Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

PAUL CAZELLES (ALGERIA) Altitude: 650 m.

Latitude: 35°31'N Longitude: 2°53'E
Temperature observation period.: 1991-1994 (4)
Rainfall observation period....: 1991-1994 (4)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	6.94	12.78	1.11	21.67	-7.78	15.0	10.75
Feb.	9.17	15.56	2.78	27.78	-4.44	25.4	17.26
Mar.	12.22	18.33	6.11	25.00	-2.22	32.0	34.89
Apr.	13.61	20.56	6.67	30.00	1.11	26.4	45.14
May.	18.61	26.11	11.11	33.89	0.56	16.0	86.74
Jun.	24.45	32.22	16.67	40.00	10.56	31.0	141.09
Jul.	27.78	36.67	18.89	42.22	11.11	0.8	180.73
Aug.	28.33	37.22	19.44	43.33	13.89	4.8	174.17
Sep.	23.34	31.11	15.56	39.44	10.00	36.3	110.55
Oct.	16.67	22.78	10.56	35.00	2.78	19.6	57.15
Nov.	11.67	17.22	6.11	28.89	0.56	15.7	26.83
Dec.	7.78	12.22	3.33	22.78	-6.67	19.3	12.72
Year	16.71	23.57	9.86	32.50	2.46	242	898.02

BIOCLIMATIC INDICES AND DIAGNOSIS

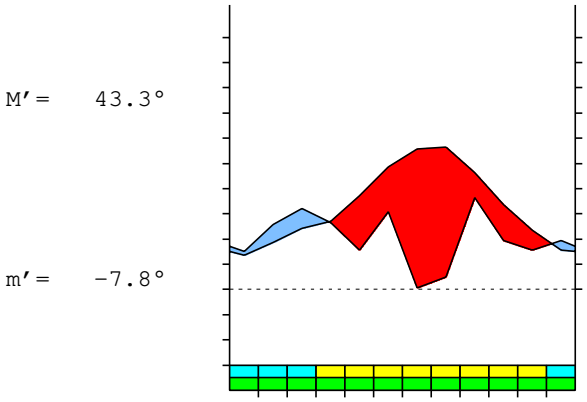
Thermicity index.....(It): 306
Compensated thermicity index.....(Itc): 327
Simple continentality index.....(Ic): 21.4
Diurnality index.....(Id): 17.8
Annual ombrothermic index.....(Io): 1.21
Monthly estival ombrothermic index.....(Ios1): 0.03
Bimonthly estival ombrothermic index.....(Ios2): 0.10
Threemonthly estival ombrothermic index.....(Ios3): 0.45
Fourmonthly estival ombrothermic index.....(Ios4): 0.53
Annual ombro-evaporation index.....(Ioe): 0.81
Annual positive temperature.....(Tp): 2006
Annual negative temperature.....(Tn): 0
Estival temperature.....(Ts): 806
Positive precipitation.....(Pp): 242

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	0	4	5	3	0

Latitudinal Belt...: Subtropical
Continentality.....: Continental - Low Subcontinental
Bioclimate.....: MEDITERRANEAN XERIC-CONTINENTAL
Bioclimatic Belt...: LOW MESOMEDITERRANEAN LOW SEMIARID

PAUL CAZELLES (ALGERIA) 650 m

P= 242 35° 31'N 2° 53'E 4/4 y.
T= 16.7° Ic= 21.4 Tp= 2006 Tn= 0
m= 1.1° M= 12.8° Itc= 327 Io= 1.2



MEDITERRANEAN XERIC-CONTINENTAL
LOW MESOMEDITERRANEAN LOW SEMIARID

WATER INDEX CARD PAUL CAZELLES (ALGERIA)
Altitude: 650 m. Latitude: 35° 31'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	6.9	11	15	4	11	11	0	0	0	0.3
Feb.	9.2	17	25	8	19	17	0	0	0	0.4
Mar.	12.2	35	32	-3	16	35	0	0	0	0.0
Apr.	13.6	45	26	-16	0	42	3	0	0	-0.4
May.	18.6	87	16	0	0	16	71	0	0	-0.8
Jun.	24.5	141	31	0	0	31	110	0	0	-0.7
Jul.	27.8	181	1	0	0	1	180	0	0	-0.9
Aug.	28.3	174	5	0	0	5	169	0	0	-0.9
Sep.	23.3	111	36	0	0	36	74	0	0	-0.6
Oct.	16.7	57	20	0	0	20	38	0	0	-0.6
Nov.	11.7	27	16	0	0	16	11	0	0	-0.4
Dec.	7.8	13	19	7	7	13	0	0	0	0.5
Year	16.7	898	242	*	*	242	656	0	0	*

