

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

MUNDIWINDI (AUSTRALIA)

Altitude: 408 m.

Latitude: 23°52'S Longitude: 120°9'E

Temperature observation period.: 1955-1980 (26)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	30.60	38.30	17.80	44.40	13.90	31.0	195.25
Feb.	29.80	37.20	22.80	44.40	12.80	29.0	163.53
Mar.	27.50	34.40	20.60	42.30	9.40	33.0	150.68
Apr.	21.10	30.60	16.10	40.60	3.90	28.0	70.44
May.	18.10	25.00	10.60	36.40	-1.70	24.0	45.59
Jun.	13.80	21.70	6.70	29.80	-4.40	22.0	20.76
Jul.	13.20	21.10	5.00	30.60	-5.30	11.0	19.24
Aug.	15.40	23.90	7.20	37.30	-3.30	7.0	31.05
Sep.	19.60	28.30	10.60	37.20	-1.70	1.0	60.13
Oct.	23.30	31.70	14.40	40.70	3.30	2.0	105.50
Nov.	27.50	36.10	19.40	43.30	7.80	7.0	159.29
Dec.	29.40	37.80	21.70	44.40	11.70	20.0	187.28
Year	22.44	30.51	14.41	39.28	3.87	215	1208.7

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	485
Compensated thermicity index.....(Itc):	485
Simple continentality index.....(Ic):	17.4
Diurnality index.....(Id):	20.5
Annual ombrothermic index.....(Io):	0.80
Monthly dry ombrothermic index.....(Iod1):	0.05
Bimonthly dry ombrothermic index.....(Iod2):	0.07
Three monthly dry ombrothermic index.....(Iod3):	0.17
Four monthly dry ombrothermic index.....(Iod4):	0.29
Annual ombro-evaporation index.....(Ioe):	1.31
Annual positive temperature.....(Tp):	2693
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	583
Positive precipitation.....(Pp):	215

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	0	0	5	7	0

Latitudinal Belt...: Subtropical

Continentalty.....: Oceanic - Low Semicontinental

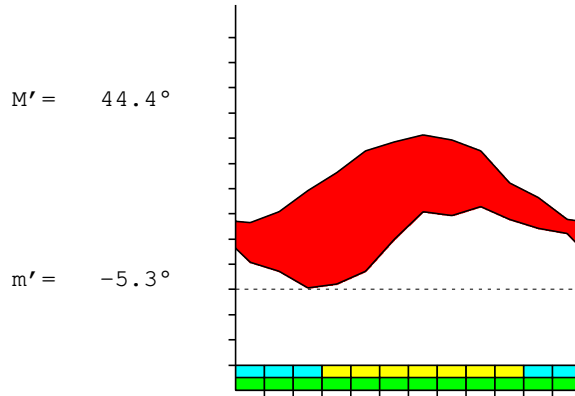
Bioclimate(Variant): TROPICAL DESERTIC (ARID)

Bioclimatic Belt...: LOW MESOTROPICAL UPPER ARID

MUNDIWINDI (AUSTRALIA)

408 m

P= 215 23° 52' S 120° 9' E 26/31 y.
 T= 22.4° Ic= 17.4 Tp= 2693 Tn= 0
 m= 5.0° M= 21.1° Itc= 485 Io= 0.8



TROPICAL DESERTIC (ARID)
 LOW MESOTROPICAL UPPER ARID

WATER INDEX CARD MUNDIWINDI (AUSTRALIA)
 Altitude: 408 m. Latitude: 23° 52' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	13.2	19	11	-1	0	12	7	0	0	-0.4
Aug.	15.4	31	7	0	0	7	24	0	0	-0.7
Sep.	19.6	60	1	0	0	1	59	0	0	-0.9
Oct.	23.3	105	2	0	0	2	103	0	0	-0.9
Nov.	27.5	159	7	0	0	7	152	0	0	-0.9
Dec.	29.4	187	20	0	0	20	167	0	0	-0.8
Jan.	30.6	195	31	0	0	31	164	0	0	-0.8
Feb.	29.8	164	29	0	0	29	135	0	0	-0.8
Mar.	27.5	151	33	0	0	33	118	0	0	-0.7
Apr.	21.1	70	28	0	0	28	42	0	0	-0.6
May.	18.1	46	24	0	0	24	22	0	0	-0.4
Jun.	13.8	21	22	1	1	21	0	0	0	0.0
Year	22.4	1209	215	*	*	215	994	0	0	*

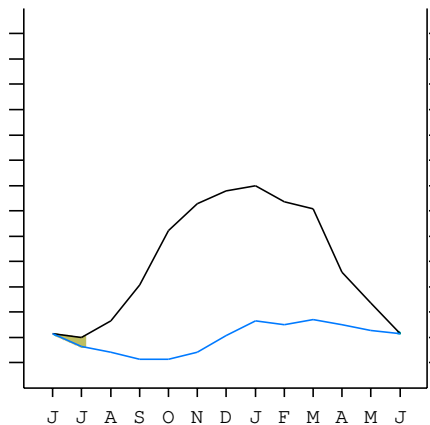
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

MUNDIWINDI (AUSTRALIA)

23°52' S 120°9' E 408 m 26/31 y.

