

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

FERKESSEDOUGOU (COTE D'IVOIRE) Altitude: 329 m.

Latitude: 9°35'N Longitude: 5°12'W

Temperature observation period.: 1984-1994 (11)

Rainfall observation period....: 1963-1994 (32)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	24.72	33.33	16.11	37.78	10.00	6.1	103.60
Feb.	26.94	34.44	19.44	40.00	11.11	23.1	127.90
Mar.	28.89	34.44	23.33	41.11	12.78	48.5	159.27
Apr.	28.61	33.89	23.33	41.11	15.00	81.5	156.96
May.	28.06	33.33	22.78	40.00	17.22	149.1	159.83
Jun.	26.39	31.11	21.67	37.22	17.22	148.1	139.46
Jul.	25.28	29.44	21.11	36.11	17.22	190.0	121.43
Aug.	24.72	28.33	21.11	35.56	17.22	307.1	110.85
Sep.	25.00	29.44	20.56	36.11	17.78	241.1	110.11
Oct.	25.84	31.11	20.56	36.67	17.22	117.1	124.25
Nov.	26.11	32.78	19.44	36.67	12.78	34.0	124.01
Dec.	25.00	32.78	17.22	37.78	10.00	9.9	106.87
Year	26.30	32.03	20.56	38.01	14.63	1356	1544.5

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	757
Compensated thermicity index.....(Itc):	757
Simple continentality index.....(Ic):	4.2
Diurnality index.....(Id):	17.2
Annual ombrothermic index.....(Io):	4.30
Monthly dry ombrothermic index.....(Iod1):	0.25
Bimonthly dry ombrothermic index.....(Iod2):	0.32
Threemonthly dry ombrothermic index.....(Iod3):	0.51
Fourmonthly dry ombrothermic index.....(Iod4):	0.71
Annual ombro-evaporation index.....(Ioe):	0.88
Annual positive temperature.....(Tp):	3156
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	767
Positive precipitation.....(Pp):	1356

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	6	1	2	3	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - High Euhyperoceanic

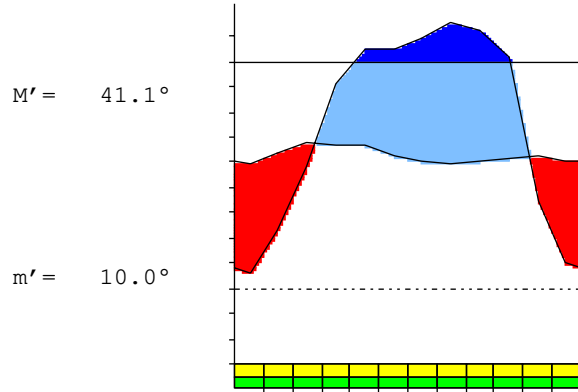
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, SUBXEROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW SUBHUMID

FERKESSEDOUGOU (COTE D'IVOIRE)

329 m

P= 1356 9° 35'N 5° 12'W 11/32 y.
 T= 26.3 ° Ic= 4.2 Tp= 3156 Tn= 0
 m= 16.1 ° M= 33.3 ° Itc= 757 Io= 4.3



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL LOW SUBHUMID

WATER INDEX CARD FERKESSEDOUGOU (COTE D'IVOIRE)
 Altitude: 329 m. Latitude: 9° 35'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	24.7	104	6	0	0	6	97	0	7	-0.9
Feb.	26.9	128	23	0	0	23	105	0	3	-0.8
Mar.	28.9	159	49	0	0	49	111	0	2	-0.6
Apr.	28.6	157	82	0	0	82	75	0	1	-0.4
May.	28.1	160	149	0	0	149	11	0	0	0.0
Jun.	26.4	139	148	9	9	139	0	0	0	0.0
Jul.	25.3	121	190	69	77	121	0	0	0	0.5
Aug.	24.7	111	307	23	100	111	0	173	87	1.7
Sep.	25.0	110	241	0	100	110	0	131	109	1.1
Oct.	25.8	124	117	-7	93	124	0	0	54	0.0
Nov.	26.1	124	34	-90	3	124	0	0	27	-0.7
Dec.	25.0	107	10	-3	0	13	94	0	14	-0.9
Year	26.3	1545	1356	*	*	1051	493	304	304	*

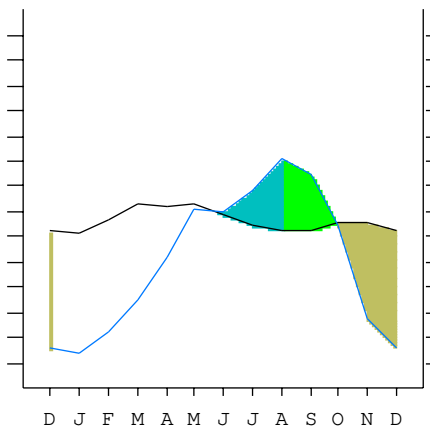
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

FERKESSEDOUGOU (COTE D'IVOIRE)

9°35'N 5°12'W 329 m 11/32 y.

