

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

CANAVIEIRAS (BRAZIL) Altitude: 4 m.

Latitude: 15°40'S Longitude: 38°57'W

Temperature observation period.: 1961-1990 (30)

Rainfall observation period....: 1961-1990 (30)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.90	29.50	20.40	32.10	14.00	173.0	141.97
Feb.	25.90	29.40	22.00	31.80	18.30	150.0	124.22
Mar.	25.70	29.40	21.90	32.40	18.70	145.0	130.05
Apr.	24.90	28.80	21.40	31.60	17.70	145.0	110.43
May.	22.10	28.00	20.10	30.30	17.70	147.0	77.33
Jun.	22.30	26.70	18.80	29.30	12.60	149.0	75.38
Jul.	21.90	26.10	18.20	29.40	13.00	178.0	74.49
Aug.	22.10	26.30	17.90	29.70	13.50	105.0	80.48
Sep.	23.20	26.80	19.10	29.90	14.30	127.0	91.23
Oct.	24.10	27.40	20.40	30.30	15.70	167.0	109.37
Nov.	24.80	28.10	21.40	30.70	16.40	154.0	119.14
Dec.	25.60	29.00	21.90	34.40	18.30	121.0	138.33
Year	24.04	27.96	20.29	30.99	15.85	1761	1272.4

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	683
Compensated thermicity index.....(Itc):	683
Simple continentality index.....(Ic):	4.0
Diurnality index.....(Id):	9.1
Annual ombrothermic index.....(Io):	6.10
Monthly dry ombrothermic index.....(Iod1):	4.75
Bimonthly dry ombrothermic index.....(Iod2):	5.12
Threemonthly dry ombrothermic index.....(Iod3):	5.75
Fourmonthly dry ombrothermic index.....(Iod4):	6.32
Annual ombro-evaporation index.....(Ioe):	1.38
Annual positive temperature.....(Tp):	2885
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	694
Positive precipitation.....(Pp):	1761

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	12	0	0	0	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

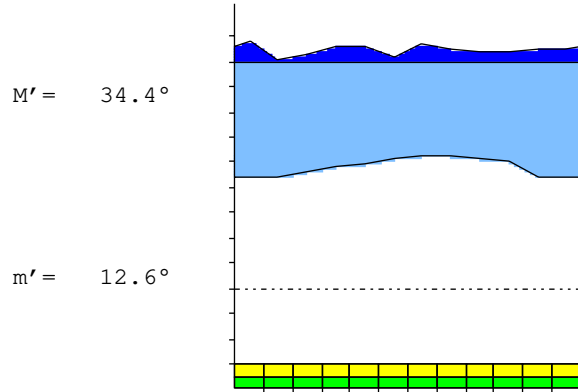
Bioclimate(Variant): TROPICAL PLUVIAL (HYGROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW HUMID

CANAVIEIRAS (BRAZIL)

4 m

P= 1761 15° 40'S 38° 57'W 30/30 y.
 T= 24.0 ° Ic= 4.0 Tp= 2885 Tn= 0
 m= 18.2 ° M= 26.1 ° Itc= 683 Io= 6.1



TROPICAL PLUVIAL (HYGROPHYTIC)
 UPPER INFRATROPICAL LOW HUMID

WATER INDEX CARD

CANAVIEIRAS (BRAZIL)

Altitude: 4 m.

Latitude: 15° 40'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	21.9	74	178	0	100	74	0	104	82	1.3
Aug.	22.1	80	105	0	100	80	0	25	53	0.3
Sep.	23.2	91	127	0	100	91	0	36	45	0.3
Oct.	24.1	109	167	0	100	109	0	58	51	0.5
Nov.	24.8	119	154	0	100	119	0	35	43	0.2
Dec.	25.6	138	121	-17	83	138	0	0	21	-0.1
Jan.	25.9	142	173	17	100	142	0	14	18	0.2
Feb.	25.9	124	150	0	100	124	0	26	22	0.2
Mar.	25.7	130	145	0	100	130	0	15	18	0.1
Apr.	24.9	110	145	0	100	110	0	35	26	0.3
May.	22.1	77	147	0	100	77	0	70	48	0.9
Jun.	22.3	75	149	0	100	75	0	74	61	0.9
Year	24.0	1272	1761	*	*	1272	0	489	489	*

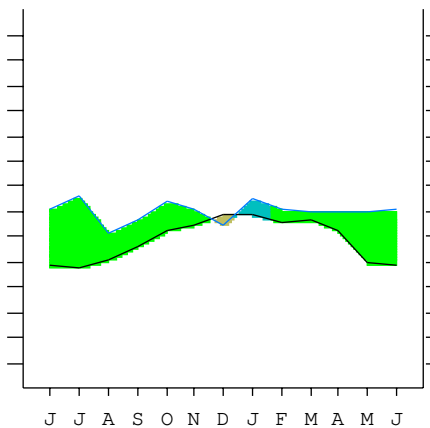
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

CANAVIEIRAS (BRAZIL)

15°40'S 38°57'W 4 m 30/30 y.

