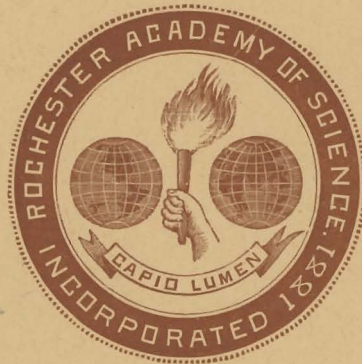


BROCHURE I OF VOL. III.

PAGES 1-150.

PROCEEDINGS
OF THE
ROCHESTER ACADEMY OF SCIENCE

VOLUME III



EDITED BY
THE PUBLICATION COMMITTEE.

ROCHESTER, N. Y.
PUBLISHED BY THE SOCIETY.
1896.

PROCEEDINGS
OF THE
ROCHESTER ACADEMY OF SCIENCE.
VOLUME 3.

OCTOBER 8, 1894.

STATED MEETING.

The President, PROFESSOR H. L. FAIRCHILD, in the chair.

Thirty-five persons present.

The Council report recommended :

(1.) The payment of bills for printing the Proceedings and for miscellaneous expenses.

(2.) The election of MR. ADELBERT CRONISE as Councillor in place of MR. J. EUGENE WHITNEY, who had been made Vice-President.

The bills were ordered paid and MR. CRONISE duly elected Councillor.

The Corresponding Secretary made a verbal report upon the distribution of the Proceedings, Brochure 3, Volume 2.

An abstract of the following paper was read :

PLANTS OF MONROE COUNTY, NEW YORK, AND ADJACENT TERRITORY.

BY FLORENCE BECKWITH AND MARY E. MACAULEY,

ASSISTED BY JOSEPH B. FULLER,

Under authority of the Section of Botany.

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INCEPTION OF THE WORK ; AUTHORSHIP.

The Botanical Section of the Rochester Academy of Science has for many years entertained the plan of eventually publishing the flora of this region, and the members of the Section have individually and collectively labored earnestly toward that end. About four years ago the Section appointed a Committee, consisting of the Chairman and Vice-Chairman, to compile and prepare for publication the flora of Monroe county and adjacent territory. The Committee have collated all the lists of plants of this vicinity which they have been able to obtain, have examined the specimens in the herbarium of the Academy, and have used all available sources of information.

SCOPE OF THE LIST.

The list aims to include the names of plants which grow without cultivation in Monroe and adjoining counties. While it is believed to be nearly complete as regards Monroe county, it is not claimed to be so for the adjacent counties.

The list includes phanerogams and vascular acrogens. Much care has been exercised in the determination of specimens, and all those concerning which there have been reasonable doubts have been excluded.

TERRITORY INCLUDED.

The territory included, as seen by the accompanying map, comprises the whole of Monroe county and parts of Genesee, Livingston, Orleans, Ontario and Wayne counties. The area in general is the lower drainage basin of the Genesee river, with that of Irondequoit creek and smaller streams upon the lake border.

THE MAP.

The map, Plate 1, was drawn expressly to accompany this list, and is designed to be a guide to all parts of the region, locating as it does the roads and streams, and points of especial botanical interest. In lack of any definite geographic boundaries, the outlines of the map were fixed somewhat arbitrarily.

AUTHORITIES AND COLLECTORS.

EARLY BOTANISTS OF THE REGION.

The work and records of some of the early botanists have been of great assistance to us. Among these botanists DR. CHESTER DEWEY, whose work in Rochester extended from 1836 to 1867, is the most eminent. His great work on the *Carices* had been commenced in 1824, and he brought to Rochester an established reputation as a botanist. "Botany was a favored subject in the school curriculum, and it was seldom that a class was lacking to receive his instruction. Up to the year 1850 farming lands and the virgin forests occupied a large portion of the present area of the City of Rochester, and therefore the meadows and fields, woodlands and by-ways, were easy of access, and the native plants were gathered by many eager collectors. In this way Dr. Dewey examined and re-examined many times the greater portion of the flora of this region, while at the same time he was training up the youth to share his interest in botanical pursuits. The influence which he thus exerted is still perceived by some of the

members of the Academy of Science, and it has passed out and onward over a great region, so that a large number of the younger botanists of the present time owe indirectly to Dr. Dewey the interest which they now possess for botanical studies."*

He was the author of a paper entitled "Catalogue of Plants and Time of Flowering in and about the City of Rochester, for the year 1841," published in the Fifty-fifth Annual Report of the Regents of the University of the State of New York, but unfortunately he did not publish a complete record of his work in this region.

From 1825 to 1880 DR. SAMUEL B. BRADLEY† did very thorough work along the lake shore and the inlets and ponds adjoining. Some of the plants which he reported have since become extinct, or, at least, have not been found by later botanists.

The REV. LAWRENCE HOLZER was Rector of St. Joseph's Church, Rochester, from 1862 to 1865. He was an enthusiastic botanist, and collected quantities of specimens which he sent to societies and institutions in Europe. A list of the plants found by him, comprising 766 species, shows that he explored the city and vicinity very thoroughly. This list was kindly lent the Committee by Dr. C. M. Booth.

The late MR. OTTO BETZ, whose name frequently appears in the list, was a close and accurate observer, and reported many new localities for plants, particularly in the towns adjoining Rochester on the east.

It seems fitting in this place to mention the late MRS. MARY E. STREETER, to whose enthusiasm and persistent labors the Botanical Section in a large measure owes its existence. She was an intense lover of nature, and possessed not only unusual powers of observation but also a mind of rare intelligence; her loss is felt to be irreparable. The publication of a list of Monroe county plants was a work which she had planned to do, but failing health put an end to her labors.

RECENT COLLECTORS.

DR. CHARLES M. BOOTH, one of the most indefatigable of our collectors and a particularly pains-taking and accurate botanist, still resides near Rochester. The record of his explorations in Monroe and Genesee counties has been of very great assistance to us. He has made especial study of the *Gramineæ*. At present he is working

*From Biographical Sketch of DR. DEWEY, by C. W. SEELYE, read before the Academy of Science June 24, 1895.

†See Biographical Sketch, Proc. Roch. Acad. Science, Vol. II. pp. 261-263, 1894.

on the mosses of this region, and it is hoped that the results of his labors upon these interesting plants will be given to the Academy for publication.

MR. JOSEPH B. FULLER, Curator in Botany to the Academy, is doing excellent work on our herbarium, to which he has generously added his own large collection. His extended list of plants, the result of many years' collecting, particularly along the banks of the Genesee river, added largely to our list of species.

MR. CHARLES W. SEELYE, a fine general botanist, has of late confined his attention mostly to ferns. A list, with notes, of those indigenous to the vicinity of Rochester was furnished by him to the Academy in 1891,* which is the basis of our present list.

MR. GEORGE T. FISH, who has collected more around Sodus bay than any other of our local botanists, and who shares the honors of that locality with Mr. Hankenson, kindly lent to the compilers his valuable list, revised from his herbarium.

DR. ANNA H. SEARING has made a special study of the plants growing in the vicinity of Long Pond.† Her list has aided greatly, especially in the *Carices*.

MR. M. S. BAXTER has extended our list by adding several plants never before reported in this region. Among these are *Arceuthobium pusillum* and *Epipactis Helleborine*. He has also given many additional localities for rare plants.

PROFESSOR W. H. LENNON, of the Brockport Normal School, has reported a number of plants not observed by others. To him and Mr. Baxter are due the credit of explorations in the western part of Monroe county, particularly near Adams Basin, and also near Holley, in Orleans county. Many rare plants have been reported by them from these localities.

MISS LUCY WELD, of Lyndonville, has furnished a partial list of the plants of Orleans county.

TO MR. E. L. HANKENSON, of Newark, a Corresponding Member of the Academy, we are indebted not only for his extensive and valuable list of Wayne county plants, but also for generous donations of specimens, representing the flora of other parts of our country, as well as that of our own immediate neighborhood. Where mention is made of Wayne county it will be understood that Mr. Hankenson is the authority, unless otherwise noted.

*Proc. Roch. Acad. Science, Vol. I. pp. 186-197, 1891.

†See Proc. Roch. Acad. Science, Vol. II, pp. 297-300, 1895.

ACKNOWLEDGEMENTS.

The thanks of the compilers are also due to MR. and MRS. WILLIAM STREETER, MR. A. M. DUMOND, MR. C. C. LANEY, MR. JOHN WALTON, MR. JOHN DUNBAR, MR. W. W. PARCE, MRS. J. H. MCGUIRE, MRS. GEO. C. KING, MISS EMMA E. ILES, MRS. E. L. MAGUIRE, and MISS JOSEPHINE HOFFMAN, members of the Botanical Section; their untiring zeal has added the names of many plants to the list. To Mr. Baxter and Mr. Walton we owe the description of Mendon Ponds; to Professor Lennon the description of the ravine at Holley and the swamp at Bergen; and to Mr. Baxter the description of the swamp at Adams Basin.

TO PROFESSOR W. W. ROWLEE, of Cornell University, we are especially grateful for his review of the entire proof of the plant list, and for his examination of large numbers of doubtful specimens, particularly the *Cyperaceæ*, with the assistance of MR. K. MCK. WIEGAND upon the *Carices*.

The assistance of MR. J. B. FULLER in preparing this list, and in making the comparisons between the floras, has been invaluable. Without his pains-taking care and untiring labor the list would have been far less complete and accurate.

To the President of the Academy, PROFESSOR H. L. FAIRCHILD, the Committee are indebted not only for the chapter upon the physical characters of the region, but for the help and encouragement which alone have made possible the publication of this list.

LOCALITIES OF SPECIAL INTEREST; THE LESSER FLORAS.

The flora of the territory, as a whole, is not greatly varied, although there are localities of special interest. Among these are the shores of Lake Ontario and Irondequoit bay, the banks of the Genesee river, the Mendon ponds, the swamp at Adams Basin, the large swamp in Genesee county commonly called Bergen swamp, and the ravine at Holley, brief descriptions of which follow.

SHORE OF LAKE ONTARIO.

The shore of Lake Ontario is usually steep bluffs of "boulder clay." In some places the Medina sandstone is exposed, while in many places the new beach has cut off bays which are filling as marshes.

The shore of the lake has been very thoroughly explored by Dr. S. B. Bradley, Dr. C. M. Booth, Dr. Anna M. Searing, Mr. J. B. Fuller, and Mr. George T. Fish.

The following plants are peculiar to the lake shore: *Ranunculus flammula* var. *reptans*, *Cakile Americana*, *Polanisia graveolens*, *Lathyrus maritimus*, *Strophostyles angulosa*, *Potentilla supina*, *P. Anserina*, *Coreopsis discoidea*, *Artemisia caudata*, *Polygonella articulata*, *Euphorbia polygonifolia*, *Juncus Balticus* var. *littoralis*, *Cyperus Schweinitzii*, *Scirpus Smithii*, *Sporobolus cryptandrus*, *Ammophila arundinacea*, *Equisetum variegatum*. *Artemisia Canadensis* occurs along the lake shore and on the bluffs of Irondequoit bay near the lake.

IRONDEQUOIT BAY.

The shores of Irondequoit bay and the slopes of the depression which continues several miles south of the water are high and steep bluffs of clays or sandy silts. Through this deposit the tributary streams have cut deep, narrow gullies. Isolated masses of the deposit, as "sugar loaves" and butte-like mounds, give a very picturesque character to the upper or southern part of the gorge.

The flora of the shores of the bay is not in any degree distinctive, but is remarkable rather for the great variety of species of plants found here, some of which are mentioned as follows. The trees are principally oak and chestnut, with a few pignut hickory, birch, poplar, hemlock, witch hazel, and occasional specimens of white and pitch pine. Desmodiums, Lespedezas and Lupins are plentiful. *Aquilegia Canadensis*, *Baptisia tinctoria*, *Viburnum acerifolium*, *Hieracium venosum*, *H. paniculatum*, *H. scabrum*, *Vaccinium stamineum*, *V. Pennsylvanicum*, *Pyrola rotundifolia*, *P. elliptica*, *Gaultheria procumbens*, *Rhododendron nudiflorum*, *Gerardia flava*, *G. quercifolia*, *G. pedicularia* and *Cypripedium pubescens* are common. *Epigæa repens* was formerly abundant, but is now scarce. *Anemone cylindrica*, *Tephrosia Virginiana*, *Castilleja coccinea*, and *Chamelirium Carolinianum*, though scarce, are more frequently found here than elsewhere. *Arenaria stricta*, *Hibiscus Moscheutos*, *Poterium Canadense*, *Potentilla palustris*, *Salix candida* and *Polygonum Muhlenbergii* are rare. *Campanula rotundifolia* var. *arctica*, *Gentiana puberula*, *Festuca tenella*, and *Cyperus filiculmis* have not been found elsewhere in our district. Of *Pterospora Andromedea* a single specimen has been found.

The extremities of the bay are filled with beds of flags. All the forms of *Typha* are present, *T. latifolia* var. *elongata* being the most plentiful. Extensive beds of *Chara* exist. *Elodea*, *Myriophyllum spicatum* and various species of *Potamogeton* are abundant. *Wolffia*

and *Lemna* cover the stagnant waters in coves and in openings among the flags. *Nymphaea reniformis*, *Utricularia vulgaris* and *Valisneria* are common. *Naias marina* is abundant in some of the coves on the west side. *Sparganium minimum* is found in our district only here.

GENESEE RIVER.

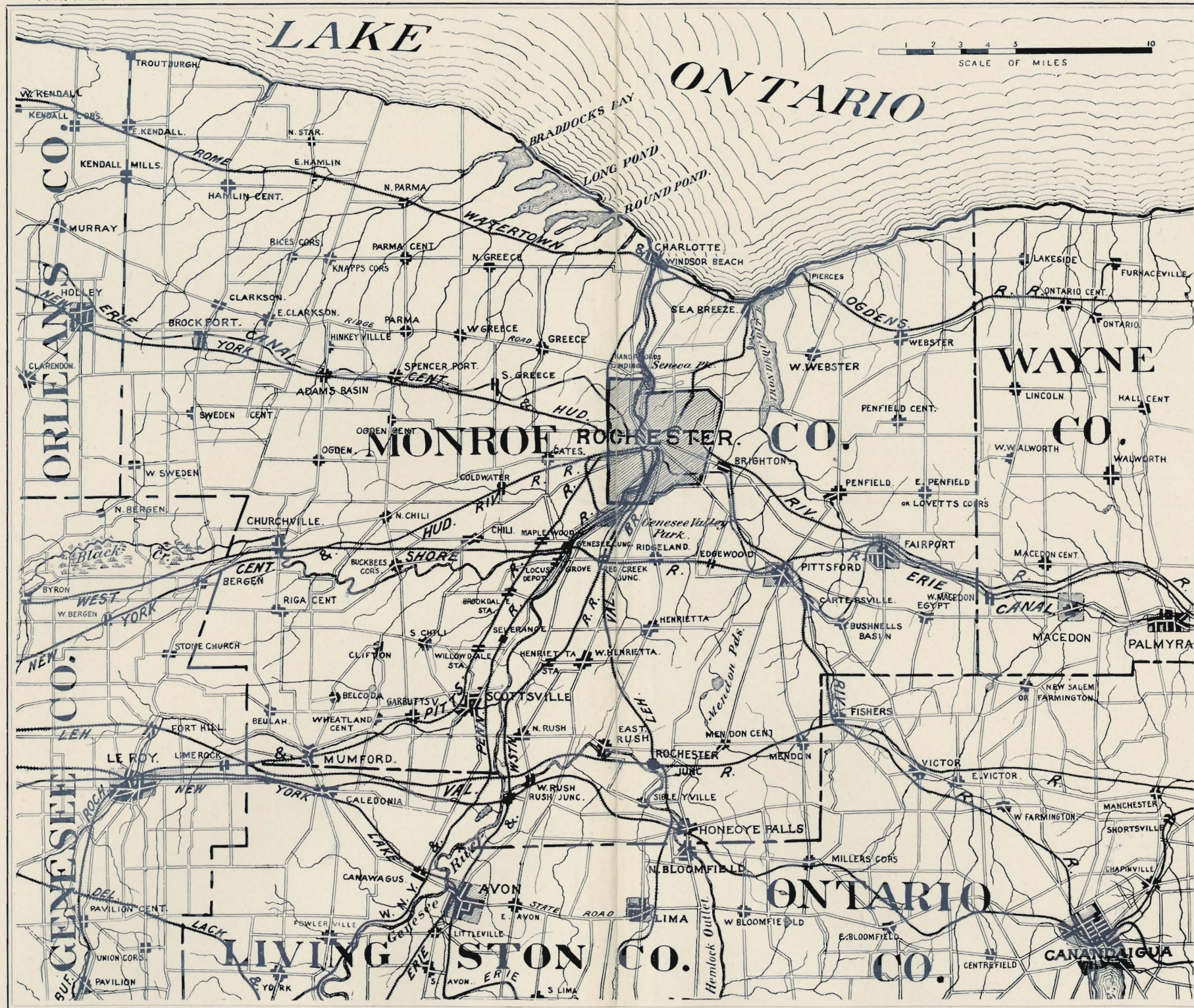
The walls of the ravine of the Genesee river below Rochester are vertical rock-walls of sandstone, shale and limestone, about 200 feet high, with heavy talus on the radial side of the river curves. In the southern part of the city the river flows in a shallow channel in the Niagara limestone. Above the city the river flows in a bed of drift with broad flood-plains.

The river and its banks have been a peculiarly rich field for the botanist, including as they do plants belonging to the aquatic flora as well as those of upland growth. Mr. Joseph B. Fuller, who has probably explored this region more thoroughly than any other collector, excepting Dr. C. M. Booth, reports that in the territory between Vincent Place bridge and Hanford's Landing, a distance of two and a half miles, he has found five hundred species of plants. We doubt if a better record can be shown anywhere for the area covered. The growth of the city has undoubtedly destroyed some of the species, but the most of them can still be found.

MENDON PONDS.

The Mendon ponds lie among a group of sand and gravel knolls* about twelve miles south-east from Rochester. They are five in number, the smallest covering only a few acres, the largest having an area of over one hundred acres. Four are connected by creeks or marshes, and form the head of Irondequoit creek. A fifth is apparently without outlet. Some sphagnum bogs represent other former ponds. The margins of the ponds are generally low and marshy. Sphagnum grows here luxuriantly, forming a bed for large numbers of *Sarracenia*, *Drosera*, *Calopogon*, and many other species. The land adjoining is under cultivation, but some low borders and hillsides are covered with forests which contain nearly every species of tree found within the district. The tupelo is represented by several large, fine trees. Black spruce is reported within the county only at this point. A characteristic feature of this locality is the occurrence of thousands of plants of species which are elsewhere scarce. Acres of marsh are

*See page 35.



PLANTS OF MONROE COUNTY, NEW YORK, & C.

yellow with *Potentilla fruticosa*. *Cassandra calyculata* has so overgrown one bog that it cannot be crossed except by treading down the shrub. *Andromeda polifolia*, *Ledum latifolium*, *Vaccinium corymbosum*, *Gaylussacia resinosa*, *Nemopanthes fascicularis*, *Pyrus arbutifolia* var. *melanocarpa*, and *Aralia hispida* are all present in great quantities. *Sarracenia purpurea*, *Drosera rotundifolia*, *Pogonia ophioglossoides*, *Calopogon pulchellus*, *Cypripedium spectabile*, *C. pubescens*, *C. parviflorum* and *C. acaule* are exceedingly abundant; and the same may be said of *Woodwardia Virginica*. *Nymphaea odorata* var. *minor* covers all the borders. Other plants which occur in more or less abundance are: *Viola tricolor* var. *arvensis*, *Parnassia Caroliniana*, *Drosera intermedia* var. *Americana*, *Decodon verticillatus*, *Rhus venenata*, *Viburnum cassinoides*, *Valeriana sylvatica*, *Menyanthes trifoliata*, *Utricularia cornuta*, *U. gibba*, *U. resupinata*, *Corylus Americana*, *Arceuthobium pusillum*, *Salix myrtilloides*, *Corallorhiza odontorhiza*, *Habenaria blephariglottis*, *H. lacera*, *Liparis Læselii*, *Scheuchzeria palustris*, *Dulichium spathaceum*, *Rhynchospora alba*, *Scleria verticillata*, *Asplenium ebeneum*, *Botrychium matricariaefolium*, *Wolffia*, and various species of *Carex*.

SWAMP AT ADAMS BASIN.

The swamp near Adams Basin has furnished many interesting species. It comprises several pieces of low land separated by cultivated fields, and in extent, including the fields, is about half a mile from north to south, and nearly as far east and west. The land surrounding it is rolling, and on the east are low hills, the termination of the range which may be traced south-eastward to the Pinnacle hills at Rochester. Underlying, at a depth of fifteen feet, is the Medina sandstone. The water supply is from several small streams, which, passing through the swamp, finally empty into Salmon creek. Numerous springs also give a never-failing supply, especially to the lower swamp. Efforts have been made, with some success, to drain the land, and probably before many years this station will be entirely lost. A variety of forest trees—maple, ash, oak, birch and tamarack—formed a dense wood formerly, but, except in the lower swamp, few of the larger trees remain. Their space has been taken up in the middle swamp by a luxuriant growth of *Myrica cerifera*. The lower swamp rises slightly along the southern edge, and here beech, hickory and white pine are growing. North and east it is lower and covered with tamarack, birch, hemlock, and an abundant growth of *Rhus venenata*. The plants are those peculiar to cold bogs, and many are not

found nearer than Bergen or Mendon. Among those found here, but rarely or not at all in adjacent forests, may be noted: *Clematis Virginiana*, *Coptis trifolia*, *Drosera rotundifolia*, *Flærkia proserpinacoides*, *Rhus venenata*, *Saxifraga Pennsylvanica*, *Cornus Canadensis*, *Viburnum Opulus*, *Solidago ulmifolia*, *Senecio aureus*, *Lobelia spicata*, *Gaylussacia resinosa*, *Vaccinium corymbosum*, *Rhododendron nudiflorum*, *Ledum latifolium*, *Trientalis Americana*, *Bartonia tenella*, *Menyanthes trifoliata*, *Myrica cerifera*, *Larix Americana*, *Habenaria tridentata*, *H. psycodes*, *Spiranthes latifolia*, *Calopogon pulchellus*, *Liparis Læselii*, *Cypripedium spectabile*, *C. acaule*, *Smilax hispida*, *Smilacina trifolia*, *Lilium Canadense*, *Eriophorum polystachyon*, *Carex polytrichoides*, *Triticum caninum*, *Ophioglossum vulgatum*.

Several other plants of the scarcer species occur near this station. The walking fern, *Camptosorus rhizophyllus*, is quite abundant at two points within three or four miles. A square of twenty feet of the chain fern, *Woodwardia Virginica*, was found here in 1894. No other station for it except Mendon has been reported in the county. *Cassandra calyculata* is very abundant two miles south-east of the village. The eastern limit of the papaw, *Asimina triloba*, seems to be within Monroe county. Several groups are growing in Parma, north of Adams Basin, in Sweden, and thence westward. The trees spread by root sprouts, forming dense groups from three to twenty feet high, but all connected at the root. Seedlings seem to be scarce, although the trees are usually well fruited.

BERGEN SWAMP.

Bergen swamp has long been considered one of the most interesting botanical points in western New York. It lies in the north-eastern part of the town of Bergen, Genesee county, between the West Shore railroad and Black creek, about twenty miles from Rochester, and is one of a succession of swamps which occupy a depression extending from the Genesee river to the Niagara river. Through the western part of this valley flows Tonawanda creek; Black creek drains the eastern portion. Bergen swamp lies upon the divide between these two streams.

This swamp consists of an open portion containing one hundred or more acres, surrounded by a belt of woods from twenty to one hundred rods in width. The open part is mainly a marl bed covered with a variety of grass-like plants, chiefly sedges, with patches of *Sphagnum* and a few dwarf cedars (*Thuja*) and tamaracks. The sur-

rounding belt of land is covered with a dense jungle of cedars and tamarack, with here and there on drier portions a few pines. Willows and other marsh-growing shrubs help to make up the dense undergrowth. Farther to the north, near Black creek, the conifers give place to a heavy growth of elms and soft maple. On the south-east is a low, sandy ridge, known as Torpy Hill, one end of which is covered with "hard wood," mostly beech, and a few hemlocks. A similar ridge is found on the north-west.

The flora of Bergen swamp is very different from that of the surrounding country, and is characteristically northern. Here are found many rare plants, some of which do not appear to occur elsewhere in western New York, and others which have been reported only at Bergen, Mendon and Adams Basin. Among those peculiar to Bergen are: *Lonicera cœrulea*, *Solidago neglecta* var. *linoides*, *S. Houghtonii*, *Senecio aureus* var. *Balsamitæ*, *Microstylis monophyllos*, *Coralorrhiza innata*, *Goodyera repens*, *Arethusa bulbosa*, *Calypso borealis*, *Cypripedium candidum*, *Listera cordata*, *Clintonia borealis*, *Tofieldia glutinosa*, *Eleocharis rostellata*, *E. pauciflora*, *Scirpus cœspitosus*, *Carex filiformis*, *C. Crawei*, *C. flava* var. *viridula*, *C. Saltuensis*, *C. echinata* var. *microstachys*, *Dalibarda repens*, *Salix lucida* var. — ?

RAVINE AT HOLLEY.

A few rods east of the station, at Holley the railroad crosses a narrow ravine, a hundred or more feet in depth and extending south about one-half mile. Further south the stream which traverses the ravine flows over the comparatively hard rocks of the Clinton limestone, but the gorge is cut through the Medina sandstone. There appears to be nothing in the soil or the topography which should make it particularly interesting to the botanist, yet it is doubtful if there is another locality in Western New York of equal size on which so great a variety of ferns has been found. Within a radius of much less than a mile have been gathered thirty species of ferns (including *Botrychiums*). The following are some of the rare ones which have been found in this locality: *Polypodium vulgare*, *Phegopteris Dryopteris*, *Asplenium Ebeneum*, *A. trichomanes*, *Camptosorus rhizophyllus* (growing on sandstone), *Aspidium Goldianum*, *Dicksonia pilosiuscula*, *Botrychium lanceolatum*, *B. matricariæfolium*, and *B. ternatum*.

Among flowering plants found at Holley may be mentioned *Jeffersonia diphylla*, *Acer spicatum*, *Lobelia cardinalis*, *Diervilla trifida*, and *Taxus Canadensis*.

INTRODUCTION OF SPECIES.

The number of introduced plants increases every year. In the Flora of the State of New York, published in 1843, the number of introduced plants for the whole State is given as 160. The number in this list is 263, of which seven are indigenous to the State, though they are introductions to Monroe county. Several of these newly introduced plants come from the West, and it has been noted that species new to this district are frequently found along railroad tracks and in lumber yards. Some species have increased so rapidly that they have already become a nuisance, and others threaten to become so. Among the former may be particularly mentioned *Chrysanthemum Leucanthemum*, *Daucus carota*, and *Plantago lanceolata*. *Melilotus officinalis* and *M. alba*, which a few years ago were but rarely seen are becoming very plentiful along the roadsides and in waste places. *Hieracium aurantiacum* has been reported in but few localities thus far, but where it has become established it has multiplied with great rapidity. *Lactuca Scariola* was first noticed only a few years since, but is now very frequent and in some places abundant. *Cichorium Intybus* is a common weed. *Cenchrus tribuloides* is rapidly spreading eastward along the Central railroad. *Trifolium hybridum* is becoming quite as common in fields and along roadsides as *T. repens*.

As Rochester has been for many years a center of the "nursery business", the frequent occurrence of exotic shrubs and trees throughout the city and its suburbs is a natural result. In the case of nurseries which have been abandoned on account of the growth of the city, these foreign trees and shrubs are sometimes left to grow as if spontaneously. In many such cases it is difficult to draw the line between plants which should or should not be included in the list. For example, in abandoned nursery grounds on North Union, Prince and Augusta streets the following trees and shrubs are now growing: *Tilia Europæa*, *Quercus Robur*, *Castanea sativa*, *Fagus sylvatica*, *Salix Caprea*, *Populus dilatata*, and *Juniperus Virginiana* var. *prostrata*. Where these plants seem to have become so firmly established that they would doubtless propagate if undisturbed, they have been numbered in the list.

DISAPPEARANCE OF SPECIES.

Pinguicula vulgaris, reported by Dr. Chester Dewey and Dr. C. M. Booth as growing on the rocks near the Genesee Falls, is extinct.

The following species have not been reported of late years. It is hoped that some of our botanists will re-discover them:

<i>Euonymus Americanus.</i> (Sartwell.)	<i>Buchnera Americana.</i> (Bradley.)
<i>Polygala sanguinea.</i> (Bradley.)	<i>Polygonella articulata.</i> (Bradley.)
<i>Baptisia australis.</i> (Eaton.)	<i>Quercus ilicifolia.</i> (Holzer.)
<i>Spiræa tomentosa.</i> (Holzer.)	<i>Abies balsamea.</i> (Holzer.)
<i>Ribes prostratum.</i> (Holzer.)	<i>Limnobiium spongia.</i> (Bradley.)
<i>Enothera fruticosa.</i> (Booth.)	<i>Habenaria ciliaris.</i> (Booth, Fuller, Bunker.)
<i>Helianthus strumosus</i> var. <i>mollis.</i> (Bradley.)	<i>Scleria pauciflora.</i> (Bradley.)
<i>Gentiana puberula.</i> (Fish, Fuller.)	<i>Carex Richardsonii.</i> (Bradley.)
<i>Hydrophyllum appendic.</i> (Bradley.)	<i>Glyceria elongata.</i> (Holzer.)
<i>Mimulus alatus.</i> (Bradley.)	<i>Bromus racemosa.</i> (Holzer.)

FOREST TREES.

The trees of the Genesee region have been widely known and have received frequent mention from the very earliest settlement of the country. The elms and the oaks have been particularly noted. The "Big Tree", or "Wadsworth Oak", was an object of reverence to the Indians as well as a landmark to the white settlers, and this with the "Markham Elm" have been frequently mentioned as magnificent specimens of forest growth. The elms in and about Rochester have been said to far exceed in beauty the celebrated Pittsfield elms. The course of nature and the ruthless hand of man have robbed us of most of these forest kings, but many fine specimens are yet to be found within our territory.

The primitive forest of the region was largely composed of maple, beech, ash, oak, elm, basswood, hickory, chestnut, cherry, pine, poplar, butternut, black walnut and sycamore. Other less abundant species were hemlock, tulip tree, birch, tamarack and spruce. Pine trees formerly covered the table land adjoining Irondequoit bay, and a sycamore swamp fringed the city on its western border, but only here and there a solitary specimen is now left to represent these once abundant species.

In the vestiges of forests which remain, maple, beech, ash, oak, elm, basswood, hickory, iron-wood, chestnut, witch-hazel and dog-wood are the most plentiful trees; while cherry, birch, poplar and butternut are less frequent. Sassafras is found on hills, river banks and in ravines. Hemlock occurs in low woods and along river banks. *Arbor vitæ* is common in swamps and frequent along the river banks. Larch is common in swamps. The tupelo is scarce, and the hack-

berry, papaw and tulip-tree are rare. Red cedar is found on the hills and the river bank, but is rare. Black spruce is found occasionally in swamps, but is scarce.

STATISTICS OF THE FLORA.

The important groups and species in our flora will appear in the following tables, which in all cases include only phanerogams.

The list includes several groups of specific and varietal names, which are tabulated as follows :

Species native to the Monroe Flora.....	948
Species introduced to the Monroe Flora	250
	<hr/>
Total number of species.....	1198
Varieties—native	103
introduced	13
	<hr/>
Total of numbered species and varieties..	1314
Species spontaneous but not established.....	36

The total number of species and varieties reported in Monroe county is 1208. In the other counties represented in the list, 106 species are reported which, up to the present time, have not been found in Monroe county.

In all the following tables the numbered forms only are included.

SYSTEMATIC DISTRIBUTION.

The native and introduced species and varieties in this flora may be tabulated as follows :

	Genera.	Species and Varieties.
Polypetalæ.....	167	393
Gamopetalæ	158	385
Apetalæ	43	134
	<hr/>	<hr/>
Total Dicotyledones....	368	912
Monocotyledones.....	116	390
Gymnospermæ	8	12
	<hr/>	<hr/>
Total Phænogamia	492	1314

LEADING ORDERS.

