

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

COFFS HARBOUR (AUSTRALIA)

Altitude: 4 m.

Latitude: 30°20'S Longitude: 153°7'E

Temperature observation period.: 1987-1994 (8)

Rainfall observation period....: 1964-1994 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	22.50	26.67	18.33	33.33	11.11	174.3	118.32
Feb.	22.78	26.67	18.89	40.56	13.33	195.3	103.98
Mar.	21.95	26.11	17.78	36.11	11.11	220.0	99.71
Apr.	20.00	25.00	15.00	31.11	6.11	196.6	74.86
May.	15.84	21.67	10.00	28.33	0.56	144.5	46.51
Jun.	13.61	20.00	7.22	26.67	0.00	113.5	32.19
Jul.	12.50	18.33	6.67	24.44	-1.11	95.3	28.99
Aug.	13.33	19.44	7.22	30.00	-0.56	53.1	34.95
Sep.	15.84	21.67	10.00	32.78	2.78	73.7	50.56
Oct.	18.06	23.33	12.78	34.44	5.00	96.8	72.68
Nov.	20.56	26.11	15.00	41.11	6.67	101.1	94.68
Dec.	21.95	26.67	17.22	41.11	8.33	147.6	113.82
Year	18.24	23.47	13.01	33.33	5.28	1612	871.25

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	432
Compensated thermicity index.....(Itc):	432
Simple continentality index.....(Ic):	10.3
Diurnality index.....(Id):	12.8
Annual ombrothermic index.....(Io):	7.36
Monthly estival ombrothermic index.....(Ios1):	6.72
Bimonthly estival ombrothermic index.....(Ios2):	8.16
Threemonthly estival ombrothermic index.....(Ios3):	7.69
Fourmonthly estival ombrothermic index.....(Ios4):	7.04
Annual ombro-evaporation index.....(Ioe):	1.79
Annual positive temperature.....(Tp):	2189
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	672
Positive precipitation.....(Pp):	1612

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	11	1	0	0	0

Latitudinal Belt...: Subtropical

Continentalty.....: Hyperoceanic - Low Subhyperoceanic

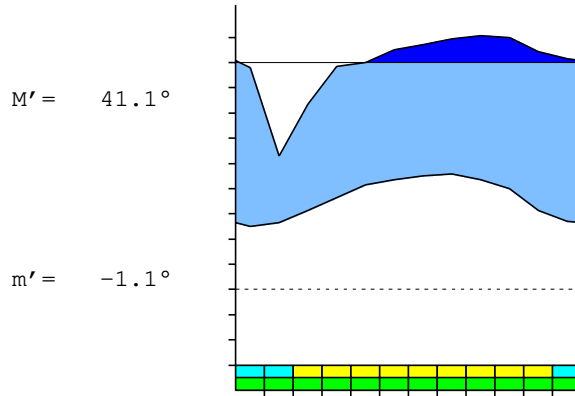
Bioclimate.....: TEMPERATE HYPEROCEANIC

Bioclimatic Belt...: INFRA-TEMPERATE LOW HUMID

COFFS HARBOUR (AUSTRALIA)

4 m

P= 1612 30° 20'S 153° 7'E 8/31 y.
 T= 18.2° Ic= 10.3 Tp= 2189 Tn= 0
 m= 6.7° M= 18.3° Itc= 432 Io= 7.4



TEMPERATE HYPEROCEANIC
 INFRATEMPERATE LOW HUMID

WATER INDEX CARD

COFFS HARBOUR (AUSTRALIA)

Altitude: 4 m.

Latitude: 30° 20'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	12.5	29	95	0	100	29	0	66	79	2.2
Aug.	13.3	35	53	0	100	35	0	18	49	0.5
Sep.	15.8	51	74	0	100	51	0	23	36	0.4
Oct.	18.1	73	97	0	100	73	0	24	30	0.3
Nov.	20.6	95	101	0	100	95	0	6	18	0.0
Dec.	22.0	114	148	0	100	114	0	34	26	0.2
Jan.	22.5	118	174	0	100	118	0	56	41	0.4
Feb.	22.8	104	195	0	100	104	0	91	66	0.8
Mar.	22.0	100	220	0	100	100	0	120	93	1.2
Apr.	20.0	75	197	0	100	75	0	122	107	1.6
May.	15.8	47	145	0	100	47	0	98	103	2.1
Jun.	13.6	32	114	0	100	32	0	81	92	2.5
Year	18.2	871	1612	*	*	871	0	741	741	*

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

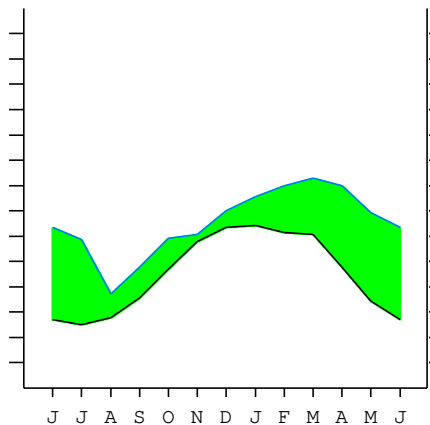
COFFS HARBOUR (AUSTRALIA)

30°20'S 153°7'E 4 m 8/31 y.

