

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

LORD HOWE ISLAND (AUSTRALIA)

Altitude: 5 m.

Latitude: 31°31'S Longitude: 159°7'E

Temperature observation period.: 1953-1980 (28)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	22.50	25.60	19.30	30.60	11.70	125.0	117.35
Feb.	22.50	25.60	19.60	31.70	12.20	106.0	100.87
Mar.	22.00	25.00	19.80	29.40	12.80	127.0	98.27
Apr.	20.30	23.30	17.20	28.30	10.60	171.0	74.93
May.	18.30	21.20	15.30	25.60	8.30	158.0	58.27
Jun.	16.70	19.40	13.80	23.90	7.80	195.0	44.76
Jul.	15.60	18.60	13.00	23.90	6.10	196.0	41.36
Aug.	15.90	18.80	12.60	22.80	6.10	135.0	45.87
Sep.	16.70	19.90	13.40	25.00	6.70	134.0	53.28
Oct.	18.00	21.40	14.80	27.20	7.80	131.0	69.38
Nov.	19.40	22.90	16.30	27.80	9.40	114.0	82.81
Dec.	21.10	24.40	18.00	29.40	10.60	123.0	104.00
Year	19.08	22.17	16.09	27.13	9.18	1715	891.13

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	507
Compensated thermicity index.....(Itc):	496
Simple continentality index.....(Ic):	6.9
Diurnality index.....(Id):	6.6
Annual ombrothermic index.....(Io):	7.49
Monthly dry ombrothermic index.....(Iod1):	4.71
Bimonthly dry ombrothermic index.....(Iod2):	5.13
Three monthly dry ombrothermic index.....(Iod3):	5.36
Four monthly dry ombrothermic index.....(Iod4):	5.47
Annual ombro-evaporation index.....(Ioe):	0.81
Annual positive temperature.....(Tp):	2290
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	661
Positive precipitation.....(Pp):	1715

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	12	0	0	0	0

Latitudinal Belt...: Subtropical

Continentalty.....: Hyperoceanic - Low Euhyperoceanic

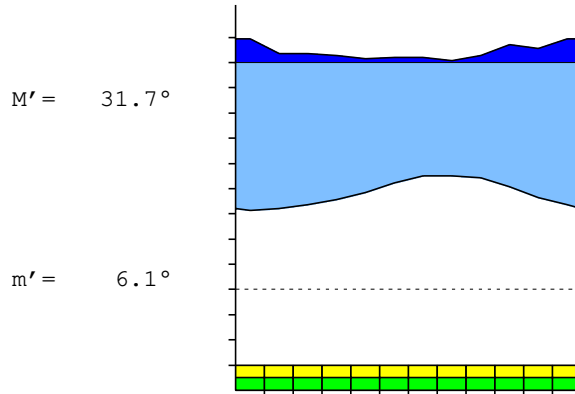
Bioclimate(Variant): TROPICAL PLUVIAL (HYGROPHYTIC)

Bioclimatic Belt...: UPPER THERMOTROPICAL LOW HUMID

LORD HOWE ISLAND (AUSTRALIA)

5 m

P= 1715 31° 31'S 159° 7'E 28/31 y.
 T= 19.1° Ic= 6.9 Tp= 2290 Tn= 0
 m= 13.0° M= 18.6° Itc= 496 Io= 7.5



TROPICAL PLUVIAL (HYGROPHYTIC)
 UPPER THERMOTROPICAL LOW HUMID

WATER INDEX CARD

LORD HOWE ISLAND (AUSTRALIA)

Altitude: 5 m.

Latitude: 31° 31'S

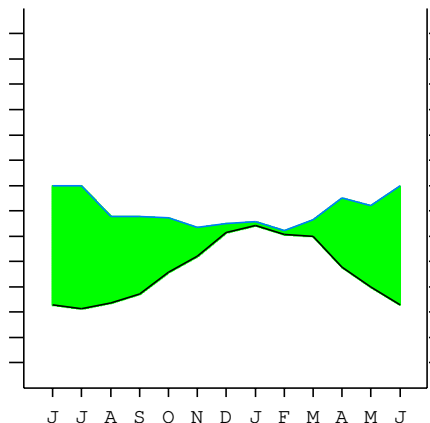
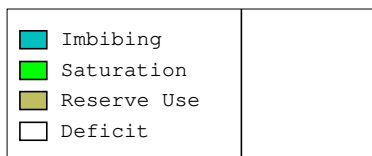
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	15.6	41	196	0	100	41	0	155	135	3.7
Aug.	15.9	46	135	0	100	46	0	89	112	1.9
Sep.	16.7	53	134	0	100	53	0	81	96	1.5
Oct.	18.0	69	131	0	100	69	0	62	79	0.8
Nov.	19.4	83	114	0	100	83	0	31	55	0.3
Dec.	21.1	104	123	0	100	104	0	19	37	0.1
Jan.	22.5	117	125	0	100	117	0	8	22	0.0
Feb.	22.5	101	106	0	100	101	0	5	14	0.0
Mar.	22.0	98	127	0	100	98	0	29	21	0.2
Apr.	20.3	75	171	0	100	75	0	96	59	1.2
May.	18.3	58	158	0	100	58	0	100	79	1.7
Jun.	16.7	45	195	0	100	45	0	150	115	3.3
Year	19.1	891	1715	*	*	891	0	824	824	*

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

LORD HOWE ISLAND (AUSTRALIA)

31°31'S 159°7'E 5 m 28/31 y.

