

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

PORT BOUET (COTE D'IVOIRE)

Altitude: 6 m.

Latitude: 5°15'N Longitude: 3°55'W

Temperature observation period.: 1981-1994 (14)

Rainfall observation period....: 1968-1994 (27)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	26.95	31.11	22.78	34.44	15.00	31.0	141.89
Feb.	28.06	32.22	23.89	35.00	17.78	55.1	137.63
Mar.	28.06	32.22	23.89	35.56	19.44	117.1	152.43
Apr.	28.06	32.22	23.89	35.00	20.00	122.9	150.95
May.	27.50	31.11	23.89	34.44	20.00	358.9	152.12
Jun.	26.11	29.44	22.78	33.89	20.00	552.0	129.07
Jul.	25.56	28.33	22.78	32.78	17.78	213.1	122.47
Aug.	24.73	27.78	21.67	31.11	17.22	45.0	106.96
Sep.	25.56	28.33	22.78	32.22	18.33	71.1	116.69
Oct.	26.39	29.44	23.33	33.33	19.44	216.9	134.43
Nov.	26.95	30.56	23.33	34.44	19.44	198.1	137.71
Dec.	27.22	31.11	23.33	35.00	16.67	87.9	144.09
Year	26.76	30.32	23.19	33.93	18.43	2069	1626.4

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	762
Compensated thermicity index.....(Itc):	762
Simple continentality index.....(Ic):	3.3
Diurnality index.....(Id):	8.3
Annual ombrothermic index.....(Io):	6.44
Monthly dry ombrothermic index.....(Iod1):	1.15
Bimonthly dry ombrothermic index.....(Iod2):	1.57
Threemonthly dry ombrothermic index.....(Iod3):	2.12
Fourmonthly dry ombrothermic index.....(Iod4):	3.41
Annual ombro-evaporation index.....(Ioe):	1.27
Annual positive temperature.....(Tp):	3212
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	822
Positive precipitation.....(Pp):	2069

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

Latitudinal Belt...: Equatorial

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

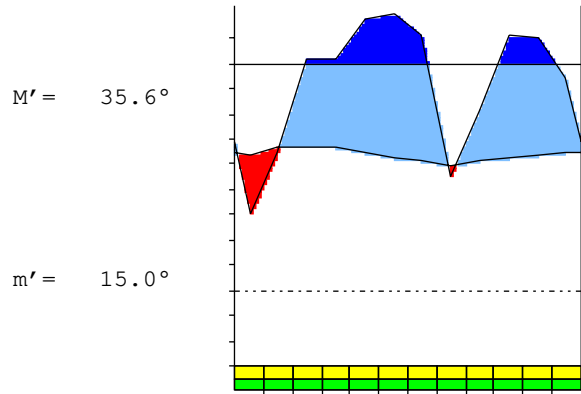
Bioclimate(Variant): TROPICAL PLUVISEASONAL (BIXERIC,MESOPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW HUMID

PORT BOUET (COTE D'IVOIRE)

6 m

P= 2069      5° 15'N      3° 55'W      14/27 y.  
 T= 26.8 °    Ic= 3.3      Tp= 3212      Tn= 0  
 m= 21.7 °    M= 27.8 °    Itc= 762      Io= 6.4



TROPICAL PLUVISEASONAL (BIXERIC)  
 UPPER INFRATROPICAL LOW HUMID

WATER INDEX CARD      PORT BOUET (COTE D'IVOIRE)  
 Altitude: 6 m.      Latitude: 5° 15'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	27.0	142	31	-44	0	75	67	0	8	-0.7
Feb.	28.1	138	55	0	0	55	83	0	4	-0.5
Mar.	28.1	152	117	0	0	117	35	0	2	-0.2
Apr.	28.1	151	123	0	0	123	28	0	1	-0.1
May.	27.5	152	359	100	100	152	0	107	54	1.3
Jun.	26.1	129	552	0	100	129	0	423	238	3.2
Jul.	25.6	122	213	0	100	122	0	91	165	0.7
Aug.	24.7	107	45	-62	38	107	0	0	82	-0.5
Sep.	25.6	117	71	-38	0	109	8	0	41	-0.3
Oct.	26.4	134	217	82	82	134	0	0	21	0.6
Nov.	27.0	138	198	18	100	138	0	43	32	0.4
Dec.	27.2	144	88	-56	44	144	0	0	16	-0.3
Year	26.8	1626	2069	*	*	1406	221	663	663	*

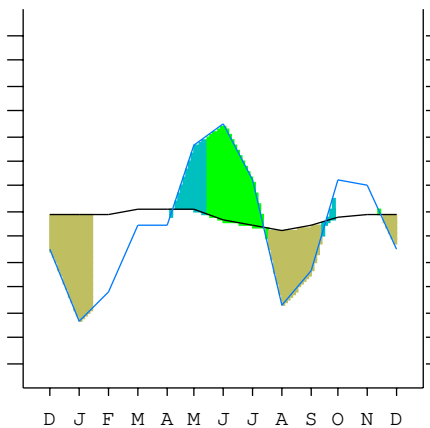
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

PORT BOUET (COTE D'IVOIRE)

5°15'N    3°55'W      6 m 14/27 y.

T= 26.8    Ic= 3.3    TROPICAL PLUVISEASONAL (BIXERIC)  
 m= 21.7    Tp= 3212    UPPER INFRATROPICAL  
 M= 27.8    Tn= 0    LOW HUMID  
 M' = 35.6    Itc= 762  
 m' = 15.0    Io= 6.4  
 P = 2069    mm ———  
 PE= 1626    mm ———

Imbibing	11 Sep.
Saturation	9 Nov.
Reserve Use	16 Nov.
Deficit	26 Sep.



