

# Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

GEORGIA DEL SUR (ARGENTINA)

Altitude: 4 m.

Latitude: 54°14'S Longitude: 36°33'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.	4.60	8.40	1.40	24.50	-4.10	92.0	87.72
Feb.	5.10	9.10	1.70	26.50	-3.70	114.0	75.33
Mar.	4.40	8.40	1.00	28.80	-6.30	136.0	66.26
Apr.	2.30	5.60	-0.80	19.10	-9.80	139.0	36.27
May.	0.00	2.90	-3.10	17.50	-11.40	137.0	0.00
Jun.	-1.60	0.90	-4.60	14.00	-14.60	135.0	0.00
Jul.	-1.50	1.20	-4.70	13.60	-15.20	149.0	0.00
Aug.	-1.80	1.50	-4.90	13.20	-19.20	139.0	0.00
Sep.	-0.10	3.50	-3.30	17.00	-18.40	92.0	0.00
Oct.	1.60	5.40	-1.80	20.00	-11.00	80.0	41.06
Nov.	2.70	6.50	-0.50	22.50	-6.40	93.0	60.73
Dec.	3.70	7.50	0.40	21.50	-5.40	88.0	79.72
Year	1.62	5.08	-1.60	19.85	-10.46	1394	447.10

## BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....	(It):	-18
Compensated thermicity index.....	(Itc):	-29
Simple continentality index.....	(Ic):	6.9
Diurnality index.....	(Id):	7.4
Annual ombrothermic index.....	(Io):	30.41
Monthly estival ombrothermic index.....	(Ios1):	22.35
Bimonthly estival ombrothermic index.....	(Ios2):	21.24
Threemonthly estival ombrothermic index.....	(Ios3):	24.26
Fourmonthly estival ombrothermic index.....	(Ios4):	24.16
Annual ombro-evaporation index.....	(Ioe):	0.90
Annual positive temperature.....	(Tp):	244
Annual negative temperature.....	(Tn):	50
Estival temperature.....	(Ts):	141
Positive precipitation.....	(Pp):	742

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

Latitudinal Belt....: Low subtemperate

Continentality.....: Hyperoceanic - Low Euhyperoceanic

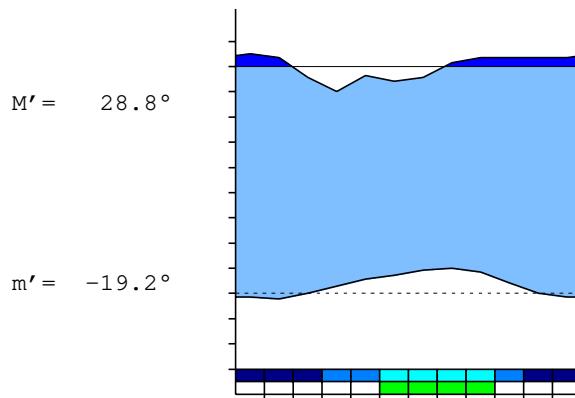
Bioclimate.....: Polar Semipolar

Bioclimatic Belt....: Lower Mesopolar ULTRAHYPERHUMID

## GEORGIA DEL SUR (ARGENTINA)

4 m

P= 1394      54° 14'S      36° 33'W      50/50 y.  
 T= 1.6 °      Ic= 6.9      Tp= 244      Tn= 50  
 m= -4.9 °      M= 1.5 °      Itc= -29      Io= 30.4



Polar Semipolar  
 Lower Mesopolar ULTRAHYPERHUMID

## WATER INDEX CARD

## GEORGIA DEL SUR (ARGENTINA)

Altitude: 4 m.

