Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

EIK (RUS YAKUTSKAYA) Altitude: 304 m.

Latitude: 66°5'N Longitude: 117°40'E
Temperature observation period.: 1940-1960 (21)
Rainfall observation period....: 1940-1965 (26)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	-37.60	-33.80	-42.00	-17.00	-60.00	5.0	0.00
Feb.	-32.30	-27.80	-37.80	-16.00	-61.00	4.0	0.00
Mar.	-23.60	-16.90	-30.90	-3.00	-52.00	5.0	0.00
Apr.	-12.00	-5.40	-19.80	4.00	-48.00	8.0	0.00
May.	-0.20	4.70	-6.20	17.00	-30.00	18.0	0.00
Jun.	11.10	13.10	5.30	26.00	-7.00	37.0	140.50
Jul.	14.80	20.60	8.80	28.00	-4.00	54.0	163.39
Aug.	10.50	16.50	5.40	25.00	-9.00	58.0	107.54
Sep.	2.70	7.30	-1.30	18.00	-17.00	26.0	31.29
Oct.	-10.60	-6.90	-14.60	4.00	-39.00	17.0	0.00
Nov.	-27.40	-23.40	-31.90	-9.00	-53.00	9.0	0.00
Dec.	-35.00	-31.20	-39.80	-15.00	-59.00	5.0	0.00
Year	-11.63	-6.93	-17.07	5.17	-36.58	246	442.72

BIOCLIMATIC INDICES AND DIAGNOSIS

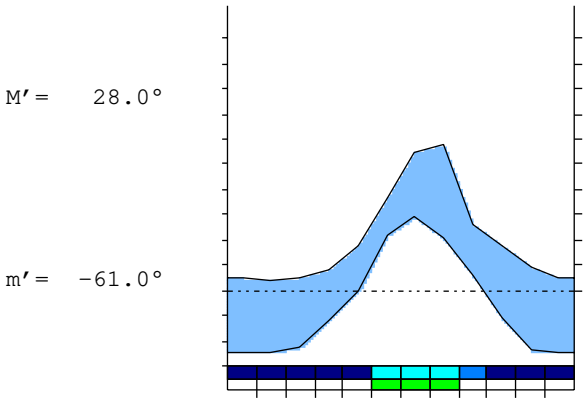
Thermicity index.....(It): -874
Compensated thermicity index.....(Itc): -112
Simple continentality index.....(Ic): 52.4
Diurnality index.....(Id): 14.4
Annual ombrothermic index.....(Io): 4.48
Monthly estival ombrothermic index.....(Ios1): 3.65
Bimonthly estival ombrothermic index.....(Ios2): 3.51
Threemonthly estival ombrothermic index.....(Ios3): 4.09
Fourmonthly estival ombrothermic index.....(Ios4): 4.61
Annual ombro-evaporation index.....(Ioe): 0.56
Annual positive temperature.....(Tp): 391
Annual negative temperature.....(Tn): 1787
Estival temperature.....(Ts): 364
Positive precipitation.....(Pp): 175

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	2	2	0	0	8

Latitudinal Belt...: Low Polar
Continentality.....: Continental - Low Hypercontinental
Bioclimate.....: BOREAL HYPERCONTINENTAL
Bioclimatic Belt...: UPPER OROBOREAL LOW SUBHUMID

EIK (RUS YAKUTSKAYA) 304 m

P= 246 66° 5'N 117° 40'E 21/26 y.
T= -11.6 ° Ic= 52.4 Tp= 391 Tn= 1787
m= -42.0 ° M= -33.8 ° Itc= -112 Io= 4.5



