

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

CANGAMBA (ANGOLA)

Altitude: 1325 m.

Latitude: 13°41'S Longitude: 19°52'E

Temperature observation period.: 1974-1980 (7)

Rainfall observation period....: 1973-1980 (8)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	22.80	29.00	17.00	33.00	13.00	225.0	104.38
Feb.	22.80	29.00	17.00	38.00	12.00	187.0	92.16
Mar.	23.90	31.00	17.00	41.00	11.00	172.0	110.69
Apr.	23.20	32.00	14.00	43.00	5.00	46.0	96.13
May.	21.20	32.00	11.00	42.00	1.00	1.0	78.04
Jun.	17.80	30.00	9.00	41.00	-3.00	0.0	48.50
Jul.	18.00	28.00	8.00	37.00	-7.00	0.0	51.95
Aug.	18.20	31.00	8.00	39.00	0.00	5.0	55.54
Sep.	22.10	32.00	13.00	37.00	4.00	5.0	87.19
Oct.	22.90	31.00	15.00	37.00	7.00	41.0	101.69
Nov.	23.00	29.00	16.00	37.00	9.00	130.0	101.81
Dec.	22.40	29.00	16.00	34.00	12.00	215.0	100.90
Year	21.52	30.25	13.42	38.25	5.33	1027	1029.0

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	605
Compensated thermicity index.....(Itc):	605
Simple continentality index.....(Ic):	6.1
Diurnality index.....(Id):	23.0
Annual ombrothermic index.....(Io):	3.98
Monthly dry ombrothermic index.....(Iod1):	No
Bimonthly dry ombrothermic index.....(Iod2):	No
Three monthly dry ombrothermic index.....(Iod3):	0.02
Four monthly dry ombrothermic index.....(Iod4):	0.59
Annual ombro-evaporation index.....(Ioe):	18.75
Annual positive temperature.....(Tp):	2583
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	570
Positive precipitation.....(Pp):	1027

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

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - Low Euhyperoceanic

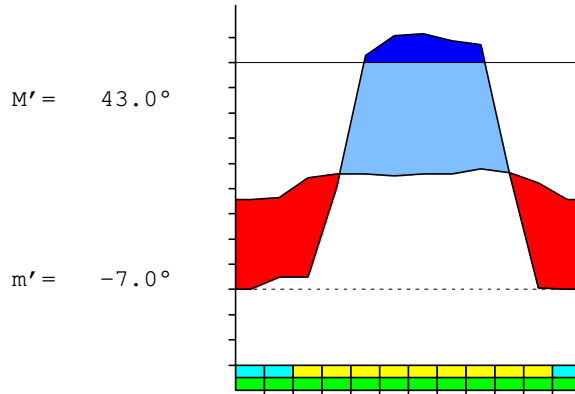
Bioclimate(Variant): TROPICAL PLUVISEASONAL (XEROPHYTIC)

Bioclimatic Belt...: LOW THERMOTROPICAL LOW SUBHUMID

CANGAMBA (ANGOLA)

1325 m

P= 1027 13° 41'S 19° 52'E 7/8 y.
 T= 21.5° Ic= 6.1 Tp= 2583 Tn= 0
 m= 9.0° M= 30.0° Itc= 605 Io= 4.0



TROPICAL PLUVISEASONAL (XEROPHYTIC)
 LOW THERMOTROPICAL LOW SUBHUMID

WATER INDEX CARD CANGAMBA (ANGOLA)
 Altitude: 1325 m. Latitude: 13° 41'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	18.0	52	0	0	0	0	52	0	5	-1.0
Aug.	18.2	56	5	0	0	5	51	0	2	-0.9
Sep.	22.1	87	5	0	0	5	82	0	1	-0.9
Oct.	22.9	102	41	0	0	41	61	0	1	-0.5
Nov.	23.0	102	130	28	28	102	0	0	0	0.2
Dec.	22.4	101	215	72	100	101	0	42	21	1.1
Jan.	22.8	104	225	0	100	104	0	121	71	1.1
Feb.	22.8	92	187	0	100	92	0	95	83	1.0
Mar.	23.9	111	172	0	100	111	0	61	72	0.5
Apr.	23.2	96	46	-50	50	96	0	0	36	-0.5
May.	21.2	78	1	-50	0	51	27	0	18	-0.9
Jun.	17.8	49	0	0	0	0	49	0	9	-1.0
Year	21.5	1029	1027	*	*	708	321	319	319	*

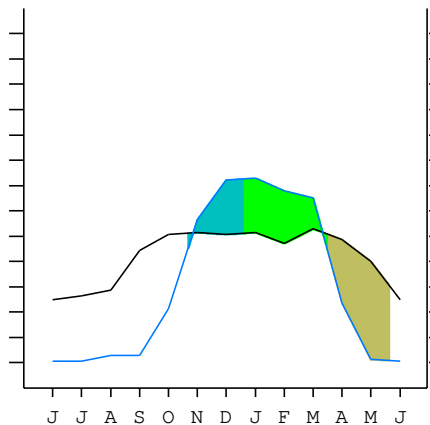
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

CANGAMBA (ANGOLA)

13°41'S 19°52'E 1325 m 7/8 y.

