

and is still. But the memory of the glorious chord goes with us through the day "to charm, to strengthen, and to teach." Thus it was that Professor Sedgwick lived and died and stays forever in our hearts

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OUR DISAPPEARING WILD PLANTS¹

THE destruction of the vast herds of bison on our western plains, the total extinction of the formerly abundant wild pigeon, the extermination of many of the most beautiful of our wild birds, all this is a matter of common knowledge. How many of us, however, realize that the same rapacious spirit of destruction has seriously endangered our wild plant life, until many of our most desirable plants have actually disappeared from wide areas of our country?

The earliest Europeans in America found in the New World a flora marvelously rich in its abundance of species and indescribably beautiful in its display of attractive plants. Since the time of the earliest settlers this wonderful flora has suffered a gradual depletion until at present the flora in many regions is a mere relic of the past with hardly a suggestion of its pristine loveliness. The appreciation of mankind was expressed in an odd manner indeed when he removed the handsomest of the plants, allowing the dull and less attractive species to take their place. This painful tragedy has been enacted right here in the vicinity of Washington, where the formerly luxuriant display of laurel, rhododendron, holly, ground pines, and arbutus has in many places been supplanted by weedy and generally unattractive species. All the plants named are almost extinct within a wide radius of the city and the wild orchids, spring beauties, bluebells, and many other species of rare grace and beauty are vanishing rapidly, and will soon live in memory only unless active steps are taken to save them.

The causes leading to their disappearance

¹ An address delivered with illustrations before the Botanical Society of Washington, D. C., October 5, 1920.

are complex, but by far the greatest contributing factor is the unrestricted, indiscriminate, thoughtless picking to which these beautiful plants are subjected. Each spring witnesses the descent of legions of thoughtless flower-gatherers who ravish the flora with hardly a thought that the tearing away of the flowers robs most plants of their only methods of reproduction. These misguided hordes gather huge armfuls and basketfuls of hepatica, anemone, bloodroot and dozens of other rapidly-wilting plants, which are enjoyed for the moment but are soon strewn along the highways and byways in withered, unsightly masses, mute evidence of wanton destruction of nature's most perfect gifts. The process of extermination has of late been largely aided and widely extended by that new enemy of our flora, the automobile, penetrating into regions formerly remote or inaccessible and returning loaded with huge piles of drooping, withered branches of flowering dogwood, redbud, and service berry, torn out by trespassers who had neither moral nor legal justification for such disfiguration. Who has not seen great branches of dogwood and bunches of other wild flowers offered for sale by irresponsible street-merchants? Within a half-hour during an automobile drive while the redbud and flowering dogwood were in bloom, the speaker was accosted twelve times along Conduit Road near Washington, D. C., by boyish flower venders offering their ill-gotten wares. The accumulated destruction of years will be great until it is inevitable that the handsomest of our species will disappear.

Must these wondrous gifts of nature live only in song and story for the countless oncoming generations? Is it fair that we dissipate this great natural heritage, robbing posterity of the pleasures derived from our flowers which we now so fully enjoy? It would seem that the doctrine of the greatest good for the greatest number demands that we accept this rich birthright in guardian spirit, to be safeguarded and preserved for the enjoyment of those who come after us; that each generation act as trustees of the surrounding

flora, executing its trust in such a manner that the beauty of our native wild plants may continue in perpetuity.

The danger to our wild flora is so great as to have already been recognized by legislators. A recent Maryland law forbids the removal of plants unless either the written consent of the owner of the premises has been obtained or else under the owner's personal supervision. If such consent is not obtained, the picking of wild flowers is a misdemeanor, punishable by a fine of from five to twenty-five dollars, by imprisonment from thirty to ninety days or by the infliction of both of these punishments. Of far greater importance than the fear of punishment, however, is the creation of an appreciative sentiment in favor of the plants, because, after all, the ruthless destroyers are really the friends of the flowers, considerate and kindly disposed, but thoughtless in their acts. Usually a mere suggestion is thrice more powerful than a threat. The speaker is reminded of an experience with a college class in botany to whom he had talked on this subject. Some time later while on an excursion into the mountains, a single lady's slipper was encountered as a relic of a formerly abundant flora of this gorgeous wild orchid. Instead of the usual desire to pick and wear, the flower was allowed to remain on the stalk, perhaps to set seed and repopulate the vicinity with this splendid plant. No amount of legislation would have saved it; the appreciation of the class was shown by allowing the flower to remain for others to enjoy. A thousand people can enjoy what a single hand could destroy forever.

