

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

SINARCAS (ESP VALENCIA)

Altitude: 899 m.

Latitude: 39°44'N Longitude: 1°13'W

Temperature observation period.: 1943-1970 (28)

Rainfall observation period....: 1943-1970 (28)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	4.60	9.90	-0.70	17.60	-7.30	36.0	11.17
Feb.	5.40	11.20	-0.50	18.30	-5.80	43.0	13.64
Mar.	7.70	13.90	1.50	22.10	-4.60	40.0	27.09
Apr.	10.60	17.00	4.10	24.40	-0.90	41.0	44.59
May.	13.40	20.20	6.50	27.30	1.70	54.0	67.94
Jun.	18.40	26.10	10.60	32.60	6.20	42.0	104.25
Jul.	22.10	30.60	13.60	36.00	9.30	15.0	135.01
Aug.	21.80	29.80	13.70	35.50	9.60	24.0	123.19
Sep.	18.40	25.80	11.10	31.10	6.70	38.0	86.73
Oct.	13.80	20.30	7.20	26.50	2.30	53.0	54.69
Nov.	9.40	15.20	3.60	21.30	-1.80	38.0	28.43
Dec.	5.00	9.90	0.10	16.30	-4.90	57.0	12.03
Year	12.55	19.16	5.90	25.75	0.88	481	708.76

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	217
Compensated thermicity index.....(Itc):	217
Simple continentality index.....(Ic):	17.5
Diurnality index.....(Id):	17.0
Annual ombrothermic index.....(Io):	3.19
Monthly estival ombrothermic index.....(Ios1):	0.68
Bimonthly estival ombrothermic index.....(Ios2):	0.89
Threemonthly estival ombrothermic index.....(Ios3):	1.30
Fourmonthly estival ombrothermic index.....(Ios4):	1.78
Annual ombro-evaporation index.....(Ioe):	0.89
Annual positive temperature.....(Tp):	1506
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	623
Positive precipitation.....(Pp):	481

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

Latitudinal Belt...: Low eutemperate

Continentality.....: Oceanic - Low Semicontinental

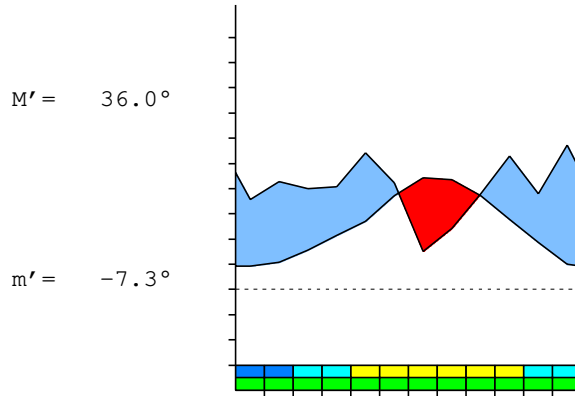
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: LOW SUPRAMEDITERRANEAN UPPER DRY

SINARCAS (ESP VALENCIA)

899 m

P= 481 39° 44'N 1° 13'W 28/28 y.
 T= 12.5° Ic= 17.5 Tp= 1506 Tn= 0
 m= -0.7° M= 9.9° Itc= 217 Io= 3.2



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 LOW SUPRAMEDITERRANEAN UPPER DRY

WATER INDEX CARD SINARCAS (ESP VALENCIA)
 Altitude: 899 m. Latitude: 39° 44'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	4.6	11	36	25	79	11	0	0	0	2.2
Feb.	5.4	14	43	21	100	14	0	9	4	2.1
Mar.	7.7	27	40	0	100	27	0	13	9	0.4
Apr.	10.6	45	41	-4	96	45	0	0	4	0.0
May.	13.4	68	54	-14	82	68	0	0	2	-0.2
Jun.	18.4	104	42	-62	20	104	0	0	1	-0.5
Jul.	22.1	135	15	-20	0	35	100	0	1	-0.8
Aug.	21.8	123	24	0	0	24	99	0	0	-0.8
Sep.	18.4	87	38	0	0	38	49	0	0	-0.5
Oct.	13.8	55	53	0	0	53	2	0	0	0.0
Nov.	9.4	28	38	10	10	28	0	0	0	0.3
Dec.	5.0	12	57	45	55	12	0	0	0	3.7
Year	12.5	709	481	*	*	459	249	22	22	*

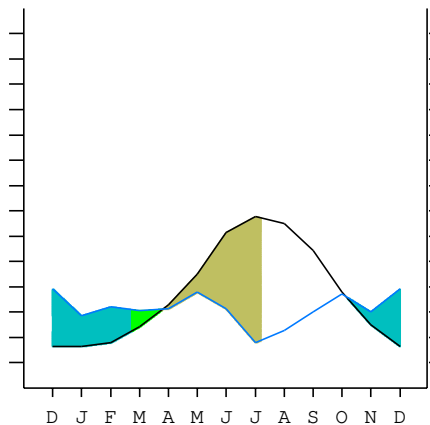
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

SINARCAS (ESP VALENCIA)

39°44'N 1°13'W 899 m 28/28 y.

