

Met O 8b 10-YEAR SUMMARY SHEETS

Governed by Public Records Acts

I M P O R T A N T

1. These sheets are a VITAL part of the permanent data archives of the Office, and are stored in Met08 for all decades for practical and historical reasons, including ready access, rather than be stored in Technical Archives.
2. For many old stations these sheets are the ONLY record of available data.

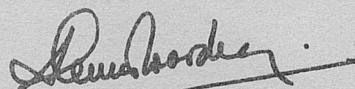
ENTRIES

3. All entries must invariably be made in permanent ink (nowadays normally in black waterproof ink), be perfectly legible and comments sufficiently intelligible to those reading them decades after the event.
4. Every attempt should be made to ensure that any follow-up action is adequately cross-referenced to a previous entry.
5. Retrospectively effective comments MUST be entered on the station's 10-year sheets for all relevant previous decades, not just on the latest decade's sheet.

BORROWING OF 10-YEAR SHEETS PROHIBITED

6. On no account whatsoever are the original sheets to be lent to other branches, and care is to be exercised if sheets are wanted by sections other than Met08b within Met08.
7. These sheets may only be extracted from their binders for the very short periods required during any manuscript updating, or whilst actually being photocopied. It is important that temporarily extracted sheets are returned to their correct numerical position by station number; and if more than one decade's sheets for a station are extracted at the same time, very special care needs to be taken to ensure that each decadal sheet is returned to the correct decadal binder.

The discovery of any station's sheet missing from the binder must be reported personally to H30-in-charge RAINMASTER.



Head of Hydrometeorological
Data Systems

KEEP as top enclosure of each binder

RAINFALL AT *Darlington (Dinsdale Rectory)*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. J. W. Smith

Diameter	5										
Height	2				1		2				
Altitude	54						54				
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.45				1.58	2.51	.62	3.66	2.31	.99	
February.....	1.89				1.27	.85	2.06	1.42	.88	3.14	
March.....	1.82				.96	.50	2.82	2.13	.76	.83	
April.....	.39				.69	1.06	2.44	3.55	1.89	2.38	
May .....	.87				1.99	.91	.49	2.46	3.39	1.63	
June.....	2.30				.09	.43	2.60	1.31	2.66	3.75	
July .....	.68				1.90	6.93	2.59	2.98	1.15	2.60	
August.....	2.20				3.11	1.85	1.67	5.38	5.11	4.18	
September.....	.69				2.00	2.60	3.60	2.01	1.51	1.09	
October.....	5.19				2.08	3.62	2.65	2.62	1.58	.72	
November.....	2.52				1.90	5.96	2.95	2.18	5.57	2.29	
December.....	3.39				2.96	1.67	5.42	1.95	3.25	.50	
TOTALS	23.39				20.53	28.89	29.91	31.65	30.06	24.10	

1877 Beech Tree 40ft high & 25 yds distant

RAINFALL AT Eaglescliffe [Yarm]

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. J. Hall

Diameter.....	5										
Height.....	1										
Altitude.....	80										
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.07	44	2.02	1.16	1.31	2.50	1.07	2.89	1.95	.99	1.540
February.....	1.50	1.43	2.22	1.41	1.13	.91	1.67	2.05	.63	2.38	1.533
March.....	1.56	.64	2.93	1.68	1.40	.52	2.82	2.40	1.06	.85	1.586
April.....	.30	2.38	2.93	1.57	.55	1.09	2.36	3.17	1.62	1.63	1.760
May.....	.77	2.02	2.08	2.37	2.67	1.50	1.06	2.69	3.05	1.98	2.019
June.....	2.30	3.98	3.62	1.62	.64	2.33	2.41	1.85	3.12	3.33	2.520
July.....	.53	4.03	4.44	1.99	2.00	5.14	3.22	3.70	.77	3.39	3.001
August.....	2.04	1.08	2.63	2.30	2.40	2.17	2.28	5.28	5.95	3.79	2.992
September.....	.57	5.29	5.47	1.36	2.98	2.14	3.90	3.03	1.95	1.28	2.797
October.....	4.02	1.99	3.80	2.38	1.37	3.37	2.34	2.70	1.80	1.05	2.562
November.....	2.38	1.61	4.16	1.64	1.85	6.08	3.02	2.29	6.55	1.73	3.131
December.....	3.05	1.65	3.16	.21	2.65	1.57	4.45	2.26	3.21	.78	2.299
TOTALS.....	2489	2734	3946	19.69	2095	2932	3060	3431	3166	2318	27.740

On lawn about 30 ft from the house
House 35 ft high 24 ft N.

Eaglescliffe church 60 yds W.

RAINFALL AT *Darlington South End*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Mr. J. Richardson
1875 W. N. Black

Diameter	8	8									
Height	10	1.0	10								
Altitude	130		140								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.80	1.00	2.36			2.29	.52	3.98	2.17	1.19	
February.....	1.75	1.66	2.57			.46	1.84	1.51	1.09	2.76	
March.....	1.56	.81	2.96			.50	2.58	1.88	.72	.94	
April.....	.45	2.48	2.54			.80	2.50	4.13	2.25	1.91	
May .....	.76	1.51	2.01			.94	1.20	2.18	3.57	1.32	
June.....	1.73	3.60	2.47			2.71	2.13	1.34	2.13	3.74	
July .....	.41	3.53	2.89			5.16	2.45	3.46	1.01	3.05	
August.....	2.18	1.14	4.47			1.91	1.92	5.50	4.58	2.83	
September.....	.47	3.66	3.03			2.97	3.34	1.95	1.43	1.03	
October.....	4.94	2.10	3.90			4.32	1.66	2.90	1.70	.65	
November.....	1.94	1.37	4.62			5.49	2.95	2.47	5.16	1.97	
December.....	3.13	1.41	2.68			1.63	5.58	1.67	2.47	.79	
TOTALS	21.15	24.27	36.50	17.50	20.00	29.18	28.67	32.97	28.28	22.18	26.070

1871 - Diam: returned as 9 in, should be 8 in.

1873 + 1874 estimated from Eaglescliffe [Yarm]
Gairford + Brinkburn

RAINFALL AT *Darlington South End*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Mr. J. Richardson

Diameter .....	.5										
Height	3	1	0	10							
Altitude	140	140	0								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.38	.67	1.90								
February.....	1.09	1.29	1.66								
March.....	1.20	.76	1.26								
April.....	-.47	2.02	2.11								
May .....	.70	1.32	1.87								
June.....	1.60	3.21	2.19								
July .....	.44	2.89	2.61								
August.....	1.79	1.08	3.84								
September.....	.55	3.30	2.92								
October.....	4.54	1.95	3.58								
November.....	1.67	1.64	3.69								
December.....	2.54	.97	2.23								
TOTALS	17.97	21.10	29.86								

1870 The least recorded since the commencement of my record in 1858 The almost total absence of Thunder showers and rather dry Summer I think are sufficient to account for it

RAINFALL AT *Darlington Cleveland Parade*

Lat.....

Lon.....

County of.....*Durham*.....

.....Rain Gauge, by.....

Observer... *S. Hare*.....

Diameter.....					5						
Height.....					4.6	3.6		1			
Altitude.....					140		160				
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....					1.53	2.12	.53	3.64	2.24	1.27	
February.....					1.44	.97	1.95	1.37	1.14	3.29	
March.....					.91	.39	2.69	2.09	.79	1.00	
April.....					.57	.86	2.01	4.33	2.46	1.96	
May.....					.63	.88	1.21	1.90	3.60	1.19	
June.....				#	1.09	2.95	3.25	2.50	1.32	2.39	4.04
July.....					.95	1.49	6.52	2.42	3.48	.82	2.74
August.....					2.10	2.76	2.25	1.34	5.32	4.59	2.77
September.....					1.77	1.82	2.63	3.02	1.84	1.43	1.08
October.....					1.89	2.07	3.86	1.51	2.86	1.74	.55
November.....					1.45	1.90	5.45	3.10	2.49	4.68	2.04
December.....					.31	3.45	1.50	6.91	1.62	3.09	.79
TOTALS.....					21.52	30.68	29.19	32.26	28.97	22.72	

1875 Gauge slightly sheltered by shrubs to the S

1877 Gauge moved on June 28^c on account of the growth of shrubs

1878 A shrub on the N 4ft high 3ft distant

1879 Shrub cut to 3ft "

St Cuthberts church $\frac{1}{2}$ mile E. Trinity ch: $\frac{1}{2}$ mile N.E.