T= 18.2 Ic= 10.3 TEMPERATE HYPEROCEANIC
 m= 6.7 Tp= 2189 INFRATEMPERATE
 M= 18.3 Tn= 0 LOW HUMID
 M' = 41.1 Itc= 432
 m' = -1.1 Io= 7.4
 P= 1612 mm ———
 PE= 871 mm ———

Imbibing	
Saturation	
Reserve Use	
Deficit	

All over the year,
 there is no hydric deficit



COFFS HARBOUR (AUSTRALIA)

Latitude: 30°20'S Longitude: 153°7'E Altitude: 4 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low
 Thermic types [A3.A3]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm
 Bioclimatic types [C4.1.7b]
 + Macrobioclimate: C. TEMPERATE
 + Bioclimate: 4. HYPEROCEANIC
 + Bioclimatic variant .:
 + Thermic type.....: 1. INFRATEMPERATE
 + Thermic subtype.....:
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Texe.Ite.Hum

COFFS HARBOUR (AUSTRALIA)

Latitude: 30°20'S Longitude: 153°7'E Altitude: 4 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1035
 Coldest semester of the year.....(Psw): 577
 Warmest four months period of the year.....(Pcm1): 737
 Following warmest four months period.....(Pcm2): 550
 Positive precipitation dryest 3 months.....(Ppd): 222
 Positive precipitation dryest 2 months.....(Ppd2): 127
 Positive precipitation dryest 1 month.....(Ppd1): 53
 Positive precipitation warmest 3 months.....(Pps): 590
 Positive precipitation warmest 2 months.....(Pps2): 370
 Positive precipitation warmest 1 month.....(Pps1): 195
 Positive precipitation coldest 3 months.....(Ppw): 262
 Positive precipitation coldest 2 months.....(Ppw2): 148
 Positive precipitation coldest 1 month.....(Ppw1): 95

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	261	271	517	561

Seasonal rainfall rhythms: F > S > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 22.8
 Average coldest month [T].....(Tmin): 12.5
 Maximum temp. warmest month [M].....(Tmmax): 26.7
 Minimum temp. coldest month [m].....(Tmmin): 6.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 41.1
 Absolute Min.temp. coldest month [m'].....(Tamin): -1.1
 First warmest contrasted month [M].....(Tcmax): 20.0 (6)
 First coldest contrasted month [m].....(Tcmin): 7.2 (6)
 Estival temperature.....(Ts): 672
 Positive temperature dryest 3 months.....(Tpd): 417
 Positive temperature dryest 2 months.....(Tpd2): 292
 Positive temperature dryest 1 month.....(Tpd1): 133
 Positive temperature warmest 3 months.....(Tps): 672
 Positive temperature warmest 2 months.....(Tps2): 453
 Positive temperature warmest 1 month.....(Tps1): 228
 Positive temperature coldest 3 months.....(Tpw): 394
 Positive temperature coldest 2 months.....(Tpw2): 258
 Positive temperature coldest 1 month.....(Tpw1): 125

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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)						o	o	o				
Agelid.....[m' > 0] (Pf)	o	o	o	o	o				o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o				o	o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.54
 Mediterranean index of January.....(Im1): 0.68
 Mediterranean index of January & February.....(Im2): 0.60
 Mediterranean index of December to February...(Im3): 0.65

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1476	1743	1953	2200	1966	1445	1135	953	531	737	968	1011
Tp	220	225	228	220	200	158	136	125	133	158	181	206
Io (Iom)	6.72	7.75	8.57	10.0	9.83	9.12	8.34	7.62	3.98	4.65	5.36	4.92
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	5172 / 672			5611 / 578			2619 / 394			2716 / 545		
Io (Iot)	7.693			9.709			6.640			4.987		
Semesters	December-May						June-November					
Pp(x10)/Tp	10783 / 1250						5335 / 939					
Io (Iosm)	8.625						5.682					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 16118/2189=7.36 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1476	1743	1953	2200	1966	1445	1135	953	531	737	968	1011
Tp [T*10]	220	225	228	220	200	158	136	125	133	158	181	206
Iom [Pp/Tp]	672	775	857	\$\$\$	983	912	834	762	398	465	536	492
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	5172 / 672			5611 / 578			2619 / 394			2716 / 545		
Iot [Pp/Tp]	769			971			664			499		
Avs E[Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 10.28
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	14.20
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	13.00
+ Hyperoceanic (-20<CI<20)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	0.93
+ Oceanic (0.6<CI<1.1)	
Rainfall Index of Lang (1925) [R=P/T]	88.35
+ Temperate warm (100>R>60)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	57.07
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	241.72
+ Humid (Q>90)	
I of Dantin & Revenga (1940) [DR=100*T/P]	1.13
+ Humid (2>DR>0)	
Aridity Index of UNEP [I=P/PE]	1.85
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	30.03
+ 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	0.73	0.82	0.95	0.88	0.70	0.57	0.49	0.25	0.33	0.42	0.42	0.61
T-E ratio	10.13	10.25	9.88	9.00	7.13	6.12	5.63	6.00	7.13	8.13	9.25	9.88
Precipitation-effectiveness: 71.70						Temperature-efficiency						98.51
Moisture Index [MI=100*(P-PE)/PE]												85.00
+ B4.Humid highest-humid (80<MI<100)												
Index of dryness [DI=100*d/PE]												0.00
+ No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]												84.99
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												871.25
+ Third mesothermic (855<PE<997)												

