

## DEAD SEA OBSERVATIONS.

(Continued.)

By Dr. E. W. GURNEY MASTERMAN.

In future the visits to '*Ain Feshkhah*, with the object of observing the level of the Dead Sea, are to be made twice a year. April and November have been shown by the past observations to be the months when the highest and lowest levels are reached respectively, so the visits will be made during these months.

## SPRING VISIT TO 'AIN FESHKHAH, 1904.

Visit made April 12th, 1904, in company with Professor G. A. Smith. We left Jerusalem April 11th, about 3 p.m., and rode to Mar Sâba, which we reached in about two and a half hours. We left next morning (April 12th) about 8 a.m. and went to '*Ain Feshkhah*, via the neighbourhood of *Khurbet Mird*, *Bir el-Fâs*, *El-Bukâ'a*, and the steep descent known as *Nakk 'Ain Feshkhah*. We reached our destination about noon: left again at 3 p.m., and rode to Jericho by the usual route along the west side of the Jordan Valley, passing *Khurbet Kumrân*, *Hajar el-Asbah*, and *Wâdy Dabr*. Reached our camp in Jericho a little before 6 p.m.

*Weather*.—There had been a strong north-west wind and some rain in Jerusalem on the morning of the 11th: we experienced occasional puffs of the former in the winding valleys going to Mar Sâba, and quite a considerable north-west breeze fluttered our tent for the first half of the night. After that the wind dropped. In the early morning there was still a slight breeze from the west, but it soon changed to south-east, with at first uncertain and irregular puffs from the north-east, never strong.

About sunset a strong breeze from the north set in.

Atmosphere exceedingly clear after the south-east wind became established—all the mountains to the east stood out very distinctly.

Surface of the sea almost smooth—small, low, unbroken waves.

About 8.30. a.m. an irregular white line—brightly illuminated by the sun—could be seen near the east shore. When we came to the *Nakk 'Ain Feshkhah* about 11.30, where we had a wonderful view over the sea, the surface near the west shore was marked by a number of irregular white lines. One, rather ill-defined and very curved, extended down the lake some distance, perhaps half a mile, from the west shore. This was then being blown in-shore, and at 3, when we left, no "white line" at all was visible.

*State of Level*.—A rise of 8 inches at both the Observation Rock and at the rock in the Pool. Height of water at latter spot 2 feet 10 inches. *The rise for the whole rainy season 1903-4 is thus only 8 inches.*

*Barometric Observations.*—April 11th, 3 p.m., Jerusalem, 27°86; 6 p.m., camp just above Mar Saba, 29°7. April 12th, 6 a.m., Mar Saba Camp, 29°77; 12.30 p.m., ‘Ain Feshkhah, 31°74; 10 p.m., Jericho, 31°41. April 13th, 6.30 a.m., “Samaritan’s Inn,” 29°87; 10.30 p.m., Jerusalem, 28.

*Observations on Mercury Barometer in Jerusalem for purposes of comparison at 9 a.m.*—April 11th, 27°486; April 12th, 27°624; April 13th, 27°686.

*Thermometer, April 12th.*—Temperature of air at ‘Ain Feshkhah at 12.30, 74° F.; temperature of water of spring, 79°. Jericho at 6.30 p.m., 64°.

*General Observations.*—A good many Bedawin encampments in the *Buka'a*, and a number of armed Arabs appeared just as we were about to descend from the mountains bounding that plateau on the east. Also some peered down at us over the cliffs above the *Nakk ‘Ain Feshkhah*. On that descent, not far above the ‘Ain, we passed a large flock of sheep and goats which had apparently been washed in the Pool. About a dozen Bedawin, men and boys, were attending them. Of animal life we saw about half-a-dozen ibexes silhouetted against the sky upon the cliffs near *Hajar el-Asbah*, and a gazelle just after we passed the *Wâdy Dabr*. Partridges, hawks, and many small birds as usual, and storks on the higher ground near Jerusalem.

Two weeks before I had encountered enormous flights of locusts all round the Lake of Galilee, but at this time there were none to be seen in the Jericho plain or anywhere on our route.

The common succulent shrubs in the Jordan Valley were very green and fresh.

The flow of water in the highest part of the ‘Ain Feshkhah springs was rather scanty, and there was no water at all crossing the road from the *Haish el-Mukdâm*. There was no water at all in the *Wâdy Kelt* near Jericho, and I was informed there had been none at all this season. It is evident the springs this year are low: the rainfall registered in Jerusalem is only 20·32 inches, one-fifth less than last year, and the Dead Sea level is evidently falling in consequence. The contrast between the rise of 25·5 inches during the winter 1902-3 and the rise of only 8 in. this season is very remarkable.