

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

GORIN/KONDON (RUSSIA)

Altitude: 79 m.

Latitude: 51°16'N Longitude: 136°35'E

Temperature observation period.: 1975-1994 (20)

Rainfall observation period....: 1984-1994 (11)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	-28.06	-20.56	-35.56	-2.22	-57.22	15.7	0.00
Feb.	-22.50	-13.89	-31.11	3.89	-50.00	8.4	0.00
Mar.	-12.78	-4.44	-21.11	12.22	-40.00	20.1	0.00
Apr.	-0.55	6.11	-7.22	25.00	-31.11	33.5	0.00
May.	7.78	15.00	0.56	36.11	-12.22	44.2	60.76
Jun.	14.17	21.67	6.67	35.00	-6.11	90.9	105.86
Jul.	18.61	25.56	11.67	37.22	0.00	86.1	135.87
Aug.	17.50	23.89	11.11	37.22	-2.22	100.6	116.52
Sep.	10.84	17.78	3.89	32.78	-8.89	93.0	64.55
Oct.	1.11	7.78	-5.56	25.00	-32.22	43.4	7.31
Nov.	-13.61	-6.67	-20.56	13.89	-46.11	25.9	0.00
Dec.	-25.28	-18.33	-32.22	0.00	-50.00	31.0	0.00
Year	-2.73	4.49	-9.95	21.34	-28.01	593	490.88

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-589
Compensated thermicity index.....(Itc):	2
Simple continentality index.....(Ic):	46.7
Diurnality index.....(Id):	17.2
Annual ombrothermic index.....(Io):	6.54
Monthly estival ombrothermic index.....(Ios1):	4.63
Bimonthly estival ombrothermic index.....(Ios2):	5.17
Threemonthly estival ombrothermic index.....(Ios3):	5.52
Fourmonthly estival ombrothermic index.....(Ios4):	5.54
Annual ombro-evaporation index.....(Ioe):	1.21
Annual positive temperature.....(Tp):	700
Annual negative temperature.....(Tn):	1028
Estival temperature.....(Ts):	503
Positive precipitation.....(Pp):	458

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

Latitudinal Belt...: Low Subtemperate

Continentality.....: Continental - Low Hypercontinental

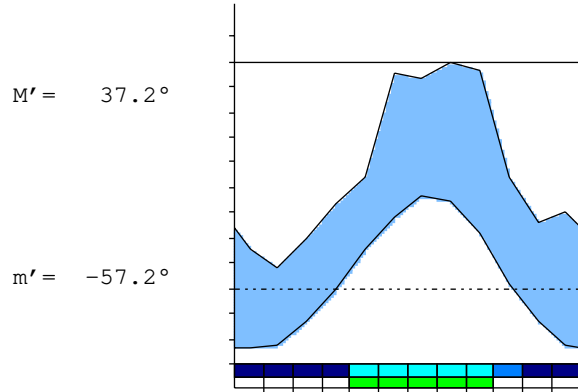
Bioclimate.....: BOREAL HYPERCONTINENTAL

Bioclimatic Belt...: UPPER THERMOBOREAL LOW HUMID

GORIN/KONDON (RUSSIA)

79 m

P= 593 51° 16'N 136° 35'E 20/11 y.
 T= -2.7 ° Ic= 46.7 Tp= 700 Tn= 1028
 m= -35.6 ° M= -20.6 ° Itc= 2 Io= 6.5



BOREAL HYPERCONTINENTAL
 UPPER THERMOBOREAL LOW HUMID

WATER INDEX CARD GORIN/KONDON (RUSSIA)
 Altitude: 79 m. Latitude: 51° 16'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-28.1	0	16	0	100	0	0	16	14	*
Feb.	-22.5	0	8	0	100	0	0	8	11	*
Mar.	-12.8	0	20	0	100	0	0	20	16	*
Apr.	-0.6	0	34	0	100	0	0	34	25	*
May.	7.8	61	44	-17	83	61	0	0	12	-0.2
Jun.	14.2	106	91	-15	68	106	0	0	6	-0.1
Jul.	18.6	136	86	-50	19	136	0	0	3	-0.3
Aug.	17.5	117	101	-16	3	117	0	0	2	-0.1
Sep.	10.8	65	93	28	31	65	0	0	1	0.4
Oct.	1.1	7	43	36	67	7	0	0	0	4.9
Nov.	-13.6	0	26	26	93	0	0	0	0	*
Dec.	-25.3	0	31	7	100	0	0	24	12	*
Year	-2.7	491	593	*	*	491	0	102	102	*

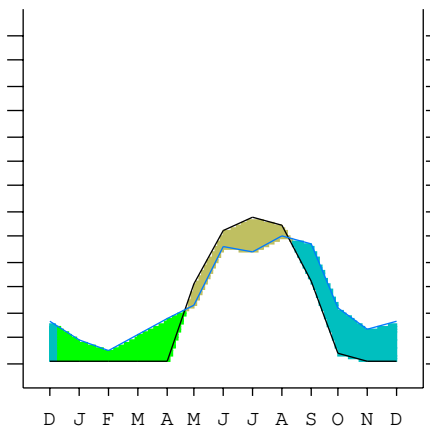
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

GORIN/KONDON (RUSSIA)

51°16'N 136°35'E 79 m 20/11 y.