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

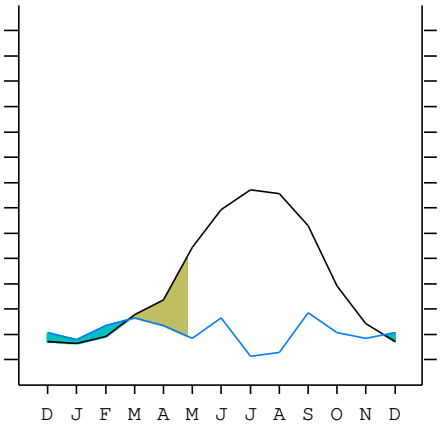
PAUL CAZELLES (ALGERIA)

35°31'N 2°53'E 650 m 4/4 y.

T= 16.7 Ic= 21.4
m= 1.1 Tp= 2006
M= 12.8 Tn= 0
M'= 43.3 Itc= 327
m'= -7.8 Io= 1.2
P= 242 mm
PE= 898 mm

MEDITERRANEAN XERIC-CONTINENTAL
LOW MESOMEDITERRANEAN
LOW SEMIARID

Imbibing	19 Nov.
Saturation	
Reserve Use	23 Feb.
Deficit	26 Apr.



PAUL CAZELLES (ALGERIA)

Latitude: 35°31'N Longitude: 2°53'E Altitude: 650 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [C2a]
- + Type .....: C. Continental
- + Subtype .....: 2. Subcontinental
- + Variant .....: a. Low

Thermic types [B1.A3]
- + Latitudinal zone ....: B. Temperate
- + Latitudinal belt ....: 1. Subtropical
- + Thermic type .....: A. Warm
- + Thermic subtype .....: 3. Subwarm

Bioclimatic types [B5.3b.4b]
- + Macrobioclimate .....: B. MEDITERRANEAN
- + Bioclimate .....: 5. XERIC-CONTINENTAL
- + Bioclimatic variant .:
- + Thermic type.....: 3. MESOMEDITERRANEAN
- + Thermic subtype.....: b. LOW
- + Ombrothermic type ...: 4. SEMIARID
- + Ombrothermic subtype : b. LOW

Bioclimatic Classification .....: Medo.Mme.Sar

PAUL CAZELLES (ALGERIA)

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PRECIPITATION PARAMETERS

Warmest semester of the year	(Pss):	109
Coldest semester of the year	(Psw):	134
Warmest four months period of the year	(Pcm1):	73
Following warmest four months period	(Pcm2):	70
Positive precipitation dryest 3 months	(Ppd):	37
Positive precipitation dryest 2 months	(Ppd2):	6
Positive precipitation dryest 1 month	(Ppd1):	1
Positive precipitation warmest 3 months	(Pps):	37
Positive precipitation warmest 2 months	(Pps2):	6
Positive precipitation warmest 1 month	(Pps1):	5
Positive precipitation coldest 3 months	(Ppw):	60
Positive precipitation coldest 2 months	(Ppw2):	34
Positive precipitation coldest 1 month	(Ppw1):	15

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	59	74	36	71

Seasonal rainfall rhythms: P > F > W > S

PAUL CAZELLES (ALGERIA)

Latitude: 35°31'N Longitude: 2°53'E Altitude: 650 m

TEMPERATURE PARAMETERS

Average warmest month [T]	(Tmax):	28.3	
Average coldest month [T]	(Tmin):	6.9	
Maximum temp. warmest month [M]	(Tmmax):	37.2	
Minimum temp. coldest month [m]	(Tmmin):	1.1	
Absolute Max.temp. warmest month [M']	(Tamax):	43.3	
Absolute Min.temp. coldest month [m']	(Tamin):	-7.8	
First warmest contrasted month [M]	(Tcmax):	36.7	(7)
First coldest contrasted month [m]	(Tcmin):	18.9	(7)
Estival temperature	(Ts):	806	
Positive temperature dryest 3 months	(Tpd):	806	
Positive temperature dryest 2 months	(Tpd2):	561	
Positive temperature dryest 1 month	(Tpd1):	278	
Positive temperature warmest 3 months	(Tps):	806	
Positive temperature warmest 2 months	(Tps2):	561	
Positive temperature warmest 1 month	(Tps1):	283	
Positive temperature coldest 3 months	(Tpw):	239	
Positive temperature coldest 2 months	(Tpw2):	147	
Positive temperature coldest 1 month	(Tpw1):	69	