PORT BOUET (COTE D'IVOIRE)

Latitude: 5°15'N Longitude: 3°55'W Altitude: 6 m

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 [A4c.1a.7b]  
+ Macrobioclimate .....: A. TROPICAL  
+ Bioclimate .....: 4. PLUVISEASONAL  
+ Bioclimatic variant .: BIXERIC,MESOPHYTIC  
+ Thermic type.....: 1. INFRATROPICAL  
+ Thermic subtype.....: a. UPPER  
+ Ombrothermic type ...: 7. HUMID  
+ Ombrothermic subtype : b. LOW  
Bioclimatic Classification .....Trps(Bix).Itr.Hum.Uho

PORT BOUET (COTE D'IVOIRE)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 773  
Coldest semester of the year.....(Psw): 1296  
Warmest four months period of the year.....(Pcm1): 654  
Following warmest four months period.....(Pcm2): 881  
Positive precipitation dryest 3 months.....(Ppd): 174  
Positive precipitation dryest 2 months.....(Ppd2): 86  
Positive precipitation dryest 1 month.....(Ppd1): 31  
Positive precipitation warmest 3 months.....(Pps): 295  
Positive precipitation warmest 2 months.....(Pps2): 172  
Positive precipitation warmest 1 month.....(Pps1): 55  
Positive precipitation coldest 3 months.....(Ppw): 329  
Positive precipitation coldest 2 months.....(Ppw2): 258  
Positive precipitation coldest 1 month.....(Ppw1): 45

Seasons	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4
Rainfall	174	598	810	486

Tropical rainfall rhythms: 3 > 2 > 4 > 1

PORT BOUET (COTE D'IVOIRE)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.1  
Average coldest month [T].....(Tmin): 24.7  
Maximum temp. warmest month [M].....(Tmmax): 32.2  
Minimum temp. coldest month [m].....(Tmmin): 21.7  
Absolute Max.temp. warmest month [M'].....(Tamax): 35.6  
Absolute Min.temp. coldest month [m'].....(Tamin): 15.0  
First warmest contrasted month [M].....(Tcmax): 31.1 (1)  
First coldest contrasted month [m].....(Tcmin): 22.8 (1)  
Dry station temperature.....(Td): 822  
Positive temperature dryest 3 months.....(Tpd): 822  
Positive temperature dryest 2 months.....(Tpd2): 550  
Positive temperature dryest 1 month.....(Tpd1): 270  
Positive temperature warmest 3 months.....(Tps): 842  
Positive temperature warmest 2 months.....(Tps2): 561  
Positive temperature warmest 1 month.....(Tps1): 281  
Positive temperature coldest 3 months.....(Tpw): 759  
Positive temperature coldest 2 months.....(Tpw2): 503  
Positive temperature coldest 1 month.....(Tpw1): 247

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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): 0.79  
 Mediterranean index of July.[PE/P].....(Im1): No  
 Mediterranean index of July & August.....(Im2): No  
 Mediterranean index of June, July & August....(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	879	310	551	1171	1229	3589	5520	2131	450	711	2169	1981
Tp	272	270	281	281	281	275	261	256	247	256	264	270
Io (Iom)	3.23	1.15	1.96	4.17	4.38	13.1	21.1	8.34	1.82	2.78	8.22	7.35
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	1740 / 822			5989 / 836			8101 / 764			4861 / 789		
Io (Iot)	2.116			7.162			10.60			6.161		
Semesters	December-May						June-November					
Pp(x10)/Tp	7729 / 1658						12962 / 1553					
Io (Iosm)	4.660						8.346					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 20691/3212=6.44 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	879	310	551	1171	1229	3589	5520	2131	450	711	2169	1981
Tp [T*10]	272	270	281	281	281	275	261	256	247	256	264	270
Iom [Pp/Tp]	323	115	196	417	438	\$\$	\$\$	834	182	278	822	735
Avm [200-Iom]	***	85	4	***	***	***	***	***	18	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	1740 / 822			5989 / 836			8101 / 764			4861 / 789		
Iot [Pp/Tp]	212			716			1060			616		
Avs E[Avm<200]	***			***			***			***		
Strong lower semiarid [1]						Weak upper semiarid [2]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 3.33  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 41.47  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 7.52  
 + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 1.21  
 + Subcontinental (1.1<CI<1.7)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 77.31  
 + Temperate warm (100>R>60)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 56.28  
 + Humid (60>Ia>30)  
 I of Emberger (1930) [Q=100\*P/(Tmmax<sup>2</sup>-Tmmin<sup>2</sup>)] .....: 363.93  
 + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 1.29  
 + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] .....: 1.27  
 + Humid (I>0.65)  
 Potencial Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 147.26  
 + High (120<K<160)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....: A. Warm and temperate warm  
 + Region .....: 5. Bixeric (Bixeric)  
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.10	0.18	0.41	0.43	1.44	2.40	0.84	0.15	0.25	0.85	0.75	0.30
T-E ratio	12.13	12.63	12.63	12.63	12.38	11.75	11.50	11.13	11.50	11.88	12.13	12.25
Precipitation-effectiveness: 81.12						Temperature-efficiency .....: 144.52						
Moisture Index [MI=100*(P-PE)/PE] .....: 27.22 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE] .....: 13.56 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE] .....: 40.78 + Strong surplus (20<HI)												
Potential Evapotranspiration PE .....: 1626.41 + Megathermic (PE>1440)												