RAINFALL AT *Darlington Gainford*

Lat.....

Lon.....

County of...

Durham

Rain Gauge, by.....

Observer

A. Atkinson Esq.

Diameter .....	.5										
Height	1		1								
Altitude	253.		250								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.56	1.07	3.10	1.81	1.81	2.38	.30	4.22			
February.....	2.14	1.54	2.74	1.20	1.54	1.21	1.89	1.52			
March.....	1.35	1.07	4.41	2.28	1.10	.84	3.18	2.58			
April.....	.45	2.86	2.49	.66	1.28	.84	2.69	3.80			
May.....	.52	1.28	1.00	1.92	2.86	1.06	.73	2.27			
June.....	1.61	3.20	2.99	1.33	1.41	1.98	2.42	1.30			
July.....	.57	3.11	5.15	3.30	2.47	4.29	2.13	3.61			
August.....	2.36	1.25	3.90	2.09	3.16	2.40	2.21	4.99			
September.....	.81	5.52	3.32	1.44	2.56	3.17	3.77	2.18			
October.....	⁺ 5.10	1.98	4.16	2.12	1.96	4.37	1.69	2.80			
November.....	1.45	1.22	4.41	2.07	2.13	5.79	3.10	2.71			
December.....	3.70	1.87	3.34	.39	3.70	1.92	6.94	1.55 [#]			
TOTALS	21.62	25.97	41.01	20.61	25.98	30.25	31.05	33.53			

230.02
53.50
283.52

RAINFALL AT *Whorlton The Green* **70**

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *Miss F. A. Dogson*

Diameter								5	.		
Height . . . .								.11	.		
Altitude								424	.		
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January								5.52		.53	
February								1.35		4.05	
March								3.19		1.61	
April								3.81	2.47	2.65	
May								2.22	5.49	1.70	
June								1.40	3.41	3.69	
July								4.31	.79	2.90	
August								5.75	5.20	3.19	
September . .								3.05	1.52	1.17	
October								2.83	1.86	.59	
November . .								(1.68) 4.20 ²	5.69	1.27	
December . .									2.03	1.21	
TOTALS . .										24.56	

1877 Nov^r observer leaving home for a time,

1879 Wall 4ft high 6ft 6 ins N.

St Marys church Whorlton 30 yds S.

RAINFALL AT *Darlington* *Flora Gardens*

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *M^r W. Wather*

Diameter							8	.	.	.	
Height							2	.	.	.	
Altitude							147	.	.	.	
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January ....							.45	3.82	2.08	1.18	
February. . .							1.84	1.45	1.11	2.88	
March							2.49	1.77	.65	.86	
April							2.50	4.10	2.55	1.83	
May							1.07	2.06	3.56	1.33	
June							2.06	1.16	2.25	3.64	
July							2.50	3.40	.75	2.93	
August							1.93	5.29	4.65	2.81	
September ..							3.58	1.86	1.40	1.09	
October							1.74	2.83	1.74	.62	
November ..							2.99	2.91	4.68	2.03	
December ..							6.21	1.53	2.80	.77	
TOTALS ..							29.36	32.18	28.22	21.97	

1877 A tree about 12 ft high 36 ft from gauge

S^t Cuthberts church 1 mile E.

RAINFALL AT *Darlington Brinckburn*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. J. J. Whaler

Diameter .....	.8	.	.	.	.	.	8	.	.	.	.
Height	1	.	.	.	.	.	1.6	1.3	1.6	.	.
Altitude	50?	.	.	.	.	.	170	165	.	.	.
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.35	.80	2.30		1.55	2.30	.50	4.12	1.87	1.14	
February.....	2.00	1.60	2.35		1.10	1.05	1.95	1.50	1.10	3.15	
March.....	1.25	.55	3.00		.54	.15	2.75	2.10	.70	2.00	
April.....	.75	3.00	2.40		.55	.70	2.40	4.60	2.30	1.80	
May .....	.65	.70	1.40		1.81	.80	1.27	1.90	3.85	1.55	
June.....	1.60	3.90	3.00		1.00	2.50	2.05	1.50	2.26	3.32	
July .....	.45	4.07	4.35		2.40	5.10	2.60	3.65	.77	3.42	
August.....	2.10	.95	4.85		2.35	2.10	2.00	5.25	4.90	3.33	
September.....	-.55	4.40	2.50		2.45	3.20	3.70	2.20	1.40	1.25	
October.....	+4.70	1.50	3.95		2.10	4.50	1.90	2.95	1.65	.56	
November.....	1.90	.80	3.80		2.00	5.55	2.86	2.70	4.70	2.04	
December.....	2.35	1.20	2.90		3.05	1.35	6.65	1.65	2.75	.91	
TOTALS	19.65	23.47	36.80		20.90	29.30	30.63	34.12	28.25	24.47	

1877 Fruit Trees 10 ft high about 12 ft distant

RAINFALL AT *Whorlton*

Lat.....

Lon.....

County of

Durham

Rain Gauge, by.....

Observer

Rev. A. W. Head Lam

Diameter					6						
Height			1		8						
Altitude					400						
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			4.05	2.94	2.45	2.95	.82				
February.....			2.11	.83	1.71	.87	2.11	#			
March.....			3.12	2.28	1.46	.70					
April.....			2.82	.51	1.64	.93					
May			1.00	1.97	2.18	1.31					
June.....			3.38	1.16	2.45	1.52					
July			4.58	2.08	1.05	4.29					
August.....			4.20	2.00	3.25	2.41					
September.....			2.28	1.39	1.84	3.50					
October.....			4.66	2.43	2.96	4.52					
November.....			4.63	2.25	2.64	4.21					
December.....			4.86	.37	3.75	3.23	#				
TOTALS			41.69	20.21	27.38	30.44					

1873 New Gauge started in a better position

RAINFALL AT Gainford

70

Lat.

Lon.

County of Durham

Rain Gauge, by

Observer A. Atkinson

Diameter . . .							5				
Height . . .							1				
Altitude . . .							252				
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .							31	431	207	89	
February . .							196	152	129	369	
March							324	262	61	118	
April							268	384	185	186	
May							72	228	407	135	
June							243	130	290	360	
July							214	360	48	338	
August							220	499	490	302	
September . .							385	218	235	143	
October							169	278	148	62	
November . .							313	271	614	98	
December . .							721	155	246	90	
TOTALS . .							3156	3368	3060	2290	

3188.14

RAINFALL AT *Staindrop Raby Castle*

70

Lat.

Lon.

County of

Durham

Rain Gauge, by

Observer

M^r Westcott

Diameter . . .							8				
Height . . .						1 -					
Altitude . . .						460					
Year . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . .							72	4.41	2.26	43	
February . . .							2.55	1.39	1.19	3.67	
March							4.18	3.62	74	1.50	
April							2.77	4.33	1.70	2.57	
May							75	2.32	5.25	1.61	
June							2.27	1.56	2.77	3.89	
July							1.65	3.90	50	3.64	
August							2.43	6.09	3.58	3.33	
September . . .							3.44	2.62	2.02	1.76	
October							1.92	3.10	1.43	81	
November . . .						# 5.76	3.43	2.76	5.84	1.64	
December . . .						2.29	8.46	1.57	2.47	1.25	
TOTALS . . .							34.57	37.67	29.75	26.10	

RAINFALL AT *Darlington Heighington Vic.*

70

Lat.

Lon.

