

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

FT POLIGNAC (ALGERIA)

Altitude: 578 m.

Latitude: 26°30'N Longitude: 8°25'E

Temperature observation period.: 1979-1994 (16)

Rainfall observation period....: 1979-1994 (16)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	12.50	20.56	4.44	32.78	-2.22	2.5	10.72
Feb.	15.56	23.89	7.22	35.56	-1.67	2.5	20.95
Mar.	20.00	28.33	11.67	38.89	1.11	2.5	55.62
Apr.	24.73	32.78	16.67	43.33	8.89	2.5	115.49
May.	29.45	37.22	21.67	45.56	9.44	2.5	184.57
Jun.	33.62	41.67	25.56	48.89	15.56	1.3	221.36
Jul.	33.62	41.67	25.56	48.33	18.89	0.0	227.13
Aug.	32.78	40.56	25.00	46.11	19.44	1.3	209.91
Sep.	30.84	38.89	22.78	45.00	16.11	2.5	173.64
Oct.	26.11	34.44	17.78	42.22	7.78	1.3	127.56
Nov.	20.00	27.78	12.22	38.33	2.22	2.5	48.60
Dec.	14.45	22.22	6.67	33.33	-1.11	1.3	16.83
Year	24.47	32.50	16.44	41.53	7.87	23	1412.4

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	495
Compensated thermicity index.....(Itc):	512
Simple continentality index.....(Ic):	21.1
Diurnality index.....(Id):	16.7
Annual ombrothermic index.....(Io):	0.08
Monthly dry ombrothermic index.....(Iod1):	No
Bimonthly dry ombrothermic index.....(Iod2):	0.02
Three monthly dry ombrothermic index.....(Iod3):	0.03
Four monthly dry ombrothermic index.....(Iod4):	0.04
Annual ombro-evaporation index.....(Ioe):	0.64
Annual positive temperature.....(Tp):	2937
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	1000
Positive precipitation.....(Pp):	23

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

Latitudinal Belt...: Subtropical

Continentalty.....: Continental - Low Subcontinental

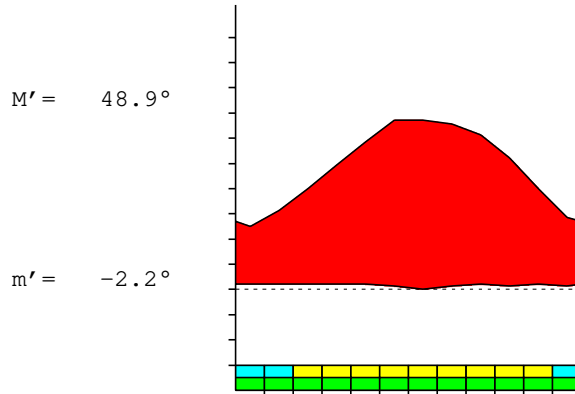
Bioclimate(Variant): TROPICAL HYPERDESERTIC (SEMIMEDITERRANEAN)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW ULTRAHYPERARID

FT POLIGNAC (ALGERIA)

578 m

P= 23      26° 30'N      8° 25'E      16/16 y.  
 T= 24.5°    Ic= 21.1      Tp= 2937      Tn= 0  
 m= 4.4°      M= 20.6°      Itc= 512      Io= 0.1



TROPICAL HYPERDESERTIC (SEMIMEDITERRANEAN)  
 UPPER INFRATROPICAL LOW ULTRAHYPERARID

WATER INDEX CARD      FT POLIGNAC (ALGERIA)  
 Altitude: 578 m.      Latitude: 26° 30'N

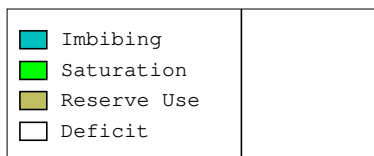
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	12.5	11	3	0	0	3	8	0	0	-0.7
Feb.	15.6	21	3	0	0	3	18	0	0	-0.8
Mar.	20.0	56	3	0	0	3	53	0	0	-0.9
Apr.	24.7	115	3	0	0	3	113	0	0	-0.9
May.	29.5	185	3	0	0	3	182	0	0	-0.9
Jun.	33.6	221	1	0	0	1	220	0	0	-0.9
Jul.	33.6	227	0	0	0	0	227	0	0	-1.0
Aug.	32.8	210	1	0	0	1	209	0	0	-0.9
Sep.	30.8	174	3	0	0	3	171	0	0	-0.9
Oct.	26.1	128	1	0	0	1	126	0	0	-0.9
Nov.	20.0	49	3	0	0	3	46	0	0	-0.9
Dec.	14.4	17	1	0	0	1	16	0	0	-0.9
Year	24.5	1412	23	*	*	23	1390	0	0	*

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

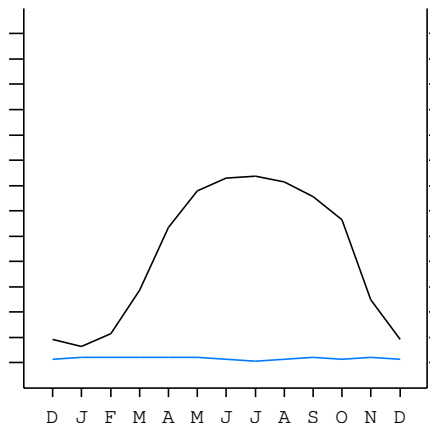
FT POLIGNAC (ALGERIA)

26°30'N    8°25'E    578 m 16/16 y.

