(*To face p.* 231.)

MONTHLY METEOROLOGICAL TABLE

Deduced from observations taken at Tiberias, by Mr. WISEMAN, at about 652 feet below the level of the Mediterranean, and 30 feet above the level of the Sea of Galilee, open on all sides. Latitude, 32° 48′ N.; Longitude, 35° 34′ E.

Months.	Pressure of atmosphere in month—corrected to 32° Fahrenheit.							Temperature of the air in month.							8 a.m.								4 p.m.								Rain.	
															Mean reading.			Vapour.					Mean reading.			Vapour.						
	Highest.	Lowest.	Range.	Mean at 8 a.m.	Mean at 4 p.m.	Lower reading at 4 p.m. than at 8 a.m.	Mean at 8 a.m. and 4 p.m.	Highest.	Lowest.	Range.	Mean of all highest.	Mean of all lowest.	Mean daily range.	Mean.	Dry bulb.	Wet bulb.	Dew point.	Elastic force of vapour.	Weight in a cubic foot of air.	Additional weight required for saturation.	Degree of humidity.	Weight of a cubic foot of air.	Dry bulb.	Wet bulb.	Dew point.	Elastic force of vapour.	Weight in a cubic foot of air.	Additional weight required for saturation.	Degree of humidity.	Weight of a cubic foot of air.	Number of days on which it fell.	Amount collected.
1895.	in.	in.	in.	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°	in.	grs.	grs.	°	grs.	°	°	°	in.	grs.	grs.	°	grs.		in.
January	31·099	30·452	0·647	30·833	30·755	0·078	30·794	78·0	41·0	37·0	68·2	47·4	20·8	57·8	57·8	51·3	45·4	·304	3·4	2·0	63	551	64·3	56·2	49·5	·353	3·9	2·7	59	543	2	0·45
February	30·839	30·308	0·531	30·685	30·608	0·077	30·646	81·0	45·0	36·0	71·2	50·0	21·2	60·6	61·5	56·7	52·6	·396	4·4	1·7	73	544	67·6	59·3	52·7	·309	4·4	3·1	59	537	5	0·61
March	30·851	30·294	0·557	30·596	30·581	0·015	30·589	84·0	40·0	44·0	72·2	48·3	23·9	60·3	61·3	56·3	52·0	·388	4·3	1·7	72	543	67·5	58·6	51·5	·382	4·2	3·2	56	535	14	2·74
April	30·877	30·303	0·574	30·591	30·495	0·096	30·543	91·0	51·0	40·0	80·3	55·3	25·0	67·8	67·5	63·4	60·2	·522	5·7	1·7	77	535	76·0	67·8	61·9	·554	5·9	3·7	62	525	6	3·04
May	30·896	30·376	0·520	30·631	30·549	0·082	30·590	105·0	50·0	55·0	91·7	61·7	36·0	76·7	74·8	69·3	65·3	·625	6·7	2·6	72	528	87·9	74·4	65·7	·635	6·7	7·3	48	514	4	0·25
June	30·767	30·334	0·433	30·576	30·472	0·104	30·524	108·0	61·0	47·0	97·1	67·3	29·8	82·2	80·8	72·4	66·7	·652	7·0	4·2	62	521	91·9	72·9	61·2	·539	5·7	10·0	36	510	0	0·00
July	30·519	30·263	0·256	30·438	30·354	0·084	30·396	109·0	69·0	40·0	100·9	71·7	29·2	86·3	84·6	78·7	74·8	·845	8·7	3·5	2	514	96·4	81·4	72·5	·800	8·3	9·6	46	502	0	0·00
August	30·520	30·200	0·320	30·420	30·326	0·094	30·373	106·0	70·0	36·0	101·3	73·8	27·5	87·6	86·0	79·4	75·1	·875	9·2	4·1	70	512	97·3	82·4	73·7	·832	8·5	9·8	47	501	0	0·00
September	30·788	30·330	0·458	30·600	30·534	0·066	30·567	106·0	61·0	45·0	92·8	69·5	23·3	81·2	93·7	73·6	66·9	·660	7·0	5·3	57	519	89·7	73·0	62·6	·565	5·9	8·8	40	513	0	0·00
October	30·787	30·488	0·299	30·642	30·565	0·077	30·603	100·0	58·0	42·0	87·2	63·0	24·2	75·1	75·2	68·2	63·2	·580	6·3	3·2	66	528	82·9	70·1	61·5	·547	5·8	6·2	49	520	3	1·13
November	31·028	30·481	0·547	30·770	30·686	0·084	30·728	95·0	48·0	47·0	77·5	56·1	21·4	66·8	65·2	59·9	55·6	·442	4·8	2·4	72	542	74·6	64·4	57·0	·467	5·1	4·2	54	531	8	2·39
December	31·091	30·415	0·676	30·749	30·696	0·053	30·723	77·0	43·0	34·0	68·1	51·2	16·9	59·7	61·8	57·1	53·1	·403	4·5	1·6	73	545	65·1	59·1	54·2	·419	4·6	2·2	68	540	6	3·76
Means	30·839	30·354	0·485	30·628	30·552	0·076	30·590	95·0	53·1	41·9	84·0	59·6	24·4	71·8	71·7	65·5	60·9	·558	6·0	2·8	69	532	80·1	68·3	60·3	·541	5·7	5·9	52	523	sum. 48	sum. 14·37
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT TIBERIAS IN THE YEAR 1895.