County of

Durham

Rain Gauge, by

Observer

Rev C C Chevallier

Diameter									5		
Height								4			
Altitude		460									
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January	1.49	.63	2.60	1.51	1.72	2.94	.66	4.42	2.09	1.37	1.943
February	2.09	1.78	2.92	1.97	1.26	1.16	2.49	2.49	1.16	3.51	2.083
March	1.40	.80	4.05	2.41	.78	.69	2.82	3.02	.85	1.34	1.816
April ....	.46	3.02	2.71	1.00	1.50	.85	2.74	4.65	2.28	2.05	2.126
May ....	.71	1.14	1.77	2.39	2.62	1.13	.90	2.32	4.41	1.89	1.928
June	1.48	3.33	2.16	1.61	1.41	1.89	2.57	1.87	2.68	3.92	2.292
July ....	.83	3.91	4.08	2.67	1.48	6.76	2.01	4.47	.49	4.02	3.072
August ....		.83	3.22	2.03	.62	2.33	2.53	5.40	5.04	3.06	
September ..	.43	5.79	4.22	1.37	2.80	2.69	4.03	2.87	1.72	1.25	2.717
October	5.22	1.40	4.93	1.29	2.71	5.43	1.97	3.14	1.61	.55	2.825
November ..	1.96	2.21	4.42	2.06	1.79	6.06	3.09	2.62	6.86	2.04	3.311
December ..	4.66	1.65	3.69	.38	4.13	1.73	7.16	1.85	2.80	.68	2.873
TOTALS ..		26.49	40.77	20.69	22.82	33.66	32.97	39.12	31.99	25.68	

Gauge in the middle of a garden about 60 x 28 yards
1878 House 30 ft high 38 ft to N.

79 " 30 " 120 " - N.

1879 Observatory 3 ft high ~~120 ft~~ 50 ft S.E.

Heighington church 200 ft N.W.

RAINFALL AT *Sedgefield County Asylum*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer.....

D. Smith

Diameter.....	.5										
Height.....	.10					1	1				
Altitude.....	360										
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.23	.98	2.48	1.15	1.45	2.52	.63	3.64	1.70		
February.....	1.23	1.54	2.25	1.10	1.06	1.26	2.34	1.41	.93		
March.....	1.41	.66	3.28	1.98	.97	.64	2.33		.72		
April.....	.41	3.07	3.59	1.42	1.12	.83	2.85	4.35	1.99		
May.....	1.28	1.74	2.14	2.35	2.27	1.11	1.36	2.42	3.02		
June.....	1.73	3.48	2.36	1.96	1.18	1.86	2.10	1.47	3.14		
July.....	.66	4.62	3.70	2.68	.97	3.71	2.49		.14		
August.....	2.62	.67	3.44	2.09	1.79	2.54	2.08	5.61	6.11		
September.....	.85	5.46	4.29	1.17	2.72	2.04	(3.20)	2.28	1.44		
October.....	4.63	2.78	3.95	1.82	1.71	4.59	1.89	2.75	1.39		
November.....	2.43	1.86	4.55	1.76	2.12	6.73	2.98	1.94	7.39		
December.....	4.92	1.54	3.31	.19	5.04	1.48	6.90	1.49	4.83		
TOTALS.....	23.39	28.40	39.34	19.67	22.40	29.31			32.80		

1871 90 feet from the House 1876 Sept. 24th obs. lost

1874 This gauge is placed in front of a high and extensive building and also near but by no means in close approximation to your trees & shrubs. In consequence of the discrepancy two new gauges have been planted, one a 10 in "Recording" by Casella near the "Monthly" gauge the other a 5 in by N.V.J. near the "daily" gauge.

76 N.R.

1879 no repl

RAINFALL AT *Sedgefield D.C. Asylum*

70

Lat..... Lon..... County of..... *Durham*.....

Rain Gauge, by..... Observer... *D. R. Smith*..

Monthly

Diameter.....					5			5			
Height.....					11			1			
Altitude.....					360			360			
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....					1.50	2.53	.62	3.54			
February.....					1.02	1.14	2.29	1.43			
March.....					.97	.58		2.86			
April.....					1.13	.85	2.76	4.17			
May.....					2.33	1.10	1.47	2.45			
June.....					1.26	1.98	2.84	1.40			
July.....					1.05	2.90	2.42	3.18			
August.....					1.49	2.48	2.17	5.52			
September.....					3.11	2.11	3.90	2.24			
October.....					2.02	5.51	2.04	2.92			
November.....					2.32	7.03	2.94	1.92			
December.....					5.08	1.33	6.91	1.57			
TOTALS.....					23.28	29.54		33.20			

1874 This gauge is placed far from Trees or Buildings
76 1876 March lost

RAINFALL AT *Widdy Bank 10 mls N. of [Brough]*

Lat. Lon. County of *Durham*
 Rain Gauge, by Observer *M^r A. Hood*

Diameter						8					
Height						1. -					
Altitude						1550					
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January							2.10	10.30	4.80		
February							5.80	6.10	2.10		
March							6.40	2.90	.90		
April							3.30	3.90	2.80		
May							1.60	3.90	5.90		
June							3.30	4.10	5.80		
July							3.00	6.90	2.80		
August							4.00	9.70	5.10		
September ..							5.90	4.30	7.60		
October							3.30	7.40	7.90		
November ..						# 7.00	4.10	8.10	5.60		
December ..						4.55	9.20	2.20	3.20	#	
TOTALS ..							52.00	69.80	54.50		

RAINFALL AT Middleton in Teesdale *Pikedale*

70

5 mls N.N.W.

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *M^r A. Hood*

Diameter....						8					
Height						1-					
Altitude						1540					
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January							1.20	9.00			
February....							6.80	5.60			
March							7.10	#			
April							3.50				
May							1.70				
June							3.10				
July							2.10				
August							4.10				
September ..							5.60				
October							3.10				
November ..						# 6.70	4.00				
December ..						4.80	9.70				
TOTALS ..							52.00				

70
RAINFALL AT *Middleton in Teesdale, Langdon Beck 8 mls N.W.*

Lat. Lon. County of *Durham*
Rain Gauge, by Observer *M^r A. Hood*

Diameter . . .						<i>.8</i>					
Height . . .						<i>1-</i>					
Altitude . . .						<i>1600</i>					
Year . . .	<i>1870</i>	<i>1871</i>	<i>1872</i>	<i>1873</i>	<i>1874</i>	<i>1875</i>	<i>1876</i>	<i>1877</i>	<i>1878</i>	<i>1879</i>	MEANS.
January . . .							<i>2.70</i>	<i>9.00</i>	<i>5.20</i>		
February . . .							<i>7.50</i>	<i>5.80</i>	<i>2.00</i>		
March							<i>6.80</i>	<i>3.80</i>	<i>1.10</i>		
April							<i>3.20</i>	<i>4.00</i>	<i>3.10</i>		
May							<i>1.30</i>	<i>3.60</i>	<i>6.20</i>		
June							<i>3.20</i>	<i>4.30</i>	<i>4.60</i>		
July							<i>2.70</i>	<i>6.10</i>	<i>3.20</i>		
August							<i>3.90</i>	<i>11.40</i>	<i>5.60</i>		
September . .							<i>6.40</i>	<i>3.90</i>	<i>7.10</i>		
October							<i>3.40</i>	<i>6.80</i>	<i>4.40</i>		
November . .						<i># 6.80</i>	<i>4.30</i>	<i>7.90</i>	<i>5.90</i>		
December . .						<i>6.40</i>	<i>9.90</i>	<i>3.70</i>	<i>2.40</i>	<i>#</i>	
TOTALS . .							<i>55.30</i>	<i>70.30</i>	<i>50.80</i>		

RAINFALL AT *Hartlepool Fleugh L.H.*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. R. J. Wheeler

Diameter .....	.5							.5	.	.	
Height	1	.	5	.	3			6	.	.	
Altitude	30	.	36	.	30			34	.	.	
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.22		2.10		1.68	2.29	.75	3.48	2.12	1.69	
February.....	1.22		2.41		.92	.94	2.82	2.06	.79	3.12	
March.....	1.44		3.87		1.62	.56	2.58	2.46	1.10	1.36	
April.....	1.33		2.27		.87	.95	2.89	3.54	2.40	2.52	
May.....	1.42		2.22		2.28	.98	1.60	2.60	2.87	2.59	
June.....	2.50		3.03		1.16	1.68	1.86	1.80	3.37	3.14	
July.....	.60		3.35		.95	3.58	2.84	2.79	.54	4.63	
August.....	2.17		2.57		1.49	3.12	2.68	5.30	4.66	4.73	
September.....	.82		5.64		2.09	1.75	3.60	3.04	2.45	1.47	
October.....	3.51		4.07		1.94	2.86	1.69	3.45	1.76	1.00	
November.....	3.94		4.02		2.80	6.49	3.12	1.54	7.55	3.08	
December.....	4.61		4.06		4.68	1.68	6.47	2.57	6.11	2.06	
TOTALS	23.78	(26.50)	39.61	(20.00)	22.48	26.88	32.90	34.63	35.72	31.39	(29.389)

77. The gauge is in the centre of a grass plot

1879 Fence 7ft high 40ft w.

St. Hildas church $\frac{1}{4}$ mile N.W.