PAUL CAZELLES (ALGERIA)

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

PAUL CAZELLES (ALGERIA)

Latitude: 35°31'N Longitude: 2°53'E Altitude: 650 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 3.71
Mediterranean index of July.[PE/P].....(Im1): 225.91
Mediterranean index of July & August.....(Im2): 63.37
Mediterranean index of June, July & August....(Im3): 13.55

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	193	150	254	320	264	160	310	8	48	363	196	157
Tp	78	69	92	122	136	186	245	278	283	233	167	117
Io (Iom)	2.48	2.16	2.77	2.62	1.94	0.86	1.27	0.03	0.17	1.56	1.18	1.35
Seasons	Winter			Spring			Summer			Automn		
Pp(x10)/Tp	597 / 239			744 / 444			366 / 806			716 / 517		
Io (Iot)	2.499			1.674			0.454			1.385		
Semesters	December-May						June-November					
Pp(x10)/Tp	1341 / 683						1082 / 1322					
Io (Iosm)	1.963						0.818					

PAUL CAZELLES (ALGERIA)

Latitude: 35°31'N Longitude: 2°53'E Altitude: 650 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 2423/2006=1.21 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	193	150	254	320	264	160	310	8	48	363	196	157
Tp [T*10]	78	69	92	122	136	186	245	278	283	233	167	117
Iom [Pp/Tp]	248	216	277	262	194	86	127	3	17	156	118	135
Avm [200-Iom]	***	***	***	***	6	114	73	197	183	44	82	65
Seasons	Winter			Spring			Summer			Automn		
Pp / Tp	597 / 239			744 / 444			366 / 806			716 / 517		
Iot [Pp/Tp]	250			167			45			139		
Avs E[Avm<200]	***			***			453			192		

Lower ultrahyperarid [1]	Upper ultrahyperarid [1]
Strong lower arid [1]	Weak upper arid [1]
Strong lower semiarid [1]	Weak lower semiarid [3]
Strong upper semiarid [1]	Weak upper semiarid [1]

PAUL CAZELLES (ALGERIA)

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 21.39
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....: 42.19
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....: 36.97
  + Oceanic (20<CI<40)
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 1.67
  + Subcontinental (1.1<CI<1.7)
Rainfall Index of Lang (1925) [R=P/T] .....: 14.50
  + Steppic (40>R>0)
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 9.07
  + Arid -steppic- (15>Ia>5)
I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)] .....: 17.51
  + Arid (30>Q>0)
I of Dantin & Revenga (1940) [DR=100*T/P] .....: 6.90
  + Extremely arid (DR>6)
Aridity Index of UNEP [I=P/PE] .....: 0.27
  + Semiarid (0.5>Im>0.2)
Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 5.44
  + Very low (K<60)

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BIOCLIMATIC INDICES II

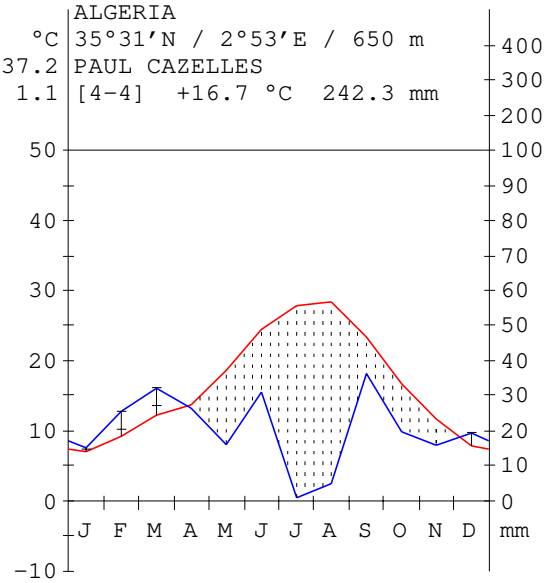
Bioclimatic classification of Gaussen & Bagnouls (1957)
  + Climate ....: A. Warm and temperate warm
  + Region .....: 3. Termoxeroteric (Mediterranean warm)
  + Thermic type: 3. Macro-mesothermic

