

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

ARGENTINE ISLAND (ANTARCTICA TERR.)

Altitude: 3 m.

Latitude: 65° 15'S Longitude: 64° 16'W

Temperature observation period.: 1988-1994 (7)

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

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	0.28	2.22	-1.67	7.78	-8.33	22.9	394.53
Feb.	-0.28	1.67	-2.22	8.33	-8.89	73.7	0.00
Mar.	-0.83	1.11	-2.78	7.78	-12.78	50.8	0.00
Apr.	-3.62	-1.67	-5.56	7.22	-16.67	71.1	0.00
May.	-7.50	-5.00	-10.00	6.11	-29.44	20.3	0.00
Jun.	-9.17	-6.11	-12.22	4.44	-33.89	33.0	0.00
Jul.	-10.56	-7.22	-13.89	3.89	-36.11	22.9	0.00
Aug.	-11.67	-7.78	-15.56	7.22	-36.11	27.9	0.00
Sep.	-10.00	-6.11	-13.89	5.00	-38.89	53.3	0.00
Oct.	-5.56	-2.22	-8.89	5.56	-27.78	25.4	0.00
Nov.	-3.62	-0.56	-6.67	5.00	-22.22	10.2	0.00
Dec.	-0.55	1.67	-2.78	6.11	-10.56	48.3	0.00
Year	-5.26	-2.50	-8.01	6.20	-23.47	460	394.53

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-286
Compensated thermicity index.....(Itc):	-286
Simple continentality index.....(Ic):	11.9
Diurnality index.....(Id):	7.8
Annual ombrothermic index.....(Io):	81.79
Monthly estival ombrothermic index.....(Ios1):	81.79
Bimonthly estival ombrothermic index.....(Ios2):	No
Threemonthly estival ombrothermic index.....(Ios3):	No
Fourmonthly estival ombrothermic index.....(Ios4):	No
Annual ombro-evaporation index.....(Ioe):	1.17
Annual positive temperature.....(Tp):	3
Annual negative temperature.....(Tn):	634
Estival temperature.....(Ts):	0
Positive precipitation.....(Pp):	23

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0°
Months	1	0	0	0	11

Latitudinal Belt...: Antartic

Continentalty.....: Oceanic - High Semihyperoceanic

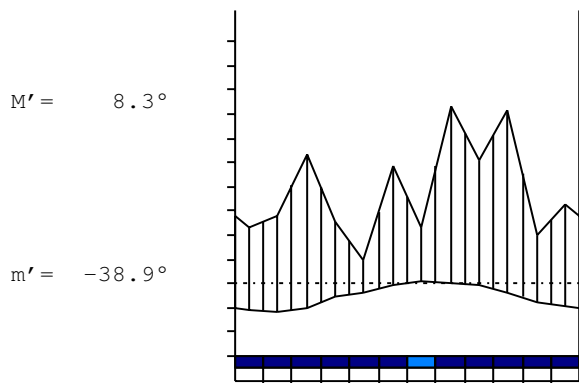
Bioclimate.....: POLAR OCEANIC

Bioclimatic belt...: UPPER SUPRAPOLAR ULTRAHYPERHUMID

ARGENTINE ISLAND (ANTARCTICA TERR.)

3 m

P= 460 65° 15'S 64° 16'W 7/3 y.
 T= -5.3 ° Ic= 11.9 Tp= 3 Tn= 634
 m= -15.6 ° M= -7.8 ° Itc= -286 Io= 81.8



**POLAR OCEANIC
 UPPER SUPRAPOLAR ULTRAHYPERHUMID**

WATER INDEX CARD

ARGENTINE ISLAND (ANTARCTICA TERR.)

Altitude: 3 m.

Latitude: 65° 15'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	-10.6	0	23	0	100	0	0	23	28	*
Aug.	-11.7	0	28	0	100	0	0	28	28	*
Sep.	-10.0	0	53	0	100	0	0	53	40	*
Oct.	-5.6	0	25	0	100	0	0	25	33	*
Nov.	-3.6	0	10	0	100	0	0	10	22	*
Dec.	-0.6	0	48	0	100	0	0	48	35	*
Jan.	0.3	395	23	-100	0	123	272	0	17	-0.9
Feb.	-0.3	0	74	74	74	0	0	0	9	*
Mar.	-0.8	0	51	26	100	0	0	24	17	*
Apr.	-3.6	0	71	0	100	0	0	71	44	*
May.	-7.5	0	20	0	100	0	0	20	32	*
Jun.	-9.2	0	33	0	100	0	0	33	32	*
Year	-5.3	395	460	*	*	123	272	337	337	*

