

METEOROLOGY FOR JUNE, 1870.

PRIVATE OBSERVATORY, HOBART TOWN.

Day of Month.	Bar. 37 feet abv. sea level corrected & reduced.		Self-Register- ing Thermo- meters.				Wind.		
	Highest.	Lowest.	Highest in shade.	Lowest in shade.	Highest in sun.	Lowest on grass.	Direction from three daily re- gisters.	Force in lbs. per square foot.	Rain in Inches.
1	29.942	29.937	58.46	60.0	43.5		SW SE	0	0.17
2	30.034	29.992	54.38	77.0	37.0		NW	.52	0.04
3	29.974	29.575	62.36	86.0	33.5		NW	1.56	
4	29.430	29.326	55.42	82.5	37.0		NW W	3.64	0.32
5	29.733	29.661	55.41	61.0	33.5		NW	3.12	0.06
6	30.107	30.053	60.35	84.0	30.5		NW	.52	
7	29.807	29.621	62.46	79.5	41.0		NW	1.04	
8	29.740	29.637	62.44	86.0	33.0		NW	3.64	0.02
9	29.456	29.314	53.40	81.0	37.0		SW W	7.81	0.15
10	29.430	29.338	48.40	52.5	33.5		W SE SW	10.63	5.47
11	29.853	29.650	53.42	84.0	36.0		SW	13.62	0.34
12	30.119	30.090	64.42	90.0	36.0		NW W	.52	
13	30.106	29.952	58.45	82.5	35.5		NW NE NW	4.72	0.22
14	30.339	30.349	51.43	60.0	35.0		NW SE	.26	
15	30.500	30.453	52.31	76.5	30.5		NW	.73	
16	30.500	30.360	47.31	71.0	29.0		NW	.52	
17	30.271	30.150	63.39	84.0	32.5		E NW SE	.26	
18	29.842	29.692	65.48	76.5	41.0		SE NW	.52	0.36
19	29.814	29.752	63.40	87.0	34.0		NW NE SW	.26	
20	29.832	29.865	63.40	86.0	39.5		NW	.26	
21	29.969	29.903	57.39	59.5	37.5		NW	.52	
22	29.842	29.804	55.37	82.0	34.5		NW NE	.52	
23	29.987	29.832	63.36	83.5	34.0		NW	.52	
24	29.464	29.216	51.45	53.0	33.0		NW	.52	0.03
25	29.493	29.332	55.44	72.0	37.5		NW	1.56	
26	29.738	29.642	67.48	92.0	43.0		W SE NE	3.12	
27	29.700	29.477	66.45	87.0	41.0		NW	.52	
28	29.351	29.160	57.42	50.0	40.0		NW SW SE	5.47	
29	29.503	29.370	51.42	73.0	37.0		NW	.73	0.12
30	29.620	29.348	51.44	74.5	39.0		NW	.52	0.02
Monthly mean	48.59	76.02	36.83	Total Force ..	68.18	2.32			
	29.789								

The mean in all cases is taken from the sums of the three daily registers, and not from the maximum and minimum.
The direction of the wind is registered from currents moving at a height of 192 feet, and the force according to Lind's Wind Gauge. The supposition, however, of an uniform velocity during the month is a very arbitrary one, and the results can be considered only approximately correct.
The relations of the quantities of rain which fell under the different winds are registered each evening at sundown.
The 25 years' standard tables are used for obtaining the difference from the average.

Leafing, Flowering, and Fruiting of a few Standard Plants in the Royal Society's Gardens during the month.

15th.—Early Narcissus commencing to flower.

18th.—Maclaura Aurantiaca leaves falling.

19th.—Common Privet ditto.

20th.—Snow Flake commencing to flower.

24th.—Pyrus Japonica ditto ditto.

30th.—Black Mulberry leaves all shed.

Barometer mean, 29.789 in., being 0.092 in. below the average.

Temperature mean, 48.59°, being 1.84° above the ditto.

Solar intensity mean, 76.02°, being 1.08° above the ditto.

Dew point mean, 41.7°, being 0.46° above the ditto.

Humidity of air mean, 73, being .06 per cent. below the ditto.

Elastic force of vapour mean, .265, being .004 per cent. below the ditto.

Total amount of rain, 2.32 in., being 0.40 in. above the ditto.

Increase of spontaneous evaporation on rain fall, 0.79 in.

