LXXVI. Meteorological observations during a residence in colombia between the years 1820 and 1830

Colonel Richard Wright

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LXXVI. *Meteorological Observations during a Residence in Colombia between the Years 1820 and 1830. By Colonel RICHARD WRIGHT, Governor of the Province of Loxa, Confidential Agent of the Republic of the Equator, &c. &c.*

[Continued from p. 380, and concluded.]

Sanmillan; suburbs of Quito, on the plain of Anaquito, about half a mile north of the City. Situation open.

Date.	Thermo- meter.	Time.	Hygro- meter.	Time.	Remarks.
1827.	°		°		
May 26.	„	„	55	8 a.m.	Rain.
27.	„	„	55.0	12	Cloudy.
28.	45.0	7 a.m.			Fair.
„	61.0	2 p.m.			
29.	43.0	6 a.m.			
„	63.0	12	27.5	12	Showery.
30.	56.0	8 a.m.			
„	64.0	2 p.m.	22.0	2 p.m.	Fair.
31.	52.0	6 a.m.			
„	66.0	3 p.m.	27.5	3 p.m.	Id.
4 days. 62°.5 max. } 54°.58 med. Hygrom. 27°.5 Var. 49°.5. 46°.66 min.					
			Hygrometer.		
June 1.	53.0	7 a.m.	58.0		Cloudy; rain at night.
2.	63.0	2 p.m.	...	22.0	
3.	52.0	7 a.m.	57.5		Cloudy.
„	63.0	2 p.m.	...	27.5	
4.	48.0	6 a.m.	56.5		Fair.
„	65.5	2 p.m.	...	38.5	
5.	48.0	6 a.m.	57.0		Showery.
„	66.0	2 p.m.	...	38.5	
6.	52.0	6 a.m.	58.5		Id.
7.	65.0	2 p.m.	...	38.5	
8.	63.0	2 p.m.	...	16.5	Id.
9.	64.0	2 p.m.	...	55.0	Fair.
10.	53.0	7 a.m.	59.0		Id.
„	65.0	2 p.m.	...	55.0	
11.	43.0	6 a.m.	...		Id.
„	54.0	8	56.25		
„	65.5	2 p.m.	...	55.0	Id.
12.	52.0	7 a.m.	58.5		Id.
„	65.0	2 p.m.	...	49.5	
13.	67.0	2 p.m.	...	55.0	Cloudy.
14.	51.0	7 a.m.	57.5		Cloudy; drops of rain.
„	76.0	sun			
„	64.0	2 p.m.	...	44.0	
15.	52.0	6½ a.m.			
„	57.0	7	58.5		Fair.
„	59.5	8½			
„	60.0	9½			

Sanmillan.—TABLE continued.

Date.	Thermo- meter.	Time.	Hygrometer.		Remarks.
1827.			°		
June 15.	64·0	2½ p.m.	...	66·0	
16.	55·0	6½ a.m.			
"	58·0	7½			
"	62·0	9½	52·2		
"	66·0	2 p.m.			
"	80·0	sun.			
18.	48·0	6½ a.m.			
"	61·0	sun.	54·83		Windy and light breeze.
"	53·0	8			
"	63·5	3 p.m.	...	66·0	
19.	49·0	7 a.m.			
"	55·5	9	57·16		Fair.
"	75·0	sun.			
"	67·0	2 p.m.			
20.	48·0	6½ a.m.			
"	61·0	sun.	56·66		
"	58·0	9			
"	74·0	sun.			Id.
"	64·0	2 p.m.	...	60·5	
"	82·0	sun.			
21.	45·0	6½ a.m.			
"	55·0	9	54·66		Id.
"	74·0	sun.			
"	64·0	3½ p.m.	...	44·0	
22.	44·0	6 a.m.			
"	52·0	7	55·25		Id.
"	59·0	10			
"	66·0	2 p.m.	...	38·5	During a hail storm.
"	82·0	sun.			
23.	54·0	8 a.m.	59·0		
"	71·0	sun.			Cloudy and windy.
"	64·0	3 p.m.	...	49·5	
"	80·0	sun.			
24.	53·0	7 a.m.	58·5		Slight showers.
"	64·0	2 p.m.	...	44·0	
25.	49·0	6 a.m.			Fair.
"	56·0	9	52·5		
"	75·0	sun.			
26.	51·5	6½ a.m.	58·75		
"	66·0	3 p.m.	...	55·0	Id.
27.	53·0	7 a.m.	60·0		Clear and strong winds
"	67·0	3 p.m.	...	66·0	from N.E.
28.	55·0	7 a.m.	59·5		
"	64·0	3 p.m.	...	55·0	Cloudy and showery.
29.	50·0	7 a.m.			
"	60·0	10	59·0		
"	64·0	12			
"	62·0	2 p.m.	...	44·0	Id.

