

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

PROSERPINE (AUSTRALIA)

Altitude: 23 m.

Latitude: 20°30'S Longitude: 148°33'E

Temperature observation period.: 1963-1994 (32)

Rainfall observation period....: 1964-1994 (31)

| (C/mm) | Ti | Mi | mi | M'i | m'i | Pi | Epi |
|--------|-------|-------|-------|-------|-------|-------|--------|
| Jan. | 26.67 | 30.00 | 23.33 | 37.78 | 16.67 | 359.2 | 157.39 |
| Feb. | 26.11 | 29.44 | 22.78 | 37.22 | 15.56 | 379.2 | 130.52 |
| Mar. | 25.28 | 28.89 | 21.67 | 36.11 | 13.33 | 299.0 | 125.96 |
| Apr. | 23.33 | 27.22 | 19.44 | 33.33 | 9.44 | 140.2 | 94.37 |
| May. | 20.27 | 24.44 | 16.11 | 31.67 | 6.11 | 88.6 | 64.04 |
| Jun. | 17.77 | 22.22 | 13.33 | 30.00 | 0.56 | 78.7 | 43.51 |
| Jul. | 16.67 | 21.67 | 11.67 | 28.89 | 1.11 | 41.7 | 38.04 |
| Aug. | 17.78 | 22.78 | 12.78 | 30.00 | 3.89 | 42.2 | 47.88 |
| Sep. | 20.28 | 25.00 | 15.56 | 32.78 | 6.67 | 42.4 | 67.50 |
| Oct. | 23.06 | 27.22 | 18.89 | 34.44 | 8.89 | 41.1 | 102.87 |
| Nov. | 24.73 | 28.89 | 20.56 | 35.56 | 13.33 | 60.5 | 123.47 |
| Dec. | 26.11 | 30.00 | 22.22 | 36.67 | 15.56 | 172.2 | 150.10 |
| Year | 22.34 | 26.48 | 18.19 | 33.70 | 9.26 | 1745 | 1145.6 |

BIOCLIMATIC INDICES AND DIAGNOSIS

| | |
|--|------|
| Thermicity index.....(It): | 557 |
| Compensated thermicity index.....(Itc): | 557 |
| Simple continentality index.....(Ic): | 10.0 |
| Diurnality index.....(Id): | 10.0 |
| Annual ombrothermic index.....(Io): | 6.51 |
| Monthly dry ombrothermic index.....(Iod1): | 1.78 |
| Bimonthly dry ombrothermic index.....(Iod2): | 1.93 |
| Three monthly dry ombrothermic index.....(Iod3): | 2.06 |
| Four monthly dry ombrothermic index.....(Iod4): | 2.15 |
| Annual ombro-evaporation index.....(Ioe): | 4.21 |
| Annual positive temperature.....(Tp): | 2681 |
| Annual negative temperature.....(Tn): | 0 |
| Dry station temperature.....(Td): | 611 |
| Positive precipitation.....(Pp): | 1745 |

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

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Subhyperoceanic

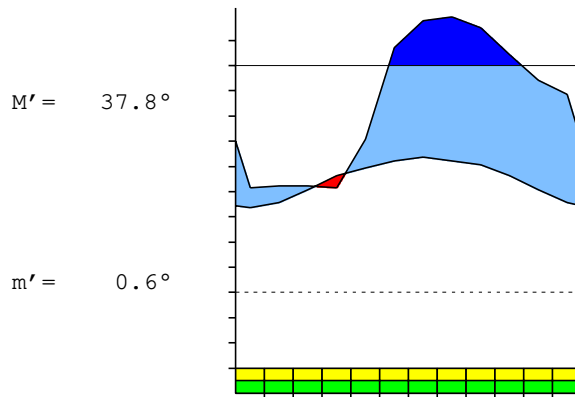
Bioclimate(Variant): TROPICAL PLUVISEASONAL (MESOPHYTIC)

Bioclimatic Belt...: UPPER THERMOTROPICAL LOW HUMID

PROSERPINE (AUSTRALIA)

23 m

P= 1745 20° 30' S 148° 33' E 32/31 y.
 T= 22.3° Ic= 10.0 Tp= 2681 Tn= 0
 m= 11.7° M= 21.7° Itc= 557 Io= 6.5



