

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

TRINDADE -ILHA- (BRAZIL) Altitude: 4 m.

Latitude: 20°30'S Longitude: 29°19'W

Temperature observation period.: 1967-1993 (27)

Rainfall observation period....: 1967-1990 (24)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	27.13	30.18	24.33	0.00	0.00	61.8	161.63
Feb.	27.82	30.91	24.74	0.00	0.00	56.7	146.07
Mar.	27.68	30.76	24.59	0.00	0.00	75.9	152.19
Apr.	26.87	29.73	23.88	0.00	0.00	80.8	134.31
May.	25.64	29.23	22.08	0.00	0.00	82.5	114.86
Jun.	24.30	27.00	21.80	0.00	0.00	53.0	91.96
Jul.	23.08	27.10	19.30	0.00	0.00	65.5	79.97
Aug.	22.91	24.85	20.95	0.00	0.00	46.3	83.00
Sep.	23.09	24.59	21.66	0.00	0.00	68.6	85.20
Oct.	23.79	25.38	22.13	0.00	0.00	88.7	102.61
Nov.	25.07	27.33	22.78	0.00	0.00	79.3	122.25
Dec.	26.20	29.03	23.18	0.00	0.00	53.9	149.45
Year	25.30	28.01	22.62	0.00	0.00	813	1423.5

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	711
Compensated thermicity index.....(Itc):	711
Simple continentality index.....(Ic):	4.9
Diurnality index.....(Id):	7.8
Annual ombrothermic index.....(Io):	2.68
Monthly dry ombrothermic index.....(Iod1):	2.02
Bimonthly dry ombrothermic index.....(Iod2):	2.43
Threemonthly dry ombrothermic index.....(Iod3):	2.34
Fourmonthly dry ombrothermic index.....(Iod4):	2.58
Annual ombro-evaporation index.....(Ioe):	0.57
Annual positive temperature.....(Tp):	3036
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	703
Positive precipitation.....(Pp):	813

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	0	12	0	0	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Euhyperoceanic

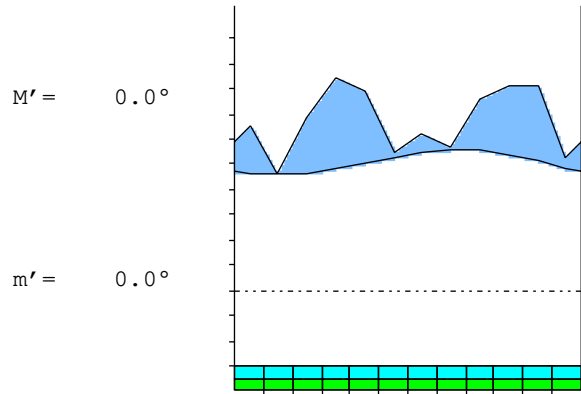
Bioclimate(Variant): TROPICAL XERIC (DRY)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW DRY

TRINDADE -ILHA- (BRAZIL)

4 m

P= 813 20° 30'S 29° 19'W 27/24 y.
 T= 25.3 ° Ic= 4.9 Tp= 3036 Tn= 0
 m= 21.0 ° M= 24.9 ° Itc= 711 Io= 2.7



TROPICAL XERIC (DRY)
 UPPER INFRATROPICAL LOW DRY

WATER INDEX CARD TRINDADE -ILHA- (BRAZIL)
 Altitude: 4 m. Latitude: 20° 30'S

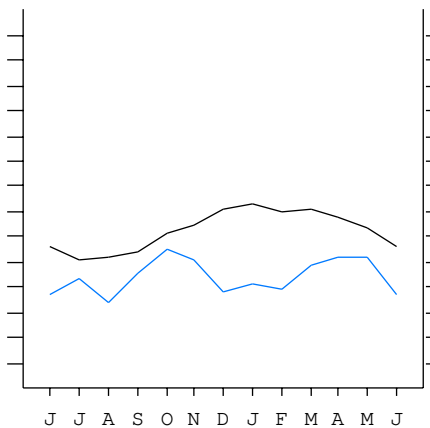
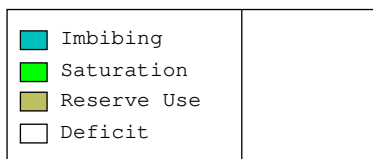
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	23.1	80	66	0	0	66	14	0	0	-0.1
Aug.	22.9	83	46	0	0	46	37	0	0	-0.4
Sep.	23.1	85	69	0	0	69	17	0	0	-0.1
Oct.	23.8	103	89	0	0	89	14	0	0	-0.1
Nov.	25.1	122	79	0	0	79	43	0	0	-0.3
Dec.	26.2	149	54	0	0	54	96	0	0	-0.6
Jan.	27.1	162	62	0	0	62	100	0	0	-0.6
Feb.	27.8	146	57	0	0	57	89	0	0	-0.6
Mar.	27.7	152	76	0	0	76	76	0	0	-0.5
Apr.	26.9	134	81	0	0	81	53	0	0	-0.3
May.	25.6	115	82	0	0	82	32	0	0	-0.2
Jun.	24.3	92	53	0	0	53	39	0	0	-0.4
Year	25.3	1424	813	*	*	813	611	0	0	*

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

TRINDADE -ILHA- (BRAZIL)

20°30'S 29°19'W 4 m 27/24 y.

