

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

BISKRA (ALGERIA)

Altitude: 87 m.

Latitude: 34°48'N Longitude: 5°44'E

Temperature observation period.: 1968-1994 (27)

Rainfall observation period....: 1964-1994 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	11.39	16.11	6.67	23.89	-1.11	13.0	12.73
Feb.	13.06	18.33	7.78	27.78	0.00	10.9	17.84
Mar.	16.39	21.67	11.11	31.11	1.11	19.1	39.36
Apr.	20.27	26.11	14.44	37.78	1.67	15.0	72.95
May.	24.45	30.56	18.33	40.00	8.33	8.9	132.78
Jun.	30.00	36.11	23.89	46.11	16.67	4.1	197.85
Jul.	34.17	41.67	26.67	47.22	20.00	1.0	242.17
Aug.	33.34	40.56	26.11	49.44	12.22	6.1	220.69
Sep.	28.61	34.44	22.78	43.33	11.11	17.0	156.96
Oct.	22.50	27.78	17.22	38.33	1.11	18.0	85.49
Nov.	16.39	21.11	11.67	29.44	2.22	19.1	32.86
Dec.	11.95	16.67	7.22	26.67	-1.11	16.0	14.12
Year	21.88	27.59	16.16	36.76	6.02	148	1225.8

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	447
Compensated thermicity index.....(Itc):	488
Simple continentality index.....(Ic):	22.8
Diurnality index.....(Id):	15.0
Annual ombrothermic index.....(Io):	0.56
Monthly estival ombrothermic index.....(Ios1):	0.03
Bimonthly estival ombrothermic index.....(Ios2):	0.11
Threemonthly estival ombrothermic index.....(Ios3):	0.11
Fourmonthly estival ombrothermic index.....(Ios4):	0.16
Annual ombro-evaporation index.....(Ioe):	0.59
Annual positive temperature.....(Tp):	2625
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	975
Positive precipitation.....(Pp):	148

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	0	0	4	8	0

Latitudinal Belt...: Subtropical

Continentality.....: Continental - Low Subcontinental

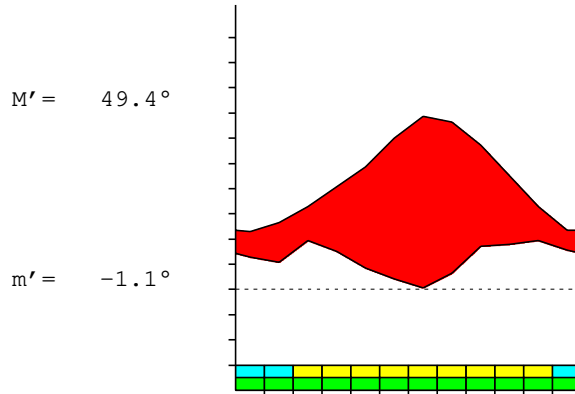
Bioclimate.....: MEDITERRANEAN DESERTIC-CONTINENTAL

Bioclimatic Belt...: LOW INFRAMEDITERRANEAN LOW ARID

BISKRA (ALGERIA)

87 m

P= 148      34° 48'N      5° 44'E      27/31 y.  
 T= 21.9°    Ic= 22.8      Tp= 2625      Tn= 0  
 m= 6.7°      M= 16.1°      Itc= 488      Io= 0.6



MEDITERRANEAN DESERTIC-CONTINENTAL  
 LOW INFRAMEDITERRANEAN LOW ARID

WATER INDEX CARD

BISKRA (ALGERIA)

Altitude: 87 m.

