

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

OSTROV (RUSSIA)

Altitude: 3 m.

Latitude: 70°58'N Longitude: 91°8'E

Temperature observation period.: 1956-1980 (25)

Rainfall observation period....: 1956-1980 (25)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	-23.90	-19.40	-27.80	-5.60	-41.70	5.0	0.00
Feb.	-25.60	-21.70	-29.40	-1.70	-41.60	5.0	0.00
Mar.	-23.30	-18.90	-27.80	-1.10	-45.60	5.0	0.00
Apr.	-17.20	-13.30	-21.10	0.60	-36.70	5.0	0.00
May.	-8.30	-5.60	-12.20	9.40	-25.00	5.0	0.00
Jun.	0.60	2.80	-2.20	17.20	-10.00	10.0	91.92
Jul.	2.80	5.60	0.00	18.30	-5.00	15.0	200.33
Aug.	2.20	4.40	0.60	16.70	-4.40	23.0	142.75
Sep.	-1.70	0.00	-3.90	8.30	-14.40	13.0	0.00
Oct.	-8.30	-6.10	-11.10	3.30	-23.30	10.0	0.00
Nov.	-17.20	-13.90	-20.60	1.70	-33.30	3.0	0.00
Dec.	-21.10	-17.20	-24.40	0.00	-36.70	5.0	0.00
Year	-11.75	-8.61	-14.99	5.59	-26.47	104	435.00

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-629
Compensated thermicity index.....(Itc):	-499
Simple continentality index.....(Ic):	28.4
Diurnality index.....(Id):	8.9
Annual ombrothermic index.....(Io):	8.57
Monthly estival ombrothermic index.....(Ios1):	5.36
Bimonthly estival ombrothermic index.....(Ios2):	7.60
Threemonthly estival ombrothermic index.....(Ios3):	8.57
Fourmonthly estival ombrothermic index.....(Ios4):	No
Annual ombro-evaporation index.....(Ioe):	0.24
Annual positive temperature.....(Tp):	56
Annual negative temperature.....(Tn):	1466
Estival temperature.....(Ts):	56
Positive precipitation.....(Pp):	48

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	3	0	0	0	9

Latitudinal Belt...: Low Polar

Continentality.....: Continental - Low Eucontinental

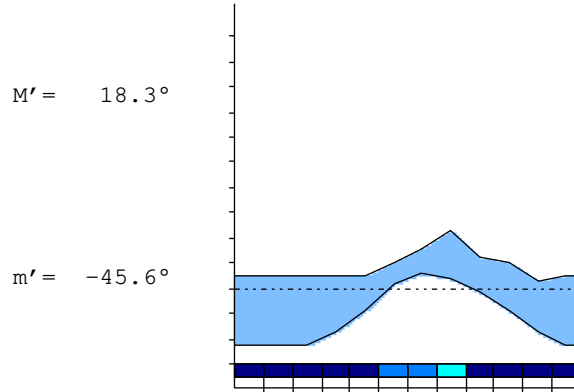
Bioclimate.....: POLAR-N CONTINENTAL

Bioclimatic Belt...: LOW SUPRAPOLAR-N LOW HUMID

OSTROV (RUSSIA)

3 m

P= 104 70° 58'N 91° 8'E 25/25 y.
 T= -11.8 ° Ic= 28.4 Tp= 56 Tn= 1466
 m= -29.4 ° M= -21.7 ° Itc= -499 Io= 8.6



POLAR-N CONTINENTAL
 LOW SUPRAPOLAR-N LOW HUMID

WATER INDEX CARD

OSTROV (RUSSIA)

Altitude: 3 m.

Latitude: 70° 58'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-23.9	0	5	5	36	0	0	0	0	*
Feb.	-25.6	0	5	5	41	0	0	0	0	*
Mar.	-23.3	0	5	5	46	0	0	0	0	*
Apr.	-17.2	0	5	5	51	0	0	0	0	*
May.	-8.3	0	5	5	56	0	0	0	0	*
Jun.	0.6	92	10	-56	0	66	26	0	0	-0.8
Jul.	2.8	200	15	0	0	15	185	0	0	-0.9
Aug.	2.2	143	23	0	0	23	120	0	0	-0.8
Sep.	-1.7	0	13	13	13	0	0	0	0	*
Oct.	-8.3	0	10	10	23	0	0	0	0	*
Nov.	-17.2	0	3	3	26	0	0	0	0	*
Dec.	-21.1	0	5	5	31	0	0	0	0	*
Year	-11.8	435	104	*	*	104	331	0	0	*

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

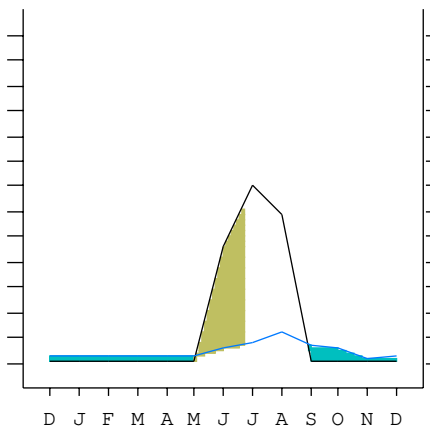
OSTROV (RUSSIA)

70°58'N 91°8'E

3 m 25/25 y.