TROPICAL PLUVISEASONAL (MESOPHYTIC)
 UPPER THERMOTROPICAL LOW HUMID

WATER INDEX CARD PROSERPINE (AUSTRALIA)
 Altitude: 23 m. Latitude: 20° 30' S

| (C/mm) | T | PE | P | VR | R | RE | DF | SP | DR | HC |
|--------|------|------|------|-----|-----|------|----|-----|-----|------|
| Jul. | 16.7 | 38 | 42 | 0 | 100 | 38 | 0 | 4 | 27 | 0.0 |
| Aug. | 17.8 | 48 | 42 | -6 | 94 | 48 | 0 | 0 | 13 | -0.1 |
| Sep. | 20.3 | 67 | 42 | -25 | 69 | 67 | 0 | 0 | 7 | -0.3 |
| Oct. | 23.1 | 103 | 41 | -62 | 7 | 103 | 0 | 0 | 3 | -0.6 |
| Nov. | 24.7 | 123 | 61 | -7 | 0 | 68 | 56 | 0 | 2 | -0.5 |
| Dec. | 26.1 | 150 | 172 | 22 | 22 | 150 | 0 | 0 | 1 | 0.1 |
| Jan. | 26.7 | 157 | 359 | 78 | 100 | 157 | 0 | 124 | 62 | 1.2 |
| Feb. | 26.1 | 131 | 379 | 0 | 100 | 131 | 0 | 249 | 156 | 1.9 |
| Mar. | 25.3 | 126 | 299 | 0 | 100 | 126 | 0 | 173 | 164 | 1.3 |
| Apr. | 23.3 | 94 | 140 | 0 | 100 | 94 | 0 | 46 | 105 | 0.4 |
| May. | 20.3 | 64 | 89 | 0 | 100 | 64 | 0 | 25 | 65 | 0.3 |
| Jun. | 17.8 | 44 | 79 | 0 | 100 | 44 | 0 | 35 | 50 | 0.8 |
| Year | 22.3 | 1146 | 1745 | * | * | 1090 | 56 | 655 | 655 | * |

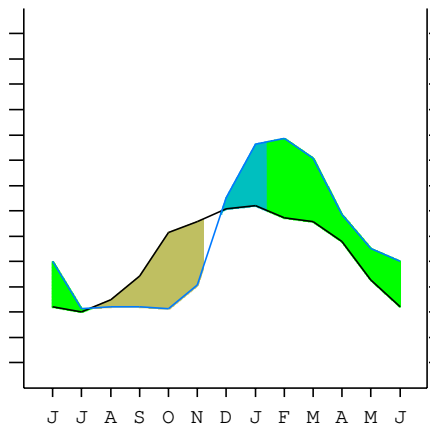
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

PROSERPINE (AUSTRALIA)

20°30' S 148°33' E 23 m 32/31 y.

T= 22.3 Ic= 10.0 TROPICAL PLUVISEASONAL (MESOPHYTIC)
 m= 11.7 Tp= 2681 UPPER THERMOTROPICAL
 M= 21.7 Tn= 0 LOW HUMID
 M' = 37.8 Itc= 557
 m' = 0.6 Io= 6.5
 P= 1745 mm ———
 PE= 1146 mm ———

| | |
|-------------|---------|
| Imbibing | 23 Nov. |
| Saturation | 12 Jan. |
| Reserve Use | 12 Jul. |
| Deficit | 4 Nov. |



PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3a]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: a. High
 Thermic types [A2.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A4.2a.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde.Ttr.Hum

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1410
 Coldest semester of the year.....(Psw): 335
 Warmest four months period of the year.....(Pcm1): 1210
 Following warmest four months period.....(Pcm2): 349
 Positive precipitation dryest 3 months.....(Ppd): 126
 Positive precipitation dryest 2 months.....(Ppd2): 84
 Positive precipitation dryest 1 month.....(Ppd1): 41
 Positive precipitation warmest 3 months.....(Pps): 911
 Positive precipitation warmest 2 months.....(Pps2): 738
 Positive precipitation warmest 1 month.....(Pps1): 359
 Positive precipitation coldest 3 months.....(Ppw): 163
 Positive precipitation coldest 2 months.....(Ppw2): 120
 Positive precipitation coldest 1 month.....(Ppw1): 42

| Seasons | Jun+Jul+Aug Ttr3-3 | Sep+Oct+Nov Ttr4-4 | Dec+Jan+Feb Ttr1-1 | Mar+Apr+May Ttr2-2 |
|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rainfall | 162 | 144 | 910 | 527 |

Tropical rainfall rhythms: 1 > 2 > 3 > 4

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.7
 Average coldest month [T].....(Tmin): 16.7
 Maximum temp. warmest month [M].....(Tmmax): 30.0
 Minimum temp. coldest month [m].....(Tmmin): 11.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 37.8
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.6
 First warmest contrasted month [M].....(Tcmax): 21.7 (7)
 First coldest contrasted month [m].....(Tcmin): 11.7 (7)
 Dry station temperature.....(Td): 611
 Positive temperature dryest 3 months.....(Tpd): 611
 Positive temperature dryest 2 months.....(Tpd2): 433
 Positive temperature dryest 1 month.....(Tpd1): 231
 Positive temperature warmest 3 months.....(Tps): 789
 Positive temperature warmest 2 months.....(Tps2): 528
 Positive temperature warmest 1 month.....(Tps1): 267
 Positive temperature coldest 3 months.....(Tpw): 522
 Positive temperature coldest 2 months.....(Tpw2): 344
 Positive temperature coldest 1 month.....(Tpw1): 167

