

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

BRATISLAVA (SLOVAKIA)

Altitude: 132 m.

Latitude: 48°10'N Longitude: 17°13'E

Temperature observation period.: 1969-1994 (26)

Rainfall observation period....: 1944-1994 (51)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	-2.22	0.56	-5.00	15.00	-26.11	46.0	0.00
Feb.	0.00	3.33	-3.33	16.67	-31.67	39.1	0.00
Mar.	5.00	9.44	0.56	22.22	-17.78	40.1	19.37
Apr.	10.28	15.56	5.00	27.78	-7.78	53.1	50.59
May.	15.00	20.56	9.44	32.22	-1.67	65.0	90.70
Jun.	18.34	23.89	12.78	36.11	2.22	51.1	116.68
Jul.	20.56	26.67	14.44	38.33	6.67	70.1	134.49
Aug.	19.73	25.56	13.89	37.78	5.56	64.0	117.60
Sep.	16.39	22.22	10.56	34.44	-1.11	50.0	80.70
Oct.	10.56	15.00	6.11	28.33	-7.22	54.1	42.59
Nov.	5.56	8.33	2.78	20.56	-10.56	69.1	16.57
Dec.	0.28	2.78	-2.22	14.44	-22.78	56.1	0.46
Year	9.96	14.49	5.42	26.99	-9.35	658	669.76

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	55
Compensated thermicity index.....(Itc):	97
Simple continentality index.....(Ic):	22.8
Diurnality index.....(Id):	12.2
Annual ombrothermic index.....(Io):	4.71
Monthly estival ombrothermic index.....(Ios1):	2.79
Bimonthly estival ombrothermic index.....(Ios2):	3.33
Threemonthly estival ombrothermic index.....(Ios3):	3.16
Fourmonthly estival ombrothermic index.....(Ios4):	3.40
Annual ombro-evaporation index.....(Ioe):	0.98
Annual positive temperature.....(Tp):	1217
Annual negative temperature.....(Tn):	22
Estival temperature.....(Ts):	586
Positive precipitation.....(Pp):	573

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	7	4	0	0	1

Latitudinal Belt...: High Eutemperate

Continentality.....: Continental - Low Subcontinental

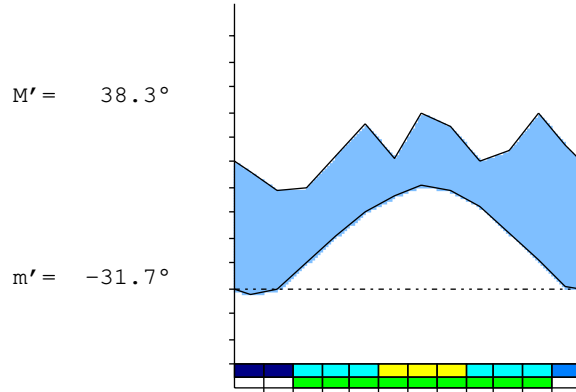
Bioclimate(Variant): TEMPERATE CONTINENTAL (STEPPIC)

Bioclimatic Belt...: LOW SUPRATEMPERATE LOW SUBHUMID

BRATISLAVA (SLOVAKIA)

132 m

P= 658 48° 10'N 17° 13'E 26/51 y.
 T= 10.0 ° Ic= 22.8 Tp= 1217 Tn= 22
 m= -5.0 ° M= 0.6 ° Itc= 97 Io= 4.7



TEMPERATE CONTINENTAL (STEPPIC)
 LOW SUPRATEMPERATE LOW SUBHUMID

WATER INDEX CARD BRATISLAVA (SLOVAKIA)
 Altitude: 132 m. Latitude: 48° 10'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-2.2	0	46	0	100	0	0	46	28	*
Feb.	0.0	0	39	0	100	0	0	39	34	*
Mar.	5.0	19	40	0	100	19	0	21	27	1.0
Apr.	10.3	51	53	0	100	51	0	3	15	0.0
May.	15.0	91	65	-26	74	91	0	0	7	-0.2
Jun.	18.3	117	51	-66	9	117	0	0	4	-0.5
Jul.	20.6	134	70	-9	0	79	56	0	2	-0.4
Aug.	19.7	118	64	0	0	64	54	0	1	-0.4
Sep.	16.4	81	50	0	0	50	31	0	0	-0.3
Oct.	10.6	43	54	12	12	43	0	0	0	0.2
Nov.	5.6	17	69	53	64	17	0	0	0	3.1
Dec.	0.3	0	56	36	100	0	0	20	10	*
Year	10.0	670	658	*	*	530	140	128	128	*

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

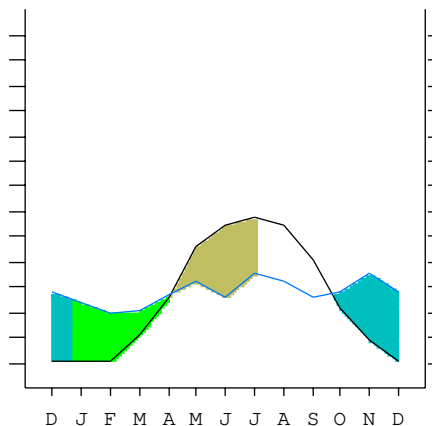
BRATISLAVA (SLOVAKIA)

48°10'N 17°13'E 132 m 26/51 y.

