

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

QUIXERAMOBIM (BRAZIL)

Altitude: 199 m.

Latitude: 5°12'S Longitude: 39°18'W

Temperature observation period.: 1983-1994 (12)

Rainfall observation period....: 1981-1994 (14)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	29.72	33.33	26.11	37.78	22.22	18.8	170.95
Feb.	29.45	32.78	26.11	36.11	21.11	126.2	151.16
Mar.	28.06	31.11	25.00	35.00	20.00	167.9	153.91
Apr.	27.22	30.00	24.44	33.89	20.00	126.8	141.26
May.	26.95	30.00	23.89	33.89	21.11	178.3	141.89
Jun.	26.39	29.44	23.33	32.78	20.00	43.9	123.18
Jul.	27.22	31.11	23.33	32.78	17.22	18.8	144.09
Aug.	28.06	32.22	23.89	37.78	21.11	15.7	152.43
Sep.	28.89	33.33	24.44	37.78	21.67	9.9	154.63
Oct.	29.45	33.89	25.00	37.78	21.11	14.7	167.07
Nov.	29.45	33.89	25.00	37.22	20.00	17.8	163.89
Dec.	30.00	34.44	25.56	37.78	17.22	16.3	173.32
Year	28.41	32.13	24.68	35.88	20.23	755	1837.8

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	812
Compensated thermicity index.....(Itc):	812
Simple continentality index.....(Ic):	3.6
Diurnality index.....(Id):	8.9
Annual ombrothermic index.....(Io):	2.22
Monthly dry ombrothermic index.....(Iod1):	0.34
Bimonthly dry ombrothermic index.....(Iod2):	0.42
Three monthly dry ombrothermic index.....(Iod3):	0.47
Four monthly dry ombrothermic index.....(Iod4):	0.52
Annual ombro-evaporation index.....(Ioe):	0.37
Annual positive temperature.....(Tp):	3409
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	864
Positive precipitation.....(Pp):	755

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	4	0	1	7	0

Latitudinal Belt...: Equatorial

Continentalty.....: Hyperoceanic - Low Ultrahyperoceanic

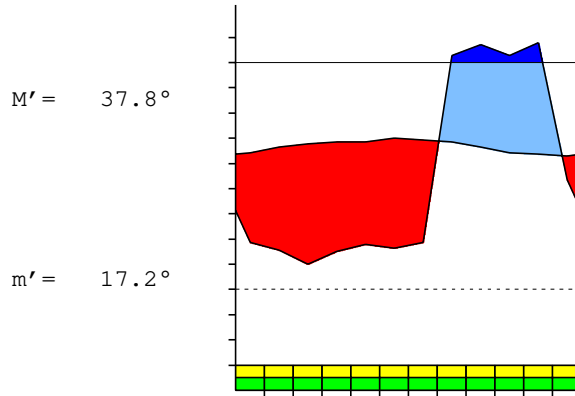
Bioclimate(Variant): TROPICAL XERIC (PLUVISEROTIN, DRY)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW DRY

QUIXERAMOBIM (BRAZIL)

199 m

P= 755 5° 12' S 39° 18' W 12/14 y.
 T= 28.4° Ic= 3.6 Tp= 3409 Tn= 0
 m= 23.3° M= 29.4° Itc= 812 Io= 2.2



TROPICAL XERIC (PLUVISEROTIN)
 UPPER INFRATROPICAL LOW DRY

WATER INDEX CARD QUIXERAMOBIM (BRAZIL)
 Altitude: 199 m. Latitude: 5° 12' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	27.2	144	19	0	0	19	125	0	0	-0.8
Aug.	28.1	152	16	0	0	16	137	0	0	-0.8
Sep.	28.9	155	10	0	0	10	145	0	0	-0.9
Oct.	29.5	167	15	0	0	15	152	0	0	-0.9
Nov.	29.5	164	18	0	0	18	146	0	0	-0.8
Dec.	30.0	173	16	0	0	16	157	0	0	-0.9
Jan.	29.7	171	19	0	0	19	152	0	0	-0.8
Feb.	29.5	151	126	0	0	126	25	0	0	-0.1
Mar.	28.1	154	168	14	14	154	0	0	0	0.0
Apr.	27.2	141	127	-14	0	141	0	0	0	-0.1
May.	27.0	142	178	36	36	142	0	0	0	0.2
Jun.	26.4	123	44	-36	0	80	43	0	0	-0.6
Year	28.4	1838	755	*	*	755	1083	0	0	*

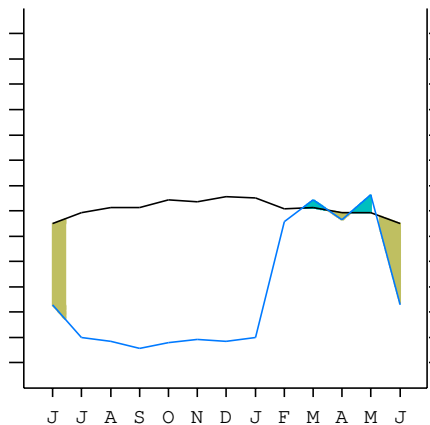
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

QUIXERAMOBIM (BRAZIL)

5°12' S 39°18' W 199 m 12/14 y.

