

greenish-blue, but often green; the abundant supply of humic substances washed out of the ground by the rivers generally causes the colour to be of a more or less brownish tint, but hardly ever so intense as that of the Scottish lakes (see especially Ule, 1898. pp. 69-72). This brown colour is, so far as I understand, more conspicuous in North German and South Swedish than in Danish lakes, of which the larger, in my opinion, cannot be said to be brown but much rather green, perhaps owing to the great quantity of lime in the water. The brown tones of colour are most distinct in small lakes and in summer; the green colour in spring, soon after the ice has broken up. The influence of the plankton on the original lake-colour will be referred to later.

As to the *chemical* composition of the lake-water I need only refer to the greatly varying abundance of lime from lake to lake. The chalky nature of the surrounding country, of course, exercises a very great influence. The waters of lakes situated in moraine clay rich in lime have higher percentages of lime than those in territories with sandy ground. This zone, in contrast to the foregoing, may no doubt on the whole be said to contain many lakes having a high percentage of lime. Those which are remarkable for their greater transparency, purer water, and colours of a more greenish tinge have generally a richer organic life than waters with a small percentage of lime and coloured more or less brown by the humic acids. In describing the conditions in the Baltic lakes, and not least the chemical composition of the lake-water, it ought to be remembered that many of these lakes have formerly been in much more intimate touch with the sea than now. In the so-called beach-lakes the degree of salinity varies very much; even in the true inland lakes, where, of course, it is slight, it may sometimes exceed 10 in 100,000 parts (Halbfass, 1901, p. 90). Concerning the quantity of dissolved organic material little is as yet known; it is most probably on the whole pretty great—greater in shallow than in deep lakes, greatest in autumn and least in winter (Halbfass, 1901, p. 94).

The broad littoral zone is covered with vegetation, everywhere arranged in very uniform belts, first a belt of *Scirpus* and *Phragmites*, and then a belt comprising species of *Potamogeton* with *P. lucens* and *P. perfoliata* as main forms, and outside that again a belt of *Characeæ* mainly formed by species of *Chara* which hardly descends deeper than about 5-7 m.; a *Nitella* belt is absent or weakly developed, but amongst the *Characeæ* and also outside the latter we find a peat-forming community of sterile submerged mosses, in our lakes at any rate going out as far as 9 m., in South Swedish lakes as far as 7 m. (Carlsson, 1902, p. 27). The main forms are *Amblystegium scorpioides* and *Fontinalis antipyretica*. I have known this moss belt