

of exploration at present expend. It must be remembered that such observations in Scotland, in the great Swedish lakes, in the Baltic lakes, and in the Lake of Geneva, as well as in many of the American lakes, may be connected with investigations already being carried out, and by investigators who at these places have already studied the very same phenomena. In all these localities the investigations will be relatively cheap: neither money nor the right men would be difficult to get. The great difficulties arise only in the case of the arctic and tropical lakes, and, as far as I can see, especially the latter. Here it is probably necessary to restrict the demands, and to remember that it is not altogether necessary that the scientists should live during the whole year at the locality; they might leave the plankton collecting and temperature observations to men who during the stay had been trained for that purpose. The material collected should be given into the hands of a committee, who should determine its further elaboration. Sooner or later this plan will undoubtedly be carried out. Whether the present is the right moment, I do not know; but I do not see why it should not be.

Whilst pointing out what, in my opinion, is most needed to promote limnology, I wish at the same time to indicate briefly the lines which, in the present position of the science, may be regarded as already worked out. When the plankton investigations began, very many small papers relating to the pelagic fauna or flora of fresh water appeared. Many of these papers were the result of a single excursion, and the plants and animals were cursorily determined. Papers of this kind are now indeed rare, but they have by no means quite disappeared. It must be strongly emphasised that all papers of this kind, if they are only the result of a single excursion and the collection only contains common forms, are of exceedingly little scientific use. This holds good especially for the material obtained from the temperate zone. For example, no scientist who has made an excursion in a stretch of woodland thinks of communicating to the scientific world that he has found violets and wild flowers; but just as unnecessary is it to communicate that one of the thousands of Baltic lakes is populated with *D. hyalina*, *Polyarthra platyptera*, and other cosmopolitan species. Publications of this kind should no longer be printed in scientific periodicals.

During the last ten years we have obtained from different countries a number of *lake descriptions*; they belong almost all to the temperate zone, principally to the Baltic or Swiss lakes. We find in these papers a pot-pourri of very many different branches of natural science: physics, chemistry, geology, meteorology, zoology, botany, all treated and finished off in one or two hundred pages. The starting-point for these publications is that a lake is a sharply