

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

JAN MAYEN (NORWAY)

Altitude: 23 m.

Latitude: 70°59'N Longitude: 8°20'W

Temperature observation period.: 1950-1980 (31)

Rainfall observation period....: 1950-1980 (31)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	-3.90	-1.40	-6.30	6.60	-26.60	66.0	0.00
Feb.	-5.00	-2.20	-7.80	6.80	-27.90	47.0	0.00
Mar.	-4.60	-1.80	-7.40	4.80	-24.80	48.0	0.00
Apr.	-3.30	-0.70	-5.80	7.00	-21.40	44.0	0.00
May.	-0.20	1.90	-2.30	9.40	-11.60	25.0	0.00
Jun.	2.70	4.80	0.60	18.10	-4.70	27.0	98.12
Jul.	5.40	7.30	3.50	16.20	-1.60	36.0	144.24
Aug.	5.80	7.70	3.90	15.70	-2.30	54.0	120.82
Sep.	4.00	5.90	2.10	13.40	-5.00	74.0	70.20
Oct.	1.20	3.70	-1.30	11.60	-13.40	75.0	23.44
Nov.	-0.90	1.70	-3.50	10.00	-15.20	67.0	0.00
Dec.	-2.80	-0.20	-5.40	6.80	-22.50	65.0	0.00
Year	-0.13	2.23	-2.47	10.53	-14.75	628	456.82

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-101
Compensated thermicity index.....(Itc):	-101
Simple continentality index.....(Ic):	10.8
Diurnality index.....(Id):	5.6
Annual ombrothermic index.....(Io):	13.93
Monthly estival ombrothermic index.....(Ios1):	9.31
Bimonthly estival ombrothermic index.....(Ios2):	8.04
Threemonthly estival ombrothermic index.....(Ios3):	10.79
Fourmonthly estival ombrothermic index.....(Ios4):	10.67
Annual ombro-evaporation index.....(Ioe):	1.37
Annual positive temperature.....(Tp):	191
Annual negative temperature.....(Tn):	207
Estival temperature.....(Ts):	152
Positive precipitation.....(Pp):	266

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

Latitudinal Belt...: Low Polar

Continentality.....: Hyperoceanic - Low Subhyperoceanic

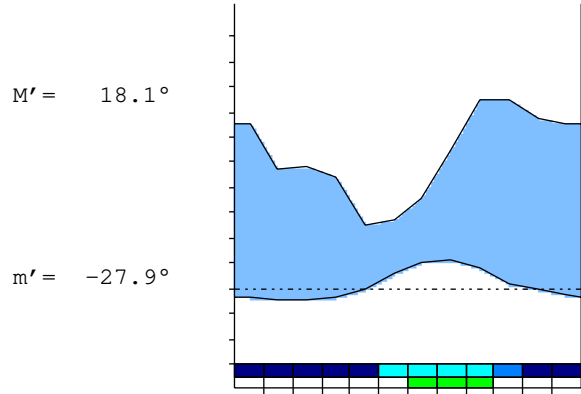
Bioclimate.....: POLAR-N HYPEROCEANIC

Bioclimatic Belt...: LOW MESOPOLAR-N LOW HYPERHUMID

JAN MAYEN (NORWAY)

23 m

P= 628 70° 59'N 8° 20'W 31/31 y.
 T= -0.1 ° Ic= 10.8 Tp= 191 Tn= 207
 m= -7.8 ° M= -2.2 ° Itc= -101 Io= 13.9



POLAR-N HYPEROCEANIC
 LOW MESOPOLAR-N LOW HYPERHUMID

WATER INDEX CARD JAN MAYEN (NORWAY)
 Altitude: 23 m. Latitude: 70° 59'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	-3.9	0	66	0	100	0	0	66	52	*
Feb.	-5.0	0	47	0	100	0	0	47	50	*
Mar.	-4.6	0	48	0	100	0	0	48	49	*
Apr.	-3.3	0	44	0	100	0	0	44	46	*
May.	-0.2	0	25	0	100	0	0	25	36	*
Jun.	2.7	98	27	-71	29	98	0	0	18	-0.7
Jul.	5.4	144	36	-29	0	65	79	0	9	-0.7
Aug.	5.8	121	54	0	0	54	67	0	4	-0.5
Sep.	4.0	70	74	4	4	70	0	0	2	0.0
Oct.	1.2	23	75	52	55	23	0	0	1	2.1
Nov.	-0.9	0	67	45	100	0	0	22	12	*
Dec.	-2.8	0	65	0	100	0	0	65	38	*
Year	-0.1	457	628	*	*	311	146	317	317	*

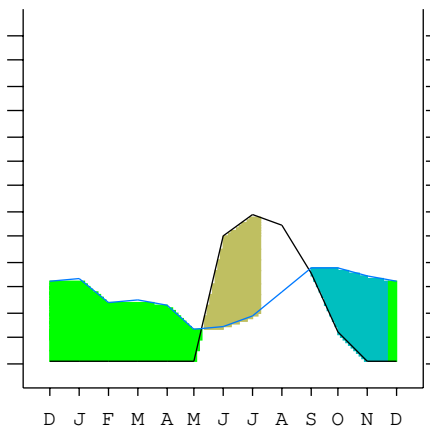
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

JAN MAYEN (NORWAY)

70°59'N 8°20'W 23 m 31/31 y.

