

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

PEREIRA DE CA (ANGOLA)

Altitude: 1070 m.

Latitude: 17°3'S Longitude: 15°40'E

Temperature observation period.: 1976-1994 (19)

Rainfall observation period....: 1973-1994 (22)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.28	32.22	18.33	38.33	11.11	101.6	135.05
Feb.	24.72	31.11	18.33	37.22	12.78	149.9	110.24
Mar.	24.17	30.56	17.78	37.22	9.44	129.5	111.14
Apr.	23.34	30.56	16.11	36.11	7.22	58.4	93.42
May.	20.56	29.44	11.67	34.44	2.22	5.1	66.30
Jun.	17.22	27.22	7.22	31.67	-2.22	0.0	39.36
Jul.	16.67	27.22	6.11	32.22	-1.67	1.3	37.22
Aug.	19.73	30.56	8.89	35.00	-3.89	0.0	62.37
Sep.	23.89	33.89	13.89	37.22	1.67	1.3	102.57
Oct.	26.11	35.00	17.22	38.89	7.22	17.8	142.15
Nov.	26.39	34.44	18.33	40.56	11.11	53.3	144.97
Dec.	25.28	32.22	18.33	38.33	7.78	142.2	135.05
Year	22.78	31.20	14.35	36.43	5.23	660	1179.8

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	561
Compensated thermicity index.....(Itc):	561
Simple continentality index.....(Ic):	9.7
Diurnality index.....(Id):	21.7
Annual ombrothermic index.....(Io):	2.42
Monthly dry ombrothermic index.....(Iod1):	No
Bimonthly dry ombrothermic index.....(Iod2):	0.04
Three monthly dry ombrothermic index.....(Iod3):	0.02
Four monthly dry ombrothermic index.....(Iod4):	0.09
Annual ombro-evaporation index.....(Ioe):	8.99
Annual positive temperature.....(Tp):	2734
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	536
Positive precipitation.....(Pp):	660

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

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Subhyperoceanic

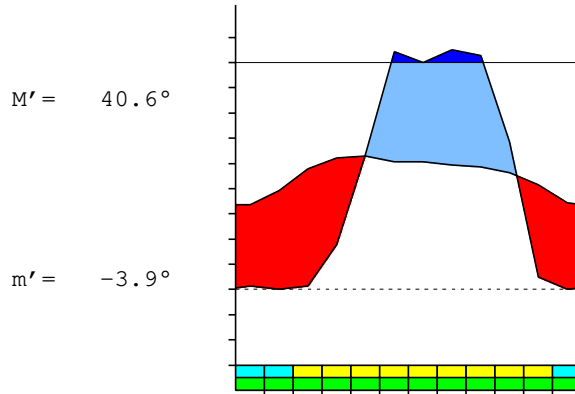
Bioclimate(Variant): TROPICAL XERIC (DRY)

Bioclimatic Belt...: UPPER THERMOTROPICAL LOW DRY

PEREIRA DE CA (ANGOLA)

1070 m

P= 660 17° 3'S 15° 40'E 19/22 y.
 T= 22.8° Ic= 9.7 Tp= 2734 Tn= 0
 m= 6.1° M= 27.2° Itc= 561 Io= 2.4



TROPICAL XERIC (DRY)
 UPPER THERMOTROPICAL LOW DRY

WATER INDEX CARD PEREIRA DE CA (ANGOLA)
 Altitude: 1070 m. Latitude: 17° 3'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	16.7	37	1	0	0	1	36	0	0	-0.9
Aug.	19.7	62	0	0	0	0	62	0	0	-1.0
Sep.	23.9	103	1	0	0	1	101	0	0	-0.9
Oct.	26.1	142	18	0	0	18	124	0	0	-0.8
Nov.	26.4	145	53	0	0	53	92	0	0	-0.6
Dec.	25.3	135	142	7	7	135	0	0	0	0.0
Jan.	25.3	135	102	-7	0	109	26	0	0	-0.2
Feb.	24.7	110	150	40	40	110	0	0	0	0.3
Mar.	24.2	111	130	18	58	111	0	0	0	0.1
Apr.	23.3	93	58	-35	23	93	0	0	0	-0.3
May.	20.6	66	5	-23	0	28	38	0	0	-0.9
Jun.	17.2	39	0	0	0	0	39	0	0	-1.0
Year	22.8	1180	660	*	*	660	519	0	0	*

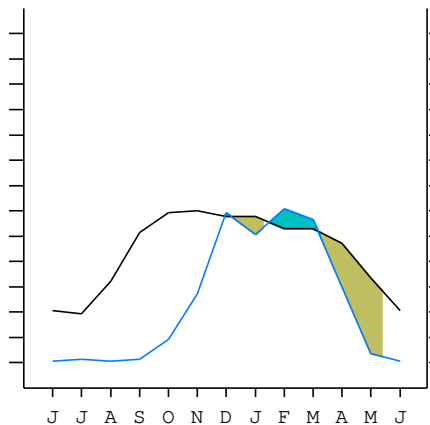
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

PEREIRA DE CA (ANGOLA)

17°3'S 15°40'E 1070 m 19/22 y.