T= 24.0 Ic= 4.0 TROPICAL PLUVIAL (HYGROPHYTIC)
 m= 18.2 Tp= 2885 UPPER INFRATROPICAL
 M= 26.1 Tn= 0 LOW HUMID
 M' = 34.4 Itc= 683
 m' = 12.6 Io= 6.1
 P= 1761 mm ———
 PE= 1272 mm ———

Imbibing	11 Dec.
Saturation	17 Jan.
Reserve Use	21 Nov.
Deficit	



CANAVIEIRAS (BRAZIL)

Latitude: 15°40'S Longitude: 38°57'W Altitude: 4 m

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 [A5.1a.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 5. PLUVIAL
 + Bioclimatic variant .: HYGROPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic ClassificationTrpl(Hig).Itr.Hum.Uho

CANAVIEIRAS (BRAZIL)

Latitude: 15°40'S Longitude: 38°57'W Altitude: 4 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 888
 Coldest semester of the year.....(Psw): 873
 Warmest four months period of the year.....(Pcm1): 589
 Following warmest four months period.....(Pcm2): 619
 Positive precipitation dryest 3 months.....(Ppd): 399
 Positive precipitation dryest 2 months.....(Ppd2): 232
 Positive precipitation dryest 1 month.....(Ppd1): 105
 Positive precipitation warmest 3 months.....(Pps): 468
 Positive precipitation warmest 2 months.....(Pps2): 323
 Positive precipitation warmest 1 month.....(Pps1): 173
 Positive precipitation coldest 3 months.....(Ppw): 474
 Positive precipitation coldest 2 months.....(Ppw2): 283
 Positive precipitation coldest 1 month.....(Ppw1): 178

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	432	448	444	437

Tropical rainfall rhythms: 4 > 1 > 2 > 3

CANAVIEIRAS (BRAZIL)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 25.9
 Average coldest month [T].....(Tmin): 21.9
 Maximum temp. warmest month [M].....(Tmmax): 29.5
 Minimum temp. coldest month [m].....(Tmmin): 17.9
 Absolute Max.temp. warmest month [M'].....(Tamax): 34.4
 Absolute Min.temp. coldest month [m'].....(Tamin): 12.6
 First warmest contrasted month [M].....(Tcmax): 29.5 (1)
 First coldest contrasted month [m].....(Tcmin): 20.4 (1)
 Dry station temperature.....(Td): 694
 Positive temperature dryest 3 months.....(Tpd): 694
 Positive temperature dryest 2 months.....(Tpd2): 453
 Positive temperature dryest 1 month.....(Tpd1): 221
 Positive temperature warmest 3 months.....(Tps): 775
 Positive temperature warmest 2 months.....(Tps2): 518
 Positive temperature warmest 1 month.....(Tps1): 259
 Positive temperature coldest 3 months.....(Tpw): 663
 Positive temperature coldest 2 months.....(Tpw2): 440
 Positive temperature coldest 1 month.....(Tpw1): 219

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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

CANAVIEIRAS (BRAZIL)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.72
 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)	1210	1730	1500	1450	1450	1470	1490	1780	1050	1270	1670	1540
Tp	256	259	259	257	249	221	223	219	221	232	241	248
Io (Iom)	4.73	6.68	5.79	5.64	5.82	6.65	6.68	8.13	4.75	5.47	6.93	6.21
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	4440 / 774			4370 / 727			4320 / 663			4480 / 721		
Io (Iot)	5.736			6.011			6.516			6.214		
Semesters	December-May						June-November					
Pp(x10)/Tp	8810 / 1501						8800 / 1384					
Io (Iosm)	5.869						6.358					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 17610/2885=6.10 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1210	1730	1500	1450	1450	1470	1490	1780	1050	1270	1670	1540
Tp [T*10]	256	259	259	257	249	221	223	219	221	232	241	248
Iom [Pp/Tp]	473	668	579	564	582	665	668	813	475	547	693	621
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	4440 / 774			4370 / 727			4320 / 663			4480 / 721		
Iot [Pp/Tp]	574			601			652			621		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	4.00
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		4.78
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		1.70
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.64
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		73.25
+ Temperate warm (100>R>60)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		51.73
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		320.27
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.37
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		1.38
+ Humid (I>0.65)		
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....		17.99
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 6. Termoaxeric (Axeric warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.66	0.57	0.55	0.56	0.61	0.61	0.75	0.42	0.50	0.67	0.60	0.45
T-E ratio	11.65	11.65	11.57	11.20	9.95	10.03	9.85	9.95	10.44	10.85	11.16	11.52
Precipitation-effectiveness: 69.46						Temperature-efficiency: 129.82						
Moisture Index [MI=100*(P-PE)/PE]												
+ B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]												
+ No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]												
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												
+ Forth mesothermic (997<PE<1440)												

