

accumulated there in a past epoch, and ultimately found its way to the ocean in a north-westerly direction as the rivers Yenisei, Selengá, Vitim, etc., formed first a succession of large lakes along the inner base of the range bordering the plateaus, traces of which are still seen in Kosso-gol and Lakes Shaksha and Bahunt. The overflowing streams from these lakes cut their way through the range and formed another series of lakes on the outer side. These in turn overflowed, and the waters subsequently found their way to the sea.

**Lake Telezkoie** (or Altyn Kol) was surveyed in the summer of 1901 by an expedition under Ignatov.<sup>1</sup> The lake lies in a narrow valley at an elevation of 1700 feet above the sea, has a length of 48 miles, with a breadth of 33 miles, the widest part being in the south, and covers an area of about 880 square miles. The main portion of the lake runs north and south, the Chulishman River entering at the southern end, while the Biya, which makes its exit at the north-west end, joins the Katun to form the Obi. Tectonic causes have evidently contributed to the origin of the lake. The result of 2500 soundings is to show that it is shallow in its northern section, but reaches a depth of about 1017 feet in the south. There are two deep basins, separated by a submerged ridge, over which the depth is 870 feet. In the middle of June 1901, the surface temperature was 39° Fahr. (3°·9 C.), and the temperature of the lower layers 37½° Fahr. (3°·1 C.), while the temperature of the inflowing streams was 48° to 57° Fahr. (8°·9 to 13°·9 C.). About the middle of July the surface temperature was 53½° to 61° Fahr. (12° to 16°·1 C.). The shallow portion freezes over in November; the deep southern portion is rarely frozen over—perhaps once in seven years.

**Zaisan Lake.**—The great tributary of the Obi, the Irtish, gathers its head streams in the Zaisan Lake, 80 square miles in area, lying at an elevation of 1350 feet in a valley of the Altai.

**Lake Baikal.**—The largest lake of this system is Lake Baikal, a deep, long trough in the crystalline mountains, drained by the Angará, a tributary of the Yenisei. Different authorities give varying figures for the dimensions of the lake, but those of Schokalsky<sup>2</sup> are given here as representing the most recent survey. The length is over 370 miles, the breadth over 50 miles, and the area is about 11,580 square miles; the altitude of the surface is 1588 feet above sea-level, and the bottom of the lake is 3825 feet below sea-level, the maximum depth being 5413 feet—said to be the greatest depth in any lake. The

<sup>1</sup> See *Globus*, Bd. lxxxii. p. 34, 1902.

<sup>2</sup> Schokalsky and Schmidt, *Explorations scientifiques des Mers et des Eaux douces de l'Empire russe* (Section Scient., Exp. Maritime Intern., Bordeaux, 1907).