Sanmillan.—TABLE continued.

Date.	Thermo- meter.	Time.	Hygrometer.		Remarks.
1827.					
June 30.	48·0	7 a.m.	55·87	22·0	Cloudy and damp.
"	54·5	9			
"	56·0	9½			
"	74·0	sun.	...	49·5	Fair.
"	65·0	3 p.m.			
"	81·0	sun.			
July 1.	49·0	7 a.m.	...	36·5	Fair.
"	59·0	10			
"	63·0	3 p.m.			
"	60·0	10	55·25	49·5	Id.
"	53·0	7 a.m.			
"	65·0	2 p.m.			
"	60·0	8	59·33	55·0	Cloudy.
"	54·0	7 a.m.			
"	64·0	sun.			
"	62·0	9	...	66·0	Clear.
"	74·0	sun.			
"	66·0	2½ p.m.			
"	84·0	sun.	...	77·0	Id. and wind.
"	53·0	10			
"	53·0	7 a.m.			
"	65·0	3½ p.m.	57·0	66·0	Clear.
"	53·0	7			
34 days.—Thermomer mean 57°·25.—Hygrometer 47°·75. Var. 60°·5.					
August 31 days.	67°·37 max. 52·5 min.	} 59°·93 med. Hygr. 61°·88. Var. 49°·5. Weather generally fair and windy.			
Septemb. 30 days.	67°·0 max. 54·54 min.	} 60°·77 med. Hygr. 59°·43. Var. 72°·5. Fair at the beginning; afterwards cloudy with some showers.			
October 12 days.	61°·7 max. 53·0 min.	} 57°·35 med. Hygr. 28°·15. Var. 27°·5.			
Dec. 1.	51·0	6 a.m.	61·75		Mornings clear; evenings cloudy.
"	72·5	2 p.m.			
"	51·0	6 a.m.	62·0		
"	74·0	2 p.m.			
"	61·0	5	62·0		
"	51·0	6 a.m.			
"	71·0	2½ p.m.	62·0		Cloudy; rain at night.
"	64·0	5½			

Sanmillan.—TABLE continued.

Date.	Thermo- meter.	Time.	Hygrometer.		Remarks.
1827.					
Dec. 8.	72°0	2 p.m.			Showery.
9, 10.	70°0	2 p.m.			Fair.
11, 12, 13.	72°0	2 p.m.			Id.
14.	74°0	2 p.m.			
"	127°0	reflected	heat.		
15.	52°0	6 a.m.	60·25		
"	73°0	2 p.m.			
"	60°0	4			
"	56°0	5			Storm.
16.	69°0	3 p.m.			Id.
17, 18, 19.	68°0	3 p.m.			Fair.
20.	51°0	6 a.m.	58·66		
"	55°0	8			Id.
"	70°0	2 p.m.			9 p.m. shock of an earth- quake and rain.
21.	72°0	2 p.m.			
22, 23.	72°0	2 p.m.			Fair.
24, 25.	74°0	2 p.m.			
26.	71°0	2 p.m.			Id.
27.	72°0	2 p.m.			Id.
28.	69°0	2 p.m.			Id.
29.	51°0	6 a.m.	60·66		
"	71°0	2 p.m.			Rain.
30.	60°0	5 p.m.			
25 days. 60°·88 mean. Var. 22°. Maximum of heat 74°0: extraordinary in Quito. Vide Humboldt, <i>De Geog. Plant.</i> , p. 103.					
Average temperature of the neighbourhood of Quito from May to December 58°·7. Hygrometer of Leslie 42°·03.					

Comparative Temperature of different Parts of the Table-land of the Equator.

