

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

BARRA DO CORDA (BRAZIL)

Altitude: 81 m.

Latitude: 5°30'S Longitude: 45°16'W

Temperature observation period.: 1959-1970 (12)

Rainfall observation period....: 1959-1970 (12)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.50	31.70	21.70	37.30	19.00	190.0	124.71
Feb.	25.40	31.10	21.70	37.00	17.60	208.0	110.25
Mar.	25.40	31.10	21.70	35.20	18.00	214.0	120.69
Apr.	25.60	31.70	21.70	38.60	18.80	144.0	119.26
May.	25.20	31.70	20.60	36.40	13.60	60.0	115.16
Jun.	24.60	32.20	18.90	36.80	14.20	16.0	101.76
Jul.	24.20	33.30	17.80	37.20	12.20	7.0	100.04
Aug.	25.40	34.40	18.30	37.80	12.00	7.0	119.53
Sep.	27.20	35.00	20.60	39.00	14.80	23.0	141.10
Oct.	27.40	34.40	22.20	39.40	13.60	41.0	149.84
Nov.	27.00	33.90	21.70	38.00	12.50	70.0	143.69
Dec.	26.20	32.80	21.70	38.60	18.60	117.0	138.31
Year	25.76	32.77	20.72	37.61	15.41	1097	1484.3

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	769
Compensated thermicity index.....(Itc):	769
Simple continentality index.....(Ic):	3.2
Diurnality index.....(Id):	16.1
Annual ombrothermic index.....(Io):	3.55
Monthly dry ombrothermic index.....(Iod1):	0.29
Bimonthly dry ombrothermic index.....(Iod2):	0.28
Three monthly dry ombrothermic index.....(Iod3):	0.40
Four monthly dry ombrothermic index.....(Iod4):	0.91
Annual ombro-evaporation index.....(Ioe):	0.69
Annual positive temperature.....(Tp):	3091
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	742
Positive precipitation.....(Pp):	1097

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

Latitudinal Belt...: Equatorial

Continentalty.....: Hyperoceanic - Low Ultrahyperoceanic

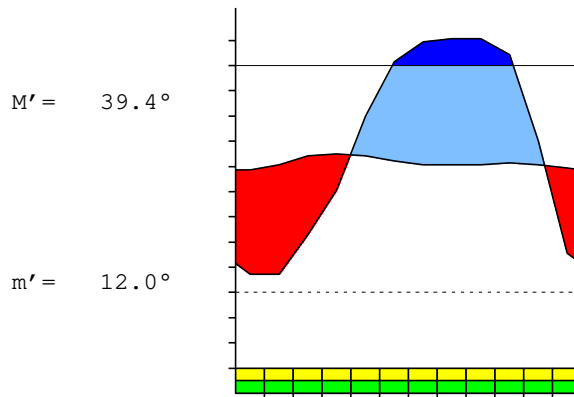
Bioclimate(Variant): TROPICAL XERIC (PLUVISEROTIN, DRY)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER DRY

BARRA DO CORDA (BRAZIL)

81 m

P= 1097 5° 30'S 45° 16'W 12/12 y.
 T= 25.8° Ic= 3.2 Tp= 3091 Tn= 0
 m= 17.8° M= 33.3° Itc= 769 Io= 3.5



TROPICAL XERIC (PLUVISEROTIN)
 UPPER INFRATROPICAL UPPER DRY

WATER INDEX CARD

BARRA DO CORDA (BRAZIL)

Altitude: 81 m.

Latitude: 5° 30'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	24.2	100	7	0	0	7	93	0	5	-0.9
Aug.	25.4	120	7	0	0	7	113	0	3	-0.9
Sep.	27.2	141	23	0	0	23	118	0	1	-0.8
Oct.	27.4	150	41	0	0	41	109	0	1	-0.7
Nov.	27.0	144	70	0	0	70	74	0	0	-0.5
Dec.	26.2	138	117	0	0	117	21	0	0	-0.1
Jan.	25.5	125	190	65	65	125	0	0	0	0.5
Feb.	25.4	110	208	35	100	110	0	63	32	0.8
Mar.	25.4	121	214	0	100	121	0	93	62	0.7
Apr.	25.6	119	144	0	100	119	0	25	44	0.2
May.	25.2	115	60	-55	45	115	0	0	22	-0.4
Jun.	24.6	102	16	-45	0	61	41	0	11	-0.8
Year	25.8	1484	1097	*	*	916	568	181	181	*

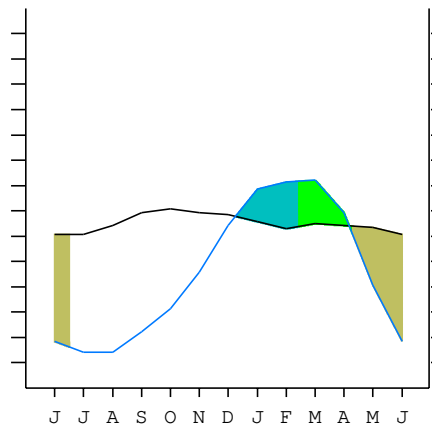
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

BARRA DO CORDA (BRAZIL)

5°30'S 45°16'W 81 m 12/12 y.

