

The Plankton.—There are about 30 species of animals and 80 plants of common occurrence in the plankton. 15 of the animals and 13 of the plants are generally distributed—the others are more or less local. Most of the local species are confined to the west and north of the mainland, and the islands. The chief characteristics of the plankton are the abundance of Desmids, and the predominance of Arctic species of Crustacea.

The *seasonal change* is but slight, especially in the larger lochs. Most of the Arctic species are only present in summer and autumn.

The *temperature* of the larger lochs has a very small annual range, rarely reaching 20° Fahr., and there is rarely any approach to “flowering,” but such as there is may occur in winter.

A *diurnal migration* of the plankton has been noticed, the larger Crustacea coming to the surface after dark. The plankton animals are normally abundant in the larger lakes down to a depth of 200 feet and more. *Leptodora* appears to make the journey from this depth to the surface with great rapidity, as it has been found to arrive at the surface immediately after sunset.

Littoral Region.—The margins of the lakes, though usually somewhat deficient in higher vegetation, possess in favourable localities a very rich microfauna, of Tardigrada, Worms, Rotifera, Infusoria, etc., only partly worked out.

The Abyssal Region.—The muds of the deeper lakes support a very sparse population, of about a dozen species—1 Mollusc, 3 Crustacea, 3 Worms, 1 Insect, and several Infusoria. Many others are casually found in the abyssal region, and in Loch Ness upwards of 40 species of animals have been found at a depth of about 300 feet.

There are no peculiar abyssal forms in the lochs, unless a few Rhizopods found by Dr Penard be considered as such. No *relicts* of a marine fauna have yet been found in the lochs. The physical conditions characteristic of the abyssal region are total darkness, equable temperature, great pressure. The poverty of this region may be attributable to a deficit of oxygen in available form.

Origin of the Fauna and Flora.—As no relict fauna has yet been found in the lakes, there is no reason for supposing that any part of the lake-fauna has had a marine origin, or has come through the intermediary of a great inland sea or lake, such as has been postulated to explain the distribution over the great European plain. And as there is likewise no peculiar abyssal fauna, or peculiar forms at all in the lakes, the tracing of the origin of the population found in them now is comparatively simple. Ordinary migration will account for the greater part of it, and this may be extremely rapid.