

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

RIVADAVIA (ARGENTINA)

Altitude: 206 m.

Latitude: 24°10'S Longitude: 62°54'W

Temperature observation period.: 1944-1994 (51)

Rainfall observation period....: 1944-1994 (51)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	29.45	37.78	21.11	48.89	7.78	100.8	184.57
Feb.	29.17	37.22	21.11	47.78	10.00	100.1	158.44
Mar.	26.39	33.89	18.89	47.22	8.89	89.9	140.80
Apr.	23.06	30.00	16.11	42.22	2.22	38.1	86.39
May.	20.00	27.78	12.22	42.78	-3.89	8.4	55.53
Jun.	17.50	25.00	10.00	40.00	-5.00	4.3	35.42
Jul.	17.50	26.11	8.89	40.00	-7.22	3.0	37.01
Aug.	19.45	28.89	10.00	43.89	-6.11	3.8	53.85
Sep.	23.06	32.22	13.89	47.22	-2.78	16.3	89.99
Oct.	25.56	33.89	17.22	47.22	2.78	37.6	134.21
Nov.	24.45	36.11	12.78	48.89	7.22	59.7	118.76
Dec.	29.45	37.78	21.11	48.89	7.78	79.8	187.75
Year	23.75	32.22	15.28	45.42	1.81	542	1282.7

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	588
Compensated thermicity index.....(Itc):	588
Simple continentality index.....(Ic):	12.0
Diurnality index.....(Id):	23.3
Annual ombrothermic index.....(Io):	1.90
Monthly dry ombrothermic index.....(Iod1):	0.17
Bimonthly dry ombrothermic index.....(Iod2):	0.18
Three monthly dry ombrothermic index.....(Iod3):	0.20
Four monthly dry ombrothermic index.....(Iod4):	0.26
Annual ombro-evaporation index.....(Ioe):	6.33
Annual positive temperature.....(Tp):	2850
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	545
Positive precipitation.....(Pp):	542

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

Latitudinal Belt...: Subtropical

Continentalty.....: Oceanic - High Semihyperoceanic

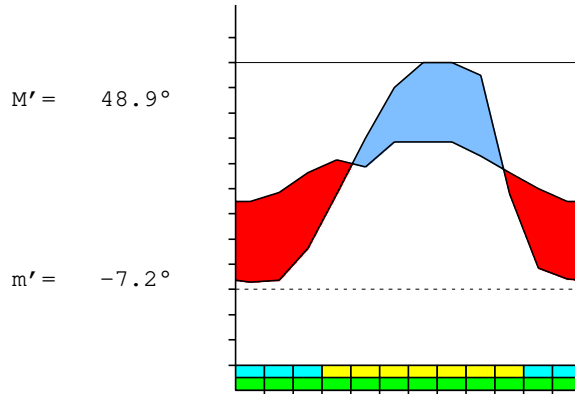
Bioclimate(Variant): TROPICAL XERIC (SEMIARID)

Bioclimatic Belt...: LOW THERMOTROPICAL UPPER SEMIARID

RIVADAVIA (ARGENTINA)

206 m

P= 542 24° 10' S 62° 54' W 51/51 y.
 T= 23.8° Ic= 12.0 Tp= 2850 Tn= 0
 m= 10.0° M= 25.0° Itc= 588 Io= 1.9



TROPICAL XERIC (SEMIARID)
 LOW THERMOTROPICAL UPPER SEMIARID

WATER INDEX CARD RIVADAVIA (ARGENTINA)
 Altitude: 206 m. Latitude: 24° 10' S

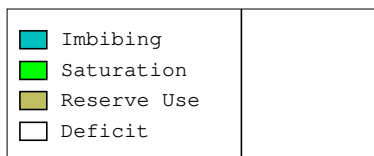
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	17.5	37	3	0	0	3	34	0	0	-0.9
Aug.	19.5	54	4	0	0	4	50	0	0	-0.9
Sep.	23.1	90	16	0	0	16	74	0	0	-0.8
Oct.	25.6	134	38	0	0	38	97	0	0	-0.7
Nov.	24.5	119	60	0	0	60	59	0	0	-0.4
Dec.	29.5	188	80	0	0	80	108	0	0	-0.5
Jan.	29.5	185	101	0	0	101	84	0	0	-0.4
Feb.	29.2	158	100	0	0	100	58	0	0	-0.3
Mar.	26.4	141	90	0	0	90	51	0	0	-0.3
Apr.	23.1	86	38	0	0	38	48	0	0	-0.5
May.	20.0	56	8	0	0	8	47	0	0	-0.8
Jun.	17.5	35	4	0	0	4	31	0	0	-0.8
Year	23.8	1283	542	*	*	542	741	0	0	*

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

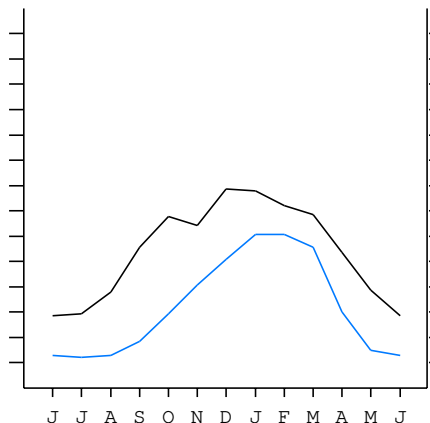
RIVADAVIA (ARGENTINA)

24°10' S 62°54' W 206 m 51/51 y.

