

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

BOM J. DO PIAUI (BRAZIL)

Altitude: 332 m.

Latitude: 9°6'S Longitude: 44°7'W

Temperature observation period.: 1971-1990 (20)

Rainfall observation period....: 1971-1990 (20)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.80	31.30	21.10	36.30	15.50	173.0	130.20
Feb.	25.60	31.10	21.10	37.80	17.00	175.0	112.43
Mar.	25.50	31.00	20.90	36.90	14.70	182.0	121.19
Apr.	25.70	31.20	20.80	37.10	15.00	138.0	117.64
May.	26.10	32.10	20.10	36.90	14.10	26.0	127.12
Jun.	25.70	32.30	19.00	36.30	11.70	5.0	115.26
Jul.	25.90	32.80	19.20	36.60	11.70	6.0	122.31
Aug.	27.70	34.50	20.30	37.80	11.90	5.0	148.01
Sep.	28.90	35.70	21.80	39.00	15.30	20.0	154.71
Oct.	28.20	34.60	21.00	39.60	17.20	99.0	158.05
Nov.	26.80	33.20	21.40	39.60	17.50	146.0	144.80
Dec.	26.10	31.80	20.90	38.80	16.50	181.0	137.19
Year	26.50	32.63	20.63	37.72	14.84	1156	1588.9

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	784
Compensated thermicity index.....(Itc):	784
Simple continentality index.....(Ic):	3.4
Diurnality index.....(Id):	14.2
Annual ombrothermic index.....(Io):	3.64
Monthly dry ombrothermic index.....(Iod1):	0.19
Bimonthly dry ombrothermic index.....(Iod2):	0.21
Threemonthly dry ombrothermic index.....(Iod3):	0.20
Fourmonthly dry ombrothermic index.....(Iod4):	0.40
Annual ombro-evaporation index.....(Ioe):	0.73
Annual positive temperature.....(Tp):	3180
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	793
Positive precipitation.....(Pp):	1156

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	6	1	0	5	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

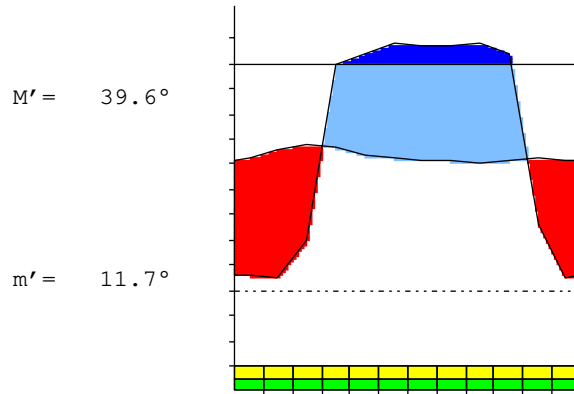
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW SUBHUMID

BOM J. DO PIAUI (BRAZIL)

332 m

P= 1156 9° 6'S 44° 7'W 20/20 y.
 T= 26.5 ° Ic= 3.4 Tp= 3180 Tn= 0
 m= 20.9 ° M= 31.0 ° Itc= 784 Io= 3.6



TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 UPPER INFRATROPICAL LOW SUBHUMID

WATER INDEX CARD BOM J. DO PIAUI (BRAZIL)
 Altitude: 332 m. Latitude: 9° 6'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	25.9	122	6	0	0	6	116	0	4	-0.9
Aug.	27.7	148	5	0	0	5	143	0	2	-0.9
Sep.	28.9	155	20	0	0	20	135	0	1	-0.8
Oct.	28.2	158	99	0	0	99	59	0	0	-0.3
Nov.	26.8	145	146	1	1	145	0	0	0	0.0
Dec.	26.1	137	181	44	45	137	0	0	0	0.3
Jan.	25.8	130	173	43	88	130	0	0	0	0.3
Feb.	25.6	112	175	12	100	112	0	50	25	0.5
Mar.	25.5	121	182	0	100	121	0	61	43	0.5
Apr.	25.7	118	138	0	100	118	0	20	32	0.1
May.	26.1	127	26	-100	0	126	1	0	16	-0.7
Jun.	25.7	115	5	0	0	5	110	0	8	-0.9
Year	26.5	1589	1156	*	*	1024	564	132	132	*

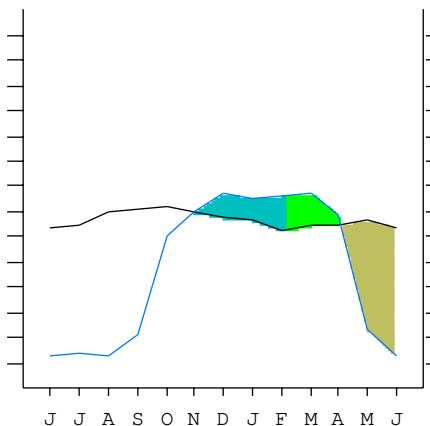
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

BOM J. DO PIAUI (BRAZIL)

9°6'S 44°7'W 332 m 20/20 y.