The following table shows the number of genera, species and varieties in some of the most largely represented orders :

Orders.	Genera.	Species.	Species and Varieties.
1. Cyperaceæ.....	9	115	143
2. Compositæ.....	43	127	140
3. Gramineæ.....	44	97	107
4. Rosaceæ.....	15	56	62
5. Leguminosæ.....	20	52	55
6. Orchidaceæ.....	16	41	41
7. Labiatae.....	22	37	39
8. Scrophulariaceæ.....	15	33	36
9. Liliaceæ.....	20	34	34
10. Cruciferae.....	15	31	33
11. Ranunculaceæ.....	13	26	33
12. Ericaceæ.....	16	30	30
13. Polygonaceæ.....	4	26	28
14. Salicaceæ.....	2	25	27
15. Umbelliferae.....	18	24	24
16. Cupuliferae.....	8	22	24
17. Caryophyllaceæ.....	9	21	21
18. Caprifoliaceæ.....	7	19	20
19. Naiadaceæ.....	5	18	19

LEADING GENERA.

The following table is arranged according to the number of species and varieties.

Genera.	Species.	Species and Varieties.
1. Carex.....	77	102
2. Aster.....	22	26
3. Salix.....	19	21
4. Solidago.....	18	20
5. Polygonum.....	17	19
6. Juncus.....	9	15
7. Ranunculus.....	9	14
8. Viola.....	9	14
9. Potamogeton.....	13	13
10. Desmodium.....	12	12
11. Habenaria.....	12	12
12. Galium.....	10	12
13. Panicum.....	10	12
14. Veronica.....	11	11
15. Quercus.....	10	11
16. Potentilla.....	9	10

COMPARATIVE STATISTICS.

TO PROFESSOR WILLIAM R. DUDLEY'S Catalogue of "The Cayuga Flora," published in 1886, we are indebted, in part, for the figures in the three following tables:

Plants of Monroe County, etc.....	1314
The Cayuga Flora.....	1278
Plants of Buffalo, etc. (with addenda).....	1243
Plants of Oneida County, etc.....	1390
Plants of Dutchess County.....	1067
Plants of Suffolk County.....	852
Flora of Washington, D. C., etc.....	1211
Flora of Essex County.....	1257
Flora of Vicinity of Yale College.....	1238

It should, perhaps, be said in explanation, that "Plants of Oneida County and Vicinity," by JOHN E. PAINE, JR., 1864, in reality covered nearly the whole State, excepting the south-eastern and the Adirondack regions; and that the "Plants of Buffalo and Vicinity," by the Buffalo Society of Natural History, 1883, includes plants within a radius of fifty miles of Buffalo.

The following is a comparison of the larger orders:

Order.	No. Species and Varieties.							
	E. U. S.	Monroe.	Cayuga.	Buffalo.	Oneida.	Pine Plains.	Suffolk.	Washington.
Cyperaceæ.....	357	143	151	115	187	138	79	108
Compositæ.....	497	140	125	151	141	109	119	149
Gramineæ.....	297	107	107	95	110	92		110
Rosaceæ.....	104	62	69	55	62	48	35	46
Leguminosæ.....	208	55	45	47	54	34	41	57
Ranunculaceæ.....	80	33	36	39	36	27	17	27
Orchidaceæ.....	71	41	35	35	42	30	15	24
Ericaceæ.....	89	30	35	29	29	33	28	26
Cruciferae.....	76	33	34	37	32	27	32	34
Labiatae.....	121	39	33	43	40	27	31	42

The above estimates for the eastern United States (E. U. S.) are taken from Lester F. Ward's "Flora of Washington."

The following table gives a comparison of two of the larger genera, two of the representative Atlantic coast genera and a repre-

sentative northern species, in respect to the number of species in these different sections :

Genus.	Floras with the number of species and varieties in each.						
	Monroe.	Cayuga.	Buffalo.	Oneida Co.	Pine Plains.	Suffolk Co.	Washington.
Carex	97	112	80	130	102	33	70
Aster	25	24	24	29	20	20	21
Eupatorium	3	4	3	6	4	10	12
Utricularia	5	4	3	6	3	9	2
Habenaria	12	12	10	16	9	3	4

The number of woody plants, including woody vines such as Clematis and Menispermum, and excluding such as Chimaphila and Gaultheria, is given below. Only so-called species are considered, and these are compared with the numbers given in Sargent's Forest Trees of North America, Tenth Census, Vol. IX.

	Monroe Flora, United States.	
Total number of species	203	
Native species	171	
Introduced species	32	
Native arborescent species	80	412
Introduced " "	19	

AFFINITIES OF THE MONROE FLORA.

GENERAL COMPARISON.

Fortunately for the comparative study of our flora two lists of plants have been published, covering territory both east and west of this area.

The "Plants of Buffalo and Vicinity" was published by the Buffalo Society of Natural History under the authorship of DR. DAVID T. DAY. The list was not confined to any particular territory, but was extended from Buffalo east and south so as to include fields of botanical interest which the Society had studied. For example, the swamp at Bergen, in the eastern edge of Genesee County, is included, although it is fifty miles from Buffalo. This swamp is only twenty miles from Rochester, not far from the line of Monroe County,

and is properly included in our district. The Buffalo list also includes the plants of Portage, on the middle valley of the Genesee river, forty-five miles from Buffalo, in an air-line, and sixty-three miles by the Erie railway.

As the area included in the Buffalo list overlaps the proper territory of our Monroe flora, a just comparison cannot be drawn without making some explanations and eliminating some species.

The total number of species enumerated in the Buffalo list is 1289. Of these not less than 46 are credited to the Bergen swamp only, or to other localities within our Monroe flora territory. To make a proper comparison, all the species should be excluded from the Buffalo list which are credited simply to the far-removed localities, like Bergen and Portage.

The "Cayuga Flora" was published in 1886 by PROFESSOR W. R. DUDLEY, of the Botanical Department of Cornell University. The territory of this list has natural geographic boundaries, and is nominally the hydrographic basin or drainage area of Cayuga lake. It covers an area of nearly 1200 square miles, and includes a considerable variety of topography and range of altitude, as well as deep east-west ravines and other features affecting the flora. The temptation to include the peculiar flora of the West Junius ponds, which are outside of the limits of the Cayuga basin, was so strong that Professor Dudley yielded in so far as to include it with explanation. He also notes species and varieties in the Seneca lake basin, but with conscientious and scientific spirit he does not give them standing by numbering them in the list.

The total number of species and varieties in the Cayuga flora is 1278.

The region covered by the Monroe county list has but little topographic variety or other physical features to modify the flora and multiply species. The large total number, 1309, is due to the thorough explorations of so many collectors, extending over many years. Species are not included concerning which there are any serious doubts. The list would have been materially lengthened had we included all the species fairly reported, and all "escapes" which have been seen growing spontaneously. In these respects great care has been exercised, and the error has been rather in excluding species which might be entitled to recognition.

In the following lists will be found the comparison of the three floras, the territory of the Buffalo list lying contiguous upon the west

and the Cayuga area not far removed upon the east. In these lists the plants of Bergen swamp, Portage, Avon and Caledonia, are not credited to the Buffalo list.

COMPARISON WITH THE CAYUGA FLORA.

Plants common to the Monroe and Cayuga Floras, not reported in the Buffalo List.

Ranunculus septentrionalis,	Aster corymbosus,
Nymphæa odorata var. minor,	Aster undulatus,
Nuphar Kalmianum,	Aster diffusus var. hirsuticaulis,
Nasturtium palustre var. hispidum,	Aster junceus,
Lepidium ruderales,	Aster puniceus, var. with purple stems,
Lepidium campestre,	nearly smooth, and flowers pinkish.
Viola blanda var. renifolia,	Polymnia Uvedalia,
Stellaria graminea,	Coreopsis discoidea,
Hypericum Canadense var. majus,	Cnicus muticus,
Rhamnus cathartica,	Cnicus arvensis var. albiflorus,
Negundo aceroides,	Tragopogon porrifolius,
Polygala verticillata var. ambigua,	Tragopogon pratensis,
Trifolium agrarium,	Hieracium aurantiacum,
Tephrosia Virginiana,	Kalmia latifolia,
Prunus domestica,	Kalmia angustifolia,
Prunus pumila,	Bartonia tenella,
Prunus avium,	Veronica Buxbaumii,
Fragaria Virginiana var. Illinoensis,	Pinguicula vulgaris,
Potentilla Canadensis var. simplex,	Pycnanthemum incanum,
Pyrus arbutifolia,	Thymus vulgaris,
Cratægus tomentosa var. pyrifolia,	Monarda clinopodia,
Cratægus punctata,	Monarda fistulosa var. rubra,
Ribes rotundifolium,	Monarda fistulosa var. mollis,
Ribes rubrum,	Amarantus paniculatus,
Sedum ternatum,	Rumex crispus × R. obtusifolius,
Drosera intermedia,	Polygonum dumetorum var. scandens,
Lythrum Salicaria,	Celtis occidentalis,
Thaspium aureum var. trifoliatum,	Carya sulcata,
Chærophyllum procumbens,	Carya microcarpa,
Houstonia purpurea var. longifolia,	Quercus Prinus,
Galium trifidum var. pusillum,	Salix amygdaloides,
Valeriana sylvatica,	Salix lucida var. — ?
Mikania scandens,	Salix alba var. vitellina × S. lucida,
Solidago uliginosa,	Salix Babylonica,
Solidago neglecta,	Salix candida,
Solidago neglecta var. linoides,	Salix cordata × S. sericea,
Solidago Ohioensis,	Ceratophyllum demersum,
Sericocarpus conyzoides,	Pinus rigida,

Habenaria tridentata,	Carex hystericina,
Habenaria ciliaris,	Carex scabrata,
Habenaria blephariglottis,	Carex fusca,
Hypoxys erecta,	Carex glaucoidea,
Ornithogalum umbellatum,	Carex pallescens—the undulata form,
Trillium cernuum,	Carex oligocarpa,
Juncus tenuis var. ——— ? tall, with	Carex laxiflora var. latifolia,
crowded glomerate heads,	Carex Careyana,
Juncus alpinus var. insignis,	Carex tetanica,
Typha latifolia var. elongata,	Carex umbellata,
Sagittaria variabilis var. obtusa,	Carex Jamesii,
Sagittaria variabilis var. latifolia,	Carex decomposita,
Sagittaria variabilis var. angustifolia,	Carex teretiuscula,
Sagittaria variabilis var. diversifolia,	Carex teretiuscula var. major,
Sagittaria variabilis var. gracilis,	Carex alopecoidea,
Sagittaria heterophylla,	Carex rosea var. radiata,
Sagittaria heterophylla var. elliptica,	Carex echinata var. microstachys,
Potamogeton fluitans,	Carex straminea,
Potamogeton amplifolius,	Carex straminea var. mirabilis,
Potamogeton prælongus,	Panicum Crus-galli var. muticum,
Potamogeton crispus,	Anthoxanthum odoratum,
Naias marina var. recurvata,	Oryzopsis Canadensis,
Cyperus aristatus,	Muhlenbergia sobolifera,
Eleocharis rostellata,	Alopecurus pratensis,
Eleocharis intermedia,	Cinna pendula,
Eleocharis pauciflora,	Holcus lanatus,
Scirpus Smithii,	Deschampsia cæspitosa,
Eriophorum cyperinum var. laxum,	Trisetum palustre,
Eriophorum alpinum,	Elusine Indica,
Eriophorum Virginicum var. album,	Eatonia Dudleyi,
Eriophorum polystachyon,	Eragrostis reptans,
Scleria verticillata,	Eragrostis capillaris,
Carex lupulina var. pedunculata,	Poa debilis,
Carex monile,	Festuca ovina,
Carex retrorsa var. Hartii,	Elymus Canadensis var. glaucifolius.
Carex lurida,	

COMPARISON WITH THE BUFFALO FLORA.

Plants common to the Monroe and Buffalo Floras, not reported in the Cayuga List.

Asimina triloba,	Thlaspi arvense,
Corydalis flavula,	Lepidium intermedium,
Nasturtium lacustre,	Cakile Americana,
Sisymbrium Thaliana,	Lechea major,
Brassica campestris,	Viola tricolor var. arvensis,
Brassica rapa,	Saponaria Vaccaria,

- Silene Cucubalus,
 Lychnis coronaria,
 Malva crispa,
 Oxalis corniculata,
 Ptelea trifoliata,
 Euonymus atropurpureus,
 Euonymus Americanus,
 Euonymus Americanus var. obovatus,
 Polygala Senega var. latifolia,
 Trifolium arvense,
 Desmodium canescens,
 Lespedeza Steuvei var. intermedia,
 Lathyrus maritimus,
 Strophostyles angulosa,
 Cassia chamæcrista,
 Potentilla supina,
 Rosa nitida,
 Lythrum alatum,
 Thaspium barbinode,
 Coriandrum sativum,
 Symphoricarpus vulgaris,
 Houstonia purpurea var. ciliolata,
 Galium Mollugo,
 Valerianella chenopodifolia,
 Aster azureus,
 Aster multiflorus,
 Aster puniceus var. lucidulus,
 Aster ptarmicoides,
 Heliopsis scabra,
 Artemisia Canadensis,
 Artemisia vulgaris,
 Artemisia biennis,
 Senecio aureus var. Balsamitæ,
 Cacalia atriplicifolia,
 Onopordon Acanthium,
 Silybum Marianum,
 Lampsana communis,
 Gaylussacia frondosa,
 Steironema lanceolatum,
 Asclepias verticillata,
 Vincetoxicum nigrum,
 Gentiana serrata,
 Gentiana puberula,
 Frasera Carolinensis,
 Lithospermum hirtum,
 Echium vulgare,
 Solanum Carolinensis,
 Physalis pubescens,
 Nicandra physaloides,
 Hyoscyamus niger,
 Atropa Belladonna,
 Nicotiana rustica,
 Mimulus alatus,
 Veronica Chamædrys,
 Hyssopus officinalis,
 Origanum vulgare,
 Scutellaria parvula,
 Stachys palustris,
 Amaranthus hypochondriacus,
 Euphorbia polygonifolia,
 Euphorbia Helioscopia,
 Euphorbia Lathrys,
 Carya tomentosa,
 Betula papyrifera,
 Listera cordata,
 Epipactis Helleborine,
 Cypripedium candidum,
 Smilax rotundifolia,
 Allium cernuum,
 Erythronium albidum,
 Juncus Balticus var. littoralis,
 Juncus nodosus var. megacephalus,
 Juncus Canadensis var. coarctatus,
 Cyperus diandrus var. castaneus,
 Cyperus Schweinitzii,
 Scirpus sylvaticus,
 Carex triceps var. hirsuta,
 Carex Crawei,
 Carex Muhlenbergii,
 Setaria Italica,
 Cenchrus tribuloides,
 Sporobolus cryptandrus,
 Ammophila arundinacea,
 Arrhenatherum avenaceum,
 Bromus mollis,
 Lolium temulentum.

COMPARISON OF CAYUGA AND BUFFALO FLORAS.

Plants common to the Cayuga and Buffalo Floras, not reported in the Monroe List.

Thalictrum purpurascens,	Pyrola rotundifolia var. uliginosa,
Ranunculus circinatus,	Phlox paniculata,
Ranunculus bulbosus,	Phlox maculata,
Papaver Rhœas,	Myosotis arvensis,
Fumaria officinalis,	Onosmodium Carolinianum,
Dentaria maxima,	Ipomœa Nil,
Cardamine hirsuta var. sylvatica,	Cuscuta Epilinum,
Arabis confinis,	Cuscuta inflexa,
Arabis lyrata,	Collinsia verna,
Draba incana var. arabisans,	Blephilia hirsuta,
Draba verna,	Lophanthus scrophulariæfolius,
Sisymbrium canescens,	Physostegia Virginiana,
Viola Selkerkii,	Atriplex patulum var. littorale,
Cerastium viscosum,	Euphorbia Esula,
Cerastium nutans,	Myrica asplenifolia,
Oxalis Acetosella,	Habenaria fimbriata,
Potentilla arguta,	Sisyrinchium anceps,
Oenothera biennis var. muricata,	Lilium superbum,
Mollugo verticillata,	Juncus acuminatus var. debilis,
Lonicera sempervirens,	Juncus Canadensis vr. brachycephalus,
Lonicera hirsuta,	Potamogeton marinus,
Valeriana officinalis,	Scirpus planifolius,
Bellis perennis,	Scirpus maritimus,
Aster Novi-Belgii ?	Carex pauciflora,
Coreopsis trichosperma,	Carex folliculata,
Tanacetum vulgare var. crispum,	Carex laxiflora var. plantaginea,
Artemisia Abrotanum,	Carex canescens,
Centaurea Cyanus,	Carex canescens var. alpicola,
Hieracium Gronovii,	Alopecurus geniculatus,
Lactuca integrifolia,	Glyceria Canadensis.

LISTS OF PLANTS PECULIAR TO EACH OF THE THREE FLORAS.

Plants peculiar to the Monroe Flora, not reported in either the Cayuga or Buffalo Lists.

Ranunculus repens fl. pl.	Barbarea præcox,
Ranunculus abortivus var. micranthus	Viola tricolor,
Ranunculus acris fl. pl.	Silene Virginica,
Delphinium Ajacis,	Lychnis Chalcedonica,
Nelumbo lutea,	Arenaria Michauxii,
Nuphar advena var. minus,	Buda rubra,
Nasturtium sylvestre,	Geranium molle,

- Erodium cicutarium*,
Rhus copallina,
Polygala polygama,
Polygala sanguinea,
Baptisia australis,
Trifolium incarnatum,
Trifolium reflexum,
Trifolium procumbens var. *minus*,
Amorpha fruticosa,
Colutea arborescens,
Coronilla varia,
Desmodium pauciflorum,
Desmodium ciliare,
Spiræa tomentosa,
Potentilla Pennsylvanica,
Pyrus aucuparia,
Ribes nigrum,
Sedum reflexum,
Drosera linearis,
Enothera fruticosa,
Bupleurum rotundifolium,
Apium graveolens,
Lonicera cærulea,
Galium verum,
Vernonia altissima,
Solidago Houghtonii,
Solidago tenuifolia,
Aster dumosus,
Xanthium strumarium,
Echinacea angustifolia,
Rudbeckia hirta — form with brown
bands at base of rays,
Helianthus strumosus var. *mollis*,
Calendula officinalis,
Chrysanthemum Leucanthemum var.
tubuliflorum,
Artemisia caudata,
Cacalia suaveolens,
Centaurea benedicta,
Centaurea Jacea,
Hieracium Marianum,
Crepis biennis,
Crepis tectorum,
Lobelia spicata,
Campanula rotundifolia var. *arctica*,
Periploca Græca,
Hydrophyllum appendiculatum,
Symphytum asperrium,
Lycopsis arvensis,
Solanum rostratum,
Physalis Alkekengi,
Linaria Canadensis,
Pentstemon lævigatus,
Pentstemon lævigatus var. *digitalis*,
Digitalis lanata,
Veronica spicata,
Buchnera Americana,
Gerardia purpurea var. *paupercula*,
Utricularia gibba,
Utricularia resupinata,
Mentha rotundifolia,
Mentha sativa,
Pycnanthemum muticum,
Calamintha Nepeta,
Blephilia ciliata,
Phlomis tuberosa,
Lamium album,
Stachys lanata,
Chenopodium Bonus-Henricus,
Rumex sanguineus,
Polygonum cilinode,
Polygonella articulata,
Arceuthobium pusillum,
Euphorbia corollata,
Urtica chamædryoides,
Betula populifolia,
Betula pumila,
Quercus Robur var. *pedunculata*,
Quercus ilicifolia,
Castanea sativa,
Fagus sylvatica,
Salix Caprea,
Salix humilis × *S. discolor*,
Juniperus Sabina var. *procumbens*,
Juniperus Virginiana var. *prostrata*,
Limnobiium Spongia,
Calypso borealis,
Tipularia discolor,
Corallorhiza odontorhiza,
Corallorhiza striata,
Habenaria leucophæa,
Cypripedium arietinum,
Allium vineale,
Trillium sessile,

Tofieldia glutinosa,	Carex longirostris,
Zygadenus elegans,	Carex conoidea,
Juncus filiformis,	Carex Saltuensis,
Juncus scirpoides,	Carex Richardsonii,
Sparganium minimum,	Carex gynocrates,
Lemna perpusilla,	Carex exilis,
Triglochin maritima,	Carex siccata,
Eleocharis olivacea,	Paspalum setaceum,
Eleocharis compressa,	Andropogon Virginicus,
Scirpus cæspitosus,	Hierochloa borealis,
Scirpus subterminalis,	Trisetum subspicatum var. molle,
Scleria triglomerata,	Cynodon Dactylon,
Scleria pauciflora,	Bouteloua racemosa,
Carex Schweinitzii,	Eragrostis pilosa,
Carex Houghtonii,	Festuca elatior var. pratensis,
Carex trichocarpa var. aristata,	Bromus tectorum.
Carex rigida var. Goodenovii,	

Plants peculiar to the Cayuga Flora, not reported in either the Monroe or Buffalo Lists.

Clematis verticillaris,	Rubus villosus var. frondosus,
Anemone Virginiana var. alba,	Rubus villosus var. humifusus,
Ranunculus Cymbalaria,	Agrimonia parviflora,
Dicentra eximia,	Rosa lucida,
Corydalis aurea,	Rosa cinnamomea,
Brassica alba,	Pyrus sambucifolia,
Brassica oleracea,	Cratægus coccinea var. macrantha,
Lunaria biennis,	Amelanchier—form agreeing partly with <i>A. oligocarpa</i> ,
Dianthus barbatus,	Saxifraga aizoides,
Silene Pennsylvanica,	Ribes lacustre,
Lychnis vespertina,	Hippuris vulgaris,
Æsculus Hippocastaneum,	Callitriche heterophylla,
Lotus corniculatus,	Rhexia Virginica,
Lespedeza procumbens,	Epilobium hirsutum,
Lespedeza violacea—an open, loosely panicked form, with large flowers,	Oenothera biennis var. grandiflora,
Lespedeza violacea—form with thin leaves and slender stem,	Levisticum officinale,
Lathyrus venosus,	Sium cicutæfolium, <i>Gm.</i> , var. (<i>S. line-</i> <i>are, Mx.</i> , var. <i>intermedium, T. & G.</i>)
Gymnocladus Canadensis,	Aralia spinosa,
Gleditschia monosperma,	Lonicera Xylosteum,
Prunus spinosa,	Lonicera glauca—form—possibly a var.—(part of <i>L. parviflora</i> var. <i>Douglassii</i>),
Spiræa lobata,	Scabiosa australis,
Fragaria vesca var. alba,	Eupatorium sessilifolium,
Gillenia trifoliata,	
Rubus neglectus,	

Aster Novæ-Angliæ, var. with light blue flowers,	Rumex Patientia,
Aster diffusus var. thyrsoides,	Rumex conglomeratus,
Aster puniceus var. lævicaulis,	Polygonum lapathifolium,
Zinnia elegans,	Polygonum lapathifolium var. incanum,
Helianthus strumosus, a form with narrowly lanceolate leaves, (the same in herb. J. J. Thomas as H. tracheliiifolius,)	Aristolochia clematitis,
Bidens connata var. comosa,	Parietaria Pennsylvanica,
Arctium Lappa var. minus,	Salix alba var. argentea,
Echinops Ritro,	Salix cordata × S. petiolaris,
Centaurea nigra,	Salix incana × S. cordata,
Vaccinium Pennsylvanicum var. nigrum,	Pinus resinosa,
Vaccinium corymbosum vr. amœnum,	Goodyera Menziesii,
Vaccinium corymb. var. atrococcum,	Pogonia verticillata,
Andromeda ligustrina,	Habenaria Hookeri—a form approaching var. oblongifolia,
Pyrola secunda var. pumila,	Iris Pseudacorus,
Primula Misstassinica,	Muscari botryoides,
Lysimachia punctata,	Trillium erectum—a form near var. declinatum of <i>Gr. Man.</i>
Asclepias incarnata var. pulchra,	Juncus effusus var. conglomeratus,
Gentiana linearis,	Juncus marginatus,
Myosotis palustris,	Juncus Gerardi,
Myosotis collina,	Juncus articulatus var. obtusatus,
Borrago officinalis,	Sparganium simplex vr. androcladum,
Asperugo procumbens,	Sagittaria heterophylla vr. angustifolia,
Ipomœa coccinea,	Potamogeton natans var. prolixus,
Convolvulus sepium—form, possibly var. repens, <i>Gray</i> ,	Potamogeton Pennsylvanicus,
Cuscuta tenuifolia,	Potamogeton Spirillus,
Lycopersicum esculentum,	Potamogeton rufescens ?
Linaria Elatine,	Potamogeton (spec. doubtful : possibly Illinoisensis),
Utricularia minor,	Potamogeton Zizii,
Catalpa bignonioides,	Potamogeton perfoliatus var. lanceolatus,
Trichostema dichotomum,	Potamogeton Hillii,
Mentha piperita var. subhirsuta,	Potamogeton obtusifolius,
Calamintha Acinos,	Potamogeton pusillus var. tenuissimus,
Lamium maculatum,	Potamogeton mucronatus,
Stachys aspera var. glabra,	Potamogeton pectinatus var.—? with slender elongated stems,
Plantago major var. minima,	Potamogeton pectinatus var. — ? a gigantic form,
Plantago cordata,	Naias marina,
Plantago Media,	Naias marina var. gracilis,
Anychia dichotoma,	Cyperus Engelmanni,
Scleranthus annuus,	Eleocharis —, form allied to <i>E. ovata</i> ,
Amarantus chlorostachys,	Eleocharis palustris var. glaucifolius,
Chenopodium rubrum,	Scirpus sylvaticus var. digynus,

Carex Willdenovii,	Carex lupulina—a form with stalked and scattered fertile spikes,
Carex scoparia var. intermedia,	Carex lupulina × C. retrorsa,
Carex lagopodioides var. moniliformis,	Carex utriculata var. minor,
Carex adusta,	Carex ampullacea var. sparsiflora,
Carex straminea var. tenera f. erecta,	Panicum xanthophyllum,
Carex aquatilis—form corresponding to the C. xerocarpa form of C. an- gustata,	Panicum commutatum,
Carex alata,	Panicum microcarpon var. sphaero- carpon,
Carex angustata var. β , <i>Boott</i> ,	Panicum dichotomum var. nitidum,
Carex angustata var. strictior,	Panicum dichotomum var. pubescens,
Carex angustata var. xerocarpa,	Panicum miliaceum,
Carex Magellanica,	Setaria viridis var. purpurascens,
Carex granularis var. recta,	Muhlenbergia Mexicana var. filiformis,
Carex triceps—the form C. hirsuta var. pedunculata, <i>S. & T.</i>	Brachyelytrum aristatum—the form “var. Engelmanni,”
Carex virescens var. elliptica,	Calamagrostis Porteri,
Carex platyphylla var. —?	Danthonia compressa,
Carex laxiflora var. intermedia,	Diplachne fascicularis,
Carex laxiflora var. blanda, and sub- var. minor,	Poa compressa var. sylvestris,
Carex Emmonsii var. elliptica,	Poa sylvestris var. palustris,
Carex debilis var. β , <i>Boott</i> ,	Glyceria acutiflora,
Carex capillaris var. elongata,	Bromus ciliatus var. —, approaching some of the Rocky Mountain forms,
Carex flava—the form “var. andro- gyna,” <i>Olney</i> ,	Bromus sterilis,
Carex \O ederi,	Agropyrum caninum, (<i>Triticum cani-</i> <i>num</i> .)—var. approaching <i>T. viola-</i> <i>ceum</i> ,
Carex hirta,	Hordeum murinum,
Carex comosa × C. tentaculata,	Elymus striatus var. villosus,
Carex Pseudo-Cyperus × C. hystericina	Secale cereale.
Carex lupulina—a large, robust form,	

*Plants peculiar to the Buffalo Flora, not reported in either the Monroe
or Cayuga Lists.*

Adonis autumnalis,	Silene nocturna,
Ranunculus ambigens,	Portulaca grandiflora,
Helleborus viridis,	Calandrinia Menziesii,
Nigella Damascena,	Hypericum Kalmianum,
Argemone Mexicana,	Malva Alcea,
Dicentra Cucullaria × D. Canadensis,	Sida spinosa,
Arabis dentata,	Linum striatum,
Cleome integrifolia,	Geranium dissectum,
Reseda odorata,	Geranium columbinum,
Reseda alba,	Ilex monticola,
Viola Cucullata var. longipes,	Polygala incarnata,
Silene Gallica,	Glycerrhiza lepidota,

- Onobrychis sativa*,
Lathyrus pratensis,
Geum macrophyllum,
Poterium Sanguisorba,
Rosa micrantha,
Rosa spinosissima,
Hydrangea arborescens,
Torilis Anthriscus,
Æthusa Cynapium,
Anthriscus cerefolium,
Berula angustifolia,
Erigenia bulbosa,
Lonicera parviflora var. *Douglasii*,
Liatris cylindracea,
Solidago bicolor var. *concolor*,
Solidago sempervirens,
Solidago rigida,
Aster patens,
Aster ericoides var. *villosus*,
Silphium laciniatum,
Silphium trifoliatum,
Ambrosia trifida var. *integrifolia*,
Ambrosia psilostachya,
Xanthium spinosum,
Echinacea purpurea, (?) possibly *E.*
angustifolia,
Helianthus petiolaris,
Helianthus lenticularis,
Helianthus giganteus,
Coreopsis tinctoria,
Coreopsis aristosa,
Galinsoga parviflora,
Dysodia chrysanthemoides,
Matricaria Chamomilla,
Matricaria inodora,
Balsamita vulgaris,
Arctium Lappa var. *tomentosa*,
Cnicus altissimus,
Leontodon autumnalis,
Prenanthes crepidinea,
Lactuca hirsuta,
Kalmia glauca,
Steironema longifolia,
Syringa vulgaris,
Gentiana Andrewsii var. *albiflora*,
Polemonium reptans,
Heliotropium Europæum,
Ipomœa pandurata,
Physalis Philadelphica,
Verbascum Lychnitis,
Linaria Cymbalaria,
Antirrhinum Orontium,
Gerardia lævigata,
Martynia proboscidea,
Verbena angustifolia,
Verbena stricta,
Verbena bracteosa,
Mentha Canadensis var. *glabrata*,
Pycnanthemum linifolium,
Calamintha Nuttallii,
Salvia officinalis,
Salvia glutinosa,
Monarda fistulosa,
Dracocephalum parviflorum,
Ballota nigra,
Lamium purpureum,
Amarantus chlorostachys vr. *hybridus*,
Amarantus, (n. sp.?) resembling *A. bli-*
toides,
Amarantus spinosus,
Acnida tamariscina,
Chenopodium murale,
Chenopodium glaucum,
Chenopodium ambrosoides,
Chenopodium ambrosoides var. *anthel-*
minticum,
Corispermum hyssopifolium,
Rumex altissimus,
Rheum Rhaponticum,
Euphorbia platyphylla,
Quercus stellata,
Quercus palustris,
Salix tristis,
Ceratophyllum demersum var. *echi-*
natum,
Habenaria blephariglottis, var. *holo-*
petala,
Dioscorea villosa,
Allium cernuum,
Clintonia umbellata,
Tradescantia Virginica,
Juncus Canadensis var. *subcaudatus*,
Sagittaria heterophylla var. *rigida*,
Potamogeton hybridus,

Potamogeton pauciflorus var. Niag-	Carex tenuiflora,
arensis,	Panicum agrostoides,
Eriocaulon septangulare,	Panicum Xalapense ?
Scirpus Clintonii,	Triodia purpurea,
Scirpus Torreyii,	Eatonia obtusata,
Carex oligosperma,	Eragrostis Purshii.

PHYSICAL CHARACTERS OF THE REGION.

BY HERMAN LEROY FAIRCHILD.

GEOGRAPHY AND HYDROGRAPHY.

The territory covered by this list of plants has no natural boundaries. It includes the county of Monroe and portions of each of the adjacent counties. The arbitrary limits of the map (Plate 1) include the western part of Wayne county, the western half of Ontario, the northern part of Livingston and eastern parts of Genesee and Orleans counties. The northern boundary is Lake Ontario. The 43d parallel of north latitude bisects this area, and the meridian of 78° passes through the western portion. The breadth of the area north and south along the western border is 35 miles, and the length east and west is 44 miles. The total land surface is about 1400 square miles.

The drainage is wholly into Lake Ontario. The Genesee river traverses the area of the map in a direction N.N.E. and debouches into the lake near the middle of the north shore boundary. The area includes the hydrographic basin of the lower Genesee from the lake to a parallel five miles above Avon. In the last ten miles of its course the Genesee river occupies a new channel and has no valley or tributaries of consequence, all the northern part of the area draining by numerous streams directly into the lake. The south-eastern side of the area is drained by Mud creek and Canandaigua outlet, the water entering lake Ontario by Oswego river.

