

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

TONCOTIN INTL (HONDURAS)

Altitude: 1004 m.

Latitude: 14°3'N Longitude: 87°13'W

Temperature observation period.: 1991-1994 (4)

Rainfall observation period....: 1974-1994 (21)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	15.84	25.56	6.11	30.56	3.89	14.0	44.05
Feb.	15.83	27.22	4.44	32.22	4.44	5.1	41.30
Mar.	16.39	27.78	5.00	33.33	1.67	10.9	49.80
Apr.	20.56	31.11	10.00	33.33	5.00	27.9	81.60
May.	22.50	32.78	12.22	32.78	5.00	156.0	104.64
Jun.	21.94	29.44	14.44	32.22	8.89	166.1	97.35
Jul.	20.27	29.44	11.11	30.56	10.00	92.0	84.49
Aug.	20.56	30.56	10.56	31.11	10.56	111.0	84.74
Sep.	21.12	30.56	11.67	31.67	3.89	176.0	84.76
Oct.	20.84	30.00	11.67	30.00	8.89	141.0	81.57
Nov.	23.89	28.89	18.89	30.00	8.89	40.1	103.79
Dec.	18.89	28.89	8.89	31.11	8.33	15.0	63.51
Year	19.89	29.35	10.42	31.57	6.62	955	921.62

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	515
Compensated thermicity index.....(Itc):	515
Simple continentality index.....(Ic):	8.1
Diurnality index.....(Id):	22.8
Annual ombrothermic index.....(Io):	4.00
Monthly dry ombrothermic index.....(Iod1):	0.32
Bimonthly dry ombrothermic index.....(Iod2):	0.50
Three monthly dry ombrothermic index.....(Iod3):	0.62
Four monthly dry ombrothermic index.....(Iod4):	0.67
Annual ombro-evaporation index.....(Ioe):	3.17
Annual positive temperature.....(Tp):	2386
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	481
Positive precipitation.....(Pp):	955

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	6	0	2	4	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - High Subhyperoceanic

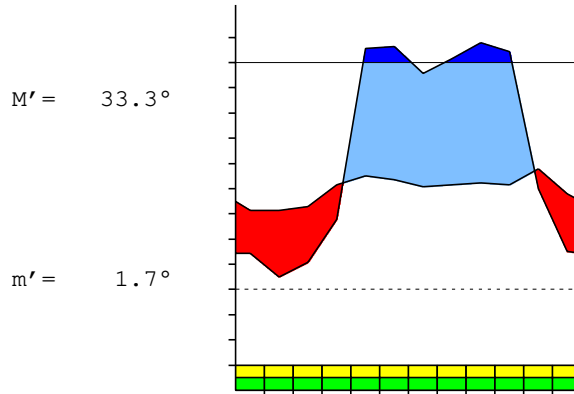
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)

Bioclimatic Belt...: UPPER THERMOTROPICAL LOW SUBHUMID

TONCOTIN INTL (HONDURAS)

1004 m

P= 955 14° 3'N 87° 13'W 4/21 y.
 T= 19.9° Ic= 8.1 Tp= 2386 Tn= 0
 m= 4.4° M= 27.2° Itc= 515 Io= 4.0



TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 UPPER THERMOTROPICAL LOW SUBHUMID

WATER INDEX CARD TONCOTIN INTL (HONDURAS)
 Altitude: 1004 m. Latitude: 14° 3'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	15.8	44	14	0	0	14	30	0	7	-0.6
Feb.	15.8	41	5	0	0	5	36	0	4	-0.8
Mar.	16.4	50	11	0	0	11	39	0	2	-0.7
Apr.	20.6	82	28	0	0	28	54	0	1	-0.6
May.	22.5	105	156	51	51	105	0	0	0	0.4
Jun.	21.9	97	166	49	100	97	0	20	10	0.7
Jul.	20.3	84	92	0	100	84	0	8	9	0.0
Aug.	20.6	85	111	0	100	85	0	26	18	0.3
Sep.	21.1	85	176	0	100	85	0	91	54	1.0
Oct.	20.8	82	141	0	100	82	0	59	57	0.7
Nov.	23.9	104	40	-64	36	104	0	0	28	-0.6
Dec.	18.9	64	15	-36	0	51	12	0	14	-0.7
Year	19.9	922	955	*	*	751	171	205	205	*

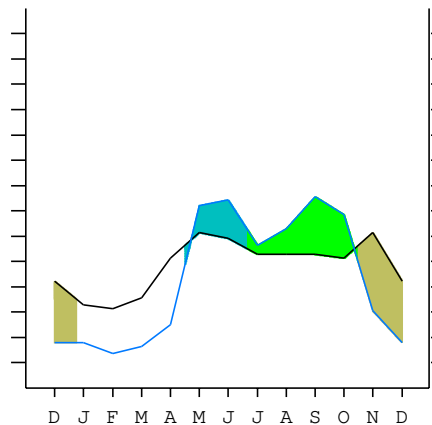
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

TONCOTIN INTL (HONDURAS)

14°3'N 87°13'W 1004 m 4/21 y.