1871 + 1873 estimated from Hart Reservoir

RAINFALL AT *Hartlepool Hurworth Burn*Lat... *54. 41. 5.*Lon... *1. 22. 0. W.*County of... *Durham*Rain Gauge, by... Observer... *Thos. Fenwick Esq. C. E.*

Diameter.....	8											
Height.....	.7											
Altitude.....	360.		360 ^π									
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	1.46	1.39	4.12	1.39	1.09	1.64	.85	3.37	1.86	2.28	1.945	
February.....	1.60	2.39	2.52	2.12	.70	.88	2.08	1.52	.79	3.15	1.775	
March.....	2.03	1.03	4.39	2.33	.86	.68	2.00	2.54	.86	.95	1.767	
April.....	.64	3.20	4.30	1.82	.88	.53	2.01	3.95	1.79	1.87	2.099	
May.....	1.93	1.87	1.70	2.83	2.57	.85	1.30	2.22	2.74	1.55	1.956	
June.....	2.19	4.02	2.52	2.01	.80	1.66	2.75	.88	3.58	3.25	2.366	
July.....	.70	6.61	3.72	2.31	.94	4.34	2.15	2.39	.34	3.47	2.697	
August.....	2.71	.87	2.99	2.11	1.60	2.96	2.39	4.83	5.24	3.04	2.874	
September.....	.87	6.10	4.14	1.60	1.98	1.43	3.15	2.12	1.06	1.06	2.351	
October.....	⁺ 5.48	2.26	4.02	2.40	1.32	4.63	3.07	2.24	1.22	.63	2.727	
November.....	4.13	2.24	5.10	1.81	1.91	6.94	2.66	.99	6.58	2.74	3.510	
December.....	5.10	2.53	4.09	.13	4.35	.92	7.11	1.49	6.55	1.21	3.348	
TOTALS.....	28.84	34.51	43.61	22.86	19.00	27.46	31.52	28.54	32.61	25.20	29.415	

1871 by placed in an open field on ground sloping gradually down towards the E

RAINFALL AT *Hartlepool Hart Reservoir*

Lat..... Lon..... County of..... *Durham*
..... Rain Gauge, by..... Observer *Thos Jenwrik Esq. C.E.*

Diameter	8										
Height	9		7		9						
Altitude	164				164 ⁷						
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.27	.72	1.81	1.03	1.47	2.50	.74	2.80	1.45	1.07	1.486
February.....	1.08	1.62	1.81	1.64	.70	.72	2.16	1.57	.72	1.80	1.382
March.....	1.33	.56	2.88	1.47	1.16	.44	2.34	1.98	.88	1.10	1.414
April.....	.34	2.72	2.73	1.41	.77	.83	2.51	3.23	1.85	1.81	1.820
May.....	1.46	1.53	2.24	2.62	3.12	.88	1.37	2.40	2.49	1.36	1.947
June.....	2.45	3.04	2.90	1.56	.96	1.50	2.12	1.45	3.43	2.91	2.232
July.....	.46	4.13	3.36	2.34	.91	3.35	2.74	1.96	.36	3.41	2.302
August.....	2.39	1.05	2.90	1.65	1.74	3.34	2.45	5.01	5.52	3.97	3.002
September.....	.95	4.80	5.44	1.41	1.96	2.23	3.70	2.30	1.26	.91	2.496
October.....	3.88	2.17	4.34	2.34	1.86	3.35	1.61	2.74	1.70	.52	2.451
November.....	3.05	1.61	4.95	1.73	2.08	6.39	2.34	1.27	5.45	2.00	3.087
December.....	4.29	1.73	3.16	.29	3.59	1.51	5.49	1.74	2.89	.85	2.554
TOTALS	22.95	25.68	38.52	19.49	20.32	27.04	29.57	28.45	28.00	21.71	26.173

C E C
1871 G placed on the top of the embankment level with adjacent ground in an exposed situation

RAINFALL AT *Nolsingham St Johns*

Lat..... Lon..... County of..... *Durham*
 Rain Gauge, by..... Observer *C J Backhouse Esq.*

Diameter	5										
Height	1	1									
Altitude	928		927								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	3.04	1.57	4.41								
February.....	2.57	2.53	4.05								
March.....	1.57	1.76	3.11								
April.....	.76	3.38	2.85								
May	1.75	1.53	2.38								
June.....	1.54	3.31	3.25								
July .....	.72	3.32	4.84								
August.....	2.17	2.87	3.37								
September.....	1.19	6.11	5.56								
October.....	6.82	3.02	6.33								
November.....	3.06	1.50	3.10								
December.....	4.08	2.70	4.42								
TOTALS	29.27	33.60	47.67								

1871 1/2 on open grass border

RAINFALL AT *Heardale W.W. Waskerley 2* 70

Shield Green

Lat. _____ Lon. _____ County of *Durham*
 Rain Gauge, by _____ Observer *R. Ackwith Esq.*

Diameter.	8										
Height.	4.39 4 5										
Altitude.	1366.71 1367										
Year.	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	1.98	5.54	3.87	1.60	1.24	2.75	.81	5.61	3.26	1.02	2.204 4.407 2.203
February.	1.52		3.64	1.58	1.80	.50	2.81	2.43	1.05	1.06	
March. ....	.68	1.01	1.58	1.67	1.01	.72	2.91	3.43	.87	1.11	2.016 4.031 2.015
April. ....	.72	2.49	3.79	.83	1.67	1.15	3.22	5.30	3.13	3.02	
May.	1.45	1.46	2.11	2.70	2.49	1.39	1.90	3.08	5.62	1.86	2.406
June.	1.71	3.07	2.85	1.04	1.69	2.15	3.22	1.78	2.63	4.81	2.495
July. ....	.98	2.09	4.23	1.20	1.35	5.79	1.64	5.02	1.08	6.55	2.993
August.	2.35	2.00	2.98	1.67	3.12	3.32	1.46	8.13	6.11	4.74	3.588
September.	1.55	4.56	3.52	2.42	2.16	3.52	5.42	1.72	2.80	1.49	2.916
October.	5.91	5.14	7.12	2.25	2.62	5.51	1.65	3.09	2.29	1.41	3.699
November.	1.53	1.69	4.09	2.26	1.21	3.92	3.36	2.40	5.15	1.36	2.697
December.	3.10	1.52	5.26	.81	2.15	2.39	7.21	1.77	1.74	.65	2.660
TOTALS.	23.48	30.57	45.04	20.03	22.51	33.11	35.61	43.76	35.73	29.08	31.892