TOPOGRAPHY AND ALTITUDES.

The area is mostly a plain, sloping gently toward Lake Ontario. The total difference of elevation between the higher ground at the south and the northern edge of the plain at the lake is in general 300 to 400 feet. The average altitude of the area is about 600 feet above tide. The middle portion through the whole east and west extent, as traversed by the West Shore and New York Central railroads, has an

altitude of about 500 feet. The north border, traversed east and west by the Rome, Watertown and Ogdensburg railroad, is about 350 feet above tide and 100 feet above lake Ontario. South of the area lies the lofty table-land in which have been carved the valleys of lakes Conesus, Hemlock, Canadice, Honeoye and Canandaigua, the western members of the so-called "finger lakes". Some of the hills in this high region are 2000 feet above sea-level.

The northern part of the area is a comparatively smooth plain drained directly into Lake Ontario by many small streams which, near the lake, have cut into the Iroquois lake-deposits and the subjacent ice-drift. The continuity of the plain is entirely broken by the recently excavated ravine of the Genesee, 200 feet deep, and by the preglacial valley of Irondequoit bay.

The eastern and southern portions of the area have a hilly topography, produced by the glacier rubbing the deep subglacial drift into elongated hills, parallel with the ice movement, known as "drumlins" or "drumlods". In the eastern part of Monroe county these drumloid ridges are very pronounced. They have a north and south trend, and culminate south of Fairport in the Turk hill drumloid mass. Through Henrietta and Rush, in the southern part of Monroe county, the drumlods have a direction some ten to fifteen degrees west of south, while along the Genesee river and in the south-west part of the territory these ridges have a trend more nearly south-west. In the north-west part of the area the drumloid character is merely discernible in the broad, smooth swells, with a north-east by south-west trend.

List of Elevations above Ocean Level.

	LAKES.	Feet.
Ontario	-----	247
Canandaigua	-----	687
Mendon Ponds	-----	662-655

ERIE CANAL—(WATER SURFACE).

Between Lock 60, Macedon, and Lock 61, Upper Macedon	-----	454
“ “ 61 “ “ 62, Pittsford	-----	461
“ “ 62 “ “ 63, Miller's	-----	470
“ “ 63 “ “ 64, Sipple's	-----	470
“ “ 64 “ “ 65, Reservoir	-----	489
“ “ 65 “ “ 66, first east of Rochester.	-----	499
Through Rochester and westward	-----	508

RAILROAD LINES—EAST AND WEST DIRECTIONS.

Rome, Watertown and Ogdensburg Railroad :

	Feet.		Feet.
Williamson	418	Charlotte	258
Ontario	413	Greece	275
Lakeside	426	Parma	278
Union Hill	424	East Hamlin	290
Webster	406	Hamlin	308
Forest Lawn	285	East Kendall	324
Sea Breeze	268	Kendall	326
Windsor Beach	270		

New York Central and Hudson River Railroad, main line :

Palmyra	435	Rochester	515
Walworth	450	Chili	564
Macedon	468	Churchville	568
Fairport	455	Bergen	603
Penfield	417	West Bergen	680
Brighton	459	Batavia	891
East Rochester	482		

Batavia and Canandaigua Branch of N. Y. C. & H. R. R.:

Canandaigua	735	West Rush	555
East Bloomfield	876	Genesee Valley Junct'n.	536
Miller's Corners	889	Caledonia	652
Honeoye Falls	664	LeRoy	866

Lehigh Valley Railroad :

Manchester	606	East Rush	559
Victor	567	Genesee river crossing	563
Mendon	572	Caledonia	666
Rochester Junction	557	North LeRoy	805

RAILROAD LINES—NORTH AND SOUTH DIRECTIONS.

Rochester and Ontario Branch of N. Y. C. & H. R. R. :

Ontario Beach	250	Otis	519
Charlotte	251	Brown Street	522
Barnard's Crossing	399	Rochester	515

New York, Lake Erie and Western Railroad :

Rochester	510	Rush	541
Red Creek	525	Avon	586
West Henrietta	564	Conesus Lake Junction	870
Scottsville	558	South Lima	901

Western New York and Pennsylvania Railroad :

	Feet.		Feet.
Rochester	511	Honeoye Junction.	537
Rapids	525	Avon	543
Severance	533	Fowlerville	561
Scottsville.	541	York	561

MISCELLANEOUS HEIGHTS.

	Feet.
"Ridge Road" across Monroe county (Iroquois beach).	430 to 440
Turk hill station U. S. Lake Survey	928
Hart hill (town of Rush) station U. S. Lake Survey	792
Pinnacle hill station U. S. Lake Survey	719
Hopper hill (town of Victor, Ontario county) (aneroid)	1131+
"Pinnacle Hills:"	
Cobb's hill	663
Pinnacle summit	749
Mount Hope reservoir (water surface)	634
Memorial Pavilion	650
Summits of Mount Hope cemetery	650 to 670

Rochester :

"Four Corners," Main and State streets	499
East Main street and East avenue	534
Campus of University of Rochester	516

GEOLOGY.

Stratigraphy.—The hard-rock geology of western New York was fully described over half a century ago by Dr. James Hall.* The section of strata in the region under immediate consideration has been recently published in these Proceedings,† while an excellent description of the strata above the Salina group may be found in the 47th Report of the New York State Museum, 1894.‡

The geological structure of the region is exceedingly simple. The strata lie nearly horizontal, without serious disturbance or visible faulting. While there has been some movement and warping of the

*"The Natural History of New York. Part IV, Geology of the Fourth District."

†"A Section of the Strata at Rochester, N. Y., as shown by a deep boring." By H. L. Fairchild, Proc. Roch. Acad. of Science, Vol. I, pp. 182-186, 1891.

‡"The Thickness of the Devonian and the Silurian Rocks of Western New York; approximately along the line of the Genesee River." By Charles S. Prosser, Proc. Roch. Acad. Science, Vol. II, pp. 49-104, 1892.

"The Geological History of Rochester, N. Y." By H. L. Fairchild, Proc. Roch. Acad. Science, Vol. II, pp. 215-223, 1893.

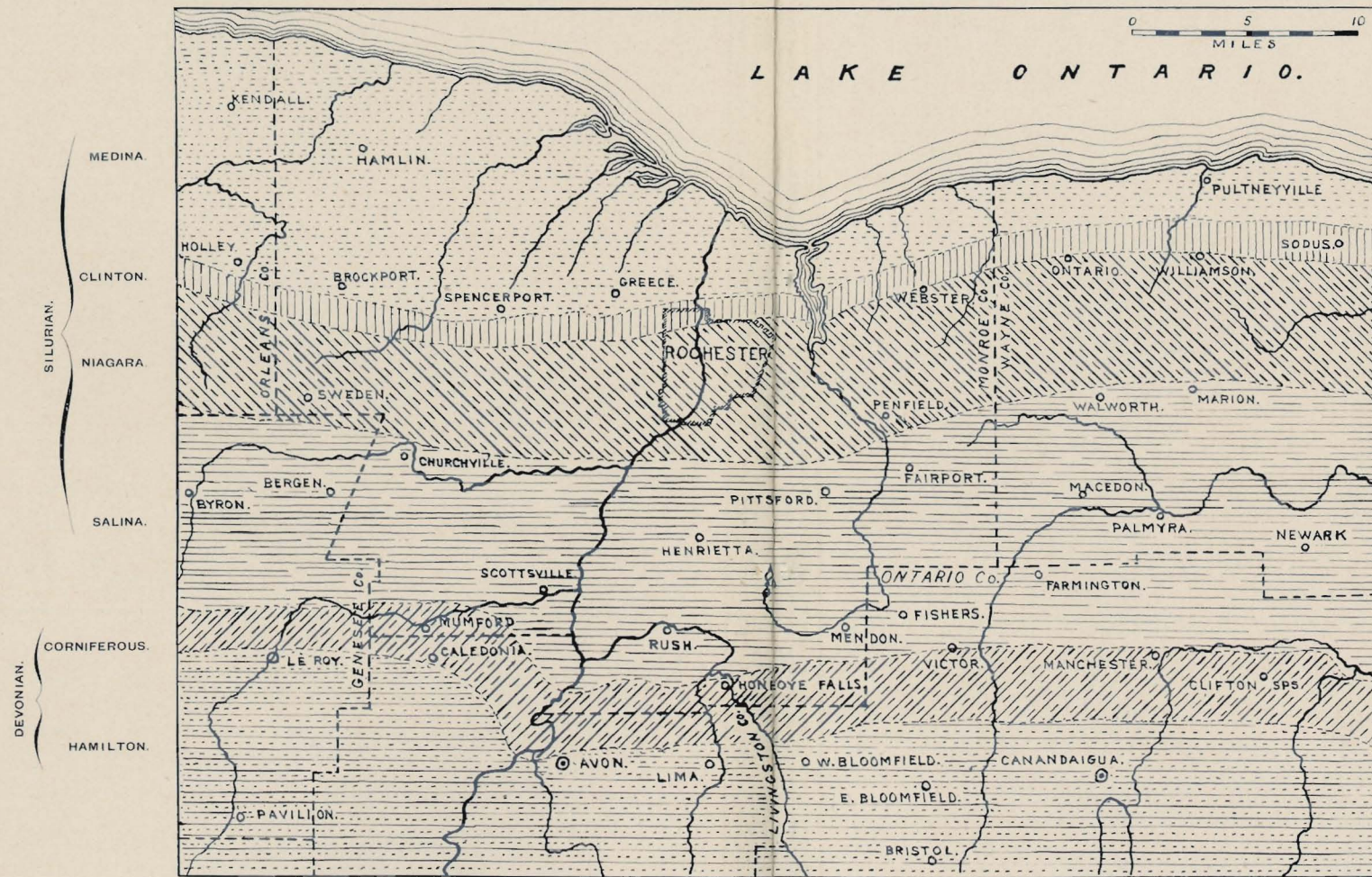
‡"Report on the Geology of the Livonia Salt Shaft," By D. D. Luther.

region, the strata have not been conspicuously displaced. There is a slight inclination or dip east of south, amounting at Rochester to less than 100 feet per mile. This dip causes each rock formation to disappear southward beneath the successively superior formations. The strike of the strata is, therefore, nearly east and west, and the several kinds of rock outcrop at the surface as bands stretching east and west across the area. The width of these bands of outcropping rocks varies from a fraction of a mile to several miles, according to their thickness. Over most of the region, however, the rock is rarely seen, even in stream channels, on account of the thick sheet of glacial and lake-drift which overlies it. The finest exposure of strata, and one of the most beautiful in this country, is seen in the lower ravine of the Genesee river, where the river having lost its old preglacial valley has cut for itself a new channel, eight miles long, through the sandstone, shales and limestones of the Niagara formation. The accompanying map and diagram will indicate the succession of the several rocks which underlie the region. (See Plate 2.)

The rocks of the whole of central and western New York are unaltered sedimentaries, of marine origin, consisting of sandstones, shales and limestones. They will be briefly referred to in the order of superposition, beginning with the lowest. The lowest visible rock is the Medina sandstone, which is at or near the surface in the north-western part of the area of the map, and is extensively quarried. This red Medina forms the rock bottom of the southern part, at least, of lake Ontario and the rock bluffs at all points along the south shore. Beneath Rochester the red Medina is over one thousand feet thick, but here and throughout the region, except the north-western portion of the lake border, it is buried under the shales and limestones of the Clinton group. The entire section of the Clinton is finely shown in the walls of the Genesee canyon at the lower falls in Rochester. Here it rests on the gray top of the Medina, and in ascending order consists of about 24 feet of the lower green shale; 14 feet of lower limestone, containing a bed of hematite iron-ore one foot thick; 24 feet of upper green and purple shales; and 18 feet of upper limestone.

The Niagara group rests upon the Clinton and consists of 80 feet of dark, gritty shales, exposed at the upper falls in Rochester, and 80 feet of limestone, upon which the city of Rochester is mainly built.

A very few miles south of Rochester the Niagara limestone ceases to be the superficial rock, and well-borings through the glacial



AREAL MAP SHOWING APPROXIMATE LIMITS OF STRATA.

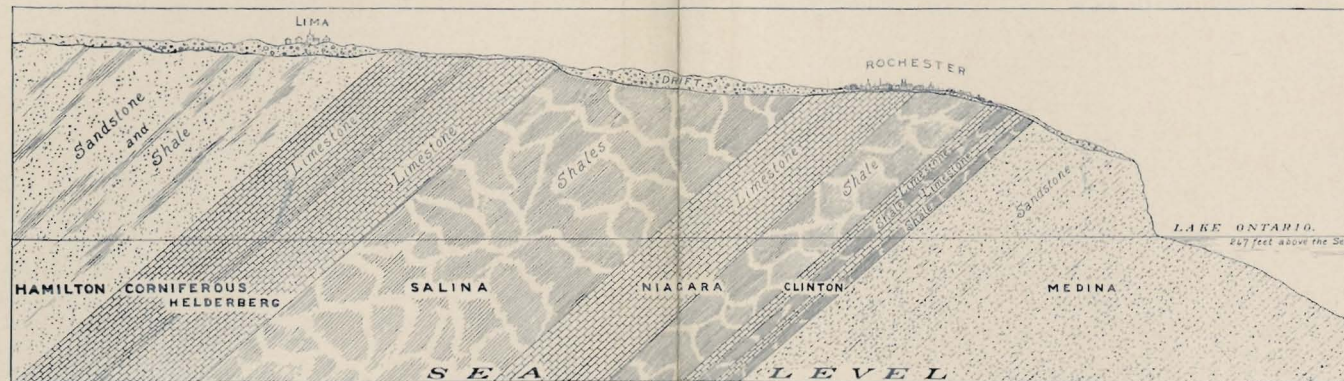


DIAGRAM OF VERTICAL NORTH AND SOUTH SECTION.

(The inclination of strata is greatly exaggerated by the extreme difference in scales. The true dip of strata is less than 100 feet per mile.)

STRATIGRAPHY OF MONROE COUNTY AND ADJACENT TERRITORY.

drift encounter first the shales of the Salina formation. These shales, which contain the salt deposits and stretch from Syracuse to the Niagara river, form a belt across our area quite as wide as the whole Niagara formation, (Niagara, Clinton, and Medina groups). Upon this meridian the total thickness of the shales, with some calcareous beds, is about 600 feet. Passing southward to the lower border of Monroe county the next successively higher rock, the Corniferous limestone, appears. It is about 140 feet thick, of hard and enduring character, and characterized by abundance of flint nodules. It has resisted glaciation and weathering better than the Salina shales, and so forms usually a definite escarpment at its northern edge, producing cataracts or rapids in the streams. Upon this formation the drift is thin, and in some localities, particularly near Caledonia and LeRoy, in Genesee county, there are extensive superficial quarries. The limestone outcrops over a belt of territory two to five miles wide.

The southern quarter of the area has the shales and sandstones of the Hamilton group as the superficial rock. These shales are dark and carbonaceous, and frequently yield rock-gas. With a capping of Portage sandstone they form the high table-land of the lake region south of the mapped area.

Pleistocene Drift.—The superficial geology of the region has not been described in detail, and will be treated here only in a general way. During the millions of years following the deposition of the Devonian rocks the region was continuously exposed to destructive atmospheric agencies, and by atmospheric decay and stream erosion a great thickness of rocks had doubtless been removed from this area.* At the close of the Pliocene period the climate, which had been slowly growing colder, produced a great accumulation of snow and ice over Canada and the north-eastern United States, and the subaerial denudation was changed to subglacial. The superficial decomposed rocks were crushed and removed by the southward moving ice-sheet, the old drainage channels were largely filled with the debris, and the final removal of the ice left a sheet of glacial drift over the whole territory.

The great glacier not only eroded the decomposed and exposed rocks of the region and spread the wreckage over the area to the south, but it brought in from the north, or north-east, the complex materials of the crystalline rocks of the Archean areas. Thus the

*Proc. Roch. Acad. Science, Vol. II, p. 221.

thick drift sheet which buries the region is of very heterogeneous composition and admirably adapted for sustaining vegetable growth.

At the beginning of the Glacial period the northern part of the continent was much above the present height in relation to the sea. During at least the closing part of the Glacial period western New York was depressed far below its present level, and following and laying the retreating ice-front was a huge glacial lake, which buried most of Monroe county to a depth of 350 to 400 feet, having its outlet past the site of Chicago to the Mississippi. This lake, produced by the closing of the lower eastern outlets by the ice-sheet, is called Lake Warren.* Subsequently, as the ice retreated northward and eastward, so as to uncover the Mohawk valley, this became an outlet of the glacial waters, and the water-surface fell to the level of the "Ridge Road", which is simply the beach of the glacial lake Iroquois,† with its outlet at Rome, N. Y., to the Mohawk and Hudson valleys.

Deposits of silts occur over the areas once covered by the glacial lakes. In some localities they form extensive flats, with clayey soil. In the depressions near Lake Ontario and in the valley of Irondequoit bay they constitute the soft deposits which by erosion have produced the conspicuous terraces and the mounds called "sugar loaves".

The superficial geology of the region is thus a complex result of the action of atmospheric agencies, glacial ice, stream drainage of the glacier, lake action at the ice-front and subsequent to the removal of the ice; and these followed by a resumption of the destructive forces of the atmosphere.

Over the geological formations of harder rock, like the Niagara limestone and Corniferous limestone, the glacial drift (till or boulder-clay) is relatively thin, and sometimes leaves the rock almost bare, while over the softer Salina there is a greater depth of the drift, which is largely piled into the elongated parallel hills called drumlins or drumloids, already described.

A frontal moraine, marking a pause in the recession of the ice-sheet, traverses the county from Brockport to Brighton. This is not strong, but well defined west of Rochester as an irregular ridge, cut by the main line of the New York Central railroad one mile north-east of Coldwater station. Along the Rapids road in the south-west part of

*See numerous writings of J. W. Spencer and Warren Upham in Amer. Jour. Sci.; Bull. Geol. Soc. Am., and other journals; Abstract by the writer in Bull. Geol. Soc. Am., Vol. 6, pp. 462-466.

†"History of the Niagara River", by G. K. Gilbert, in 6th Ann. Rep. of the Commissioners of the State Reservation at Niagara, for 1889, pp. 61-84, with plates, (also in the Smithsonian Ann. Rep. for 1890)

the city the moraine becomes more broken, but between the river and Brighton it forms the most conspicuous hills of the region, the famous "Pinnacle Hills". These are mainly sand and gravel, with some masses of till or unassorted glacial drift and many large boulders. The sand and gravel beds in these hills show remarkably complex structure. To glacialists the hills have been well known but very puzzling. They are probably part of the frontal moraine, of the nature known as "kame".* They consist chiefly of the materials washed out of the glacier by the drainage and accumulated at the front of the ice-wall in the deep water of the glacial Lake Warren. Three other similar kame deposits are found in Monroe county, but not directly connected with any morainic ridge. One is the group of remarkable sand and gravel hills enclosing the Mendon ponds, another the sand hills and plains extending from the head of Irondequoit bay past Pittsford into the north-west corner of Ontario county. Another immense deposit lies in the north-west part of Ontario county and the extreme south-east corner of Monroe county. An area of sand knolls also occurs south-west of Rochester, toward Chili Center, the summits of which bear large ice-rafted boulders.

Glacial gravels are found in hundreds of localities over the county, and the lake silts are abundant, chiefly in depressions.

Irondequoit bay probably represents a preglacial river valley modified by ice-erosion, and then more or less filled by serving as a catchment basin during the ice retreat and the episodes of lake Warren and the later lake Iroquois. The sand hills at the head of the bay are remnants of the lake deposits, and the present conspicuous terraces at an elevation of about 400 feet on each side of the bay probably represent the Iroquois lake bottom.

Influence upon Plant Life.—The influence of the geologic conditions upon the plant life should be considered. In regions beyond the limits of ice-drift, where soils are the result of decay of rock in place and consist of the insoluble residue of the rocks, the several kinds of rock and consequent different soils are marked by more or less differences in the flora. In the area here considered such differences in the flora can scarcely be marked, because in the place of true soil there is the sheet of complex drift which masks the rocks and

*"The Kame-Moraine at Rochester, N. Y." By H. L. Fairchild, Amer. Geol., Vol. XVI, pp. 39-51, July, 1895.

"Eskers near Rochester, N. Y." By Warren Upham, Proc. Roch. Acad. Science, Vol. II, pp. 181-200.

gives uniformity to the plant-bearing conditions. Exceptions may be found in the areas of the Niagara and Corniferous limestones where the drift is very thin or entirely wanting. It is true that the drift partakes largely of the character of the rock formation underlying immediately northward. But in this region the bands of different rocks are not many miles in width, the changes in kind are frequent, and the constituents of the drift are fairly distributed. Moreover, the drift contains the product of the grinding and disintegration of the crystalline Archean rocks, as well as the limestones and shales of the region between here and the St. Lawrence.

Following the southward drifting of the material by the ice came the reversal and northward drifting of the finer material borne by streams pouring into lake Warren, then later into lake Iroquois, and now into the still lower lake Ontario. The Warren silts occur upon the till over the area south of the "Ridge Road" and below 900 feet altitude. The Iroquois silts occupy the surface between the present lake Ontario and the beach altitude of 435-440 feet. This work of stream and lake has thus helped to unify the flora of the region.

The chief differentiation of the flora produced by differences in the geological characters of the surface will be found upon tracts that are washed sands or silts, such as the Chili sand knolls and the Pittsford or the Mendon sand and gravel hills, and upon the tracts of limestone above mentioned.

The topographic relief of the surface is insufficient to greatly affect the flora.

CLIMATIC CONDITIONS.

Statistics of Climate at Rochester.

CONTRIBUTED BY MR. ORIN PARKER, WEATHER OBSERVER.

The following statistics cover a period of twenty-five years, from January 1, 1871, to January 1, 1896, and are obtained from the accurate records of the Rochester Station of the United States Weather Bureau.

TEMPERATURE. (DEGREES FAHRENHEIT.)

Highest recorded temperature.....	99	(July 20, 1894).
Lowest " "	-12	(Jan. 30, 1873, and Feb. 9, 1875.)
Average variation between day and night	16	
Highest annual temperature.....	50	(1881)
Lowest " "	44	(1872)
Average " "	47	

	Spring.	Summer.	Autumn.	Winter.
Highest seasonal temperature...	49 (1878)	71 (1876)	55 (1881)	34 (1889-90)
Lowest " " ..	39 (1883)	66 (1889)	45 (1873)	20 (1874-75)
Average " " ..	43	68	50	26

	Jan.	Feb.	Mar.	April.	May.	June.
Highest monthly temp...	36 ('80)	33 ('82)	40 ('94)	53 ('70)	63 ('80)	71 ('95)
Lowest " " ..	17 ('93)	14 ('85)	21 ('85)	36 ('74)	50 ('82)	61 ('81)
Average " " ..	25	24	30	44	56	66

	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Highest monthly temp...	75 ('87)	72 ('81)	72 ('81)	58 ('79)	42 ('85)	37 ('80)
Lowest " " ..	65 ('84)	64 ('85)	56 ('71)	43 ('87)	27 ('73)	20 ('76)
Average " " ..	70	68	62	50	38	28

PRECIPITATION—RAINFALL, INCLUDING MELTED SNOW, (IN INCHES).

Highest annual.....	53.86 (1874)
Lowest "	16.93 (1888)
Average "	34.99

	Spring.	Summer.	Autumn.	Winter.
Highest seasonal...	15.25 (1873)	14.14 (1871)	14.88 (1873)	14.64 (1877)
Lowest " ...	4.62 (1889)	5.00 (1887)	3.01 (1887)	3.40 (1874)
Average " ...	8.68	9.25	8.31	8.72

	Jan.	Feb.	Mar.	April.	May.	June.
Highest monthly	8.05 ('77)	5.40 ('75)	7.02 ('73)	4.99 ('74)	6.87 ('94)	6.68 ('92)
Lowest " ..	0.94 ('82)	0.46 ('76)	0.94 ('89)	0.94 ('84)	1.12 ('91)	0.94 ('93)
Average " ..	3.19	2.71	2.86	2.48	3.34	3.22

	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Highest monthly	5.44 ('73)	7.26 ('86)	5.69 ('76)	8.67 ('73)	5.46 ('77)	6.17 ('78)
Lowest " ..	1.07 ('86)	0.70 ('94)	0.51 ('71)	0.62 ('82)	0.80 ('87)	1.00 ('74)
Average " ..	2.96	3.07	2.38	2.98	2.99	2.86

RELATIVE HUMIDITY. (PERCENTAGE.)

Highest yearly.....	80 (1885)
Lowest "	70 (1895)
Average "	74

	Jan.	Feb.	Mar.	April.	May.	June.
Highest monthly	88 ('88)	84 ('89)	83 ('88)	76 ('86)	76 ('85)	77 ('85)
Lowest "	73 ('72)	71 ('77)	72 ('95)	60 ('72)	54 ('79)	61 ('73)
Average "	80	79	77	68	66	69

	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Highest monthly	79 ('85)	82 ('85)	81 ('90)	86 ('85)	83 ('85)	85 ('85)
Lowest "	62 ('88)	61 ('76)	66 ('75)	67 ('79)	70 ('83)	72 ('91)
Average "	69	71	73	75	77	84

CLOUDINESS. (PERCENTAGE.)

	Jan.	Feb.	Mar.	Apr.	May.	Jun.	July.	Aug.	Sep.	Oct.	Nov.	Dec.
Average	78	71	67	55	54	46	46	47	49	61	77	81

WINDS.

Direction—west and south-west prevailing.

Velocity—

Highest hourly, in miles.....	78	(March 31, 1882.)
Highest monthly, in miles.....	11,714	(January, 1884.)
Lowest “ “.....	3,766	(August, 1888.)
Average “ “.....	6,972	
Highest yearly, “.....	98,799	(1884.)
Lowest “ “.....	71,294	(1894.)
Average “ “.....	83,764	

Date of Earliest Blossoming of Trees.

CONTRIBUTED BY DR. C. M. BOOTH.

Date.	Maple. Acer dasycarpum.	Cherry. May Bigarreau.	Apple. Early Harvest.
1871	March 10	April 20	May 16
1872	April 10	May 7	
1873	“ 10	“ 16	“ 25
1874	March 19	“ 12	“ 24
1875	April 3	“ 12	
1876	March 11	“ 7	“ 24
1877	April 2	“ 8	“ 19
1878	March 8	April 19	April 28
1879	April 10	May 5	May 17
1880	March 2	April 29	“ 9
1881	April 13	May 3	“ 12
1882	March 2	“ 4	Red Astrachan. May 20
1883	April 11	“ 8	“ 19
1884	March 28	“ 5	“ 12
1885	April 20	“ 13	“ 6
1886	March 31	April 23	“ 14
1887	April 9	May 4	“ 26
1888	“ 9	“ 8	“ 9
1889	“ 7	“ 3	“ 20
1890	“ 5	April 26	“ 10
1891	March 28	“ 20	“ 20
1892	April 2	May 4	“ 20
1893	April 10	“ 12	“ 6
1894	March 10	April 21	
Average	March 29-30	May 4-5	May 16-17

THE CATALOGUE.

EXPLANATION OF THE PLAN.

Authorities.—In arrangement and nomenclature this list of plants follows, as its standard of authority, the sixth edition of Gray's *Manual of Botany*.* The only exception in the general arrangement is the placing of the Gymnosperms after the Monocotyledons. Four names from the fifth edition of Gray's *Manual* have been retained for the purpose of making comparison (see pages 19–27) between this flora and the Cayuga and the Buffalo floras; these are as follows:

Viola pubescens var. *eriocarpa*, *Cratægus tomentosa* var. *pyrifolia*,
Potentilla Canadensis var. *simplex*, *Polygonum dumetorum*.

The following names, mainly of introduced plants, do not occur in the *Manual*, but those designated by an asterisk (*) may be found in Gray's *Field, Forest and Garden Botany*.

Ranunculus acris, double-flowered,	Cnicus arvensis var. albiflorus,
*Brassica Rapa,	Silybum Marianum,
*Lychnis Chalcedonica,	*Lactuca sativa,
*Lychnis coronaria,	*Physalis Alkekengi,
*Althæa rosea,	*Atropa Belladonna,
*Tilia Europæa,	*Veronica spicata,
*Trifolium incarnatum,	Digitalis lanata,
*Colutea arborescens,	*Thymus vulgaris,
*Prunus Persica,	*Stachys lanata,
*Prunus domestica,	*Quercus Robur var. pedunculata,
*Pyrus Aucuparia,	*Castanea sativa,
*Ribes rubrum,	*Fagus sylvatica,
*Ribes nigrum,	*Salix Caprea,
*Coriandrum sativum,	Juncus tenuis, tall, heads crowded
Sanicula gregaria,	Typha latifolia var. elongata,
Sanicula trifoliata,	Carex gracillima × C. arctata,
Aster puniceus, smooth stems, pink fls.	Carex interior,
Rudbeckia hirta—form with brown	Carex sterilis excelsior,
bands at base of rays,	Panicum Crus-galli var. muticum,
Chrysanthemum Leucanthemum var.	Avena sativa,
tubuliflorum,	Cynosurus cristatus,
*Calendula officinalis,	Juniperus Virginiana var. prostrata.

In order to make this list accord with the "new nomenclature",*

*While recognizing the claims of the "New Nomenclature", the Committee desire to make this paper immediately useful in the schools of western New York, and so feel compelled to adapt it to the only text-book in botany now in general use. However, by including, in brackets, the names of the new system wherever they are different, it is hoped to make the publication up to date in botanical science and yet at once available to all students in botany.

as given in "*List of Pteridophyta and Spermatophyta growing without cultivation in Northeastern North America*", wherever the names of our plants as given in that publication are different from the names used in Gray's Manual the new nomenclature names are also given, in brackets. When only the author's name is changed, that also is given in brackets. In other words, all bracketed matter is upon the authority of the new nomenclature.

In all cases where the catalogue name is different from the name of the same plant in the fifth edition of the Manual, the latter name is inserted, immediately following, in parenthesis. All special references to the Manual are to the fifth edition.

All ordinal and generic names and synonyms will appear in the index.

In the list of plants the names are included of a few which are not regarded as fully established, but such plants are not given a number. (See page 12.)

In the cases of "rare" or "scarce" plants the localities are given and the names of the collectors. In a few instances no locality is given, on account of the absence of such record in the list of the collector, who is deceased or inaccessible. The other descriptive terms and comments are self-explanatory.

Typography and reference marks.—Each species, variety, or marked form regarded as an established member of our flora is given a catalogue number. Those without numbers are not fully established.

Heavy-faced type indicates species believed to be indigenous. Names of introduced species are printed in small capitals, as are also the popular names.

Parentheses following catalogue names enclose the names used in Gray's fifth edition, as stated above.

Brackets indicate that the enclosed matter is the designation given in the "new nomenclature", as explained above.

Parentheses, within the brackets, are used in the "new nomenclature" to cite the original authority for a species which has been transferred from one genus to another. The name following is that of the author of the new binomial.

The name of the discoverer of a plant new to our district, or a new station of a rare or scarce plant, is given in italics. An exclamation point after a name indicates that the compilers have verified the discovery.

PHENOGAMIA. [SPERMATOPHYTA.]

DICOTYLEDONES.

RANUNCULACEÆ.

1. CLEMATIS L.

1. **C. Virginiana** L. COMMON VIRGIN'S BOWER.
Banks of streams, thickets and swamps; common.

2. ANEMONE Tourn. [L.]

2. **A. cylindrica** Gray. LONG-FRUITED ANEMONE.
Sandy woods; scarce. Irondequoit. Penfield, *L. Holzer*.
3. **A. Virginiana** L.
Dry banks of streams, hills, meadows; common.
4. **A. Pennsylvanica** L. [*A. Canadensis* L.]
Shores of lake Ontario and all our bays, borders of streams and ponds; common.
5. **A. nemorosa** L. [*A. quinquefolia* L.] WIND-FLOWER.
Copses and woods; rare. Bank of Irondequoit creek, Brighton, *Dr. C. M. Booth, Otto Betz, John Dunbar*. Kendall, Orleans county, *M. S. Baxter*.
6. **A. nemorosa** L. var. **quinquefolia** Gray. [*A. quinquefolia* L.]
Rare. Brighton.