T= 10.0 Ic= 22.8
 m= -5.0 Tp= 1217
 M= 0.6 Tn= 22
 M' = 38.3 Itc= 97
 m' = -31.7 Io= 4.7
 P= 658 mm ———
 PE= 670 mm ———

TEMPERATE CONTINENTAL (STEPPIC)
 LOW SUPRATEMPERATE
 LOW SUBHUMID

Imbibing	22 Sep.
Saturation	20 Dec.
Reserve Use	3 Apr.
Deficit	5 Jul.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

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

Thermic types [B1.B5]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. High Eutemperate
 + Thermic type: B. Temperate
 + Thermic subtype: 5. Subtemperate

Bioclimatic types [C2a.4b.6b]
 + Macrobioclimate: C. TEMPERATE
 + Bioclimate: 2. CONTINENTAL
 + Bioclimatic variant .: STEPPIC
 + Thermic type.....: 4. SUPRATEMPERATE
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic ClassificationTeco(Stp).Ste.Shu.Suc

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 354
 Coldest semester of the year.....(Psw): 304
 Warmest four months period of the year.....(Pcm1): 235
 Following warmest four months period.....(Pcm2): 225
 Positive precipitation dryest 3 months.....(Ppd): 40
 Positive precipitation dryest 2 months.....(Ppd2): 40
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 185
 Positive precipitation warmest 2 months.....(Pps2): 134
 Positive precipitation warmest 1 month.....(Pps1): 70
 Positive precipitation coldest 3 months.....(Ppw): 56
 Positive precipitation coldest 2 months.....(Ppw2): 0
 Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	141	158	185	173

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 20.6
 Average coldest month [T].....(Tmin): -2.2
 Maximum temp. warmest month [M].....(Tmmax): 26.7
 Minimum temp. coldest month [m].....(Tmmin): -5.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.3
 Absolute Min.temp. coldest month [m'].....(Tamin): -31.7
 First warmest contrasted month [M].....(Tcmax): 26.7 (7)
 First coldest contrasted month [m].....(Tcmin): 14.4 (7)
 Estival temperature.....(Ts): 586
 Positive temperature dryest 3 months.....(Tpd): 50
 Positive temperature dryest 2 months.....(Tpd2): 50
 Positive temperature dryest 1 month.....(Tpd1): 0
 Positive temperature warmest 3 months.....(Tps): 586
 Positive temperature warmest 2 months.....(Tps2): 403
 Positive temperature warmest 1 month.....(Tps1): 206
 Positive temperature coldest 3 months.....(Tpw): 3
 Positive temperature coldest 2 months.....(Tpw2): 0
 Positive temperature coldest 1 month.....(Tpw1): 0

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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	
Ultragelid... [M' <=0] (Pf)												
Hypergelid... [M <=0] (Pf)												
Gelid... [T <=0] (Pf)	o	o										
Subgelid... [m <=0] (Pf)	o	o										o
Pregelid... [m' <=0] (Pf)	o	o	o	o	o				o	o	o	o
Agelid... [m' > 0] (Pf)						o	o	o				
HiperAgelid... [all >0] (Pf)						o	o	o				

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OMBROTHERMIC PARAMETERS

Annual aridity index. [PE/P]..... (Iar): 1.02
Mediterranean index of July. [PE/P]..... (Im1): 1.92
Mediterranean index of July & August..... (Im2): 1.88
Mediterranean index of June, July & August.... (Im3): 1.99

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp (x10)	561	*	*	401	531	650	511	701	640	500	541	691
Tp	3	*	*	50	103	150	183	206	197	164	106	56
Io (Iom)	200	*	*	8.02	5.17	4.33	2.79	3.41	3.24	3.05	5.12	12.4
Seasons	Winter			Spring			Summer			Autumn		
Pp (x10)/Tp	*/*			1582 / 303			1852 / 586			1732 / 325		
Io (Iot)	*			5.225			3.159			5.328		
Semesters	December-May						June-November					
Pp (x10)/Tp	*/*						3584 / 911					
Io (Iosm)	*						3.932					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5727/1217=4.71 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	561	*	*	401	531	650	511	701	640	500	541	691
Tp [T*10]	3	*	*	50	103	150	183	206	197	164	106	56
Iom [Pp/Tp]	\$\$!!	\$\$	802	517	433	279	341	324	305	512	\$\$
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	* / *			1582 / 303			1852 / 586			1732 / 325		
Iot [Pp/Tp]	**			522			316			533		
Avs E [Avm<200]	***			***			***			***		

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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]	31.58
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	31.58
+ Oceanic (20<CI<40)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.34
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	66.07
+ Temperate warm (100>R>60)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	32.96
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]	95.85
+ Humid (Q>90)	
I of Dantin & Revenga (1940) [DR=100*T/P]	1.51
+ Humid (2>DR>0)	
Aridity Index of UNEP [I=P/PE]	0.98
+ Humid (I>0.65)	
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....	7.47
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate B. Cold and temperate cold
 + Region 11. Psicroaxeric (Axeric cold)
 + Thermic type: 5. Meso-microthermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.39	0.29	0.24	0.27	0.30	0.21	0.28	0.26	0.21	0.28	0.43	0.43
T-E ratio	0.00	0.00	2.25	4.63	6.75	8.25	9.25	8.88	7.38	4.75	2.50	0.13
Precipitation-effectiveness: 35.80						Temperature-efficiency: 54.76						
Moisture Index [MI=100*(P-PE)/PE]: -1.79												
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 20.89												
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 19.11												
+ Moderate surplus (10<HI<20)												
Potential Evapotranspiration PE: 669.76												
+ First mesothermic (570<PE<712)												