BOREAL HYPERCONTINENTAL
UPPER OROBOREAL LOW SUBHUMID

WATER INDEX CARD EIK (RUS YAKUTSKAYA)
Altitude: 304 m. Latitude: 66° 5'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-37.6	0	5	5	36	0	0	0	0	*
Feb.	-32.3	0	4	4	40	0	0	0	0	*
Mar.	-23.6	0	5	5	45	0	0	0	0	*
Apr.	-12.0	0	8	8	53	0	0	0	0	*
May.	-0.2	0	18	18	71	0	0	0	0	*
Jun.	11.1	140	37	-71	0	108	32	0	0	-0.7
Jul.	14.8	163	54	0	0	54	109	0	0	-0.6
Aug.	10.5	108	58	0	0	58	50	0	0	-0.4
Sep.	2.7	31	26	0	0	26	5	0	0	-0.1
Oct.	-10.6	0	17	17	17	0	0	0	0	*
Nov.	-27.4	0	9	9	26	0	0	0	0	*
Dec.	-35.0	0	5	5	31	0	0	0	0	*
Year	-11.6	443	246	*	*	246	197	0	0	*

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

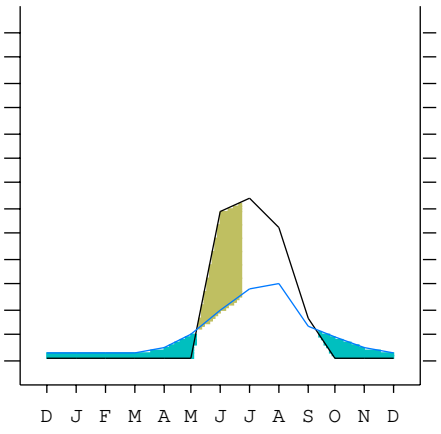
EIK (RUS YAKUTSKAYA)

66°5'N 117°40'E 304 m 21/26 y.

T= -11.6 Ic= 52.4
m= -42.0 Tp= 391
M= -33.8 Tn= 1787
M'= 28.0 Itc= -112
m'= -61.0 Io= 4.5
P= 246 mm
PE= 443 mm

BOREAL HYPERCONTINENTAL
UPPER OROBOREAL
LOW SUBHUMID

Imbibing	8 Sep.
Saturation	
Reserve Use	5 May.
Deficit	21 Jun.



EIK (RUS YAKUTSKAYA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [C4a]
- + Type .....: C. Continental
- + Subtype .....: 4. Hypercontinental
- + 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 [D2.5a.6b]
- + Macrobioclimate .....: D. BOREAL
- + Bioclimate .....: 2. HYPERCONTINENTAL
- + Bioclimatic variant .:
- + Thermic type.....: 5. OROBOREAL
- + Thermic subtype.....: a. UPPER
- + Ombrothermic type ...: 6. SUBHUMID
- + Ombrothermic subtype : b. LOW

Bioclimatic Classification .....Bohc.Obo.Shu.Hco

EIK (RUS YAKUTSKAYA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 210
Coldest semester of the year.....(Psw): 36
Warmest four months period of the year.....(Pcm1): 175
Following warmest four months period.....(Pcm2): 36
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): 149
Positive precipitation warmest 2 months.....(Pps2): 91
Positive precipitation warmest 1 month.....(Pps1): 54
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	14	31	149	52

Seasonal rainfall rhythms: S > F > P > W

EIK (RUS YAKUTSKAYA)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 14.8
Average coldest month [T].....(Tmin): -37.6
Maximum temp. warmest month [M].....(Tmmax): 20.6
Minimum temp. coldest month [m].....(Tmmin): -42.0
Absolute Max.temp. warmest month [M'].....(Tamax): 28.0
Absolute Min.temp. coldest month [m'].....(Tamin): -61.0
First warmest contrasted month [M].....(Tcmax): -5.4 (4)
First coldest contrasted month [m].....(Tcmin): -19.8 (4)
Estival temperature.....(Ts): 364
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): 364
Positive temperature warmest 2 months.....(Tps2): 259
Positive temperature warmest 1 month.....(Tps1): 148
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				
Ultragelid...[M'<=0](Pf)	o	o	o								o	o
Hypergelid...[M <=0](Pf)	o	o	o	o						o	o	o
Gelid.....[T <=0](Pf)	o	o	o	o	o					o	o	o
Subgelid.....[m <=0](Pf)	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)												