T= 22.8 Ic= 9.7 TROPICAL XERIC (DRY)
 m= 6.1 Tp= 2734 UPPER THERMOTROPICAL
 M= 27.2 Tn= 0 LOW DRY
 M' = 40.6 Itc= 561
 m' = -3.9 Io= 2.4
 P= 660 mm ———
 PE= 1180 mm ———

Imbibing	14 Jan.
Saturation	11 Mar.
Reserve Use	12 May.
Deficit	



PEREIRA DE CA (ANGOLA)

Latitude: 17°3'S Longitude: 15°40'E Altitude: 1070 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3a]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: a. High

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

Bioclimatic types [A3.2a.5b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 3. XERIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trxe.Ttr.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 594
 Coldest semester of the year.....(Psw): 66
 Warmest four months period of the year.....(Pcm1): 315
 Following warmest four months period.....(Pcm2): 343
 Positive precipitation dryest 3 months.....(Ppd): 1
 Positive precipitation dryest 2 months.....(Ppd2): 1
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 213
 Positive precipitation warmest 2 months.....(Pps2): 71
 Positive precipitation warmest 1 month.....(Pps1): 53
 Positive precipitation coldest 3 months.....(Ppw): 1
 Positive precipitation coldest 2 months.....(Ppw2): 1
 Positive precipitation coldest 1 month.....(Ppw1): 1

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	1	72	393	193

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.4
 Average coldest month [T].....(Tmin): 16.7
 Maximum temp. warmest month [M].....(Tmmax): 35.0
 Minimum temp. coldest month [m].....(Tmmin): 6.1
 Absolute Max.temp. warmest month [M'].....(Tamax): 40.6
 Absolute Min.temp. coldest month [m'].....(Tamin): -3.9
 First warmest contrasted month [M].....(Tcmax): 30.6 (8)
 First coldest contrasted month [m].....(Tcmin): 8.9 (8)
 Dry station temperature.....(Td): 536
 Positive temperature dryest 3 months.....(Tpd): 536
 Positive temperature dryest 2 months.....(Tpd2): 339
 Positive temperature dryest 1 month.....(Tpd1): 172
 Positive temperature warmest 3 months.....(Tps): 778
 Positive temperature warmest 2 months.....(Tps2): 525
 Positive temperature warmest 1 month.....(Tps1): 264
 Positive temperature coldest 3 months.....(Tpw): 536
 Positive temperature coldest 2 months.....(Tpw2): 339
 Positive temperature coldest 1 month.....(Tpw1): 167

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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)						o	o	o				
Agelid.....[m' > 0] (Pf)	o	o	o	o	o				o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o				o	o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.79
 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)	1422	1016	1499	1295	584	51	0	13	0	13	178	533
Tp	253	253	247	242	233	206	172	167	197	239	261	264
Io (Iom)	5.62	4.02	6.06	5.36	2.50	0.25	0.00	0.08	0.00	0.05	0.68	2.02
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	3937 / 753			1930 / 681			13 / 536			724 / 764		
Io (Iot)	5.230			2.835			0.024			0.948		
Semesters	December-May						June-November					
Pp(x10)/Tp	5867 / 1434						737 / 1300					
Io (Iosm)	4.093						0.567					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 6604/2734=2.42 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1422	1016	1499	1295	584	51	0	13	0	13	178	533
Tp [T*10]	253	253	247	242	233	206	172	167	197	239	261	264
Iom [Pp/Tp]	562	402	606	536	250	25	0	8	0	5	68	202
Avm [200-Iom]	***	***	***	***	***	175	200	192	200	195	132	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	3937 / 753			1930 / 681			13 / 536			724 / 764		
Iot [Pp/Tp]	523			284			2			95		
Avs E[Avm<200]	***			***			592			***		
Lower ultrahyperarid [5]							Lower hyperarid [1]					
Weak lower arid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	9.72
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		35.96
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		22.34
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.45
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		28.99
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		20.15
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		55.60
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P]		3.45
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.56
+ Subhumid - dry (0.65>I>0.5)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		34.02
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.37	0.58	0.50	0.21	0.02	0.00	0.00	0.00	0.00	0.05	0.18	0.54
T-E ratio	11.38	11.12	10.88	10.50	9.25	7.75	7.50	8.88	10.75	11.75	11.88	11.38
Precipitation-effectiveness: 24.62						Temperature-efficiency						123.01
Moisture Index [MI=100*(P-PE)/PE]												-44.03
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]												44.02
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												1179.83
+ Forth mesothermic (997<PE<1440)												