3. HEPATICA Dill. [Scop.] LIVER-LEAF.

7. **H. triloba** Chaix. [*H. Hepatica* (L.) Karst.]
Dry woods and ravines; common.
8. **H. acutiloba** DC. [*H. acuta* (Pursh) Britton.]
Rich woods and ravines; common. Forms with five-lobed leaves are not uncommon.

4. ANEMONELLA Spach. [SYNDESMON Hoffmg.]

9. **A. thalictroides** Spach. (*Thalictrum anemonoides* Mx.) [*Synedesmon thalictroides* (L.) Hoffmg.] RUE-ANEMONE.
Frequent in rich woods around Irondequoit bay and along Irondequoit creek, and similar situations elsewhere.

5. THALICTRUM Tourn. [L.]

10. **T. dioicum** L. EARLY MEADOW RUE.
Rocky woods, banks of Genesee river and sides of ravines; frequent.
11. **T. polygamum** Muhl. (*T. Cornuti* Man., p. 39.) TALL MEADOW RUE.
Wet meadows, low grounds, and along rivulets; common.

6. RANUNCULUS Tourn. [L.]

12. **R. aquatilis** L. var. **trichophyllus** Gray. [*Batrachium trichophyllum* (Chaix) Bossch.] WHITE WATER CROWFOOT.
Frequent in shallow water and slow-flowing streams.

13. **R. multifidus** Pursh. [*R. delphinifolius* Torrey in Eaton.] YELLOW WATER CROWFOOT.
Ditches and shallow pools; scarce. Irondequoit. West Henrietta. Chili. Gates. Wayne county.
14. **R. Flammula** L. var. **intermedius** Hook. [*R. reptans intermedius* (Hook.) T. & G.] SMALLER SPEARWORT.
Rare. Long point, Sodus bay, *Plants of Oneida Co.*, pp. 3, 131.
15. **R. Flammula** L. var. **reptans** E. Meyer. [*R. reptans* L.] CREEPING SPEARWORT.
Rare. Sandy shore of lake Ontario at Sodus bay, *G. T. Fish*.
16. **R. abortivus** L. SMALL-FLOWERED CROWFOOT.
Damp woods and wet places; common.
17. **R. abortivus** L. var. **micranthus** Gray. [*R. micranthus* Nutt.] *Dr. A. H. Scaring*.
18. **R. sceleratus** L. CURSED CROWFOOT.
Wet ditches, muddy ground; not common. Abundant in some places along the borders of Irondequoit bay.
19. **R. recurvatus** Poir. HOOKED CROWFOOT.
Wet woods and ravines; frequent.
20. **R. fascicularis** Muhl. EARLY CROWFOOT.
Dry or moist hillsides and banks of streams; frequent. More abundant in the eastern section of our district than in the western.
21. **R. septentrionalis** Poir. (*R. repens*, of Manual, mainly.)
Wet meadows, ditches and marshy places; frequent.
22. **R. repens** L. TRAILING CROWFOOT.
Rare. Wayne county, *E. L. Hankenson*.
A double-flowered form occurs in a wet place by the roadside in the village of Bergen, Genesee county. Whether a spontaneous development or an escape from cultivation is not known. *30th N. Y. Rep.*
23. **R. Pennsylvanicus** L. f. BRISTLY CROWFOOT.
Wet places; frequent.
24. **R. ACRIS** L. TALL BUTTERCUP.
Fields and roadsides; very common.
25. A form with 7-20 petals, growing with the type by a roadside in the town of Brighton, 1885, *J. B. Fuller*; Aug. 1895, *Miss F. Beckwith*. Apparently a spontaneous development; evidently not the cultivated double variety.
7. **CALTHA** L.
26. **C. palustris** L. MARSH MARIGOLD.
Swamps and wet meadows; common.
8. **TROLLIUS** L.
27. **T. laxus** Salisb. AMERICAN GLOBE-FLOWER.
Rare. Cold bog between Mt. Hope and Genesee River.

9. *COPTIS* Salisb.

28. **C. trifolia** Salisb. [*C. trifolia* (L.) Salisb.] THREE-LEAVED GOLDTHREAD.
Cold, moist woods and swamps; frequent.

10. *AQUILEGIA* Tourn. [L.]

29. **A. Canadensis** L. WILD COLUMBINE.
Rocky banks and ravine sides; also on sandy slopes; common.
— **A. VULGARIS** L. GARDEN COLUMBINE.
Waste place, Central avenue, Rochester, 1892-4.

DELPHINIUM Tourn. [L.]

- **D. CONSOLIDA** L. FIELD LARKSPUR.
Occasionally escapes. *G. T. Fish. Otto Betz.*
— **D. AJACIS** L. ROCKET LARKSPUR. Escaped to roadside, Greece.

11. *CIMICIFUGA* L.

30. **C. racemosa** Nutt. [*C. racemosa* (L.) Nutt.] BLACK SNAKEROOT. BLACK COHOSH.
Borders of woods and banks of streams; infrequent.

12. *ACTÆA* L.

31. **A. spicata** L. var. **rubra** Ait. [*A. rubra* (Ait.) Willd.] RED BANEBERRY.
RED COHOSH.
Woods and wooded river banks and ravine sides; frequent.
32. **A. alba** Bigel. [*A. alba* (L.) Mill.] WHITE BANEBERRY. WHITE COHOSH.
River banks and woods; frequent.

13. *HYDRASTIS* Ellis. [L.]

33. **H. Canadensis** L. ORANGE-ROOT. GOLDEN SEAL.
Moist woods, wet meadows, ravines; scarce. Near Rochester, *Dr. C. M. Booth.* Greece, *Bradley.* Gates, *G. T. Fish.* Rush, *Miss Florence Beckwith.* Hamlin and Penfield, *M. S. Baxter.* Bergen, *Prof. W. H. Lennon.* Wayne county.

MAGNOLIACEÆ.

14. *MAGNOLIA* L.

34. **M. acuminata** L. CUCUMBER-TREE.
Woods, with *Liriodendron*; rare. Parma, Monroe county, and Fisher's Station, Ontario county, *M. S. Baxter.* Galen, Wayne county.

15. *LIRIODENDRON* L.

35. **L. Tulipifera** L. TULIP-TREE.
Rich woods, hillsides, river banks; infrequent.

ANONACEÆ.

16. *ASMINA* Adans.

36. **A. triloba** Dunal. [*A. triloba* (L.) Dunal.] COMMON PAPAWE.
Rich woods, banks of streams; rare. Greece, *Bradley.* Parma, *J. B. Fuller.* Brockport, *Prof. W. H. Lennon.* Adams Basin, *M. S. Baxter.*

MENISPERMACEÆ.

17. *MENISPERMUM* L.

37. **M. Canadense** L. MOONSEED.
Woods, thickets, rocky river banks; frequent.

BERBERIDACEÆ.

18. *BERBERIS* L.

38. **B. vulgaris** L. COMMON BARBERRY.
Scarce. Naturalized along the banks of Genesee river and elsewhere.

19. *CAULOPHYLLUM* Michx.

39. **C. thalictroides** Michx. [*C. thalictroides* (L.) Michx.] PAPPOOSE-ROOT.
BLUE COHOSH.
Woods and ravines, in rich soil; frequent.

20. *JEFFERSONIA* Barton.

40. **J. diphylla** Pers. [*J. diphylla* (L.) Pers.] TWIN-LEAF.
Rich soil along streams and in woods; rare. Brighton, *Dr. Booth!*
Pittsford, *Rev. J. Walton.* Near Brockport, *Prof. Lennon.* Clarendon,
Orleans county, *M. S. Baxter.* Wayne county, *E. L. Hankenson.*

21. *PODOPHYLLUM* L.

41. **P. peltatum** L. MAY-APPLE. MANDRAKE.
Rich woods, meadows, along streams; common.

NYMPHÆACEÆ.

22. *BRASENIA* Schreber.

42. **B. peltata** Pursh. [*B. purpurea* (Michx.) Casp.] WATER-SHIELD.
Ponds; rare. Bushnell's Basin, *M. S. Baxter.* Wayne county.

23. *NELUMBO* Tourn. [Adans.]

43. **N. lutea** Pers. [*N. lutea* (Willd.) Pers.] YELLOW NELUMBO, OR WATER
CHINQUAPIN.
Rare. Near the head of Big Sodus bay, Wayne county.

24. *NYMPHÆA* Tourn. [Castalia Salisb.]

44. **N. odorata** Ait. [*Castalia odorata* (Dryand.) Woodv. & Wood, incl. var.
minor Sims.] SWEET-SCENTED WATER-LILY.
Ponds; rare. Mendon ponds. Bushnell's Basin, *M. S. Baxter.* Wayne
county, *E. L. Hankenson.*

45. **N. odorata** Ait. var **minor** Sims.

Same stations as the preceding, in shallower water or mud along the
margins of the ponds.

46. **N. reniformis** DC. (*N. tuberosa* Paine.) [*Castalia tuberosa* (Paine) Greene.]
TUBER-BEARING WATER-LILY.

Abundant in all our bays and ponds connecting with lake Ontario,
and in the marshes at the mouth of Genesee river.

25. *NUPHAR* Smith. [Nymphaea L.]

47. **N. advena** Ait. f. [*Nymphaea advena* Soland.] YELLOW POND-LILY.
Ponds, slow-flowing streams, ditches; common.

48. **N. advena** Ait. f. var. **minus** Morong. (*N. luteum* Manual, not Smith.) [*Nymphaea rubrodiscalis* (Morong) Greene.] Rare. Wayne county.
49. **N. Kalmianum** Ait. (*N. luteum* var. *pumilum* Man.) [*Nymphaea microphylla* Pers.] Rare. Sodus Bay, *G. T. Fish.*

SARRACENIACEÆ.

26. *SARRACENIA* Tourn. [L.]

50. **S. purpurea** L. SIDE-SADDLE FLOWER. PITCHER-PLANT.
Frequent in the bogs at Mendon and Bergen. Wayne county.

PAPAVERACEÆ.

27. *SANGUINARIA* Dill. [L.]

51. **S. Canadensis** L. BLOOD-ROOT.
Open woods, thickets, sides of ravines; common.

28. *CHELIDONIUM* L.

52. **C. MAJUS** L. CELANDINE.
Streets, waysides and waste places; frequent.

PAPAVER Tourn. [L.]

- **P. SOMNIFERUM** L. COMMON POPPY.
Escape. Roadside, *G. T. Fish.* Adams Basin, *M. S. Baxter.*

FUMARIACEÆ.

29. *ADLUMIA* Raf.

53. **A. cirrhosa** Raf. [*A. fungosa* (Ait.) Greene.] ALLEGHANY VINE.
Rich woods; rare. Greece and Parma, *Bradley.* Lake woods, Hamlin, *Prof. W. H. Lennon.*

30. *DICENTRA* Borkh. [*BICUCULLA* Adans.]

54. **D. Cucullaria** DC. [*Bicuculla Cucullaria* (L.) Millsp.] DUTCHMAN'S BREECHES.
Moist rich woods and ravines; common.
55. **D. Canadensis** DC. [*Bicuculla Canadensis* (Goldie) Millsp.] SQUIRREL CORN.
Rich woods, ravine sides; common.

31. *CORYDALIS* Vent. [*CAPNOIDES* Adans.]

56. **C. glauca** Pursh. [*Capnoides sempervirens* (L.) Borck.] PALE CORYDALIS.
Rare. *Prof. W. H. Lennon.* *Frederick Starr.*
57. **C. flavula** DC. [*Capnoides flavulum* (Raf.) Kuntze.]
Rare. Lime Rock, Genesee county, *Miss Florence Beckwith.*

CRUCIFERÆ.

32. *DENTARIA* Tourn. [L.]

58. **D. diphylla** L. [Michx.] PEPPER-ROOT.
Rich woods and ravines; common.
59. **D. laciniata** Muhl. CUT-LEAVED PEPPER-ROOT.
Rich woods and ravines; common.

33. *CARDAMINE* Tourn. [L.]

60. **C. rhomboidea** DC. [*C. bulbosa* (Schreb.) B. S. P.] SPRING CRESS.
Woods, wet meadows and springy places ; common.

61. **C. rhomboidea** DC. var. **purpurea** Torr. [*C. Douglassi* (Torr.) Britton.]
PURPLE FLOWERED SPRING CRESS.

Low grounds along rivulets, wet places ; common.

62. **C. pratensis** L. CUCKOO-FLOWER.

Wet meadows and bogs ; scarce. Near Rochester, *Dr. C. M. Booth*.
West Henrietta, *J. B. Fuller*. Penfield and Bergen, *M. S. Baxter*.
Wayne county, *E. L. Hankenson*.

63. **C. hirsuta** L. SMALL BITTER CRESS.

Wet places ; common.

34. *ARABIS* L.

64. **A. hirsuta** Scop. [*A. hirsuta* (L.) Scop.] ROCK CRESS.

Rare. Rocky bank of Genesee river below lower falls.

65. **A. lævigata** Poir. [*A. lævigata* (Muhl.) Poir.] ROCK CRESS.

Rocky places ; frequent.

66. **A. Canadensis** L. SICKLE-POD.

River banks and ravines ; not common.

67. **A. perfoliata** Lam. [*A. glabra* L.] TOWER MUSTARD.

Rare. Brockport, *M. S. Baxter*. *Dr. Searing*. Wayne county.

35. *ALYSSUM* Tourn. [L.]

68. **A. CALYCINUM** L. [*Alyssum alyssoides* (L.) Gouan.]

Rare. Roadside, Culver park, Rochester, with *Crepis tectorum*, *J. B. Fuller*.
Scottsville, *Miss Florence Beckwith*. Wayne county.

36. *CAMELINA* Crantz.

69. **C. SATIVA** Crantz. [*C. sativa* (L.) Crantz.] FALSE FLAX.

Occasional in fields and waste places. Abundant in wheat fields near
Bergen, Genesee county, *39th N. Y. Rep.* Wayne county.

37. *NASTURTIUM* R. Br. [RORIPA Scop.]

70. **N. OFFICINALE** R. Br. [*Roripa Nasturtium* (L.) Rusby.] TRUE WATER
CRESS. Cold streams, ditches, springy places ; abundant.

71. **N. SYLVESTRE** R. Br. [*Roripa sylvestris* (L.) Bess.] YELLOW CRESS.

Flats along Genesee river : below the upper landing ; abundant near
the mouth of Red creek ; in the town of Henrietta and near Scottsville,
Miss Florence Beckwith.

72. **N. palustre** DC. [*Roripa palustris* (L.) Bess.] MARSH CRESS.

Muddy shores, ditches, wet places ; common.

73. **N. palustre** DC. var. **hispidum** Gray. [*Roripa hispida* (Desv.) Britton.]

Rare. Long Pond, *Dr. Anna H. Searing*. Wayne county.

74. **N. lacustre** Gray. [*Roripa Americana* (A. Gray) Britton.] LAKE CRESS.

Common in bays and inlets along the shore of lake Ontario. Black
creek, near Bergen, *40th N. Y. Rep.*

75. **N. ARMORACIA** Fries. [*Roripa Armoracia* (L.) A. S. Hitchcock]. HORSE-RADISH. Wet places, ditches, waste places ; common.
38. **BARBAREA** R. Br.
76. **B. vulgaris** R. Br. [*B. Barbarea* (L.) McM.] COMMON WINTER CRESS. YELLOW ROCKET.
Wet grounds, ditches, roadsides ; common.
77. **B. PRÆCOX** R. Br. [*B. præcox* (J. E. Smith) R. Br.] EARLY WINTER CRESS. Rare. Opposite the grove on Lake avenue, Rochester, *L. Holzner*. Brockport, *Prof. W. H. Lennon*.
39. **HESPERIS** Tourn. [L.]
78. **H. MATRONALIS** L. DAME'S VIOLET.
Rare. Bank of Allen's creek, Penfield, *Rev. J. Walton*.
40. **ERYSIMUM** Tourn. [L.]
79. **E. cheiranthoides** L. WORM-SEED MUSTARD.
Dry or moist soil ; infrequent ; most abundant in dry sandy land. Roadsides, north Goodman and Prince streets, Rochester. Sandy fields near Irondequoit bay, Penfield. Gates, *G. T. Fish*.
41. **SISYMBRIUM** Tourn. [L.]
80. **S. OFFICINALE** Scop. [*S. officinale*, (L.) Scop.] HEDGE MUSTARD.
Waste places and roadsides ; very common.
81. **S. THALIANA** Gaud. [*Stenophragma Thaliana* (L.) Celak.] MOUSE-EAR CRESS.
Dry sterile soil ; rare. Rochester, *Dr. C. M. Booth*. Wayne county.
42. **BRASSICA** Tourn. [L.]
82. **B. SINAPISTRUM** Boiss. YELLOW MUSTARD. ENGLISH CHARLOCK.
Fields, roadsides, waste places ; common.
- **B. ALBA** Boiss. [*Sinapis alba* L.] WHITE MUSTARD. Escapes rarely.
83. **B. NIGRA** Koch. [*B. nigra* (L.) Koch.] BLACK MUSTARD.
Cultivated fields, waste places, along streams ; common.
- **B. CAMPESTRIS** L. RUTA-BAGA. Occasionally spontaneous.
- **B. RAPA** L. TURNIP. Occasionally spontaneous.
43. **CAPSELLA** Medic. [Bursa Weber.]
84. **C. BURSA-PASTORIS** Moench. [*Bursa Bursa-Pastoris* (L.) Weber.] SHEPHERD'S PURSE. Everywhere abundant.
44. **THLASPI** Tourn. [L.]
85. **T. ARVENSE** L. FIELD PENNY-CRESS. MITHRIDATE MUSTARD.
Rare. Roadside, Bergen, Genesee county, *G. T. Fish*.
45. **LEPIDIUM** Tourn. [L.]
86. **L. Virginicum** L. WILD PEPPER-GRASS.
Roadsides and waste grounds ; common.
87. **L. intermedium** Gray.
Equally common with the preceding, which it resembles closely.

88. *L. RUDERALE* L.
Rare. Rochester, *H. C. Maine*.
89. *L. CAMPESTRE* Br. [*L. campestre* (L.) R. Br.]
Not common. First observed in the vicinity of Rochester in 1862, on Charlotte railroad track, Greece, a single plant, *J. B. Fuller*. Abundant in grain fields, Riga, 1891, *Miss F. Beckwith*. Mendon, *M. S. Baxter*. Wayne county, *E. L. Hankenson*.

46. *CAKILE* Tourn. [Gærtn.]

90. *C. Americana* Nutt. [*C. edentula* (Bigel.) Hook.] AMERICAN SEA-ROCKET.
Frequent along the shore of lake Ontario.

RAPHANUS Tourn. [L.]

- *R. SATIVUS* L. GARDEN RADISH. Occasionally escapes to roadsides.

CAPPARIDACEÆ.

47. *POLANISIA* Raf.

91. *P. graveolens* Raf.
Lake shores; rare. Shore lake Ontario: at Charlotte, *C. M. Booth*; mouth of Sandy creek, Monroe county, *M. S. Baxter*; Wayne county, *E. L. Hankenson*. Shores of Canandaigua lake, *Miss M. E. Macauley*.

CISTACEÆ.

48. *HELIANTHEMUM* Tourn. [Pers.]

92. *H. Canadense* Michx. [*H. Canadense* (L.) Michx.] FROST-WEED.
Dry sandy banks and fields; scarce. Irondequoit, *C. M. Booth*. Shore of Irondequoit bay, *Miss M. E. Macauley*. Greece, *J. B. Fuller*. Bank Genesee river, *G. T. Fish, Dr. Searing*. Penfield, *L. Holzer*. Wayne Co.

49. *LECHEA* Kalm. [L.]

93. *L. major* Michx. [*L. villosa* Ell.] PINWEED.
Rare. Penfield, *L. Holzer*. Avon, *Sartwell in Herb. Ham Coll.*
94. *L. minor* L. [*L. intermedia* Leggett.] SMALLER PINWEED.
Rare. Irondequoit, *Dr. Anna H. Searing*.

VIOLACEÆ.

50. *VIOLA* Tourn. [L.]

95. *V. palmata* L. (*V. cucullata* var. *palmata* Gray.) HAND-LEAVED VIOLET.
Dry wooded slopes and hillsides, especially around Irondequoit bay and along the creek; not common.
96. *V. palmata* L. var. *cucullata* Gray. (*V. palmata* Ait.) [*V. obliqua* Hill.] COMMON BLUE VIOLET.
Woods, open thickets, meadows, swamps, waysides; very common.
A peculiar form in Bergen swamp. Leaves very small, about half an inch broad; peduncles elongated; lateral petals whitish at base. *39th N. Y. Rep.*
A form in a swamp in Gates. Corolla pale blue, striped with white; retains its character under cultivation. *Miss Florence Beckwith*.

97. **V. sagittata** Ait. ARROW-LEAVED VIOLET.
Dry sandy grass lands; frequent in the eastern part of our district, but has not been observed west of Rochester by any of our collectors.
98. **V. ODORATA** L. SWEET VIOLET. ENGLISH VIOLET.
Escaped from gardens in various places about Rochester. Wayne Co.
99. **V. blanda** Willd. SWEET WHITE VIOLET.
Everywhere common in wet places.
100. **V. blanda** Willd. var. **renifolia** Gray. [*V. blanda renifolia* A. Gray.]
Rare. Bergen swamp, *J. B. Fuller*. Riga, *Miss Florence Beckwith*.
101. **V. rotundifolia** Michx. ROUND-LEAVED VIOLET.
Cold rich woods; rare. Brighton, *J. B. Fuller*. Webster, *M. S. Baxter*. Bergen swamp, Genesee county. Wayne county.
102. **V. pubescens** Ait. DOWNY YELLOW VIOLET.
Woods, ravines, river banks; common.
103. **V. pubescens** Ait. var. **eriocarpa** Nutt. WOOLLY-FRUITED VIOLET.
Common.
104. **V. Canadensis** L. CANADIAN VIOLET.
Rich moist woods and ravines; abundant in some places.
105. **V. striata** Ait. PALE VIOLET.
Rare. Wayne county, *E. L. Hankenson*.
106. **V. rostrata** Pursh. LONG-SPURRED VIOLET.
Woods and ravines; common.
107. **V. canina** L. var. **Muhlenbergii** Gray. (*V. canina* var. *sylvestris* Regel.)
[*V. Labradorica* Schrank.] DOG VIOLET.
Damp woods, ravines and marshes; common.
- **V. TRICOLOR** L. PANSY. Occasionally escapes; not permanent.
108. **V. TRICOLOR** L. var. **ARVENSIS** Ging. [*V. tenella* Muhl.]
Rare. In a field near Mendon ponds, *M. S. Baxter*.
51. **SOLEA** Spreng.
109. **S. concolor** Ging. [*S. concolor* (Forst.) Ging.] GREEN VIOLET.
Rare. Gates, *G. T. Fish!* Dugway, *Mrs. Mary E. Streeter*.
Wayne county, *E. L. Hankenson*.

CARYOPHYLLACEÆ.

52. **DIANTHUS** L.

110. **D. ARMERIA** L. DEPTFORD PINK.
Rare. Penfield, *Dr. C. M. Booth!* Gates, *G. T. Fish*.

53. **SAPONARIA** L.

111. **S. OFFICINALIS** L. BOUNCING BET. COMMON SOAPWORT.
Waysides and waste places; frequent.
112. **S. VACCARIA** L. (*Vaccaria vulgaris* Host.) COW-HERB.
Scarce. Rochester, *Dr. C. M. Booth*. Along West Shore railroad, near Genesee Junction, *Miss Florence Beckwith*. Vick farm, Greece, *J. B. Fuller*. Along N. Y. C. railroad, *G. T. Fish*. Wayne county.

54. *SILENE* L.

113. *S. CUCUBALUS* Wibel. (*S. inflata* Smith.) [*S. vulgaris* (Moench) Garcke.]
BLADDER CAMPION.
Rare. Roadside, east end Culver park, Rochester, *J. B. Fuller*.
114. *S. Virginica* L. FIRE PINK.
Rare. *L. Holzer*. Prof. *W. H. Lennon*.
115. *S. antirrhina* L. SLEEPY CATCHFLY.
Rare. Brighton, *Dr. C. M. Booth*! Irondequoit, *J. B. Fuller*.
Penfield, *L. Holzer*.
116. *S. ARMERIA* L. SWEET-WILLIAM CATCHFLY.
Escape. Mount Hope. Rochester, *Otto Betz*. Wayne county.
117. *S. NOCTIFLORA* L. NIGHT-FLOWERING CATCHFLY.
Cultivated grounds and waste places; frequent.

55. *LYCHNIS* Tourn. [L.]

- *L. CHALCEDONICA* L. SCARLET LYCHNIS. Escaped to roadside.
118. *L. GITHAGO* Lam. [*Agrostemma Githago* L.] CORN COCKLE.
Grain fields; frequent.
119. *L. CORONARIA* Lam. [*L. coronaria* (L.) Desv.] MULLEIN PINK.
Fields and roadsides; infrequent. Well established on the bank of a
small stream in Greece.

56. *ARENARIA* L.

120. *A. SERPYLLIFOLIA* L. THYME-LEAVED SANDWORT.
Fields, sandy waste places, barren soil; abundant.
121. *A. Michauxii* Hook. f. (*A. stricta* Michx.) [*A. stricta* Michx.]
Rare. Dry bank, Irondequoit bay, Webster. Woods, Penfield, *Holzer*.
122. *A. lateriflora* L.
Marshes; rare. Irondequoit, *Dr. Booth*. Mendon, *G. T. Fish*.

57. *STELLARIA* L. [ALSINE L.]

123. *S. MEDIA* Smith. [*Alsine media* L.] COMMON CHICKWEED.
A very common weed in damp grounds.
124. *S. longifolia* Muhl. [*Alsine longifolia* (Muhl.) Britton.] LONG-LEAVED
STITCHWORT.
Meadows and grassy places along streams; frequent.
125. *S. GRAMINEA* L. [*Alsine graminea* (L.) Britton.]
Rare. Irondequoit, *Dr. C. M. Booth*. Brighton, *Otto Betz*. Holley,
Orleans county, Prof. *W. H. Lennon*.
126. *S. borealis* Bigel. [*Alsine borealis* (Bigel.) Britton.] NORTHERN STAR-
WORT. Moist soil; scarce? *Dr. C. M. Booth*, who alone reports it in
Monroe county, says it is frequent in Irondequoit. Wayne county.

58. *CERASTIUM* L.

127. *C. VULGATUM* L. (*C. viscosum* Man.) MOUSE-EAR CHICKWEED.
Fields, copses, waste places and roadsides; common.
128. *C. arvense* L. FIELD CHICKWEED.
Abundant in a sandy field on the Whitney farm in Greece.

59. *BUDA* Adans.

129. *B. RUBRA* Dumort. (*Spergularia rubra* Presl. var. *campestris* Gray.)
[*Tissa rubra* (L.) Britton.] SAND-SPURRY.
A weed in cultivated ground, Irondequoit, *Dr. C. M. Booth!* Rare.

60. *SPERGULARIA* L.

130. *S. ARVENSIS* L. CORN-SPURRY.
Infrequent. *Dr. Booth. L. Holzer. Caledonia, Miss F. Beckwith.*

PORTULACACEÆ.

61. *PORTULACA* Tourn. [L.]

131. *P. OLERACEA* L. COMMON PURSLANE.
Cultivated grounds, roadsides, waste places; common.

62. *CLAYTONIA* Gronov. [L.]

132. *C. Virginica* L. NARROW-LEAVED SPRING-BEAUTY.
Moist open woods; common.
133. *C. Caroliniana* Michx. BROAD-LEAVED SPRING-BEAUTY.
Usually on higher ground and less common than the preceding.

HYPERICACEÆ.

63. *HYPERICUM* Tourn. [L.]

134. *H. Ascyron* L. (*H. pyramidatum* Ait.) GREAT ST. JOHN'S-WORT.
Banks of streams; scarce. Near upper falls, Rochester, and Irondequoit creek, Brighton, *Dr. C. M. Booth.* River road, near Mt. Hope, and town of Brighton, *Mrs. J. H. McGuire.* Penfield, near Irondequoit bay, *Miss E. E. Iles.* Mendon ponds, *G. T. Fish.*
135. *H. perforatum* L. COMMON ST. JOHN'S-WORT.
Fields, pastures, roadsides, waste places; very common.
136. *H. maculatum* Walt. (*H. corymbosum* Muhl.)
Frequent in damp places.
137. *H. mutilum* L. Low ground; frequent.
138. *H. Canadense* L. Sandy soil; frequent.
139. *H. Canadense* L. var. *majus* Gray. [*H. majus* (A. Gray) Britton.]
Wayne county, *E. L. Hankenson.*

64. *ELODES* Adans.

140. *E. campanulata* Pursh. (*E. Virginica* Nutt.) [*Hypericum Virginianum* L.] MARSH ST. JOHN'S-WORT.
Frequent in marshes.

MALVACEÆ.

- *ALTHÆA ROSEA* Cav., COMMON HOLLYHOCK, occasionally appears along roadsides.

65. *MALVA* L.

141. *M. ROTUNDIFOLIA* L. COMMON MALLOW.
Cultivated grounds, waysides, waste places; common.

142. *M. SYLVESTRIS* L. HIGH MALLOW. An occasional escape.
143. *M. CRISPA* L. [*M. verticillata crispa* L.] CURLED-LEAVED MALLOW.
Escapes to roadsides. Henrietta, *Mrs. Mary E. Streeter*. Hamlin,
M. S. Baxter.
144. *M. MOSCHATA* L. MUSK MALLOW.
Frequent in fields and by roadsides. Abundant in places.
66. *ABUTILON* Tourn. [Gærtn.]
145. *A. AVICENNÆ* Gærtn. [*A. Abutilon* (L.) Rusby.] VELVET-LEAF.
Waste places; occasional.
67. *HIBISCUS* L.
146. *H. Moscheutos* L. SWAMP ROSE-MALLOW.
Swamps and marshes; scarce. Irondequoit bay, *Dr. Booth* and *G. T. Fish*. Long pond, *Dr. Searing!* Ogden. Bergen. Wayne county.
147. *H. TRIONUM* L. BLADDER KETMIA. FLOWER-OF-AN-HOUR.
Occasional in neglected grounds.

TILIACEÆ.

68. *TILIA* Tourn. [L.]
148. *T. Americana* L. BASSWOOD. AMERICAN LINDEN.
In rich woods and ravines and along river banks; common.
- *T. EUROPEA* L. EUROPEAN LINDEN.
Several specimens of var. *microphylla* in abandoned nursery grounds
on Prince street, Rochester. Frequently planted for shade.

LINACEÆ.

69. *LINUM* Tourn. [L.]
149. *L. Virginianum* L.
Scarce. Dry sandy woods, Irondequoit and Mendon.
150. *L. USITATISSIMUM* L. COMMON FLAX.
Frequent along railroads.

GERANIACEÆ.

70. *GERANIUM* Tourn. [L.]
151. *G. maculatum* L. WILD CRANESBILL.
Moist woods, meadows, river banks, ravines; common.
152. *G. Robertianum* L. HERB ROBERT.
Moist woods and shaded river banks and ravines; common.
153. *G. Carolinianum* L.
Rare. Pinnacle hill, *Miss Mary E. Macauley*. Adams Basin,
M. S. Baxter.
154. *G. PUSILLUM* L.
Rare. Corner Monroe avenue and Laburnum crescent, Rochester,
Miss F. Beckwith. Neglected garden, Rochester, *Mrs. J. J. Kempe*.
Gates, G. T. Fish! Sodus, Wayne county, 1885, *Miss Coleman in check
list E. L. Hankenson*.

155. G. MOLLE L.

A form with purplish petals and smooth seeds is frequent in grass plots about the city of Rochester. First detected by *Miss Mary E. Macauley* in 1894.

ERODIUM L'Her.

— E. CICUTARIUM L'Her. [*E. cicutarium* (L.) L'Her.] STORK-BILL.
Roadside, East Rochester, *C. M. Booth*.

71. *FLÆRKEA* Willd.

156. F. proserpinacoides Willd. FALSE MERMAID.

Marshes and rich woods; scarce. *Gates, Dr. C. M. Booth, Chili, L. Holzer, Adams Basin, M. S. Baxter, Near Fairport, Miss Mary E. Macauley, Bergen, Genesee county, Wayne county.*

72. *OXALIS* L.

157. O. CORNICULATA L.

Rare. Roadside, Augusta street, near N. Y. C. railroad, Rochester, *J. B. Fuller*. The form with dark-colored leaves is frequent in cultivated ground near greenhouses.

