Fresh Water Algae in Vicinity of Montreal 405

When the film was scraped off the damp tiles, it presented the appearance of a blackish green scum. This was found to be composed of Calothrix, Tolypothrix, Oscillatoria, Lyngbya, Desmids and various other unicellular forms. During the winter, the aquarium containing them was not kept under the same conditions of light and warmth as had obtained in the conserva-Although it was maintained at a higher temtory. perature than the others, a marked difference in the color and relative numbers of the algal constituents had taken place. The contents of the culture were now a much lighter green, and while formerly the majority of the individuals had been blue-green, now the green unicellular forms predomniated and many of the blue-greens had entirely disappeared. This is an excellent illustration, on a small scale, of the dominance of the Cyanophyceæ under tropical conditions, and the greater adaptation of the Chlorophyceæ to conditions of less light and lower temperature which Dr. Fritsch has pointed out in his study of the Tropical Algæ.¹

A good deal of animal life existed in the aquaria throughout the winter. In October, several small crayfish were noticed and removed, as well as innumerable tiny snails, which were feeding upon the unicellular algæ. Vorticella was found in practically every culture, especially in connection with Vaucheria and Ulothrix. Paramœcia were also frequently noticed, often containing unicellular forms of algæ which they had engulfed. Amœboæ were not so plentiful and no Hydra were observed in any of the cultures, although a special search was made for them. Daphnia, Crypris and Cyclops were quite plentiful in aquaria which contained a quantity of water-weed. It was interesting to observe that apparently Oscillatoria was not used by any of these forms as food, and that in several small aquaria where it appeared in large quantities the animal life disappeared shortly after the unicellular green algæ had been exhausted. This