Latitude: 54° 14'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	-1.5	0	149	0	100	0	0	149	135	*
Aug.	-1.8	0	139	0	100	0	0	139	137	*
Sep.	-0.1	0	92	0	100	0	0	92	114	*
Oct.	1.6	41	80	0	100	41	0	39	77	0.9
Nov.	2.7	61	93	0	100	61	0	32	54	0.5
Dec.	3.7	80	88	0	100	80	0	8	31	0.1
Jan.	4.6	88	92	0	100	88	0	4	18	0.0
Feb.	5.1	75	114	0	100	75	0	39	28	0.5
Mar.	4.4	66	136	0	100	66	0	70	49	1.0
Apr.	2.3	36	139	0	100	36	0	103	76	2.8
May.	0.0	0	137	0	100	0	0	137	106	*
Jun.	-1.6	0	135	0	100	0	0	135	121	*
Year	1.6	447	1394	*	*	447	0	947	947	*

R = Reserve   VR = Variation of the reserve   RE = Real evapotranspiration

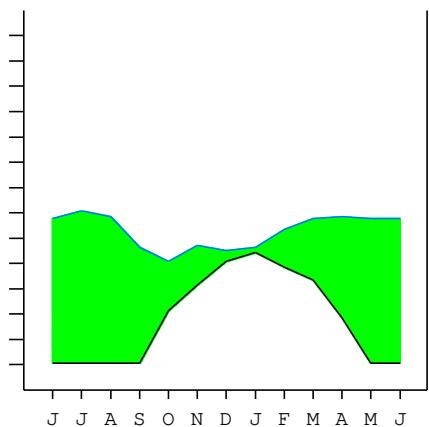
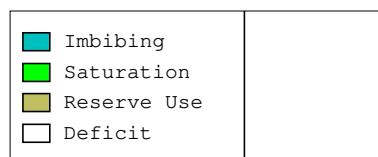
DR = Drainage   HC = Humidity coefficient   DF = Deficit   SP = Superavit

## GEORGIA DEL SUR (ARGENTINA)

54°14'S   36°33'W

4 m 50/50 y.

T= 1.6      Ic= 6.9      Polar Semipolar  
 m= -4.9      Tp= 244      Lower Mesopolar  
 M= 1.5      Tn= 50      ULTRAHYPERHUMID  
 M'= 28.8      Itc= -29  
 m'= -19.2      Io= 30.4  
 P= 1394      mm      \_\_\_\_\_  
 PE= 447      mm      \_\_\_\_\_



All over the year,  
 there is no hydric deficit

GEORGIA DEL SUR (ARGENTINA)

Latitude: 54°14'S Longitude: 36°33'W Altitude: 4 m

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

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Continentality Index

[A2b]

- + Type ..... A. Hyperoceanic
- + Subtype ..... 2. Euhyperoceanic
- + Variant ..... b. Low

Thermic types

[B3.C7]

- + Latitudinal zone .... B. Temperate
- + Latitudinal belt .... 3. Low subtemperate
- + Thermic type ..... C. Cold
- + Thermic subtype ..... 7. Cold

Bioclimatic types

[E1.3.9]

- + Macrobioclimate ..... E. Polar
- + Bioclimate ..... 1. Semipolar
- + Bioclimatic variant ..
- + Thermic type..... 3. Lower Mesopolar
- + Thermic subtype.....
- + Ombrothermic type ... 9. ULTRAHYPERHUMID
- + Ombrothermic subtype :

Bioclimatic Classification .....

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PRECIPITATION PARAMETERS

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Warmest semester of the year.....	(Pss):	662
Coldest semester of the year.....	(Psw):	732
Warmest four months period of the year.....	(Pcm1):	430
Following warmest four months period.....	(Pcm2):	560
Positive precipitation dryest 3 months.....	(Ppd):	261
Positive precipitation dryest 2 months.....	(Ppd2):	80
Positive precipitation dryest 1 month.....	(Ppd1):	80
Positive precipitation warmest 3 months.....	(Pps):	342
Positive precipitation warmest 2 months.....	(Pps2):	206
Positive precipitation warmest 1 month.....	(Pps1):	114
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	Autumn Tr4-F
Rainfall	423	265	294	412