T= 22.4 Ic= 17.4 TROPICAL DESERTIC (ARID)
 m= 5.0 Tp= 2693 LOW MESOTROPICAL
 M= 21.1 Tn= 0 UPPER ARID
 M' = 44.4 Itc= 485
 m' = -5.3 Io= 0.8
 P= 215 mm ———
 PE= 1209 mm ———

Imbibing	29 May.
Saturation	4 Jun.
Reserve Use	5 Jul.
Deficit	



MUNDIWINDI (AUSTRALIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: a. Low
 Thermic types [A3.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A2.3b.3a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 2. DESERTIC
 + Bioclimatic variant ..:
 + Thermic type.....: 3. MESOTROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 3. ARID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Trps.Mtr.Ari

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 122
 Coldest semester of the year.....(Psw): 93
 Warmest four months period of the year.....(Pcm1): 87
 Following warmest four months period.....(Pcm2): 107
 Positive precipitation dryest 3 months.....(Ppd): 10
 Positive precipitation dryest 2 months.....(Ppd2): 3
 Positive precipitation dryest 1 month.....(Ppd1): 1
 Positive precipitation warmest 3 months.....(Pps): 80
 Positive precipitation warmest 2 months.....(Pps2): 60
 Positive precipitation warmest 1 month.....(Pps1): 31
 Positive precipitation coldest 3 months.....(Ppw): 40
 Positive precipitation coldest 2 months.....(Ppw2): 33
 Positive precipitation coldest 1 month.....(Ppw1): 11

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	40	10	80	85

Seasonal rainfall rhythms: F > S > W > P

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 30.6
 Average coldest month [T].....(Tmin): 13.2
 Maximum temp. warmest month [M].....(Tmmax): 38.3
 Minimum temp. coldest month [m].....(Tmmin): 5.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 44.4
 Absolute Min.temp. coldest month [m'].....(Tamin): -5.3
 First warmest contrasted month [M].....(Tcmax): 38.3 (1)
 First coldest contrasted month [m].....(Tcmin): 17.8 (1)
 Dry station temperature.....(Td): 583
 Positive temperature dryest 3 months.....(Tpd): 583
 Positive temperature dryest 2 months.....(Tpd2): 429
 Positive temperature dryest 1 month.....(Tpd1): 196
 Positive temperature warmest 3 months.....(Tps): 898
 Positive temperature warmest 2 months.....(Tps2): 604
 Positive temperature warmest 1 month.....(Tps1): 306
 Positive temperature coldest 3 months.....(Tpw): 424
 Positive temperature coldest 2 months.....(Tpw2): 270
 Positive temperature coldest 1 month.....(Tpw1): 132

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 5.62
 Mediterranean index of January.....(Im1): 6.30
 Mediterranean index of January & February.....(Im2): 5.98
 Mediterranean index of December to February...(Im3): 6.83

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	200	310	290	330	280	240	220	110	70	10	20	70
Tp	294	306	298	275	211	181	138	132	154	196	233	275
Io (Iom)	0.68	1.01	0.97	1.20	1.33	1.33	1.59	0.83	0.45	0.05	0.09	0.25
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	800 / 898			850 / 667			400 / 424			100 / 704		
Io (Iot)	0.891			1.274			0.943			0.142		
Semesters	December-May						June-November					
Pp(x10)/Tp	1650 / 1565						500 / 1128					
Io (Iosm)	1.054						0.443					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 2150/2693=0.80 Weak upper arid (8) [1421]

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	200	310	290	330	280	240	220	110	70	10	20	70
Tp [T*10]	294	306	298	275	211	181	138	132	154	196	233	275
Iom [Pp/Tp]	68	101	97	120	133	133	159	83	45	5	9	25
Avm [200-Iom]	132	99	103	80	67	67	41	117	155	195	191	175
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	800 / 898			850 / 667			400 / 424			100 / 704		
Iot [Pp/Tp]	89			127			94			14		
Avs E[Avm<200]	333			215			312			561		
Lower ultrahyperarid [2]						Upper ultrahyperarid [1]						
Lower hyperarid [1]						Strong lower arid [1]						
Weak lower arid [1]						Weak upper arid [4]						
Strong lower semiarid [2]						Weak lower semiarid [3]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	17.40
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		52.71
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		39.08
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.94
+ Continental (1.7<CI<2.3)		
Rainfall Index of Lang (1925) [R=P/T]		9.58
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		6.63
+ Arid -steppic- (15>Ia>5)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		14.91
+ Arid (30>Q>0)		
I of Dantin & Revenga (1940) [DR=100*T/P]		10.44
+ Extremely arid (DR>6)		
Aridity Index of UNEP [I=P/PE]		0.18
+ Arid (0.2>Im>0.05)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		5.07
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.09	0.08	0.10	0.10	0.09	0.09	0.04	0.02	0.00	0.00	0.02	0.06
T-E ratio	13.77	13.41	12.38	9.50	8.15	6.21	5.94	6.93	8.82	10.48	12.38	13.23
Precipitation-effectiveness: 7.04						Temperature-efficiency						121.18
Moisture Index [MI=100*(P-PE)/PE]												-82.21
+ E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE]												82.21
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												1208.74
+ Forth mesothermic (997<PE<1440)												

