

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

COEN (AUSTRALIA)

Altitude: 600 m.

Latitude: 13°57'S Longitude: 143°12'E

Temperature observation period.: 1950-1980 (31)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	27.00	0.00	0.00	40.00	19.40	247.0	154.85
Feb.	26.40	0.00	0.00	38.90	17.20	272.0	130.98
Mar.	26.00	0.00	0.00	36.70	19.40	272.0	133.56
Apr.	25.10	0.00	0.00	33.30	16.10	80.0	111.22
May.	23.60	0.00	0.00	32.20	12.10	11.0	92.03
Jun.	22.50	0.00	0.00	33.30	10.60	13.0	74.86
Jul.	21.70	0.00	0.00	30.60	8.30	7.0	69.41
Aug.	22.30	0.00	0.00	30.60	10.60	3.0	78.92
Sep.	23.90	0.00	0.00	31.70	11.10	1.0	96.84
Oct.	25.80	0.00	0.00	34.40	14.40	8.0	132.75
Nov.	27.30	0.00	0.00	40.00	16.10	44.0	150.42
Dec.	27.70	0.00	0.00	40.60	16.10	187.0	162.52
Year	24.94	0.00	0.00	35.19	14.28	1145	1388.4

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	683
Compensated thermicity index.....(Itc):	683
Simple continentality index.....(Ic):	6.0
Diurnality index.....(Id):	0.0
Annual ombrothermic index.....(Io):	3.83
Monthly dry ombrothermic index.....(Iod1):	0.04
Bimonthly dry ombrothermic index.....(Iod2):	0.09
Three monthly dry ombrothermic index.....(Iod3):	0.16
Four monthly dry ombrothermic index.....(Iod4):	0.27
Annual ombro-evaporation index.....(Ioe):	8.96
Annual positive temperature.....(Tp):	2993
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	679
Positive precipitation.....(Pp):	1145

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	4	1	1	6	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Euhyperoceanic

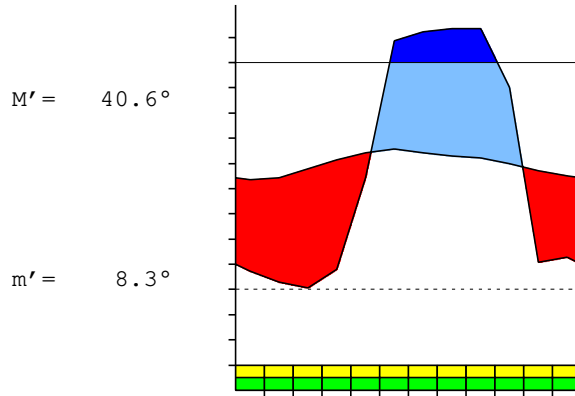
Bioclimate(Variant): TROPICAL PLUVISEASONAL (XEROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW SUBHUMID

COEN (AUSTRALIA)

600 m

P= 1145 13° 57' S 143° 12' E 31/31 y.
 T= 24.9° Ic= 6.0 Tp= 2993 Tn= 0
 m= 21.7° M= 21.7° Itc= 683 Io= 3.8



TROPICAL PLUVISEASONAL (XEROPHYTIC)
 UPPER INFRATROPICAL LOW SUBHUMID

WATER INDEX CARD

COEN (AUSTRALIA)

Altitude: 600 m.

Latitude: 13° 57' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	21.7	69	7	0	0	7	62	0	7	-0.8
Aug.	22.3	79	3	0	0	3	76	0	3	-0.9
Sep.	23.9	97	1	0	0	1	96	0	2	-0.9
Oct.	25.8	133	8	0	0	8	125	0	1	-0.9
Nov.	27.3	150	44	0	0	44	106	0	0	-0.7
Dec.	27.7	163	187	24	24	163	0	0	0	0.1
Jan.	27.0	155	247	76	100	155	0	17	8	0.5
Feb.	26.4	131	272	0	100	131	0	141	75	1.0
Mar.	26.0	134	272	0	100	134	0	138	107	1.0
Apr.	25.1	111	80	-31	69	111	0	0	53	-0.2
May.	23.6	92	11	-69	0	80	12	0	27	-0.8
Jun.	22.5	75	13	0	0	13	62	0	13	-0.8
Year	24.9	1388	1145	*	*	849	539	296	296	*

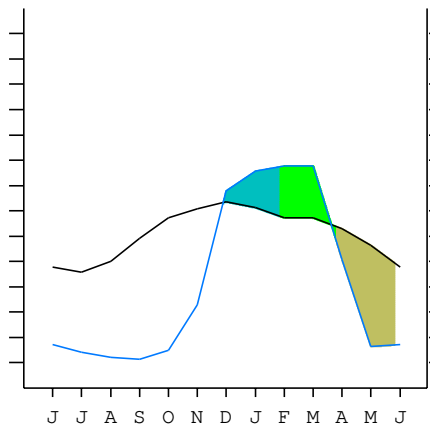
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

COEN (AUSTRALIA)

13°57' S 143°12' E 600 m 31/31 y.