Quito.			Ambato.	
1825.				
Aug. 12.	58°0	6 a.m.	58°0	
"	62°5	2 p.m.	66°0	
13.	57°5	6 a.m.	58°0	
"	61°5	2 p.m.	65°0	
14.	56°0	6 a.m.	58°0	
"	67°0	2 p.m.	64°0	
63°·66 } 60°·41			65°·08 } 61°·5.	Difference 1·09.
57°·16 }			58°·00 }	

Comp. Temp.—TABLE continued.

Quito.		Riobamba.	
1825.			
Aug. 17.	56°5	6 a.m.	57°0
"	65°0	2 p.m.	65°0
18.	56°5	6 a.m.	53°0
"	63°0	2 p.m.	60°0
19.	54°0	6 a.m.	53°0
"	64°0	2 p.m.	60°0
20.	55°0	6 a.m.	53°0
"	65°0	2 p.m.	60°0
21.	55°0	6 a.m.	53°0
"	65°0	2 p.m.	65°0
64°·4 55°·5 } 59°·95		62°·0 53°·8 } 57°·9 : difference 2°·05.	
Quito.		Guaranda.	
24.	57°0	6 a.m.	56°0
"	67°0	2 p.m.	63°0
25.	57°5	6 a.m.	55°0
"	67°0	2 p.m.	63°0
26.	58°0	6 a.m.	56°0
"	66°5	2 p.m.	65°0
27.	57°0	6 a.m.	56°0
"	67°0	2 p.m.	65°0
28.	67°5	2 p.m.	66°0
31.	58°0	6 a.m.	56°0
"	67°0	2 p.m.	68°0
67°· 57°·5 } 62°·25		65°·33 55°·8 } 60°·56 : difference 1°·69.	

Village of Cayambe. Lat. 1° 35' N. Elevation 9724 feet.
B. W. 195° $\frac{9}{10}$.

Date.	Thermo- meter.	Time.	Hygrometer.	Remarks.
1827.				
July 8.	52°0	7 a.m.		
"	64°0	3 p.m.	66°0	Fair and clear.
9.	52°0	7 a.m.		Id.
10.	57°0	7 a.m.		
"	59°0	10	47·5	
"	60°0	4 p.m.		Cloudy.
11.	64°0	2 p.m.	75°0	Fair and windy.
12.	56°5	8 a.m.		
"	71°0	sun.		
"	64°0	3 p.m.	75°0	Id.

TABLE continued.

Date.	Thermo- meter.	Time.	Hygro- meter.	Remarks.
1827.				
July 16.	65°0	12	71°0	Fair and windy.
17.	64°0	1 p.m.	82°5	Id.
„	84°0	sun.		
20.	67°0	2 p.m.	77°0	Cloudy.
21.	71°5	1 p.m.	97°1	Clear and windy.
„	78°0	sun.		
9 days 64°·81 max. } 59°·23 73°·58. Var. 50°.				
53°·66 min. }				

Mountain of Cayambe, under the Equator.

24.	37°0	6 a.m.	16°5	Elevation 12,705 feet. B. W. 191°. Fair.
„	43°0	1½ p.m.	13°9	Elevation 14,217 feet. B. W. 188½ foot of the Nevado. Weather fair.

Farm of Antisana.

1829.				
July 1.	33°0	6 a.m.		14,520 feet. B. W. 188°.
	35°0	7		Fair and windy.
	38°0	8½		
	45°0	2½ p.m.	30°3	Bright.
	67°0	reflected	heat.	
	43°0	4		Drifts of mists or <i>Parametos</i> .
	37°5	5½		
Med. 38°·58. 30°·3 Hygrometer.				

Descent from the Table-land of Quito to Esmeraldas, and Coast of the Pacific.

Date.	Thermo- meter.	Time.	Hygrom.	Elevation.	Remarks.
1828.					
May 14.	53°0	12	°	12,986 ft.	Height of Pichan.
„	83°0	sun.		B.W. 190°½.	
15.	64°0	3 p.m.	30°3	8772 feet.	Descent of Pugsí.
				B.W. 197½°.	
17.	65°5	mean of 10 obs.		3932	Mindo.
				B.W. 205½°.	

Descent from Table-land.

TABLE continued.

