

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

COOKTOWN (AUSTRALIA)

Altitude: 7 m.

Latitude: 15°27'S Longitude: 145°11'E

Temperature observation period.: 1964-1994 (31)

Rainfall observation period....: 1932-1994 (63)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	27.78	31.67	23.89	40.00	19.44	365.8	163.24
Feb.	27.50	31.11	23.89	38.89	17.22	348.0	140.63
Mar.	26.95	30.00	23.89	36.67	18.89	388.6	146.06
Apr.	26.11	29.44	22.78	35.00	16.11	223.5	125.36
May.	24.45	27.78	21.11	32.22	12.22	71.1	99.98
Jun.	23.34	26.67	20.00	33.33	7.78	50.8	81.72
Jul.	22.50	26.11	18.89	30.56	8.33	22.9	74.33
Aug.	23.06	26.67	19.44	30.56	10.56	30.5	85.06
Sep.	24.45	27.78	21.11	37.78	11.11	15.2	102.02
Oct.	26.11	29.44	22.78	34.44	14.44	25.4	136.87
Nov.	27.50	31.11	23.89	40.00	16.11	63.5	153.55
Dec.	27.78	31.67	23.89	40.56	16.11	167.6	163.24
Year	25.63	29.12	22.13	35.83	14.03	1773	1472.1

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	706
Compensated thermicity index.....(Itc):	706
Simple continentality index.....(Ic):	5.3
Diurnality index.....(Id):	7.8
Annual ombrothermic index.....(Io):	5.76
Monthly dry ombrothermic index.....(Iod1):	0.62
Bimonthly dry ombrothermic index.....(Iod2):	0.96
Threemonthly dry ombrothermic index.....(Iod3):	0.98
Fourmonthly dry ombrothermic index.....(Iod4):	1.28
Annual ombro-evaporation index.....(Ioe):	1.20
Annual positive temperature.....(Tp):	3075
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	700
Positive precipitation.....(Pp):	1773

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	5	3	2	2	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - High Euhyperoceanic

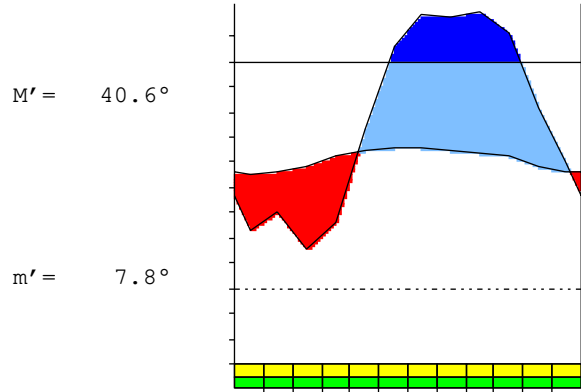
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, SUBMESOPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER SUBHUMID

COOKTOWN (AUSTRALIA)

7 m

P= 1773 15° 27' S 145° 11' E 31/63 y.
 T= 25.6 ° Ic= 5.3 Tp= 3075 Tn= 0
 m= 18.9 ° M= 26.1 ° Itc= 706 Io= 5.8



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL UPPER SUBHUMID

WATER INDEX CARD

COOKTOWN (AUSTRALIA)

Altitude: 7 m.

Latitude: 15° 27' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	22.5	74	23	-40	0	63	11	0	18	-0.6
Aug.	23.1	85	31	0	0	31	55	0	9	-0.6
Sep.	24.5	102	15	0	0	15	87	0	4	-0.8
Oct.	26.1	137	25	0	0	25	111	0	2	-0.8
Nov.	27.5	154	64	0	0	64	90	0	1	-0.5
Dec.	27.8	163	168	4	4	163	0	0	1	0.0
Jan.	27.8	163	366	96	100	163	0	107	54	1.2
Feb.	27.5	141	348	0	100	141	0	207	131	1.4
Mar.	27.0	146	389	0	100	146	0	243	187	1.6
Apr.	26.1	125	224	0	100	125	0	98	142	0.7
May.	24.5	100	71	-29	71	100	0	0	71	-0.2
Jun.	23.3	82	51	-31	40	82	0	0	36	-0.3
Year	25.6	1472	1773	*	*	1118	354	655	655	*

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

COOKTOWN (AUSTRALIA)

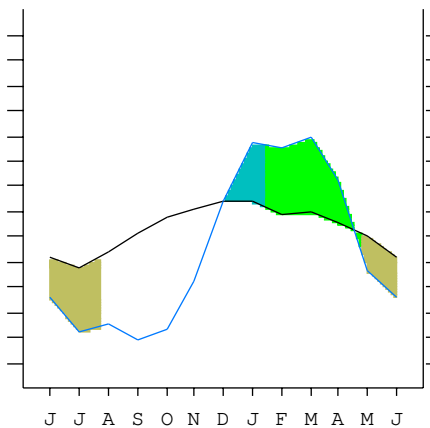
15°27' S 145°11' E

7 m 31/63 y.