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

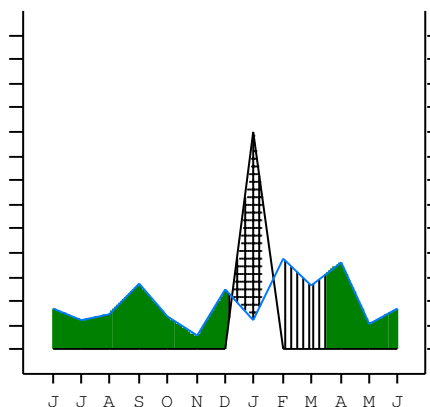
ARGENTINE ISLAND (ANTARCTICA TERR.)

65°15'S 64°16'W

3 m 7/3 y.

T= -5.3 Ic= 11.9 **POLAR OCEANIC**
 m= -15.6 Tp= 3 **UPPER SUPRAPOLAR**
 M= -7.8 Tn= 634 **ULTRAHYPERHUMID**
 M' = 8.3 Itc= -286
 m' = -38.9 Io= 81.8
 P= 460 mm ———
 PE= 395 mm ———

	Imbibing	26 Jan.
■	Saturation	16 Mar.
▣	Reserve Use	4 Dec.
□	Deficit	9 Jan.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: a. High

Thermic types [C2.D8]
 + Latitudinal zone: C. Cold
 + Latitudinal belt: 2. Antarctic
 + Thermic type: D. Gelid
 + Thermic subtype: 8. Ultramicrothermic

Bioclimatic types [E4.4a.9]
 + Macrobioclimate: E. POLAR
 + Bioclimate: 4. OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 4. SUPRAPOLAR
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 9. ULTRAHYPERHUMID
 + Ombrothermic subtype :

Bioclimatic Classification: Poxe.Apo.Uhh

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 277
 Coldest semester of the year.....(Psw): 183
 Warmest four months period of the year.....(Pcm1): 196
 Following warmest four months period.....(Pcm2): 147
 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): 23
 Positive precipitation warmest 2 months.....(Pps2): 23
 Positive precipitation warmest 1 month.....(Pps1): 23
 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	83	88	144	142

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 0.3
 Average coldest month [T].....(Tmin): -11.7
 Maximum temp. warmest month [M].....(Tmmax): 2.2
 Minimum temp. coldest month [m].....(Tmmin): -15.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 8.3
 Absolute Min.temp. coldest month [m'].....(Tamin): -38.9
 First warmest contrasted month [M].....(Tcmax): -7.8 (8)
 First coldest contrasted month [m].....(Tcmin): -15.6 (8)
 Estival temperature.....(Ts): 0
 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): 3
 Positive temperature warmest 2 months.....(Tps2): 3
 Positive temperature warmest 1 month.....(Tps1): 3
 Positive temperature coldest 3 months.....(Tpw): 0
 Positive temperature coldest 2 months.....(Tpw2): 0
 Positive temperature coldest 1 month.....(Tpwl): 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	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): 0.86
 Mediterranean index of January.....(Im1): 17.23
 Mediterranean index of January & February....(Im2): 4.08
 Mediterranean index of December to February...(Im3): 2.72

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	*	229	*	*	*	*	*	*	*	*	*	*
Tp	*	3	*	*	*	*	*	*	*	*	*	*
Io (Iom)	*	81.8	*	*	*	*	*	*	*	*	*	*
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	*/*			*/*			*/*			*/*		
Io (Iot)	*			*			*			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 11.95
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 1.97
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 7.01
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.53
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]: -87.47
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 96.94
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]:-193.86
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -1.14
 +
 Aridity Index of UNEP [I=P/PE]: 1.17
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 11.81
 + 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 (Axic cold)
 + Thermic type: 8. Ultramicrothermic

Thorntwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.16	0.60	0.41	0.63	0.16	0.27	0.18	0.22	0.45	0.20	0.07	0.38
T-E ratio	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Precipitation-effectiveness: 37.19						Temperature-efficiency: 0.13						
Moisture Index [MI=100*(P-PE)/PE]											16.54	
+ C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]											68.84	
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]											85.37	
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE											394.53	
+ First microthermic (285<PE<427)												