Date.	Thermo- meter.	Time.	Hygrom.	Elevation.	Remarks.
1828.	°		°		
May 26.	...	...	...	3025 B.W. 207.	Bola niguas. Casha ponga.
27.	70·0	8 a.m.		2728 B.W. 207½°.	
29.	72·0	6 a.m.		1210 B. W. 210.	
30.	78·0	3 p.m.			Palo grande.
30.	72·0	6 a.m.	fair.		
30.	74·0	2 p.m.			
31.	74·0	2 p.m.	rain.		Canigue, about 12 leagues from the coast, surrounded by deep forests.
June 19.	73·0	8 a.m.	fair.	605 feet, B.W. 211°.	
19.	73½	river.			
19.	75·0	9			
19.	77·0	10½			
19.	79·0	1 p.m.			
19.	76·0	river.	22·0		
19.	80·0	2			
19.	82·0	3	bright.		
19.	76·0	8	33·0		
20.	73·0	6 a.m.	11·0		
20.	73·0	river.	cloudy.		
20.	72·5	8½			
20.	74·0	9½	misty & wind.		
20.	74½	river.			
20.	76·0	11			
20.	78·0	12	showery.		
20.	82·0	2½ p.m.	fair.		
20.	77·0	river.			
20.	83·0	4½			
20.	80·0	5½			
20.	76·0	7			
21.	72·0	6½	rain.		
21.	77·0	10½	cloudy		
21.	77½	12	and		
21.	79·0	1 p.m.	wind.		
21.	78·5	3½	22·0		
21.	73·0	7 p.m.			
22.	70·0	6 a.m.			
22.	74·0	9			
22.	78·0	12	cloudy.		
22.	76·5	river.	19·2		
22.	79·5	4 p.m.	breeze	and mist.	
23.	73·0	7 a.m.			
23.	80·5	1 p.m.	fair.		

Med. 74°·56. Water 71°·83. Hygrometer 22°·77.
Thermometrical var. 10°·50°. Hygrometrical do. 22°.

Observations at Canique, by Col. Brooke Young.

1828.	6 a.m.	Noon.	3 p.m.	6 p.m.	Medium.	Weather.
	°	°	°	°		
Jan. 19.	74.0	82.5	82.0	76.0	78½	Continual rain.
20.	73.0	81.0	79.0	75.0	77.0	Heavy showers.
21.	72.0	85.0	83.0	77.0	79½	Light showers.
Feb. 2.	72.0	85.0	84.0	76.0	79½	Heavy showers.
3.	71.0	86.0	90.0	81.0	82.0	Fair.
4.	75.0	78.0	78.0	76.0	79½	Continual rain.
5.	73.0	81.0	84.0	77.0	78½	Fair until 5 p.m.
6.	72.0	83.0	86.0	78.0	79½	Do.
7.	73.0	79.5	80.0	77.5	77½	Heavy rain.
8.	73.5	83.0	84.0	78.5	79½	Light showers.
9.	73.0	86.0	86.0	77.0	80½	Rain after 5 p.m.
10.	73.0	83.0	87.0	80.0	80½	Fair.
11.	74.0	80.5	85.0	77.0	79½	Rain until 10 a.m.
12.	73.0	83.0	85.0	81.0	80½	Do.
13.	73.5	86.0	86.0	77.5	80½	Showers after 3 p.m.
14.	74.0	82.0	83.0	77.0	79.0	Showery.
15.	75.0	83.0	86.5	79.0	80½	Rain after 6 p.m.
16.	74.0	79.0	79.0	76.0	77.0	Heavy showers.
17.	73.0	80.0	87.0	79.0	79½	Showers after 4 p.m.
18.	75.0	84.0	89.0	79.0	80½	Fair.
19.	75.0	85.0	88.0	79.0	80½	Id.
20.	73.0	83.0	82.0	79.0	79½	Showers after 2 p.m.
21.	73.0	84.0	89.0	81.0	81½	Rain after 6 p.m.
22.	72.0	80.0	85.0	81.0	79½	Rain all night.
<p>Medium of the rainy season 79° 0 nearly, of the dry season 74° 56. of the year..... 76° 78.</p>						

River of Esmeraldas.