T= 19.9 Ic= 8.1 TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 m= 4.4 Tp= 2386 UPPER THERMOTROPICAL
 M= 27.2 Tn= 0 LOW SUBHUMID
 M' = 33.3 Itc= 515
 m' = 1.7 Io= 4.0
 P= 955 mm
 PE= 922 mm

Imbibing	16 Apr.
Saturation	22 Jun.
Reserve Use	15 Oct.
Deficit	23 Dec.



TONCOTIN INTL (HONDURAS)

Latitude: 14°3'N Longitude: 87°13'W Altitude: 1004 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.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde.Ttr.Shu

TONCOTIN INTL (HONDURAS)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 726
 Coldest semester of the year.....(Psw): 229
 Warmest four months period of the year.....(Pcm1): 468
 Following warmest four months period.....(Pcm2): 45
 Positive precipitation dryest 3 months.....(Ppd): 30
 Positive precipitation dryest 2 months.....(Ppd2): 16
 Positive precipitation dryest 1 month.....(Ppd1): 5
 Positive precipitation warmest 3 months.....(Pps): 357
 Positive precipitation warmest 2 months.....(Pps2): 181
 Positive precipitation warmest 1 month.....(Pps1): 40
 Positive precipitation coldest 3 months.....(Ppw): 30
 Positive precipitation coldest 2 months.....(Ppw2): 19
 Positive precipitation coldest 1 month.....(Ppw1): 5

Seasons	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4
Rainfall	34	194	369	357

Tropical rainfall rhythms: 3 > 4 > 2 > 1

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.9
 Average coldest month [T].....(Tmin): 15.8
 Maximum temp. warmest month [M].....(Tmmax): 32.8
 Minimum temp. coldest month [m].....(Tmmin): 4.4
 Absolute Max.temp. warmest month [M'].....(Tamax): 33.3
 Absolute Min.temp. coldest month [m'].....(Tamin): 1.7
 First warmest contrasted month [M].....(Tcmax): 27.2 (2)
 First coldest contrasted month [m].....(Tcmin): 4.4 (2)
 Dry station temperature.....(Td): 481
 Positive temperature dryest 3 months.....(Tpd): 481
 Positive temperature dryest 2 months.....(Tpd2): 322
 Positive temperature dryest 1 month.....(Tpd1): 158
 Positive temperature warmest 3 months.....(Tps): 659
 Positive temperature warmest 2 months.....(Tps2): 447
 Positive temperature warmest 1 month.....(Tps1): 239
 Positive temperature coldest 3 months.....(Tpw): 481
 Positive temperature coldest 2 months.....(Tpw2): 317
 Positive temperature coldest 1 month.....(Tpw1): 158

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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)	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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.96
 Mediterranean index of July.[PE/P].....(Im1): No
 Mediterranean index of July & August.....(Im2): No
 Mediterranean index of June, July & August....(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	150	140	51	109	279	1560	1661	920	1110	1760	1410	401
Tp	189	158	158	164	206	225	219	203	206	211	208	239
Io (Iom)	0.79	0.88	0.32	0.67	1.36	6.93	7.57	4.54	5.40	8.33	6.77	1.68
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	341 / 506			1948 / 594			3691 / 628			3571 / 659		
Io (Iot)	0.674			3.277			5.880			5.423		
Semesters	December-May						June-November					
Pp(x10)/Tp	2289 / 1100						7262 / 1286					
Io (Iosm)	2.081						5.646					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 9551/2386=4.00 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	150	140	51	109	279	1560	1661	920	1110	1760	1410	401
Tp [T*10]	189	158	158	164	206	225	219	203	206	211	208	239
Iom [Pp/Tp]	79	88	32	67	136	693	757	454	540	833	677	168
Avm [200-Iom]	121	112	168	133	64	***	***	***	***	***	***	32
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	341 / 506			1948 / 594			3691 / 628			3571 / 659		
Iot [Pp/Tp]	67			328			588			542		
Avs E[Avm<200]	400			***			***			***		
Upper hyperarid [1]							Weak lower arid [2]					
Strong upper arid [1]							Weak upper arid [1]					
Weak lower semiarid [1]							Strong upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	8.06
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		36.04
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		19.62
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.42
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		48.03
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		31.96
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		90.55
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.08
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		1.04
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		32.43
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.05	0.02	0.04	0.10	0.64	0.70	0.38	0.46	0.76	0.60	0.14	0.05
T-E ratio	7.13	7.12	7.38	9.25	10.13	9.87	9.12	9.25	9.50	9.38	10.75	8.50
Precipitation-effectiveness: 39.30						Temperature-efficiency						107.38
Moisture Index [MI=100*(P-PE)/PE]												3.63
+ C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]												18.55
+ Moderate deficit (16.7<DI<33.3)												
Index of humidity [HI=100*s/PE]												22.19
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												921.62
+ Third mesothermic (855<PE<997)												

