

which were taken too close to the western shore, we confine our attention to these two series alone, we find that the mean of 44 soundings for this lake is 1.6 m. In the Kum-köl we obtained a mean depth of 1.12 m.; but if we make allowance also for the areas of the two lakes, then the salt lake is the shallower.

According to my areometer, the salinity of the water at Camp XXXII was 1.22. But the value of the reading is to this extent impaired, that the fresh water from the river unquestionably reaches that far, so that here near the western shore the salinity was a good deal less than in the middle of the lake.

On the north of Camp XXXII the shore-line swung out into the lake, and there too there were sand-hills thinly clothed with grass, and containing amongst them one large and two small pools.

August 24th. From the last camp we sounded a line that ran at first towards the south-south-east and then towards the south-west to the mouth of the river. Along this line the depths obtained were — 0.51, 0.78, 0.97, 1.04, 1.08, 0.97, 0.90, 0.41, 0.71, 0.61, and 0.80 m. We were barely a kilometer from our starting-point when the movement of the river made itself distinctly felt in the shape of a heightening of the level, which formed a slight concentric wave across the calm mirror-like surface of the lake. Quite close to the mouth of the river the velocity amounted to 0.53 m. in the second, and at the left or northern horn of the river-mouth to 0.30 m. Thence the river water spread itself out fan-like across the lake, though principally towards the north-east, this direction being dictated by the shape and orientation of the last basin in the estuary and by the slight projection of the horn at the north side of the river-mouth. The distance between the two horns of the estuary amounted to 330 m., and along this line we measured from north-west to south-east depths of 0.79, 0.86, 0.95, 1.13, 1.19, 0.76, and 0.25 m. Just outside this line we observed a semicircular gravel bank, convex to the east, everywhere about half a meter below the surface; but in the middle, where the current ran strongest, there was a trough 7 m. broad and 2.56 m. deep, this spot being deeper than any other in the lake. Within the horns of the estuary there is thus a basin, or if you like an expansion of the lowest part of the river. At the south-east angle of this basin there is a deep but shallow bay, formed by a peninsula projecting towards the north-east. Between its northern extremity and the northern bank the river is narrow, and flows with a lively current. There is also another basin or expansion west of this narrow fluvial passage. The river appeared to come from the N. 77° W., where we observed an opening between the banks, while a little farther west lies the freshwater lake from which the river issues. In both these basins, as well as outside the estuary we saw the fresh water conmingling with the salt, and giving rise to flocculent intrusions and streaks as in sugared water. Both waters were as bright as crystal; in the narrow passage, even at a depth of 3.34 m., the bottom was perfectly clear and distinct. The upper lake thus serves as a filtering reservoir, in which the thick, muddy glacier rivers deposit their sediment. From this we may infer, that the upper lake is pretty large and deep, but that it will in process of time be filled up by the solid material which is thus deposited in it.

It is interesting to observe that this salt lake lies at an altitude of only 4766 m., and consequently in what is relatively an unusually deep depression for this part