

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

SERGEIEVKA (RUS AMURSKAYA)

Altitude: 145 m.

Latitude: 50°46'N Longitude: 127°19'E

Temperature observation period.: 1938-1960 (23)

Rainfall observation period....: 1935-1965 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	-27.40	-20.00	-34.00	-11.50	-50.00	5.0	0.00
Feb.	-21.60	-13.00	-29.80	-5.20	-48.00	4.0	0.00
Mar.	-11.50	-3.40	-19.60	6.50	-42.00	10.0	0.00
Apr.	1.60	8.10	-5.10	18.80	-26.00	21.0	10.94
May.	10.00	17.40	2.50	27.70	-11.00	41.0	71.78
Jun.	16.80	23.50	9.70	29.90	-4.00	93.0	119.98
Jul.	20.40	26.50	14.00	32.00	3.00	120.0	145.27
Aug.	17.90	24.10	12.10	30.60	0.00	114.0	116.25
Sep.	10.90	17.80	4.80	26.20	-9.00	72.0	61.61
Oct.	1.00	8.50	-5.30	20.10	-29.00	21.0	5.50
Nov.	-13.80	-7.10	-19.50	4.20	-42.00	10.0	0.00
Dec.	-24.70	-17.70	-30.30	-8.10	-51.00	6.0	0.00
Year	-1.70	5.39	-8.38	14.27	-25.75	517	531.32

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-557
Compensated thermicity index.....(Itc):	67
Simple continentality index.....(Ic):	47.8
Diurnality index.....(Id):	16.8
Annual ombrothermic index.....(Io):	6.13
Monthly estival ombrothermic index.....(Ios1):	5.88
Bimonthly estival ombrothermic index.....(Ios2):	6.11
Threemonthly estival ombrothermic index.....(Ios3):	5.93
Fourmonthly estival ombrothermic index.....(Ios4):	5.65
Annual ombro-evaporation index.....(Ioe):	0.97
Annual positive temperature.....(Tp):	786
Annual negative temperature.....(Tn):	990
Estival temperature.....(Ts):	551
Positive precipitation.....(Pp):	482

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	7	0	0	0	5

Latitudinal Belt...: High Eutemperate

Continentality.....: Continental - Low Hypercontinental

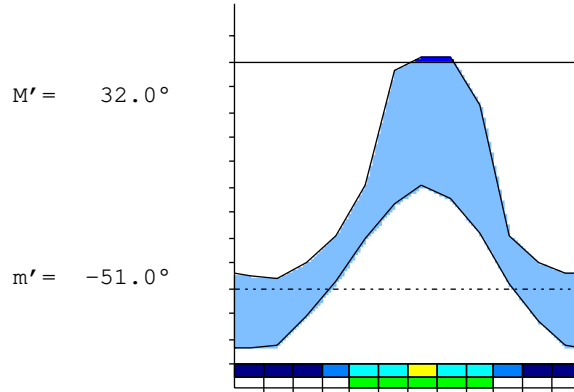
Bioclimate.....: BOREAL HYPERCONTINENTAL

Bioclimatic Belt...: LOW THERMOBOREAL LOW HUMID

SERGEIEVKA (RUS AMURSKAYA)

145 m

P= 517 50° 46'N 127° 19'E 23/31 y.
 T= -1.7 ° Ic= 47.8 Tp= 786 Tn= 990
 m= -34.0 ° M= -20.0 ° Itc= 67 Io= 6.1



BOREAL HYPERCONTINENTAL
 LOW THERMOBOREAL LOW HUMID

WATER INDEX CARD SERGEIEVKA (RUS AMURSKAYA)
 Altitude: 145 m. Latitude: 50° 46'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-27.4	0	5	5	47	0	0	0	0	*
Feb.	-21.6	0	4	4	51	0	0	0	0	*
Mar.	-11.5	0	10	10	61	0	0	0	0	*
Apr.	1.6	11	21	10	71	11	0	0	0	0.9
May.	10.0	72	41	-31	40	72	0	0	0	-0.4
Jun.	16.8	120	93	-27	13	120	0	0	0	-0.2
Jul.	20.4	145	120	-13	0	133	12	0	0	-0.1
Aug.	17.9	116	114	0	0	114	2	0	0	0.0
Sep.	10.9	62	72	10	10	62	0	0	0	0.1
Oct.	1.0	5	21	16	26	5	0	0	0	2.8
Nov.	-13.8	0	10	10	36	0	0	0	0	*
Dec.	-24.7	0	6	6	42	0	0	0	0	*
Year	-1.7	531	517	*	*	517	14	0	0	*

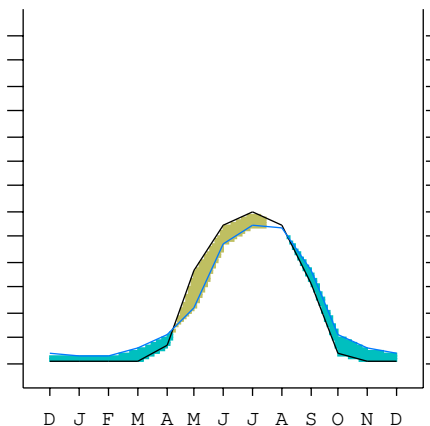
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

SERGEIEVKA (RUS AMURSKAYA)

50°46'N 127°19'E 145 m 23/31 y.

