

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

CONCEICAO DO ARAGUAIA (BRAZIL)

Altitude: 16 m.

Latitude: 8°15'S Longitude: 49°12'W

Temperature observation period.: 1955-1960 (6)

Rainfall observation period....: 1933-1960 (28)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.00	31.10	21.10	35.00	17.20	254.0	118.57
Feb.	25.00	30.60	20.60	35.60	16.10	251.0	106.38
Mar.	25.00	31.70	20.60	37.20	15.60	264.0	116.36
Apr.	25.60	32.80	20.00	37.20	16.10	163.0	118.84
May.	25.60	32.80	20.00	36.10	15.00	61.0	121.25
Jun.	25.00	33.90	17.80	37.20	15.00	8.0	107.49
Jul.	25.00	35.00	17.20	37.20	12.80	8.0	111.92
Aug.	26.10	36.70	17.80	38.90	12.80	16.0	130.70
Sep.	26.70	36.10	19.40	38.90	15.60	64.0	137.10
Oct.	25.60	33.90	20.00	38.90	18.30	163.0	127.25
Nov.	25.60	33.30	20.60	37.20	18.90	196.0	124.85
Dec.	25.00	32.20	21.70	36.10	18.30	226.0	120.79
Year	25.43	33.34	19.73	37.13	15.98	1674	1441.5

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	776
Compensated thermicity index.....(Itc):	776
Simple continentality index.....(Ic):	1.7
Diurnality index.....(Id):	18.9
Annual ombrothermic index.....(Io):	5.48
Monthly dry ombrothermic index.....(Iod1):	0.32
Bimonthly dry ombrothermic index.....(Iod2):	0.32
Three monthly dry ombrothermic index.....(Iod3):	0.42
Four monthly dry ombrothermic index.....(Iod4):	0.91
Annual ombro-evaporation index.....(Ioe):	0.32
Annual positive temperature.....(Tp):	3052
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	761
Positive precipitation.....(Pp):	1674

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	7	2	0	3	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Ultrahyperoceanic

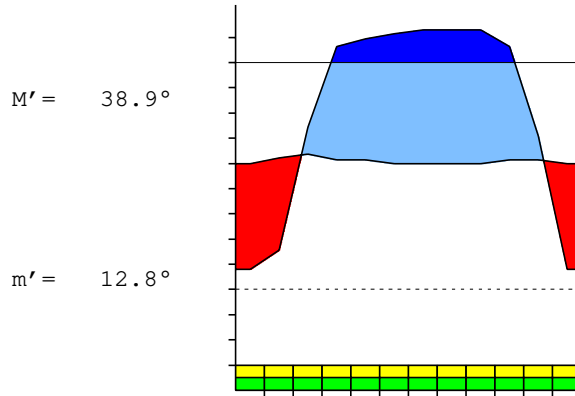
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBMESOPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER SUBHUMID

CONCEICAO DO ARAGUAIA (BRAZIL)

16 m

P= 1674 8° 15'S 49° 12'W 6/28 y.
 T= 25.4° Ic= 1.7 Tp= 3052 Tn= 0
 m= 21.1° M= 31.1° Itc= 776 Io= 5.5



TROPICAL PLUVISEASONAL (SUBMESOPHYTIC)
 UPPER INFRATROPICAL UPPER SUBHUMID

WATER INDEX CARD

CONCEICAO DO ARAGUAIA (BRAZIL)

Altitude: 16 m.

Latitude: 8° 15'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	25.0	112	8	0	0	8	104	0	11	-0.9
Aug.	26.1	131	16	0	0	16	115	0	6	-0.8
Sep.	26.7	137	64	0	0	64	73	0	3	-0.5
Oct.	25.6	127	163	36	36	127	0	0	1	0.2
Nov.	25.6	125	196	64	100	125	0	7	4	0.5
Dec.	25.0	121	226	0	100	121	0	105	55	0.8
Jan.	25.0	119	254	0	100	119	0	135	95	1.1
Feb.	25.0	106	251	0	100	106	0	145	120	1.3
Mar.	25.0	116	264	0	100	116	0	148	134	1.2
Apr.	25.6	119	163	0	100	119	0	44	89	0.3
May.	25.6	121	61	-60	40	121	0	0	44	-0.4
Jun.	25.0	107	8	-40	0	48	60	0	22	-0.9
Year	25.4	1442	1674	*	*	1090	351	584	584	*

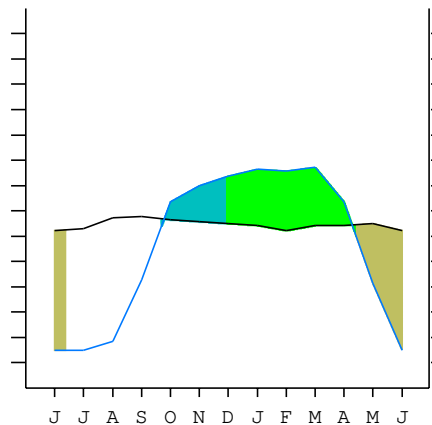
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

CONCEICAO DO ARAGUAIA (BRAZIL)

8°15'S 49°12'W 16 m 6/28 y.

