

at the margin of the ice, out towards the open water,  $3^{\circ}$  C. The temperature of the ground on the edge of the water, on the sunny side, was  $12^{\circ}$  C.

A continuous series of warm, bright days at the end of March ( $10\text{--}11^{\circ}$  C. at midday) and in the beginning of April raised the temperature of the pelagic region in the small ponds unusually high ( $6\text{--}8^{\circ}$  C.), whilst during the same period the temperature in the pelagic region of Furesö rose only  $1^{\circ}$ —from  $2^{\circ}\cdot 1$  to  $3^{\circ}\cdot 1$  in the course of four days, 28th to 31st March. In the following three weeks, when the temperature of the air never rose above  $5^{\circ}\cdot 6$  C. and was generally lower, the temperature of the water in the ponds nevertheless steadily rose to  $6^{\circ}\cdot 7$  C.; the surface temperature in the pelagic region of Furesö rose immediately after the above-mentioned warm days (28th to 31st March) to  $4^{\circ}$  C. and continued to rise to  $5^{\circ}\cdot 7$ , at which temperature the surface of the lake remained to the last days of May. These high water temperatures cannot possibly be due to the warmth of the sun at that time, as the air temperature was throughout lower than the water temperature. In my opinion, it was in the first instance the high temperatures occurring in the littoral region in very early spring which imparted a surplus of warmth to the pelagic regions of the lakes and ponds, a warmth retained later; and further, it was the warmth-collecting quality of the littoral region which absorbed every sunbeam cast upon it in the foggy, rainy April, that was later of benefit to the pelagic region. Various things seem to me to indicate that under our climatic conditions the monthly average temperature of the water in the summer months in the pelagic region of our lakes will be above the average temperature of the air. That, on the other hand, the littoral region becomes extremely cold during the period of cooling is a well-known fact which I need not discuss here. As I have the impression, however, that the importance of the littoral region as a store of warmth, at least in the Baltic lakes, is less well known, I have dwelt upon the subject here at some length.

What also acts in these lakes as a warmth-absorber, and, under the influence of the processes of putrefaction, as a warmth-producer, is the enormous quantity of plankton, especially during the periods of the water-bloom, which is produced in the lakes in the warm summer months. We have unfortunately no data to show how high these temperatures may rise.

Further, the rich organic life influences the *colour* of the water in the Baltic lakes; the true colour has, so to speak, never been seen, being almost always determined by the plankton, that is, by the particular coloured bodies in the plankton organisms which have their maximum at the moment in the lake (on this point see especially