T= 25.3 Ic= 4.9 TROPICAL XERIC (DRY)
 m= 21.0 Tp= 3036 UPPER INFRATROPICAL
 M= 24.9 Tn= 0 LOW DRY
 M' = 0.0 Itc= 711
 m' = 0.0 Io= 2.7
 P= 813 mm ———
 PE= 1424 mm ———



All over the year,
 there is hydric deficit

TRINDADE -ILHA- (BRAZIL)

Latitude: 20°30'S Longitude: 29°19'W Altitude: 4 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A2a]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: a. High
 Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A3.1a.5b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 3. XERIC
 + Bioclimatic variant .: DRY
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : b. LOW
 Bioclimatic ClassificationTrxe (Dry).Itr.Dry.Eho

TRINDADE -ILHA- (BRAZIL)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 412
 Coldest semester of the year.....(Psw): 401
 Warmest four months period of the year.....(Pcm1): 275
 Following warmest four months period.....(Pcm2): 247
 Positive precipitation dryest 3 months.....(Ppd): 165
 Positive precipitation dryest 2 months.....(Ppd2): 112
 Positive precipitation dryest 1 month.....(Ppd1): 46
 Positive precipitation warmest 3 months.....(Pps): 194
 Positive precipitation warmest 2 months.....(Pps2): 133
 Positive precipitation warmest 1 month.....(Pps1): 57
 Positive precipitation coldest 3 months.....(Ppw): 180
 Positive precipitation coldest 2 months.....(Ppw2): 112
 Positive precipitation coldest 1 month.....(Ppw1): 46

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	164	236	172	239

Tropical rainfall rhythms: 2 > 4 > 1 > 3

TRINDADE -ILHA- (BRAZIL)

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.8
 Average coldest month [T].....(Tmin): 22.9
 Maximum temp. warmest month [M].....(Tmmax): 30.9
 Minimum temp. coldest month [m].....(Tmmin): 19.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.0
 First warmest contrasted month [M].....(Tcmax): 27.1 (7)
 First coldest contrasted month [m].....(Tcmin): 19.3 (7)
 Dry station temperature.....(Td): 703
 Positive temperature dryest 3 months.....(Tpd): 703
 Positive temperature dryest 2 months.....(Tpd2): 460
 Positive temperature dryest 1 month.....(Tpd1): 229
 Positive temperature warmest 3 months.....(Tps): 826
 Positive temperature warmest 2 months.....(Tps2): 555
 Positive temperature warmest 1 month.....(Tps1): 278
 Positive temperature coldest 3 months.....(Tpw): 691
 Positive temperature coldest 2 months.....(Tpw2): 460
 Positive temperature coldest 1 month.....(Tpw1): 229

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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	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)												
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

TRINDADE -ILHA- (BRAZIL)

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.75
 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)	539	618	567	759	808	825	530	655	463	686	887	793
Tp	262	271	278	277	269	256	243	231	229	231	238	251
Io (Iom)	2.06	2.28	2.04	2.74	3.01	3.22	2.18	2.84	2.02	2.97	3.73	3.16
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	1725 / 812			2392 / 802			1648 / 703			2365 / 720		
Io (Iot)	2.125			2.983			2.344			3.287		
Semesters	December-May						June-November					
Pp(x10)/Tp	4117 / 1613						4013 / 1422					
Io (Iosm)	2.552						2.821					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 8130/3036=2.68 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	539	618	567	759	808	825	530	655	463	686	887	793
Tp [T*10]	262	271	278	277	269	256	243	231	229	231	238	251
Iom [Pp/Tp]	206	228	204	274	301	322	218	284	202	297	373	316
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	1725 / 812			2392 / 802			1648 / 703			2365 / 720		
Iot [Pp/Tp]	213			298			234			329		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	4.91
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		3.43
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		2.45
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.63
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		32.14
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		23.03
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		139.46
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		3.11
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.57
+ Subhumid - dry (0.65>I>0.5)		
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....		9.67
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 6. Termoaxeric (Axeric warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.21	0.18	0.26	0.28	0.29	0.19	0.24	0.16	0.25	0.33	0.28	0.18
T-E ratio	12.21	12.52	12.46	12.09	11.54	10.93	10.39	10.31	10.39	10.71	11.28	11.79
Precipitation-effectiveness: 28.61						Temperature-efficiency: 136.61						
Moisture Index [MI=100*(P-PE)/PE]												
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]												
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												
+ Forth mesothermic (997<PE<1440)												

