

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

SIDUMULI (ICELAND)

Altitude: 78 m.

Latitude: 64°43'N Longitude: 21°22'W

Temperature observation period.: 1991-1994 (4)

Rainfall observation period....: 1991-1994 (4)

| (C/mm) | Ti | Mi | mi | M'i | m'i | Pi | EPi |
|--------|-------|-------|-------|-------|--------|-------|--------|
| Jan. | -2.78 | -0.56 | -5.00 | 7.78 | -16.67 | 40.4 | 0.00 |
| Feb. | -1.67 | 0.56 | -3.89 | 10.00 | -13.33 | 59.7 | 0.00 |
| Mar. | -1.11 | 1.67 | -3.89 | 10.00 | -13.89 | 53.9 | 0.00 |
| Apr. | 3.06 | 5.56 | 0.56 | 12.22 | -6.67 | 74.9 | 38.59 |
| May. | 5.83 | 9.44 | 2.22 | 16.67 | -8.89 | 43.9 | 78.35 |
| Jun. | 8.61 | 12.22 | 5.00 | 17.78 | -2.78 | 63.0 | 113.07 |
| Jul. | 10.84 | 15.00 | 6.67 | 23.89 | 0.00 | 39.1 | 127.74 |
| Aug. | 10.28 | 13.33 | 7.22 | 20.56 | -1.67 | 117.1 | 103.15 |
| Sep. | 7.22 | 10.00 | 4.44 | 15.00 | -2.22 | 77.7 | 61.06 |
| Oct. | 2.22 | 4.44 | 0.00 | 11.67 | -8.89 | 74.4 | 20.14 |
| Nov. | -0.28 | 1.67 | -2.22 | 10.00 | -11.67 | 50.5 | 0.00 |
| Dec. | 0.28 | 2.22 | -1.67 | 7.78 | -14.44 | 53.3 | 1.42 |
| Year | 3.54 | 6.30 | 0.79 | 13.61 | -8.43 | 748 | 543.52 |

BIOCLIMATIC INDICES AND DIAGNOSIS

| | |
|---|-------|
| Thermicity index.....(It): | -20 |
| Compensated thermicity index.....(Itc): | -20 |
| Simple continentality index.....(Ic): | 13.6 |
| Diurnality index.....(Id): | 8.3 |
| Annual ombrothermic index.....(Io): | 11.24 |
| Monthly estival ombrothermic index.....(Ios1): | 3.61 |
| Bimonthly estival ombrothermic index.....(Ios2): | 7.40 |
| Threemonthly estival ombrothermic index.....(Ios3): | 7.37 |
| Fourmonthly estival ombrothermic index.....(Ios4): | 7.40 |
| Annual ombro-evaporation index.....(Ioe): | 1.25 |
| Annual positive temperature.....(Tp): | 483 |
| Annual negative temperature.....(Tn): | 58 |
| Estival temperature.....(Ts): | 297 |
| Positive precipitation.....(Pp): | 543 |

| N. of | P>4T | P:2T-4T | PT-2T | P<T | T<0 |
|--------|------|---------|-------|-----|-----|
| Months | 7 | 1 | 0 | 0 | 4 |

Latitudinal Belt...: High subtemperate

Continentalty.....: Oceanic - Low Semihyperoceanic

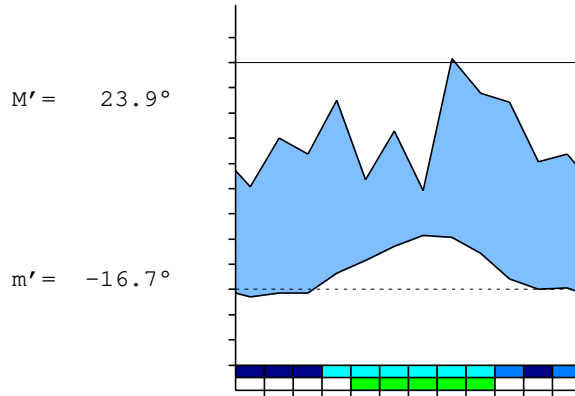
Bioclimate.....: BOREAL OCEANIC

Bioclimatic Belt...: UPPER SUPRABOREAL UPPER HUMID

SIDUMULI (ICELAND)

78 m

P= 748 64° 43'N 21° 22'W 4/4 y.
 T= 3.5° Ic= 13.6 Tp= 483 Tn= 58
 m= -5.0° M= -0.6° Itc= -20 Io= 11.2