1871 Jan. gauge frozen

1872 Fells impassable twice in March which must therefore be taken with April.

RAINFALL AT *Weardale W.W. Waskerley Park*

Lat. _____ Lon. _____ County of *Durham*

Rain Gauge, by _____ Observer *R. Arkwith Esq.*

Diameter.	8										
Height.	4.62 4 7										
Altitude.	1324.33 1321										
Year.	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	2.04		3.64	1.58	1.24	2.79	.98	5.48	2.81	.97	} 2.111 4.221 2.110
February.	1.52	5.17	3.48	1.43	1.77	.47	2.87	2.26	.83	.88	
March. ....	.62	.96	.64	1.64	1.02	.72	2.91	3.95	.66	.93	} 1.843 3.785 1.842
April. ....	.74	2.32	4.50	.89	1.65	1.10	2.66	4.43	2.87	2.64	
May.	1.44	1.66	2.20	2.76	2.41	1.46	1.80	2.61	4.49	1.53	2.233
June.	1.63	3.33	2.95	1.15	2.18	2.16	3.13	1.80	2.71	4.73	2.577
July.	1.00	2.73	4.24	1.80	1.53	5.70	1.53	4.74	.95	5.12	2.934
August.	2.15	2.04	2.88	1.74	3.08	3.49	1.39	.75	5.83	4.87	3.499
September.	1.33	4.21	3.54	2.49	2.19	3.52	5.87	1.74	2.77	1.63	2.929
October.	6.49	4.35	7.24	2.55	2.54	5.57	1.74	3.42	2.39	1.14	3.743
November.	1.60	1.49	4.64	2.40	1.21	3.79	3.43	2.44	4.44	1.00	2.644
December.	3.15	1.32	5.66	.96	2.15	2.50	6.70	1.53	1.63	.69	2.629
TOTALS.	23.68	29.58	45.61	21.39	22.97	33.27	35.01	41.92	32.38	26.13	31.194

1871 January Gauge frozen up.

1872 Falls impassable twice in March which must therefore be taken with April.

RAINFALL AT *Weardale W. W. Haslerley 5*

70

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *R. Adworth Esq.*

Diameter.	8										
Height.	42	4	2								
Altitude.	1243	1244									
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	2.09		3.94	1.54	1.23	2.88	.90	5.68	2.66	1.04	2.168
February.	1.57	5.32	3.76	1.50	1.80	.50	2.89	2.02	1.07	.96	4.335
March. ....	.68	.83	.64	1.69	1.00	.72	2.68	3.80	.51	1.04	1.925
April. ....	.73	2.62	4.50	.81	1.67	1.10	3.08	5.17	2.59	2.64	3.850
May.	1.46	1.82	1.97	2.84	2.45	1.43	1.63	2.55	4.80	1.28	2.223
June.	1.48	3.60	3.10	1.06	1.97	2.17	3.36	1.82	2.95	4.88	2.639
July. ....	.88	2.45	4.11	1.61	1.45	5.86	1.68	4.81	.80	4.15	2.780
August.	2.23	2.11	2.73	1.72	3.10	3.56	1.54	7.37	5.35	5.08	3.479
September.	1.36	4.10	3.40	2.44	2.13	3.56	5.51	1.57	2.57	1.72	2.836
October.	6.16	4.37	6.82	2.45	2.52	5.54	1.72	3.39	2.37	.91	3.625
November.	1.63	1.57	4.65	2.36	1.21	3.85	3.55	2.34	4.52	.83	2.645
December.	3.18	1.31	6.04	.98	1.80	2.53	6.48	1.68	1.38	.80	2.618
TOTALS.	23.45	30.04	45.66	21.00	22.33	33.70	35.02	42.20	31.57	25.33	31.030

1871 January Range frozen up

1872 ~~January~~ Fells impassable twice in March which must therefore be taken with April.

RAINFALL AT *Weardale W.W. Waskerley*

Lat.

Lon.

County of *Durham**Waskford Hill*

Rain Gauge, by

Observer *R. Ackwith Esq.*

Diameter.	8										
Height.	42										
Altitude.	1229										
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	2.06		3.67	1.58	1.19	2.91	.80	5.38	2.91	.92	2.099
February.	1.48	5.03	3.51	1.53	1.76	.48	2.79	2.01	1.02	.94	4.197 2.098
March. ....	.64	.91	.63	1.56	1.02	.71	2.74	3.57	.60	1.00	1.880
April. ....	.63	2.50	4.90	.86	1.61	1.09	2.89	4.81	2.44	2.49	3.760 1.880
May.	1.65	1.49	1.97	2.73	2.33	1.40	1.65	2.48	4.69	1.35	2.174
June.	1.49	3.64	3.21	.95	1.96	2.18	3.39	1.81	3.13	4.90	2.666
July. ....	.81	2.29	4.07	1.58	1.39	5.77	1.63	4.54	.91	4.49	2.748
August.	2.08	2.03	2.97	1.66	3.12	3.58	1.48	6.95	5.49	4.51	3.387
September.	1.37	4.07	3.48	2.28	2.10	3.54	5.17	1.51	2.55	1.73	2.780
October.	5.96	4.51	7.09	2.34	2.41	5.46	1.48	3.35	2.23	.99	3.582
November.	1.50	1.67	4.40	2.17	1.18	3.84	3.53	2.26	4.53	.89	2.597
December.	3.10	1.31	5.90	.85	1.83	2.42	6.21	1.51	1.39	.75	2.527
TOTALS.	22.77	29.45	45.80	20.09	21.90	33.38	33.76	40.18	31.89	24.96	30.418

1871 January Gauge frozen up.

1872 Falls impassable twice in March which must therefore be taken with April.

RAINFALL AT Weardale W.W. Waskerley ³70
Railway Junction

Lat. _____ Lon. _____ County of Durham
Rain Gauge, by _____ Observer R. Ackwith Esq.

Diameter.	8										
Height.	4.6	4	6								
Altitude.	1432.69	1433									
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January	2.22	.80	4.01	2.16	1.25	2.83	1.01	5.72	3.39	1.13	2.452
February.	1.55	5.82	3.34	1.06	1.78	.65	2.82	2.56	.94	1.09	2.161
March .....	.78	1.24	.68	1.56	1.03	.74	3.03	4.13	1.22	1.11	1.982
April .....	.70	2.17	5.08	.90	1.60	1.05	2.72	4.05	3.32	2.52	1.984
May	1.58	1.48	2.25	2.71	2.58	1.44	1.77	2.69	5.26	1.58	2.334
June	1.78	2.99	2.77	1.02	2.15	2.19	3.18	1.76	2.60	4.63	2.507
July.	1.05	2.25	4.21	1.22	1.61	5.71	1.66	4.50	1.11	6.58	2.990
August	1.94	2.00	3.00	1.93	3.14	3.00	1.49	7.33	5.85	5.37	3.505
September.	1.76	3.69	3.18	2.67	2.26	3.62	5.71	1.75	3.02	1.63	2.929
October	6.50	4.58	6.94	2.44	2.65	5.08	1.70	3.33	2.42	1.31	3.695
November.	1.72	1.63	4.59	2.18	3.12	3.84	3.26	2.56	5.38	1.24	2.952
December	3.21	1.69	5.64	.89	2.53	2.43	6.20	1.75	2.21	.79	2.734
TOTALS	24.79	30.34	45.69	20.74	25.70	32.58	34.55	42.13	36.72	28.98	32.222

1872 *Fells impassable twice in March which must therefore be taken with April.*

3545

022094

70

RAINFALL AT *Weardale W.R. Waskerley**Skaylock Hill.*

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *R. Ackwith Esq.*

Diameter.	4										
Height.	43										
Altitude.	1317										
Year.	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	1.94	5.25	3.89	2.14	1.19	2.45	.70	4.70	2.78	1.13	2.072 4.144 2.072
February.	1.53		3.63	1.06	1.77	.55	2.60	2.09	1.00	1.04	
March. ....	.63	.88	1.02	1.70	1.02	.71	2.55	3.58	.55	1.01	1.905 3.809 1.905
April. ....	.70	2.57	5.26	.88	1.67	1.14	2.58	4.40	2.51	2.73	
May.	1.39	1.33	2.00	2.66	2.45	1.35	1.46	2.64	4.48	1.45	2.121
June.	1.44	3.17	3.00	1.07	2.01	2.20	3.02	1.46	2.66	4.61	2.464
July. ....	.99	2.06	4.78	1.16	1.31	5.49	2.01	4.39	.63	3.81	2.663
August.	2.41	2.03	2.80	1.75	3.20	3.40	1.44	6.69	4.89	3.87	3.245
September.	1.31	4.58	3.78	2.47	2.10	3.37	4.43	1.48	2.32	1.58	2.742
October.	6.10	4.97	7.03	2.21	2.45	5.69	1.33	2.91	1.88	1.14	3.571
November.	1.28	1.58	4.88	2.28	3.09	3.84	3.08	2.14	4.01	1.20	2.738
December.	3.05	1.32	6.16	.83	2.46	2.14	6.56	1.79	1.65	.72	2.668
TOTALS.	22.77	29.74	48.23	20.21	24.72	32.33	31.73	38.27	29.36	24.29	30.165

1871 Gauge frozen in Jan.

1872 Falls impassable twice in March which must be taken with April

RAINFALL AT *Wolsingham*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Amos Mitchell Esq.

