

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

OBIDOS (BRAZIL)

Altitude: 37 m.

Latitude: 1°55'S Longitude: 55°31'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.	26.20	31.00	22.20	36.20	19.00	238.0	132.57
Feb.	25.70	30.30	22.00	35.00	19.00	272.0	111.47
Mar.	25.80	30.40	22.20	34.90	20.50	290.0	125.14
Apr.	26.00	30.40	22.20	34.90	20.60	290.0	125.10
May.	26.10	30.50	22.00	34.00	21.00	288.0	129.42
Jun.	26.20	30.70	21.90	33.80	21.00	107.0	127.47
Jul.	26.20	31.60	21.60	34.20	19.80	70.0	132.57
Aug.	27.00	32.50	22.00	35.10	20.50	36.0	145.08
Sep.	27.40	32.80	22.20	34.00	20.00	50.0	144.13
Oct.	27.80	33.20	22.50	34.80	22.00	71.0	151.74
Nov.	27.70	33.10	22.50	34.60	20.40	78.0	148.01
Dec.	26.90	32.10	22.10	36.60	20.00	179.0	145.64
Year	26.58	31.55	22.12	34.84	20.32	1969	1618.3

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	789
Compensated thermicity index.....(Itc):	789
Simple continentality index.....(Ic):	2.1
Diurnality index.....(Id):	10.7
Annual ombrothermic index.....(Io):	6.17
Monthly dry ombrothermic index.....(Iod1):	1.33
Bimonthly dry ombrothermic index.....(Iod2):	1.58
Three monthly dry ombrothermic index.....(Iod3):	1.94
Four monthly dry ombrothermic index.....(Iod4):	2.46
Annual ombro-evaporation index.....(Ioe):	0.33
Annual positive temperature.....(Tp):	3190
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	806
Positive precipitation.....(Pp):	1969

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

Latitudinal Belt...: Equatorial

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

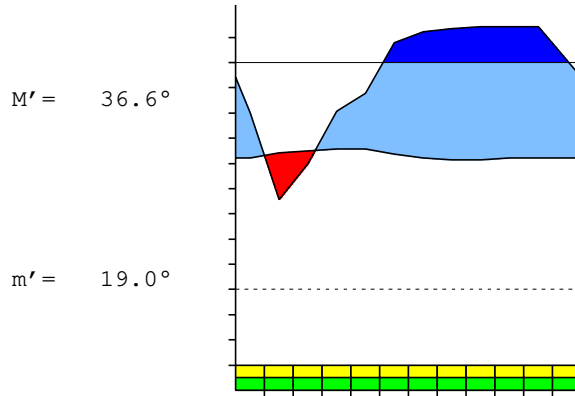
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, MESOPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW HUMID

OBIDOS (BRAZIL)

37 m

P= 1969 1° 55' S 55° 31' W 20/20 y.
 T= 26.6° Ic= 2.1 Tp= 3190 Tn= 0
 m= 22.0° M= 30.3° Itc= 789 Io= 6.2



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL LOW HUMID

WATER INDEX CARD

OBIDOS (BRAZIL)

Altitude: 37 m.

Latitude: 1° 55' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	26.2	133	70	-63	17	133	0	0	38	-0.4
Aug.	27.0	145	36	-17	0	53	92	0	19	-0.7
Sep.	27.4	144	50	0	0	50	94	0	10	-0.6
Oct.	27.8	152	71	0	0	71	81	0	5	-0.5
Nov.	27.7	148	78	0	0	78	70	0	2	-0.4
Dec.	26.9	146	179	33	33	146	0	0	1	0.2
Jan.	26.2	133	238	67	100	133	0	39	20	0.7
Feb.	25.7	111	272	0	100	111	0	161	90	1.4
Mar.	25.8	125	290	0	100	125	0	165	128	1.3
Apr.	26.0	125	290	0	100	125	0	165	146	1.3
May.	26.1	129	288	0	100	129	0	159	152	1.2
Jun.	26.2	127	107	-20	80	127	0	0	76	-0.1
Year	26.6	1618	1969	*	*	1281	337	688	688	*

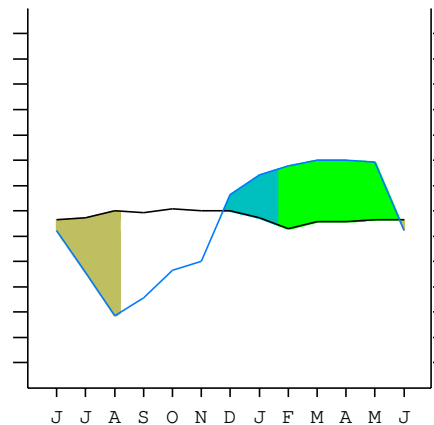
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

OBIDOS (BRAZIL)

1°55' S 55°31' W 37 m 20/20 y.