EIK (RUS YAKUTSKAYA)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.80
Mediterranean index of July.[PE/P].....(Im1): 3.03
Mediterranean index of July & August.....(Im2): 2.42
Mediterranean index of June, July & August....(Im3): 2.76

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	*	*	*	*	*	*	370	540	580	260	*	*
Tp	*	*	*	*	*	*	111	148	105	27	*	*
Io (Iom)	*	*	*	*	*	*	3.33	3.65	5.52	9.63	*	*
Seasons	Winter			Spring			Summer			Automn		
Pp(x10)/Tp	*/*			*/*			1490 / 364			*/*		
Io (Iot)	*			*			4.093			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1750/391=4.48 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	*	*	*	*	*	370	540	580	260	*	*
Tp [T*10]	*	*	*	*	*	*	111	148	105	27	*	*
Iom [Pp/Tp]	!!	!!	!!	!!	!!	!!	333	365	552	963	!!	!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Automn		
Pp / Tp	* / *			* / *			1490 / 364			* / *		
Iot [Pp/Tp]	**			**			409			**		
Avs E[Avm<200]	***			***			***			***		

EIK (RUS YAKUTSKAYA)

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 52.40
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....: 77.05
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....: 77.77
  + Continental (60<CI<80)
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 2.28
  + Continental (1.7<CI<2.3)
Rainfall Index of Lang (1925) [R=P/T] .....: -21.15
  +
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....:-150.61
  +
I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)] .....: -18.36
  +
I of Dantin & Revenga (1940) [DR=100*T/P] .....: -4.73
  +
Aridity Index of UNEP [I=P/PE] .....: 0.56
  + Subhumid - dry (0.65>I>0.5)
Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 13.67
  + Very low (K<60)

EIK (RUS YAKUTSKAYA)

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BIOCLIMATIC INDICES II

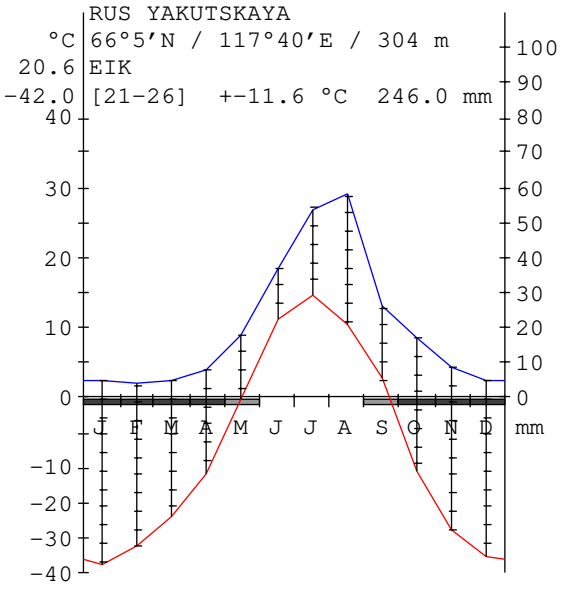
Bioclimatic classification of Gaussen & Bagnouls (1957)
  + Climate ....: B. Cold and temperate cold
  + Region .....: 11. Psicroaxeric (Axeric cold)
  + Thermic type: 8. Ultramicrothermic

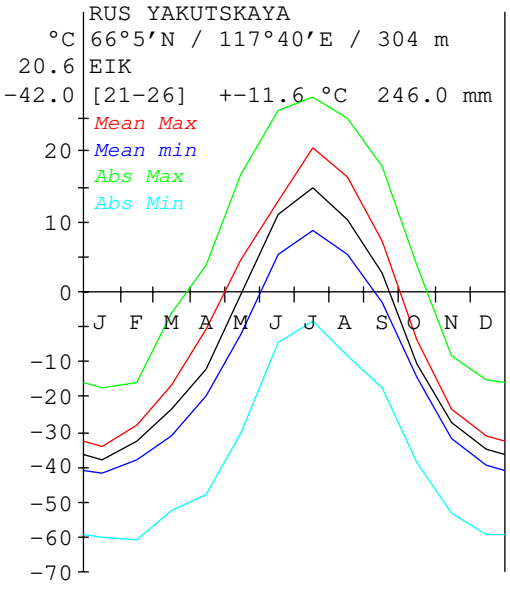
Thornthwaite (1948)