158. O. corniculata L. var. stricta Sav. (*O. stricta* L.) [*O. stricta* L.]
YELLOW WOOD-SORREL.

Woods, fields, roadsides and waste places; common.

73. *IMPATIENS* L.

159. I. pallida Nutt. [*I. aurea* Muhl.] PALE TOUCH-ME-NOT.

Moist shady places and along streams; infrequent.

160. I. fulva Nutt. [*I. biflora* Walt.] SPOTTED TOUCH-ME-NOT.

Wet shady woods, marshes, and along streams; abundant.

RUTACEÆ.

74. *XANTHOXYLUM* L.

161. X. Americanum Mill. NORTHERN PRICKLY ASH.

Swampy or low rich woods and along streams; occasionally on higher ground; infrequent.

75. *PTELEA* L.

162. P. trifoliata L. HOP-TREE.

Rare. Between the Genesee river and the Genesee Valley canal, *Chili, Dr. C. M. Booth and Geo. T. Fish, Wayne county.*

SIMARUBACEÆ.

76. *AILANTHUS* Desf.

163. A. GLANDULOSUS Desf. TREE-OF-HEAVEN.

Spontaneous in several places about Rochester; also at Riga, *Miss F. Beckwith; Adams Basin, M. S. Baxter.*

ILICINEÆ. [AQUIFOLIACEÆ.]

77. *ILEX* L.

164. I. verticillata Gray. [*I. verticillata* (L.) A. Gray.] BLACK ALDER.

Marshes and along streams; frequent. Abundant in the marshes along Irondequoit creek, Brighton, and at Mendon ponds.

78. *NEMOPANTHES* Raf. [ILICIOIDES Dumont.]

165. **N. fascicularis** Raf. (*N. Canadensis* DC.) [*Illicioides mucronata* (L.) Britton.]

Margin of Irondequoit bay, Penfield. Frequent in the marshes about Mendon ponds. Adams Basin, *M. S. Baxter*. Wayne county.

CELASTRACEÆ.

79. *CELASTRUS* L.

166. **C. scandens** L. CLIMBING BITTER-SWEET.

River banks, along streams, and in thickets; frequent.

80. *EUONYMUS* Tourn. [L.]

167. **E. atropurpureus** Jacq. BURNING BUSH. WAAHOO.

Scarce. Indigenous in Seneca park, *G. T. Fish*, and Genesee Valley park, *C. C. Laney*. Greece, *Bradley*. Penfield, *Otto Betz*. Bank of Genesee river at Rush Junction, *C. C. Laney* and *John Dunbar*. Near Scottsville, *M. S. Baxter*. Wayne county.

- **E. Americanus** L. STRAWBERRY-BUSH.

Genesee river, *Sartwell in Herb. Ham. Coll.* Has not been observed by our collectors.

168. **E. Americanus** L. var. **obovatus** Torr. & Gray. [*E. obovatus* Nutt.]

Rare. North-east of Brockport, *Prof. Lennon*.

RHAMNACEÆ.

81. *RHAMNUS* Tourn. [L.]

169. **R. alnifolia** L'Her. ALDER-LEAVED BUCKTHORN.

Frequent in swamps and marshy places.

170. **R. CATHARTICA** L. COMMON BUCKTHORN.

Escapes from hedges occasionally.

82. *CEANOTHUS* L.

171. **C. Americanus** L. RED-ROOT. NEW JERSEY TEA.

Dry open woods along river banks and ravines; common.

VITACEÆ.

83. *VITIS* Tourn. [L.]

172. **V. æstivalis** Michx. SUMMER GRAPE.

Dry woods and thickets, along river banks and ravines; frequent.

173. **V. cordifolia** Michx. FROST GRAPE.

Wayne county, *E. L. Hankenson*.

174. **V. riparia** Michx. (*V. cordifolia* var. *riparia* Gray.) [*V. vulpina* L.] FROST GRAPE.

River banks and ravines; more common than *V. æstivalis*.

84. *AMPELOPSIS* Michx. [PARTHENOCISSUS Planch.]

175. **A. quinquefolia** Michaux. [*Parthenocissus quinquefolia* (L.) Planchon.] VIRGINIA CREEPER.

Moist woods, copses, river banks; common.

SAPINDACEÆ.

85. *ACER* Tourn. [L.]

176. **A. Pennsylvanicum** L. STRIPED MAPLE.
Rare. Seneca park, *C. C. Laney*. Webster, *M. S. Baxter*. Bank of Sodus bay and at Lake Bluff, *F. Williams* in check list *E. L. Hankenson*.
177. **A. spicatum** Lam. MOUNTAIN MAPLE.
Banks of Genesee river and ravine sides; frequent.
178. **A. saccharinum** Wang. [*A. Saccharum* Marsh.] SUGAR MAPLE.
Woods, river banks and ravines; one of the most common of our forest trees.
179. **A. saccharinum** Wang. var. **nigrum** Torr. & Gr. [*A. nigrum* Michx. f.]
BLACK SUGAR MAPLE.
Not uncommon; frequently planted for street shade tree.
180. **A. dasycarpum** Ehrh. [*A. saccharinum* L.] WHITE OR SILVER MAPLE.
River banks and ravine sides, low woods and along streams; common.
181. **A. rubrum** L. RED OR SWAMP MAPLE.
Common in swamps and low woods; frequent on the banks of the Genesee river and in ravines.

86. *NEGUNDO* Mœnch.

182. **N. aceroides** Mœnch. [*Acer Negundo* L.] BOX-ELDER.
Rare. Bank of Genesee river, near Ballentine bridge, in the town of Chili, *M. S. Baxter* and *C. C. Laney*. Two large specimens, eighteen inches in diameter, in the town of Caledonia, Livingston county, a mile south of the N. Y. C. railroad bridge, *C. C. Laney* and *John Dunbar*.

87. *STAPHYLEA* L.

183. **S. trifolia** L. AMERICAN BLADDER NUT.
Copses, thickets; scarce. Chili, *Dr. Booth*. Riga, *Miss Beckwith*. Pittsford, *Dr. Searing*. Henrietta, *G. T. Fish*. Wayne county.

ANACARDIACEÆ.

88. *RHUS* L.

184. **R. typhina** L. [*R. hirta* (L.) Sudw.] STAGSHORN SUMAC.
Rocky river banks, ravines, hillsides; common.
185. **R. glabra** L. SMOOTH SUMAC.
In situations similar to the preceding, but less frequent.
186. **R. copallina** L. DWARF SUMAC.
Rare. Bushnell's basin, *M. S. Baxter*. *L. Holzer*. *Prof. Lennon*.
187. **R. venenata** DC. [*R. Vernix* L.] POISON SUMAC.
Swamps; frequent.
188. **R. Toxicodendron** L. [*R. radicans* L.] POISON IVY. POISON OAK.
Woods, banks of streams, waysides, fences; common.
189. **R. Canadensis** Marsh. (*R. aromatica* Ait.) [*R. aromatica* Ait.]
Rare. Bank of Genesee river, foot of Ambrose street, Rochester, *Fuller*. Canandaigua Lake, *Miss M. E. Macauley*. Wayne county.

POLYGALACEÆ.

89. *POLYGALA* Tourn. [L.]

190. **P. paucifolia** Willd.
Moist woods; not common. Chili and Riga, *Miss Florence Beckwith*.
Bergen, Genesee county.
191. **P. polygama** Walt.
Sandy soil; rare. Penfield, *Dr. C. M. Booth*.
192. **P. Senega** L. SENECA SNAKE-ROOT.
Rocky soil, ravines, and in dry woods; not uncommon.
193. **P. Senega** L. var. **latifolia** Torr. & Gray. [*P. Senega latifolia* T. & G.]
Rare. Shore of lake Ontario, Irondequoit, *Dr. C. M. Booth*.
194. **P. sanguinea** L. [*P. viridescens* L.]
Rare. Greece, *Bradley*. Ontario, Wayne county, *Dr. Richards in check list E. L. Hankenson*.
195. **P. verticillata** L.
Banks and ravine sides, in dry soil; frequent.

LEGUMINOSÆ.

90. *BAPTISIA* Vent.

196. **B. tinctoria** R. Br. [*B. tinctoria* (L.) R. Br.] WILD INDIGO.
Dry open woods, usually in sandy soil; not common. Frequent on
the banks of Genesee river and Irondequoit creek and bay.
197. **B. australis** R. Br. [*B. australis* (L.) R. Br.] BLUE FALSE INDIGO.
Near Canandaigua, *Prof. Eaton, Flora of the State of New York*.

91. *LUPINUS* Tourn. [L.]

198. **L. perennis** L. WILD LUPINE.
Common in sandy soil. A form with pink flowers occurs near the
"sand cut" in Penfield.

92. *TRIFOLIUM* Tourn. [L.]

199. **T. ARVENSE** L. RABBIT-FOOT CLOVER.
Dry soil, in fields and by roadsides; infrequent.
200. **T. PRATENSE** L. RED CLOVER.
Common in fields, meadows, and by roadsides.
201. **T. reflexum** L. BUFFALO CLOVER.
Macedon, Wayne county, 1883, *E. L. Hankenson*.
202. **T. REPENS** L. WHITE CLOVER. Common everywhere.
203. **T. HYBRIDUM** L. ALSIKE CLOVER.
Fields, roadsides, waste places; common in the vicinity of Rochester.
- **T. INCARNATUM** L., CRIMSON CLOVER, was observed in 1860 in a vacant
lot on South Union street.
204. **T. AGRARIUM** L. YELLOW OR HOP CLOVER.
Rare. Rochester, *Dr. Booth, Mrs. Mary E. Streeter*. Mount Hope,
Miss F. Beckwith. Orleans county, *Miss Lucy Weld*. Wayne county.

205. *T. PROCUMBENS* L. LOW HOP CLOVER.
Fields and roadsides; rare. Irondequoit, *Dr. C. M. Booth*. Greece,
M. S. Baxter. Penfield, *G. T. Fish*.
206. *T. PROCUMBENS* L. var. *MINUS* Gray. [*T. dubium* Sibth.]
Rare. Point Lookout, Irondequoit bay, *G. T. Fish*.
93. *MELILOTUS* Tourn. [Juss.]
207. *M. OFFICINALIS* Willd. [*M. officinalis* (L.) Lam.] YELLOW SWEET
CLOVER.
Fields, roadsides and waste places; common.
208. *M. ALBA* Lam. WHITE SWEET CLOVER.
More widely distributed and abundant than the foregoing.
94. *MEDICAGO* Tourn. [L.]
209. *M. SATIVA* L. LUCERNE. ALFALFA.
Roadsides; frequent.
210. *M. LUPULINA* L. BLACK MEDICK.
Waysides, waste places, pastures, lawns; common.
95. *AMORPHA* L.
211. *A. FRUTICOSA* L. FALSE INDIGO.
Outcast from nursery grounds in Irondequoit. Well established near
the head of the road to "float bridge", *Dr. C. M. Booth!*
96. *TEPHROSIA* Pers. [Cracca L.]
212. **T. Virginiana** Pers. [*Cracca Virginiana* L.] GOAT'S RUE.
Dry sandy knolls and banks; scarce. Bank of Genesee river, *M. S.*
Baxter. Brighton, *G. T. Fish*. Greece, *Bradley*. East side Ironde-
quoit bay, *Dr. C. M. Booth!* Penfield, *L. Holzer*. Bushnell's Basin,
M. S. Baxter.
97. *ROBINIA* L.
213. *R. PSEUDACACIA* L. COMMON LOCUST.
Spontaneous along the banks of Genesee river and elsewhere; not
common.
214. *R. VISCOSA* Vent. CLAMMY LOCUST. Escape.
98. *COLUTEA* L.
215. *C. ARBORESCENS* L. COMMON BLADDER SENNA.
Escape. Well established by a roadside in the town of Brighton.
99. *ASTRAGALUS* Tourn. [L.]
216. **A. Canadensis** L. [*A. Carolinianus* L.]
Scarce. Banks of Genesee river. Long pond, *Dr. Anna H. Searing*.
Wayne county.
217. **A. Cooperi** Gray. [*Phaca neglecta* Torr. & Gray.]
Rare. Bank of Genesee river, below lower falls.
100. *CORONILLA* L.
218. *C. VARIA* L. Macedon, Wayne county, *E. L. Hankenson*.

101. *DESMODIUM* Desv. [*MEIBOMIA* Adans.]

219. **D. nudiflorum** DC. [*Meibomia nudiflora* (L.) Kuntze.]
Dry open woods; frequent.
A form with white flowers occurs on the bank of Genesee river, near Hanford's Landing.
220. **D. acuminatum** DC. [*Meibomia grandiflora* (Walt.) Kuntze.]
Rich woods, river banks, ravines; common.
221. **D. pauciflorum** DC. [*Meibomia pauciflora* (Nutt.) Kuntze.]
Rare. Woods on the bank of Irondequoit bay, *Dr. Searing*.
222. **D. rotundifolium** DC. [*Meibomia rotundifolia* (Michx.) Kuntze.]
Dry woods, oak openings, copses, river banks; frequent.
223. **D. canescens** DC. [*Meibomia canescens* (L.) Kuntze.]
Rare. Orleans county, *Miss Lucy Weld*.
224. **D. cuspidatum** Torr. & Gray. [*Meibomia bracteosa* (Michx.) Kuntze.]
Dry woods and along streams; frequent.
225. **D. Dillenii** Darl. [*Meibomia Dillenii* (Darl.) Kuntze.]
Dry woods, banks, ravines; not common.
226. **D. paniculatum** DC. [*Meibomia paniculata* (L.) Kuntze.]
River banks, ravines, woods, thickets; frequent.
227. **D. Canadense** DC. [*Meibomia Canadensis* (L.) Kuntze.]
Woods and banks of streams; common.
228. **D. rigidum** DC. [*Meibomia rigida* (Ell.) Kuntze.]
Rev. J. E. Baker. Dr. Searing.
229. **D. ciliare** DC. [*Meibomia obtusa* (Muhl.) A. M. Vail.]
Rare. Bank of Allen's creek, *G. T. Fish. Mendon, M. S. Baxter.*
230. **D. Marilandicum** F. Boott. [*Meibomia Marylandica* (L.) Kuntze.]
Rare. Bank of Irondequoit bay, *Dr. C. M. Booth. Wayne county.*

102. *LESPEDEZA* Michx.

231. **L. violacea** Pers. (*L. violacea* var. *divergens* Man.) [*L. violacea* (L.) Pers.]
Dry banks, thickets, sandy woods; frequent.
232. **L. Stuvei** Nutt.
Dry banks; scarce. Along Genesee river and around Irondequoit bay.
233. **L. Stuvei** Nutt. var. **intermedia** Watson. (*L. violacea* var. *sessiliflora* Man., p. 137.) [*L. frutescens* (L.) Britton.]
Same range as the two preceding, but more abundant.
234. **L. polystachya** Michx. (*L. hirta* Ell.) [*L. hirta* (L.) Ell.]
Dry banks and woods; frequent.
235. **L. capitata** Michx.
Rare. Near Rochester, *L. Holzer. Wayne county.*

103. *VICIA* Tourn. [L.]

236. **V. SATIVA** L. COMMON VETCH.
Roadsides and borders of fields; scarce.

A form with acuminate, mucronate leaves, occurs along the railroad near Adams Basin, *M. S. Baxter*; and by the roadside, Brockport, *Prof. W. H. Lennon*.

237. **V. Cracca** L.
Rare. Roadside, East avenue, Rochester, near city line, *J. B. Fuller*.
Fairport, near the railroad, *Miss Mary E. Macauley*.
238. **V. Caroliniana** Walt.
Ravines and banks, in dry or moist land; common.
239. **V. Americana** Muhl.
Moist soil on shady banks; not common.
104. **LATHYRUS** Tourn. [L.]
240. **L. maritimus** Bigelow. [*L. maritimus* (L.) Bigelow.] BEACH PEA.
Frequent along the sandy shore of lake Ontario.
241. **L. ochroleucus** Hook.
Frequent along the banks of the Genesee; plentiful in Seneca park.
242. **L. palustris** L.
Shores and borders of streams and marshes; frequent.
243. **L. palustris** L. var. **myrtifolius** Gray. [*L. myrtifolius* Muhl.]
Same range as the preceding, though less frequent.
105. **APIOS** Boerhaave. [Mœnch.]
244. **A. tuberosa** Mœnch. [*A. Apios* (L.) MacM.] GROUND NUT.
Low grounds, along streams, borders of ponds and bays; common.
106. **STROPHOSTYLES** Ell. [PHASEOLUS L.]
245. **S. angulosus** Ell. (*Phaseolus diversifolius* Pers.) [*Phaseolus helvolus* L.]
Rare. Lake shore between Irondequoit bay and Charlotte, *G. T. Fish*.
Wayne county, *E. L. Hankenson*. Oak Orchard creek, Orleans county,
about two miles from lake Ontario, *M. S. Baxter*.
107. **AMPHICARPÆA** Ell. [FALCATA Gmel.]
246. **A. monoica** Nutt. [*Falcata comosa* (L.) Kuntze.] HOG PEANUT.
Woods, thickets, river banks, shores; common.
108. **CASSIA** Tourn. [L.]
247. **C. Marilandica** L. WILD SENNA.
Rare. Near Rochester, *Mrs. Mary E. Streeter*. Wayne county,
E. L. Hankenson.
248. **C. CHAMÆCRISTA** L. PARTRIDGE PEA.
Introduced. Well established in uninclosed land on Grand avenue,
Rochester, *Dr. C. M. Booth*. The station has been destroyed recently.
109. **GLEDITSCHIA** L.
249. **G. TRIACANTHOS** L. HONEY LOCUST.
Roadsides, near Rochester; seedlings from planted trees. Mendon,
G. T. Fish. Orleans county, *Miss Lucy Weld*.

ROSACEÆ.

110. *PRUNUS* Tourn. [L.]

250. *P. PERSICA* L. [*Amygdalus Persica* L.] PEACH.
Roadsides and waste places ; occasional.
251. *P. Americana* Marshall. WILD PLUM.
River banks, thickets, and borders of woods ; frequent.
252. *P. DOMESTICA* L. GARDEN PLUM. Escaped ; frequent.
253. *P. AVIUM* L. ENGLISH CHERRY.
Occasionally escapes to thickets and woods.
254. *P. CERASUS* L. SOUR CHERRY. Roadsides ; infrequent.
255. *P. pumila* L. DWARF CHERRY.
Rare. Penfield, *Dr. C. M. Booth*.
256. *P. Pennsylvania* L. f. WILD RED CHERRY.
Ravines and along the banks of the Genesee ; frequent.
257. *P. Virginiana* L. CHOKE-CHERRY.
Rocky banks of Genesee river, ravines, thickets ; common.
258. *P. serotina* Ehrh. WILD BLACK CHERRY.
Woods ; widely distributed, but scarce.

111. *SPIRÆA* L.

259. *S. salicifolia* L. COMMON MEADOW-SWEET.
Borders of marshes ; not common. Brighton, *Miss Mary E. Macauley*.
Mendon ponds, *George T. Fish!* Long pond, *Dr. Searing*. Hamlin,
M. S. Baxter. Wayne county.
260. *S. TOMENTOSA* L. HARDHACK.
Norton and St. Joseph streets, *L. Holzer*. Probably introduced.

112. *PHYSOCARPUS* Maxim. [OPULASTER Medic.]

261. *P. OPULIFOLIUS* Maxim. (*Spiræa opulifolia* L.) [*Opulaster opulifolius* (L.)
Kuntze.] NINE-BARK. Known only as an escape.

113. *RUBUS* Tourn. [L.]

262. *R. odoratus* L. PURPLE FLOWERING RASPBERRY.
River banks and ravines ; common.
263. *R. triflorus* Richardson. [*R. Americanus* (Pers.) Britton.] DWARF
RASPBERRY.
Dry or moist woods ; frequent.
264. *R. strigosus* Michx. WILD RED RASPBERRY.
Borders of woods and fields ; abundant on clearings.
265. *R. occidentalis* L. BLACK RASPBERRY.
Thickets, waysides, fences ; common.
266. *R. villosus* Ait. COMMON HIGH BLACKBERRY.
Rocky river banks, borders of woods, thickets, clearings ; common.
267. *R. Canadensis* L. DEWBERRY.
River banks, borders of woods, copses, fields ; frequent.

268. **R. hispidus** L. SWAMP BLACKBERRY.
Low woods, wet grass lands, borders of swamps ; frequent.
114. *DALIBARDA* L.
269. **D. repens** L.
Rare. Damp woods bordering Bergen swamp.
115. *GEUM* L.
270. **G. album** Gmelin. [*G. Canadense* Jacq.]
Damp woods and their borders ; common. Occasionally by roadsides.
271. **G. Virginianum** L.
Low grounds and borders of woods ; common.
272. **G. strictum** Ait.
Swamps, woods, low grass lands ; common.
273. **G. rivale** L. PURPLE AVENS.
Marshes and wet meadows ; frequent.
116. *WALDSTEINIA* Willd.
274. **W. fragarioides** Tratt. [*W. fragarioides* (Michx.) Tratt.] BARREN STRAWBERRY.
Dry woods, ravines, thickets ; frequent.
117. *FRAGARIA* Tourn. [L.]
275. **F. Virginiana** Mill. [Duchesne.] WILD STRAWBERRY.
Woods, pastures, meadows ; everywhere common.
276. **F. Virginiana** Mill. var. **Illinoensis** Gray. [Prince.]
River banks and in rich soil ; frequent.
277. **F. vesca** L. WOOD STRAWBERRY.
River banks and woods ; frequent.
118. *POTENTILLA* L.
278. **P. Norvegica** L. [*P. Monspeliensis* L.]
Roadsides, waste places, fields, pastures ; common.
279. **P. supina** L. (*P. paradoxa* Nutt.) [*P. paradoxa* Nutt.]
Rare. Sandbar, Irondequoit bay, *G. T. Fish!* Shore of lake Ontario near Braddock's bay, *J. E. Paine!* Wayne county.
280. **P. Pennsylvanica** L.
Rare. Long pond, *Dr. Anna H. Searing.*
281. **P. RECTA** L.
Rare. Genesee Valley park, *Dr. C. M. Booth!* East Rochester, *Miss Mary E. Macauley.* Scottsville, *Miss Florence Beckwith.* Brockport, *Prof. W. H. Lennon.*
282. **P. argentea** L. SILVERY CINQUE-FOIL.
Dry fields and roadsides, in sandy or gravelly soil ; common.
283. **P. palustris** Scop. [*Comarum palustre* L.] MARSH FIVE-FINGER.
Marshes ; infrequent. Irondequoit bay, *Dr. C. M. Booth!* Round pond, *J. B. Fuller.* Mendon, *G. T. Fish!* Hamlin, *M. S. Baxter.*

284. **P. fruticosa** L. SHRUBBY CINQUE-FOIL.
Wet fields and borders of cold swamps; not common. Perinton, Mendon and Greece, Monroe county; Caledonia and Avon, Livingston county; Bergen, Genesee county; Wayne county.
285. **P. Anserina** L. SILVER WEED.
Frequent on the sandy shore of lake Ontario. Adams Basin.
286. **P. Canadensis** L. COMMON CINQUE-FOIL OR FIVE-FINGER.
Fields and roadsides, in dry soil; common.
287. **P. Canadensis** L. var. **simplex** Torr. & Gray.
Same range as the preceding; common.
119. **AGRIMONIA** Tourn. [L.]
288. **A. Eupatoria** Walt. [*A. striata* Michx.] AGRIMONY.
Borders of woods, ravines, fields, waysides; common.
120. **POTERIUM** L. [SANGUISORBA L.]
289. **P. Canadense** Benth. & Hook. [*Sanguisorba Canadensis* L.] CANADIAN BURNET.
Swamps; infrequent. Marsh at head of Irondequoit bay, Penfield, *Dr. C. M. Booth!* Brighton, *Otto Betz.* Two miles east of Pittsford, *Rev. J. Walton.* One mile west of Fairport, *Miss Mary E. Macauley.* Fisher's Station, *M. S. Baxter.*
121. **ROSA** Tourn. [L.]
290. **R. setigera** Michx. CLIMBING OR PRAIRIE ROSE.
Woods and river banks; rare. Culver's woods, East Rochester, *Dr. C. M. Booth, G. T. Fish.* Bank of Genesee river at upper falls, Rochester, woods in Brighton and in Irondequoit, *Dr. C. M. Booth.* Always in wild places and flowers always single. Wayne county.
291. **R. blanda** Ait. EARLY WILD ROSE.
Infrequent. Banks of Genesee river and shore of lake Ontario.
292. **R. Carolina** L. SWAMP ROSE.
Borders of swamps and low grounds; common.
293. **R. humilis** Marsh. DWARF ROSE.
Dry woods and rocky river banks. Our most common species.
294. **R. nitida** Willd.
Long pond, *Dr. Anna H. Searing. L. Holzer.*
295. **R. RUBIGINOSA** L. SWEET-BRIAR. EGLANTINE.
Roadsides; occasional.
122. **PYRUS** L.
296. **P. MALUS** L. APPLE. Frequent.
297. **P. COMMUNIS** L. PEAR. Occasional.
298. **P. coronaria** L. AMERICAN CRAB-APPLE.
Glades; frequent.
299. **P. arbutifolia** L. f. [*Aronia arbutifolia* (L.) Ell.] CHOKE-BERRY.
Infrequent. Adams Basin, *M. S. Baxter.* Bergen. Wayne county.

300. **P. arbutifolia** L.f. var. **melanocarpa** Hook. [*Aronia nigra* (Willd.) Britt.]
Abundant in the marshes at Mendon ponds.
301. **P. AMERICANA** DC. [*Sorbus Americana* Marsh.] AMERICAN MOUNTAIN
ASH. Escaped from cultivation.
302. **P. AUCUPARIA** Gærtn. EUROPEAN MOUNTAIN ASH.
Several specimens in woods on the bank of Genesee river.

123. *CRATÆGUS* L.

303. **C. OXYACANTHA** L. ENGLISH HAWTHORN.
Infrequent. Bank Genesee river, below lower falls. Gates. Adams
Basin. Wayne county.
304. **C. coccinea** L. SCARLET THORN.
Thickets and hillsides; frequent. Common along the banks of the
Genesee river.
305. **C. tomentosa** L. BLACK THORN.
Thickets along the river banks, old pastures, etc.; scarce.
306. **C. tomentosa** L. var. **pyrifolia** Gray.
Same range as the preceding; scarce.
307. **C. punctata** Jacq. (*C. tomentosa* var. *punctata* Gray.)
River banks and flats, fields, thickets, etc.; common. Occasionally
with yellow fruit.
308. **C. Crus-galli** L. COCK-SPUR THORN.
River banks and flats; rare. A fine specimen in Genesee Valley park.
Wayne county, *E. L. Hankenson*.

124. *AMELANCHIER* Medic.

309. **A. Canadensis** Torr. & Gray. [*A. Canadensis* (L.) Medic.] SHAD-BUSH.
River banks, ravines, thickets, woodlands; common.
310. **A. Canadensis** var. **rotundifolia** T. & G. [*A. rotundifolia* (Mx.) Rœm.]
Plentiful on the banks of Genesee river and Irondequoit bay.
311. **A. Canadensis** var. (?) **oblongifolia** T. & G. [*A. Botryapium* (L. f.) D.C.]
Ravines and low grounds.

SAXIFRAGACEÆ.

125. *SAXIFRAGA* L.

312. **S. Virginiensis** Michx. EARLY SAXIFRAGE.
River banks, ravines, hillsides; abundant, except in the western part
of our district.
313. **S. Pennsylvanica** L. SWAMP SAXIFRAGE.
Cold swamps; infrequent. Irondequoit, *Dr. C. M. Booth!* Greece,
Miss Beckwith and *Miss Macauley*. Adams Basin, *Prof. W. H. Lennon*.
Fisher's Station, *M. S. Baxter*. Wayne county, *E. L. Hankenson*.

126. *TIARELLA* L.

314. **T. cordifolia** L. FALSE MITRE-WORT.
Hilly woods, river banks and ravines; common.

127. *MITELLA* Tourn. [L.]

315. **M. diphylla** Tourn. [L.] MITRE-WORT. BISHOP'S CAP.
Rich woods, ravine sides, and shaded knolls; common.

316. **M. nuda** L.

Borders of swamps, in damp moss and deep shade; not common.
Riga, *Miss Florence Beckwith*. Caledonia, Livingston county, *Miss Mary E. Roberts*. Bergen swamp, Genesee county. Wayne county.

128. *CHRYSOSPLENIUM* Tourn. [L.]

317. **C. Americanum** Schwein. GOLDEN SAXIFRAGE.
Cold wet places, in shade; frequent.

129. *PARNASSIA* Tourn. [L.]

318. **P. Caroliniana** Michx. GRASS OF PARNASSUS.

Wet cliffs, swamps, and along streams; infrequent. Genesee river, west bank, above paper-mill dam, *J. B. Fuller*; east bank, in Seneca park, *M. S. Baxter*. Penfield creek, *L. Holzer*. Mendon. Caledonia, Livingston county. Bergen swamp, Genesee county. Wayne county.

130. *RIBES* L.

319. **R. Cynosbati** L. PRICKLY GOOSEBERRY.

River banks and woods; common.

320. **R. rotundifolium** Michx. Orleans county, *Miss Lucy Weld*.

321. **R. oxycanthoides** L. (*R. hirtellum* Michx.)

Low grounds; not common.

322. **R. prostratum** L'Her. FETID CURRANT. Rare. *L. Holzer*.

323. **R. floridum** L'Her. WILD BLACK CURRANT.

Wet woods, river banks, and along streams; frequent.

324. **R. NIGRUM** L. GARDEN BLACK CURRANT. Escape, *Dr. C. M. Booth*.

325. **R. RUBRUM** L. GARDEN CURRANT.

Escaped to woods on the bank of Genesee river, in Seneca park.

326. **R. rubrum** L. var. **subglandulosum** Maxim. [*R. rubrum* L.]

Swamps and cold damp woods; infrequent. Irondequoit. Greece. Gates. Wayne county.

CRASSULACEÆ.

131. *PENTHORUM* Gronov. [L.]

327. **P. sedoides** L. DITCH STONE-CROP.

Open wet places, fields, ditches; common.

132. *SEDUM* Tourn. [L.]

328. **S. TERNATUM** Michx. Monroe county, *Dr. Searing*. Wayne county.

329. **S. ACRE** L. GOLDEN STONE-CROP. Escape. Infrequent.

330. **S. TELEPHIUM** L. LIVE-FOR-EVER.

Adams Basin, *M. S. Baxter*. Roadside, Bergen, Genesee county, *J. B. Fuller*. Wayne county.

331. **S. REFLEXUM** L. Wayne county.

DROSERACEÆ.

133. *DROSERA* L.

332. **D. rotundifolia** L. ROUND-LEAVED SUNDEW.
Sphagnum swamps; frequent.

333. **D. intermedia** Hayne, var. **Americana** DC. (*D. longifolia* Manual.)
[*D. intermedia* Hayne.] LONG-LEAVED SUNDEW.
Rare. Sphagnum swamps, Mendon.

D. linearis was reported in the check list of Mr. E. L. Hankenson, from Newark, Wayne county, N. Y.

HAMAMELIDEÆ.

134. *HAMAMELIS* L.

334. **H. Virginiana** L. WITCH-HAZEL.
River banks, ravines, woods, thickets; common.

HALORAGEÆ. [HALORRHAGIDACEÆ.]

135. *MYRIOPHYLLUM* Vaill. [L.]

335. **M. spicatum** L. COMMON WATER-MILFOIL.
Common in Irondequoit bay and other bays along lake Ontario. Lake marsh, Bald Eagle creek, Kendall, Orleans county. Wayne county.

336. **M. verticillatum** L.
Rare. Irondequoit bay, *Dr. Booth, G. T. Fish.* Wayne county.

337. **M. heterophyllum** Michx.
Rare. Irondequoit bay, *Dr. C. M. Booth.* Kendall, Orleans county, *M. S. Baxter.* Sodus bay, Wayne county, *G. T. Fish.*

136. *PROSERPINACA* L.

338. **P. palustris** L. MERMAID-WEED.
Rare. Wayne county, *E. L. Hankenson.*

137. *CALLITRICHE* L.

339. **C. verna** L. [*C. palustris* L.] WATER STARWORT.
Rare. Muddy ground, overflowed early in the season. Charlotte, *Dr. Booth!* Black creek, near Genesee river, *M. S. Baxter.* Wayne Co.

138. *LYTHRUM* L.

340. **L. ALATUM** Pursh.
Rare. Along railroad track, Adams Basin, *M. S. Baxter.* Probably introduced.