Diameter.....	.5										
Height.....	1										
Altitude.....	464										
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	2.86	1.80	4.70	3.28	2.80	4.49	.97	6.32	2.66	1.57	3.153
February.....	3.26	2.44	3.77	2.07	1.61	1.98	3.41	2.12	1.31	3.12	2.503
March.....	1.95	1.53	4.48	3.10	2.01	.71	3.69	4.78	.86	1.58	2.469
April.....	.81	2.55	3.85	.99	1.86	1.12	3.24	5.33	2.06	2.77	2.458
May.....	1.79	1.40	2.23	2.44	2.54	1.44	1.19	3.01	5.55	2.21	2.380
June.....	1.77	3.14	2.74	1.32	1.51	2.15	3.42	1.64	2.41	4.71	2.481
July.....	.60	3.13	5.03	2.26	.79	4.59	1.48	3.67	.81	5.11	2.747
August.....	2.35	2.88	3.64	2.77	2.53	2.77	2.14	7.13	5.09	3.46	3.476
September.....	1.21	5.73	4.65	1.92	2.80	2.96	3.87	2.18	1.96	1.38	2.866
October.....	6.31	2.54	7.02	2.29	2.54	5.60	1.86	3.17	2.30	.83	3.446
November.....	2.58	2.04	6.27	1.91	3.48	6.46	3.62	3.51	7.65	2.36	3.988
December.....	5.69	2.35	5.34	.69	5.12	2.51	10.01	1.84	2.87	1.02	3.744
TOTALS.....	31.18	31.53	53.80	24.98	29.59	36.78	38.90	44.70	35.53	30.12	35.711

1871 G in the most open part of our garden 15 feet from any thing that can affect it walls 7 ft high 20 ft distant.

1879 Fruit bushes 6 ft high 15 ft N.

1st Matthews church Wolsingham 300 yds N.W.

RAINFALL AT *Stanhope Castle*

Lat..... Lon..... County of... *Durham*

..... Rain Gauge, by..... Observer *Mr. J. Swales*

Diameter	<i>.8</i>										
Height	<i>.3</i>	<i>4.0</i>	<i>1.6</i>								
Altitude	<i>670.</i>										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>4.59</i>	<i>2.60</i>	<i>4.20</i>								
February.....	<i>1.41</i>	<i>1.51</i>	<i>6.00</i>								
March.....	<i>2.50</i>	<i>1.05</i>	<i>4.25</i>								
April.....	<i>1.50</i>	<i>3.05</i>	<i>3.25</i>								
May	<i>.10</i>	<i>1.50</i>	<i>2.55</i>								
June.....	<i>1.17</i>	<i>3.00</i>	<i>3.05</i>								
July	<i>.60</i>	<i>3.77</i>	<i>4.85</i>								
August.....	<i>3.01</i>	<i>1.05</i>	<i>1.30</i>								
September.....	<i>1.09</i>	<i>6.40</i>	<i>5.22</i>								
October.....	<i>8.08</i>	<i>3.39</i>	<i>6.30</i>								
November.....	<i>2.70</i>	<i>2.00</i>	<i>8.13</i>								
December.....	<i>4.77</i>	<i>3.50</i>	<i>7.50</i>								
TOTALS	<i>31.52</i>	<i>32.82</i>	<i>56.60</i>								

C C C

RAINFALL AT *Durham Observatory*

Lat.....

Lon.....

County of.....

*Durham**Side-tube*

Rain Gauge, by.....

Observer.....

J. J. Plummer Esq.

Diameter.....	1	.	.	.	.	.	.	.	.	.	.	.
Height.....	4	.	.	.	.	.	4	.	.	.	.	.
Altitude.....	335	.	.	.	.	340	.	.	.	.	.	.
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	2.30	.86	2.90	2.07	2.28	4.25	.54	6.18	2.51	1.05	2.488	
February.....	1.99	1.69	3.36	1.66	2.06	1.74	2.44	2.19	1.13	3.20	2.146	
March.....	1.49	.73	3.67	2.24	1.54	.70	3.24	4.59	.98	.98	2.016	
April.....	.63	3.36	3.34	1.21	1.82	1.02	3.23	6.06	2.57	2.15	2.539	
May.....	1.78	1.70	2.43	2.52	3.21	1.14	1.21	3.18	4.09	2.45	2.371	
June.....	2.02	2.85	2.61	1.63	1.42	2.61	2.81	1.69	2.95	4.25	2.484	
July.....	.57	3.12	3.90	2.73	1.85	4.31	2.90	3.81	.19	4.41	2.779	
August.....	2.14	.81	3.27	2.71	2.77	2.59	2.87	6.08	6.81	3.35	3.340	
September.....	.34	4.80	4.46	1.81	2.54	3.24	3.14	1.83	2.34	1.23	2.573	
October.....	3.76	1.75	6.31	2.00	2.40	6.69	2.47	3.78	1.93	.68	3.177	
November.....	2.11	1.66	6.16	2.04	4.63	7.13	5.23	3.06	7.41	1.92	4.135	
December.....	5.53	1.36	6.06	.43	6.53	1.84	10.20	2.24	3.78	.59	3.856	
TOTALS.....	24.66	24.69	48.47	22.99	33.05	37.26	40.28	44.69	36.69	26.26	33.904	

1871 DoS. doubtful the $\frac{1}{2}$ being broken an older gauge in a somewhat sheltered situation was recorded, the total is therefore somewhat too small. J. J. P.

1877 At the commencement of the year it was found necessary to move the gauge about 1.6 in N of its former position

Mrs. Manning writes x11/38 - "I should distrust any rainfall record from Durham Obs. from 1865 to 1879." So should I
J. J. P.

RAINFALL AT Durham Observatory

70

Lat.

Lon.

County of Durham

Rain Gauge, by

Observer G. A. Goldney Esq

Diameter. ....										.8	
Height.										4.3	
Altitude.										340	
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January. ....										.85	
February.										2.35	
March. ....										.80	
April.										1.88	
May.										2.23	
June.										3.57	
July.										3.98	
August.										3.51	
September.										1.24	
October. ....										.68	
November.										1.92	
December. ....										.60	
TOTALS.										23.62	

1879 June 30ft high 70ft N.W.

S^r Margaret in Crossgate church $\frac{1}{2}$ mile N.E.

1879 Total of the first six months 3 inches too small

RAINFALL AT *Durham St. Cuthberts Coll Ushaw*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. Dr. Gillow

Rev. J. Lorbisley

Diameter .....	.5										
Height .....	.10										
Altitude	600										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	2.05	1.17	3.06	1.80	1.74					1.45	
February.....	1.69	1.78	3.29	1.61	1.28					3.29	
March	1.40	.93	3.20	2.38	1.11					1.12	
April.....	.62	3.12	2.87	1.09	1.23					2.25	
May	1.35	1.89	1.97	2.63	3.21					1.92	
June.....	1.54	3.41	2.55	2.14	1.22					4.22	
July .....	.79	3.35	4.52	2.26	1.17					4.55	
August.....	2.29	1.49	3.21	3.03	2.33					4.14	
September.....	.80	5.03	4.65	1.61	1.77					1.20	
October.....	5.08	2.35	5.51	1.96	1.76					.79	
November.....	2.46	1.56	4.67	1.34	3.01					1.93	
December.....	4.79	1.80	4.43	.37	3.89					.74	
TOTALS	24.86	27.88	43.93	22.22	23.72					27.60	

