Among the many interesting observations in connection with our flora is the relation that plants have to climatology. It is true the question is an agricultural and horticultural one only so far as it bears on questions of our cultivated plants. But with the addition of new plants every year to our list of those cultivated for utilitarian or ornamental purposes, it is important to record exact data in regard to their behavior under cultivation. But in plant climatology all plants should be studied with reference to various climatic conditions.

These studies should be made not only in other countries, but every State in the Union. If this is done it will be possible to say, with some certainty, whether given plants are adapted to certain climates. It will be possible for us to determine positively the variability of some plants and their behavior under different conditions. This subject has not received the attention it deserves in this country. Investigations of this kind have been made by Trelease, Halsted, Britton, Henry, etc. Valuable observations have been made in Europe by Fritsch and others. Observations like Reissenberger's, on the time of flowering and maturing of seed of cultivated plants like oats, wheat, corn and grape over long periods of years, are of great importance. The paper will be published in full in Bulletin Torrey Bot. Club.

The paper was divided up into the following heads:

I. A comparison of the appearance of flowers and leaves, etc., for the years 1886 and 1891.

II. Notes on the effects of frost on the falling of leaves, as well as the frost limit of certain plants.

III. A succession of flowers for the years 1886 and 1891.

1First and Second Annual Report Wisconsin Agricultural Experiment Station, 1889, p. 55; 1884, p. 59.

2Bulletin of the Iowa Agricultural College Department of Botany, 1886, p. 44.

3Report of Board of Regents University of Wisconsin, 1881.


The observations for 1886 are based on those reported by Dr. Halsted. Those for 1891 were partly made by Mr. Eugene Browr, a special student in botany, Prof. Rolfs and myself.

In 1886, the Soft Maple (Acer saccharinum) was in flower on March 22; in 1891, April 11. Ulmus americana, in 1886, in flower, April 12; in 1891, April 18. The succession of flowers in herbaceous plants in 1886 and 1891 was: Hepatica acutiloba, April 9 (1886), April 12 (1891); Capsella bursapastoris, April 15 (1886), April 24 (1891); Mertensia virginica, April 20 (1886), April 28 (1891). Frost and its effects on some plants were noted: Portulaca oleracea, early in September, tips frost-bitten; October 7, more or less destroyed; October 9, plants black in an open field; Panicum sanguinale, injured seriously on October 8; Borrago officinalis, October 22, a few leaves affected; October 23, many leaves killed; Scabiosa atropurpurea, October 7, no injury; October 23, no injury; Nov., 11, no injury; November 21, some injury to leaves.

REPORT OF THE COMMITTEE ON STATE FLORA.

BY THE CHAIRMAN, L. H. PAMMEL.

The several catalogues of the flora of Iowa (Arthur, Bessey), as well as the early contributions by the late Dr. Parry and briefer articles and notices in journals and Gray's Manual give us a pretty accurate knowledge of the phanogams and vascular cryptogams found in Iowa. In most cases, however, the range of species is not given. With a number of excellent local collectors in the field a lively interest has been awakened in collecting and bringing together information. Since the appointment of this committee one important contribution to the State Flora has been published. I refer to Prof. Hitchcock's Catalogue of the Anthophyta and Pteridophyta of Ames.

It is indeed a model catalogue in every respect. A short notice of trees found north of Dubuque has also appeared in Garden and Forest.

In the preparation of this report I am indebted to Mr. F. W. Reppert, of Muscatine, who is a most excellent collector. Some specimens have also been contributed by Messrs. Stewart (Greenfield), Holway (Decorah), and Prof. Rolfs (La Claire and Keokuk).

I have arranged the matter as follows: I. Plants new to the State; II. New localities for rare plants; III. Local distribution of some Iowa trees; IV. Changes in our flora, especially in the introduction of weeds and their distribution.

1. Contributions from the Shaw School of Botany, No. 7. From St. Louis Academy of Science, Vol. V, No. 3.