Notes on the Flora of Cass County.

By Robert Hessler.

(Abstract.)

This paper embraces a large collection of notes on the flora of Cass County, covering the years from 1894 to 1908, excepting the years 1898 and 1899, when the writer was away. The paper relates more particularly to plants which are not of general distribution in the State. The notes given under the different species of plants may be grouped as follows:

(a) Relating to plants, especially weeds, that have recently wandered in, particularly along the railways, either to maintain themselves and perhaps overrun the country, or, on the other hand, to lead a precarious existence for a year or two and then again disappear.

(b) Relating to plants that are apparently extinct or on the verge of extinction on account of the destruction of their natural habitats, as the cutting down of forests and bringing the ground into cultivation, or by simply thinning the trees to such an extent that shade-loving plants can no longer thrive. Moreover, with the thinning of the trees many weeds come in, also grasses, and they tend to crowd out the native plants. The draining of wet places, of swamps and bogs, has been going on actively in recent years and few such now remain in Cass County. There are fewer and fewer places where plants that were once common are now to be found, and it is only a matter of time until these, too, will lose their native flora. The old-time rail fence has furnished a home for many species, to which the wire fence gives no protection.

(c) Relating to plants that are undoubtedly native but which seem to come and go, being found in one locality for a year or a few years, and then disappear, to reappear in a distant locality and where they had not been seen before; that is, like people, they seem to be moving about—especially plants that are fond of moist soils; perhaps birds carry the seed.

(d) A lot of notes not fully worked up (for lack of time) relating to plants of interest on account of their medicinal or supposed medicinal value—either as "simples" or as real remedies used by the educated phy-

sician (a number are used by the patent and proprietary medicine men, with extravagant statements as to their value).

One can distinguish between: (1) Plants that have been brought in purposely, or which have come in accidentally, the ancient medical lore connected with them being continued; (2) Native plants to which old European lore has been transferred, often along with the old European names; (3) Native plants about which independent knowledge has been obtained (whether real or supposed is at times difficult to determine), that is, not based on old statements in European literature.

The writer wishes these notes to be considered as a contribution to the knowledge of the flora of Indiana, and as showing more particularly how old plants are disappearing and new ones coming in. The writer says:

"This is a subject that should be of interest to botanists everywhere, and especially to the amateur. To me it is certainly a great pleasure to get out occasionally and note the changes that are constantly going on—changes so gradual that few are aware of them at all. I have repeatedly seen a new plant, generally a weed, come in and within a few years become a feature of the landscape. We need only think of the White Sweet Clover, a rank plant, that in places, especially along country roadsides, has crowded out all other plants.

"In this connection I might refer to my paper on the Adventitious Plants of Fayette County, presented before this Academy in 1893, and on the Flora of Lakes Cicott and Maxinkuckee, in 1896; also to the many papers given before the Academy by men from all over the State. Such lists are useful for the purpose of making comparative studies.

"I hope some one will gather up all the available data and publish them for the benefit especially of high school students, many of whom can be led to interest themselves in this subject. It is not a difficult matter to become acquainted with one's local flora, and to detect new arrivals. Such information may also be of value to the farmer.

"In going over my notes, I realize the importance of making memoranda of observations at the time. There are some facts about the flora of Cass County that I thought I would always remember, but I now find that I am not sure about the presence or absence of certain plants, say twelve years ago, and in my list I have several times been compelled to refer to this. One may be reasonably sure about a fact, but unless one has notes, made at the time, there may always be some doubt.

"I would like to add another word, and that is, the value of the training derived in studying botany, in identifying plants, and in noting the changes going on. This training is of great value to the man who desires to become a physician. To differentiate many species (and we need only think of the Asters and Golden-rods) requires patience and close study—and the experience is of value to the physician, by helping him to make distinctions between diseases and states of ill health that appear as one to the careless observer.

"I may add that a number of photographs have been taken of native plants in localities or habitats that are now undergoing destruction, especially of swamps and bogs and wet woods. A few years more and the localities will be wholly altered, and with this alteration the flora will have disappeared; it will exist only in herbaria, in photographs, and in memory."

A New Anthracnose Attacking Certain Cereals and Grasses.

By A. D. Selby and Thos. F. Manns.

(Abstract.)

This paper states briefly the results of culture investigations of a fungus described as *Colletotrichum cereale*, n. sp. This has been found to be present over the State of Ohio, attacking the spikes, culms and sheaths of rye, the culms and sheaths of wheat, oats, chess, orchard-grass, timothy, red-top and blue-grass. Upon the cereals the attack is timed to the approaching maturity of the plant and produces marked shriveling of the grain. The behavior of the fungus on different media is stated, and different illustrations are included. It will be published in bulletin No. 203 of the Ohio Agricultural Experiment Station.