341. **L. SALICARIA** L. SPIKED LOOSESTRIFE.
Rare. Shore of Irondequoit bay, *Dr. Searing.* Near the Rapids, *Mrs. M. E. Streeter.* Clyde, Wayne county, *E. L. Hankenson.*

139. *DECODON* Gmel.

342. **D. verticillatus** Ell. (*Nesæa verticillata* HBK.) [*Decodon verticillatus* (L.) Ell.] SWAMP LOOSESTRIFE.
Swamps and borders of ponds; infrequent. Common in the marshes bordering Irondequoit bay.

ONAGRACEÆ.

140. LUDWIGIA L.

343. **L. palustris** Ell. [*L. palustris* (L.) Ell.] WATER PURSLANE.
Ditches and low grounds; common.

141. EPILOBIUM L.

344. **E. angustifolium** L. [*Chamænerion angustifolium* (L.) Scop.] GREAT
WILLOW-HERB. FIRE-WEED.
Copses and newly cleared lands; common.
345. **E. lineare** Muhl.
Scarce. Near Rochester, *Dr. C. M. Booth*. Bank of Genesee river,
Chili, *Miss F. Beckwith*. Wayne county.
346. **E. strictum** Muhl. (*E. molle* Torr.)
Marshes and wet places; not common. Near Rochester, *Dr. Booth*.
Mendon. Adams Basin, *M. S. Baxter*. Wayne county.
347. **E. coloratum** Muhl.
Ravines, low grounds, along streams, etc.; common.

142. ŒNOTHERA L.

348. **O. biennis** L. [*Onagra biennis* (L.) Scop.] EVENING PRIMROSE.
Fields, roadsides, waste places; common.
349. **O. pumila** L. [*Kneiffia pumila* (L.) Spach.]
Rare. *Prof. W. H. Lennon*.
350. **O. fruticosa** L. [*Kneiffia fruticosa* (L.) Raimann.] SUNDROPS.
Rare. Near Culver street bridge, Brighton, *Dr. C. M. Booth*.

143. GAURA L.

351. **G. biennis** L.
Dry banks and fields; not common. River road, Chili, *Mrs. J. H.*
Maguire and *Miss F. Beckwith*. Hanford's Landing. Parma, *Bradley*.

144. CIRCÆA Tourn. [L.]

352. **C. Lutetiana** L. ENCHANTER'S NIGHTSHADE.
Damp woods; common.
353. **C. alpina** L.
Cool woods, ravine sides, swamps; common.

CUCURBITACEÆ.

145. SICYOS L.

354. **S. angulatus** L. BUR-CUCUMBER.
River banks; not common.

146. ECHINOCYSTIS Torr. & Gray. [MICRAMPÆLIS Raf.]

355. **E. lobata** Torr. & Gray. [*Micrampelis lobata* (Michx.) Greene.] WILD
CUCUMBER.
River banks, waste places; frequent. Often cultivated.

UMBELLIFERÆ.

147. DAUCUS Tourn. [L.]

356. **D. CAROTA** L. WILD CARROT. Abundant and troublesome.

148. *ANGELICA* L.

357. **A. hirsuta** Muhl. (*Archangelica hirsuta* Torr. & Gray.) [*Angelica villosa* (Walt.) B. S. P.]
Dry banks, borders of woods ; frequent.

358. **A. atropurpurea** L. (*Archangelica atropurpurea* Hoffm.)
River banks, borders of marshes ; frequent.

149. *CONIOSELINUM* Fisch. [Hoffm.]

359. **C. Canadense** Torr. & Gray. [*C. Chinense* (L.) B.S.P.] HEMLOCK PARSLEY.
Rare. Caledonia, Livingston county, *G. W. Clinton in 17th N. Y. Rep.*
Bergen, Genesee county, *Cat. Plants of Buffalo.*

150. *HERACLEUM* L.

360. **H. lanatum** Michx. COW PARSNIP.
River flats and low grounds ; not common.

151. *PASTINACA* L.

361. **P. SATIVA.** PARSNIP.
Roadsides, waste places, banks of streams ; frequent.

152. *THASPIUM* Nutt.

362. **T. barbinode** Nutt. [*T. barbinode* (Michx.) Nutt.]
Rare. River bank, Genesee Valley park, *Dr. C. M. Booth!*

153. *PIMPINELLA* L.

363. **P. integerrima** Benth. & Hook. (*Zizia integerrima* DC.) [*Pimpinella integerrima* (L.) A. Gray.]
Dry banks, ravines, thickets ; common.

154. *BUPLEURUM* L.

364. **B. ROTUNDIFOLIUM** L.
Rare. Ontario, Wayne county, *E. L. Hankenson.*

155. *CRYPTOTÆNIA* DC. [DERINGA Adans.]

365. **C. Canadensis** DC. [*Deringa Canadensis* (L.) Kuntze.] HONEWORT.
Moist woods and shaded places ; frequent.

156. *SIUM* Tourn. [L.]

366. **S. cicutæfolium** Gmelin. (*S. lineare* Michx.) WATER PARSNIP.
Marshes ; frequent.

157. *ZIZIA* Koch.

367. **Z. aurea** Koch. (*Thaspium aureum* var. *apterum* Gray, Man.) [*Zizia aurea* (L.) Koch.]

Dry woods and thickets, river banks, meadows, etc.; common.

368. **Z. cordata** DC. (*Thaspium trifoliatum* var. *apterum* Gray, Manual.)
[*Zizia cordata* (Walt.) DC.]

Dry woods, thickets, meadows ; common.

158. *CARUM* L.

369. **C. CARUI** L. CARAWAY. Naturalized in various places: Brighton, Penfield, Gates, Adams Basin, and elsewhere.

APIUM L.

- A. GRAVEOLENS L. CELERY. Roadsides ; occasional.

159. CICUTA L.

370. **C. maculata** L. WATER-HEMLOCK.
Marshes, swamps, and meadows ; frequent.

371. **C. bulbifera** L.
Frequent in the marshes about Irondequoit bay and elsewhere.

160. CONIUM L.

372. **C. MACULATUM** L. POISON HEMLOCK.
Roadsides and waste places ; common.

161. CHÆROPHYLLUM L.

373. **C. procumbens** Crantz. [*C. procumbens* (L.) Crantz.]
Rare. Wayne county, *E. L. Hankenson*.

162. OSMORRHIZA Raf.

374. **O. brevistylis** DC. [*O. Claytoni* (Michx.) B.S.P.] HAIRY SWEET-
CICELY. Rich woods, ravines, thickets ; common.

375. **O. longistylis** DC. [*O. longistylis* (Torr.) D.C.] SMOOTH SWEET-
CICELY. Same range as the last, but less frequent.

CORIANDRUM L.

- **C. SATIVUM** L. CORIANDER. Appears occasionally along the banks of
the river and by roadsides.

163. HYDROCOTYLE Tourn. [L.]

376. **H. Americana** L. WATER PENNYWORT.
Moist and springy places ; not common. Irondequoit, *Dr. C. M. Booth* ; Mendon, *M. S. Baxter*.

164. SANICULA Tourn. [L.]

377. **S. Marylandica** L. BLACK SNAKEROOT.
Woods and thickets ; frequent.

378. **S. gregaria** Bicknell, Bull. Torr. Bot. Club, XII, (1895), p. 351.
Woods and thickets ; frequent.

379. **S. trifoliata** Bicknell, Bull. Torr. Bot. Club, XII, (1895), p. 351.
Rich woods ; infrequent.

ARALIACEÆ.

165. ARALIA Tourn. [L.]

380. **A. racemosa** L. SPIKENARD.
River banks, ravines, rich woods ; frequent.

381. **A. hispida** Vent. BRISTLY SARSAPARILLA.
Low ground corner Norton and St. Joseph streets, *L. Holzer*. Abundant in some of the marshes at Mendon ponds. Dry knoll on the border of Bergen swamp. Wayne county.

382. **A. nudicaulis** L. WILD SARSAPARILLA.
Woods, river banks, ravines ; common.

383. **A. quinquefolia** Decsne. & Planch. [*Panax quinquefolium* L.] GINSENG.
Rich cool woods; rare.
384. **A. trifolia** Decsne. & Planch. [*Panax trifolium* L.] DWARF GINSENG.
Rich woods and thickets; common.

CORNACEÆ.

166. *CORNUS* Tourn. [L.]

385. **C. Canadensis** L. DWARF CORNEL.
Damp woods and borders of swamps; not uncommon.
386. **C. florida** L. FLOWERING DOGWOOD.
Woods and river banks; common.
387. **C. circinata** L'Her. ROUND-LEAVED CORNEL.
River banks, ravines, borders of woods; common.
388. **C. sericea** L. [*C. Amonum* Mill.] KINNIKINNIK.
Low grounds, swamps, along streams, fences, etc.; very common.
389. **C. stolonifera** Michx. RED OSIER.
Low ground; common.
390. **C. paniculata** L'Her. [*C. candidissima* Marsh.] PANICLED CORNEL.
River banks, hillsides, and thickets; common.
391. **C. alternifolia** L.f. ALTERNATE-LEAVED CORNEL.
River banks, ravines, woods; common.

167. *NYSSA* L.

392. **N. sylvatica** Marsh. (*N. multiflora* Wang.) [*N. aquatica* L.] TUPELO.
PEPPERIDGE.
Scarce. Hudson street. Near the corner of Clinton street and the
Ridge road. Seneca park. Irondequoit. Gates. Chili. Mendon.
From one to six specimens at each station. Wayne county.

CAPRIFOLIACEÆ.

168. *SAMBUCUS* Tourn. [L.]

393. **S. Canadensis** L. COMMON ELDER.
Roadsides, fences, fields, banks of streams; common.
394. **S. racemosa** L. (*S. pubens* Michx.) [*S. pubens* Michx.] RED-BERRIED
ELDER. River banks and ravines; frequent.

169. *VIBURNUM* L.

395. **V. lantanoides** Michx. [*V. alnifolium* Marsh.] HOBBLE-BUSH.
Scarce. Near Rochester, Dr. C. M. Booth. Webster, G. T. Fish,
M. S. Baxter. Wayne county.
396. **V. Opulus** L. CRANBERRY-TREE.
Low ground and swamps; not common.
397. **V. acerifolium** L. MAPLE-LEAVED ARROW-WOOD.
Dry hilly woods and river banks; common.
398. **V. pubescens** Pursh. [*V. pubescens* (Ait.) Pursh.] DOWNY ARROW-WOOD.
Rocky banks and ravines; frequent.

399. **V. dentatum** L. Low grounds ; frequent.
 400. **V. cassinoides** L. (*V. nudum* var. *cassinoides* T. & G.) WITHE-ROD.
 Not common. Sphagnum swamps at Mendon.
 401. **V. Lentago** L. SWEET VIBURNUM. SHEEP-BERRY.
 Open woods, low grounds ; frequent.

170. *TRIOSTEUM* L.

402. **T. perfoliatum** L. HORSE GENTIAN.
 Rich deep soil ; somewhat scarce. Brighton. Penfield. Caledonia.
 Le Roy. Clarendon.

171. *LINNÆA* Gronov. [L.]

403. **L. borealis** Gronov. TWIN-FLOWER.
 Mossy woods and cold marshes. Riga, *Miss F. Beckwith*. Mendon,
G. T. Fish. Caledonia, Livingston county. Frequent in the cold
 woods bordering Bergen swamp. Wayne county.

172. *SYMPHORICARPOS* Dill. [Juss.]

404. **S. vulgaris** Michx. [*S. Symphoricarpos* (L.) McM.] INDIAN CURRANT.
 Rare. *L. Holzer*.
 405. **S. racemosus** Michx. SNOWBERRY.
 Rare. Bank Genesee river, near lower falls, *J. B. Fuller*; near
 Charlotte, *M. S. Baxter*. Bank of Oak Orchard creek, *M. S. Baxter*.
 406. **S. racemosus** Mx. var. **pauciflorus** Robbins. [*S. pauciflorus* (Robbins)
 Britton.] "The Gulf", near Mumford, Genesee county, *Miss Beckwith*.

173. *LONICERA* L.

407. **L. TARTARICA** L. TARTARIAN HONEYSUCKLE.
 Naturalized in several places.
 408. **L. ciliata** Muhl. FLY-HONEYSUCKLE.
 River banks, ravines, and damp woods ; common.
 409. **L. cœrulea** L. MOUNTAIN FLY-HONEYSUCKLE.
 Bergen, *Dr. Searing*. Wayne county, *E. L. Hankenson*.
 410. **L. oblongifolia** Muhl. [*L. oblongifolia* (Goldie) Hook.] SWAMP FLY-
 HONEYSUCKLE.
 Swamps ; rare. Seneca park, *C. C. Laney*. Mendon, *G. T. Fish*.
 Adams Basin, *M. S. Baxter*. Caledonia. Bergen swamp.
 411. **L. glauca** Hill. (*L. parviflora* Lam.) [*L. dioica* L.]
 Rocky banks Genesee river, ravines, etc. ; frequent.

174. *DIERVILLA* Tourn. [Mœnch.]

412. **D. trifida** Mœnch. [*D. Diervilla* (L.) McM.] BUSH HONEYSUCKLE.
 River banks, ravines, dry woods ; frequent.

RUBIACEÆ.

175. *HOUSTONIA* L.

413. **H. cœrulea** L. BLUETS. INNOCENCE.
 Local. Abundant on the hills at Canandaigua lake.

414. **H. purpurea** L. var. **ciliolata** Gray. [*H. ciliolata* Torr.]
Rare. Bank Genesee river, at upper falls, Rochester. Caledonia,
Livingston county, *Mrs. N. G. Mathews*.
415. **H. purpurea** L. var. **longifolia** Gray. [*H. longifolia* Gærtm.]
Scarce. Rochester, *Dr. C. M. Booth*. Mumford, *M. S. Baxter*.
Caledonia, *Miss Mary E. Roberts*.
176. **CEPHALANTHUS** L.
416. **C. occidentalis** L. BUTTON-BUSH.
Swamps, borders of ponds and streams; frequent.
177. **MITCHELLA** L.
417. **M. repens** L. PARTRIDGE-BERRY. Woods; common.
178. **GALIUM** L.
418. **G. verum** L. YELLOW BEDSTRAW.
Neglected lawn, East ave., Rochester; has been spreading since 1882.
419. **G. mollugo** L.
Along N. Y. C. railroad, Gates, *Miss Florence Beckwith*.
420. **G. aparine** L. CLEAVERS.
Swamps, damp thickets, shaded grounds; abundant.
421. **G. pilosum** Ait.
Rare. Irondequoit, near Sea Breeze. Wayne county.
422. **G. circaezans** Michx. WILD LIQUORICE.
Woods, ravines, river banks; frequent.
423. **G. lanceolatum** Torr. WILD LIQUORICE.
Same range as the last; frequent.
424. **G. boreale** L. NORTHERN BEDSTRAW.
River banks, sandy ridges, and occasionally in swamps; frequent.
Cliffs and banks of Genesee river. Penfield. Mendon. Bergen.
425. **G. trifidum** L. [*G. trifidum* L., incl. var. *pusillum* Gray.]
Marshes and wet places; common.
426. **G. trifidum** L. var. **pusillum** Gray.
Marshes bordering Genesee river.
427. **G. trifidum** L. var. **latifolium** Torr. [*G. tinctorium* L.]
Rare? *Dr. Anna H. Searing*.
428. **G. asprellum** Michx. ROUGH BEDSTRAW.
Swamps, wet meadows, low woods; common.
429. **G. triflorum** Michx. SWEET-SCENTED BEDSTRAW.
Woods; common.

VALERIANACEÆ.

179. **VALERIANA** Tourn. [L.]

430. **V. sylvatica** Banks.
Sphagnum swamps; rare. Mendon swamp, *G. T. Fish!* Bergen
swamp, Genesee county. North of Newark, Wayne county.

180. VALERIANELLA Tourn. [Poll.]

431. *V. OLITORIA* Poll. (*Fedia olitoria* Vahl.) [*V. Locusta* (L.) Bettke.]
Rare. Hanford's Landing, *M. S. Baxter*. Scottsville, *L. Holzer*.
Dr. Searing. Prof. *Lennon*.
432. *V. chenopodifolia* DC. (*Fedia Fagopyrum* Torr. & Gray.) [*V. chenopodifolia* (Pursh) DC.] Rare. Wayne county.

DIPSACEÆ.

181. DIPSACUS Tourn. [L.]

433. *D. SYLVESTRIS* Mill. [Huds.] WILD TEASEL.
Fields and roadsides; very common.

COMPOSITÆ.

VERNONIA Schreb.

- *V. ALTISSIMA* Nutt. [*V. gigantea* (Walt.) Britton.] Appeared in a waste lot adjoining a poultry yard, Rochester, in 1867.

182. MIKANIA Willd. [WILLOUGHBYA Neck.]

434. *M. scandens* L. [*Willoughbya scandens* (L.) Kuntze.] CLIMBING HEMP-WEED. Copses along streams; rare. Red creek, *Dr. C. M. Booth*, *G. T. Fish*. River road, *Mrs. J. H. McGuire*. Wayne county.

183. EUPATORIUM Tourn. [L.]

435. *E. purpureum* L. JOE-PYE WEED.
Low grounds; common.
436. *E. perfoliatum* L. THOROUGHWORT. BONESET.
Low grounds; common.
437. *E. ageratoides* L. WHITE SNAKE-ROOT.
Rich woods, river banks and ravines; common.

184. SOLIDAGO L. GOLDEN ROD.

438. *S. squarrosa* Muhl.
Frequent along the banks of Genesee river and in ravines. Wayne county.
439. *S. cæsia* L.
River banks, ravines, rich woods; common.
440. *S. latifolia* L. [*S. flexicaulis* L.]
Shaded banks and ravines; frequent.
441. *S. bicolor* L.
Dry banks, hillsides and woods; common.
442. *S. uliginosa* Nutt. (*S. stricta* Man.)
Swamps; rare. Caledonia, Livingston county. Bergen swamp, Genesee county, 40th *N. Y. Rep.* Wayne county.
443. *S. patula* Muhl. Swamps; common.
444. *S. rugosa* Mill. (*S. altissima* Torr. & Gray.)
Borders of woods, fields, copses; frequent.

445. **S. ulmifolia** Muhl.
Swamps; scarce. *G. T. Fish.* Adams Basin and Bergen swamp,
M. S. Baxter.
446. **S. neglecta** Torr. & Gray.
Swamps; rare. Mendon. Caledonia, Livingston county. Bergen,
Genesee county. Wayne county.
447. **S. neglecta** T. & G. var. **linoides** Gray. [*S. uniligulata* (DC) Porter.]
Rare. Bergen swamp, Genesee county.
448. **S. arguta** Ait. (*S. Muhlenbergii* Torr. & Gray.)
Fields, copses and moist woods; frequent.
449. **S. juncea** Ait. (*S. arguta* Torr. & Gray.)
River banks, borders of woods and fields; common.
450. **S. serotina** Ait. (*S. gigantea* Man.)
Borders of woods and copses; frequent.
451. **S. serotina** Ait. var. **gigantea** Gray. (*S. serotina* Man.) [*S. serotina*
gigantea (Ait.) A. Gray.]
Low grounds and along streams; frequent.
452. **S. Canadensis** L.
Roadsides, fence-rows, fields; common and abundant.
453. **S. nemoralis** Ait. Dry fields; common.
454. **S. Ohioensis** Riddell.
Swamps and along streams; rare. Bank of Genesee river, near the
lower falls, Rochester, *J. B. Fuller.* Bergen swamp. Wayne county.
455. **S. Houghtonii** Torr. & Gray.
Rare. Bergen swamp, *Dr. C. M. Booth* and *G. T. Fish!*
456. **S. lanceolata** L. [*Euthamia graminifolia* (L.) Nutt.]
Fields, in low wet or on high dry ground; not common. Abundant
along the Swamp road in Seneca park, and on dry knolls in Gates.
Rochester. Brighton. Ogden. Hamlin. Wayne county.
457. **S. TENUIFOLIA** Pursh. [*Euthamia Caroliniana* (L.) Greene.]
Rare. Sand-bar, Irondequoit bay, *G. T. Fish.* Introduced.
185. **SERICOCARPUS** Nees.
458. **S. conyzoides** Nees. [*S. asteroides* (L.) B.S.P.]
Copses, wooded hillsides, along river banks and ravines, in dry
ground; common.
186. **ASTER** L.
459. **A. corymbosus** Ait. [*A. divaricatus* L.]
Borders of woods and thickets; frequent.
460. **A. macrophyllus** L.
River banks, along streams, and in rich woods; common.
461. **A. Novæ-Angliæ** L.
Low grounds, along streams, roadsides, hillsides; abundant.
Form with flowers nearly white, roadside, Gates, *Miss F. Beckwith.*

462. **A. Novæ-Angliæ** L. var. **roseus** Gray. [*Aster Novæ-Angliæ roseus* (Desf.) D.C.] Infrequent.
463. **A. azureus** Lindl. Rare. *Dr. Searing.*
464. **A. undulatus** L.
Dry copses and woodlands; common. Occasionally with many of the disk flowers ligulate—about forty ligulate flowers in each head.
465. **A. cordifolius** L.
Woods, fields, hillsides; very common.
466. **A. sagittifolius** Willd. [*A. sagittifolius* Wedem.]
River banks, ravine sides, borders of woods; common.
467. **A. lævis** L.
Borders of woods, fields, hillsides; common. Very abundant in Seneca park from Maple grove to River Side avenue.
468. **A. ericoides** L. *L. Holzer. Prof. Lennon.*
469. **A. multiflorus** Ait. Rare. In a field in Gates, *G. T. Fish.*
470. **A. dumosus** L. *Prof. Lennon. Miss Lucy Weld.*
471. **A. vimineus** Lam. (*A. Tradescanti* Man.)
Woods, low grounds, along streams and fences; common.
472. **A. diffusus** Ait. (*A. miser* Man.) [*A. lateriflorus* (L.) Britton.]
Thickets and fields; common.
473. **A. diffusus** Ait. var. **hirsuticaulis** Gray. [*A. lateriflorus hirsuticaulis* (Lindl.) Porter.]
Rare. Bank of Genesee river, below lower falls, *J. B. Fuller.*
474. **A. Tradescanti** L. (*A. tenuifolius* Man.)
Bergen swamp, Genesee county, *Dr. Anna H. Searing.*
475. **A. paniculatus** Lam. (*A. simplex* Man.)
Low grounds; common.
476. **A. salicifolius** Ait. (*A. carneus* Man.)
Low grounds; infrequent.
477. **A. junceus** Ait. (*A. æstivus* Man.)
Sphagnum swamp adjoining Harris pond, Mendon. Wayne county.
478. **A. prenanthoides** Muhl.
Rich woods, low grounds and swamps; common.
479. **A. puniceus** L.
Marshes and low grounds; common.
Form with green stem and white flowers, Hamlin, *Miss F. Beckwith.*
480. **A. puniceus** L. var. with purple stems, nearly smooth, flowers pinkish.
Low ground near western "wide-water", *J. B. Fuller.*
481. **A. puniceus** L. var. **lucidulus** Gray.
Low ground, border of woods, Greece, *J. B. Fuller.*
482. **A. umbellatus** Mill. (*Diplopappus umbellatus* Torr. & Gray.)
Swamps; abundant.

483. **A. ptarmicoides** Torr. & Gray. [*A. ptarmicoides* (Nees.) Torr. & Gray.]
Very rare. Rocky bank of Genesee river, below the lower falls,
Dr. C. M. Booth.

484. **A. acuminatus** Michx.
Cool rich woods and ravines; scarce. Greece, *Dr. A. H. Searing*
and *Miss Beckwith.* Brockport, *Prof. Lennon.* Sweden, *M. S. Baxter.*

187. *ERIGERON* L.

485. **E. Canadensis** L. HORSEWEED.
Fields, roadsides, waste places; common.

486. **E. annuus** Pers. [*E. annuus* (L.) Pers.] DAISY FLEABANE.
Fields and waste places; common.

487. **E. strigosus** Muhl. [*E. ramosus* (Walt.) B.S.P.] DAISY FLEABANE.
Fields; common.

488. **E. bellidifolius** Muhl. [*E. pulchellus* Michx.] ROBIN'S PLANTAIN.
Banks and hillsides; frequent.

489. **E. Philadelphicus** L.
Moist ground, ravines, and grassy banks; common, often abundant.

188. *ANTENNARIA* Gærtn.

490. **A. plantaginifolia** Hook. [*A. plantaginifolia* (L.) Richards.] PLAN-
TAIN-LEAVED EVERLASTING.
Tops of river banks and ravines, sterile knolls, dry pastures; common.

189. *ANAPHALIS* DC.

491. **A. margaritacea** Benth. & Hook. (*Antennaria margaritacea* R. Br.)
[*Antennaria margaritacea* (L.) Hook.] PEARLY EVERLASTING.
Dry fields, hills, and woods; common.

190. *GNAPHALIUM* L.

492. **G. polycephalum** Michx. [*G. obtusifolium* L.] COMMON EVERLASTING.
Old fields and dry woods; common.

493. **G. decurrens** Ives. COMMON EVERLASTING.
Dry woods and old fields; frequent.

494. **G. uliginosum** L. LOW CUDWEED.
In leached soil, low grounds, roadsides, ditches; common.

191. *INULA* L.

495. **I. HELENIUM** L. ELECAMPANE.
Borders of woods, pastures, along streams and roadsides; common.

192. *POLYMNIA* L.

496. **P. Canadensis** L. LEAF-CUP.
Abundant in woods near Cedar Swamp station, Henrietta; rare else-
where. Le Roy and Bergen, Genesee county.

497. **P. Uvedalia** L.
Rare. Ravine near Canandaigua lake, *E. J. Durand.*

193. *AMBROSIA* Tourn. [L.]

- 498.
- A. trifida**
- L. GREAT RAGWEED.

Abundant along Honeoye creek, especially at Rush Junction, and at the mouth of Oatka creek, Scottsville; occasional elsewhere. Canandaigua lake, *Miss Mary E. Macauley*.

- 499.
- A. artemisiæfolia**
- L. HOGWEED. RAGWEED.

Fields, roadsides, and waste places; very common.

194. *XANTHIUM* Tourn. [L.]

- 500.
- X. STRUMARIUM**
- L. COCKLE-BUR.

Frequent about Rochester. Adams Basin. Wayne county.

- 501.
- X. Canadense**
- Mill. COCKLE-BUR.

Along streams; common.

- 502.
- X. Canadense**
- Mill. var.
- echinatum**
- Gray.

Same range as the preceding; common.

195. *HELIOPSIS* Pers.

- 503.
- H. lævis**
- Pers. [
- H. helianthoides*
- (L.) B.S.P.] OX-EYE.

River banks, ravines, and along streams; common.

- 504.
- H. scabra**
- Dunal. (
- H. lævis*
- var.
- scabra*
- Torr. & Gray.) Rare.

196. *ECHINACEA* Moench. [BRAUNERIA Neck.]

- 505.
- E. ANGUSTIFOLIA**
- DC. [
- Brauneria pallida*
- (Nutt.) Britton.] PURPLE CONE-FLOWER.

Introduced from the west. Railroad embankment, Adams Basin, *M. S. Baxter*.

197. *RUDBECKIA* L.

- 506.
- R. laciniata**
- L. CONE-FLOWER.

River banks, ravine sides, along streams; common.

- 507.
- R. hirta**
- L. YELLOW DAISY. CONE-FLOWER.

Fields; very common.

- 508.
- R. hirta**
- L. var. ———. A form with band of dark brown at base of ray flowers was found in the town of Gates, near Rochester, in 1891, by Miss Beckwith; again in 1892 and 1893. See Proc. Roch. Acad. Sc., Vol. II, Broch. 2, pp. 170, 171; Broch. 3, p. 241.

198. *HELIANTHUS* L. SUNFLOWER.

— **H. ANNUUS** L. Frequently spontaneous, but not permanent.

- 509.
- H. divaricatus**
- L.

Dry woods, river banks, tops of ravines; common.

- 510.
- H. strumosus**
- L.

River banks, sides of ravines, copses, in rich and usually moist soil.

- 511.
- H. strumosus**
- L. var.
- mollis**
- Torr. & Gray. [
- H. strumosus macrophyllus*
- (Willd.) Britton.] Rare. Greece,
- Bradley*
- .

- 512.
- H. decapetalus**
- L.

River banks and ravines; not common.

513. **H. tuberosus** L. JERUSALEM ARTICHOKE.
Alluvial soil; not common.
199. *COREOPSIS* L.
514. **C. discoidea** Torr. & Gray. [*Bidens discoidea* (T. & G.) Britton.]
Rare. Sandbar and lake shore, Irondequoit, *J. B. Fuller*.
200. *BIDENS* L.
515. **B. frondosa** L. STICK-TIGHT. BEGGAR-TICKS.
Low ground and moist waste places; common.
516. **B. connata** Muhl. SWAMP BEGGAR-TICKS.
Along ditches, brooks, etc.; frequent.
517. **B. cernua** L.
Shores, swamps, ditches, wet places; common.
518. **B. chrysanthemoides** Michx. [*B. laevis* (L.) B.S.P.]
Borders of streams, marshes and ditches; common.
519. **B. bipinnata** L. SPANISH NEEDLES.
Rare. Long pond, *Dr. Anna H. Searing*.
520. **B. Beckii** Torr. WATER MARIGOLD.
Rare. Sodus bay, *G. T. Fish*.
201. *HELENIUM* L.
521. **H. autumnale** L. SNEEZE-WEED.
River flats, wet ground, along streams; frequent.
202. *ANTHEMIS* L.
522. **A. COTULA** DC. [L.] (*Maruta Cotula* DC.) MAYWEED.
Roadsides and waste places; abundant.
523. **A. ARVENSIS** L. CORN CHAMOMILE.
Fields, roadsides, waste places; common.
203. *ACHILLEA* L.
524. **A. Millefolium** L. YARROW.
Fields, roadsides, waste places; common. The pink-flowered form frequent.
204. *CHRYSANTHEMUM* Tourn. [L.]
525. **C. LEUCANTHEMUM** L. (*Leucanthemum vulgare* Lam.) OX-EYE DAISY.
Fields and meadows; very abundant.
526. **C. LEUCANTHEMUM** L. var. *TUBULIFLORUM* Tenney.
Greece, north of the Ridge road, *Mrs. J. J. Kempe*.
527. **C. PARTHENIUM** Pers. (*Leucanthemum Parthenium* Godron.) [*Chrysanthemum Parthenium* (L.) Pers.] FEVERFEW. Escaped.
205. *TANACETUM* L.
528. **T. VULGARE** L. COMMON TANSY. Roadsides; frequent.
206. *ARTEMISIA* L.
529. **A. caudata** Michx.
Rare. Shore of lake Ontario, Webster, *Dr. C. M. Booth*.

530. **A. Canadensis** Michx.
Rare. Bluffs along lake Ontario and Irondequoit bay.
531. **A. VULGARIS** L. COMMON MUGWORT.
Waste places; abundant in the south-eastern part of Rochester.
532. **A. BIENNIS** Willd.
Rare. Recently introduced along N.Y. C. railroad, *Miss Beckwith*.
533. **A. ABSINTHIUM** L. COMMON WORMWOOD.
Occasional in fields and by roadsides.
207. TUSSILAGO Tourn. [L.]
534. **T. FARFARA** L. COLTS-FOOT.
Wet clay soil. Banks Genesee river, Rochester. Sweden. Caledonia, Livingston county. Bergen, Genesee county. Wayne county.
208. PETASITES Tourn.
535. **P. palmata** Gray. (*Nardosmia palmata* Hook.) [*Tussilago palmata* Ait.]
SWEET COLT'S-FOOT.
Rare. Cleared swamp in Irondequoit, *Dr. C. M. Booth*.
209. SENECEO Tourn. [L.]
536. **S. VULGARIS** L. COMMON GROUNDSEL.
Waste grounds and cultivated fields; common about Rochester.
537. **S. aureus** L.
Common in wet ground.
538. **S. aureus** L. var. **Balsamitæ** Torr. & Gray. [*S. Balsamitæ* Muhl.]
Rare. Bergen swamp, Genesee county.
210. CACALIA L.
539. **C. suaveolens** L. INDIAN PLANTAIN.
Rare. Shore of Irondequoit bay, *Dr. C. M. Booth*. Penfield, *G. T. Fish*. Bank of Genesee river, near the mouth of Black creek, *M. S. Baxter*. Avon, Livingston county, *Dr. B. D. Greene in Buff. Cat*.
540. **C. atriplicifolia** L.
Rare. Near Rochester, *Z. H. Harris*. Greece, *Bradley*.
211. ERECHTITES Raf.
541. **E. hieracifolia** Raf. [*E. hieracifolia* (L.) Raf.] FIRE-WEED.
Moist woods and recent clearings; common.
CALENDULA L.
- **C. OFFICINALIS** L. POT or CAPE MARIGOLD. Escaped to roadside.
212. ARCTIUM L.
542. **A. LAPPA** L. (*Lappa officinalis* All.) BURDOCK.
Waste places; common.
213. CNICUS Tourn. (*Cirsium* Tourn. of Man.)
543. **C. LANCEOLATUS** Hoffm. (*Cirsium lanceolatum* Scop.) [*Carduus lanceolatus* L.] COMMON THISTLE.
Pastures, roadsides and waste places; common.