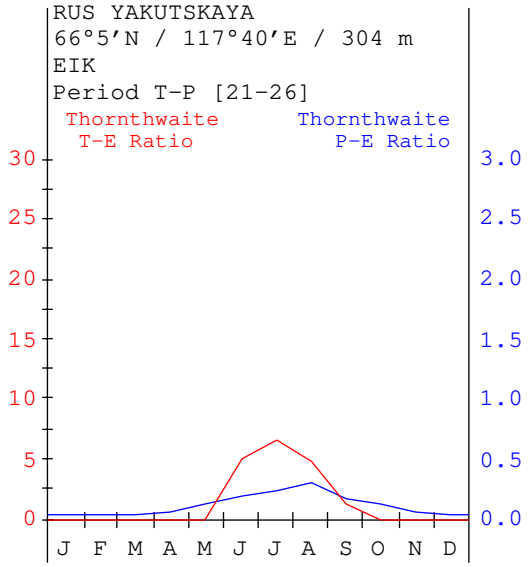
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.03	0.03	0.03	0.06	0.12	0.18	0.24	0.30	0.16	0.13	0.06	0.03
T-E ratio	0.00	0.00	0.00	0.00	0.00	5.00	6.66	4.72	1.22	0.00	0.00	0.00

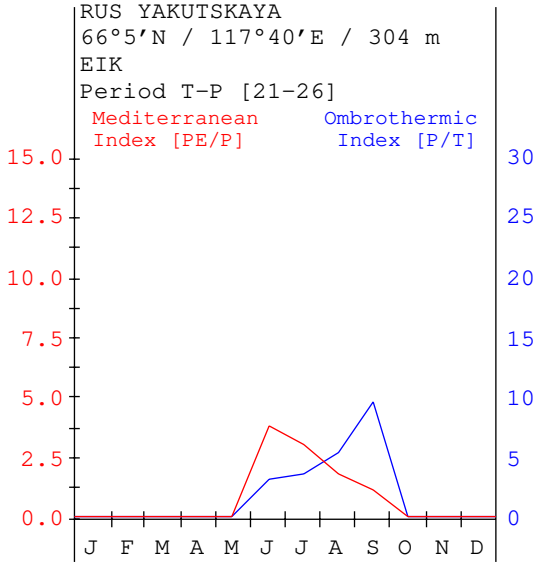
Precipitation-effectiveness: 13.79 Temperature-efficiency ....: 17.60

Moisture Index [MI=100*(P-PE)/PE] .....: -44.43
  + D.Semiarid (-66.7<MI<-33.3)
Index of dryness [DI=100*d/PE] .....: 44.43
  + Strong deficit (33.3<DI)
Index of humidity [HI=100*s/PE] .....: 0.00
  + No surplus (0<HI<10)
Potential Evapotranspiration PE .....: 442.72
  + Second microthermic (427<PE<570)




RUS YAKUTSKAYA
°C 66°5'N / 117°40'E / 304 m
20.6 EIK
-42.0 [21-26] +-11.6 °C 246.0 mm
Mean Max
Mean min
Abs Max
Abs Min
20
10
0
-10
-20
-30
-40
-50
-60
-70
J F M A M J J A S O N D


RUS YAKUTSKAYA
66°5'N / 117°40'E / 304 m
EIK
Period T-P [21-26]
Thornthwaite T-E Ratio
Thornthwaite P-E Ratio
30
25
20
15
10
5
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J F M A M J J A S O N D


RUS YAKUTSKAYA
66°5'N / 117°40'E / 304 m
EIK
Period T-P [21-26]
Mediterranean Index [PE/P]
Ombrothermic Index [P/T]
15.0
12.5
10.0
7.5
5.0
2.5
0.0
30
25
20
15
10
5
0
J F M A M J J A S O N D