T= -1.7 Ic= 47.8 BOREAL HYPERCONTINENTAL
 m= -34.0 Tp= 786 LOW THERMOBOREAL
 M= -20.0 Tn= 990 LOW HUMID
 M' = 32.0 Itc= 67
 m' = -51.0 Io= 6.1
 P= 517 mm ———
 PE= 531 mm ———

Imbibing	6 Aug.
Saturation	8 Apr.
Reserve Use	16 Jul.
Deficit	



SERGEIEVKA (RUS AMURSKAYA)

Latitude: 50°46'N Longitude: 127°19'E Altitude: 145 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [C4a]
 + Type: C. Continental
 + Subtype: 4. Hypercontinental
 + Variant: a. Low
 Thermic types [B1.D8]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. High Eutemperate
 + Thermic type: D. Gelid
 + Thermic subtype: 8. Ultramicrothermic
 Bioclimatic types [D2.2b.7b]
 + Macrobioclimate: D. BOREAL
 + Bioclimate: 2. HYPERCONTINENTAL
 + Bioclimatic variant .:
 + Thermic type.....: 2. THERMOBOREAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic ClassificationBohc.Tbo.Hum.Hco

SERGEIEVKA (RUS AMURSKAYA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 461
 Coldest semester of the year.....(Psw): 56
 Warmest four months period of the year.....(Pcm1): 399
 Following warmest four months period.....(Pcm2): 42
 Positive precipitation dryest 3 months.....(Ppd): 0
 Positive precipitation dryest 2 months.....(Ppd2): 0
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 327
 Positive precipitation warmest 2 months.....(Pps2): 234
 Positive precipitation warmest 1 month.....(Pps1): 120
 Positive precipitation coldest 3 months.....(Ppw): 0
 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	15	72	327	103

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 20.4
 Average coldest month [T].....(Tmin): -27.4
 Maximum temp. warmest month [M].....(Tmmax): 26.5
 Minimum temp. coldest month [m].....(Tmmin): -34.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 32.0
 Absolute Min.temp. coldest month [m'].....(Tamin): -51.0
 First warmest contrasted month [M].....(Tcmax): -13.0 (2)
 First coldest contrasted month [m].....(Tcmin): -29.8 (2)
 Estival temperature.....(Ts): 551
 Positive temperature dryest 3 months.....(Tpd): 0
 Positive temperature dryest 2 months.....(Tpd2): 0
 Positive temperature dryest 1 month.....(Tpd1): 0
 Positive temperature warmest 3 months.....(Tps): 551
 Positive temperature warmest 2 months.....(Tps2): 383
 Positive temperature warmest 1 month.....(Tps1): 204
 Positive temperature coldest 3 months.....(Tpw): 0
 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			
Ultragelid...[M' <=0] (Pf)	o	o										o
Hypergelid...[M <=0] (Pf)	o	o	o								o	o
Gelid.....[T <=0] (Pf)	o	o	o								o	o
Subgelid.....[m <=0] (Pf)	o	o	o	o						o	o	o
Pregelid.....[m' <=0] (Pf)	o	o	o	o	o	o		o	o	o	o	o
Agelid.....[m' > 0] (Pf)							o					
HiperAgelid..[all>0] (Pf)							o					

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.03
 Mediterranean index of July.[PE/P].....(Im1): 1.21
 Mediterranean index of July & August.....(Im2): 1.12
 Mediterranean index of June, July & August....(Im3): 1.17

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp (x10)	*	*	*	*	210	410	930	1200	1140	720	210	*
Tp	*	*	*	*	16	100	168	204	179	109	10	*
Io (Iom)	*	*	*	*	13.1	4.10	5.54	5.88	6.37	6.61	21.0	*
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	*/*			*/*			3270 / 551			*/*		
Io (Iot)	*			*			5.935			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 4820/786=6.13 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	*	*	*	210	410	930	1200	1140	720	210	*
Tp [T*10]	*	*	*	*	16	100	168	204	179	109	10	*
Iom [Pp/Tp]	!!	!!	!!	!!	\$\$	410	554	588	637	661	\$\$!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	* / *			* / *			3270 / 551			* / *		
Iot [Pp/Tp]	**			**			593			**		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 47.80
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 84.51
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 79.12
 + Continental (60<CI<80)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 2.67
 + Hypercontinental (2.3<CI<5)
 Rainfall Index of Lang (1925) [R=P/T]:-304.12
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 62.29
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]:-113.94
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -0.33
 +
 Aridity Index of UNEP [I=P/PE]: 0.97
 + Humid (I>0.65)
 Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 27.85
 + 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: 8. Ultramicrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.03	0.03	0.07	0.14	0.21	0.42	0.50	0.51	0.38	0.14	0.07	0.04
T-E ratio	0.00	0.00	0.00	0.72	4.50	7.56	9.18	8.05	4.90	0.45	0.00	0.00
Precipitation-effectiveness: 25.31						Temperature-efficiency: 35.37						
Moisture Index [MI=100*(P-PE)/PE]: -2.70 + C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]: 2.69 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE: 531.32 + Second microthermic (427<PE<570)												