By JAMES GLAISHER, F.R.S.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the highest appear in the winter, and the lowest in the summer months; the maximum for the year was 31·099 inches, in January, and the next in order 31·091 inches, in February.

In column 2 the lowest reading in each month is shown; the minimum for the year was 30·200 inches, in August; and the next in order 30·263 inches, in July.

The range of readings in the year was 0·899 inch. The range in the morning observations was 0·805 inch, being 0·131 inch greater than the range at Jerusalem.

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·256 inch, in July, and the next in order 0·299 inch, in October; the largest was 0·676 inch, in December, and the next in order 0·647 inch, in January.

The numbers in columns 4 and 5 show the mean monthly reading of the barometer at 8 a.m. and 4 p.m.; and those in column 6 the lower reading at 4 p.m. than at 8 a.m.; the smallest difference between these two readings was 0·015 inch, in March, and the next in order 0·053 inch, in December; the largest was 0·104 inch, in June, and the next in order 0·096 inch, in April. In England in January the readings at 8 a.m. and 4 p.m. are practically the same; in all other months the reading at 4 p.m. is lower than at 8 a.m.; the greatest difference is in June, 0·025 inch. The mean for the year at Tiberias was 0·076 inch, being nearly four times greater than in England.

The numbers in the 7th column show the mean monthly pressure of the atmosphere; the highest was 30·794 inches, in January, and the next in order 30·728 inches, in November; the lowest was 30·373 inches, in August, and the next in order 30·396 inches, in July. The mean for the year was 30·590 inches.

The highest temperature of the air in each month is shown in column 8. The first day in the year the temperature reached 90° was on April 8th, and there was 1 other day in April when the temperature reached or exceeded 90°; in May, 18 days; in June, 28 days; in July and August it reached or exceeded 90° on every day; in September, 27 days; in October, 10 days; and in November on 1 day; thus the temperature reached or exceeded 90° on 148 days during the year. At Jerusalem the temperature did not reach 90° till May 23rd, and there were only 35 days in the year on which the temperature was as high as 90°. At Tiberias the temperature was 104° on May 22nd, and reached or exceeded 100° on 6 other days in this month; in June on 11 days; in July on 19 days; in August

on 26 days; in September on 7 days; and in October on 1 day; thus on 71 days in the year the temperature reached or exceeded 100°. The highest temperature in the year at Tiberias was 109°, on July 9th; at Jerusalem the highest in the year was 97°, on both June 14th and September 22nd.

The lowest temperature of the air in each month is shown in column 9. The lowest in the year was 40°, on March 4th; the next lowest was 41° on January 19th; and from March 5th to the end of the year there was no temperature so low as 41°; the nearest approach being 43° on December 11th. At Jerusalem the lowest in the year was 30° on both January 19th and 20th; and there were 57 nights in the year when the temperature was as low or lower than 40°.

The yearly range of temperature was 69°; at Jerusalem it was 67°.

The range of temperature in each month is shown in column 10; and these numbers vary from 34° in December to 55° in May.

In column 11 the mean of all the high day temperatures in each month is shown. The lowest was 68°·1 in December, being 10° higher than that at Jerusalem; the next in order were 68°·2 in January, and 71°·2 in February; the highest was 101°·3 in August; and the next in order 100°·9 in July, and 97°·1 in June. At Jerusalem the lowest were 53°·8 in January, 58°·1 in December, and 60°·3 in March; the highest were 88°·2 in both July and August, and 83°·8 in September. The mean for the year at Tiberias was 84°; at Jerusalem it was 72°·3.

