

HOW THE SEEDS OF PLANTS ARE SPREAD IN NATURE.

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In the common natural objects about us there is an endless field for Nature Study. So vast indeed that the difficulty would be not in seeking a subject, but rather in selecting from the abundant material at hand one that is both interesting and instructive, and is at the same time not too difficult for the beginner to understand.

The remarkable though simple methods adopted by the different plants for the propagation of their kind, in so many cases very dissimilar, should be known to every one, and, for a Nature Study, form excellent subjects both for observation and deduction, to say nothing of the interest they might awaken and the pleasure they might give to any one making a study of the subject. In this paper I shall try to treat part of this subject under the above heading.

Before going into details it may be well to state for the benefit of the beginner, that every species of plant, however simple or complex its structure may be, is specially adapted for its advantage in the struggle for existence; and that however much one genus may vary from another in essential particulars, the object is always the same. Namely, to multiply to the utmost limit. A student, therefore, when examining a plant, should bear in mind that whatever the structure, it is for the plant's benefit, and that it has maintained the species in the struggle with other plants and with animals, for a number of centuries. There is in fact a reason for every detail.

I. SEEDS THAT ARE CARRIED BY WIND.

Seeds under this heading always have attached to them some fluffy material to catch the wind, like the pappus of the dandelion, or they are winged like the seeds of maples and conifers. The common dandelion and other close allies offer simple objects for study, as some form can be found nearly everywhere. The seeds of this plant, as the pappus shows, depend almost entirely on the wind for transportation and migration. In many instances the pappus undoubtedly enables them to travel several miles. There is, however, a condition that is absolutely necessary. The plant will not let the seeds go in damp or wet weather, and if the air becomes damp while the seeds are travelling, they soon drop to the ground. This applies to all the fluffy seeds and in a lesser extent to the winged kinds. The