

NATURE STUDY—No. XXI.

NATURE STUDY IN THE SCHOOLS OF NOVA SCOTIA.

(A Historical Sketch.)

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A systematic course of oral and objective study was outlined in the first conspectus of a course for the schools of the province, which was presented to the Provincial Educational Association at Truro on the 14th day of July, 1880, by the Principal at that time of the public schools and Academy at Pictou. This was done on the invitation of Dr. David Allison, then Superintendent of Education for the province. After due discussion the conspectus was referred to a committee for simplification and presentation at the convention held the next year, where it was further discussed and passed, practically in the form in which it was soon after prescribed by the Council of Public Instruction for the first eight grades of the public school system, known as the common school grades, in the year 1881.

In 1887 "The Educational Review," which has ever since been continuously published at St. John, N.B., was started with the object of developing the Nature Study side of the course, as well as serving incidentally as a teachers' organ for the Atlantic provinces of Canada. Illustrated lessons on natural objects were prepared, the most continuous being the series under the title "Ferndale School." The whole environment of common school life was more or less covered, instruction for teachers on various subjects, including even the evening sky, which was illustrated by a series of star maps. The Ferndale series dealt with the biological side mainly; but other pages covered mineralogy, physical phenomena of common range, and so forth, before any general effort appears to have been made in the educational press of the other provinces of Canada.

A little later, 1901, a Science building was erected in connection with the Provincial Normal School; and the Provincial School of Agriculture founded by the Government a few years earlier, was then more completely affiliated with it. An extra course of two years in the sciences underlying the art of agriculture was

given to teachers who could take this extra time, for which a special diploma and prize were awarded, and an additional provincial grant of \$100 when they were engaged in teaching in an efficient rural school. This idea has been carried out in a fuller manner by Dr. James W. Robertson, director of the Sir William C. Macdonald Rural School Fund, when \$175,000 were donated to build the Macdonald Institute of Nature Study, etc., at Guelph, in Ontario, and additional funds were provided for Nature Study teachers and school garden demonstrations.

For about twenty-four years the idea has been in the public course of study, developing gradually from morphological to biological observation—from the observation of forms to the observation of action. For a number of years records have been made of the biological and meteorological facts capable of being accurately observed by pupils and verified by teachers, such as the dates of first flowering, leafing and fruiting of plants; the migration of birds; thunderstorms, frosts, high and low water, etc. These have proven so valuable as scientific records, that for some years they have been annually compiled into averages for the different regions of the province as well as for the whole province. The schedules have to some extent been utilized in the other provinces of Canada, and a similar system has been introduced in imitation of it into some of the schools of Denmark. The main object of the scheme originally was to give some objective work to the pupils on their way to and from school, to be reported to the teacher in school. These schedules are being carefully bound up into annual volumes, for the benefit of future students of climatic and ecological conditions in the province.

In the provincial course of study special directions are given for each of the eight grades of the common schools. The general directions published in each school register give in brief form the substance of the *special* directions published annually in the "Journal of Education," which is the official bulletin of the Department, sent free twice a year, in April and October, to each school board in the province. These general directions, which indicate the view taken by the Nova Scotia Education Department of the character and importance of this elementary work in the public schools, are as follows :

“NATURE STUDY.—The noting, examination and study of the common and more important natural objects and laws of Nature as they are exemplified within the range of the school section or of the pupils' observation. Under this head, pupils should not be required to memorize notes or facts which they have not, at least to some extent, actually observed or verified for themselves. Many books on the list recommended for school libraries (see October “Journal,” 1903) are useful guides to the teacher for portions of the work prescribed in some of the grades. There should be a short “Nature Lesson” given every day on the daily collections and observations of the pupils themselves—not on the statement of teachers or books—the lesson always being based on the objects or observations. These guide books are to be used only to show the teachers how to give such lessons. They are entirely prohibited as text-books for either pupil or teacher, for under no circumstances should ‘notes’ from the books be given to pupils. All such studies must be from the objects. Observations under this head form some of the best subjects for English composition or drawing exercises in all grades.

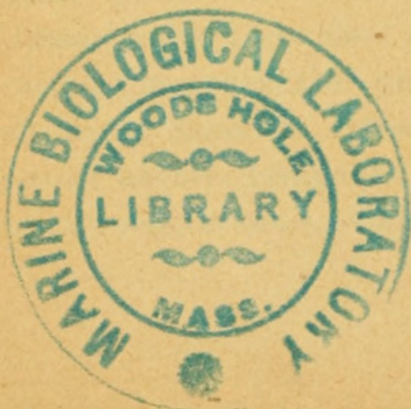
“In schools with pupils of several grades under one teacher (as in most rural schools), many of these lessons may profitably engage the whole school. In nearly all, either the whole senior or whole junior divisions of the school can take part. A skilful teacher can thus give profitable object lessons to several grades of scholars at once; at one time giving a Grade V lesson, at another time a Grade VI or Grade VII or Grade VIII lesson, which will also contain enough for the observation and interest of Grade I, Grade II, Grade III and Grade IV pupils. An object lesson given to the highest class can thus, to a certain extent, be made a good object lesson for all the lower classes. The older pupils will see more and think more.”

“It must be remembered that the memorizing of notes and facts merely stated to pupils is strictly forbidden under this head. Such memorizing is pure cram, and is injurious instead of being useful. The teacher may not have time to take up in class every object indicated in the Nature lessons of the course. In such cases the pupils should be given two or three objects nearly related to the typical specimen examined in school, with directions to search for

and examine them at home, as illustrated in the specimen class lesson. Without much expenditure of time the teacher can note that this work has been honestly attempted to be done by each pupil. The lessons must be direct from Nature itself, but under the guidance of the teacher, who can save time in bringing the pupils to the point desired by his more matured experience. They are intended to train the observing and inductive faculties, to show the true way of discovering something of the nature of the world which immediately surrounds us and which is and will continue to be reacting upon us in one manner or another. This knowledge is so much power over Nature, from which we have to win our material existence. It is also essential as an element in any true and useful system of philosophy.

"More stress has been laid here on the natural history of each section than on elementary physics and chemistry. Not because physical phenomena are less important; but because the elements of these sciences are the same all the world over, and there is no end to the cheap and well illustrated guides to practical work in them which will well suit a section in Nova Scotia as well as one in England or in the United States. But there are no such simple guides in the biology of each section, nor in many others of its scientific characters. The teacher, then, must become a student and master himself; for such exercises have special power in developing the habit of accurate observation (which is the soundest basis for any career, ranging from that of the poet and professional man to the tiller and lord of the soil, the tradesman, the manufacturer, the inventor) and in developing in connection with history and civics an intelligent attachment to both the material and ideal features of our country."

These quotations are from the official instructions published annually for a number of years. They will in future be still further modified, it may be assumed, so as to utilize the ideas and principles now being developed in so many countries, many of which have been so effectively set forth in THE OTTAWA NATURALIST series of articles.





MacKay, A. H. 1905. "Nature Study No. 21 - Nataure Study in the Schools of Nova Scotia." *The Ottawa naturalist* 18(11), 209-212.

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