T= 24.5    Ic= 21.1    TROPICAL HYPERDESERTIC (SEMIMEDITERRANEAN)  
 m= 4.4    Tp= 2937    UPPER INFRATROPICAL  
 M= 20.6    Tn= 0    LOW ULTRAHYPERARID  
 M' = 48.9    Itc= 512  
 m' = -2.2    Io= 0.1  
 P= 23    mm    ———  
 PE= 1412    mm    ———



All over the year,  
 there is hydric deficit



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [C2a]  
 + Type .....: C. Continental  
 + Subtype .....: 2. Subcontinental  
 + Variant .....: a. Low  
 Thermic types [A3.A1]  
 + Latitudinal zone .....: A. Warm  
 + Latitudinal belt .....: 3. Subtropical  
 + Thermic type .....: A. Warm  
 + Thermic subtype .....: 1. Torrid  
 Bioclimatic types [A1.1a.1b]  
 + Macrobioclimate .....: A. TROPICAL  
 + Bioclimate .....: 1. HYPERDESERTIC  
 + Bioclimatic variant ..:  
 + Thermic type.....: 1. INFRATROPICAL  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 1. ULTRAHYPERARID  
 + Ombrothermic subtype : b. LOW  
 Bioclimatic Classification .....: Trpl.Itr.Uha

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 9  
 Coldest semester of the year.....(Psw): 14  
 Warmest four months period of the year.....(Pcm1): 5  
 Following warmest four months period.....(Pcm2): 8  
 Positive precipitation dryest 3 months.....(Ppd): 3  
 Positive precipitation dryest 2 months.....(Ppd2): 1  
 Positive precipitation dryest 1 month.....(Ppd1): 0  
 Positive precipitation warmest 3 months.....(Pps): 3  
 Positive precipitation warmest 2 months.....(Pps2): 1  
 Positive precipitation warmest 1 month.....(Pps1): 1  
 Positive precipitation coldest 3 months.....(Ppw): 6  
 Positive precipitation coldest 2 months.....(Ppw2): 4  
 Positive precipitation coldest 1 month.....(Ppw1): 3

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	6	7	2	6

Seasonal rainfall rhythms: P > W > F > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 33.6  
 Average coldest month [T].....(Tmin): 12.5  
 Maximum temp. warmest month [M].....(Tmmax): 41.7  
 Minimum temp. coldest month [m].....(Tmmin): 4.4  
 Absolute Max.temp. warmest month [M'].....(Tamax): 48.9  
 Absolute Min.temp. coldest month [m'].....(Tamin): -2.2  
 First warmest contrasted month [M].....(Tcmax): 23.9 (2)  
 First coldest contrasted month [m].....(Tcmin): 7.2 (2)  
 Dry station temperature.....(Td): 1000  
 Positive temperature dryest 3 months.....(Tpd): 1000  
 Positive temperature dryest 2 months.....(Tpd2): 672  
 Positive temperature dryest 1 month.....(Tpd1): 336  
 Positive temperature warmest 3 months.....(Tps): 1000  
 Positive temperature warmest 2 months.....(Tps2): 672  
 Positive temperature warmest 1 month.....(Tps1): 336  
 Positive temperature coldest 3 months.....(Tpw): 425  
 Positive temperature coldest 2 months.....(Tpw2): 270  
 Positive temperature coldest 1 month.....(Tpw1): 125

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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): 62.22  
 Mediterranean index of July.[PE/P].....(Im1): No  
 Mediterranean index of July & August.....(Im2): 336.19  
 Mediterranean index of June, July & August....(Im3): 253.23

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	13	25	25	25	25	25	13	0	13	25	13	25
Tp	145	125	156	200	247	295	336	336	328	308	261	200
Io (Iom)	0.09	0.20	0.16	0.13	0.10	0.08	0.04	0.00	0.04	0.08	0.05	0.13
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	63 / 425			75 / 742			26 / 1000			63 / 770		
Io (Iot)	0.148			0.101			0.026			0.082		
Semesters	December-May						June-November					
Pp(x10)/Tp	138 / 1167						89 / 1770					
Io (Iosm)	0.118						0.050					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 227/2937=0.08 Lower ultrahyperarid (1) [2290]

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	13	25	25	25	25	25	13	0	13	25	13	25
Tp [T*10]	145	125	156	200	247	295	336	336	328	308	261	200
Iom [Pp/Tp]	9	20	16	13	10	8	4	0	4	8	5	13
Avm [200-Iom]	191	180	184	188	190	192	196	200	196	192	195	188
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	63 / 425			75 / 742			26 / 1000			63 / 770		
Iot [Pp/Tp]	15			10			3			8		
Avs E[Avm<200]	555			569			592			574		
Lower ultrahyperarid [9]							Upper ultrahyperarid [7]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 21.12  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 60.07  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 46.36  
 + Subcontinental (40<CI<60)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 2.15  
 + Continental (1.7<CI<2.3)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 0.93  
 + Steppic (40>R>0)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 0.66  
 + Extremely arid -desert- (5>Ia>0)  
 I of Emberger (1930) [Q=100\*P/(Tmax<sup>2</sup>-Tmin<sup>2</sup>)] .....: 1.32  
 + Arid (30>Q>0)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 107.80  
 + Extremely arid (DR>6)  
 Aridity Index of UNEP [I=P/PE] .....: 0.02  
 + Hyperarid (0.05>Im)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 0.28  
 + Very low (K<60)

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BIOCLIMATIC INDICES II

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

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00
T-E ratio	5.63	7.00	9.00	11.13	13.25	15.13	15.13	14.75	13.88	11.75	9.00	6.50
Precipitation-effectiveness: 0.59						Temperature-efficiency .....: 132.15						
Moisture Index [MI=100*(P-PE)/PE] .....: -98.39 + E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE] .....: 98.39 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE .....: 1412.37 + Forth mesothermic (997<PE<1440)												

