

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

ORCADAS DEL SUR (ARGENTINA)

Altitude: 4 m.

Latitude: 60°44'S Longitude: 44°44'W

Temperature observation period.: 1901-1950 (50)

Rainfall observation period....: 1901-1950 (50)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	0.10	1.80	-1.40	12.20	-7.00	35.0	240.48
Feb.	0.20	1.90	-1.40	9.00	-9.80	39.0	265.54
Mar.	-0.60	1.40	-2.60	10.80	-15.10	48.0	0.00
Apr.	-3.30	-0.80	-6.00	8.30	-31.50	41.0	0.00
May.	-7.10	-3.60	-10.70	9.20	-31.90	32.0	0.00
Jun.	-10.40	-6.30	-14.80	5.90	-38.30	26.0	0.00
Jul.	-10.90	-5.40	-15.70	7.80	-36.90	32.0	0.00
Aug.	-10.20	-5.80	-15.00	8.20	-40.10	32.0	0.00
Sep.	-6.90	-3.40	-11.20	6.50	-32.60	29.0	0.00
Oct.	-3.90	-1.00	-7.00	8.70	-31.20	29.0	0.00
Nov.	-2.30	-0.20	-4.40	8.80	-20.40	32.0	0.00
Dec.	-0.80	1.00	-2.40	9.60	-13.20	26.0	0.00
Year	-4.67	-1.70	-7.72	8.75	-25.67	401	506.02

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-258
Compensated thermicity index.....(Itc):	-258
Simple continentality index.....(Ic):	11.1
Diurnality index.....(Id):	10.3
Annual ombrothermic index.....(Io):	246.67
Monthly estival ombrothermic index.....(Ios1):	195.00
Bimonthly estival ombrothermic index.....(Ios2):	246.67
Three monthly estival ombrothermic index.....(Ios3):	No
Four monthly estival ombrothermic index.....(Ios4):	No
Annual ombro-evaporation index.....(Ioe):	1.23
Annual positive temperature.....(Tp):	3
Annual negative temperature.....(Tn):	564
Estival temperature.....(Ts):	0
Positive precipitation.....(Pp):	74

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	2	0	0	0	10

Latitudinal Belt...: High subtemperate

Continentalty.....: Oceanic - High Semihyperoceanic

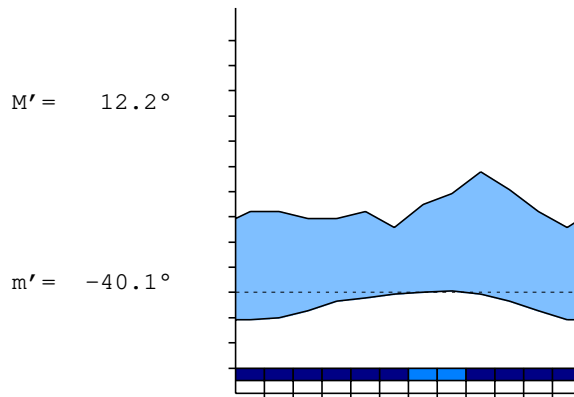
Bioclimate.....: Polar Suprapolar

Bioclimatic Belt...: Upper Suprapolar Medium-Snowy

ORCADAS DEL SUR (ARGENTINA)

4 m

P= 401 60° 44' S 44° 44' W 50/50 y.
 T= -4.7° Ic= 11.1 Tp= 3 Tn= 564
 m= -15.7° M= -5.4° Itc= -258 Io= 246.7



Polar Suprapolar
 Upper Suprapolar Medium-Snowy

WATER INDEX CARD

ORCADAS DEL SUR (ARGENTINA)

Altitude: 4 m.