T= 26.5 Ic= 3.4 TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 m= 20.9 Tp= 3180 UPPER INFRATROPICAL
 M= 31.0 Tn= 0 LOW SUBHUMID
 M' = 39.6 Itc= 784
 m' = 11.7 Io= 3.6
 P= 1156 mm ———
 PE= 1589 mm ———

Imbibing	30 Oct.
Saturation	6 Feb.
Reserve Use	6 Apr.
Deficit	30 May.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A1b]
 + Type: A. Hyperoceanic
 + Subtype: 1. Ultrahyperoceanic
 + Variant: b. Low

Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid

Bioclimatic types [A4.1a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: SUBXEROPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic ClassificationTrps(Sxe).Itr.Shu.Uho

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 457
 Coldest semester of the year.....(Psw): 699
 Warmest four months period of the year.....(Pcm1): 270
 Following warmest four months period.....(Pcm2): 711
 Positive precipitation dryest 3 months.....(Ppd): 16
 Positive precipitation dryest 2 months.....(Ppd2): 11
 Positive precipitation dryest 1 month.....(Ppd1): 5
 Positive precipitation warmest 3 months.....(Pps): 124
 Positive precipitation warmest 2 months.....(Pps2): 119
 Positive precipitation warmest 1 month.....(Pps1): 20
 Positive precipitation coldest 3 months.....(Ppw): 495
 Positive precipitation coldest 2 months.....(Ppw2): 357
 Positive precipitation coldest 1 month.....(Ppw1): 182

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	16	265	529	346

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.9
 Average coldest month [T].....(Tmin): 25.5
 Maximum temp. warmest month [M].....(Tmmax): 35.7
 Minimum temp. coldest month [m].....(Tmmin): 19.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 39.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 11.7
 First warmest contrasted month [M].....(Tcmax): 34.5 (8)
 First coldest contrasted month [m].....(Tcmin): 20.3 (8)
 Dry station temperature.....(Td): 793
 Positive temperature dryest 3 months.....(Tpd): 793
 Positive temperature dryest 2 months.....(Tpd2): 516
 Positive temperature dryest 1 month.....(Tpd1): 257
 Positive temperature warmest 3 months.....(Tps): 848
 Positive temperature warmest 2 months.....(Tps2): 571
 Positive temperature warmest 1 month.....(Tps1): 289
 Positive temperature coldest 3 months.....(Tpw): 768
 Positive temperature coldest 2 months.....(Tpw2): 511
 Positive temperature coldest 1 month.....(Tpw1): 255

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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): 1.37
 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)	1810	1730	1750	1820	1380	260	50	60	50	200	990	1460
Tp	261	258	256	255	257	261	257	259	277	289	282	268
Io (Iom)	6.93	6.71	6.84	7.14	5.37	1.00	0.19	0.23	0.18	0.69	3.51	5.45
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	5290 / 775			3460 / 773			160 / 793			2650 / 839		
Io (Iot)	6.826			4.476			0.202			3.159		
Semesters	December-May						June-November					
Pp(x10)/Tp	8750 / 1548						2810 / 1632					
Io (Iosm)	5.652						1.722					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 11560/3180=3.64 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1810	1730	1750	1820	1380	260	50	60	50	200	990	1460
Tp [T*10]	261	258	256	255	257	261	257	259	277	289	282	268
Iom [Pp/Tp]	693	671	684	714	537	100	19	23	18	69	351	545
Avm [200-Iom]	***	***	***	***	***	100	181	177	182	131	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	5290 / 775			3460 / 773			160 / 793			2650 / 839		
Iot [Pp/Tp]	683			448			20			316		
Avs E[Avm<200]	***			***			539			***		
Upper ultrahyperarid [2]							Lower hyperarid [2]					
Weak lower arid [1]							Weak upper arid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 3.40
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 16.15
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 3.66
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.84
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 43.62
 + Semiarid (60>R>40)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 31.67
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 126.55
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 2.29
 + Semiarid (3>DR>2)
 Aridity Index of UNEP [I=P/PE]: 0.73
 + Humid (I>0.65)
 Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 28.65
 + 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. Termoxeroteric (Mediterranean warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.67	0.68	0.71	0.52	0.08	0.01	0.02	0.01	0.06	0.34	0.54	0.70
T-E ratio	11.61	11.52	11.48	11.57	11.75	11.57	11.65	12.47	13.00	12.69	12.06	11.75
Precipitation-effectiveness: 43.26						Temperature-efficiency: 143.10						
Moisture Index [MI=100*(P-PE)/PE]: -27.25 + C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 35.52 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 8.28 + No surplus (0<HI<10)												
Potential Evapotranspiration PE: 1588.93 + Megathermic (PE>1440)												

