

FIRST STUDIES OF PLANT LIFE

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First Studies of Plant Life by George Francis Atkinson

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GEORGE FRANCIS ATKINSON

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FRONTISPIECE. — A Congenial Plant Society, Minnesota
(Photograph, by H. E. Murdock)

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PLANT LIFE

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INTRODUCTION

FOR a long time botanical science, in the popular mind, consisted chiefly of pulling flowers to pieces and finding their Latin names by the use of the analytical key. All the careful descriptions of the habits of plants in the classic books were viewed solely as conducive to accuracy in placing the proper label upon herbarium specimens. Long after the study of botany in the universities had become biological rather than purely systematic, the old régime held sway in our secondary schools; and perhaps some of us to-day know of high schools still working in the twilight of that first ray that pierced primeval darkness. However, this has practically passed away, and to-day life and its problems, its successes and its failures, absorb the attention of the botanist and zoölogist. The knowledge of the name of the plant or animal is simply a convenience for discrimination and reference. The systematic relations of a plant or animal are used in showing present anatomical affinities and past development. The absorbing themes of investigation and study are the life processes and the means by which the organisms living in the world to-day have climbed upward and placed themselves in the great realm of the "fit."

When the idea of nature study first dawned in the educational world, it was inevitably confused with the sciences on which it was based. Hence in earlier times we tried to teach the nature study of plants by making the children pull

the flowers to pieces and learn the names of their different parts. This was as bad nature study as it was bad science, for we were violating the laws of the child's nature. The child cares very little about the forms of things; he is far more interested in what things do.

To-day nature study and science, while they may deal with the same objects, view them from opposite stand-points. Nature study is not synthetic; it takes for its central thought the child, and for its field work the child's natural environment. The child, through nature study, learns to know the life history of the violet growing in his own dooryard, and the fascinating story of the robin nesting in the cornice of his own porch. The differences of this violet and this robin from other violets and other robins in the world he considers not at all.

That the plant as well as the animal in nature study should be regarded a thing of life has long been recognized, and most of our nature study of plants begins with the planting and sprouting of the seed. Unfortunately, it mostly stops here; the life processes of the plant have seemed too complex to be brought within the comprehension of the child. There is much of chemistry in operations of plant growth, and we find very few things in chemistry that are simple enough to be properly a part of nature study.

"First Studies of Plant Life" has been written with the sole view of bringing the life processes of the plant within the reach of the child and, with the aid of the competent teacher, it will certainly be comprehensible to the pupil of even the lower grades. In this book the plant stands before the child as a living being with needs like his own. To live, the plant must be born, must be nourished, must breathe, must

reproduce, and, after experiencing these things, must die. Each plant that is grown in the window box of a school-room should reveal to the child the secrets and the story of a whole life. He realizes that the young plant must be fed; it must grow; it is no longer a matter of commonplace; it is replete with interest, because it is the struggle of an individual to live. How does it get its food? How does it grow? It is of little moment whether its leaves are lanceolate or palmate; it is a question of what the leaves do for the plant; it is a matter of life or death.

When the child has once become acquainted with the conditions and necessities of plant life, how different will the world seem to him! Every glance at forest or field will tell him a new story. Every square foot of sod will be revealed to him as a battlefield in which he himself may count the victories in the struggle for existence, and he will walk henceforward in a world of miracle and of beauty,—the miracle of adjustment to circumstances, and the beauty of obedience to law.

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