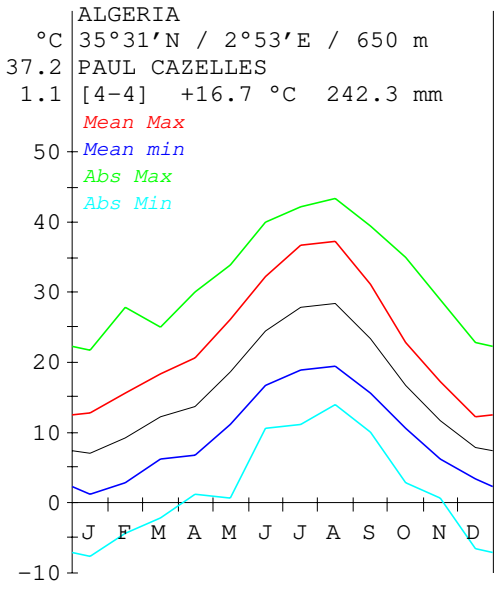
Thornthwaite (1948)

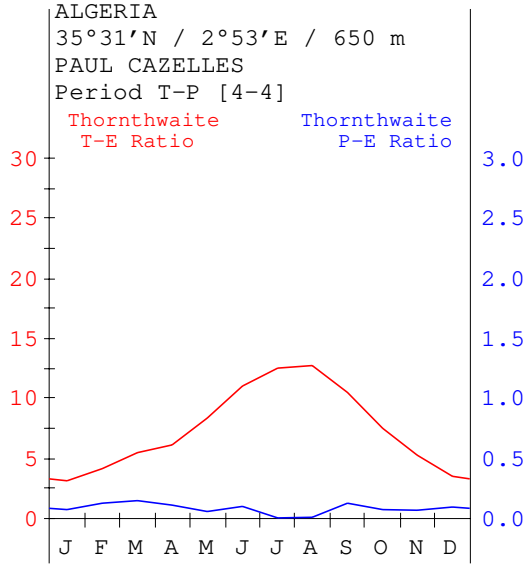
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.08	0.13	0.15	0.11	0.06	0.10	0.00	0.01	0.12	0.07	0.07	0.10
T-E ratio	3.12	4.13	5.50	6.12	8.37	11.00	12.50	12.75	10.50	7.50	5.25	3.50

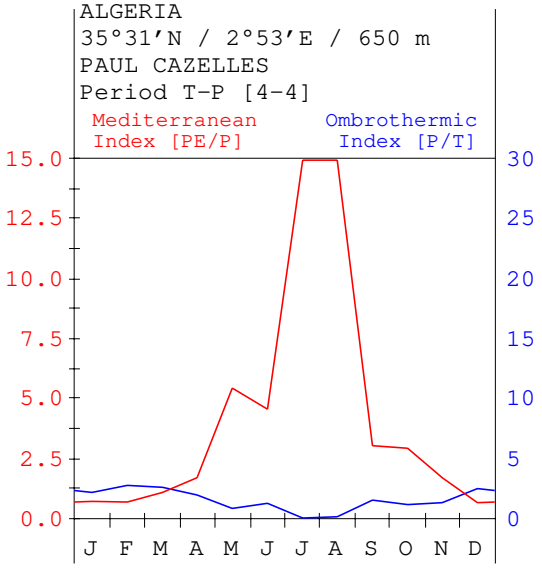
Precipitation-effectiveness: 9.95 Temperature-efficiency ....: 90.26

Moisture Index [MI=100*(P-PE)/PE] .....: -73.02
  + E.Dry (-110<MI<-66.7)
Index of dryness [DI=100*d/PE] .....: 73.02
  + Strong deficit (33.3<DI)
Index of humidity [HI=100*s/PE] .....: 0.00
  + No surplus (0<HI<10)
Potential Evapotranspiration PE .....: 898.02
  + Third mesothermic (855<PE<997)




ALGERIA
°C
35°31'N / 2°53'E / 650 m
37.2
PAUL CAZELLES
1.1
[4-4] +16.7 °C 242.3 mm
Mean Max
Mean min
Abs Max
Abs Min
50
40
30
20
10
0
-10
J F M A M J J A S O N D


ALGERIA
35°31'N / 2°53'E / 650 m
PAUL CAZELLES
Period T-P [4-4]
Thornthwaite T-E Ratio
Thornthwaite P-E Ratio
30
25
20
15
10
5
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J F M A M J J A S O N D


ALGERIA
35°31'N / 2°53'E / 650 m
PAUL CAZELLES
Period T-P [4-4]
Mediterranean Index [PE/P]
Ombrothermic Index [P/T]
15.0
12.5
10.0
7.5
5.0
2.5
0.0
30
25
20
15
10
5
0
J F M A M J J A S O N D