T= 19.1 Ic= 6.9 TROPICAL PLUVIAL (HYGROPHYTIC)
 m= 13.0 Tp= 2290 UPPER THERMOTROPICAL
 M= 18.6 Tn= 0 LOW HUMID
 M' = 31.7 Itc= 496
 m' = 6.1 Io= 7.5
 P= 1715 mm ———
 PE= 891 mm ———



All over the year,
 there is no hydric deficit

LORD HOWE ISLAND (AUSTRALIA)

Latitude: 31°31'S Longitude: 159°7'E Altitude: 5 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 [A5.2a.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 5. PLUVIAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trhd.Ttr.Hum

LORD HOWE ISLAND (AUSTRALIA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 766
 Coldest semester of the year.....(Psw): 949
 Warmest four months period of the year.....(Pcm1): 481
 Following warmest four months period.....(Pcm2): 720
 Positive precipitation dryest 3 months.....(Ppd): 354
 Positive precipitation dryest 2 months.....(Ppd2): 231
 Positive precipitation dryest 1 month.....(Ppd1): 106
 Positive precipitation warmest 3 months.....(Pps): 358
 Positive precipitation warmest 2 months.....(Pps2): 231
 Positive precipitation warmest 1 month.....(Pps1): 125
 Positive precipitation coldest 3 months.....(Ppw): 526
 Positive precipitation coldest 2 months.....(Ppw2): 331
 Positive precipitation coldest 1 month.....(Ppw1): 196

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	526	379	354	456

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 22.5
 Average coldest month [T].....(Tmin): 15.6
 Maximum temp. warmest month [M].....(Tmmax): 25.6
 Minimum temp. coldest month [m].....(Tmmin): 12.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 31.7
 Absolute Min.temp. coldest month [m'].....(Tamin): 6.1
 First warmest contrasted month [M].....(Tcmax): 21.4 (10)
 First coldest contrasted month [m].....(Tcmin): 14.8 (10)
 Dry station temperature.....(Td): 661
 Positive temperature dryest 3 months.....(Tpd): 661
 Positive temperature dryest 2 months.....(Tpd2): 450
 Positive temperature dryest 1 month.....(Tpd1): 225
 Positive temperature warmest 3 months.....(Tps): 670
 Positive temperature warmest 2 months.....(Tps2): 450
 Positive temperature warmest 1 month.....(Tps1): 225
 Positive temperature coldest 3 months.....(Tpw): 482
 Positive temperature coldest 2 months.....(Tpw2): 315
 Positive temperature coldest 1 month.....(Tpw1): 156

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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): 0.52
 Mediterranean index of January.....(Im1): 0.94
 Mediterranean index of January & February.....(Im2): 0.94
 Mediterranean index of December to February...(Im3): 0.91

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1230	1250	1060	1270	1710	1580	1950	1960	1350	1340	1310	1140
Tp	211	225	225	220	203	183	167	156	159	167	180	194
Io (Iom)	5.83	5.56	4.71	5.77	8.42	8.63	11.7	12.6	8.49	8.02	7.28	5.88
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	3540 / 661			4560 / 606			5260 / 482			3790 / 541		
Io (Iot)	5.356			7.525			10.91			7.006		
Semesters	December-May						June-November					
Pp(x10)/Tp	8100 / 1267						9050 / 1023					
Io (Iosm)	6.393						8.847					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 17150/2290=7.49 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1230	1250	1060	1270	1710	1580	1950	1960	1350	1340	1310	1140
Tp [T*10]	211	225	225	220	203	183	167	156	159	167	180	194
Iom [Pp/Tp]	583	556	471	577	842	863	\$\$	\$\$	849	802	728	588
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	3540 / 661			4560 / 606			5260 / 482			3790 / 541		
Iot [Pp/Tp]	536			752			1091			701		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	6.90
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		2.04
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		3.70
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.60
+ Hyperoceanic (0<CI<0.6)		
Rainfall Index of Lang (1925) [R=P/T]		89.87
+ Temperate warm (100>R>60)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		58.97
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		345.35
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.11
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		1.92
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		22.40
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.50	0.42	0.52	0.75	0.72	0.96	0.99	0.65	0.63	0.59	0.49	0.51
T-E ratio	10.13	10.13	9.90	9.13	8.23	7.52	7.02	7.15	7.52	8.10	8.73	9.50
Precipitation-effectiveness: 77.27						Temperature-efficiency						103.05
Moisture Index [MI=100*(P-PE)/PE]												92.45
+ 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]												92.44
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												891.13
+ Third mesothermic (855<PE<997)												