The remedy for the situation is to substitute the present wanton, promiscuous, unguided methods of gathering plants with regulated, sane and rational means. It is not at all necessary to forbid the picking of flowers, but sufficient should always be allowed to remain, particularly in the case of annuals, to produce seed and so perpetuate the species. Plants should never be gathered by the roots, as is so frequently the case with hepatica, anemone and bird-foot violet. Plants growing from long, creeping stems, as arbutus and ground

pine (lycopodium) should never be torn out. It is best to cut the flowering stems of arbutus either with a sharp knife or a pair of scissors, allowing the long, leafy stem to continue its work of flower-production. The beauty of shrubs should never be violated by tearing the branches and in so doing peeling the bark to the base, thereby not only disfiguring the plant but also creating ready access for the entrance of fungi and other enemies which cause death. In case it is felt necessary to remove some of the branches of flowering shrubs, it is best to select such members as will mar the beauty least and cut them close to the base with a sharp knife in such a manner that the bark will eventually callous over the wound. Phlox, wintergreen and other scarce wild plants should never be purchased either from florists or street vendors, because by so doing one merely encourages the commercial exploitation of the wild flora. Recently the speaker witnessed an exhibition of goods placed upon a background of many square yards of moss torn from neighboring woods. Such a carpet of moss took nature scores of years to build up and it should not be destroyed in a moment, to be replaced by a huge bare spot where formerly all was green. The appreciation of the beauties of nature should be taught in our schools and churches where a mere hint of the situation is all that is necessary to insure hearty cooperation. Much can also be done by the establishment of private preserves for wild life, where the flora and fauna may exist undisturbed in primeval splendor.

It is especially desirable that plants such as the wintergreen be allowed to mature fruit as food for birds during the harsh winter months. Without this source of food, many birds die of winter starvation. It is desirable that the picking of such weedy but attractive plants as daisies, buttercups, golden rod and asters be encouraged, since by so doing no harm results and the farmer is assisted with his weed problem. In addition, the cultivation of wild plants in our gardens may save many species for the enjoyment of future generations.

We have sufficient precedence from other regions to guide us, as the total extinction of the yellow moccasin flower in Center county, Pennsylvania, and the extirpation of the pitcher plant, fringed gentian, azalea and wild lilies from many localities. We should profit from the experience of others and treat our wild flora as a natural resource which should be neither squandered nor destroyed, but should rather be treated in a sane and thoughtful manner, so that it may be appreciated and enjoyed by those who follow us.

ALBERT A. HANSEN

**A SUGGESTION FOR MAKING OUR
SCIENTIFIC PUBLICATIONS MORE
USEFUL AND OUR POST-OFFICES
A CENTER OF INFORMATION**

It is evident to all persons who have thought about the matter that our federal and state scientific publications are not as widely used or as well known as their great value to the public warrants. There are two principal reasons for this: first, because it is difficult to promptly obtain them and, second, because comparatively few people know of their existence as the government has found no effective way of advertising them.

Sportsmen and scientists, for example, frequently find that the guides of a region of which an excellent topographic map has been made by the government are not aware of the existence of the map although it would be of great value to them in their work. It is perhaps conservative to say that most automobilists do not even know what topographic maps are, and that, when they do know, they can not obtain them unless their tour is planned long in advance. The writer has never but once seen a topographic map in the home of a farmer, notwithstanding the fact that it would be a source of great pleasure and profit to him. If a publishing house had issued maps of such excellence it would have expended thousands of dollars in advertising them so that, if possible, every home might have a map of its own neighborhood. As a matter of fact the expense of publishing these

maps is so great that no private concern could make them for sale at a profit. Nevertheless, after they have been published, no effort is made to let the people whose taxes paid for them learn of them and of their value.

A few examples from the writer's experience—which can be duplicated by many persons—will illustrate the characteristic inaccessibility of our federal and state publications. Many times he has wanted the topographic maps of a region but was unable to obtain them because he could not wait until he received them from Washington. At Zion National Park, Utah, this past summer not only were no topographic maps for sale but none could be consulted. At Uvalde, Texas, there are some interesting volcanic necks which are mapped and described in a United States Geological Survey Folio but when the writer stopped off to study them he found that no folio was available and, as far as he could learn, no one in the region owned a copy. At Ardmore, Okla., he wished to consult the geological literature of the region and found that the Carnegie Library has neither the publications of its own state nor the excellent United States Geological Survey Professional paper of the region. Many similar instances could be cited.

The biological and botanical publications are equally inaccessible. The archeological publications dealing with the Cliff Dwellings, the prehistoric ruins of New Mexico and Arizona, the Mound Builders of Ohio, and elsewhere, might almost as well never have been published as far as their usefulness to the visitor who has not had time to secure them from Washington is concerned.

The only justification for this state of affairs is that one can obtain the government publications in Washington and the state publications at the state capitols by writing for them; but it should always be added, "if one has the time to wait for them."

The writer proposes two remedies:

1. That every first, second, and third class post-office shall be provided with a framed, printed list of the federal and state publica-