544. **C. altissimus** Willd. var. **discolor** Gray. (*Cirsium discolor* Spreng.) [*Carduus discolor* (Muhl.) Nutt.]
Borders of woods; scarce.
545. **C. muticus** Ph. (*Cirsium muticum* Mx.) [*Carduus muticus* (Mx.) Pers.]
SWAMP THISTLE.
Swamps; not common. Scottsville. Caledonia, Livingston county.
Bergen, Genesee county.
546. **C. pumilus** Torr. (*Cirsium pumilum* Spreng.) [*Carduus odoratus* (Muhl.) Porter.] PASTURE THISTLE.
Old fields; infrequent.
547. **C. ARVENSIS** Hoff. (*Cirsium arvense* Scop.) [*Carduus arvensis* (L.) Robs.] CANADA THISTLE.
Fields, roadsides, waste places; very common.
548. **C. ARVENSIS** Hoff. var. **ALBIFLORUS**. Frequent.
214. **ONOPORDON** Vaill. [L.]
549. **O. ACANTHIUM** L. SCOTCH THISTLE.
Roadsides and fields; scarce. North Union street and Lake avenue,
Rochester. Irondequoit. Chili. Bergen. Wayne county.
- SILYBUM* Gærtn.
- **S. MARIANUM** Gærtn. [*S. Marianum* (L.) Gærtn.] MILK THISTLE.
Neglected grounds, East avenue, Rochester, 1891-1894.
215. **CENTAUREA** L.
550. **C. BENEDICTA** L. (*Cnicus benedictus* L.) [*Cnicus benedictus* L.]
Kendall, Orleans county, *Prof. W. H. Lennon*.
551. **C. JACEA** L. Neglected lawn, East avenue, Rochester, 1882-1894.
216. **LAMPSANA** Tourn. [*LAPSANA* L.]
552. **L. COMMUNIS** L.
Roadsides and grass plats; rare. Near Rochester, *Otto Betz*. Brockport, *Prof. Lennon*. Wayne county.
217. **CHICORIUM** Tourn. [L.]
553. **C. INTYBUS** L. CHICORY. SUCCORY.
Fields and roadsides; common. Abundant in many places. In the southern part of Ontario county it is known as *Evan's Pink*.
218. **TRAGOPOGON** L.
554. **T. PORRIFOLIUS** L. SALSIFY.
Fields; frequent in the vicinity of Rochester.
555. **T. PRATENSIS** L. YELLOW GOAT'S-BEARD.
Rare. Waste lot, State street, Rochester, *J. B. Fuller*. Along railroad, *G. T. Fish*. Brockport, *Prof. Lennon*. *L. Holzer*.

219. *HIERACIUM* Tourn. [L.]

556. *H. AURANTIACUM* L.
Riga, *Miss F. Beckwith*. Pavilion, Genesee county, *J. B. Fuller*.
Holley, Orleans county, *Prof. Lennon*.^{*} Abundant at these places.
Becoming a pest at Kendall, Orleans county.
557. *H. Canadense* Michx.
Dry woods and roadsides; common.
558. *H. paniculatum* L.
Dry open woods; frequent.
559. *H. venosum* L. RATTLESNAKE-WEED.
Dry woods and copses; frequent.
560. *H. Marianum* Willd.
Rare. Rochester, *Mrs. Mary E. Streeter*.
561. *H. scabrum* Michx.
Dry open woods; frequent.

220. *CREPIS* L.

562. *C. BIENNIS* L.
Rare. School grounds, Fairport, *Miss Mary E. Macauley*.
563. *C. TECTORUM* L.
Scarce. Mount Hope, 1866, and roadside, Culver park, 1882, *J. B. Fuller*. Neglected lawn, East avenue. Brighton, *Dr. C. M. Booth*.
Brockport, *Prof. Lennon*.

221. *PRENANTHES* Vaill. [L.]

564. *P. alba* L. (*Nabalus albus* Hook.) WHITE LETTUCE.
Rich woods and river banks; common.
565. *P. serpentaria* Pursh. (*Nabalus Fraseri* DC.) LION'S-FOOT.
Dry woods; frequent, especially on the sandy ridges about Ironde-
quoit bay and creek.
566. *P. altissima* L. (*Nabalus altissimus* Hook.)
Moist shaded soil along river banks and in ravines; frequent.

222. *TARAXACUM* Haller.

567. *T. OFFICINALE* Weber. (*T. Dens-leonis* Desf.) [*T. Taraxacum* (L.)
Karst.] DANDELION.
Very common everywhere in grass.

223. *LACTUCA* Tourn. [L.]

568. *L. SCARIOLA* L. PRICKLY LETTUCE.
Waste grounds and roadsides. Abundant in several places in and
near the city of Rochester.
569. *L. Canadensis* L. WILD LETTUCE.
Borders of fields and woods; common.
570. *L. leucophæa* Gray. (*Mulgedium leucophæum* DC.) [*Lactuca spicata*
(Lam.) A. S. Hitch.] BLUE LETTUCE.
Borders of woods, low grounds; common.
- *L. SATIVA* L., GARDEN LETTUCE, escapes to roadsides occasionally.

224. *SONCHUS* L.

571. *S. OLERACEUS* L. COMMON SOW-THISTLE.
Roadsides and waste places ; common.
572. *S. ASPER* Vill. [*S. asper* (L.) Vill.] SPINY-LEAVED SOW THISTLE.
With the last, but less frequent.
573. *S. ARVENSIS* L. FIELD SOW-THISTLE.
Roadsides, waste places, and brooksides ; scarce. First detected in 1864, on East Main street, Rochester, by *Dr. C. M. Booth*; again in 1866, near the mouth of Deep Hollow creek, by *J. B. Fuller*. Irondequoit bay, 1895, *Dr. C. M. Booth*. Churchville, 1893, *Miss F. Beckwith*. *G. T. Fish*. Newark, Wayne county, *E. L. Hankenson*.

LOBELIACEÆ.

225. *LOBELIA* L.

574. *L. cardinalis* L. CARDINAL FLOWER.
Low grounds, along streams and borders of woods ; frequent.
575. *L. syphilitica* L. GREAT LOBELIA.
Low grounds and swampy places ; common.
576. *L. spicata* Lam.
Rare. Adams Basin, *M. S. Baxter*. "The Gulf", Genesee county, *Miss F. Beckwith*. Mount Morris, *Mrs. M. E. Streeter*.
577. *L. Kalmii* L.
Wet rocks and cliffs, wet meadows, swamps ; frequent.
578. *L. inflata* L. INDIAN TOBACCO.
Meadows and pastures ; frequent.

CAMPANULACEÆ.

226. *SPECULARIA* Heister. [*LEGOUZIA* Durand.]

579. *S. perfoliata* A. DC. [*Legouzia perfoliata* (L.) Britton.] VENUS'S LOOKING GLASS. Dry fields ; not common.

227. *CAMPANULA* Tourn. [L.]

580. *C. RAPUNCULOIDES* L.
Roadsides ; infrequent. South avenue, Rochester. Rush. Gates. Adams Basin.
581. *C. rotundifolia* L. HAREBELL.
Rocky and sandy shaded banks ; common.
582. *C. rotundifolia* L. var. *arctica* Lange. (*C. rotundifolia* var. *linifolia* Man.) [*C. rotundifolia Langsdorfiana* (A. D. C.) Britton.]
Rare. Ridges west of Irondequoit bay, *J. E. Paine*.
583. *C. aparinoides* Pursh. MARSH BELLFLOWER.
Shores and marshes ; frequent. In 1895 *Miss F. Beckwith* collected specimens on the sandy top of Sugar-loaf hill, on the Dugway road.
584. *C. Americana* L. TALL BELLFLOWER.
Rare. "The Gulf", *Miss F. Beckwith*. Near Le Roy, Genesee county, *Miss Mary E. Macauley*. *L. Holzer*.

ERICACEÆ.

228. *GAYLUSSACIA* HBK.

585. **G. frondosa** Torr. & Gray. [*G. frondosa* (L.) T. & G.] BLUE TANGLE.
Orleans county, *Miss Lucy Weld*. Wayne county, *E. L. Hankenson*.
586. **G. resinosa** Torr. & Gray. [*G. resinosa* (Ait.) Torr. & Gray.] BLACK
HUCKLEBERRY.

Frequent on the dry banks of Genesee river and tops of ravines.

229. *VACCINIUM* L.

587. **V. stamineum** L. DEERBERRY.
Dry woods on river banks, ravines and hills; common.
588. **V. Pennsylvanicum** Lam. DWARF BLUEBERRY.
Dry woods, banks, ravines, hillsides, fields; common.
589. **V. Canadense** Kalm. [*V. Canadense* Richards.] DOWNY BLUEBERRY.
Swamps and low woods; scarce.
590. **V. vacillans** Solander. [*V. vacillans* Kalm.] LOW BLUEBERRY.
In same situations as *V. Pennsylvanicum*, but less frequent.
591. **V. corymbosum** L. SWAMP BLUEBERRY.
Open swampy woods and sphagnum marshes; abundant.
592. **V. Oxycoccus** L. [*Schollera Oxycoccus* (L.) Roth.] SMALL CRANBERRY.
Sphagnum marshes; frequent.
593. **V. macrocarpon** Ait. [*Schollera macrocarpa* (Ait.) Britton.] LARGE
CRANBERRY.
Sphagnum marshes; rare. Mendon, *Geo. T. Fish*, *M. S. Baxter*.
Bergen, Genesee county, *Dr. Booth*, *Mrs. M. E. Streeter*. Wayne county.

230. *CHIOGENES* Salisb.

594. **C. serpyllifolia** Salisb. (*C. hispidula* T. & G.) [*C. hispidula* (L.) T. & G.]
CREEPING SNOWBERRY.
Mossy knolls, under hemlocks and cedars; rare. Bergen, Genesee
county. Wayne county.

231. *ARCTOSTAPHYLOS* Adans.

595. **A. Uva-ursi** Spreng. [*A. Uva-ursi* (L.) Spreng.] BEAR-BERRY.
Rare. "The Gulf", Genesee county, *Miss F. Beckwith*.

232. *EPIGÆA* L.

596. **E. repens** L. TRAILING ARBUTUS.
Dry banks of Genesee river, and on sandy hillsides; common.

233. *GAULTHERIA* Kalm. [L.]

597. **G. procumbens** L. WINTERGREEN.
Woods; common.

234. *ANDROMEDA* L.

598. **A. polifolia** L.
Abundant in sphagnum bogs at Mendon ponds. Wayne county.

235. *CASSANDRA* Don. [*Chamædaphne* Mœnch.]

599. **C. calyculata** Don. [*Chamædaphne calyculata* (L.) Mœnch.] LEATHER-LEAF. Abundant in the bogs at Mendon. Adams Basin. Wayne Co.

236. *KALMIA* L.

600. **K. latifolia** L. MOUNTAIN LAUREL.

Sodus, $\frac{1}{8}$ mile west of Wallington, 1875, 1882, *E. L. Hankenson*.

601. **K. angustifolia** L. SHEEP LAUREL.

Salmon creek and Fly creek, Sodus, Wayne county, about 1850, *Check list, E. L. Hankinson*.

237. *RHODODENDRON* L.

602. **R. nudiflorum** Torr. (*Azalia nudiflora* L.) [*Azalia nudiflora* L.] PINXTER-FLOWER.

Dry woods on banks and hillsides; common.

603. **R. maximum** L. GREAT LAUREL.

Rare. In a deep swamp in Webster, covering an area of about 400 square yards. Detected by *James H. Brown*, in 1892.

238. *LEDUM* L.

604. **L. latifolium** Ait. [*L. Grœnlandica* Ceder.] LABRADOR TEA.

Cold swamps; scarce. Riga, *Miss F. Beckwith*. Adams Basin, *M. S. Baxter*. Mendon. Caledonia, *Miss Mary E. Roberts*. Frequent in Bergen swamp. Wayne county.

239. *CHIMAPHILA* Pursh.

605. **C. umbellata** Nutt. [*C. umbellata* (L.) Nutt.] PRINCE'S PINE.

Dry banks; frequent.

606. **C. maculata** Pursh. [*C. maculata* (L.) Ph.] SPOTTED WINTERGREEN.

Dry woods; rare. Gates, *Miss F. Beckwith*. Greece, *J. B. Fuller*. Near Rochester, *Dr. C. M. Booth* and *G. T. Fish*. Wayne county.

240. *MONESSES* Salisb.

607. **M. grandiflora** Salisb. (*M. uniflora* Gray.) [*M. uniflora* (L.) A. Gray.]

Deep woods; rare. Greece, 1867, *J. B. Fuller*. Irondequoit, 1892, *Warner Gilbert* and *Miss Mary E. Macauley*. Penfield, 1895, *Miss F. Beckwith*. Bergen, *Miss Mary E. Macauley*.

241. *PYROLA* Tourn. [L.]

608. **P. secunda** L.

Dry woods, banks, hillsides; common.

609. **P. chlorantha** Swartz.

Dry woods; frequent.

610. **P. elliptica** Nutt. SHIN-LEAF.

Woods; common.

611. **P. rotundifolia** L.

Woods; abundant.

242. *PTEROSPORA* Nutt.

612. **P. Andromedeae** Nutt. PINE-DROPS.
Dry slopes, bluffs; rare. Bluff at the northern extremity of Irondequoit bay, Webster, *Prof. Lennon* and *M. S. Baxter*. Seneca point, Canandaigua lake, *Mrs. M. E. Streeter*.

243. *MONOTROPA* L.

613. **M. uniflora** L. INDIAN PIPE. CORPSE-PLANT.
Deep rich woods; frequent.
614. **M. Hypopitys** L. [*Hypopitys Hypopitys* (L.) Small.] PINE-SAP.
Rich woods; infrequent.

PRIMULACEÆ.

244. *TRIENTALIS* L.

615. **T. Americana** Pursh. STAR-FLOWER.
Cool woods and ravines; common.
245. *STEIRONEMA* Raf.
616. **S. ciliatum** Raf. (*Lysimachia ciliata* L.) [*Steironema ciliatum* (L.) Baudo.] Low grounds and along streams; common.
617. **S. lanceolatum** Gray. (*Lysimachia lanceolata* Walt.) [*Steironema lanceolatum* (Walt.) A. Gray.]

246. *LYSIMACHIA* Tourn. [L.]

618. **L. quadrifolia** L.
Woods, banks, slopes of ravines, etc.; frequent.
619. **L. stricta** Ait. [*L. terrestris* (L.) B.S.P.]
Marshy places; frequent.
620. **L. NUMMULARIA** L. MONEYWORT.
Abundant on the flats along the Genesee river, in Seneca park.
621. **L. thyrsoflora** L. [*Naumbergia thyrsoflora* (L.) Duby.]
Wet meadows, marshes; infrequent.

247. *ANAGALLIS* Tourn. [L.]

622. **A. ARVENSIS** L. COMMON PIMPERNEL.
Infrequent. Sandy fields, Greece. Alluvial soil, Irondequoit. Near Highland park. Rochester, Scottsville, Canandaigua, and elsewhere.

248. *SAMOLUS* Tourn. [L.]

623. **S. Valerandi** L. var. **Americanus** Gray. [*S. floribundus* H.B.K.]
Frequent in wet meadows and along rivulets.

OLEACEÆ.

249. *FRAXINUS* Tourn. [L.]

624. **F. Americana** L. WHITE ASH.
Woods; common.
625. **F. pubescens** Lam. [*F. Pennsylvanica* Marsh.] RED ASH.
Low woods; infrequent.

626. **F. viridis** Michx. f. [*F. lanceolata* Borck.] GREEN ASH.
Rare. Low ground, Brighton.

627. **F. sambucifolia** Lam. [*F. nigra* Marsh.] BLACK ASH.
Low woods and swamps; common.

250. *LIGUSTRUM* Tourn. [L.]

628. **L. VULGARIS** L. PRIVET. Escaped. Infrequent.

APOCYNACEÆ.

251. *VINCA* L.

629. **V. MINOR** L. PERIWINKLE. CREEPING MYRTLE. Escaped. Frequent.

252. *APOCYNUM* Tourn. [L.]

630. **A. androsæmifolium** L. DOG-BANE.
Banks of streams, borders of woods; common.

631. **A. cannabinum** L. INDIAN HEMP.
Low grounds and shores; common.

ASCLEPIADACEÆ.

253. *ASCLEPIAS* L.

632. **A. tuberosa** L. BUTTERFLY-WEED. PLEURISY-ROOT.
Dry fields and banks; frequent. Common in the sandy soils of
Greece and Irondequoit.

633. **A. incarnata** L. SWAMP MILKWEED.
Low grounds and shores; common.

634. **A. Cornuti** Decaisne. [*A. Syriaca* L.] COMMON MILKWEED.
Fields and roadsides; common.

635. **A. phytolaccoides** Pursh. [*A. exaltata* (L.) Muhl.] POKE MILKWEED.
Woods and shores; frequent.

636. **A. quadrifolia** L. [*A. quadrifolia* Jacq.] FOUR-LEAVED MILKWEED.
Dry woods, ravines, and slopes; common.

637. **A. verticillata** L. WHORLED-LEAVED MILKWEED.
Rare. Near Rochester, *Dr. C. M. Booth*. Penfield, *L. Holzer*.
Perinton, *Miss Mary E. Macauley*. Mrs. *Mary E. Streeter*.

254. *VINCETOXICUM* Mœnch. [*CYNANCHUM* L.]

638. **V. NIGRUM** Mœnch. [*Synanchum nigrum* (L.) Pers.]
Rare. Pinnacle hills, Rochester. Wayne county.

PERIPLOCA L.

— **P. GRÆCA** L. Naturalized near Rochester, *Sartwell in Herb. Ham. Coll.*

GENTIANACEÆ.

255. *GENTIANA* Tourn. [L.]

639. **G. crinita** Frœl. FRINGED GENTIAN.
Wet places; frequent.

640. **G. serrata** Gunner. (*G. detonsa* Man.)
Rare. Bluffs along Lake Ontario in the town of Irondequoit, *Paine*.

641. **G. quinqueflora** Lam. [*G. quinquefolia* L.]
Common on the sides of hills and ridges.
642. **G. puberula** Michx.
Rare. Dry sandy ridges, west side Irondequoit bay, *Geo. T. Fish* and
J. B. Fuller.
643. **G. Saponaria** L. SOAPWORT GENTIAN.
Rare. Greece, *Bradley*.
644. **G. Andrewsii** Griesb. CLOSED GENTIAN.
Moist or dry banks; frequent.
256. *FRASERA* Walt.
645. **F. Carolinensis** Walt. AMERICAN COLUMBO.
Rare. Bank Genesee river. Penfield, *Dr. C. M. Booth*, *L. Holzer*,
East Bloomfield, Ontario county, *Sartwell*.
257. *BARTONIA* Muhl.
646. **B. tenella** Muhl. [*B. Virginica* (L.) B.S.P.]
Rare. Black creek, *Dr. C. M. Booth*. Adams Basin, *M. S. Baxter*.
Wayne county.
258. *MENYANTHES* Tourn. [L.]
647. **M. trifoliata** L. BUCK-BEAN.
Swamps; scarce. Irondequoit bay, *Dr. C. M. Booth*. Charlotte,
J. B. Fuller. Long pond, *Dr. A. H. Searing*. Mendon, *Geo. T. Fish!*
Adams Basin, *M. S. Baxter*. Bergen, Genesee county. Wayne county.

POLEMONIACEÆ.

259. *PHLOX* L.

648. **P. divaricata** L.
Rich woods; frequent. Occasionally with entire corolla lobes.
649. **P. subulata** L. MOSS PINK.
Dry grassy banks; not common. Banks of Genesee river north of
Rochester. Maxwell's Station, Caledonia, Livingston county, *Miss F.*
Beckwith. Banks of Oatka creek, Le Roy, Genesee county. Flint
Hill, Genesee county. Rarely with white flowers, *J. B. Fuller*.

HYDROPHYLLACEÆ.

260. *HYDROPHYLLUM* Tourn. [L.] WATER-LEAF.

650. **H. Virginicum** L.
Rich woods; frequent.
651. **H. Canadense** L.
Rare. Bank of Genesee river, near the lower falls. Brockport and
Mendon, *M. S. Baxter*. Wayne county.
652. **H. appendiculatum** Michx.
Rare. Parma, *Bradley*.

BORRAGINACEÆ.

261. *CYNOGLOSSUM* Tourn. [L.]

653. *C. OFFICINALE* L. HOUND'S-TONGUE.
Waste grounds, roadsides, pastures; common.

654. *C. Virginicum* L. WILD COMFREY.
Rare. Rochester, 1881, *H. C. Maine*. Greece, *Bradley*. *L. Holzer*.

262. *ECHINOSPERMUM* Lehm. [*LAPPULA* Mœench.]

655. *E. Virginicum* Lehm. (*Cynoglossum Morisoni* DC.) [*Lappula Virginiana* (L.) Greene.] BEGGAR'S LICE.
Borders of woods and thickets; frequent.

656. *E. LAPPULA* Lehm. [*Lappula Lappula* (L.) Karst.] STICK-SEED.
Waste grounds, roadsides, fields; common.

263. *MERTENSIA* Roth.

657. *M. Virginia* DC. LUNG-WORT. BLUE-BELLS.
Alluvial soil; not common. Brighton. Rich's Mills. Penfield.
Rush. Scottsville. Wayne county. Ontario county.

264. *MYOSOTIS* Dill. [L.]

658. *M. laxa* Lehm. (*M. palustris* var. *laxa* Gray.) FORGET-ME-NOT.
Marshes and borders of streams; abundant.

659. *M. verna* Nutt.
Dry woods around Irondequoit bay; rare. Webster, *Geo. T. Fish*.
Penfield, *Dr. C. M. Booth!*

265. *LITHOSPERMUM* Tourn. [L.]

660. *L. ARVENSE* L. CORN GROMWELL.
Fields and roadsides; common.

661. *L. OFFICINALE* L. COMMON GROMWELL.
Rich soil; infrequent. *Dr. C. M. Booth*. Scottsville, *Miss Florence Beckwith*. Adams Basin, *M. S. Baxter*. Wayne county.

662. *L. latifolium* Michx.
Rare. Near Rochester, *Dr. C. M. Booth*. Scottsville, *L. Holzer*.

663. *L. hirtum* Lehm. [*L. Gmelini* (Michx.) A. S. Hitchcock.]
Rare. Sandy hillsides, Penfield, near Irondequoit bay, *Dr. Booth*.
Wilhelm's farm, Penfield, *L. Holzer*. Brighton, *G. T. Fish*. Near
Fairport, *Miss Mary E. Macauley*.

266. *SYMPHYTUM* Tourn. [L.]

664. *S. OFFICINALE* L. COMMON COMFREY.
Waysides and along streams; not uncommon.

665. *S. ASPERRIMUM* Sims. PRICKLY COMFREY.
Rare. Roadside, Chili, *Mrs. J. H. McGuire*.

267. *LYCOPSIS* L.

666. *L. ARVENSIS* L. SMALL BUGLOSS.
Rare. *Prof. Lennon*.

268. *ECHIU*M Tourn. [L.]

- 667.
- E. VULGARE*
- L. BLUE-WEED.

Rare. Dry pasture, Greece, *J. B. Fuller*. Seneca park. Brockport, *M. S. Baxter*. Near Le Roy, Genesee county.

CONVOLVULACEÆ.

269. *IPOMŒA* L.

- 668.
- I. PURPUREA*
- Lam. [
- I. purpurea*
- (L.) Roth.] MORNING GLORY.
-
- Escaped to roadsides.

270. *CONVOLVULUS* Tourn. [L.]

- 669.
- C. spithamæus*
- L. (
- Calystegia spithamæa*
- Pursh.)

Rare. Bank of Genesee river, below the lower falls. Irondequoit, *L. Holzer*.

- 670.
- C. sepium*
- L. (
- Calystegia sepium*
- R.Br.) HEDGE BIND-WEED.
-
- Moist banks ; common.

- 671.
- C. ARVENSIS*
- L. FIELD BIND-WEED.
-
- Old fields ; scarce.

271. *CUSCUTA* Tourn. [L.]

- 672.
- C. Gronovii*
- Willd.

Marshes and along streams ; frequent.

SOLANACEÆ.

272. *SOLANUM* Tourn. [L.]

- 673.
- S. DULCAMARA*
- L. BITTERSWEET.

Swamps, along streams, waste places near dwellings ; common.
A form with white flowers is abundant at Maxwell's Station, Caledonia, Livingston county, *Miss Florence Beckwith*.

- 674.
- S. NIGRUM*
- L. COMMON NIGHTSHADE.

Fields, low ground along streams, waste ground ; frequent.

- 675.
- S. CAROLINENSE*
- L. HORSE-NETTLE.

Rare. Macedon, Wayne county, 1883, *E. L. Hankenson*. Field near Mud pond, Wayne county, 1894, *M. S. Baxter* and *Prof. Lennon*.

- 676.
- S. ROSTRATUM*
- Dunal.

Waste lot, Spencer street, Rochester ; a few plants in 1869, increased to a large number in 1881, *J. B. Fuller*. North St. Paul street, Rochester, 1893, *J. Bishop*. A single plant at railroad depot, Newark, Wayne county, 1884, *D. van C. in check list E. L. Hankenson*.

273. *PHYSALIS* L.

- 677.
- P. ALKEKENGII*
- L. WINTER CHERRY. STRAWBERRY TOMATO.

Rare. Grand avenue, Rochester, and along N. Y. C. R. R., Brighton, *Dr. C. M. Booth*.

- 678.
- P. pubescens*
- L.

Rare. *Rev. John E. Baker*.

- 679.
- P. Virginiana*
- Mill. (
- P. viscosa*
- Man.)

Rare. Gates, *G. T. Fish*.

274. *NICANDRA* Adans. [*PHYSALODES* Boehm.]680. *N. PHYSALOIDES* Gærtn. [*Physalodes Physalodes* (L.) Britton.]Rare. Naturalized in Greece, *Bradley*. Hamlin, *M. S. Baxter*.
Wayne county.275. *ATROPA* L.681. *A. BELLADONNA* L.Rare. Naturalized in Parma, *Bradley*.276. *LYCIUM* L.682. *L. VULGARE* Dunal. [*L. vulgare* (Ait. f.) Dunal.] MATRIMONY VINE.

River banks and waste grounds; not uncommon.

277. *HYOSCYAMUS* Tourn. [L.]683. *H. NIGER* L. HENBANE.Rare. Waste place, *Mrs. Mary E. Streeter*.278. *DATURA* L.684. *D. STRAMONIUM* L. JAMESTOWN-WEED. THORN-APPLE.

Waste grounds; frequent.

685. *D. TATULA* L. PURPLE THORN-APPLE.Rare. Near Clarissa street bridge, Rochester, *M. S. Baxter*.
Hamlin, *Miss F. Beckwith*.279. *NICOTIANA* Tourn. [L.]686. *N. RUSTICA* L. WILD TOBACCO.Rare. *L. Holzer*.

SCROPHULARIACEÆ.

280. *VERBASCUM* L.687. *V. THAPSUS* L. COMMON MULLEIN.

Dry fields and roadsides; common.

688. *V. BLATTARIA* L. MOTH MULLEIN.

Fields, pastures and roadsides; frequent.

281. *LINARIA* Tourn. [Juss.]689. *L. Canadensis* Dumont.Rare. Mumford, *Mrs. N. G. Mathews*.690. *L. VULGARIS* Mill. [*L. Linaria* (L.) Karst.] BUTTER AND EGGS.

Fields, roadsides, waste grounds; common.

282. *DIGITALIS* L.691. *D. LANATA* L.Escaped to roadside near Canandaigua, *Mrs. E. O. Cartwright*.283. *SCROPHULARIA* Tourn. [L.]692. *S. nodosa* L. var. *Marilandica* Gray. [*S. Marylandica* L.] FIGWORT.

River banks and ravines; frequent.

284. *CHELONE* Tourn. [L.]693. *C. glabra* L. TURTLE-HEAD. SNAKE-HEAD.

Wet meadows, marshes and swamps; common.

285. *PENTSTEMON* Mitchell. [Soland.]

694. **P. pubescens** Solander. [*P. hirsutus* (L.) Willd.]
Dry or rocky ground. Common on the banks of Genesee river and
in oak openings.
695. *P. LÆVIGATUS* Solander. [*P. Pentstemon* (L.) Britton.]
Rare. In a pasture, near woods, Penfield, *Rev. John Walton*.
696. *P. LÆVIGATUS* Solander, var. *DIGITALIS* Gray. (*P. Digitalis* Nuttall.)
[*P. Digitalis* (Sweet) Nutt.]
Rare. Near Oak Orchard, Orleans county, *Prof. W. H. Lennon*.
Wayne county, *E. L. Hankenson*.

286. *MIMULUS* L.

697. **M. ringens** L. MONKEY-FLOWER.
Wet meadows and along streams; frequent.
698. **M. alatus** Ait. [*M. alatus* Solander.]
Rare. Near Rochester, *L. Holzer*. Greece, *Bradley*.

287. *GRATIOLA* L.

699. **G. Virginiana** L. HEDGE-HYSSOP.
Muddy places, fields, and overflowed grounds; frequent.

288. *ILYSANTHES* Raf.

700. **I. riparia** Raf. (*I. gratioloides* Benth.) [*I. gratioloides* (L.) Benth.]
Rare. Brockport, *Prof. Lennon*. Kendall, Orleans county, *M. S. Baxter*.
Sodus bay, Wayne county, *G. T. Fish*.

289. *VERONICA* L.

701. *V. SPICATA* L. Escaped. *G. T. Fish*.
702. **V. Virginica** L. [*Leptandra Virginica* (L.) Nutt.] CULVER'S ROOT.
Rare. Rush, 1894, *Miss Beckwith*. Avon, Livingston Co., *Sartwell*.
703. **V. Anagallis** L. [*V. Anagallis-aquatica* L.] WATER SPEEDWELL.
Rare. Caledonia, Livingston county, *L. Holzer*. Roadside ditch
near Bergen swamp. Kendall, Orleans county, *M. S. Baxter*.
704. **V. Americana** Schweinitz. BROOK-LIME.
Brooks, ditches, marshes; common.
705. **V. scutellata** L. MARSH SPEEDWELL.
Wet meadows and swamps; frequent.
706. **V. officinalis** L. COMMON SPEEDWELL.
Dry woods, pastures, roadsides; frequent.
- *V. CHAMÉDRYS* L. Brockport, 1893, *Prof. Lennon*.
707. **V. serpyllifolia** L. THYME-LEAVED SPEEDWELL.
Fields and roadsides; common.
708. **V. peregrina** L. PURSLANE SPEEDWELL.
Waste and cultivated ground; common.
709. *V. ARVENSIS* L. CORN SPEEDWELL.
Cultivated grounds; common.