T= 21.5 Ic= 6.1 TROPICAL PLUVISEASONAL (XEROPHYTIC)
 m= 9.0 Tp= 2583 LOW THERMOTROPICAL
 M= 30.0 Tn= 0 LOW SUBHUMID
 M' = 43.0 Itc= 605
 m' = -7.0 Io= 4.0
 P= 1027 mm ———
 PE= 1029 mm ———

Imbibing	21 Oct.
Saturation	19 Dec.
Reserve Use	17 Mar.
Deficit	20 May.



CANGAMBA (ANGOLA)

Latitude: 13°41'S Longitude: 19°52'E Altitude: 1325 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A2b]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: b. Low
 Thermic types [A2.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A4.2b.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde.Ttr.Shu

CANGAMBA (ANGOLA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 975
 Coldest semester of the year.....(Psw): 52
 Warmest four months period of the year.....(Pcm1): 630
 Following warmest four months period.....(Pcm2): 6
 Positive precipitation dryest 3 months.....(Ppd): 1
 Positive precipitation dryest 2 months.....(Ppd2): 0
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 405
 Positive precipitation warmest 2 months.....(Pps2): 218
 Positive precipitation warmest 1 month.....(Pps1): 172
 Positive precipitation coldest 3 months.....(Ppw): 5
 Positive precipitation coldest 2 months.....(Ppw2): 0
 Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	5	176	627	219

Tropical rainfall rhythms: 1 > 2 > 4 > 3

CANGAMBA (ANGOLA)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.9
 Average coldest month [T].....(Tmin): 17.8
 Maximum temp. warmest month [M].....(Tmmax): 32.0
 Minimum temp. coldest month [m].....(Tmmin): 8.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 43.0
 Absolute Min.temp. coldest month [m'].....(Tamin): -7.0
 First warmest contrasted month [M].....(Tcmax): 31.0 (8)
 First coldest contrasted month [m].....(Tcmin): 8.0 (8)
 Dry station temperature.....(Td): 570
 Positive temperature dryest 3 months.....(Tpd): 570
 Positive temperature dryest 2 months.....(Tpd2): 358
 Positive temperature dryest 1 month.....(Tpd1): 178
 Positive temperature warmest 3 months.....(Tps): 699
 Positive temperature warmest 2 months.....(Tps2): 471
 Positive temperature warmest 1 month.....(Tps1): 239
 Positive temperature coldest 3 months.....(Tpw): 540
 Positive temperature coldest 2 months.....(Tpw2): 358
 Positive temperature coldest 1 month.....(Tpw1): 178

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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

CANGAMBA (ANGOLA)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.00
 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)	2150	2250	1870	1720	460	10	0	0	50	50	410	1300
Tp	224	228	228	239	232	212	178	180	182	221	229	230
Io (Iom)	9.60	9.87	8.20	7.20	1.98	0.05	0.00	0.00	0.27	0.23	1.79	5.65
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	6270 / 680			2190 / 683			50 / 540			1760 / 680		
Io (Iot)	9.221			3.206			0.093			2.588		
Semesters	December-May						June-November					
Pp(x10)/Tp	8460 / 1363						1810 / 1220					
Io (Iosm)	6.207						1.484					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 10270/2583=3.98 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	2150	2250	1870	1720	460	10	0	0	50	50	410	1300
Tp [T*10]	224	228	228	239	232	212	178	180	182	221	229	230
Iom [Pp/Tp]	960	987	820	720	198	5	0	0	27	23	179	565
Avm [200-Iom]	***	***	***	***	2	195	200	200	173	177	21	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	6270 / 680			2190 / 683			50 / 540			1760 / 680		
Iot [Pp/Tp]	922			321			9			259		
Avs E[Avm<200]	***			***			573			***		
Lower ultrahyperarid [4]							Lower hyperarid [2]					
Weak upper semiarid [2]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 6.10
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 23.44
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 11.82
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.10
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 47.71
 + Semiarid (60>R>40)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 32.58
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 106.98
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 2.10
 + Semiarid (3>DR>2)
 Aridity Index of UNEP [I=P/PE]: 1.00
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 49.29
 + Very low (K<60)

CANGAMBA (ANGOLA)

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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: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.96	0.78	0.69	0.16	0.00	0.00	0.00	0.02	0.01	0.14	0.52	0.92
T-E ratio	10.26	10.26	10.75	10.44	9.54	8.01	8.10	8.19	9.95	10.30	10.35	10.08
Precipitation-effectiveness:	42.02					Temperature-efficiency: 116.23						
Moisture Index [MI=100*(P-PE)/PE]: -0.19 + C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 31.20 + Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 31.00 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 1029.00 + Forth mesothermic (997<PE<1440)												

