

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

SRINAGAR (INDIA)

Altitude: 1586 m.

Latitude: 34°5'N Longitude: 74°50'E

Temperature observation period.: 1935-1980 (46)

Rainfall observation period....: 1950-1980 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	1.10	4.40	-2.30	17.20	-14.40	73.0	1.13
Feb.	3.60	7.90	-0.80	20.60	-20.00	72.0	6.27
Mar.	8.50	13.40	3.50	29.60	-5.60	104.0	26.37
Apr.	13.90	19.30	7.40	31.10	0.00	78.0	57.27
May.	17.90	24.60	11.20	35.60	2.80	63.0	91.26
Jun.	22.00	29.50	14.40	37.80	7.20	36.0	123.37
Jul.	24.60	30.80	18.40	38.30	10.60	61.0	147.68
Aug.	23.90	29.90	17.90	36.70	10.00	63.0	134.62
Sep.	20.50	28.30	12.70	35.00	4.40	32.0	95.51
Oct.	14.20	22.60	5.70	33.90	-1.70	29.0	52.58
Nov.	7.70	15.50	-0.10	23.90	-7.80	18.0	19.27
Dec.	3.50	8.80	-1.80	18.30	-11.70	36.0	6.02
Year	13.45	19.58	7.18	29.83	-2.18	665	761.35

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	156
Compensated thermicity index.....(Itc):	208
Simple continentality index.....(Ic):	23.5
Diurnality index.....(Id):	16.9
Annual ombrothermic index.....(Io):	4.12
Monthly estival ombrothermic index.....(Ios1):	1.64
Bimonthly estival ombrothermic index.....(Ios2):	2.56
Threemonthly estival ombrothermic index.....(Ios3):	2.27
Fourmonthly estival ombrothermic index.....(Ios4):	2.52
Annual ombro-evaporation index.....(Ioe):	0.75
Annual positive temperature.....(Tp):	1614
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	705
Positive precipitation.....(Pp):	665

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

Latitudinal Belt...: Subtropical

Continentalty.....: Continental - Low Subcontinental

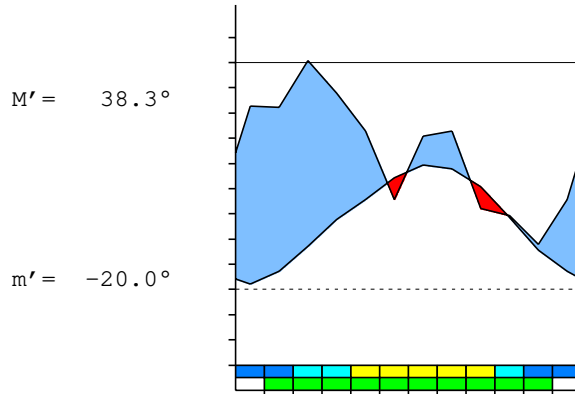
Bioclimate(Variant): TEMPERATE CONTINENTAL (SUBMEDITERRANEAN)

Bioclimatic Belt...: UPPER MESOTEMPERATE LOW SUBHUMID

SRINAGAR (INDIA)

1586 m

P= 665      34° 5'N      74° 50'E      46/31 y.  
 T= 13.4°    Ic= 23.5      Tp= 1614      Tn= 0  
 m= -2.3°    M= 4.4°      Itc= 208      Io= 4.1



TEMPERATE CONTINENTAL (SUBMEDITERRANEAN)  
 UPPER MESOTEMPERATE LOW SUBHUMID

WATER INDEX CARD      SRINAGAR (INDIA)  
 Altitude: 1586 m.      Latitude: 34° 5'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	1.1	1	73	70	100	1	0	2	1	63.4
Feb.	3.6	6	72	0	100	6	0	66	33	10.4
Mar.	8.5	26	104	0	100	26	0	78	55	2.9
Apr.	13.9	57	78	0	100	57	0	21	38	0.3
May.	17.9	91	63	-28	72	91	0	0	19	-0.3
Jun.	22.0	123	36	-72	0	108	16	0	10	-0.7
Jul.	24.6	148	61	0	0	61	87	0	5	-0.5
Aug.	23.9	135	63	0	0	63	72	0	2	-0.5
Sep.	20.5	96	32	0	0	32	64	0	1	-0.6
Oct.	14.2	53	29	0	0	29	24	0	1	-0.4
Nov.	7.7	19	18	0	0	18	1	0	0	0.0
Dec.	3.5	6	36	30	30	6	0	0	0	4.9
Year	13.4	761	665	*	*	499	262	166	166	*

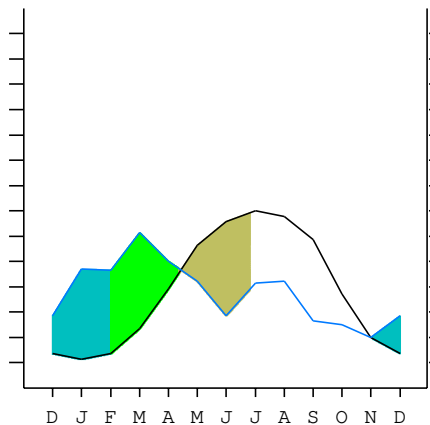
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

SRINAGAR (INDIA)

34°5'N    74°50'E    1586 m 46/31 y.