T= -0.1 Ic= 10.8 POLAR-N HYPEROCEANIC
 m= -7.8 Tp= 191 LOW MESOPOLAR-N
 M= -2.2 Tn= 207 LOW HYPERHUMID
 M' = 18.1 Itc= -101
 m' = -27.9 Io= 13.9
 P= 628 mm ———
 PE= 457 mm ———

Imbibing	29 Aug.
Saturation	20 Nov.
Reserve Use	8 May.
Deficit	9 Jul.



JAN MAYEN (NORWAY)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low

Thermic types [C1.D8]
 + Latitudinal zone: C. Cold
 + Latitudinal belt: 1. Low Polar
 + Thermic type: D. Gelid
 + Thermic subtype: 8. Ultramicrothermic

Bioclimatic types [E5.3b.8b]
 + Macrobioclimate: E. POLAR-N
 + Bioclimate: 5. HYPEROCEANIC
 + Bioclimatic variant .:
 + Thermic type.....: 3. MESOPOLAR-N
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 8. HYPERHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic ClassificationPoho.Mpo.Hhu.Sho

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 291
 Coldest semester of the year.....(Psw): 337
 Warmest four months period of the year.....(Pcm1): 191
 Following warmest four months period.....(Pcm2): 273
 Positive precipitation dryest 3 months.....(Ppd): 63
 Positive precipitation dryest 2 months.....(Ppd2): 27
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 164
 Positive precipitation warmest 2 months.....(Pps2): 90
 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	178	117	117	216

Seasonal rainfall rhythms: F > W > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 5.8
 Average coldest month [T].....(Tmin): -5.0
 Maximum temp. warmest month [M].....(Tmax): 7.7
 Minimum temp. coldest month [m].....(Tmin): -7.8
 Absolute Max.temp. warmest month [M'].....(Tamax): 18.1
 Absolute Min.temp. coldest month [m'].....(Tamin): -27.9
 First warmest contrasted month [M].....(Tcmax): -2.2 (2)
 First coldest contrasted month [m].....(Tcmin): -7.8 (2)
 Estival temperature.....(Ts): 152
 Positive temperature dryest 3 months.....(Tpd): 81
 Positive temperature dryest 2 months.....(Tpd2): 27
 Positive temperature dryest 1 month.....(Tpd1): 0
 Positive temperature warmest 3 months.....(Tps): 152
 Positive temperature warmest 2 months.....(Tps2): 112
 Positive temperature warmest 1 month.....(Tps1): 58
 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)												
Hypergelid...[M <=0] (Pf)	o	o	o	o								o
Gelid.....[T <=0] (Pf)	o	o	o	o	o						o	o
Subgelid.....[m <=0] (Pf)	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): 0.73
 Mediterranean index of July.[PE/P].....(Im1): 4.01
 Mediterranean index of July & August.....(Im2): 2.95
 Mediterranean index of June, July & August....(Im3): 3.10

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	*	*	*	*	*	*	270	360	540	740	750	*
Tp	*	*	*	*	*	*	27	54	58	40	12	*
Io (Iom)	*	*	*	*	*	*	10.00	6.67	9.31	18.5	62.5	*
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	*/*			*/*			1170 / 139			*/*		
Io (Iot)	*			*			8.417			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 2660/191=13.93 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	*	*	*	*	*	*	270	360	540	740	750	*
Tp [T*10]	*	*	*	*	*	*	27	54	58	40	12	*
Iom [Pp/Tp]	!!	!!	!!	!!	!!	!!	\$\$	667	931	\$\$	\$\$!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	* / *			* / *			1170 / 139			* / *		
Iot [Pp/Tp]	**			**			842			**		
Avs E[Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 10.80
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: -0.98
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 4.59
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.44
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]:-4710.00
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 63.65
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]:-40515.97
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -0.02
 +
 Aridity Index of UNEP [I=P/PE]: 1.37
 + Humid (I>0.65)
 Potencial Erosion I of Fournier (1960) [K=Pi²/P].....: 8.96
 + 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	0.58	0.40	0.40	0.37	0.18	0.17	0.21	0.33	0.50	0.57	0.55	0.57
T-E ratio	0.00	0.00	0.00	0.00	0.00	1.22	2.43	2.61	1.80	0.54	0.00	0.00
Precipitation-effectiveness: 48.22						Temperature-efficiency: 8.60						
Moisture Index [MI=100*(P-PE)/PE]: 37.47 + B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]: 31.98 + Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]: 69.46 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 456.82 + Second microthermic (427<PE<570)												