Mean amount of ozone, 6.77, being 0.27 of chromatic scale above ditto.

Electricity active on the 8th, 9th, 25th, 26th, and 27th.

Mount Wellington covered with snow on the 4th, which continued through the month with frequent fresh deposits.

FRANCIS ABBOTT.

NOTES ON THE METEOROLOGY AND MORTALITY OF THE MONTH OF JUNE, 1870. BY DR. E. SWARBRECK HALL.

"The general character of the month was not propitious to life, and the deaths of adults, and particularly old people above 60 years old, were unusually large, while in children under 10 years of age, the deaths were remarkably few. Nevertheless, there was no prevailing sickness of an epidemic character.

"Atmospheric pressure mean, 29.789, was slightly — (0.92) below the 25 years' standard average for June. The range of the barometer, however, was very great, 1.340 inches, the maximum 30.500 occurring on the 15th and 16th; and the minimum, 29.160, on the 28th. The daily perturbations were also great. On 15 days the rises and falls exceeded one-quarter of an inch, the highest being a falls of .503 on the 18th.

"Wind force total, 68.18lbs. was + 43.68lbs. above the June average. Only June 1866 had a higher force. At 62 out of the 90 records, north-west winds prevailed. West and south-west winds, though only 15 in number, were very strong, having about two-thirds of the total force for the month. The strongest winds had 5.21lbs. pressure to the square foot, and occurred six times.

"Temperature mean, 48.59 degrees, was + 1.84 above the average. The range was great, *i.e.* from maximum 67 on the 26th, to minimum 31 on the 15th and 16th.

"Daily range of temperature, 13.90 degrees was — 1.14 below the June average. Nevertheless, there were nine days on which the range exceeded 20 degrees between the extreme shade heat of the day, and the extreme cold of the night, the greatest being 26 degrees on the 3rd.

"Solar-intensity mean, 76.02 degrees, was + 2.08 above the average, despite the numerous cloudy and wet days. The maximum, 92, was recorded on the 26th.

Terrestrial-radiation mean, 36.83 degrees was only + 0.20 above the average. The coldest night was that of the 16th, when the thermometer on the grass fell to 29 degrees, the air thermometer raised about four feet from the ground being 31 degrees. A considerable thickness of ice formed on still water.

"Elastic force of vapour mean, 265, was — 4 below the average; the range being from 148 on the morning of the 16th to 431 at noon on the 18th.

"Humidity mean, 78, was — 6 below the average.

"Rain fell to the amount of 2.32 inches, being nearly half an inch (.49) above the June average. It fell on 13 days—on some very heavily—being + 1.36 above the average. For the first six months of this year the rainfall has been very irregular, nevertheless the total fall, 13.02 inches, is + 2.88 inches above the 25 years' standard average.—Fortunately we have escaped floods, which have been so numerous and destructive on the Australian continent.

"Spontaneous-evaporation amounted to only 3.11 inches, notwithstanding the hot sunshine and strong winds.

"Cloud mean, 6.60, was + 1.09 above the average.

"Ozone mean, 6.77 was + 0.27 above the average.—Saturation (10) having been attained thrice *i.e.* on the 5th, 11th, 18th, with the heavy rains.—

"Electricity was weak and mostly of the negative kind, 46 out of 60 observations being so recorded, while 10 other records were *nil*, there being only 4 positives registered.

"Snow was never absent from Mount Wellington after the 4th day of the month, and on the 9th all the low hills around the City were coated with it.

"The deaths this month were 46, being a fraction above the average for the previous 13 years. Under one year old there were only five deaths. At one to five years old there was the unusually small number of one only, and the same at five to ten. At 10 to 20 the deaths were five. At 20 to 60 there were 16, being rather above the usual proportion. At 60 and all ages above, there were 18 deaths, which is a very large share indeed of the total mortality. The oldest was a man 88 years old, and two of the others were 82 each. No one disease prevailed, the deaths being principally in persons suffering from long standing disease of a chronic character. Consumption caused five deaths, one being a Tasmanian by birth, another a Russian from H.I.R.M. corvette Boyarin, two English, and one Irish. Two (2) deaths were caused by pneumonia, both in Hospital. The annual average from this disease for the last thirteen years is 35, out of a total average from all causes of 560. This is far less than the English proportion. Seven (7) inquests were held, two injured by falls, two by burns, and three apoplexy.