In column 12 the mean of all the low night temperatures in each month is shown; the lowest was 47°·4 in January; the next in order were 48°·3 in March, and 50° in February; the highest was 73°·8 in August; and the next in order were 71°·7 in July, and 69°·5 in September. At Jerusalem the lowest were 36°·2 in January, 39°·6 in February, and 41°·2 in March; the highest were 64°·3 in July, 62°·9 in August, and 59°·3 in June. At Tiberias the yearly value was 59°·6; at Jerusalem it was 51°·2.

In column 13 the mean daily range of temperature is shown in each month; the smallest was 16°·9 in December, the next in order were 20°·8 in January, and 21°·2 in February; the greatest was 30° in May, the next in order were 29°·8 in June, and 29°·2 in July. At Jerusalem the smallest were 13°·3 in December, 17°·6 in January, and 19°·1 in March. At Tiberias the mean daily range for the year was 24°·4; at Jerusalem it was 21°·1.

The mean temperature of the air, as found from the maximum and minimum temperatures only, is shown in each month in column 14. The lowest was 57°·8 in January; and the next in order were 59°·7 in December, and 60°·3 in March; the highest was 87°·6 in August; and the next in order were 86°·3 in July, and 82°·2 in June. At Jerusalem the lowest temperatures were 45° in January, 50°·2 in February, and 50°·7 in March; the highest were 76°·3 in July, 75°·5 in August, and 71°·2 in September. At Tiberias the mean temperature increased from January to February, decreased from February to March, and increased

month by month to the maximum in August, then decreased month by month to the end of the year. At Jerusalem the mean temperature increased from January month by month to the maximum in July, then decreased month by month to the end of the year. At Tiberias the yearly value was 71°·8 ; at Jerusalem it was 61°·8.

The numbers in the 15th and 16th columns are the mean readings of a dry and wet-bulb thermometer, taken daily at 8 a.m. If those in column 15 be compared with those in column 14, it will be seen that those in column 15 were of the same value in January, a little higher in February, March, September, October, and December, and a little lower in all other months. The mean for the year was 71°·7, being 0°·1 less than the mean of the year as determined by the use of the maximum and minimum thermometers. In the year 1890 the mean of the dry-bulb was 1°·1 lower than that of the maximum and minimum thermometers; in 1891 it was 1°·5 lower ; in 1892, 0°·4 higher ; in 1893, 0°·7 lower ; and in 1894, 0°·5 lower ; the mean of the six differences is 0°·6 ; and therefore the mean temperature of the year may be approximately determined by a single reading of the thermometers taken daily at 8 a.m.

The numbers in the 17th column are the temperature of the dew-point, or that temperature at which the air would be saturated by the quantity of vapour mixed with it ; the smallest difference between these numbers and those in column 15 was 7°·3 in April ; the smallest from May to November was 9°·5 in May, and the largest, 16°·8, in September.

The numbers in column 18 show the elastic force of vapour, or the length of a column of mercury in inches corresponding to the pressure of vapour ; the smallest was 0·304 inch, in January, and the largest 0·875 inch, in August.

In column 19 the weight in grains of the water in a cubic foot of air is shown ; it was as small as 3·4 grains in January, and as large as 9·2 grains in August.

In column 20 the additional quantity of water required to saturate a cubic foot of air is shown ; it was as small as 1·6 grain in December, and as large as 5·3 grains in September.

The numbers in column 21 show the degree of humidity of the air, saturation being represented by 100 ; the largest numbers appear in April, February, and December, and the smallest from May to September, the smallest of all was 57 in September.

The numbers in column 22 show the weight in grains of a cubic foot of air, under the mean atmospheric pressure, temperature, and humidity of the air ; the largest number was in January, decreasing to the smallest in August, then increasing to the end of the year.

In columns 23 and 24 are the mean readings of a dry and wet-bulb thermometer taken daily at 4 p.m. By comparing the numbers in column 15 with those in column 23, the increase of temperature from 8 a.m. to 4 p.m. is shown ; in December the increase was only 3°·3, and in May it was as much as 13°·1.

In column 25 the temperature of the dew point at 4 p.m. is shown.