T= 26.6 Ic= 2.1 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 22.0 Tp= 3190 UPPER INFRATROPICAL
 M= 30.3 Tn= 0 LOW HUMID
 M' = 36.6 Itc= 789
 m' = 19.0 Io= 6.2
 P= 1969 mm ———
 PE= 1618 mm ———

Imbibing	21 Nov.
Saturation	19 Jan.
Reserve Use	27 May.
Deficit	5 Aug.



OBIDOS (BRAZIL)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality 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 [A4e.1a.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: e. PLUVISEROTIN, MESOPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trde (Pse).Itr.Hum

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 484
 Coldest semester of the year.....(Psw): 1485
 Warmest four months period of the year.....(Pcm1): 235
 Following warmest four months period.....(Pcm2): 979
 Positive precipitation dryest 3 months.....(Ppd): 156
 Positive precipitation dryest 2 months.....(Ppd2): 86
 Positive precipitation dryest 1 month.....(Ppd1): 36
 Positive precipitation warmest 3 months.....(Pps): 199
 Positive precipitation warmest 2 months.....(Pps2): 149
 Positive precipitation warmest 1 month.....(Pps1): 71
 Positive precipitation coldest 3 months.....(Ppw): 852
 Positive precipitation coldest 2 months.....(Ppw2): 562
 Positive precipitation coldest 1 month.....(Ppw1): 272

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	213	199	689	868

Tropical rainfall rhythms: 2 > 1 > 3 > 4

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.8
 Average coldest month [T].....(Tmin): 25.7
 Maximum temp. warmest month [M].....(Tmmax): 33.2
 Minimum temp. coldest month [m].....(Tmmin): 21.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 36.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 19.0
 First warmest contrasted month [M].....(Tcmax): 33.2 (10)
 First coldest contrasted month [m].....(Tcmin): 22.5 (10)
 Dry station temperature.....(Td): 806
 Positive temperature dryest 3 months.....(Tpd): 806
 Positive temperature dryest 2 months.....(Tpd2): 544
 Positive temperature dryest 1 month.....(Tpd1): 270
 Positive temperature warmest 3 months.....(Tps): 829
 Positive temperature warmest 2 months.....(Tps2): 555
 Positive temperature warmest 1 month.....(Tps1): 278
 Positive temperature coldest 3 months.....(Tpw): 775
 Positive temperature coldest 2 months.....(Tpw2): 515
 Positive temperature coldest 1 month.....(Tpw1): 257

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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): 0.82
 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)	1790	2380	2720	2900	2900	2880	1070	700	360	500	710	780
Tp	269	262	257	258	260	261	262	262	270	274	278	277
Io (Iom)	6.65	9.08	10.6	11.2	11.2	11.0	4.08	2.67	1.33	1.82	2.55	2.82
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	6890 / 788			8680 / 779			2130 / 794			1990 / 829		
Io (Iot)	8.744			11.14			2.683			2.400		
Semesters	December-May						June-November					
Pp(x10)/Tp	15570 / 1567						4120 / 1623					
Io (Iosm)	9.936						2.539					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 19690/3190=6.17 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1790	2380	2720	2900	2900	2880	1070	700	360	500	710	780
Tp [T*10]	269	262	257	258	260	261	262	262	270	274	278	277
Iom [Pp/Tp]	665	908	\$\$\$	\$\$\$	\$\$\$	\$\$\$	408	267	133	182	255	282
Avm [200-Iom]	***	***	***	***	***	***	***	***	67	18	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	6890 / 788			8680 / 779			2130 / 794			1990 / 829		
Iot [Pp/Tp]	874			1114			268			240		
Avs E[Avm<200]	***			***			***			***		
Weak lower semiarid [1]							Weak upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 2.10
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	86.34
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	3.29
+ Hyperoceanic (-20<CI<20)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.28
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	74.07
+ Temperate warm (100>R>60)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	53.82
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	309.75
+ Humid (Q>90)	
I of Dantin & Revenga (1940) [DR=100*T/P]	1.35
+ Humid (2>DR>0)	
Aridity Index of UNEP [I=P/PE]	1.22
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	42.71
+ 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	0.94	1.10	1.18	1.18	1.17	0.39	0.24	0.11	0.16	0.24	0.26	0.68	
T-E ratio	11.79	11.57	11.61	11.70	11.75	11.79	11.79	12.15	12.33	12.51	12.47	12.10	
Precipitation-effectiveness:	76.49					Temperature-efficiency							143.55
Moisture Index [MI=100*(P-PE)/PE]												21.67	
+ B1.Humid low-humid (20<MI<40)													
Index of dryness [DI=100*d/PE]												20.82	
+ Moderate deficit (16.7<DI<33.3)													
Index of humidity [HI=100*s/PE]												42.49	
+ Strong surplus (20<HI)													
Potential Evapotranspiration PE												1618.34	
+ Megathermic (PE>1440)													

