

Khirbet er Raşif =	خربة الرصيف	Dakir (Dhakhir) =	ذكير
El Mtâneh =	المتونة	Khulkhulah =	خلخلة
Lâhneh =	لاهنة	Umm Hârtain =	أم حارتين
Er Raşimeh =	الرصيمة	Şûrat Eş Şaghîrah } =	صورة الصغيرة

RESULTS OF METEOROLOGICAL OBSERVATIONS
TAKEN AT JERUSALEM IN THE YEAR 1889.

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 appear in the winter, and the lowest in the summer months; the maximum for the year was 27·673 inches, in December. In column 2 the lowest reading in each month is shown; the minimum for the year was 27·047 inches, in March. The range of readings for the year was 0·626 inch. The numbers in the 3rd column show the range of readings in each month, the smallest, 0·166 inch, was in August; and the largest, 0·515 inch, in March. The numbers in the 4th column show the mean monthly pressure of the atmosphere, the highest, 27·489 inches, was in November; and the lowest, 27·236 inches, in July. The mean pressure for the year was 27·381 inches. At Saronâ the mean pressure for the year was 29·834 inches.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 100°·5 on August 1st; the maximum temperature on this day at Saronâ was 90°. The first day in the year the temperature reached 90° was on April 20th; in May the temperature reached or exceeded 90° on 4 days; in June on 5 days; in July on 17 days; in August on 17 days; in September on 4 days; and in October on 6 days. Therefore the temperature reached or exceeded 90° on 54 days during the year. At Saronâ the first day in the year the temperature reached 90° was on March 4th. The highest in the year was 102°, on April 20th. The maximum temperature on this day at Jerusalem was 94°·8; and the temperature reached or exceeded 90° at Saronâ on 31 days during the year.

The numbers in column 6 show the lowest temperature of the air in each month; the lowest in the year was 28° on December 30th. The temperature was below 40° in January on 6 nights; in February on 6 nights; in March on 1 night; in November on 10 nights; and in December on 17 nights. Therefore the temperature was below 40° on 40 nights during the year. The yearly range of temperature was 72°·5. At

MONTHLY METEOROLOGICAL TABLE

Derived from observations taken at Jerusalem, by JOSEPH GAMEL, in a garden 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.							Mean readings at 9 a.m.			Vapour at 9 a.m.			Degree of humidity.	Weight of a cubic foot of air.	Wind. Relative proportion 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.		
1889.	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	grs.	grs.	grs.	°	grs.														in.
January ...	27·561	27·268	0·293	27·431	61·0	37·5	23·5	51·5	41·0	10·5	46·2	47·6	45·0	42·1	·268	3·1	0·7	82	501	0	6	2	1	1	8	3	10	5·9	13	6·13		
February ...	27·621	27·262	0·359	27·441	71·5	33·0	33·5	55·7	43·1	12·6	49·4	52·7	43·7	42·7	·274	3·1	1·3	69	496	1	1	2	3	1	9	2	9	5·5	4	0·83		
March ...	27·562	27·047	0·515	27·399	82·5	33·0	44·5	67·1	43·8	18·3	57·9	59·2	53·2	47·9	·333	3·7	1·9	66	489	1	3	2	3	2	7	3	10	5·1	5	3·21		
April ...	27·519	27·246	0·273	27·388	94·8	42·0	52·3	71·6	50·8	20·3	61·2	63·4	56·1	50·0	·360	4·0	2·5	62	484	4	4	0	4	1	1	7	9	4·1	3	0·74		
May ...	27·523	27·207	0·316	27·329	97·0	47·0	50·0	80·4	58·6	21·3	69·5	72·3	61·3	53·9	·418	4·6	4·0	53	475	3	4	3	4	1	2	8	6	4·7	0	0·00		
June ...	27·466	27·207	0·259	27·329	95·5	56·0	39·5	85·2	62·5	22·7	73·9	77·8	63·9	62·3	·562	6·2	4·1	60	469	6	1	0	1	0	1	6	15	1·5	0	0·00		
July ...	27·381	27·099	0·282	27·236	97·8	60·0	37·8	89·8	66·7	23·1	78·2	83·0	72·3	65·2	·621	6·6	5·4	55	463	2	0	0	0	0	4	12	13	0·2	0	0·00		
August ...	27·356	27·190	0·166	27·260	100·5	62·0	38·5	90·0	65·0	25·0	77·5	81·1	72·0	65·4	·636	6·3	4·6	60	465	1	2	0	1	0	9	8	10	1·3	0	0·00		
September ...	27·469	27·224	0·245	27·348	93·5	54·0	39·5	84·6	60·6	24·0	72·6	76·2	68·5	63·0	·576	6·2	3·5	64	471	4	2	0	0	0	3	4	17	1·6	1	0·02		
October ...	27·626	27·389	0·237	27·469	92·0	42·0	50·0	81·9	59·5	22·4	70·7	76·0	65·6	53·2	·485	5·3	4·4	54	474	6	9	4	0	0	2	0	10	2·5	0	0·00		
November ...	27·616	27·353	0·263	27·489	80·3	34·0	46·3	63·6	44·9	13·7	54·2	60·5	53·6	47·5	·330	3·7	2·2	62	489	0	10	1	0	0	5	2	12	3·1	5	0·57		
December ...	27·673	27·257	0·416	27·454	66·0	28·0	33·0	54·6	39·2	15·4	46·9	50·5	46·4	42·1	·268	3·1	1·1	74	498	0	3	5	3	1	7	4	8	5·5	10	2·06		
Means ...	27·531	27·229	0·302	27·381	86·0	44·9	41·1	73·0	53·4	19·6	63·2	66·7	59·3	53·4	·423	4·7	3·0	63	484	sum. 28	sum. 45	sum. 19	sum. 20	sum. 7	sum. 53	sum. 59	sum. 129	3·4	sum. 41	sum. 13·56		
	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		

Sarona the temperature was below 40° on only three nights in the year ; the lowest in the year was 38° on December 30th. The yearly range of temperature at Sarona was 64° .