By comparing these numbers with those numbers in column 17, it will be seen that the temperature of the dew point in the months of January, February, April, May, November, and December was higher than at 8 a.m., and lower than at 8 a.m. in the remaining months. The numbers in this column are smaller than those in column 23, by 14°·1 in April, increasing to 30°·7 in June, then decreasing to 10°·9 in December; these differences between the temperature of the air and that of the dew point are very much larger than those at 8 a.m.; in June, July, and August it was more than twice as large.

On several days in the months of May and June, at 4 p.m., the reading of the dry-bulb thermometer exceeded that of the wet by 25° or more, and the temperature of the dew point was from 40°·8 to 49°·9 lower than the temperature of the air, as shown by the following table :—

Month and Day.	Reading of		Temperature of the Dew Point.	Temperature of the Dew Point below Dry.
	Dry.	Wet.		
	°	°	°	°
May 22	103·0	71·0	53·1	49·9
23	102·0	72·0	55·2	46·8
27	104·0	77·0	62·1	41·9
June 4	105·0	74·0	57·3	47·7
5	100·0	74·0	59·2	40·8
8	100·0	70·0	52·9	47·1
9	103·0	73·0	56·2	46·8
13	105·0	74·0	57·3	47·7

In column 26 the elastic force of vapour is shown, and by comparing the values with those in the same month at 8 a.m. we find that it was smaller at 4 p.m. in March and in the months from June to October, and larger than at 8 a.m. in the remaining months.

In column 27 the amount of water in a cubic foot of air at 4 p.m. is shown, and the amount was less than at 8 a.m. in March, and in the months from June to October.

In column 28 the amount of water required to saturate a cubic foot of air was as large as 10 grains in June, 9·8 grains in August, and 9·6 grains in July; and smaller than 3 grains in January and December.

In column 29 the degree of humidity is shown; the driest months were from May to September, the value for these months varying from 36 in June to 47 in August.

In column 30 the weight of a cubic foot of air is shown, the smallest was 501 grains in August, and the largest, 543 grains in January.

In column 31 are given the number of days of rain in each month; the largest was 14 in March. The total number in the year was 48. At Jerusalem rain fell on 52 days.

(*To face p.* 235.)

MONTHLY METEOROLOGICAL TABLE

Deduced from observations taken at Jerusalem, by JOSEPH GAMEL, in a garden, well within the city, about 2,500 feet above the level of the Mediterranean Sea, open on all sides.
Latitude, 31° 46′ 40″ N., Longitude, 35° 13′ 30″ E.

