

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

CANADON LEON (ARGENTINA)

Altitude: 358 m.

Latitude: 48°47'S Longitude: 70°8'W

Temperature observation period.: 1941-1950 (10)

Rainfall observation period....: 1941-1950 (10)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	16.00	23.10	8.90	35.60	-0.20	10.0	109.11
Feb.	14.00	21.40	7.90	34.60	-1.50	7.0	79.02
Mar.	12.40	18.80	6.50	30.00	-2.20	29.0	67.97
Apr.	9.20	14.90	3.60	25.00	-9.10	13.0	40.96
May.	5.00	9.40	0.50	22.00	-13.30	19.0	19.55
Jun.	2.80	6.90	-1.20	19.00	-19.80	10.0	9.46
Jul.	2.60	6.80	-1.50	16.60	-15.20	13.0	9.54
Aug.	2.80	7.50	-2.30	18.20	-17.00	12.0	11.93
Sep.	6.10	12.30	0.60	23.00	-8.00	13.0	29.99
Oct.	10.00	16.00	3.90	25.00	-7.00	5.0	59.61
Nov.	12.40	18.30	5.80	27.60	-4.00	12.0	79.82
Dec.	14.80	20.80	7.40	32.00	-1.50	11.0	103.03
Year	9.01	14.68	3.34	25.72	-8.23	154	619.98

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	143
Compensated thermicity index.....(Itc):	143
Simple continentality index.....(Ic):	13.4
Diurnality index.....(Id):	14.2
Annual ombrothermic index.....(Io):	1.42
Monthly estival ombrothermic index.....(Ios1):	0.50
Bimonthly estival ombrothermic index.....(Ios2):	0.57
Threemonthly estival ombrothermic index.....(Ios3):	0.63
Fourmonthly estival ombrothermic index.....(Ios4):	0.70
Annual ombro-evaporation index.....(Ioe):	0.93
Annual positive temperature.....(Tp):	1081
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	448
Positive precipitation.....(Pp):	154

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	2	4	1	5	0

Latitudinal Belt...: High eutemperate

Continentalty.....: Oceanic - Low Semihyperoceanic

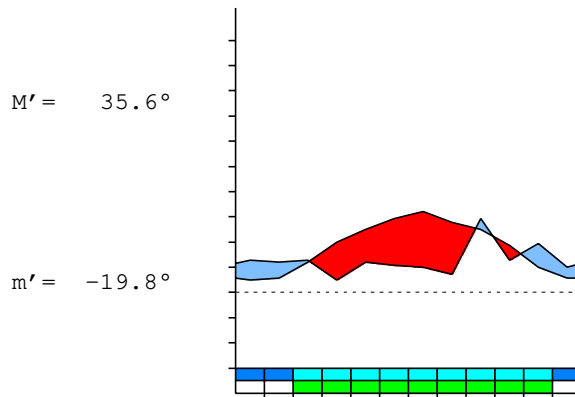
Bioclimate.....: MEDITERRANEAN XERIC-OCEANIC

Bioclimatic Belt...: UPPER SUPRAMEDITERRANEAN LOW SEMIARID

CANADON LEON (ARGENTINA)

358 m

P= 154 48° 47' S 70° 8' W 10/10 y.
 T= 9.0° Ic= 13.4 Tp= 1081 Tn= 0
 m= -1.5° M= 6.8° Itc= 143 Io= 1.4



MEDITERRANEAN XERIC-OCEANIC
 UPPER SUPRAMEDITERRANEAN LOW SEMIARID

WATER INDEX CARD CANADON LEON (ARGENTINA)
 Altitude: 358 m. Latitude: 48° 47' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	2.6	10	13	3	4	10	0	0	0	0.3
Aug.	2.8	12	12	0	4	12	0	0	0	0.0
Sep.	6.1	30	13	-4	0	17	13	0	0	-0.5
Oct.	10.0	60	5	0	0	5	55	0	0	-0.9
Nov.	12.4	80	12	0	0	12	68	0	0	-0.8
Dec.	14.8	103	11	0	0	11	92	0	0	-0.8
Jan.	16.0	109	10	0	0	10	99	0	0	-0.9
Feb.	14.0	79	7	0	0	7	72	0	0	-0.9
Mar.	12.4	68	29	0	0	29	39	0	0	-0.5
Apr.	9.2	41	13	0	0	13	28	0	0	-0.6
May.	5.0	20	19	0	0	19	1	0	0	0.0
Jun.	2.8	9	10	1	1	9	0	0	0	0.0
Year	9.0	620	154	*	*	154	466	0	0	*

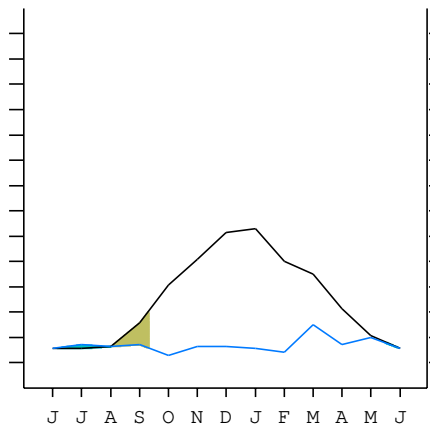
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

CANADON LEON (ARGENTINA)

48°47' S 70°8' W 358 m 10/10 y.