T= 25.4 Ic= 1.7 TROPICAL PLUVISEASONAL (SUBMESOPHYTIC)
 m= 21.1 Tp= 3052 UPPER INFRATROPICAL
 M= 31.1 Tn= 0 UPPER SUBHUMID
 M' = 38.9 Itc= 776
 m' = 12.8 Io= 5.5
 P= 1674 mm ———
 PE= 1442 mm ———

Imbibing	21 Sep.
Saturation	28 Nov.
Reserve Use	13 Apr.
Deficit	12 Jun.



CONCEICAO DO ARAGUAIA (BRAZIL)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A1a]
 + Type: A. Hyperoceanic
 + Subtype: 1. Ultrahyperoceanic
 + Variant: a. High
 Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A4.1a.6a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Trde.Itr.Shu

CONCEICAO DO ARAGUAIA (BRAZIL)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 320
 Coldest semester of the year.....(Psw): 1001
 Warmest four months period of the year.....(Pcm1): 439
 Following warmest four months period.....(Pcm2): 995
 Positive precipitation dryest 3 months.....(Ppd): 32
 Positive precipitation dryest 2 months.....(Ppd2): 16
 Positive precipitation dryest 1 month.....(Ppd1): 8
 Positive precipitation warmest 3 months.....(Pps): 243
 Positive precipitation warmest 2 months.....(Pps2): 80
 Positive precipitation warmest 1 month.....(Pps1): 64
 Positive precipitation coldest 3 months.....(Ppw): 769
 Positive precipitation coldest 2 months.....(Ppw2): 505
 Positive precipitation coldest 1 month.....(Ppw1): 254

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	32	423	731	488

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.7
 Average coldest month [T].....(Tmin): 25.0
 Maximum temp. warmest month [M].....(Tmmax): 36.7
 Minimum temp. coldest month [m].....(Tmmin): 17.2
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.9
 Absolute Min.temp. coldest month [m'].....(Tamin): 12.8
 First warmest contrasted month [M].....(Tcmax): 36.7 (8)
 First coldest contrasted month [m].....(Tcmin): 17.8 (8)
 Dry station temperature.....(Td): 761
 Positive temperature dryest 3 months.....(Tpd): 761
 Positive temperature dryest 2 months.....(Tpd2): 500
 Positive temperature dryest 1 month.....(Tpd1): 250
 Positive temperature warmest 3 months.....(Tps): 784
 Positive temperature warmest 2 months.....(Tps2): 528
 Positive temperature warmest 1 month.....(Tps1): 267
 Positive temperature coldest 3 months.....(Tpw): 750
 Positive temperature coldest 2 months.....(Tpw2): 500
 Positive temperature coldest 1 month.....(Tpw1): 250

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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): 0.86
 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)	2260	2540	2510	2640	1630	610	80	80	160	640	1630	1960
Tp	250	250	250	250	256	256	250	250	261	267	256	256
Io (Iom)	9.04	10.2	10.0	10.6	6.37	2.38	0.32	0.32	0.61	2.40	6.37	7.66
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	7310 / 750			4880 / 762			320 / 761			4230 / 779		
Io (Iot)	9.747			6.404			0.420			5.430		
Semesters	December-May						June-November					
Pp(x10)/Tp	12190 / 1512						4550 / 1540					
Io (Iosm)	8.062						2.955					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 16740/3052=5.48 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	2260	2540	2510	2640	1630	610	80	80	160	640	1630	1960
Tp [T*10]	250	250	250	250	256	256	250	250	261	267	256	256
Iom [Pp/Tp]	904	\$\$\$	\$\$\$	\$\$\$	637	238	32	32	61	240	637	766
Avm [200-Iom]	***	***	***	***	***	***	168	168	139	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	7310 / 750			4880 / 762			320 / 761			4230 / 779		
Iot [Pp/Tp]	975			640			42			543		
Avs E[Avm<200]	***			***			475			***		
Upper hyperarid [2]							Strong lower arid [1]					
Weak lower arid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 1.70
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: -0.26
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: -4.77
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.45
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]: 65.82
 + Temperate warm (100>R>60)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 47.24
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 159.27
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.52
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.16
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 41.63
 + 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	1.04	1.03	1.08	0.63	0.21	0.02	0.02	0.05	0.22	0.63	0.77	0.91
T-E ratio	11.25	11.25	11.25	11.52	11.52	11.25	11.25	11.75	12.02	11.52	11.52	11.25
Precipitation-effectiveness:	66.02					Temperature-efficiency: 137.34						
Moisture Index [MI=100*(P-PE)/PE]: 16.13 + C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]: 24.38 + Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 40.51 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 1441.50 + Megathermic (PE>1440)												