T= 28.4 Ic= 3.6 TROPICAL XERIC (PLUVISEROTIN)
 m= 23.3 Tp= 3409 UPPER INFRATROPICAL
 M= 29.4 Tn= 0 LOW DRY
 M' = 37.8 Itc= 812
 m' = 17.2 Io= 2.2
 P= 755 mm ———
 PE= 1838 mm ———

Imbibing	9 Apr.
Saturation	10 May.
Reserve Use	30 Apr.
Deficit	



QUIXERAMOBIM (BRAZIL)

Latitude: 5°12'S Longitude: 39°18'W Altitude: 199 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A1b]
 + Type: A. Hyperoceanic
 + Subtype: 1. Ultrahyperoceanic
 + Variant: b. Low
 Thermic types [A1.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 1. Equatorial
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A3e.1a.5b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 3. XERIC
 + Bioclimatic variant .: e. PLUVISEROTIN, DRY
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trxe (Pse).Itr.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 204
 Coldest semester of the year.....(Psw): 551
 Warmest four months period of the year.....(Pcm1): 68
 Following warmest four months period.....(Pcm2): 599
 Positive precipitation dryest 3 months.....(Ppd): 40
 Positive precipitation dryest 2 months.....(Ppd2): 25
 Positive precipitation dryest 1 month.....(Ppd1): 10
 Positive precipitation warmest 3 months.....(Pps): 53
 Positive precipitation warmest 2 months.....(Pps2): 35
 Positive precipitation warmest 1 month.....(Pps1): 16
 Positive precipitation coldest 3 months.....(Ppw): 349
 Positive precipitation coldest 2 months.....(Ppw2): 222
 Positive precipitation coldest 1 month.....(Ppw1): 44

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	78	42	161	473

Tropical rainfall rhythms: 2 > 1 > 3 > 4

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 30.0
 Average coldest month [T].....(Tmin): 26.4
 Maximum temp. warmest month [M].....(Tmmax): 34.4
 Minimum temp. coldest month [m].....(Tmmin): 23.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 37.8
 Absolute Min.temp. coldest month [m'].....(Tamin): 17.2
 First warmest contrasted month [M].....(Tcmax): 33.3 (9)
 First coldest contrasted month [m].....(Tcmin): 24.4 (9)
 Dry station temperature.....(Td): 864
 Positive temperature dryest 3 months.....(Tpd): 864
 Positive temperature dryest 2 months.....(Tpd2): 583
 Positive temperature dryest 1 month.....(Tpd1): 289
 Positive temperature warmest 3 months.....(Tps): 892
 Positive temperature warmest 2 months.....(Tps2): 597
 Positive temperature warmest 1 month.....(Tps1): 300
 Positive temperature coldest 3 months.....(Tpw): 806
 Positive temperature coldest 2 months.....(Tpw2): 533
 Positive temperature coldest 1 month.....(Tpw1): 264

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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)												
Agelid.....[m' > 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 2.43
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February.....(Im2): No
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	163	188	1262	1679	1268	1783	439	188	157	99	147	178
Tp	300	297	295	281	272	270	264	272	281	289	295	295
Io (Iom)	0.54	0.63	4.29	5.98	4.66	6.62	1.66	0.69	0.56	0.34	0.50	0.60
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	1613 / 892			4730 / 822			784 / 817			424 / 878		
Io (Iot)	1.809			5.752			0.960			0.483		
Semesters	December-May						June-November					
Pp(x10)/Tp	6343 / 1714						1208 / 1695					
Io (Iosm)	3.701						0.713					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 7551/3409=2.22 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	163	188	1262	1679	1268	1783	439	188	157	99	147	178
Tp [T*10]	300	297	295	281	272	270	264	272	281	289	295	295
Iom [Pp/Tp]	54	63	429	598	466	662	166	69	56	34	50	60
Avm [200-Iom]	146	137	***	***	***	***	34	131	144	166	150	140
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	1613 / 892			4730 / 822			784 / 817			424 / 878		
Iot [Pp/Tp]	181			575			96			48		
Avs E[Avm<200]	***			***			309			455		
Upper hyperarid [1]							Strong lower arid [2]					
Weak lower arid [5]							Weak upper arid [1]					
Strong upper semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	3.61
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		47.31
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		9.41
+ Hyperoceanic (-20<CI<20)		
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]		26.58
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		19.66
+ Semiarid -mediterranean- (20>Ia>15)		
I of Emberger (1930) [Q=100*P/(Tmm ² -Tmm ²)]		117.65
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		3.76
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.41
+ Semiarid (0.5>Im>0.2)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		42.10
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 1. Megathermic

Thornthwaite (1948)													
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
P-E ratio	0.05	0.43	0.61	0.46	0.67	0.14	0.05	0.04	0.03	0.04	0.05	0.04	
T-E ratio	13.37	13.25	12.63	12.25	12.13	11.88	12.25	12.63	13.00	13.25	13.25	13.50	
Precipitation-effectiveness:	26.27					Temperature-efficiency							153.39
Moisture Index [MI=100*(P-PE)/PE]												-58.91	
+ D.Semiarid (-66.7<MI<-33.3)													
Index of dryness [DI=100*d/PE]												58.91	
+ Strong deficit (33.3<DI)													
Index of humidity [HI=100*s/PE]												0.00	
+ No surplus (0<HI<10)													
Potential Evapotranspiration PE												1837.76	
+ Megathermic (PE>1440)													