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

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 | o | o | o | o | o | o | o |
| Ultragelid...[M' <=0] (Pf) | | | | | | | | | | | | |
| Hypergelid...[M <=0] (Pf) | | | | | | | | | | | | |
| Gelid.....[T <=0] (Pf) | | | | | | | | | | | | |
| Subgelid.....[m <=0] (Pf) | | | | | | | | | | | | |
| Pregelid.....[m' <=0] (Pf) | | | | | | | | | | | | |
| Agelid.....[m' > 0] (Pf) | o | o | o | o | o | o | o | o | o | o | o | o |
| HiperAgelid..[all>0] (Pf) | o | o | o | o | o | o | o | o | o | o | o | o |

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.66
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February.....(Im2): No
 Mediterranean index of December to February...(Im3): No

| Months | Dec. | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. |
|------------|--------------|------|------|-------------|------|------|---------------|------|------|-------------|------|------|
| Pp(x10) | 1722 | 3592 | 3792 | 2990 | 1402 | 886 | 787 | 417 | 422 | 424 | 411 | 605 |
| Tp | 261 | 267 | 261 | 253 | 233 | 203 | 178 | 167 | 178 | 203 | 231 | 247 |
| Io (Iom) | 6.60 | 13.5 | 14.5 | 11.8 | 6.01 | 4.37 | 4.43 | 2.50 | 2.37 | 2.09 | 1.78 | 2.45 |
| Seasons | Dec+Jan+Feb | | | Mar+Apr+May | | | Jun+Jul+Aug | | | Sep+Oct+Nov | | |
| Pp(x10)/Tp | 9106 / 789 | | | 5278 / 689 | | | 1626 / 522 | | | 1440 / 681 | | |
| Io (Iot) | 11.54 | | | 7.663 | | | 3.114 | | | 2.115 | | |
| Semesters | December-May | | | | | | June-November | | | | | |
| Pp(x10)/Tp | 14384 / 1478 | | | | | | 3066 / 1203 | | | | | |
| Io (Iosm) | 9.734 | | | | | | 2.549 | | | | | |

PROSERPINE (AUSTRALIA)

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 17450/2681=6.51 **There is No Yearly Aridity**

| Months | Dec. | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. |
|-------------------------|-------------|--------|--------|-------------|------|------|-------------|------|------|-------------|------|------|
| Pp [P*10] | 1722 | 3592 | 3792 | 2990 | 1402 | 886 | 787 | 417 | 422 | 424 | 411 | 605 |
| Tp [T*10] | 261 | 267 | 261 | 253 | 233 | 203 | 178 | 167 | 178 | 203 | 231 | 247 |
| Iom [Pp/Tp] | 660 | \$\$\$ | \$\$\$ | \$\$\$ | 601 | 437 | 443 | 250 | 237 | 209 | 178 | 245 |
| Avm [200-Iom] | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | 22 | *** |
| Seasons | Dec+Jan+Feb | | | Mar+Apr+May | | | Jun+Jul+Aug | | | Sep+Oct+Nov | | |
| Pp / Tp | 9106 / 789 | | | 5278 / 689 | | | 1626 / 522 | | | 1440 / 681 | | |
| Iot [Pp/Tp] | 1154 | | | 766 | | | 311 | | | 212 | | |
| Avs E[Avm<200] | *** | | | *** | | | *** | | | *** | | |
| Weak upper semiarid [1] | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 10.00
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 28.14
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 19.50
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.28
 + Subcontinental (1.1<CI<1.7)
 Rainfall Index of Lang (1925) [R=P/T]: 78.12
 + Temperate warm (100>R>60)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 53.96
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 228.46
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.28
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.52
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 82.40
 + Low (60<K<90)

PROSERPINE (AUSTRALIA)

Latitude: 20°30'S Longitude: 148°33'E Altitude: 23 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 2. Macrothermic

| Thornthwaite (1948) | | | | | | | | | | | | |
|--|-------|-------|-------|-------|------|------|--------------------------------------|------|------|-------|-------|-------|
| | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
| P-E ratio | 1.47 | 1.58 | 1.24 | 0.56 | 0.36 | 0.34 | 0.17 | 0.17 | 0.16 | 0.14 | 0.21 | 0.66 |
| T-E ratio | 12.00 | 11.75 | 11.38 | 10.50 | 9.12 | 8.00 | 7.50 | 8.00 | 9.13 | 10.38 | 11.13 | 11.75 |
| Precipitation-effectiveness: | 70.65 | | | | | | Temperature-efficiency: 120.63 | | | | | |
| Moisture Index [MI=100*(P-PE)/PE]: 52.32 + B2.Humid medium-humid (40<MI<60) | | | | | | | | | | | | |
| Index of dryness [DI=100*d/PE]: 4.84 + No deficit (0<DI<16.7) | | | | | | | | | | | | |
| Index of humidity [HI=100*s/PE]: 57.16 + Strong surplus (20<HI) | | | | | | | | | | | | |
| Potential Evapotranspiration PE: 1145.64 + Forth mesothermic (997<PE<1440) | | | | | | | | | | | | |

