

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

LADY ELLIOT ISLAND (AUSTRALIA)

Altitude: 4 m.

Latitude: 24°6'S Longitude: 152°42'E

Temperature observation period.: 1941-1990 (50)

Rainfall observation period....: 1939-1989 (51)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	26.33	28.80	23.60	0.00	0.00	141.4	154.74
Feb.	26.33	29.55	23.05	0.00	0.00	177.2	134.73
Mar.	25.66	28.11	23.24	0.00	0.00	135.4	130.53
Apr.	24.06	26.43	21.88	0.00	0.00	101.3	100.06
May.	21.73	24.68	18.83	0.00	0.00	109.8	74.13
Jun.	19.47	21.73	17.18	0.00	0.00	92.3	51.97
Jul.	18.73	20.93	16.38	0.00	0.00	98.8	48.84
Aug.	19.43	21.73	17.18	0.00	0.00	60.0	57.48
Sep.	20.98	23.23	18.68	0.00	0.00	37.3	71.64
Oct.	22.80	25.30	20.10	0.00	0.00	60.0	98.95
Nov.	24.36	27.00	21.80	0.00	0.00	74.7	119.68
Dec.	25.70	28.68	22.83	0.00	0.00	89.1	147.32
Year	22.96	25.51	20.40	0.00	0.00	1177	1190.1

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	603
Compensated thermicity index.....(Itc):	599
Simple continentality index.....(Ic):	7.6
Diurnality index.....(Id):	6.5
Annual ombrothermic index.....(Io):	4.27
Monthly dry ombrothermic index.....(Iod1):	1.78
Bimonthly dry ombrothermic index.....(Iod2):	2.22
Three monthly dry ombrothermic index.....(Iod3):	2.49
Four monthly dry ombrothermic index.....(Iod4):	3.13
Annual ombro-evaporation index.....(Ioe):	1.57
Annual positive temperature.....(Tp):	2756
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	632
Positive precipitation.....(Pp):	1177

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	7	4	1	0	0

Latitudinal Belt...: Subtropical

Continentalty.....: Hyperoceanic - Low Euhyperoceanic

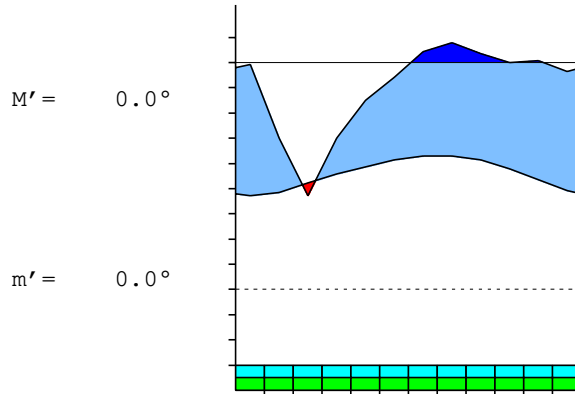
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, MESOPHYTIC)

Bioclimatic Belt...: LOW THERMOTROPICAL LOW SUBHUMID

LADY ELLIOT ISLAND (AUSTRALIA)

4 m

P= 1177 24° 6'S 152° 42'E 50/51 y.
 T= 23.0° Ic= 7.6 Tp= 2756 Tn= 0
 m= 16.4° M= 20.9° Itc= 599 Io= 4.3



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 LOW THERMOTROPICAL LOW SUBHUMID

WATER INDEX CARD

LADY ELLIOT ISLAND (AUSTRALIA)

Altitude: 4 m.

Latitude: 24° 6'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	18.7	49	99	0	100	49	0	50	31	1.0
Aug.	19.4	57	60	0	100	57	0	3	17	0.0
Sep.	21.0	72	37	-34	66	72	0	0	8	-0.4
Oct.	22.8	99	60	-39	27	99	0	0	4	-0.3
Nov.	24.4	120	75	-27	0	101	18	0	2	-0.3
Dec.	25.7	147	89	0	0	89	58	0	1	-0.3
Jan.	26.3	155	141	0	0	141	13	0	1	0.0
Feb.	26.3	135	177	42	42	135	0	0	0	0.3
Mar.	25.7	131	135	5	47	131	0	0	0	0.0
Apr.	24.1	100	101	1	49	100	0	0	0	0.0
May.	21.7	74	110	36	84	74	0	0	0	0.4
Jun.	19.5	52	92	16	100	52	0	25	12	0.7
Year	23.0	1190	1177	*	*	1100	90	77	77	*

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

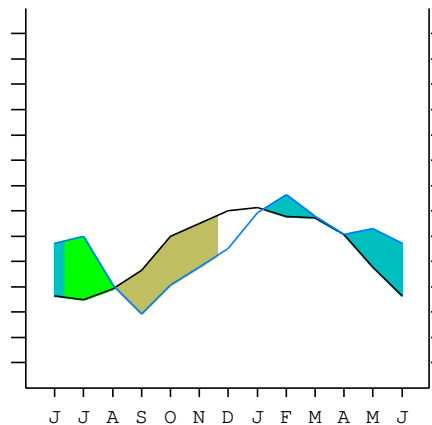
LADY ELLIOT ISLAND (AUSTRALIA)

24°6'S 152°42'E

4 m 50/51 y.