T= 13.4    Ic= 23.5    TEMPERATE CONTINENTAL (SUBMEDITERRANEAN)  
 m= -2.3    Tp= 1614    UPPER MESOTEMPERATE  
 M= 4.4    Tn= 0    LOW SUBHUMID  
 M' = 38.3    Itc= 208  
 m' = -20.0    Io= 4.1  
 P= 665    mm    ———  
 PE= 761    mm    ———

Imbibing	2 Nov.
Saturation	30 Jan.
Reserve Use	13 Apr.
Deficit	25 Jun.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

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

Thermic types [A3.B4]  
 + Latitudinal zone .....: A. Warm  
 + Latitudinal belt .....: 3. Subtropical  
 + Thermic type .....: B. Temperate  
 + Thermic subtype .....: 4. Temperate

Bioclimatic types [C2b.3a.6b]  
 + Macrobioclimate .....: C. TEMPERATE  
 + Bioclimate .....: 2. CONTINENTAL  
 + Bioclimatic variant .: b. SUBMEDITERRANEAN  
 + Thermic type.....: 3. MESOTEMPERATE  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 6. SUBHUMID  
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification .....: Teoc(Sbm).Mte.Shu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 284  
 Coldest semester of the year.....(Psw): 381  
 Warmest four months period of the year.....(Pcm1): 192  
 Following warmest four months period.....(Pcm2): 156  
 Positive precipitation dryest 3 months.....(Ppd): 79  
 Positive precipitation dryest 2 months.....(Ppd2): 47  
 Positive precipitation dryest 1 month.....(Ppd1): 18  
 Positive precipitation warmest 3 months.....(Pps): 160  
 Positive precipitation warmest 2 months.....(Pps2): 124  
 Positive precipitation warmest 1 month.....(Pps1): 61  
 Positive precipitation coldest 3 months.....(Ppw): 181  
 Positive precipitation coldest 2 months.....(Ppw2): 109  
 Positive precipitation coldest 1 month.....(Ppw1): 73

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	181	245	160	79

Seasonal rainfall rhythms: P > W > S > F

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 24.6  
 Average coldest month [T].....(Tmin): 1.1  
 Maximum temp. warmest month [M].....(Tmmax): 30.8  
 Minimum temp. coldest month [m].....(Tmmin): -2.3  
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.3  
 Absolute Min.temp. coldest month [m'].....(Tamin): -20.0  
 First warmest contrasted month [M].....(Tcmax): 22.6 (10)  
 First coldest contrasted month [m].....(Tcmin): 5.7 (10)  
 Estival temperature.....(Ts): 705  
 Positive temperature dryest 3 months.....(Tpd): 424  
 Positive temperature dryest 2 months.....(Tpd2): 219  
 Positive temperature dryest 1 month.....(Tpd1): 77  
 Positive temperature warmest 3 months.....(Tps): 705  
 Positive temperature warmest 2 months.....(Tps2): 485  
 Positive temperature warmest 1 month.....(Tps1): 246  
 Positive temperature coldest 3 months.....(Tpw): 82  
 Positive temperature coldest 2 months.....(Tpw2): 46  
 Positive temperature coldest 1 month.....(Tpw1): 11

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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
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)	o	o									o	o
Pregelid.....[m' <=0] (Pf)	o	o	o	o						o	o	o
Agelid.....[m' > 0] (Pf)					o	o	o	o	o			
HiperAgelid..[all>0] (Pf)					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): 2.42  
 Mediterranean index of July & August.....(Im2): 2.28  
 Mediterranean index of June, July & August....(Im3): 2.54

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	360	730	720	1040	780	630	360	610	630	320	290	180
Tp	35	11	36	85	139	179	220	246	239	205	142	77
Io (Iom)	10.3	66.4	20.0	12.2	5.61	3.52	1.64	2.48	2.64	1.56	2.04	2.34
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1810 / 82			2450 / 403			1600 / 705			790 / 424		
Io (Iot)	22.07			6.079			2.270			1.863		
Semesters	December-May						June-November					
Pp(x10)/Tp	4260 / 485						2390 / 1129					
Io (Iosm)	8.784						2.117					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 6650/1614=4.12 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	360	730	720	1040	780	630	360	610	630	320	290	180
Tp [T*10]	35	11	36	85	139	179	220	246	239	205	142	77
Iom [Pp/Tp]	\$\$	\$\$	\$\$	\$\$	561	352	164	248	264	156	204	234
Avm [200-Iom]	***	***	***	***	***	***	36	***	***	44	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1810 / 82			2450 / 403			1600 / 705			790 / 424		
Iot [Pp/Tp]	2207			608			227			186		
Avs E[Avm<200]	***			***			***			***		
Strong upper semiarid [2]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....	(Sp):	23.50
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....		50.89
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....		43.42
+ Subcontinental (40<CI<60)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....		1.90
+ Continental (1.7<CI<2.3)		
Rainfall Index of Lang (1925) [R=P/T] .....		49.44
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....		28.36
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmax <sup>2</sup> -Tmin <sup>2</sup> )] .....		70.49
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P] .....		2.02
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE] .....		0.87
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi <sup>2</sup> /P] .....		16.26
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate .....
- + Region .....
- + Thermic type: 4. Mesothermic

Thorntwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.55	0.49	0.61	0.37	0.26	0.13	0.22	0.23	0.12	0.12	0.09	0.23
T-E ratio	0.50	1.62	3.82	6.25	8.05	9.90	11.07	10.75	9.23	6.39	3.46	1.57
Precipitation-effectiveness: 34.22						Temperature-efficiency .....						72.63
Moisture Index [MI=100*(P-PE)/PE] .....												-12.65
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE] .....												34.44
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....												21.79
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE .....												761.35
+ Second mesothermic (712<PE<855)												