RAINFALL AT *Seaham Harbour*

70

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *G. W. H. Aird*

Diameter.						8					
Height.						1. 9					
Altitude.						60					
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.						2.54	.72	3.06	1.83	1.34	
February.						1.16	2.14	1.82	1.02	3.10	
March. ....						.59	2.29	2.82	1.16	.78	
April. ....						.77	2.86	4.46	2.42	2.07	
May. ....						.92	1.00	2.59	2.80	1.69	
June.						2.42	1.89	1.42	1.86	4.13	
July.						4.02	2.72	3.01	.42	3.74	
August.						3.26	2.12	5.36	4.57	2.72	
September.						1.61	3.42	1.97	1.88	1.04	
October.						3.56	1.79	2.40	1.68	.83	
November.						6.67	2.88	1.51	5.75	3.44	
December.						1.64	6.25	1.67	4.24	.69	
TOTALS.						29.16	30.08	32.09	29.63	25.57	

RAINFALL AT *Seaham Vicarage*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Rev. A. Bellhouse

Diameter.....	.5	.	.	.	.	.	.	.	.	.	.
Height.....	.4	.	.	.	.	.	.	.	.	.	.
Altitude.....	80.	.	.	.	.	.	.	.	.	.	.
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.47	.96	2.41	1.00	1.76	2.45	.61	3.06	1.87	1.11	1.670
February.....	1.27	1.72	2.15	1.65	.95	1.18	2.31	1.82	1.05	3.15	1.725
March.....	1.22	.64	2.94	1.93	1.34	.61	2.62	2.62	1.24	.80	1.596
April.....	.53	2.80	2.43	1.36	.76	.73	3.18	4.13	2.64	1.98	2.054
May.....	1.41	1.45	2.03	2.65	2.88	.93	1.04	2.71	3.10	1.79	1.999
June.....	2.22	2.81	3.25	1.48	.93	2.44	1.90	1.57	1.99	2.84	2.143
July.....	.42	4.35	4.39	2.75	1.59	4.08	3.01	3.04	.73	4.17	2.853
August.....	2.29	.68	3.17	1.70	2.80	3.37	2.15	5.86	4.37	2.97	2.936
September.....	.84	4.58	5.35	1.33	2.09	1.94	3.57	2.08	1.52	1.14	2.444
October.....	4.08	1.94	5.30	2.51	1.99	3.47	1.94	2.60	1.80	.84	2.647
November.....	3.72	2.41	4.30	1.57	3.15	6.27	2.77	1.76	6.12	3.31	3.538
December.....	5.93	1.69	3.90	.34	4.79	1.79	5.38	1.76	4.39	.85	3.082
TOTALS.....	25.40	26.03	41.62	20.27	25.03	29.26	30.48	33.01	30.82	24.95	28.687

1871 Thunder more or less on 19 days in July

1877 A weeping elm 8ft high 90 yds distant N. & a two storied dwelling house 30 yds off.

Seaham Parish church 82 yds N.W.

RAINFALL AT *Seaham Hall Gardens*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

Mr. H. Graper

Diameter .....	.5	.									
Height	/	.									
Altitude	80.	.				110 [↑]	100	.	.	.	
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.13	2.27	2.10	.92	1.65	2.47	.66	2.82	1.79	1.07	
February.....	1.22	2.01	2.31	1.79	.92	.84	1.90	1.69	1.11	3.12	
March.....	1.14	.46	3.08	1.61	1.33	.64	2.00	2.66	1.06	.75	
April.....	.55	2.59	2.14	1.50	1.29	1.81	3.23	4.70	2.56	2.10	
May.....	1.23	1.49	1.90	2.69	2.90	.87	1.46	2.40	3.07	1.30	
June.....	1.28	2.69	2.63	1.29	.67	1.17	.83	1.92	1.80	4.16	
July.....	.42	3.93	4.03	2.74	1.51	4.72	2.72	2.17	.21	3.22	
August.....	2.25	.76	3.34		2.40	3.31	2.07	5.93	5.49	2.60	
September.....	.41	4.97	4.35		3.17	1.67	3.76	2.19	1.85	1.19	
October.....	4.18	1.59	5.02	(1.00)	2.41	3.57	1.62	2.69	1.91	.90	
November.....	3.53	2.34	4.05		2.47	6.11	2.94	1.75	5.07	1.74	
December.....	4.09	1.56	4.15		4.19	1.58	5.76	1.71	4.06	1.46	
TOTALS.....	21.63	26.66	39.10	(19.54)	24.91	28.76	28.95	32.63	29.98	23.61	(27.57)

1873 August-December observations lost - estimated from Seaham Vicarage
 1877 Trees 36 ft high 60 ft from gauge & wall 60 ft distant
 79 " 45 " " 60 " " " N.

St Mary church $\frac{1}{4}$ mile E.

RAINFALL AT

Chester-le-Street, Lambton Castle

70

Lat.

Lon.

County of

Durham

Rain Gauge, by

Observer

Mr J. Hunter

Diameter.											
Height.											
Altitude.										715	
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January											
February.											
March											
April											
May											
June											
July											
August											
September											
October											
November											
December											
TOTALS										2349	

79 from North Forest Btft

RAINFALL AT *Chester-le-Street Birtley*

Lat.....

Lon.....

County of.....

Durham

.....Rain Gauge, by.....

Observer.....

Rev R. F. Wheeler

Diameter.....				5							
Height				10	9						
Altitude.....				205							
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....				1.15	1.43	2.43	.56	3.51	2.24	1.51	
February.....				2.15	1.05	1.45	2.29	1.65	.79	2.61	
March.....				2.05	.93	.69	1.92	3.50	.96	1.08	
April.....				4.06	.92	1.10	3.16	4.47	2.04	1.86	
May				2.55	2.97	.84	1.27	2.65	3.41	1.80	
June.....				1.20	.57	1.86	1.81	1.39	2.03	3.32	
July				2.10	2.36	3.85	2.07	2.74	.28	3.73	
August.....				2.77	2.28	2.61	1.42	5.48	5.62	3.23	
September.....				1.44	1.75	2.09	3.17	1.32	1.64	.98	
October.....				2.03	1.30	4.55	1.38	2.49	1.22	.87	
November.....				1.20	3.95	5.92	3.58	1.09	6.22	2.51	
December.....				.32	4.57	1.52	4.78	1.39	4.05	.76	
TOTALS				23.02	24.08	28.91	27.41	31.68	30.50	24.26	

1874 Gauge stands on a lawn free from
obstruction, only a few low shrubs within several
yards.

1879 Shrubs 4ft high 47ds distant

Birtley church $\frac{1}{2}$ mile N.

RAINFALL AT *Sunderland West Endon House*

Lat.....

Lon.....

County of.....

Durham

Rain Gauge, by.....

Observer

*J W Backhouse Esq**New g*

Diameter .....		.5										
Height		1.0										
Altitude		132.0	132	π								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....		<i>#</i> .92	2.13	1.03	1.60	2.22	.48	2.91	2.29	1.30		
February		1.67	2.10	1.67	.96	1.11	2.01	1.66	.99	3.23		
March .....		.65	2.69	1.74	1.18	.50	2.06	2.50	.87	.68		
April		2.97	2.17	1.46	.65	.65	3.29	4.55	2.36	2.09		
May		1.15	1.64	2.41	2.87	} 3.24		1.04	2.41	3.10	(1.90)	
June		2.72	2.53	1.27	.59			1.59	1.50	1.69		
July		3.71	} 5.99		2.73	1.07	4.16	2.79	2.78	.48	3.86	
August .....		.65			2.50	2.74	2.85	1.81	5.42	4.77	3.17	
September.....		4.25	4.12	1.85	1.94	1.86	3.54	1.50	1.41	1.18		
October		1.54	5.22	2.05	1.47	3.29	1.72	2.43	1.58	.78		
November.....		1.67	3.60	1.21	} 7.78		5.76	3.12	1.39	7.15	3.32	
December.....		1.60	4.13	.27			1.46	5.58	1.66		.74	
TOTALS		23.50	36.32	20.19	22.85	27.10	29.03	30.71		—		

1871 New Gauge of the same construction.

1877 Hedge 4ft 6 high 12ft to W. small gauge on pole
3ft 8in high 6ft to S.

RAINFALL AT *Sunderland West Hemdon House*

Lat.

Lon.

