

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

RIO GALLEGOS NAV (ARGENTINA)

Altitude: 27 m.

Latitude: 51°38'S Longitude: 69°12'W

Temperature observation period.: 1984-1994 (11)

Rainfall observation period....: 1984-1994 (11)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	12.50	18.89	6.11	32.78	-1.11	24.4	98.16
Feb.	11.95	18.89	5.00	28.89	-2.22	18.0	77.45
Mar.	9.45	15.56	3.33	32.22	-5.00	31.5	61.06
Apr.	7.23	12.78	1.67	23.33	-7.22	24.4	38.80
May.	3.06	7.22	-1.11	20.00	-11.67	36.3	15.99
Jun.	1.11	4.44	-2.22	15.56	-15.00	15.0	5.89
Jul.	1.11	4.44	-2.22	13.33	-16.11	12.7	6.33
Aug.	2.22	6.67	-2.22	14.44	-16.11	13.0	13.56
Sep.	5.00	10.00	0.00	18.33	-8.33	16.5	31.77
Oct.	7.78	14.44	1.11	25.00	-5.56	13.0	56.35
Nov.	9.45	15.56	3.33	27.22	-7.78	25.1	72.72
Dec.	11.67	18.33	5.00	27.78	-5.00	24.9	95.19
Year	6.88	12.27	1.48	23.24	-8.43	255	573.27

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	91
Compensated thermicity index.....(Itc):	91
Simple continentality index.....(Ic):	11.4
Diurnality index.....(Id):	13.9
Annual ombrothermic index.....(Io):	3.09
Monthly estival ombrothermic index.....(Ios1):	1.51
Bimonthly estival ombrothermic index.....(Ios2):	1.73
Threemonthly estival ombrothermic index.....(Ios3):	1.86
Fourmonthly estival ombrothermic index.....(Ios4):	2.03
Annual ombro-evaporation index.....(Ioe):	1.16
Annual positive temperature.....(Tp):	825
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	361
Positive precipitation.....(Pp):	255

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	4	5	3	0	0

Latitudinal Belt...: Low subtemperate

Continentality.....: Oceanic - High Semihyperoceanic

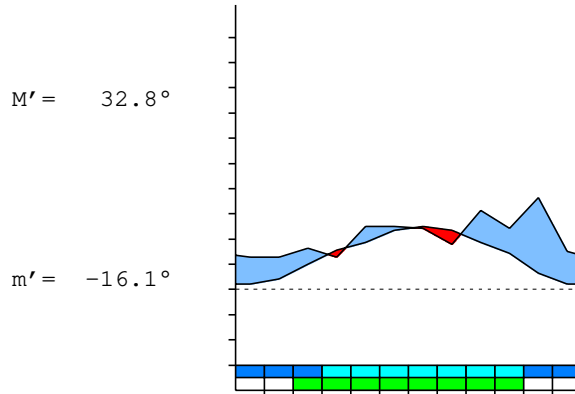
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: LOW OROMEDITERRANEAN UPPER DRY

RIO GALLEGOS NAV (ARGENTINA)

27 m

P= 255 51° 38'S 69° 12'W 11/11 y.
 T= 6.9° Ic= 11.4 Tp= 825 Tn= 0
 m= -2.2° M= 4.4° Itc= 91 Io= 3.1



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 LOW OROMEDITERRANEAN UPPER DRY

WATER INDEX CARD

RIO GALLEGOS NAV (ARGENTINA)

Altitude: 27 m.

Latitude: 51° 38'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	1.1	6	13	6	36	6	0	0	0	1.0
Aug.	2.2	14	13	-1	35	14	0	0	0	0.0
Sep.	5.0	32	17	-15	20	32	0	0	0	-0.4
Oct.	7.8	56	13	-20	0	33	23	0	0	-0.7
Nov.	9.4	73	25	0	0	25	48	0	0	-0.6
Dec.	11.7	95	25	0	0	25	70	0	0	-0.7
Jan.	12.5	98	24	0	0	24	74	0	0	-0.7
Feb.	11.9	77	18	0	0	18	59	0	0	-0.7
Mar.	9.4	61	32	0	0	32	30	0	0	-0.4
Apr.	7.2	39	24	0	0	24	14	0	0	-0.3
May.	3.1	16	36	20	20	16	0	0	0	1.2
Jun.	1.1	6	15	9	29	6	0	0	0	1.5
Year	6.9	573	255	*	*	255	318	0	0	*

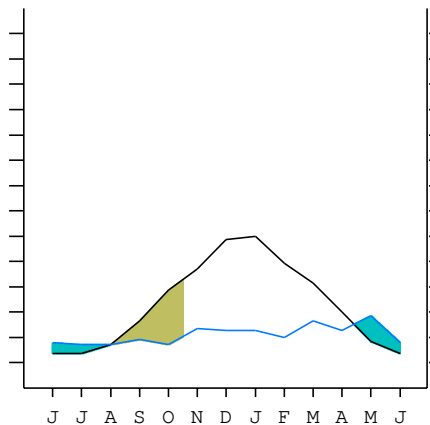
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

RIO GALLEGOS NAV (ARGENTINA)

51°38'S 69°12'W 27 m 11/11 y.