BOREAL OCEANIC
 UPPER SUPRABOREAL UPPER HUMID

WATER INDEX CARD SIDUMULI (ICELAND)
 Altitude: 78 m. Latitude: 64° 43'N

| (C/mm) | T | PE | P | VR | R | RE | DF | SP | DR | HC |
|--------|------|-----|-----|-----|-----|-----|----|-----|-----|------|
| Jan. | -2.8 | 0 | 40 | 0 | 100 | 0 | 0 | 40 | 38 | * |
| Feb. | -1.7 | 0 | 60 | 0 | 100 | 0 | 0 | 60 | 49 | * |
| Mar. | -1.1 | 0 | 54 | 0 | 100 | 0 | 0 | 54 | 51 | * |
| Apr. | 3.1 | 39 | 75 | 0 | 100 | 39 | 0 | 36 | 44 | 0.9 |
| May. | 5.8 | 78 | 44 | -34 | 66 | 78 | 0 | 0 | 22 | -0.4 |
| Jun. | 8.6 | 113 | 63 | -50 | 15 | 113 | 0 | 0 | 11 | -0.4 |
| Jul. | 10.8 | 128 | 39 | -15 | 0 | 55 | 73 | 0 | 5 | -0.6 |
| Aug. | 10.3 | 103 | 117 | 14 | 14 | 103 | 0 | 0 | 3 | 0.1 |
| Sep. | 7.2 | 61 | 78 | 17 | 31 | 61 | 0 | 0 | 1 | 0.2 |
| Oct. | 2.2 | 20 | 74 | 54 | 85 | 20 | 0 | 0 | 1 | 2.6 |
| Nov. | -0.3 | 0 | 51 | 15 | 100 | 0 | 0 | 35 | 18 | * |
| Dec. | 0.3 | 1 | 53 | 0 | 100 | 1 | 0 | 52 | 35 | 36.5 |
| Year | 3.5 | 544 | 748 | * | * | 470 | 73 | 278 | 278 | * |

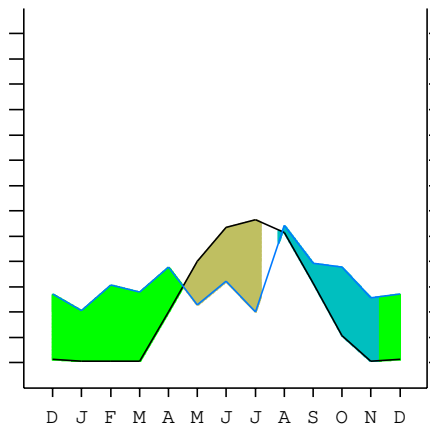
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

SIDUMULI (ICELAND)

64°43'N 21°22'W 78 m 4/4 y.

T= 3.5 Ic= 13.6 BOREAL OCEANIC
 m= -5.0 Tp= 483 UPPER SUPRABOREAL
 M= -0.6 Tn= 58 UPPER HUMID
 M' = 23.9 Itc= -20
 m' = -16.7 Io= 11.2
 P= 748 mm ———
 PE= 544 mm ———

| | |
|-------------|---------|
| Imbibing | 26 Jul. |
| Saturation | 9 Nov. |
| Reserve Use | 16 Apr. |
| Deficit | 6 Jul. |



SIDUMULI (ICELAND)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1b]
 + Type: B. Oceanic
 + Subtype: 1. Semihyperoceanic
 + Variant: b. Low
 Thermic types [B2.C6]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 2. High subtemperate
 + Thermic type: C. Cold
 + Thermic subtype: 6. Cool
 Bioclimatic types [D5.4a.7a]
 + Macrobioclimate: D. BOREAL
 + Bioclimate: 5. OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 4. SUPRABOREAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Bohc.Obo.Hum

SIDUMULI (ICELAND)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 416
 Coldest semester of the year.....(Psw): 332
 Warmest four months period of the year.....(Pcm1): 297
 Following warmest four months period.....(Pcm2): 219
 Positive precipitation dryest 3 months.....(Ppd): 53
 Positive precipitation dryest 2 months.....(Ppd2): 53
 Positive precipitation dryest 1 month.....(Ppd1): 39
 Positive precipitation warmest 3 months.....(Pps): 219
 Positive precipitation warmest 2 months.....(Pps2): 156
 Positive precipitation warmest 1 month.....(Pps1): 39
 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 | 153 | 172 | 219 | 202 |

