrobioclimate .....: A. TROPICAL  
 + Bioclimate .....: 4. PLUVISEASONAL  
 + Bioclimatic variant .:  
 + Thermic type.....: 1. INFRATROPICAL  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 6. SUBHUMID  
 + Ombrothermic subtype : a. UPPER  
 Bioclimatic Classification .....: Trde.Itr.Shu

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1636  
 Coldest semester of the year.....(Psw): 79  
 Warmest four months period of the year.....(Pcm1): 1080  
 Following warmest four months period.....(Pcm2): 610  
 Positive precipitation dryest 3 months.....(Ppd): 15  
 Positive precipitation dryest 2 months.....(Ppd2): 8  
 Positive precipitation dryest 1 month.....(Ppd1): 3  
 Positive precipitation warmest 3 months.....(Pps): 678  
 Positive precipitation warmest 2 months.....(Pps2): 216  
 Positive precipitation warmest 1 month.....(Pps1): 178  
 Positive precipitation coldest 3 months.....(Ppw): 28  
 Positive precipitation coldest 2 months.....(Ppw2): 15  
 Positive precipitation coldest 1 month.....(Ppw1): 10

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	28	48	1041	596

Tropical rainfall rhythms: 1 > 2 > 4 > 3

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.6  
 Average coldest month [T].....(Tmin): 25.3  
 Maximum temp. warmest month [M].....(Tmmax): 31.7  
 Minimum temp. coldest month [m].....(Tmmin): 22.8  
 Absolute Max.temp. warmest month [M'].....(Tamax): 36.7  
 Absolute Min.temp. coldest month [m'].....(Tamin): 17.8  
 First warmest contrasted month [M].....(Tcmax): 31.1 (11)  
 First coldest contrasted month [m].....(Tcmin): 25.0 (11)  
 Dry station temperature.....(Td): 786  
 Positive temperature dryest 3 months.....(Tpd): 786  
 Positive temperature dryest 2 months.....(Tpd2): 514  
 Positive temperature dryest 1 month.....(Tpd1): 261  
 Positive temperature warmest 3 months.....(Tps): 845  
 Positive temperature warmest 2 months.....(Tps2): 567  
 Positive temperature warmest 1 month.....(Tps1): 286  
 Positive temperature coldest 3 months.....(Tpw): 767  
 Positive temperature coldest 2 months.....(Tpw2): 506  
 Positive temperature coldest 1 month.....(Tpw1): 253

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 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

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.97  
 Mediterranean index of January.....(Im1): No  
 Mediterranean index of January & February.....(Im2): No  
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1778	4623	4013	3531	2032	406	127	102	51	25	76	381
Tp	286	278	278	278	275	269	261	253	253	261	272	281
Io (Iom)	6.21	16.6	14.4	12.7	7.39	1.51	0.49	0.40	0.20	0.10	0.28	1.36
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	10414 / 842			5969 / 822			280 / 767			482 / 814		
Io (Iot)	12.37			7.260			0.365			0.592		
Semesters	December-May						June-November					
Pp(x10)/Tp	16383 / 1664						762 / 1581					
Io (Iosm)	9.846						0.482					

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 17145/3245=5.28 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1778	4623	4013	3531	2032	406	127	102	51	25	76	381
Tp [T*10]	286	278	278	278	275	269	261	253	253	261	272	281
Iom [Pp/Tp]	621	\$\$	\$\$	\$\$	739	151	49	40	20	10	28	136
Avm [200-Iom]	***	***	***	***	***	49	151	160	180	190	172	64
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	10414 / 842			5969 / 822			280 / 767			482 / 814		
Iot [Pp/Tp]	1237			726			37			59		
Avs E[Avm<200]	***			***			491			427		
Lower ultrahyperarid [1]							Lower hyperarid [2]					
Upper hyperarid [1]							Strong lower arid [2]					
Weak lower arid [1]							Weak lower semiarid [1]					
Strong upper semiarid [1]												

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 3.34  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 10.51  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 2.15  
 + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 0.74  
 + Oceanic (0.6<CI<1.1)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 63.41  
 + Temperate warm (100>R>60)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 46.29  
 + Humid (60>Ia>30)  
 I of Emberger (1930) [Q=100\*P/(Tmax<sup>2</sup>-Tmin<sup>2</sup>)] .....: 354.19  
 + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 1.58  
 + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] .....: 1.03  
 + Humid (I>0.65)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 124.66  
 + High (120<K<160)

THURSDAY ISLAND (AUSTRALIA)

Latitude: 10°35'S Longitude: 142°13'E Altitude: 61 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....: A. Warm and temperate warm  
 + Region .....: 3. Termoxeroteric (Mediterranean warm)  
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	1.90	1.62	1.41	0.77	0.13	0.04	0.03	0.01	0.01	0.02	0.12	0.65
T-E ratio	12.50	12.50	12.50	12.38	12.12	11.75	11.38	11.38	11.75	12.25	12.63	12.88
Precipitation-effectiveness:	66.97					Temperature-efficiency .....: 146.01						
Moisture Index [MI=100*(P-PE)/PE] .....: 2.57 + C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE] .....: 41.37 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....: 43.95 + Strong surplus (20<HI)												
Potential Evapotranspiration PE .....: 1671.55 + Megathermic (PE>1440)												