Seasonal rainfall rhythms: W > F > S > P

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TEMPERATURE PARAMETERS

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Average warmest month [T].....	(Tmax):	5.1
Average coldest month [T].....	(Tmin):	-1.8
Maximum temp. warmest month [M].....	(Tmmax):	9.1
Minimum temp. coldest month [m].....	(Tmmin):	-4.9
Absolute Max.temp. warmest month [M'].....	(Tamax):	28.8
Absolute Min.temp. coldest month [m'].....	(Tamin):	-19.2
First warmest contrasted month [M].....	(Tcmax):	9.1 (2)
First coldest contrasted month [m].....	(Tcmin):	1.7 (2)
Estival temperature.....	(Ts):	141
Positive temperature dryest 3 months.....	(Tpd):	80
Positive temperature dryest 2 months.....	(Tpd2):	16
Positive temperature dryest 1 month.....	(Tpd1):	16
Positive temperature warmest 3 months.....	(Tps):	141
Positive temperature warmest 2 months.....	(Tps2):	97
Positive temperature warmest 1 month.....	(Tps1):	51
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)	○	○	○	○							○	○
Dryest semester....(Smd)	○	○							○	○	○	○
Warmest 4 months....(Cm1)	○	○	○									○
Dryest 4 months....(Cmd)								○	○	○	○	○
Vegetation Activity(Pav)	○	○	○									○
Ultrigelid...[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)												

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## OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P] ..... (Iar) : 0.32  
 Mediterranean index of January..... (Im1) : 0.95  
 Mediterranean index of January & February..... (Im2) : 0.79  
 Mediterranean index of December to February... (Im3) : 0.83

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.						
Pp(x10)	880	920	1140	1360	1390	*	*	*	*	*	800	930						
Tp	37	46	51	44	23	*	*	*	*	*	16	27						
Io (Iom)	23.8	20.0	22.4	30.9	60.4	*	*	*	*	*	50.0	34.4						
Seasons	Summer			Autumn			Winter			Spring								
Pp(x10)/Tp	2940 / 134			*/*			*/*			*/*								
Io (Iot)	21.94			*			*			*								
Semesters	December-May						June-November											
Pp(x10)/Tp	*/*						*/*											
Io (Iosm)	*						*											

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## Aridity Value Index (AVI)

[10xPP/TP=IO]: 7420/244=30.41 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	880	920	1140	1360	1390	*	*	*	*	*	800	930
Tp [T*10]	37	46	51	44	23	*	*	*	*	*	16	27
Iom [Pp/Tp]	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$	!!	!!	!!	!!	\$\$	\$\$
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer				Autumn				Winter			
Pp / Tp	2940 / 134				4120 / 67				* / *			
Iot [Pp/Tp]	2194				\$\$				**			
Avs E[Avm<200]	***				***				***			

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BIOCLIMATIC INDICES I

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CI of Supan (1884) [Tmax-Tmin] ..... (Sp) : 6.90  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] ..... : -5.94  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] ..... : -0.97  
     + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] ..... : 0.36  
     + Hyperoceanic (0<CI<0.6)  
 Rainfall Index of Lang (1925) [R=P/T] ..... : 862.27  
     + Humid (R>160)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] ..... : 120.00  
     + Perhumid (Ia>60)  
 I of Emberger (1930) [Q=100\*P/(Tmmax<sup>2</sup>-Tmmmin<sup>2</sup>)] ..... : 2370.75  
     + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] ..... : 0.12  
     + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] ..... : 3.12  
     + Humid (I>0.65)  
 Potencial Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P] ..... : 15.93  
     + Very low (K<60)

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BIOCLIMATIC INDICES II

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Bioclimatic classification of Gausseen & Bagnouls (1957)  
     + Climate ....: B. Cold and temperate cold  
     + Region ....: 11. Psicroaxeric (Axeric cold)  
     + Thermic type: 7. Hipermicrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.62	0.77	0.96	1.08	1.18	1.25	1.39	1.31	0.76	0.60	0.68	0.61
T-E ratio	2.07	2.29	1.98	1.03	0.00	0.00	0.00	0.00	0.00	0.72	1.22	1.67
Precipitation-effectiveness:	111.97											
Moisture Index [MI=100*(P-PE)/PE]	..... : 211.79											
+ A.Extremely humid (MI>100)												
Index of dryness [DI=100*d/PE]	..... : 0.00											
+ No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]	..... : 211.79											
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE	..... : 447.10											
+ Second microthermic (427<PE<570)												