T= -2.7 Ic= 46.7 BOREAL HYPERCONTINENTAL
 m= -35.6 Tp= 700 UPPER THERMOBOREAL
 M= -20.6 Tn= 1028 LOW HUMID
 M' = 37.2 Itc= 2
 m' = -57.2 Io= 6.5
 P= 593 mm ———
 PE= 491 mm ———

Imbibing	11 Aug.
Saturation	7 Dec.
Reserve Use	21 Apr.
Deficit	



GORIN/KONDON (RUSSIA)

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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. Low Subtemperate
 + Thermic type: D. Gelid
 + Thermic subtype: 8. Ultramicrothermic

Bioclimatic types [D2.2a.7b]
 + Macrobioclimate: D. BOREAL
 + Bioclimate: 2. HYPERCONTINENTAL
 + Bioclimatic variant .:
 + Thermic type.....: 2. THERMOBOREAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic ClassificationBohc.Tbo.Hum.Hco

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 458
 Coldest semester of the year.....(Psw): 135
 Warmest four months period of the year.....(Pcm1): 371
 Following warmest four months period.....(Pcm2): 116
 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): 278
 Positive precipitation warmest 2 months.....(Pps2): 187
 Positive precipitation warmest 1 month.....(Pps1): 86
 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	55	97	277	162

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 18.6
 Average coldest month [T].....(Tmin): -28.1
 Maximum temp. warmest month [M].....(Tmmax): 25.6
 Minimum temp. coldest month [m].....(Tmmin): -35.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 37.2
 Absolute Min.temp. coldest month [m'].....(Tamin): -57.2
 First warmest contrasted month [M].....(Tcmax): -13.9 (2)
 First coldest contrasted month [m].....(Tcmin): -31.1 (2)
 Estival temperature.....(Ts): 503
 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): 503
 Positive temperature warmest 2 months.....(Tps2): 361
 Positive temperature warmest 1 month.....(Tps1): 186
 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
Hypergelid...[M <=0] (Pf)	o	o	o								o	o
Gelid.....[T <=0] (Pf)	o	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	o
Agelid.....[m' > 0] (Pf)												
HiperAgelid..[all>0] (Pf)												

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.83
 Mediterranean index of July.[PE/P].....(Im1): 1.58
 Mediterranean index of July & August.....(Im2): 1.35
 Mediterranean index of June, July & August....(Im3): 1.29

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp (x10)	*	*	*	*	*	442	909	861	1006	930	434	*
Tp	*	*	*	*	*	78	142	186	175	108	11	*
Io (Iom)	*	*	*	*	*	5.68	6.41	4.63	5.75	8.58	39.1	*
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	*/*			*/*			2776 / 503			*/*		
Io (Iot)	*			*			5.521			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 4582/700=6.54 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	*	*	*	*	442	909	861	1006	930	434	*
Tp [T*10]	*	*	*	*	*	78	142	186	175	108	11	*
Iom [Pp/Tp]	!!	!!	!!	!!	!!	568	641	463	575	858	\$\$!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	* / *			* / *			2776 / 503			* / *		
Iot [Pp/Tp]	**			**			552			**		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 46.67
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 81.31
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 76.48
 + Continental (60<CI<80)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 2.58
 + Hypercontinental (2.3<CI<5)
 Rainfall Index of Lang (1925) [R=P/T]:-217.08
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 81.55
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: -96.99
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -0.46
 +
 Aridity Index of UNEP [I=P/PE]: 1.21
 + Humid (I>0.65)
 Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 17.07
 + 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	0.12	0.06	0.15	0.25	0.24	0.44	0.37	0.45	0.50	0.31	0.20	0.25
T-E ratio	0.00	0.00	0.00	0.00	3.50	6.38	8.37	7.88	4.88	0.50	0.00	0.00
Precipitation-effectiveness: 33.43						Temperature-efficiency: 31.50						
Moisture Index [MI=100*(P-PE)/PE]: 20.76 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]: 0.00 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]: 20.76 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 490.88 + Second microthermic (427<PE<570)												