T= 23.8 Ic= 12.0 TROPICAL XERIC (SEMIARID)
 m= 10.0 Tp= 2850 LOW THERMOTROPICAL
 M= 25.0 Tn= 0 UPPER SEMIARID
 M' = 48.9 Itc= 588
 m' = -7.2 Io= 1.9
 P= 542 mm ———
 PE= 1283 mm ———



All over the year,
 there is hydric deficit



RIVADAVIA (ARGENTINA)

Latitude: 24°10'S Longitude: 62°54'W Altitude: 206 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: a. High
 Thermic types [A3.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A3.2b.4a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 3. XERIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 4. SEMIARID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Trxe.Ttr.Sar

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 468
 Coldest semester of the year.....(Psw): 74
 Warmest four months period of the year.....(Pcm1): 371
 Following warmest four months period.....(Pcm2): 54
 Positive precipitation dryest 3 months.....(Ppd): 11
 Positive precipitation dryest 2 months.....(Ppd2): 7
 Positive precipitation dryest 1 month.....(Ppd1): 3
 Positive precipitation warmest 3 months.....(Pps): 281
 Positive precipitation warmest 2 months.....(Pps2): 181
 Positive precipitation warmest 1 month.....(Pps1): 101
 Positive precipitation coldest 3 months.....(Ppw): 11
 Positive precipitation coldest 2 months.....(Ppw2): 7
 Positive precipitation coldest 1 month.....(Ppw1): 4

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	11	113	280	136

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 29.5
 Average coldest month [T].....(Tmin): 17.5
 Maximum temp. warmest month [M].....(Tmmax): 37.8
 Minimum temp. coldest month [m].....(Tmmin): 8.9
 Absolute Max.temp. warmest month [M'].....(Tamax): 48.9
 Absolute Min.temp. coldest month [m'].....(Tamin): -7.2
 First warmest contrasted month [M].....(Tcmax): 36.1 (11)
 First coldest contrasted month [m].....(Tcmin): 12.8 (11)
 Dry station temperature.....(Td): 545
 Positive temperature dryest 3 months.....(Tpd): 545
 Positive temperature dryest 2 months.....(Tpd2): 370
 Positive temperature dryest 1 month.....(Tpd1): 175
 Positive temperature warmest 3 months.....(Tps): 881
 Positive temperature warmest 2 months.....(Tps2): 589
 Positive temperature warmest 1 month.....(Tps1): 295
 Positive temperature coldest 3 months.....(Tpw): 545
 Positive temperature coldest 2 months.....(Tpw2): 350
 Positive temperature coldest 1 month.....(Tpw1): 175

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 2.37
 Mediterranean index of January.....(Im1): 1.83
 Mediterranean index of January & February.....(Im2): 1.71
 Mediterranean index of December to February...(Im3): 1.89

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	798	1008	1001	899	381	84	43	30	38	163	376	597
Tp	295	295	292	264	231	200	175	175	195	231	256	245
Io (Iom)	2.71	3.42	3.43	3.41	1.65	0.42	0.25	0.17	0.20	0.71	1.47	2.44
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	2807 / 881			1364 / 694			111 / 545			1136 / 731		
Io (Iot)	3.187			1.964			0.204			1.555		
Semesters	December-May						June-November					
Pp(x10)/Tp	4171 / 1575						1247 / 1275					
Io (Iosm)	2.648						0.978					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5418/2850=1.90 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	798	1008	1001	899	381	84	43	30	38	163	376	597
Tp [T*10]	295	295	292	264	231	200	175	175	195	231	256	245
Iom [Pp/Tp]	271	342	343	341	165	42	25	17	20	71	147	244
Avm [200-Iom]	***	***	***	***	35	158	175	183	180	129	53	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	2807 / 881			1364 / 694			111 / 545			1136 / 731		
Iot [Pp/Tp]	319			196			20			155		
Avs E[Avm<200]	***			***			539			***		
Upper ultrahyperarid [2]						Lower hyperarid [2]						
Strong lower arid [1]						Strong upper arid [1]						
Weak lower semiarid [1]						Strong upper semiarid [1]						

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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]: 29.22
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 22.17
 + Oceanic (20<CI<40)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.32
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: 22.81
 + Steppic (40>R>0)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 16.05
 + Semiarid -mediterranean- (20>Ia>15)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 40.18
 + Semiarid (50>Q>30)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 4.38
 + Arid (6>DR>3)
 Aridity Index of UNEP [I=P/PE]: 0.42
 + Semiarid (0.5>Im>0.2)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 18.75
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteritic (Mediterranean warm)
 + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.34	0.34	0.32	0.13	0.03	0.01	0.01	0.01	0.05	0.12	0.21	0.26
T-E ratio	13.25	13.13	11.88	10.38	9.00	7.88	7.88	8.75	10.38	11.50	11.00	13.25
Precipitation-effectiveness: 18.30						Temperature-efficiency: 128.27						
Moisture Index [MI=100*(P-PE)/PE]: -57.76 + D.Semiarid (-66.7<MI<-33.3) Index of dryness [DI=100*d/PE]: 57.76 + Strong deficit (33.3<DI) Index of humidity [HI=100*s/PE]: 0.00 + No surplus (0<HI<10) Potential Evapotranspiration PE: 1282.73 + Forth mesothermic (997<PE<1440)												