T= 12.5 Ic= 17.5 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= -0.7 Tp= 1506 LOW SUPRAMEDITERRANEAN
 M= 9.9 Tn= 0 UPPER DRY
 M' = 36.0 Itc= 217
 m' = -7.3 Io= 3.2
 P= 481 mm
 PE= 709 mm

Imbibing	5 Oct.
Saturation	22 Feb.
Reserve Use	24 Mar.
Deficit	6 Jul.



SINARCAS (ESP VALENCIA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: a. Low
 Thermic types [B1.B4]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 4. Temperate
 Bioclimatic types [B8.4b.5a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 4. SUPRAMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Mehc.Sme.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 226
 Coldest semester of the year.....(Psw): 255
 Warmest four months period of the year.....(Pcm1): 119
 Following warmest four months period.....(Pcm2): 184
 Positive precipitation dryest 3 months.....(Ppd): 77
 Positive precipitation dryest 2 months.....(Ppd2): 39
 Positive precipitation dryest 1 month.....(Ppd1): 15
 Positive precipitation warmest 3 months.....(Pps): 81
 Positive precipitation warmest 2 months.....(Pps2): 39
 Positive precipitation warmest 1 month.....(Pps1): 15
 Positive precipitation coldest 3 months.....(Ppw): 136
 Positive precipitation coldest 2 months.....(Ppw2): 93
 Positive precipitation coldest 1 month.....(Ppw1): 36

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	136	135	81	129

Seasonal rainfall rhythms: W > P > F > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 22.1
 Average coldest month [T].....(Tmin): 4.6
 Maximum temp. warmest month [M].....(Tmmax): 30.6
 Minimum temp. coldest month [m].....(Tmmin): -0.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 36.0
 Absolute Min.temp. coldest month [m'].....(Tamin): -7.3
 First warmest contrasted month [M].....(Tcmax): 30.6 (7)
 First coldest contrasted month [m].....(Tcmin): 13.6 (7)
 Estival temperature.....(Ts): 623
 Positive temperature dryest 3 months.....(Tpd): 623
 Positive temperature dryest 2 months.....(Tpd2): 439
 Positive temperature dryest 1 month.....(Tpd1): 221
 Positive temperature warmest 3 months.....(Tps): 623
 Positive temperature warmest 2 months.....(Tps2): 439
 Positive temperature warmest 1 month.....(Tps1): 221
 Positive temperature coldest 3 months.....(Tpw): 150
 Positive temperature coldest 2 months.....(Tpw2): 96
 Positive temperature coldest 1 month.....(Tpw1): 46

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.47
 Mediterranean index of July.[PE/P].....(Im1): 9.00
 Mediterranean index of July & August.....(Im2): 6.62
 Mediterranean index of June, July & August....(Im3): 4.47

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	570	360	430	400	410	540	420	150	240	380	530	380
Tp	50	46	54	77	106	134	184	221	218	184	138	94
Io (Iom)	11.4	7.83	7.96	5.19	3.87	4.03	2.28	0.68	1.10	2.07	3.84	4.04
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1360 / 150			1350 / 317			810 / 623			1290 / 416		
Io (Iot)	9.067			4.259			1.300			3.101		
Semesters	December-May						June-November					
Pp(x10)/Tp	2710 / 467						2100 / 1039					
Io (Iosm)	5.803						2.021					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 4810/1506=3.19 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	570	360	430	400	410	540	420	150	240	380	530	380
Tp [T*10]	50	46	54	77	106	134	184	221	218	184	138	94
Iom [Pp/Tp]	\$\$	783	796	519	387	403	228	68	110	207	384	404
Avm [200-Iom]	***	***	***	***	***	***	***	132	90	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1360 / 150			1350 / 317			810 / 623			1290 / 416		
Iot [Pp/Tp]	907			426			130			310		
Avs E[Avm<200]	***			***			***			***		
Weak lower arid [1]							Strong lower semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	17.50
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		26.14
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		24.99
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.23
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		38.33
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		21.33
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		51.40
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.61
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		0.68
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		6.75
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

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

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.22	0.26	0.22	0.20	0.25	0.17	0.05	0.08	0.15	0.24	0.19	0.36
T-E ratio	2.07	2.43	3.46	4.77	6.03	8.28	9.95	9.81	8.28	6.21	4.23	2.25
Precipitation-effectiveness: 23.88						Temperature-efficiency						67.77
Moisture Index [MI=100*(P-PE)/PE]												-32.14
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												35.17
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												3.05
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												708.76
+ First mesothermic (570<PE<712)												

