

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

DECEPTION ISLAND (ANTARCTICA TERR.)

Altitude: 8 m.

Latitude: 62°59'S Longitude: 60°34'W

Temperature observation period.: 1986-1994 (9)

Rainfall observation period....: 1992-1994 (3)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	1.11	2.78	-0.56	10.56	-7.22	58.4	176.85
Feb.	1.11	2.78	-0.56	8.89	-6.67	53.3	136.12
Mar.	0.00	1.67	-1.67	7.78	-11.11	68.6	0.00
Apr.	-2.50	-0.56	-4.44	8.33	-16.67	50.8	0.00
May.	-5.00	-2.78	-7.22	5.56	-21.11	5.1	0.00
Jun.	-7.50	-5.00	-10.00	3.89	-26.67	7.6	0.00
Jul.	-8.89	-6.11	-11.67	4.44	-25.00	15.2	0.00
Aug.	-8.33	-5.56	-11.11	5.00	-27.78	25.4	0.00
Sep.	-5.83	-3.33	-8.33	3.89	-23.33	22.9	0.00
Oct.	-2.78	-0.56	-5.00	7.22	-16.67	109.2	0.00
Nov.	-1.95	0.00	-3.89	5.56	-13.89	96.5	0.00
Dec.	0.56	2.22	-1.11	7.22	-7.78	50.8	133.53
Year	-3.33	-1.20	-5.46	6.53	-16.99	564	446.51

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-211
Compensated thermicity index.....(Itc):	-211
Simple continentality index.....(Ic):	10.0
Diurnality index.....(Id):	5.6
Annual ombrothermic index.....(Io):	58.45
Monthly estival ombrothermic index.....(Ios1):	52.61
Bimonthly estival ombrothermic index.....(Ios2):	50.32
Threemonthly estival ombrothermic index.....(Ios3):	58.45
Fourmonthly estival ombrothermic index.....(Ios4):	312.05
Annual ombro-evaporation index.....(Ioe):	2.04
Annual positive temperature.....(Tp):	28
Annual negative temperature.....(Tn):	428
Estival temperature.....(Ts):	28
Positive precipitation.....(Pp):	163

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	4	0	0	0	8

Latitudinal Belt...: High subtemperate

Continentalty.....: Hyperoceanic - Low Subhyperoceanic

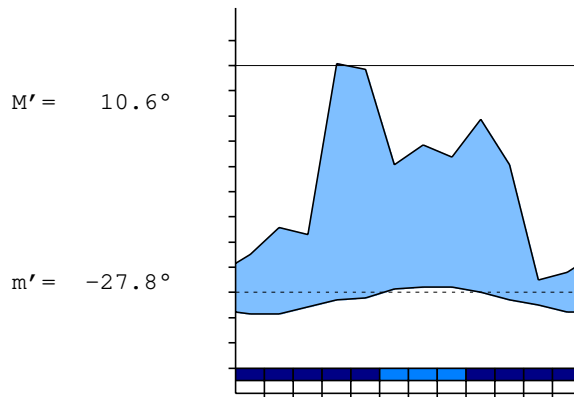
Bioclimate(Variant): Polar Suprapolar (Hyperoceanic)

Bioclimatic Belt...: Upper Suprapolar Medium-Snowy

DECEPTION ISLAND (ANTARCTICA TERR.)

8 m

P= 564 62° 59'S 60° 34'W 9/3 y.
 T= -3.3° Ic= 10.0 Tp= 28 Tn= 428
 m= -11.7° M= -6.1° Itc= -211 Io= 58.5



Polar Suprapolar (Hyperoceanic)
 Upper Suprapolar Medium-Snowy

WATER INDEX CARD DECEPTION ISLAND (ANTARCTICA TERR.)
 Altitude: 8 m. Latitude: 62° 59'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	-8.9	0	15	0	100	0	0	15	12	*
Aug.	-8.3	0	25	0	100	0	0	25	19	*
Sep.	-5.8	0	23	0	100	0	0	23	21	*
Oct.	-2.8	0	109	0	100	0	0	109	65	*
Nov.	-2.0	0	97	0	100	0	0	97	81	*
Dec.	0.6	134	51	-83	17	134	0	0	40	-0.6
Jan.	1.1	177	58	-17	0	76	101	0	20	-0.6
Feb.	1.1	136	53	0	0	53	83	0	10	-0.6
Mar.	0.0	0	69	69	69	0	0	0	5	*
Apr.	-2.5	0	51	31	100	0	0	19	12	*
May.	-5.0	0	5	0	100	0	0	5	9	*
Jun.	-7.5	0	8	0	100	0	0	8	8	*
Year	-3.3	447	564	*	*	263	184	301	301	*

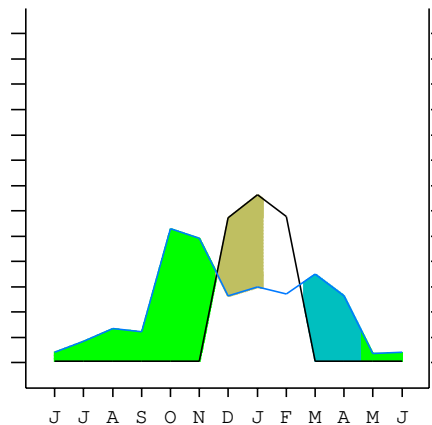
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

DECEPTION ISLAND (ANTARCTICA TERR.)

