

Hill,<sup>1</sup> writing in 1900, said that the surface of the Dead Sea had risen considerably, as the Rujn el Bahr, an island existing a few years before near the north end of the lake, had disappeared, and the Jordan had been invaded by the lake, and much of the land in the neighbourhood submerged; the beach on the east shown in the Exploration Fund map had also disappeared, water of considerable depth coming close up to the cliffs and rocks. He suggested that volcanic action might be raising the bed of the lake. The water does not appear to fall during the summer, so the rise cannot be due to the rainfall at any particular season; but it is possible that a wet cycle may have set in, and the rise may be due to the increased rainfall of late years.

On the other hand, according to a note in the *Deutsche Rundschau*, referred to in the February *Geographical Journal*<sup>2</sup> of 1900, the water of the Dead Sea had recently undergone a marked diminution in volume, mainly, it was said, owing to the increased diversion of the water of the Jordan for irrigation purposes. The bed of the lake was said to appear like a deposit of dry salt. Monthly measurements of the rise and fall of the lake taken for the Palestine Exploration Fund during an exceptionally dry year, October 1900 to October 1901, showed a rise of 1 foot 3 inches up to 30th March 1901, and then a fall of 1 foot 9 inches to October. Thus the level of the lake was lowered 6 inches in the year. Dr Masterman, who made observations of the fluctuation of the level of the Dead Sea from 1901 to 1906, reported<sup>3</sup> that 37.95 inches of rain had fallen between autumn 1905 and spring 1906, and the level had risen 34 inches. The figures given for the years 1901–1905 show that the extent of the rise is not always proportional to the rainfall. Putnam Cady<sup>4</sup> reports that at certain points along the shore on the east coast great quantities of oil flow from the rocks and spread over considerable portions of the sea. On the shore large pieces of pure sulphur and lumps of bitumen weighing several pounds were found. He also writes of a strong current setting towards the north along the east coast, and of disturbances of level due to differences of barometric pressure at different points on the lake.

Lynch<sup>5</sup> states that no animalcules or animal matter were detected in the water by a powerful microscope, although the surface of the sea one evening was a wide sheet of phosphorescent foam, a phenomenon

<sup>1</sup> *Quarterly Statement, Palestine Exploration Fund*, July 1900, p. 273.

<sup>2</sup> See vol. xv. p. 175, 1900.

<sup>3</sup> *Quarterly Statement, Palestine Exploration Fund*, July 1906.

<sup>4</sup> "The Historical and Physical Geography of the Dead Sea Region," *Bull. Amer. Geogr. Soc.*, vol. xxxvi. p. 585, 1904.

<sup>5</sup> *Op. cit.*, p. 324.