T= -11.8 Ic= 28.4 POLAR-N CONTINENTAL
 m= -29.4 Tp= 56 LOW SUPRAPOLAR-N
 M= -21.7 Tn= 1466 LOW HUMID
 M' = 18.3 Itc= -499
 m' = -45.6 Io= 8.6
 P= 104 mm ———
 PE= 435 mm ———

Imbibing	28 Aug.
Saturation	
Reserve Use	2 May.
Deficit	21 Jun.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [C3a]
+ Type: C. Continental
+ Subtype: 3. Eucontinental
+ Variant: a. Low
Thermic types [C1.D8]
+ Latitudinal zone: C. Cold
+ Latitudinal belt: 1. Low Polar
+ Thermic type: D. Gelid
+ Thermic subtype: 8. Ultramicrothermic
Bioclimatic types [E3.4b.7b]
+ Macrobioclimate: E. POLAR-N
+ Bioclimate: 3. CONTINENTAL
+ Bioclimatic variant .:
+ Thermic type.....: 4. SUPRAPOLAR-N
+ Thermic subtype.....: b. LOW
+ Ombrothermic type ...: 7. HUMID
+ Ombrothermic subtype : b. LOW
Bioclimatic ClassificationPoco.Spo.Hum.Euc

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 76
Coldest semester of the year.....(Psw): 28
Warmest four months period of the year.....(Pcm1): 61
Following warmest four months period.....(Pcm2): 23
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): 48
Positive precipitation warmest 2 months.....(Pps2): 38
Positive precipitation warmest 1 month.....(Pps1): 15
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	15	48	26

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 2.8
Average coldest month [T].....(Tmin): -25.6
Maximum temp. warmest month [M].....(Tmax): 5.6
Minimum temp. coldest month [m].....(Tmin): -29.4
Absolute Max.temp. warmest month [M'].....(Tamax): 18.3
Absolute Min.temp. coldest month [m'].....(Tamin): -45.6
First warmest contrasted month [M].....(Tcmax): -18.9 (3)
First coldest contrasted month [m].....(Tcmin): -27.8 (3)
Estival temperature.....(Ts): 56
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): 56
Positive temperature warmest 2 months.....(Tps2): 50
Positive temperature warmest 1 month.....(Tps1): 28
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)												
Ultragelid...[M' <=0] (Pf)	o	o	o									o
Hypergelid...[M <=0] (Pf)	o	o	o	o	o				o	o	o	o
Gelid.....[T <=0] (Pf)	o	o	o	o	o				o	o	o	o
Subgelid.....[m <=0] (Pf)	o	o	o	o	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): 4.18
 Mediterranean index of July.[PE/P].....(Im1): 13.36
 Mediterranean index of July & August.....(Im2): 9.03
 Mediterranean index of June, July & August....(Im3): 9.06

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp (x10)	*	*	*	*	*	*	100	150	230	*	*	*
Tp	*	*	*	*	*	*	6	28	22	*	*	*
Io (Iom)	*	*	*	*	*	*	16.7	5.36	10.5	*	*	*
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	*/*			*/*			480 / 56			*/*		
Io (Iot)	*			*			8.571			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 480/56=8.57 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	*	*	*	*	*	100	150	230	*	*	*
Tp [T*10]	*	*	*	*	*	*	6	28	22	*	*	*
Iom [Pp/Tp]	!!	!!	!!	!!	!!	!!	\$\$	536	\$\$!!	!!	!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	* / *			* / *			480 / 56			* / *		
Iot [Pp/Tp]	**			**			857			**		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 28.40
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 30.67
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 34.89
 + Oceanic (20<CI<40)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.15
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: -8.85
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: -59.43
 +
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: -12.48
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -11.30
 +
 Aridity Index of UNEP [I=P/PE]: 0.24
 + Semiarid (0.5>Im>0.2)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 5.09
 + 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	0.03	0.03	0.03	0.06	0.09	0.15	0.09	0.07	0.02	0.03
T-E ratio	0.00	0.00	0.00	0.00	0.00	0.27	1.26	0.99	0.00	0.00	0.00	0.00
Precipitation-effectiveness: 6.77						Temperature-efficiency: 2.52						
Moisture Index [MI=100*(P-PE)/PE]: -76.09 + E.Dry (-110<MI<-66.7)												
Index of dryness [DI=100*d/PE]: 76.09 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 0.00 + No surplus (0<HI<10)												
Potential Evapotranspiration PE: 435.00 + Second microthermic (427<PE<570)												

