

teaching Nature Study, as for teaching language, arithmetic, geography, history, etc.? and yet, which is the more important to the life of the individual? I firmly believe that Nature Study, properly taught, is the natural bridge of the expanding intellect from the limited experiences of the senses to the great realm of world knowledge. The transition by Nature Study methods is easy and rational, and the pupil reaching the large realm by this road will not suffer the loss of his childhood's joys, but the sense perceptions will be trained and quickened in their action, and the intellectual appreciation marvelously enriched by the fuller knowledge of maturer years. In this connection I cannot refrain from quoting again from the article before mentioned: "It seems probable that most children are potential biologists, to some extent, but only a few are able to break through the crust of indifference and opposition which surrounds them a little later, and remain naturalists to the end. If this is true, and it is also true that stimulation at an early age is very important, the Nature Study movement in the schools may yet produce great results for science. However, in the absence of suitable teachers, and in view of the crowded curriculum and consequent weariness of the pupils, one fears that in many instances the effects of a Nature Study course may be the reverse of those desired. There may be fatigue and disgust with the whole subject."

It is the purpose of this discussion to seek, if possible, the means of avoiding the sad failure just indicated, and we return to the question: Can the method suggested be applied with a fair degree of success by the average teacher in the common school? If the average teacher can possess the qualifications enumerated, the answer must be in the affirmative. I cannot believe that many of our teachers are thus qualified at present. Neither the available statistics, nor the reported success in Nature Study teaching justify that assumption.

Acquisition of the necessary qualifications is, however, within the power of every teacher that ought to be engaged in the profession, at least to a degree sufficient for the attainment of a fair amount of success in teaching, but determined effort is necessary upon the teacher's part. One of these qualifications is so much more dependent on external aid, and is so important as a condition for acquiring the others, that a definite plan for its attainment will be offered. It appears to me that to obtain some intelligent and helpful instruction in Nature Study methods, or some training in observation, offers to the common school teachers now engaged in their profession, difficulties that are not to be surmounted by many apart from assistance from without. The isolation of the schools, the enforced financial limitations upon travel, and consequent inability to meet and remain in contact with trained observers long enough to assimilate their methods and their enthusiasm, are obstacles not to be removed by the mere willingness of the teachers to surmount them. I have reason also to believe

that the number of trained observers not only in the counties of Kings and Hants, but also in the province at large, is at present small, and this is a condition that will require years to change. The outlook for any rapid amelioration of existing conditions is therefore not bright. A plan, however, has occurred to me that, carried into execution, might furnish the requisite training to the teachers, assist them in carrying out the prescribed work in Nature Study by the method previously outlined, aid in the accumulation of knowledge about our country and be of real service to science.

There were, last year, in Kings County 126 schools, 120 of which are in session for the year. There is a very good road map of the county, from which an enlarged copy could be taken for every school section by the teacher located there. Where old roads have been abandoned, or new ones opened, corresponding alterations could be entered on the map. Observations could then be commenced by teacher and pupils. Brooks and small streams could be traced, dwellings located, areas of cultivated, pasture, barren, and forest land outlined, and pertinent facts about each recorded. The names of plants, animals, and minerals, or rocks, as far as these could be ascertained, could be written in at the locations where observed; and as information accumulated, classes of data could be aggregated upon duplicate plans, as previously suggested. Different subjects could then be assigned to the different grades, according to the stage of advancement, and the whole move on systematically and progressively.

If this plan were adopted, both teacher and pupils would be engaged for a part of their time in seeing things, or striving to see them, as they are. No matter what the objects studied may be, training in observation is being obtained by all. As the study of any subject proceeds, and the ground becomes more familiar, interest and enthusiasm usually follow; and this is even more true of Nature Study. With acquisition of knowledge, and growing interest, comes the necessity for books of reference, and confidence in the value of the prescribed course. The attainment improves the teaching power. The prescribed work is carried out in spirit, if not strictly in letter, and both teacher and pupil greatly benefitted. * * * *

If the results to be achieved by this plan were no other than the training of teachers and pupils in observation, and their introduction to the knowledge of the wealth and wonder of their immediate surroundings, their value would still be sufficiently great to justify a determined effort to secure them. There is, however, an additional and wider use for the information so collected that should furnish to the teacher an additional and powerful stimulus.

There were in the County of Kings last year, in the common school grades, 4,303 pupils. In Nova Scotia there were 91,919. If these pupils, with their eager, inquisitive eyes, could be transformed into observers, and the observations accurately record-