T= 25.8 Ic= 3.2 TROPICAL XERIC (PLUVISEROTIN)
 m= 17.8 Tp= 3091 UPPER INFRATROPICAL
 M= 33.3 Tn= 0 UPPER DRY
 M' = 39.4 Itc= 769
 m' = 12.0 Io= 3.5
 P= 1097 mm ———
 PE= 1484 mm ———

Imbibing	8 Dec.
Saturation	11 Feb.
Reserve Use	10 Apr.
Deficit	16 Jun.



BARRA DO CORDA (BRAZIL)

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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.5a]
 + 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 : a. UPPER
 Bioclimatic Classification: Trxe (Pse).Itr.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 448
 Coldest semester of the year.....(Psw): 649
 Warmest four months period of the year.....(Pcm1): 251
 Following warmest four months period.....(Pcm2): 756
 Positive precipitation dryest 3 months.....(Ppd): 30
 Positive precipitation dryest 2 months.....(Ppd2): 14
 Positive precipitation dryest 1 month.....(Ppd1): 7
 Positive precipitation warmest 3 months.....(Pps): 134
 Positive precipitation warmest 2 months.....(Pps2): 64
 Positive precipitation warmest 1 month.....(Pps1): 41
 Positive precipitation coldest 3 months.....(Ppw): 83
 Positive precipitation coldest 2 months.....(Ppw2): 23
 Positive precipitation coldest 1 month.....(Ppw1): 7

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	30	134	515	418

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.4
 Average coldest month [T].....(Tmin): 24.2
 Maximum temp. warmest month [M].....(Tmmax): 35.0
 Minimum temp. coldest month [m].....(Tmmin): 17.8
 Absolute Max.temp. warmest month [M'].....(Tamax): 39.4
 Absolute Min.temp. coldest month [m'].....(Tamin): 12.0
 First warmest contrasted month [M].....(Tcmax): 34.4 (8)
 First coldest contrasted month [m].....(Tcmin): 18.3 (8)
 Dry station temperature.....(Td): 742
 Positive temperature dryest 3 months.....(Tpd): 742
 Positive temperature dryest 2 months.....(Tpd2): 496
 Positive temperature dryest 1 month.....(Tpd1): 242
 Positive temperature warmest 3 months.....(Tps): 816
 Positive temperature warmest 2 months.....(Tps2): 546
 Positive temperature warmest 1 month.....(Tps1): 274
 Positive temperature coldest 3 months.....(Tpw): 740
 Positive temperature coldest 2 months.....(Tpw2): 488
 Positive temperature coldest 1 month.....(Tpw1): 242

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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): 1.35
 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)	1170	1900	2080	2140	1440	600	160	70	70	230	410	700
Tp	262	255	254	254	256	252	246	242	254	272	274	270
Io (Iom)	4.47	7.45	8.19	8.43	5.63	2.38	0.65	0.29	0.28	0.85	1.50	2.59
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	5150 / 771			4180 / 762			300 / 742			1340 / 816		
Io (Iot)	6.680			5.486			0.404			1.642		
Semesters	December-May						June-November					
Pp(x10)/Tp	9330 / 1533						1640 / 1558					
Io (Iosm)	6.086						1.053					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 10970/3091=3.55 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1170	1900	2080	2140	1440	600	160	70	70	230	410	700
Tp [T*10]	262	255	254	254	256	252	246	242	254	272	274	270
Iom [Pp/Tp]	447	745	819	843	563	238	65	29	28	85	150	259
Avm [200-Iom]	***	***	***	***	***	***	135	171	172	115	50	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	5150 / 771			4180 / 762			300 / 742			1340 / 816		
Iot [Pp/Tp]	668			549			40			164		
Avs E[Avm<200]	***			***			478			***		
Lower hyperarid [2]							Strong lower arid [1]					
Weak lower arid [1]							Weak upper arid [1]					
Weak lower semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	3.20
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		36.36
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		6.36
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.13
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		42.59
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		30.68
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		120.79
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.35
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		0.74
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		41.75
+ 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	0.74	0.82	0.85	0.55	0.21	0.05	0.02	0.02	0.07	0.13	0.24	0.43
T-E ratio	11.48	11.43	11.43	11.52	11.34	11.07	10.89	11.43	12.24	12.33	12.15	11.79
Precipitation-effectiveness: 41.25						Temperature-efficiency						139.10
Moisture Index [MI=100*(P-PE)/PE]												-26.10
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												38.29
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												12.19
+ Moderate surplus (10<HI<20)												
Potential Evapotranspiration PE												1484.34
+ Megathermic (PE>1440)												