Latitude: 34° 48'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	11.4	13	13	0	2	13	0	0	0	0.0
Feb.	13.1	18	11	-2	0	13	5	0	0	-0.3
Mar.	16.4	39	19	0	0	19	20	0	0	-0.5
Apr.	20.3	73	15	0	0	15	58	0	0	-0.7
May.	24.5	133	9	0	0	9	124	0	0	-0.9
Jun.	30.0	198	4	0	0	4	194	0	0	-0.9
Jul.	34.2	242	1	0	0	1	241	0	0	-0.9
Aug.	33.3	221	6	0	0	6	215	0	0	-0.9
Sep.	28.6	157	17	0	0	17	140	0	0	-0.8
Oct.	22.5	85	18	0	0	18	67	0	0	-0.7
Nov.	16.4	33	19	0	0	19	14	0	0	-0.4
Dec.	11.9	14	16	2	2	14	0	0	0	0.1
Year	21.9	1226	148	*	*	148	1078	0	0	*

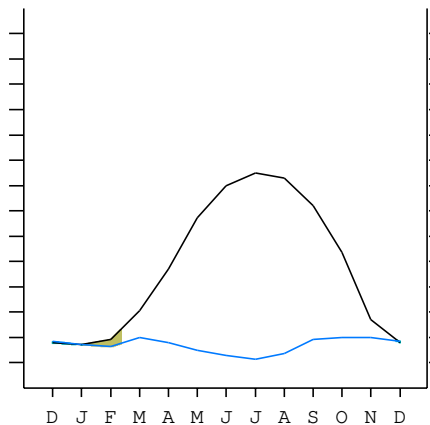
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

BISKRA (ALGERIA)

34°48'N    5°44'E    87 m 27/31 y.

T= 21.9    Ic= 22.8    MEDITERRANEAN DESERTIC-CONTINENTAL  
 m= 6.7    Tp= 2625    LOW INFRAMEDITERRANEAN  
 M= 16.1    Tn= 0    LOW ARID  
 M' = 49.4    Itc= 488  
 m' = -1.1    Io= 0.6  
 P= 148    mm    ———  
 PE= 1226    mm    ———

Imbibing	27 Nov.
Saturation	2 Jan.
Reserve Use	10 Feb.
Deficit	



BISKRA (ALGERIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [C2a]  
 + Type .....: C. Continental  
 + Subtype .....: 2. Subcontinental  
 + Variant .....: a. Low  
 Thermic types [A3.A2]  
 + Latitudinal zone .....: A. Warm  
 + Latitudinal belt .....: 3. Subtropical  
 + Thermic type .....: A. Warm  
 + Thermic subtype .....: 2. Warm  
 Bioclimatic types [B3.1b.3b]  
 + Macrobioclimate .....: B. MEDITERRANEAN  
 + Bioclimate .....: 3. DESERTIC-CONTINENTAL  
 + Bioclimatic variant ..:  
 + Thermic type.....: 1. INFRAMEDITERRANEAN  
 + Thermic subtype.....: b. LOW  
 + Ombrothermic type ...: 3. ARID  
 + Ombrothermic subtype : b. LOW  
 Bioclimatic Classification .....: Mexo.Ime.Ari

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 55  
 Coldest semester of the year.....(Psw): 93  
 Warmest four months period of the year.....(Pcm1): 28  
 Following warmest four months period.....(Pcm2): 66  
 Positive precipitation dryest 3 months.....(Ppd): 11  
 Positive precipitation dryest 2 months.....(Ppd2): 5  
 Positive precipitation dryest 1 month.....(Ppd1): 1  
 Positive precipitation warmest 3 months.....(Pps): 11  
 Positive precipitation warmest 2 months.....(Pps2): 7  
 Positive precipitation warmest 1 month.....(Pps1): 1  
 Positive precipitation coldest 3 months.....(Ppw): 40  
 Positive precipitation coldest 2 months.....(Ppw2): 29  
 Positive precipitation coldest 1 month.....(Ppw1): 13