T= 25.6 Ic= 5.3
 m= 18.9 Tp= 3075
 M= 26.1 Tn= 0
 M' = 40.6 Itc= 706
 m' = 7.8 Io= 5.8
 P= 1773 mm ———
 PE= 1472 mm ———

TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL
 UPPER SUBHUMID

Imbibing	29 Nov.
Saturation	15 Jan.
Reserve Use	24 Apr.
Deficit	24 Jul.



COOKTOWN (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality 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 [A4e.1a.6a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: PLUVISEROTIN, SUBMESOPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic ClassificationTrps(Pse).Itr.Shu.Eho

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1359
 Coldest semester of the year.....(Psw): 414
 Warmest four months period of the year.....(Pcm1): 945
 Following warmest four months period.....(Pcm2): 734
 Positive precipitation dryest 3 months.....(Ppd): 69
 Positive precipitation dryest 2 months.....(Ppd2): 41
 Positive precipitation dryest 1 month.....(Ppd1): 15
 Positive precipitation warmest 3 months.....(Pps): 597
 Positive precipitation warmest 2 months.....(Pps2): 533
 Positive precipitation warmest 1 month.....(Pps1): 366
 Positive precipitation coldest 3 months.....(Ppw): 104
 Positive precipitation coldest 2 months.....(Ppw2): 53
 Positive precipitation coldest 1 month.....(Ppw1): 23

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	104	104	881	683

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.8
 Average coldest month [T].....(Tmin): 22.5
 Maximum temp. warmest month [M].....(Tmmax): 31.7
 Minimum temp. coldest month [m].....(Tmmin): 18.9
 Absolute Max.temp. warmest month [M'].....(Tamax): 40.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 7.8
 First warmest contrasted month [M].....(Tcmax): 31.7 (1)
 First coldest contrasted month [m].....(Tcmin): 23.9 (1)
 Dry station temperature.....(Td): 700
 Positive temperature dryest 3 months.....(Tpd): 700
 Positive temperature dryest 2 months.....(Tpd2): 506
 Positive temperature dryest 1 month.....(Tpd1): 245
 Positive temperature warmest 3 months.....(Tps): 831
 Positive temperature warmest 2 months.....(Tps2): 556
 Positive temperature warmest 1 month.....(Tps1): 278
 Positive temperature coldest 3 months.....(Tpw): 689
 Positive temperature coldest 2 months.....(Tpw2): 456
 Positive temperature coldest 1 month.....(Tpw1): 225

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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): 0.83
 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)	1676	3658	3480	3886	2235	711	508	229	305	152	254	635
Tp	278	278	275	270	261	245	233	225	231	245	261	275
Io (Iom)	6.03	13.2	12.7	14.4	8.56	2.91	2.18	1.02	1.32	0.62	0.97	2.31
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	8814 / 831			6832 / 775			1042 / 689			1041 / 781		
Io (Iot)	10.61			8.814			1.512			1.334		
Semesters	December-May						June-November					
Pp(x10)/Tp	15646 / 1606						2083 / 1470					
Io (Iosm)	9.744						1.417					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 17729/3075=5.76 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1676	3658	3480	3886	2235	711	508	229	305	152	254	635
TP [T*10]	278	278	275	270	261	245	233	225	231	245	261	275
Iom [Pp/TP]	603	\$\$\$	\$\$\$	\$\$\$	856	291	218	102	132	62	97	231
Avm [200-Iom]	***	***	***	***	***	***	***	98	68	138	103	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	8814 / 831			6832 / 775			1042 / 689			1041 / 781		
Iot [Pp/TP]	1061			881			151			133		
Avs E[Avm<200]	***			***			***			***		
Weak lower arid [1]						Weak upper arid [1]						
Strong lower semiarid [1]						Weak lower semiarid [1]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 5.28
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 13.29
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 6.89
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.86
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 69.18
 + Temperate warm (100>R>60)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 49.76
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 274.38
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.45
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.20
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 85.18
 + 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	1.46	1.39	1.60	0.88	0.26	0.18	0.08	0.10	0.05	0.08	0.21	0.62
T-E ratio	12.50	12.38	12.13	11.75	11.00	10.50	10.13	10.38	11.00	11.75	12.38	12.50
Precipitation-effectiveness: 69.00						Temperature-efficiency: 138.39						
Moisture Index [MI=100*(P-PE)/PE]: 20.44 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]: 24.05 + Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 44.49 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 1472.06 + Megathermic (PE>1440)												

