

Fifty Years of Nature Study

and the American Nature Study Society

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JANUARY, 1958, marks the beginning of the second half-century of the existence of the American Nature Study Society. Since the Society has been an important factor in the growth and evolution of the nature study movement, it is appropriate that this educational insert be devoted to these past fifty years. Also, the American Nature Association and *Nature Magazine* have collaborated closely with the Society and have furthered many of its educational responsibilities.

More and more funds and professional support are becoming available for the advancement of science education in its broader aspects. Equally, there is more and more competition for these funds and for this support. Historically in education, there have been many educational fads, temporarily winning public support. However, through it all, there are fundamental truths that must be accepted, and any honest student must recognize in the nature study movement values that are essential. We wish to call attention to some of these values. We must first accept the validity of a philosophy that asks that one look to proof for authority, rather than to authority for proof. And the essence of nature study is that we "study nature, not books." There have been and will be attractive fields to explore in which camping, recreation, health, and citizenship suggest ways of advancing "the nature study idea." A position of leadership in conservation, for example, is being sought by recreation leaders, many of whom have scant understanding of the real significance of conservation. The term science has been abused by many who have little concept of what science really is and little desire to submit to the disciplines necessary for such understanding. We tend to determine what we do in part by seeing how the pack is running, buying cars that sell in the greatest numbers, smoking cigarettes that are smoked by public figures, and supporting movements that are urged by the ablest propagandists. By none of these methods can truth be determined, and by truth alone can progress continue. Some of us feel that the nature study movement has features that are unquestionably fundamental and vital. It is to propound these truths that this summary of a half-century of nature study is given.

The Seeds of Nature Study, before 1800

TO UNDERSTAND any organism it is essential to consider its structure, how it works, what it does, and to know something of its ancestry. This is true whether it is a pine tree, a swamp, or a professional organization such as The American Nature Study Society. To know how it came about may be as important in understanding it as to see what it does today, did yesterday, or to predict what it may do tomorrow. The philosophy of the Society was evolved over a span of many years by some of the best of minds.

Comenius was credited with producing, in the 1600s, the world's first pictorial school book. In doing so he said: "Since the beginning of knowledge must be through the senses, the beginning of teaching should be made by dealing with actual things. The object must be a real, useful thing, capable of making an impression on the senses." He suggested that geography "begin with the study of the child's room," that "instruction must begin with actual inspection, not with verbal description."

Writing in 1749 of his proposals relating to the education of youth in Pennsylvania, Benjamin Franklin said of nature study: "Besides this Study, if it is to be called a Study, instead of being painful and tedious, is pleasant and agreeable.—A Garden, a Country, a Plantation are all so many books which lie open to them [children]; but they must be taught and accustomed to read in them."

During the first half of the eighteenth century in America began the production of a literature about our plants, animals and mineral resources. In this, the names of Mark Catesby and John Bartram were prominent. In the last half of the century Alexander Wilson and John James Audubon described our birds; Peter Kalm, the Michaux family, and the Bartram family's second generation wrote of plants. All of these men studied their science first hand. They had no choice, for we had scant American literature in the field of nature study.

In Europe, Gilbert White was writing intriguingly about the tortoise in his garden, and of other things he saw, in his classic *Natural History of Selborne*.

Even though war raged in Europe and in America it was fought along more gentlemanly lines than modern warfare. The British army that moved into Philadelphia had orders not to harm the Bartram gardens because of what they had meant to European biologists.

The educator Rousseau described his education "according to nature" and wrote: "In general never substitute the sign for the thing itself, save when it is impossible to show the thing, for the sign absorbs the attention of the child and makes him forget the thing itself."

By the end of the century Pestalozzi, who definitely affected American nature study, was becoming influential.