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	39	43	11	54

Seasonal rainfall rhythms: F > P > W > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 34.2  
 Average coldest month [T].....(Tmin): 11.4  
 Maximum temp. warmest month [M].....(Tmmax): 41.7  
 Minimum temp. coldest month [m].....(Tmmin): 6.7  
 Absolute Max.temp. warmest month [M'].....(Tamax): 49.4  
 Absolute Min.temp. coldest month [m'].....(Tamin): -1.1  
 First warmest contrasted month [M].....(Tcmax): 41.7 (7)  
 First coldest contrasted month [m].....(Tcmin): 26.7 (7)  
 Estival temperature.....(Ts): 975  
 Positive temperature dryest 3 months.....(Tpd): 975  
 Positive temperature dryest 2 months.....(Tpd2): 642  
 Positive temperature dryest 1 month.....(Tpd1): 342  
 Positive temperature warmest 3 months.....(Tps): 975  
 Positive temperature warmest 2 months.....(Tps2): 675  
 Positive temperature warmest 1 month.....(Tps1): 342  
 Positive temperature coldest 3 months.....(Tpw): 364  
 Positive temperature coldest 2 months.....(Tpw2): 233  
 Positive temperature coldest 1 month.....(Tpw1): 114

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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): 8.27  
 Mediterranean index of July.[PE/P].....(Im1): 242.17  
 Mediterranean index of July & August.....(Im2): 65.19  
 Mediterranean index of June, July & August....(Im3): 58.99

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	160	130	109	191	150	89	41	10	61	170	180	191
Tp	120	114	131	164	203	245	300	342	333	286	225	164
Io (Iom)	1.34	1.14	0.83	1.17	0.74	0.36	0.14	0.03	0.18	0.59	0.80	1.17
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	399 / 364			430 / 611			112 / 975			541 / 675		
Io (Iot)	1.096			0.704			0.115			0.801		
Semesters	December-May						June-November					
Pp(x10)/Tp	829 / 975						653 / 1650					
Io (Iosm)	0.850						0.396					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1482/2625=0.56 [Strong upper arid \(7\) \[1551\]](#)

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	160	130	109	191	150	89	41	10	61	170	180	191
Tp [T*10]	120	114	131	164	203	245	300	342	333	286	225	164
Iom [Pp/Tp]	134	114	83	117	74	36	14	3	18	59	80	117
Avm [200-Iom]	66	86	117	83	126	164	186	197	182	141	120	83
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	399 / 364			430 / 611			112 / 975			541 / 675		
Iot [Pp/Tp]	110			70			11			80		
Avs E[Avm<200]	269			373			565			344		
Lower ultrahyperarid [1]							Upper ultrahyperarid [3]					
Upper hyperarid [1]							Weak lower arid [1]					
Strong upper arid [3]							Weak upper arid [2]					
Strong lower semiarid [4]							Weak lower semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....	(Sp):	22.78
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....		47.46
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....		40.96
+ Subcontinental (40<CI<60)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....		1.81
+ Continental (1.7<CI<2.3)		
Rainfall Index of Lang (1925) [R=P/T] .....		6.77
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....		4.65
+ Extremely arid -desert- (5>Ia>0)		
I of Emberger (1930) [Q=100*P/(Tmax <sup>2</sup> -Tmin <sup>2</sup> )] .....		8.76
+ Arid (30>Q>0)		
I of Dantin & Revenga (1940) [DR=100*T/P] .....		14.76
+ Extremely arid (DR>6)		
Aridity Index of UNEP [I=P/PE] .....		0.12
+ Arid (0.2>Im>0.05)		
Potential Erosion I of Fournier (1960) [K=Pi <sup>2</sup> /P] .....		2.46
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....

- + Climate .....
- + Region .....
- + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.06	0.04	0.07	0.05	0.03	0.01	0.00	0.01	0.05	0.06	0.07	0.07
T-E ratio	5.13	5.88	7.38	9.12	11.00	13.50	15.38	15.00	12.87	10.13	7.38	5.38
Precipitation-effectiveness: 5.19						Temperature-efficiency .....						118.13
Moisture Index [MI=100*(P-PE)/PE] .....												-87.91
+ E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE] .....												87.90
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE .....												1225.79
+ Forth mesothermic (997<PE<1440)												