Seasonal rainfall rhythms: S > F > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 10.8
 Average coldest month [T].....(Tmin): -2.8
 Maximum temp. warmest month [M].....(Tmmax): 15.0
 Minimum temp. coldest month [m].....(Tmmin): -5.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 23.9
 Absolute Min.temp. coldest month [m'].....(Tamin): -16.7
 First warmest contrasted month [M].....(Tcmax): 15.0 (7)
 First coldest contrasted month [m].....(Tcmin): 6.7 (7)
 Estival temperature.....(Ts): 297
 Positive temperature dryest 3 months.....(Tpd): 3
 Positive temperature dryest 2 months.....(Tpd2): 3
 Positive temperature dryest 1 month.....(Tpd1): 108
 Positive temperature warmest 3 months.....(Tps): 297
 Positive temperature warmest 2 months.....(Tps2): 211
 Positive temperature warmest 1 month.....(Tps1): 108
 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) | | | | | | | | | | | | |
| Hypergelid...[M <=0] (Pf) | o | | | | | | | | | | | |
| Gelid.....[T <=0] (Pf) | o | o | o | | | | | | | | o | |
| Subgelid.....[m <=0] (Pf) | 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): 3.27
 Mediterranean index of July & August.....(Im2): 1.48
 Mediterranean index of June, July & August....(Im3): 1.57

| Months | Dec. | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. |
|------------|--------------|------|------|--------|------|------|---------------|------|------|--------|------|------|
| Pp(x10) | 533 | * | * | * | 749 | 439 | 630 | 391 | 1171 | 777 | 744 | * |
| Tp | 3 | * | * | * | 31 | 58 | 86 | 108 | 103 | 72 | 22 | * |
| Io (Iom) | 190 | * | * | * | 24.5 | 7.53 | 7.32 | 3.61 | 11.4 | 10.8 | 33.5 | * |
| Seasons | Winter | | | Spring | | | Summer | | | Autumn | | |
| Pp(x10)/Tp | */* | | | */* | | | 2192 / 297 | | | */* | | |
| Io (Iot) | * | | | * | | | 7.373 | | | * | | |
| Semesters | December-May | | | | | | June-November | | | | | |
| Pp(x10)/Tp | */* | | | | | | */* | | | | | |
| Io (Iosm) | * | | | | | | * | | | | | |

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5434/483=11.24 **There is No Yearly Aridity**

| Months | Dec. | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. |
|----------------|--------|------|------|--------|------|------|------------|------|------|--------|------|------|
| Pp [P*10] | 533 | * | * | * | 749 | 439 | 630 | 391 | 1171 | 777 | 744 | * |
| Tp [T*10] | 3 | * | * | * | 31 | 58 | 86 | 108 | 103 | 72 | 22 | * |
| Iom [Pp/Tp] | \$\$ | !! | !! | !! | \$\$ | 753 | 732 | 361 | \$\$ | \$\$ | \$\$ | !! |
| Avm [200-Iom] | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Seasons | Winter | | | Spring | | | Summer | | | Autumn | | |
| Pp / Tp | * / * | | | * / * | | | 2192 / 297 | | | * / * | | |
| Iot [Pp/Tp] | ** | | | ** | | | 737 | | | ** | | |
| Avs E[Avm<200] | *** | | | *** | | | *** | | | *** | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 13.62
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 5.21
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 10.00
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.60
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 211.17
 + Humid (R>160)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 55.23
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 373.95
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 0.47
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.38
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 18.33
 + 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: 6. Microthermic

| Thornthwaite (1948) | | | | | | | | | | | | |
|---|------|------|------|------|------|-------------------------------------|------|------|------|------|------|------|
| | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
| P-E ratio | 0.33 | 0.51 | 0.44 | 0.52 | 0.26 | 0.35 | 0.19 | 0.66 | 0.46 | 0.54 | 0.39 | 0.41 |
| T-E ratio | 0.00 | 0.00 | 0.00 | 1.38 | 2.62 | 3.87 | 4.88 | 4.63 | 3.25 | 1.00 | 0.00 | 0.13 |
| Precipitation-effectiveness: 50.67 | | | | | | Temperature-efficiency: 21.75 | | | | | | |
| Moisture Index [MI=100*(P-PE)/PE]: 37.60 + B1.Humid low-humid (20<MI<40) | | | | | | | | | | | | |
| Index of dryness [DI=100*d/PE]: 13.45 + No deficit (0<DI<16.7) | | | | | | | | | | | | |
| Index of humidity [HI=100*s/PE]: 51.06 + Strong surplus (20<HI) | | | | | | | | | | | | |
| Potential Evapotranspiration PE: 543.52 + Second microthermic (427<PE<570) | | | | | | | | | | | | |