T= 6.9 Ic= 11.4 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= -2.2 Tp= 825 LOW OROMEDITERRANEAN
 M= 4.4 Tn= 0 UPPER DRY
 M' = 32.8 Itc= 91
 m' = -16.1 Io= 3.1
 P= 255 mm ———
 PE= 573 mm ———

Imbibing	13 Apr.
Saturation	28 Jul.
Reserve Use	14 Oct.
Deficit	



RIO GALLEGOS NAV (ARGENTINA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: a. High
 Thermic types [B1.B5]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low subtemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 5. Subtemperate
 Bioclimatic types [B8.5b.5a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 5. OROMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Mehc.Ome.Dry

RIO GALLEGOS NAV (ARGENTINA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 137
 Coldest semester of the year.....(Psw): 118
 Warmest four months period of the year.....(Pcm1): 92
 Following warmest four months period.....(Pcm2): 107
 Positive precipitation dryest 3 months.....(Ppd): 41
 Positive precipitation dryest 2 months.....(Ppd2): 26
 Positive precipitation dryest 1 month.....(Ppd1): 13
 Positive precipitation warmest 3 months.....(Pps): 67
 Positive precipitation warmest 2 months.....(Pps2): 42
 Positive precipitation warmest 1 month.....(Pps1): 24
 Positive precipitation coldest 3 months.....(Ppw): 41
 Positive precipitation coldest 2 months.....(Ppw2): 28
 Positive precipitation coldest 1 month.....(Ppw1): 15

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	40	54	67	92

Seasonal rainfall rhythms: F > S > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 12.5
 Average coldest month [T].....(Tmin): 1.1
 Maximum temp. warmest month [M].....(Tmmax): 18.9
 Minimum temp. coldest month [m].....(Tmmin): -2.2
 Absolute Max.temp. warmest month [M'].....(Tamax): 32.8
 Absolute Min.temp. coldest month [m'].....(Tamin): -16.1
 First warmest contrasted month [M].....(Tcmax): 18.9 (2)
 First coldest contrasted month [m].....(Tcmin): 5.0 (2)
 Estival temperature.....(Ts): 361
 Positive temperature dryest 3 months.....(Tpd): 44
 Positive temperature dryest 2 months.....(Tpd2): 33
 Positive temperature dryest 1 month.....(Tpd1): 11
 Positive temperature warmest 3 months.....(Tps): 361
 Positive temperature warmest 2 months.....(Tps2): 245
 Positive temperature warmest 1 month.....(Tps1): 125
 Positive temperature coldest 3 months.....(Tpw): 44
 Positive temperature coldest 2 months.....(Tpw2): 22
 Positive temperature coldest 1 month.....(Tpw1): 11

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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
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)					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): 2.25
 Mediterranean index of January.....(Im1): 4.02
 Mediterranean index of January & February.....(Im2): 4.14
 Mediterranean index of December to February...(Im3): 4.02

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	249	244	180	315	244	363	150	127	130	165	130	251
Tp	117	125	120	95	72	31	11	11	22	50	78	95
Io (Iom)	2.13	1.95	1.51	3.33	3.37	11.9	13.5	11.4	5.86	3.30	1.67	2.66
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	673 / 361			922 / 197			407 / 44			546 / 222		
Io (Iot)	1.863			4.671			9.167			2.456		
Semesters	December-May						June-November					
Pp(x10)/Tp	1595 / 559						953 / 267					
Io (Iosm)	2.855						3.573					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 2548/825=3.09 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	249	244	180	315	244	363	150	127	130	165	130	251
Tp [T*10]	117	125	120	95	72	31	11	11	22	50	78	95
Iom [Pp/Tp]	213	195	151	333	337	\$\$	\$\$	\$\$	586	330	167	266
Avm [200-Iom]	***	5	49	***	***	***	***	***	***	***	33	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	673 / 361			922 / 197			407 / 44			546 / 222		
Iot [Pp/Tp]	186			467			917			246		
Avs E[Avm<200]	***			***			***			***		
Strong upper semiarid [2]						Weak upper semiarid [1]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 11.39
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	4.30
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	8.01
+ Hyperoceanic (-20<CI<20)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	0.63
+ Oceanic (0.6<CI<1.1)	
Rainfall Index of Lang (1925) [R=P/T]	37.05
+ Steppic (40>R>0)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	15.10
+ Semiarid -mediterranean- (20>Ia>15)	
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]	72.41
+ Subhumid (90>Q>50)	
I of Dantin & Revenga (1940) [DR=100*T/P]	2.70
+ Semiarid (3>DR>2)	
Aridity Index of UNEP [I=P/PE]	0.44
+ Semiarid (0.5>Im>0.2)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	5.17
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 5. Meso-microthermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.11	0.08	0.16	0.13	0.23	0.10	0.08	0.08	0.09	0.06	0.12	0.11
T-E ratio	5.63	5.38	4.25	3.25	1.38	0.50	0.50	1.00	2.25	3.50	4.25	5.25
Precipitation-effectiveness: 13.45						Temperature-efficiency						37.14
Moisture Index [MI=100*(P-PE)/PE]												-55.55
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]												55.54
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												573.27
+ First mesothermic (570<PE<712)												