1828.	Air.	Water.	Hygrom.	Time.	Weather.
June 12.	76° 0	75.5	5.5	6½ a.m.	Misty rain.
"	78.0	77.5	0.0	3½ p.m.	Do.
13.	76.0	75.0	0.0	6½ a.m.	Do.
"	79.0	76.0	5.5	10½	Cloudy.
"	79.5	76.0	8.2	3 p.m.	Do.
14.	75.0	74.5	0.0	6½ a.m.	Misty.
"	80.5	75.0	11.0	10	Fair.
15.	80.0	76.0	13.7	12	Id.
16.	80.5	74.5	13.7	10 a.m.	Id.
18.	73.0	73.0	0.0	6½ a.m.	Misty.
Med.	77.75	75.4	5.76		

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1828.	Therm.		Hygrom.	Time.	Weather.
June 1.	76°0			7 a.m.	About six miles from the sea-coast. Elev. 0.
	77°0			8	Cloudy.
	80°0			9	Do.
	82°0			10	Do.
	85°0			11	Do.
	87°0		°	1 p.m.	Do.
	84°0			2	Do.
	82°0		22°0	3	Rain.
	82°0			4	Do.
	80°0			6	Do.
	76°0	2.		8 a.m.	Cloudy.
	78°0			10	Do.; rain.
	82°5		19°2	1 p.m.	Do.
	82°0			3	Misty.
	76°0	3.		7½ a.m.	Do.
	80°5		16°7	3 p.m.	Do.
	76°0	4.		7 a.m.	Fair.
	80°0			10	Do.
	85°0			1 p.m.	Do.
	78°0			9	Do.
	84°0	5.	27°5	2 p.m.	Do.
	76°0			6½	Do.
	75°0	8.		6½ a.m.	Misty.
	78°0			9½	Fair.
	83°0		27°5	11½	Do.
	84°0			1½ p.m.	Do.
	82°0			3½	Do.
	76°5			9	Do.
	75°0	9.	Sun 84°.	7 a.m.	Do.
	76°0			8	Do.
	78°0			9	Do.
	81°0		22°0	10	Do.
	83°0			11	Do.
	82°0			12	Cloudy.
	80°3			1 p.m.	Rain.
	78°0			3	Heavy rain.
	78°0			4	Do.
	78°0			5	Do.
	77°0			8	Fair.
	76°0			7 a.m.	Do.
	80°5			10	Do.
	83°0			12	Cloudy.
	83°0		27°5	2 p.m.	Do.
	80°5			4	Fair.
Med. 79°65. 21°78. Thermometrical Var. 10°. Hygrometrical do. 15°6.					

Sea-coast South of the River of Esmeraldas.

1827.	Therm.		Hygrom.	Time.	Weather.
May 20.	75°0		B.W. 212°.	7 a.m.	Atacames. Lat. 52° N. Cloudy.
	78°0			4 p.m.	Cloudy.
21.	75°0			6 a.m.	
	77°5			12	
Dec. 15.	76°4		22°0	8 p.m.	Cloudy.
16.	72°6		6°5	6 a.m.	Rain.
	81°5		19°0	2 p.m.	Cloudy.
18.	79°0		20°0	3 p.m.	Mompiche.
19.	75°5		5°5	6 a.m.	Cloudy; rain at night.
"	80°0		30°0	2 p.m.	Clear.
1830.	72°0			6 a.m.	River Muisne.
Nov. 7.	76°0			3 p.m.	
8	72°0			6 a.m.	
"	79°0			3 p.m.	
9, 10.	72°0			6 a.m.	Wind, cloudy and mists.
11.	76°0			3 p.m.	
12.	72°0		22°0	6 a.m.	
"	77°0			3 p.m.	
13.	71°0			6 a.m.	Rain.
	75°0			3 p.m.	
	76°28				

LXXVII. *Proceedings of Learned Societies.*

ROYAL SOCIETY.

Address of the Marquis of Northampton, President, read at the Anniversary Meeting, November 30, 1839.

GENTLEMEN,

A YEAR having now elapsed since you conferred upon me the highly honourable office of your President, it becomes my duty, in accordance with the example of my predecessors, to address you. The first and most agreeable part of my task is to express my feelings of gratitude to those Gentlemen whom you were pleased to select as my Council. I am most highly indebted to them for the zealous co-operation and hearty assistance which I have ever received at their hands. It is to them that I have looked to aid my inexperience, and to supply my manifold deficiencies, and I have not been disappointed. To those who are the more permanent officers of the Society, the Treasurer and the Secretaries, my obligations are particularly great, and I will venture to add, that to them, as well as to the other members of the Council, your thanks are due as well as mine.

The past year has indeed been to that portion of the Royal So-