The range of temperature of each month is shown in column 7, and these numbers vary from $23^{\circ}\cdot 5$ in January to $52^{\circ}\cdot 8$ in April. At Sarona the range of temperature varied from 23° in August to 58° in April.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature, are shown in columns 8, 9, and 10 respectively. Of the high day temperature the lowest, $51^{\circ}\cdot 5$, was in January, and the highest, 90° , in August. At Sarona, of the high day temperature the lowest, $64^{\circ}\cdot 2$, was in January, and the highest, $88^{\circ}\cdot 4$, in July.

Of the low night temperature, the coldest, $39^{\circ}\cdot 2$, is in December, and the warmest, $66^{\circ}\cdot 7$, in July. At Sarona, of the low night temperature, the coldest, $47^{\circ}\cdot 8$, was in February, and the warmest, $70^{\circ}\cdot 3$, in August.

The average daily range of temperature is shown in column 10 ; the smallest, $10^{\circ}\cdot 5$, is in January, and the greatest, 25° , in August. At Sarona, of the average daily range the smallest, $15^{\circ}\cdot 2$, was in January, and the greatest, $23^{\circ}\cdot 8$, in October.

In column 11 the mean temperature of the air is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was January, $46^{\circ}\cdot 2$, and that of the highest, July, $78^{\circ}\cdot 2$. The mean temperature for the year was $63^{\circ}\cdot 2$. At Sarona, of the mean temperature, the month of the lowest was January, $56^{\circ}\cdot 5$, and that of the highest, August, $79^{\circ}\cdot 3$. The mean temperature of the air for the year at Sarona was $68^{\circ}\cdot 4$.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point is shown, or that temperature at which dew would have been deposited. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown ; in January, February, and December it was as small as 3.1 grains, and as large as 6.8 grains in August. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100 ; the month with the smallest number, indicating the driest month, is May, 53, and the largest, 82, indicating the wettest month, is January. The weight of a cubic foot of air under its mean pressure, temperature, and humidity at 9 a.m. is shown in column 19.

The most prevalent winds in January were N.W. and S.W., and the least prevalent was N. In February the most prevalent were S.W. and N.W., and the least were N., N.E., and S. In March the most prevalent were N.W. and S.W., and the least was N. In April the most prevalent were N.W. and W., and the least was E. In May the most prevalent winds were W. and N.W., and the least was S. In June the most prevalent was N.W., and the least were E. and S. In July the most prevalent were N.W. and W., and the least prevalent were N.E., E., S.E., and S. In August the most prevalent were N.W., S.W., and

W., and the least were E. and S. In September the most prevalent was N.W., and the least were E., S.E., and S. In October the most prevalent winds were N.W. and N.E., and the least were S.E., S., and W. In November the most prevalent were N.W. and N.E., and the least were N., S.E., and S.; and in December the most prevalent winds were N.W. and S.W., and the least was N. The most prevalent wind for the year was N.W., which occurred on 129 times during the year, of these 17 were in September, 15 in June, and 13 in July; and the least prevalent wind for the year was S., which occurred on only 7 times during the year. At Sarona the most prevalent wind for the year was S.W., which occurred on 90 days in the year; and the least prevalent wind was N.E., which occurred on only 10 days in the year.

The numbers in column 28 show the mean amount of cloud at 9 a.m. The month with the smallest amount is July, 0.2, and the month with the largest is January, 5.9. Of the cumulus, or fine weather cloud, there were 7 instances; of the nimbus, or rain cloud, there were 26 instances, of which 9 were in January, 6 in December, and 5 in March, and only 1 from April to September; of the cirrus, there were 15 instances; of the cirro cumulus, 81 instances; of the cirro stratus, 11 instances; of the cumulus stratus, 65 instances; of the stratus, 2 instances; and there were 158 instances of cloudless skies, of which 27 were in August, 26 in July, and 18 in both June and September. At Sarona there were 92 instances of cloudless skies, of which 15 were in October, 14 in November, and 13 in July.

The largest fall of rain for the month in the year was 6.13 inches in January, of which 1.31 inch fell on the 26th. The next largest fall for the month was 3.21 inches in March, of which 1.75 inch fell on the 19th. No rain fell from April 22nd to September 22nd, making a period of 152 consecutive days without rain. The fall of rain for the year was 13.56 inches, which fell on 41 days. At Sarona the largest fall of rain for the month in the year was 5.85 inches in January. No rain fell at Sarona from May 25th to September 21st, making a period of 118 consecutive days without rain. The fall of rain for the year at Sarona was 13.50 inches, which fell on 50 days.