Months.	Pressure of atmosphere in month—Corrected to 32° Fahrenheit.				Temperature of the air in month at 9 a.m.							Mean reading at 9 a.m.			Vapour at 9 a.m.			Degree of humidity.	Weight of a cubic foot of air.	Wind. Relative proportions of.								Mean amount of cloud.	Rain.	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all highest.	Mean of all lowest.	Mean daily range.	Mean.	Dry bulb.	Wet bulb.	Dew point.	Elastic force of vapour.	Weight in a cubic foot of air.	Additional weight required for saturation.			N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Number of days on which it fell.	Amount collected.
1895.	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°	in.	grs.	grs.	°	grs.										in.
January	27·687	27·236	0·451	27·465	59·2	30·0	29·2	53·8	36·2	17·6	45·0	49·3	43·8	37·9	·229	2·6	1·4	65	500	0	13	8	1	0	2	4	3	3·5	6	0·90
February	27·509	27·163	0·346	27·379	72·8	32·0	40·8	60·8	39·6	21·2	50·2	54·5	48·9	43·5	·282	3·2	1·6	67	493	0	2	0	1	1	7	10	7	5·8	7	3·07
March	27·455	27·018	0·437	27·448	80·5	32·5	48·0	60·3	41·2	19·1	50·7	52·3	48·1	43·8	·286	3·3	1·2	73	496	0	3	1	0	2	7	9	9	6·6	13	5·94
April	27·537	27·079	0·458	27·331	81·2	43·5	37·7	70·8	51·6	19·2	61·2	63·9	55·3	48·1	·336	3·7	2·9	57	483	0	2	0	2	1	10	11	4	5·5	7	1·84
May	27·551	27·252	0·299	27·405	93·8	45·0	48·8	79·8	58·2	21·6	69·0	72·9	64·4	58·1	·485	5·2	3·5	59	475	3	5	2	1	1	7	3	9	3·7	1	0·12
June	27·478	27·260	0·218	27·361	97·0	50·0	47·0	82·2	59·3	22·9	70·8	76·0	66·7	60·2	·519	5·6	4·1	58	472	0	4	0	0	0	5	4	17	2·0	0	0·00
July	27·345	27·161	0·184	27·277	96·5	58·5	38·0	88·2	64·3	23·9	76·3	81·8	71·3	64·2	·601	6·4	4·6	55	465	2	3	1	1	1	1	4	18	0·6	0	0·00
August	27·325	27·162	0·163	27·247	95·8	58·0	37·8	88·2	62·9	25·3	75·5	79·6	70·8	64·8	·604	6·6	4·3	60	466	0	0	0	0	0	1	8	22	1·0	0	0·00
September	27·493	27·245	0·248	27·389	97·0	50·0	47·0	83·8	58·6	25·2	71·2	75·5	65·8	58·9	·498	5·4	4·2	56	473	1	6	1	2	0	3	5	12	1·1	0	0·00
October	27·508	27·313	0·195	27·396	85·5	45·0	40·5	75·9	51·9	24·0	63·9	69·1	61·4	55·4	·439	4·8	3·0	61	479	1	9	1	1	0	3	6	10	3·4	2	0·41
November	27·692	27·237	0·455	27·455	86·0	39·0	47·0	66·1	46·4	19·7	56·2	60·1	55·0	50·5	·368	4·1	1·7	70	488	2	9	4	1	0	4	2	8	4·3	10	3·73
December	27·647	27·173	0·474	27·429	66·5	34·5	32·0	58·1	44·8	13·3	51·5	52·6	49·9	47·3	·326	3·7	0·8	82	496	6	2	1	1	0	10	5	6	5·7	6	7·24
Means	27·519	27·191	0·327	27·382	84·3	43·2	41·1	72·3	51·2	21·1	61·8	65·6	58·5	52·7	·414	4·5	2·8	64	482	sum. 15	sum. 58	sum. 19	sum. 11	sum. 6	sum. 60	sum. 71	sum. 125	3·6	sum. 52	sum. 23·25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

In column 32 the monthly fall of rain is given. The heaviest fall of rain on one day in the months from January to April was 1·48 inch, on April 10th; and the next in order 0·95 inch on April 11th. No rain fell from May 16th till October 6th, making a period of 142 consecutive days without rain. The fall of rain on December 23rd was 0·92 inch, and 0·85 inch and 0·89 inch fell on the 10th and 11th respectively. The heaviest monthly fall in the year was 3·76 inches, in December, and the next in order, 3·04 inches in March. The total fall of rain for the year was 14·37 inches. At Jerusalem the total fall for the year was 23·25 inches.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1895.

By JAMES GLAISHER, F.R.S.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these the highest, as usual, are in the winter, and the lowest in the summer months; the maximum for the year was 27·692 inches, in November, and the next in order, 27·687 inches, in January. The highest reading in the preceding 34 years, viz., 1861 to 1894 inclusive, was 27·816 inches, in December, 1879.

In column 2 the lowest reading of the barometer in each month is shown; the minimum for the year was 27·018 inches, in March, and the next in order, 27·079 inches, in April. The lowest reading in the preceding 34 years was 26·972 inches, in April, 1863, and February, 1865.

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·163 inch, in August, and the next in order, 0·184 inch, in July; the largest was 0·474 inch, in December; and the next in order, 0·458 inch, in April. The mean monthly range for the year was 0·327 inch. The mean for the preceding 34 years was 0·309 inch.

The range of barometer readings in the year was 0·674 inch. The largest range in the preceding 34 years was 0·742 inch, in 1872; and the smallest, 0·491 inch, in 1883.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the highest was 27·465 inches, in January, and the next in order, 27·455 inches, in November; the lowest was 27·247 inches, in August, and the next in order, 27·277 inches, in July. The mean yearly pressure was 27·382 inches. The highest mean yearly pressure in the preceding 34 years was 27·443 inches, in 1861, and the lowest, 27·358 inches, in 1892. The mean for the 34 years was 27·389 inches.

The temperature of the air reached 90° on May 23rd, and there were 4 other days in May when the temperature reached or exceeded 90°. In the preceding 13 years the earliest day in the year the temperature