62°59'S 60°34'W 8 m 9/3 y.

T= -3.3 Ic= 10.0 Polar Suprapolar (Hyperoceanic)
 m= -11.7 Tp= 28 Upper Suprapolar
 M= -6.1 Tn= 428 Medium-Snowy
 M' = 10.6 Itc= -211
 m' = -27.8 Io= 58.5
 P= 564 mm ———
 PE= 447 mm ———

Imbibing	17 Feb.
Saturation	19 Apr.
Reserve Use	17 Nov.
Deficit	5 Jan.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low
 Thermic types [C2.D8]
 + Latitudinal zone: C. Cold
 + Latitudinal belt: 2. High subtemperate
 + Thermic type: D. Gelid
 + Thermic subtype: 8. Ultramicrothermic
 Bioclimatic types [E2.4.4]
 + Macrobioclimate: E. Polar
 + Bioclimate: 2. Suprapolar
 + Bioclimatic variant ..:
 + Thermic type.....: 4. Upper Suprapolar
 + Thermic subtype.....:
 + Ombrothermic type ...: 4. Medium-Snowy
 + Ombrothermic subtype :
 Bioclimatic Classification

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 378
 Coldest semester of the year.....(Psw): 185
 Warmest four months period of the year.....(Pcm1): 231
 Following warmest four months period.....(Pcm2): 79
 Positive precipitation dryest 3 months.....(Ppd): 0
 Positive precipitation dryest 2 months.....(Ppd2): 0
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 163
 Positive precipitation warmest 2 months.....(Pps2): 112
 Positive precipitation warmest 1 month.....(Pps1): 58
 Positive precipitation coldest 3 months.....(Ppw): 0
 Positive precipitation coldest 2 months.....(Ppw2): 0
 Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	48	228	162	124

Seasonal rainfall rhythms: P > S > F > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 1.1
 Average coldest month [T].....(Tmin): -8.9
 Maximum temp. warmest month [M].....(Tmmax): 2.8
 Minimum temp. coldest month [m].....(Tmmin): -11.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 10.6
 Absolute Min.temp. coldest month [m'].....(Tamin): -27.8
 First warmest contrasted month [M].....(Tcmax): -6.1 (7)
 First coldest contrasted month [m].....(Tcmin): -11.7 (7)
 Estival temperature.....(Ts): 28
 Positive temperature dryest 3 months.....(Tpd): 0
 Positive temperature dryest 2 months.....(Tpd2): 0
 Positive temperature dryest 1 month.....(Tpd1): 0
 Positive temperature warmest 3 months.....(Tps): 28
 Positive temperature warmest 2 months.....(Tps2): 22
 Positive temperature warmest 1 month.....(Tps1): 11
 Positive temperature coldest 3 months.....(Tpw): 0
 Positive temperature coldest 2 months.....(Tpw2): 0
 Positive temperature coldest 1 month.....(Tpw1): 0

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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)												
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)				o	o	o	o	o	o	o	o	
Gelid.....[T <=0] (Pf)			o	o	o	o	o	o	o	o	o	
Subgelid.....[m <=0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
Pregelid.....[m' <=0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
Agelid.....[m' > 0] (Pf)												
HiperAgelid..[all>0] (Pf)												

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.79
 Mediterranean index of January.....(Im1): 3.03
 Mediterranean index of January & February.....(Im2): 2.80
 Mediterranean index of December to February...(Im3): 2.75

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	508	584	533	*	*	*	*	*	*	*	*	*
Tp	6	11	11	*	*	*	*	*	*	*	*	*
Io (Iom)	90.7	52.6	48.0	*	*	*	*	*	*	*	*	*
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	1625 / 28			*/*			*/*			*/*		
Io (Iot)	58.45			*			*			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1625/28=58.45 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	508	584	533	*	*	*	*	*	*	*	*	*
Tp [T*10]	6	11	11	*	*	*	*	*	*	*	*	*
Iom [Pp/Tp]	\$\$	\$\$	\$\$	\$\$!!	!!	!!	!!	!!	!!	!!	!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	1625 / 28			* / *			* / *			* / *		
Iot [Pp/Tp]	\$\$			**			**			**		
Avs E[Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 10.00
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: -1.32
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 3.78
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.45
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]:-169.14
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 84.57
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]:-438.89
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -0.59
 +
 Aridity Index of UNEP [I=P/PE]: 1.26
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 21.15
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: B. Cold and temperate cold
 + Region: 11. Psicroaxeric (Axeric cold)
 + Thermic type: 8. Ultramicrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.43	0.39	0.55	0.43	0.03	0.05	0.11	0.20	0.18	1.01	0.88	0.38
T-E ratio	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Precipitation-effectiveness: 46.44						Temperature-efficiency: 1.25						
Moisture Index [MI=100*(P-PE)/PE]: 26.27 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]: 41.21 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 67.46 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 446.51 + Second microthermic (427<PE<570)												