T= 23.0 Ic= 7.6 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 16.4 Tp= 2756 LOW THERMOTROPICAL
 M= 20.9 Tn= 0 LOW SUBHUMID
 M' = 0.0 Itc= 599
 m' = 0.0 Io= 4.3
 P= 1177 mm ———
 PE= 1190 mm ———

Imbibing	8 Jan.
Saturation	12 Jun.
Reserve Use	3 Aug.
Deficit	18 Nov.



LADY ELLIOT ISLAND (AUSTRALIA)

Latitude: 24°6'S Longitude: 152°42'E Altitude: 4 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A2b]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: b. Low
 Thermic types [A3.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A4e.2b.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: e. PLUVISEROTIN, MESOPHYTIC
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde (Pse).Ttr.Shu

LADY ELLIOT ISLAND (AUSTRALIA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 719
 Coldest semester of the year.....(Psw): 458
 Warmest four months period of the year.....(Pcm1): 543
 Following warmest four months period.....(Pcm2): 402
 Positive precipitation dryest 3 months.....(Ppd): 157
 Positive precipitation dryest 2 months.....(Ppd2): 97
 Positive precipitation dryest 1 month.....(Ppd1): 37
 Positive precipitation warmest 3 months.....(Pps): 408
 Positive precipitation warmest 2 months.....(Pps2): 319
 Positive precipitation warmest 1 month.....(Pps1): 141
 Positive precipitation coldest 3 months.....(Ppw): 251
 Positive precipitation coldest 2 months.....(Ppw2): 159
 Positive precipitation coldest 1 month.....(Ppw1): 99

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	251	171	407	346

Seasonal rainfall rhythms: S > F > W > P

LADY ELLIOT ISLAND (AUSTRALIA)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.3
 Average coldest month [T].....(Tmin): 18.7
 Maximum temp. warmest month [M].....(Tmmax): 29.5
 Minimum temp. coldest month [m].....(Tmmin): 16.4
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.0
 First warmest contrasted month [M].....(Tcmax): 29.5 (2)
 First coldest contrasted month [m].....(Tcmin): 23.0 (2)
 Dry station temperature.....(Td): 632
 Positive temperature dryest 3 months.....(Tpd): 632
 Positive temperature dryest 2 months.....(Tpd2): 438
 Positive temperature dryest 1 month.....(Tpd1): 210
 Positive temperature warmest 3 months.....(Tps): 784
 Positive temperature warmest 2 months.....(Tps2): 527
 Positive temperature warmest 1 month.....(Tps1): 263
 Positive temperature coldest 3 months.....(Tpw): 576
 Positive temperature coldest 2 months.....(Tpw2): 382
 Positive temperature coldest 1 month.....(Tpw1): 187

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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)												
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

LADY ELLIOT ISLAND (AUSTRALIA)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.01
 Mediterranean index of January.....(Im1): 1.09
 Mediterranean index of January & February.....(Im2): 0.91
 Mediterranean index of December to February...(Im3): 1.07

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	891	1414	1772	1354	1013	1098	923	988	600	373	600	747
Tp	257	263	263	257	241	217	195	187	194	210	228	244
Io (Iom)	3.47	5.37	6.73	5.28	4.21	5.05	4.74	5.27	3.09	1.78	2.63	3.07
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	4077 / 784			3465 / 714			2512 / 576			1719 / 681		
Io (Iot)	5.203			4.850			4.358			2.523		
Semesters	December-May						June-November					
Pp(x10)/Tp	7542 / 1498						4231 / 1258					
Io (Iosm)	5.035						3.364					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 11773/2756=4.27 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	891	1414	1772	1354	1013	1098	923	988	600	373	600	747
Tp [T*10]	257	263	263	257	241	217	195	187	194	210	228	244
Iom [Pp/Tp]	347	537	673	528	421	505	474	527	309	178	263	307
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	22	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	4077 / 784			3465 / 714			2512 / 576			1719 / 681		
Iot [Pp/Tp]	520			485			436			252		
Avs E[Avm<200]	***			***			***			***		
Weak upper semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	7.60
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		11.24
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		9.05
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.84
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		51.27
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		35.72
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		194.64
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.95
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		0.99
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		26.68
+ 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	0.53	0.68	0.51	0.38	0.44	0.39	0.42	0.24	0.14	0.22	0.27	0.32	
T-E ratio	11.85	11.85	11.55	10.83	9.78	8.76	8.43	8.74	9.44	10.26	10.96	11.57	
Precipitation-effectiveness:	45.33					Temperature-efficiency							124.01
Moisture Index [MI=100*(P-PE)/PE]												-1.07	
+ C1.Subhumid dry (-33.3<MI<0)													
Index of dryness [DI=100*d/PE]												7.55	
+ No deficit (0<DI<16.7)													
Index of humidity [HI=100*s/PE]												6.48	
+ No surplus (0<HI<10)													
Potential Evapotranspiration PE												1190.08	
+ Forth mesothermic (997<PE<1440)													