T= 26.3 Ic= 4.2 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 16.1 Tp= 3156 UPPER INFRATROPICAL
 M= 33.3 Tn= 0 LOW SUBHUMID
 M' = 41.1 Itc= 757
 m' = 10.0 Io= 4.3
 P= 1356 mm ———
 PE= 1545 mm ———

Imbibing	17 May.
Saturation	4 Aug.
Reserve Use	29 Sep.
Deficit	1 Dec.



FERKESSEDOUGOU (COTE D'IVOIRE)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A2a]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: a. High

Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid

Bioclimatic types [A4e.1a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: PLUVISEROTIN, SUBXEROPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic ClassificationTrps(Pse).Itr.Shu.Eho

FERKESSEDOUGOU (COTE D'IVOIRE)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 640
 Coldest semester of the year.....(Psw): 715
 Warmest four months period of the year.....(Pcm1): 302
 Following warmest four months period.....(Pcm2): 886
 Positive precipitation dryest 3 months.....(Ppd): 39
 Positive precipitation dryest 2 months.....(Ppd2): 16
 Positive precipitation dryest 1 month.....(Ppd1): 6
 Positive precipitation warmest 3 months.....(Pps): 279
 Positive precipitation warmest 2 months.....(Pps2): 130
 Positive precipitation warmest 1 month.....(Pps1): 49
 Positive precipitation coldest 3 months.....(Ppw): 738
 Positive precipitation coldest 2 months.....(Ppw2): 548
 Positive precipitation coldest 1 month.....(Ppw1): 6

Seasons	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4
Rainfall	39	279	645	392

Tropical rainfall rhythms: 3 > 4 > 2 > 1

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.9
 Average coldest month [T].....(Tmin): 24.7
 Maximum temp. warmest month [M].....(Tmmax): 34.4
 Minimum temp. coldest month [m].....(Tmmin): 16.1
 Absolute Max.temp. warmest month [M'].....(Tamax): 41.1
 Absolute Min.temp. coldest month [m'].....(Tamin): 10.0
 First warmest contrasted month [M].....(Tcmax): 33.3 (1)
 First coldest contrasted month [m].....(Tcmin): 16.1 (1)
 Dry station temperature.....(Td): 767
 Positive temperature dryest 3 months.....(Tpd): 767
 Positive temperature dryest 2 months.....(Tpd2): 497
 Positive temperature dryest 1 month.....(Tpd1): 247
 Positive temperature warmest 3 months.....(Tps): 856
 Positive temperature warmest 2 months.....(Tps2): 575
 Positive temperature warmest 1 month.....(Tps1): 289
 Positive temperature coldest 3 months.....(Tpw): 750
 Positive temperature coldest 2 months.....(Tpw2): 497
 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): 1.14
 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)	99	61	231	485	815	1491	1481	1900	3071	2411	1171	340
Tp	250	247	269	289	286	281	264	253	247	250	258	261
Io (Iom)	0.40	0.25	0.86	1.68	2.85	5.31	5.61	7.52	12.4	9.64	4.53	1.30
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp (x10)/Tp	391 / 767			2791 / 856			6452 / 764			3922 / 770		
Io (Iot)	0.510			3.262			8.446			5.097		
Semesters	December-May						June-November					
Pp (x10)/Tp	3182 / 1622						10374 / 1533					
Io (Iosm)	1.962						6.765					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 13556/3156=4.30 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	99	61	231	485	815	1491	1481	1900	3071	2411	1171	340
Tp [T*10]	250	247	269	289	286	281	264	253	247	250	258	261
Iom [Pp/Tp]	40	25	86	168	285	531	561	752	\$\$	964	453	130
Avm [200-Iom]	160	175	114	32	***	***	***	***	***	***	***	70
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	391 / 767			2791 / 856			6452 / 764			3922 / 770		
Iot [Pp/Tp]	51			326			845			510		
Avs E [Avm < 200]	450			***			***			***		
Lower hyperarid [1]							Upper hyperarid [1]					
Weak lower arid [1]							Weak upper arid [1]					
Weak lower semiarid [1]							Strong upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	4.17
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		22.18
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		7.15
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.99
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		51.55
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		37.35
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		146.30
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.94
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		0.88
+ Humid (I>0.65)		
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....		69.57
+ Low (60<K<90)		

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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: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.02	0.07	0.15	0.27	0.54	0.55	0.75	1.29	0.98	0.43	0.11	0.03
T-E ratio	11.12	12.12	13.00	12.87	12.63	11.88	11.38	11.12	11.25	11.63	11.75	11.25
Precipitation-effectiveness: 51.88						Temperature-efficiency: 142.00						
Moisture Index [MI=100*(P-PE)/PE]: -12.23												
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 31.94												
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 19.71												
+ Moderate surplus (10<HI<20)												
Potential Evapotranspiration PE: 1544.54												
+ Megathermic (PE>1440)												