County of *Durham*

Rain Gauge, by

Observer *T W Backhouse Esq**old g.*

Diameter .....	.5										
Height	/										
Altitude	132										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.36	.91	2.13	1.00	1.59	2.19	.49	2.92	2.26	1.30	1.615
February.....	1.27	1.67	2.13	1.64	.94	1.11	1.96	1.67	.97	3.23	1.659
March.....	.70	.66	2.72	1.76	1.19	.50	2.07	2.47	.88	.69	1.372
April.....	.67	2.95	2.20	1.45	.65	.66	3.28	4.55	2.30	2.08	2.079
May	1.21	1.13	1.62	2.41	2.87	1.00	1.04	2.37 2.40	3.09	1.87	1.864
June.....	1.75	2.70	2.53	1.26	.61	2.29	1.59	1.49	1.68	4.44	2.034
July .....	.39	3.69	2.96	2.70	1.08	4.14	2.73	2.78	.48	3.79	2.474
August.....	2.50	.64	3.05	2.50	2.76	2.89	1.77	5.34	4.70	3.11	2.926
September.....	.62	4.25	4.18	1.83	1.94	1.87	3.52	1.50	1.37	1.17	2.225
October.....	3.67	1.50	5.38	2.06	1.49	3.31	1.71	2.38	1.56	.76	2.382
November.....	3.67	1.63	3.71	1.21	3.41	5.77	3.06	1.38	7.10	3.42	3.436
December.....	5.02	1.57	4.25	.27	4.36	1.46	5.48	1.63	4.64	.72	2.940
TOTALS	22.91	23.30	36.86	20.09	22.89	27.19	28.70	30.48 30.51	31.03	26.58	27.006

1873 2.00 in fell from Sep^r 30ⁱ to Oct^r 3^d. I have divided it proportionately to J. W. Mouney's register at Bede's Terrace: he had 2.03 in in that time.

1877 Hedge 12 ft off 4 ft 6 in high snail gauge on pole 3 ft 8 in high 4 ft 5: Corrections sent 14. 3. 79.

RAINFALL AT *Sunderland*

70

Lat.

Lon.

County of

Durham

Rain Gauge, by

Observer

H. J. Geld, Esq., M.D.

Diameter.	<i>8</i>										
Height.	<i>1. 4</i>										
Altitude.	<i>100</i>										
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.						<i>2.14</i>	<i>.43</i>	<i>2.99</i>	<i>2.34</i>	<i>1.23</i>	
February.						<i>.84</i>	<i>2.02</i>	<i>1.77</i>	<i>.90</i>	<i>3.20</i>	
March.						<i>.57</i>	<i>2.20</i>	<i>2.49</i>	<i>.82</i>	<i>.65</i>	
April.						<i>.63</i>	<i>3.40</i>	<i>4.44</i>	<i>2.45</i>	<i>1.74</i>	
May.						<i>.92</i>	<i>1.14</i>	<i>2.11</i>	<i>3.20</i>	<i>1.30</i>	
June.					<i># 1.57</i>	<i>1.97</i>	<i>1.74</i>	<i>1.76</i>	<i>1.72</i>	<i>4.05</i>	
July.					<i>1.21</i>	<i>4.92</i>	<i>2.25</i>	<i>2.87</i>	<i>.47</i>	<i>3.79</i>	
August.					<i>2.25</i>	<i>3.10</i>	<i>1.85</i>	<i>5.23</i>	<i>4.49</i>	<i>3.49</i>	
September.					<i>1.72</i>	<i>2.22</i>	<i>3.68</i>	<i>1.66</i>	<i>1.47</i>	<i>.92</i>	
October.					<i>1.58</i>	<i>3.19</i>	<i>1.89</i>	<i>2.35</i>	<i>1.51</i>	<i>.66</i>	
November.					<i>2.72</i>	<i>5.88</i>	<i>3.18</i>	<i>1.33</i>	<i>6.49</i>	<i>2.72</i>	
December.					<i>4.24</i>	<i>1.69</i>	<i>5.83</i>	<i>1.91</i>	<i>4.15</i>	<i>1.37</i>	
TOTALS						<i>28.07</i>	<i>29.61</i>	<i>30.91</i>	<i>30.01</i>	<i>25.12</i>	

RAINFALL AT *Sunderland The Limes*

70

Lat. Lon. County of *Durham*

Rain Gauge, by Observer *J. Wilfred Mounsey*

Diameter ....							.5	.6	.5	.	
Height ....							.6	.	.	.	
Altitude							105	.	1.20	.	
Year	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January								3.11	2.34	1.33	
February ...								1.80	1.10	3.29	
March								2.60	.71	.75	
April								4.77	2.68	2.13	
May								2.54	2.20	1.96	
June								1.57	1.85	4.34	
July							# 2.82	3.16	.50	4.19	
August							1.82	5.34	4.90	3.24	
September ..							3.71	1.55	1.44	1.27	
October							1.91	2.37	1.56	.68	
November ..							3.30	1.45	6.53	2.06	
December ..							5.74	1.67	3.34	1.41	
TOTALS ..								31.93	29.75	26.65	

1876 Gauge moved from St Bedes Terrace Sunderland
77 Gauge slightly sheltered by a tree

Bishops Wearmouth church 1 mile N.

RAINFALL AT *Sunderland St Bede's Terraces*

Lat.

Lon.

County of.

Durham

Rain Gauge, by.

Observer

J. W. Mounsey

Diameter			5								
Height			6								
Altitude			105 ^{ft}								
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....			2.09	1.10	1.66	2.61	.58				
February.....			2.15	1.68	1.07	1.08	2.29				
March.....			3.00	1.73	1.29	.65	2.51				
April.....			2.08	1.55	.70	.70	3.35				
May			1.41	2.40	2.72	.75	1.10				
June.....			2.37	1.24	.42	2.61	1.77 ⁴				
July			3.04	2.90	1.21	3.22					
August.....			3.15	2.43	2.90	3.95					
September.....			4.28	1.90	1.81	2.01					
October.....			5.34	2.14	1.58	3.12					
November.....			3.78	1.19	2.46	5.77					
December.....			3.55	.31	4.54	1.84					
TOTALS			36.24	20.57	22.36	28.31					

C

1876 Gauge moved to The Limes Sunderland

RAINFALL AT *Gateshead Eighton Collage*

Lat.....

Lon.....

County of

Durham

Rain Gauge, by.....

Observer

J. N. Farrell

Diameter .....	.5										
Height .....	.10										
Altitude	515										
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.59	1.40	2.46	1.07	1.32	2.69	.75	3.69	3.14	1.49	1.960
February.....	.96	2.13	2.23	1.97	1.06	1.61	2.45	1.87	1.03	2.71	1.802
March.....	1.85	.65	3.38	2.46	1.10	.75	2.38	2.90	1.04	1.33	1.784
April.....	.65	3.17	2.79	1.24	.86	1.05	3.72	4.92	2.13	2.42	2.295
May	1.30	1.25	1.91	3.61	3.25	1.17	1.26	2.58	3.16	1.74	2.123
June.....	1.51	3.31	2.39	1.56	.78	2.14	1.79	2.21	2.17	3.54	2.140
July .....	.72	3.91	3.59	2.34	2.67	5.28	2.63	3.57	3.04	4.24	2.925
August.....	2.48	1.16	3.48	2.96	2.13	2.99	1.62	6.78	6.06	3.12	3.278
September.....	.86	4.86	4.26	1.62	1.92	2.64	3.81	1.25	1.63	.74	2.359
October.....	4.63	2.48	5.15	2.71	1.53	5.56	1.61	2.68	4.18	.87	3.140
November.....	2.72	1.65	4.61	1.48	3.98	6.25	3.63	1.38	6.70	2.70	3.510
December.....	5.63	2.03	5.33	.45	5.10	1.98	6.84	1.91	3.27	.51	3.365
TOTALS	24.90	28.00	41.58	23.47	25.70	34.11	32.49	35.74	34.81	25.41	30.621

C C C

G in garden 72 ft by 93 ft. Trees &c at distances varying from 33 ft to 66 ft and in height varying from 28 ft to 6 ft.

Corrected by Observer.

Hyd Sta. No. 42-018958

NGR NZ(45) 276585

alt 157m