T= 9.0 Ic= 13.4 MEDITERRANEAN XERIC-OCEANIC
 m= -1.5 Tp= 1081 UPPER SUPRAMEDITERRANEAN
 M= 6.8 Tn= 0 LOW SEMIARID
 M' = 35.6 Itc= 143
 m' = -19.8 Io= 1.4
 P= 154 mm
 PE= 620 mm

Imbibing	16 May.
Saturation	1 Aug.
Reserve Use	8 Sep.
Deficit	



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1b]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: b. Low
 Thermic types [B1.B5]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. High eutemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 5. Subtemperate
 Bioclimatic types [B6.4a.4b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 6. XERIC-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 4. SUPRAMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 4. SEMIARID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: MepDC.Sme.Sar

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 74
 Coldest semester of the year.....(Psw): 80
 Warmest four months period of the year.....(Pcm1): 40
 Following warmest four months period.....(Pcm2): 71
 Positive precipitation dryest 3 months.....(Ppd): 28
 Positive precipitation dryest 2 months.....(Ppd2): 17
 Positive precipitation dryest 1 month.....(Ppd1): 5
 Positive precipitation warmest 3 months.....(Pps): 28
 Positive precipitation warmest 2 months.....(Pps2): 21
 Positive precipitation warmest 1 month.....(Pps1): 10
 Positive precipitation coldest 3 months.....(Ppw): 35
 Positive precipitation coldest 2 months.....(Ppw2): 23
 Positive precipitation coldest 1 month.....(Ppw1): 13

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	35	30	28	61

Seasonal rainfall rhythms: F > W > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 16.0
 Average coldest month [T].....(Tmin): 2.6
 Maximum temp. warmest month [M].....(Tmmax): 23.1
 Minimum temp. coldest month [m].....(Tmmin): -2.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 35.6
 Absolute Min.temp. coldest month [m'].....(Tamin): -19.8
 First warmest contrasted month [M].....(Tcmax): 23.1 (1)
 First coldest contrasted month [m].....(Tcmin): 8.9 (1)
 Estival temperature.....(Ts): 448
 Positive temperature dryest 3 months.....(Tpd): 372
 Positive temperature dryest 2 months.....(Tpd2): 300
 Positive temperature dryest 1 month.....(Tpd1): 100
 Positive temperature warmest 3 months.....(Tps): 448
 Positive temperature warmest 2 months.....(Tps2): 308
 Positive temperature warmest 1 month.....(Tps1): 160
 Positive temperature coldest 3 months.....(Tpw): 82
 Positive temperature coldest 2 months.....(Tpw2): 54
 Positive temperature coldest 1 month.....(Tpw1): 26

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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
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)						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): 4.03
 Mediterranean index of January.....(Im1): 10.91
 Mediterranean index of January & February.....(Im2): 11.07
 Mediterranean index of December to February...(Im3): 10.40

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	110	100	70	290	130	190	100	130	120	130	50	120
Tp	148	160	140	124	92	50	28	26	28	61	100	124
Io (Iom)	0.74	0.63	0.50	2.34	1.41	3.80	3.57	5.00	4.29	2.13	0.50	0.97
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	280 / 448			610 / 266			350 / 82			300 / 285		
Io (Iot)	0.625			2.293			4.268			1.053		
Semesters	December-May						June-November					
Pp(x10)/Tp	890 / 714						650 / 367					
Io (Iosm)	1.246						1.771					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1540/1081=1.42 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	110	100	70	290	130	190	100	130	120	130	50	120
Tp [T*10]	148	160	140	124	92	50	28	26	28	61	100	124
Iom [Pp/Tp]	74	63	50	234	141	380	357	500	429	213	50	97
Avm [200-Iom]	126	138	150	***	59	***	***	***	***	***	150	103
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	280 / 448			610 / 266			350 / 82			300 / 285		
Iot [Pp/Tp]	63			229			427			105		
Avs E[Avm<200]	413			***			***			***		
Strong lower arid [2]						Weak lower arid [2]						
Strong upper arid [1]						Weak upper arid [1]						
Weak lower semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	13.40
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		9.88
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		12.64
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.78
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		17.10
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		8.10
+ Arid -steppic- (15>Ia>5)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		29.15
+ Arid (30>Q>0)		
I of Dantin & Revenga (1940) [DR=100*T/P]		5.85
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.25
+ Semiarid (0.5>Im>0.2)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		5.46
+ 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	0.04	0.03	0.13	0.06	0.11	0.06	0.08	0.07	0.07	0.02	0.05	0.04
T-E ratio	7.20	6.30	5.58	4.14	2.25	1.26	1.17	1.26	2.74	4.50	5.58	6.66
Precipitation-effectiveness: 7.36						Temperature-efficiency						48.64
Moisture Index [MI=100*(P-PE)/PE]												-75.16
+ E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE]												75.15
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												619.98
+ First mesothermic (570<PE<712)												