Latitude: 60° 44' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	-10.9	0	32	0	100	0	0	32	25	*
Aug.	-10.2	0	32	0	100	0	0	32	29	*
Sep.	-6.9	0	29	0	100	0	0	29	29	*
Oct.	-3.9	0	29	0	100	0	0	29	29	*
Nov.	-2.3	0	32	0	100	0	0	32	30	*
Dec.	-0.8	0	26	0	100	0	0	26	28	*
Jan.	0.1	240	35	-100	0	135	105	0	14	-0.8
Feb.	0.2	266	39	0	0	39	227	0	7	-0.8
Mar.	-0.6	0	48	48	48	0	0	0	4	*
Apr.	-3.3	0	41	41	89	0	0	0	2	*
May.	-7.1	0	32	11	100	0	0	21	11	*
Jun.	-10.4	0	26	0	100	0	0	26	19	*
Year	-4.7	506	401	*	*	174	332	227	227	*

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

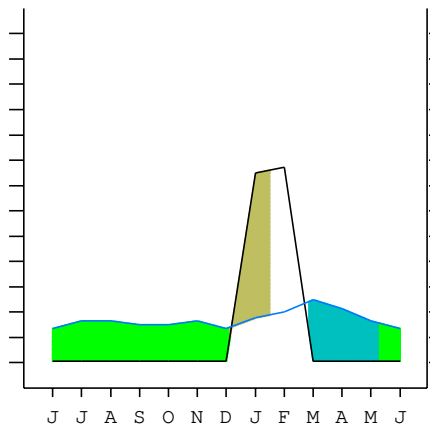
ORCADAS DEL SUR (ARGENTINA)

60°44' S 44°44' W

4 m 50/50 y.

T= -4.7 Ic= 11.1 Polar Suprapolar
 m= -15.7 Tp= 3 Upper Suprapolar
 M= -5.4 Tn= 564 Medium-Snowy
 M' = 12.2 Itc= -258
 m' = -40.1 Io= 246.7
 P= 401 mm ———
 PE= 506 mm ———

Imbibing	25 Feb.
Saturation	11 May.
Reserve Use	4 Dec.
Deficit	15 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. 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): 221
 Coldest semester of the year.....(Psw): 180
 Warmest four months period of the year.....(Pcm1): 148
 Following warmest four months period.....(Pcm2): 131
 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): 74
 Positive precipitation warmest 2 months.....(Pps2): 74
 Positive precipitation warmest 1 month.....(Pps1): 39
 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	90	90	100	121

Seasonal rainfall rhythms: F > S > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 0.2
 Average coldest month [T].....(Tmin): -10.9
 Maximum temp. warmest month [M].....(Tmmax): 1.9
 Minimum temp. coldest month [m].....(Tmmin): -15.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 12.2
 Absolute Min.temp. coldest month [m'].....(Tamin): -40.1
 First warmest contrasted month [M].....(Tcmax): -5.4 (7)
 First coldest contrasted month [m].....(Tcmin): -15.7 (7)
 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): 2
 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	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): 1.26
 Mediterranean index of January.....(Im1): 6.87
 Mediterranean index of January & February.....(Im2): 6.84
 Mediterranean index of December to February...(Im3): 5.06

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	*	350	390	*	*	*	*	*	*	*	*	*
Tp	*	1	2	*	*	*	*	*	*	*	*	*
Io (Iom)	*	350	195	*	*	*	*	*	*	*	*	*
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	*/*			*/*			*/*			*/*		
Io (Iot)	*			*			*			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 740/3=246.67 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	350	390	*	*	*	*	*	*	*	*	*
Tp [T*10]	*	1	2	*	*	*	*	*	*	*	*	*
Iom [Pp/Tp]	!!	\$\$	\$\$!!	!!	!!	!!	!!	!!	!!	!!	!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	* / *			* / *			* / *			* / *		
Iot [Pp/Tp]	**			**			**			**		
Avs E[Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 11.10
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 1.23
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 5.99
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.52
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]: -85.78
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 75.31
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]:-165.10
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -1.17
 +
 Aridity Index of UNEP [I=P/PE]: 0.79
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 5.75
 + 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. Psicroaxerico (Axerico cold)
 + Thermic type: 8. Ultramicrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.26	0.29	0.38	0.34	0.26	0.20	0.26	0.26	0.23	0.23	0.26	0.19
T-E ratio	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Precipitation-effectiveness: 31.55						Temperature-efficiency: 0.14						
Moisture Index [MI=100*(P-PE)/PE]: -20.75 + C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 65.61 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 44.86 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 506.02 + Second microthermic (427<PE<570)												