T= 24.9 Ic= 6.0 TROPICAL PLUVISEASONAL (XEROPHYTIC)
 m= 21.7 Tp= 2993 UPPER INFRATROPICAL
 M= 21.7 Tn= 0 LOW SUBHUMID
 M' = 40.6 Itc= 683
 m' = 8.3 Io= 3.8
 P= 1145 mm ———
 PE= 1388 mm ———

Imbibing	25 Nov.
Saturation	25 Jan.
Reserve Use	25 Mar.
Deficit	26 May.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A2a]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: a. High

Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid

Bioclimatic types [A4.1a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .:
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trde.Itr.Shu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1030
 Coldest semester of the year.....(Psw): 115
 Warmest four months period of the year.....(Pcm1): 750
 Following warmest four months period.....(Pcm2): 376
 Positive precipitation dryest 3 months.....(Ppd): 11
 Positive precipitation dryest 2 months.....(Ppd2): 4
 Positive precipitation dryest 1 month.....(Ppd1): 1
 Positive precipitation warmest 3 months.....(Pps): 478
 Positive precipitation warmest 2 months.....(Pps2): 231
 Positive precipitation warmest 1 month.....(Pps1): 187
 Positive precipitation coldest 3 months.....(Ppw): 23
 Positive precipitation coldest 2 months.....(Ppw2): 10
 Positive precipitation coldest 1 month.....(Ppw1): 7

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	23	53	706	363

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.7
 Average coldest month [T].....(Tmin): 21.7
 Maximum temp. warmest month [M].....(Tmmax): 0.0
 Minimum temp. coldest month [m].....(Tmmin): 0.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 40.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 8.3
 First warmest contrasted month [M].....(Tcmax): 0.0 (0)
 First coldest contrasted month [m].....(Tcmin): 0.0 (0)
 Dry station temperature.....(Td): 679
 Positive temperature dryest 3 months.....(Tpd): 679
 Positive temperature dryest 2 months.....(Tpd2): 462
 Positive temperature dryest 1 month.....(Tpd1): 239
 Positive temperature warmest 3 months.....(Tps): 820
 Positive temperature warmest 2 months.....(Tps2): 550
 Positive temperature warmest 1 month.....(Tps1): 277
 Positive temperature coldest 3 months.....(Tpw): 665
 Positive temperature coldest 2 months.....(Tpw2): 440
 Positive temperature coldest 1 month.....(Tpw1): 217

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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): 1.21
 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)	1870	2470	2720	2720	800	110	130	70	30	10	80	440
Tp	277	270	264	260	251	236	225	217	223	239	258	273
Io (Iom)	6.75	9.15	10.3	10.5	3.19	0.47	0.58	0.32	0.13	0.04	0.31	1.61
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	7060 / 811			3630 / 747			230 / 665			530 / 770		
Io (Iot)	8.705			4.859			0.346			0.688		
Semesters	December-May						June-November					
Pp(x10)/Tp	10690 / 1558						760 / 1435					
Io (Iosm)	6.861						0.530					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 11450/2993=3.83 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1870	2470	2720	2720	800	110	130	70	30	10	80	440
Tp [T*10]	277	270	264	260	251	236	225	217	223	239	258	273
Iom [Pp/Tp]	675	915	\$\$\$	\$\$\$	319	47	58	32	13	4	31	161
Avm [200-Iom]	***	***	***	***	***	153	142	168	187	196	169	39
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	7060 / 811			3630 / 747			230 / 665			530 / 770		
Iot [Pp/Tp]	871			486			35			69		
Avs E[Avm<200]	***			***			497			404		
Lower ultrahyperarid [1]						Upper ultrahyperarid [1]						
Upper hyperarid [3]						Strong lower arid [1]						
Weak lower arid [2]						Strong upper semiarid [1]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 6.00
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 21.91
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 11.13
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.06
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 45.91
 + Semiarid (60>R>40)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 32.77
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 0.00
 + Arid (30>Q>0)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 2.18
 + Semiarid (3>DR>2)
 Aridity Index of UNEP [I=P/PE]: 0.82
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 64.61
 + Low (60<K<90)

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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	0.96	1.09	1.10	0.29	0.03	0.04	0.02	0.01	0.00	0.02	0.14	0.70
T-E ratio	12.15	11.88	11.70	11.30	10.62	10.13	9.77	10.03	10.75	11.61	12.28	12.47
Precipitation-effectiveness: 43.97						Temperature-efficiency: 134.68						
Moisture Index [MI=100*(P-PE)/PE]: -17.53 + C1.Subhumid dry (-33.3<MI<0) Index of dryness [DI=100*d/PE]: 38.85 + Strong deficit (33.3<DI) Index of humidity [HI=100*s/PE]: 21.32 + Strong surplus (20<HI) Potential Evapotranspiration PE: 1388.35 + Forth mesothermic (997<PE<1440)												