710. **V. BUXBAUMII** Tenore. [*V. Byzantina* (Sibth. & Smith) B. S. P.]
Rare. Gates, *G. T. Fish*. Perinton, *Miss Mary E. Macauley*.
290. **BUCHNERA** L. [BUCHNERA L.]
711. **B. Americana** L. [*Buechnera Americana* L.] BLUE-HEARTS.
Rare. Bank of Genesee river, Greece, *Bradley*.
291. **GERARDIA** L.
712. **G. pedicularia** L. [*Dasystema pedicularia* (L.) Benth.]
Dry woods along the banks of Genesee river, near ravines, and on hills; frequent.
713. **G. flava** L. [*Dasystema flava* (L.) Wood.] DOWNY FALSE FOXGLOVE.
Oak openings; common.
714. **G. quercifolia** Pursh. [*Dasystema Virginica* (L.) Britton.] SMOOTH FALSE FOXGLOVE.
With *G. flava*; frequent.
715. **G. purpurea** L. PURPLE GERARDIA.
Rare. Shore of lake Ontario, Greece and Irondequoit, *Dr. Booth*; from Irondequoit bay eastward, *L. Holzer*. Mendon, *M. S. Baxter*.
716. **G. purpurea** L. var. **paupercula** Gray. [*G. paupercula* (A. Gray) Britton.]
Sphagnum bogs; rare. Border of Harris pond, Mendon, *Miss M. E. Macauley* and *Miss F. Beckwith*. Bergen swamp, *M. S. Baxter*.
717. **G. tenuifolia** Vahl. SLENDER GERARDIA.
In open woods, on low ground or on dry gravelly or sandy banks; frequent.
292. **CASTILLEIA** Mutis.
718. **C. coccinea** Spreng. [*C. coccinea* (L.) Spreng.] SCARLET PAINTED-CUP.
Formerly frequent on the sandy ridges about Irondequoit bay and creek; becoming scarce. Greece, *Bradley*. Scottsville. Maxwell's Station, Caledonia, Livingston county, *Miss F. Beckwith*.
293. **PEDICULARIS** Tourn. [L.]
719. **P. Canadensis** L. LOUSEWORT.
Woods, ravines and river banks; common.
720. **P. lanceolata** Michx.
Wet banks and marshy places; rare. Bank of Genesee river, near the paper-mill dam, *J. B. Fuller*. Ravine near Irondequoit bay, *Dr. C. M. Booth*. Irondequoit creek, *L. Holzer*. Caledonia, Livingston Co.
294. **MELAMPYRUM** Tourn. [L.]
721. **M. Americanum** Michx. [*M. lineare* Lam.] COW-WHEAT.
Dry woods; common.

OROBANCHACEÆ.

295. **EPIPHEGUS** Nutt.

722. **E. Virginiana** Bart. [*E. Virginiana* (L.) Bart.] BEECH-DROPS.
Frequent in beech woods.

296. *CONOPHOLIS* Wallroth.

723. **C. Americana** Wallr. [*C. Americana* (L. f.) A. Wallr.] CANCER-ROOT.
Rich woods; scarce. Irondequoit, *Dr. C. M. Booth*. Cobb's hill woods, Brighton. Dugway, Brighton. Greece, *J. B. Fuller*. Parma, *Bradley*. Sweden, *Prof. W. H. Lennon*. Wayne county.

297. *APHYLLON* Mitchell. [*Thalesia* Raf.]

724. **A. uniflorum** Gray. [*Thalesia uniflora* (L.) Britton.] ONE-FLOWERED CANCER-ROOT.
Moist woods and wooded banks; scarce. Glen Haven. Irondequoit. Brighton. Webster. Brockport. Adams Basin. Maxwell's Station, Livingston county. Wayne county.

LENTIBULARIACEÆ.

298. *UTRICULARIA* L.

725. **U. vulgaris** L. COMMON BLADDERWORT.
Common in shallow water in the lower Genesee and in all the bays and ponds opening into lake Ontario.
726. **U. gibba** L.
Rare. Mendon ponds, *G. T. Fish* and *J. B. Fuller*.
727. **U. intermedia** Hayne.
Rare. Wayne county, *E. L. Hankenson*.
728. **U. resupinata** B. D. Greene.
Rare. Muddy margin of Mendon ponds, *M. S. Baxter*.
729. **U. cornuta** Michx.
Rare. Shallow water at Mendon ponds, *G. T. Fish!* Wayne county.

299. *PINGUICULA* Tourn. [L.]

730. **P. vulgaris** L. BUTTERWORT.
Wet rocks below Genesee falls, *Dr. Dewey*, *Dr. Booth*. (Exhausted.) Mount Morris, Livingston county, *Mrs. Mary E. Streeter*.

ACANTHACEÆ.

300. *DIANTHERA* Gronov. [L.]

731. **D. Americana** L. WATER-WILLOW.
Rare. Eastern wide-water, Erie canal, *Otto Betz*. Wayne county.

VERBENACEÆ.

301. *VERBENA* Tourn. [L.]

732. **V. urticæfolia** L. WHITE VERVAIN.
Waste places, roadsides, pastures; common.
733. **V. hastata** L. BLUE VERVAIN.
Low grounds and roadsides; common.

302. *PHRYMA* L.

734. **P. Leptostachya** L. LOP-SEED.
Open woods, ravines, thickets; frequent.

LABIATÆ.

303. *TEUCRIUM* Tourn. [L.]

735. **T. Canadense** L. GERMANDER.
Low grounds, margins of streams, marshes; frequent.

304. *COLLINSONIA* L.

736. **C. Canadensis** L. HORSE-BALM.
Rich woods, shaded river banks and ravines; common.

305. *MENTHA* Tourn. [L.]

737. **M. ROTUNDIFOLIA** L. [*M. rotundifolia* (L.) Huds.]
Rare. Between Newark and Lyons, Wayne county, *E. L. Hankenson*.
738. **M. VIRIDIS** L. [*M. spicata* L.] SPEARMINT.
Brooksides and roadsides; common.
739. **M. PIPERITA** L. PEPPERMINT.
Brooks, ditches, springy places, etc.; common.
740. **M. CITRATA** Ehrh. BERGAMOT MINT.
Lumber yard, East Rochester, *J. B. Fuller*.
- **M. SATIVA** L. WHORLED MINT.
Waste lot, Central avenue, Rochester, *J. B. Fuller*.
741. **M. Canadensis** L. WILD MINT.
Low ground and along streams; common.

306. *LYCOPUS* Tourn. [L.]

742. **L. Virginicus** L. BUGLE-WEED.
Shaded low grounds and moist banks; common.
743. **L. sinuatus** Ell. (*Lycopus Europæus* var. *sinuatus* Gray.)
Wet places; very common.

307. *HYSSOPUS* Tourn. [L.]

744. **H. OFFICINALIS** L. HYSSOP.
Monroe avenue, near Pinnacle hill, Rochester, *Miss F. Beckwith*.
Roadside, Gates, *G. T. Fish*. Penfield, *L. Holzer*.

308. *PYCNANTHEMUM* Michx. [*Kællia* Mœnch.]

745. **P. lanceolatum** Pursh. [*Kællia Virginiana* (L.) Britton.]
Rare. Greece, *Bradley*. Near Canandaigua lake, *Mrs. Geo. E. King*.
746. **P. muticum** Pers. [*Kællia mutica* (Michx.) Britton.]
Rare. Brighton, *L. Holzer*. Near Rochester, *Dr. C. M. Booth*.
Mendon, *Geo. T. Fish!*
747. **P. incanum** Michx.
Not common. Dry woods around Irondequoit bay. Greece, *Bradley*.

309. *ORIGANUM* Tourn. [L.]

748. **O. VULGARE** L. WILD MARJORAM.
Roadside, Clyde, Wayne county, *E. L. Hankenson*.

310. *THYMUS* Tourn. [L.]

749. **T. SERPYLLUM** L. WILD THYME.
Roadside, *L. Holzer*.

- T. VULGARIS L. COMMON THYME.
Escaped. *G. T. Fish.*
- SATUREIA Tourn. [L.]
- S. HORTENSIS L. SUMMER SAVORY. Escaped.
311. CALAMINTHA Tourn. [CLINOPODIUM L.]
750. C. NEPETA Link. [*Clinopodium Nepeta* (L.) Kuntze.] BASIL THYME.
Rochester, *Dr. C. M. Booth.*
751. C. **Clinopodium** Benth. [*Clinopodium vulgare* L.] BASIL.
Copses, fields, pastures, roadsides; common.
312. MELISSA L.
752. M. OFFICINALIS L. COMMON BALM.
Roadsides; scarce.
313. HEDEOMA Pers.
753. H. **pulegioides** Pers. [*H. pulegioides* (L.) Pers.] PENNYROYAL.
Dry open woods and fields; common.
314. MONARDA L.
754. M. **didyma** L. BEE BALM.
Rare. Low ground along Irondequoit creek, *Dr. C. M. Booth.*
L. Holzer. Wayne county.
755. M. **Clinopodia** L.
Rare. Ravine near foot of Lorimer street, Rochester, *J. B. Fuller.*
Mary E. Macauley.
756. M. **fistulosa** L. var. **rubra** Gray. [*M. media* Willd.]
Scarce. Shores of Irondequoit bay.
757. M. **fistulosa** L. var. **mollis** Benth. [*M. fistulosa* L.] WILD BERGAMOT.
Dry woods, river banks, ravines; common.
315. BLEPHILIA Raf.
758. B. **ciliata** Raf. [*B. ciliata* (L.) Raf.]
Rare. Canandaigua, *E. J. Durand.*
316. LOPHANTHUS Benth. [VLECKIA Raf.]
759. L. **nepetoides** Benth. [*Vleckia nepetoides* (L.) Raf.] GIANT HYSSOP.
Rare. Bank of Genesee river, *Geo. T. Fish.* Le Roy, *Mrs. S. T. Howard.* Wayne county.
317. NEPETA L.
760. N. CATARIA L. CATNIP.
Fields, roadsides, waste places; common.
761. N. GLECHOMA Benth. [*Glechoma hederacea* L.] GROUND IVY. GILL-OVER-THE-GROUND.
Waste places and roadsides; common.
318. SCUTELLARIA L.
762. S. **lateriflora** L. MAD-DOG SKULL-CAP.
Low grounds and river banks; common.

763. **S. parvula** Michx.
Rare. Sodus bay, *G. T. Fish*. Wayne county, *E. L. Hankenson*.
764. **S. galericulata** L.
Borders of streams and marshes; frequent.
319. *BRUNELLA* Tourn. [*PRUNELLA* L.]
765. **B. vulgaris** L. [*Prunella vulgaris* L.] HEAL-ALL.
Woods, meadows, roadsides; common.
A form with pink flowers was found at the Dugway by *Miss Beckwith*.
White flowers, in Irondequoit, by *Warner W. Gilbert*.
320. *MARRUBIUM* Tourn. [L.]
766. **M. vulgare** L. HOREHOUND.
Fields and waste places; infrequent.
PHLOMIS Tourn. [L.]
- **P. tuberosa** L. JERUSALEM SAGE.
Shore of lake Ontario. Introduced and somewhat naturalized, *Chester Dewey* in *Herb. Sartwell, Ham. Coll.*
321. *LEONURUS* L.
767. **L. cardiaca** L. MOTHERWORT.
Fields, waste places, and roadsides; common.
322. *LAMIUM* L.
768. **L. amplexicaule** L. DEAD-NETTLE.
Fields; infrequent. Abundant in some places.
769. **L. album**. Escaped. *Prof. W. H. Lennon*.
323. *GALEOPSIS* L.
770. **G. tetrahit** L. HEMP-NETTLE.
River banks and waste places; scarce.
324. *STACHYS* Tourn. [L.]
771. **S. palustris** L.
Along the lower Genesee; scarce.
772. **S. aspera** Michx. (*S. palustris* L. var. *aspera* Gray.)
Shores and wet grounds; frequent.
773. **S. lanata** Jacq.
Escaped. *Henrietta, J. B. Fuller*. Mendon, *Geo. T. Fish*.

PLANTAGINACEÆ.

325. *PLANTAGO* Tourn. [L.]
774. **P. major** L. COMMON PLANTAIN.
Fields, roadsides, waste places; frequent.
775. **P. rugelii** Decaisne.
Fields, dooryards, roadsides, waste places; our most common species.
776. **P. lanceolata** L. RIBWORT.
Fields, roadsides, dooryards; very common.

AMARANTACEÆ. [AMARANTHACEÆ.]

326. *AMARANTUS* Tourn. [AMARANTHUS L.]

777. *A. HYPOCHONDRIACUS* L. [*Amaranthus hybridus* L.]
Rare. Wayne county, *E. L. Hankenson*.
778. *A. PANICULATUS* L. [*Amaranthus hybridus paniculatus* (L.) Uline & Bray.]
Roadsides; rare. *Geo. T. Fish. Prof. W. H. Lennon*.
779. *A. RETROFLEXUS* L. [*Amaranthus retroflexus* L.]
Fields, roadsides, waste places; common.
780. *A. ALBUS* L. [*Amaranthus gracizans* L.] TUMBLE-WEED.
Fields, roadsides, waste places; common.
781. *A. BLITOIDES* Watson. [*Amaranthus blitoides* S. Watson.]
Central avenue, Rochester, 1885, *Otto Betz*. Goodman street, near
the axle-works, 1891, *J. B. Fuller*.

CHENOPODIACEÆ.

* 327. *CHENOPODIUM* Tourn. [L.]

782. *C. ALBUM* L. PIG-WEED.
Fields, gardens, waste grounds; very common.
783. *C. URBICUM* L. var. *RHOMBIFOLIUM*. [*C. urbicum* L.]
Rare. Rochester, 1864, *D. F. Day*, in *18th N. Y. Rep.*; *G. T. Fish*.
784. *C. hybridum* L. MAPLE-LEAVED GOOSE-FOOT.
Waste places and river banks; frequent.
785. *C. BONUS-HENRICUS* L. MERCURY.
Escaped. Reilly lot, Central avenue, Rochester, *Joseph B. Fuller*.
Newark, Wayne county, *E. L. Hankenson*.
786. *C. capitatum* Watson. (*Blitum capitatum* L.) [*Blitum capitatum* L.]
STRAWBERRY BLITE.
Fields; scarce.
787. *C. BOTRYS* L. JERUSALEM OAK.
Waysides and waste places; infrequent.
328. *ATRIPLEX* Tourn. [L.]
788. *A. patulum* L. var. *hastatum* Gray. [*A. hastata* L.]
Streets and waste places; frequent.

PHYTOLACCACEÆ.

329. *PHYTOLACCA* Tourn. [L.]

789. *P. decandra* L. COMMON POKE-WEED. SCOKE-BERRY. GARGET.
Pastures and borders of woods; frequent.

POLYGONACEÆ.

330. *RUMEX* L.

790. *R. Britannica* L. (*R. orbiculatus* Man.) GREAT WATER-DOCK.
Marshes; frequent.
791. *R. verticillatus* L. SWAMP DOCK.
Marshes; common.

792. *R. CRISPUS* L. CURLED DOCK.
Fields and waste places; common.
793. *R. OBTUSIFOLIUS* L. BITTER DOCK.
Fields, roadsides, waste places; common.
794. *R. crispus* L. × *R. obtusifolius* L.
Reilly lot, Central avenue, Rochester.
795. *R. SANGUINEUS* L.
Rare. *Prof. W. H. Lennon.*
796. *R. ACETOSELLA* L. SHEEP-SORREL.
Fields; common. Abundant in poor, sandy soils.
331. *POLYGONUM* Tourn. [L.]
797. *P. aviculare* L. KNOT-GRASS.
Common in door-yards, streets, waste places, and along foot-paths.
798. *P. erectum* L. (*P. aviculare* L. var. *erectum* Roth.)
Waysides and waste places; common.
799. *P. lapathifolium* L. var. *incarnatum* Watson. (*P. incarnatum* Ell.)
[*P. incarnatum* Ell.]
Marshes; not common. Frequent in the marshes around Irondequoit bay, Round pond, Long pond, etc.
800. *P. Pennsylvanicum* L.
In moist rich soil, brooksides, marshes, etc.; common.
801. *P. amphibium* L.
Aquatic; rare. Kendall, Orleans county, *M. S. Baxter.*
802. *P. Muhlenbergii* Watson. (*Polygonum amphibium* var. *terrestre* Gray.)
[*P. emersum* (Michx.) Britton.]
Muddy shores; not common. Irondequoit bay and other bays and ponds.
803. *P. Hartwrightii* Gray. [*P. Hartwrightii* A. Gray.]
Rare. Wayne county, *E. L. Hankenson.*
804. *P. ORIENTALE* L. PRINCE'S FEATHER.
Waste places; infrequent.
805. *P. PERSICARIA* L. LADY'S THUMB.
Everywhere common.
806. *P. hydropiperoides* Michx. MILD WATER-PEPPER.
Wet places, marshes; infrequent.
807. *P. Hydropiper* L. SMART-WEED.
Fields, ditches and wet places; common.
808. *P. acre* HBK. [*P. punctatum* Ell.] WATER SMART-WEED.
Shores, marshes, ditches; frequent.
809. *P. Virginianum* L.
Rich woods and along streams; infrequent.
810. *P. arifolium* L. HALBERD-LEAVED TEAR-THUMB.
Low grounds, marshes; infrequent.

811. **P. sagittatum** L. ARROW-LEAVED TEAR-THUMB.
Low grounds and marshes; common. A form with peduncles armed with fine saw-toothed prickles is frequent.
812. **P. CONVOLVULUS** L. BLACK BIND-WEED.
Cultivated and waste grounds; common.
813. **P. cilinode** Michx.
Rare. Sodus bay, *G. T. Fish, E. L. Hankenson*.
814. **P. dumetorum** L. CLIMBING FALSE-BUCKWHEAT.
Marshes; frequent.
815. **P. dumetorum** L. var. **scandens** Gray. [*P. scandens* L.]
Marshes and banks of streams; frequent.
332. **FAGOPYRUM** Tourn. [Gærtn.]
816. **F. ESCULENTUM** Mœnch. [*F. Fagopyrum* (L.) Karst.] BUCKWHEAT.
Borders of fields; frequent.
333. **POLYGONELLA** Michx.
817. **P. articulata** Meisner. (*Polygonum articulatum* Gray.) [*Polygonella articulata* (L.) Meisner.]
Rare. Oak openings at Charlotte, *Bradley*.

ARISTOLOCHIAEÆ.

334. **ASARUM** Tourn. [L.]
818. **A. Canadense** L. WILD GINGER.
Sides of ravines and in rich woods; frequent.

PIPERACEÆ. [SAURURACEÆ.]

335. **SAURURUS** L.
819. **S. cernuus** L. LIZARD'S-TAIL.
Swamps and borders of marshes; frequent.

LAURACEÆ.

336. **SASSAFRAS** Nees. [Nees & Eberm.]
820. **S. officinale** Nees. [*S. Sassafras* (L.) Karst.] SASSAFRAS.
Rich woods, river banks, sides of ravines, hills; common.
337. **LINDERA** Thunb. [Benzoin Fabric.]
821. **L. Benzoin** Blume. [*Benzoin Benzoin* (L.) Coulter.] SPICE BUSH.
Damp copses, marshes; frequent.

THYMELÆACEÆ.

338. **DIRCA** L.
822. **D. palustris** L. LEATHER-WOOD.
Rich woods, river banks, ravine sides; infrequent.
339. **DAPHNE** L.
823. **D. MEZEREUM** L.
Introduced; rare. Woods in Seneca park, *H. B. Brown*. Mt. Read, Greece, *R. J. Fleming*.

ELÆAGNACEÆ.

340. *SHEPHERDIA* Nutt. [*LEPARGYRÆA* Raf.]

824. **S. Canadensis** Nutt. [*Lepargyræa Canadensis* (L.) Greene.]
Frequent on the banks of Genesee river, Pinnacle hills, and shores of
Irondequoit bay. Banks of Oak Orchard creek, Kendall, Orleans Co.

LORANTHACEÆ.

341. *ARCEUTHOBIUM* Bieb.

825. **A. pusillum** Peck. [*Razoumofskya pusilla* (Peck) Kuntze.]
Rare. Mendon, 1894, *M. S. Baxter*.

SANTALACEÆ.

342. *COMANDRA* Nutt.

826. **C. umbellata** Nutt. [*C. umbellata* (L.) Nutt.]
Common on the dry banks of Genesee river, Oak Orchard creek,
Canandaigua lake, etc., with *Ceanothus* and *Shepherdia*.

EUPHORBIACEÆ.

343. *EUPHORBIA* L.

827. **E. polygonifolia** L.
Frequent on the sandy shore of lake Ontario.
828. **E. maculata** L.
Fields, roadsides, waste places; common.
829. **E. Preslii** Guss. (*E. hypericifolia* Man., not L.) [*E. nutans* Lag.]
Fields and hillsides, in dry soil; common.
830. **E. corollata** L. FLOWERING SPURGE.
Rare. Brockport, *Prof. Lennon*. Mount Morris, *Mrs. M. E. Streeter*.
831. **E. HELIOSCOPIA** L.
Rare. *G. T. Fish*. Wayne county.
832. **E. CYPARISSIAS** L. CYPRESS SPURGE.
Roadsides, in sand or gravel; infrequent.
833. **E. PEPLUS** L.
Frequent in the streets of Rochester. Wayne county.
- **E. LATHYRIS** L.
Roadside, Brighton, *Dr. C. M. Booth*. *L. Holzer*.
344. *ACALYPHA* L.
834. **A. Virginica** L.
Moist ground in fields and by roadsides; common.

URTICACEÆ.

345. *ULMUS* L.

835. **U. fulva** Michx. [*U. pubescens* Walt.] SLIPPERY ELM. RED ELM.
River banks and ravines; frequent.
836. **U. Americana** L. WHITE ELM.
Low woods; common. The form catalogued by nurserymen as the
American Weeping Elm is frequent.

837. **U. racemosa** Thomas. CORKY ELM.
Low rich grounds ; rare. Three specimens on the flats along Irondequoit creek, Brighton. Henrietta, *M. S. Baxter*. Brockport, *Prof. W. H. Lennon*. Wayne county.
346. *CELTIS* Tourn. [L.]
838. **C. occidentalis** L. HACKBERRY.
Scarce. River flats, near Vincent st. bridge, Rochester, *C. C. Laney*. East shore of Irondequoit bay, Webster, *G. T. Fish*. Rush, *R. O. Greene*. Wayne county.
347. *CANNABIS* Tourn. [L.]
839. **C. SATIVA** L. HEMP.
Waste places ; infrequent.
348. *HUMULUS* L.
840. **H. LUPULUS** L. COMMON HOP.
Infrequent. Not known to be indigenous.
349. *MORUS* Tourn. [L.]
841. **M. rubra** L. RED MULBERRY.
Rich woods and ravines ; scarce.
842. **M. ALBA** L. WHITE MULBERRY.
River banks, hillsides, waysides ; scarce.
350. *URTICA* Tourn. [L.] NETTLE.
843. **U. gracilis** Ait.
Low places, fence rows, banks of streams ; common.
844. **U. DIOICA** L.
Rare. *Prof. Lennon*. Wayne county.
— **U. CHAMÆDRYOIDES** Pursh. Introduced. *Dr. C. M. Booth*.
351. *LAPORTEA* Gaud. [*URTICASTRUM* Fabric.]
845. **L. Canadensis** Gaudichaud. [*Urticastrum divaricatum* (L.) Kuntze.]
Moist rich woods and ravines ; frequent.
352. *PILEA* Lindl. [*ADICEA* Raf.]
846. **P. pumila** Gray. [*Adicea pumila* (L.) Raf.] RICH-WEED.
Moist shaded soil, springy places, and in shallow clear water ; common.
353. *BÆHMERIA* Jacq.
847. **B. cylindrica** Willd. [*B. cylindrica* (L.) Willd.] FALSE NETTLE.
Moist shaded soil and marshes ; frequent.
- PLATANACEÆ.
354. *PLATANUS* L.
848. **P. occidentalis** L. SYCAMORE. BUTTON-WOOD.
Woods and banks of streams ; infrequent.
- JUGLANDACEÆ.
355. *JUGLANS* L.
849. **J. cinerea** L. BUTTERNUT.
Rich woods, river banks and ravines ; frequent.

850. **J. NIGRA** L. BLACK WALNUT.
Fields and roadsides ; scarce.
356. **CARYA** Nutt. [**HICORIA** Raf.]
851. **C. alba** Nutt. [*Hicoria ovata* (Mill.) Britton.] SHAGBARK HICKORY.
Woods ; common.
852. **C. sulcata** Nutt. [*Hicoria laciniosa* (Michx. f.) Sargent.]
Rare. Rush, *E. P. Clapp* ; also on the Budlong farm ! Caledonia,
Livingston county, *C. C. Laney* and *John Dunbar*. Wayne county.
853. **C. tomentosa** Nutt. [*Hicoria alba* (L.) Britton.]
Rare. Mendon, *G. T. Fish*.
854. **C. microcarpa** Nutt. [*Hicoria microcarpa* (Nutt.) Britton.]
Not common.
855. **C. porcina** Nutt. [*Hicoria glabra* (Mill.) Britton.] PIG-NUT.
Dry banks and upland woods ; common.
856. **C. amara** Nutt. [*Hicoria minima* (Marsh.) Britton.] BITTER-NUT.
River banks, sides of ravines, low woods, along streams ; common.

MYRICACEÆ.

357. **MYRICA** L.

857. **M. Gale** L. SWEET GALE.
Rare. Wayne county, *E. L. Hankenson*.
858. **M. cerifera** L. (in part.) [*M. Carolinensis* Mill.] BAY-BERRY.
Swamps and their borders. Rochester, *Derwey*. Seneca park, east
side, a single plant, *C. C. Laney* ! formerly abundant there, *Dr. C. M.*
Booth. Parma, *Bradley*. Near Scottsville and Caledonia, *Miss F.*
Beckwith. Adams Basin, *M. S. Baxter*. Abundant in Bergen swamp.
Wayne county.

CUPULIFERÆ.

358. **BETULA** Tourn. [L.]

859. **B. lenta** L. BLACK BIRCH.
Woods, river banks and ravines ; frequent.
860. **B. lutea** Michx. YELLOW BIRCH.
Rich moist woods and ravines ; frequent.
861. **B. populifolia** Ait. (*B. alba* var. *populifolia* Spach.) [*B. populifolia*
Marsh.] AMERICAN WHITE BIRCH.
Rare. Near Brockport, *Prof. Lennon*.
862. **B. papyrifera** Marsh. (*B. papyracea* Ait.) PAPER or CANOE BIRCH.
Infrequent. Webster, near the lake shore. Wayne county.
863. **B. pumila** L. DWARF BIRCH.
Rare. Tonawanda swamp, near Albion, *Dr. C. M. Booth*.

359. **ALNUS** Tourn. [Gærtn.]

864. **A. incana** Willd. [*A. incana* (L.) Willd.] SPECKLED ALDER.
Borders of streams and swamps ; common.
865. **A. serrulata** Willd. [*A. rugosa* (Ehrh.) Koch.] SMOOTH ALDER.
Rare. *L. Holzer*.

360. *CORYLUS* Tourn. [L.]

- 866.
- C. Americana**
- Walt. WILD HAZEL-NUT.

Not common. Frequent on the high land between Bushnell's Basin and Fisher's Station, *M. S. Baxter*.

- 867.
- C. rostrata**
- Ait. BEAKED HAZEL-NUT.

Hillsides, river banks and ravines; frequent.

361. *OSTRYA* Micheli. [Scop.]

- 868.
- O. Virginica**
- Willd. [
- O. Virginiana*
- (Mill.) Willd.] HOP-HORNBEAM. IRON-WOOD.

Woods, river banks and ravines; common.

362. *CARPINUS* L.

- 869.
- C. Caroliniana**
- Walt. (
- C. Americana*
- Michx.) HORNBEAM. BLUE or WATER BEECH. IRON-WOOD.

Swampy woods, river banks and ravine sides; common.

363. *QUERCUS* L.

- 870.
- Q. ROBUR**
- L. var.
- PEDUNCULATA**
- . ENGLISH OAK.

Abandoned nursery grounds, Prince street, Rochester. Occasionally planted.

- 871.
- Q. alba**
- L., WHITE OAK.

Woods; common.

- 872.
- Q. macrocarpa**
- Michx. BUR OAK.

Low grounds; infrequent.

- 873.
- Q. bicolor**
- Willd. [
- Q. platanooides*
- (Lam.) Sudw.] SWAMP WHITE OAK.

Low grounds; frequent.

- 874.
- Q. Prinus**
- L. ROCK OAK. CHESTNUT OAK.

Banks of Genesee river, ravines and hillsides; infrequent.

- 875.
- Q. Muhlenbergii**
- Engelm. (
- Q. Prinus*
- L. var.
- acuminata*
- Michaux.) YELLOW OAK. CHESTNUT OAK.

Rare. Bank of Genesee river, Seneca park, west side. Wayne Co.

- 876.
- Q. prinoides**
- Willd.

Rare. Bank of Genesee river, near the upper landing, *Dr. C.M. Booth*.

- 877.
- Q. rubra**
- L. RED OAK.

Dry woods, hills and river banks; common.

- 878.
- Q. coccinea**
- Wang. SCARLET OAK.

Dry hills and river banks; scarce. Seneca park and Genesee Valley park, Rochester. Oak Orchard creek, Kendall, Orl. Co. Wayne Co.

- 879.
- Q. coccinea**
- Wang. var.
- tinctoria**
- Gray. (
- Q. tinctoria*
- Bartram.) [
- Q. velutina*
- Lam.] BLACK OAK. YELLOW OAK. QUERCITRON OAK.

Dry woods on hills and river banks; common.

- 880.
- Q. ilicifolia**
- Wang. BLACK SCRUB OAK.
- Rev. L. Holzer*
- .

364. *CASTANEA* Tourn. [Adans.]

-
- C. SATIVA**
- Mill. EUROPEAN CHESTNUT.

Abandoned nursery grounds, Prince street, Rochester.

881. **C. sativa** Mill. var. **Americana** Wats. & Coult. (*C. vesca* var. of Man.)
[*C. dentata* (Marsh.) Sudw.] AMERICAN CHESTNUT.
Woods, hills, river banks, sides of ravines; common.

365. *FAGUS* Tourn. [L.]

882. **F. ferruginea** Ait. [*F. atropunicea* (Marsh.) Sudw.] AMERICAN BEECH.
Woods; common.

— *F. SYLVATICA* L. EUROPEAN BEECH.

Abandoned nursery grounds, Prince street, Rochester.

SALICACEÆ.

366. *SALIX* Tourn. [L.]

883. **S. nigra** Marsh. BLACK WILLOW.

Banks of streams, shores, etc.; common.

884. **S. amygdaloides** Anders. PEACH WILLOW.

Low grounds and along streams; more abundant than the preceding.

885. **S. lucida** Muhl. SHINING WILLOW.

Low grounds, along streams and shores; frequent. Occasional on dry and rocky banks of the lower Genesee.

886. **S. lucida** Muhl. var. ——— ?

In Bergen swamp. Flowers June 10-30; fruit last of Aug. to Sept.

887. *S. FRAGILIS* L. BRITTLE WILLOW.

Reported by *Rev. L. Holzer*. Probably one of the many hybrids between *S. fragilis* and *S. alba*.

888. *S. ALBA* L. var. *VITELLINA* Koch. [*S. alba vitellina* (L.) Koch.]

Common along streams and embankments.

889. **S. alba** L. var. *vitellina* Koch. × **S. lucida** Muhl. (?)

River flats, Hanford's Landing, *J. B. Fuller*. Tree 35 feet in height; catkins, color of twigs, bark and habit of plant are like *S. alba-vitellina*, while the leaves resemble closely those of *S. lucida*.

890. *S. BABYLONICA* Tourn. [*S. Babylonica* L.] WEEPING WILLOW.

Escaped; occasional.

891. **S. longifolia** Muhl. LONG-LEAVED WILLOW.

In alluvial soil; infrequent. Shore of Red creek near confluence with Genesee river. Margin of Genesee river near the upper falls. Bank of Genesee river and shore of lake Ontario near Sea Breeze, *E. L. Hankenson*. Sodus point, Wayne county.

892. **S. rostrata** Richardson.

Frequent in ravines and on the borders of marshes; often on dry hillsides.

893. *S. CAPREA* L. GOAT WILLOW.

Abandoned nursery grounds, Prince street, Rochester.

894. **S. discolor** Muhl. GLAUCOUS WILLOW.

Wet or dry places; common.

895. **S. humilis** Marsh. PRAIRIE WILLOW.

Dry river banks, hills, and ravine sides; common.

806. **S. humilis** Marsh. × **S. discolor** Muhl. (?)
Dry bank of Genesee river. Twenty plants in one group.
807. **S. sericea** Marsh. SILKY WILLOW.
Wayne county, *E. L. Hankenson*.
808. **S. petiolaris** J. E. Smith.
Monroe county, *Dr. C. Dewey*. Wayne county, *E. L. Hankenson*.
809. **S. candida** Willd. [*S. candida* Flügge.] HOARY WILLOW.
Cold swamps and sphagnum marshes; scarce. Marsh at head of Irondequoit bay, *Dr. C. M. Booth*; Riga, *Miss F. Beckwith*. Adams Basin, *M. S. Baxter*. Mendon, *G. T. Fish*. Caledonia, Livingston county, *Clinton*. Bergen swamp, Genesee county. Wayne county.
900. **S. PURPUREA** L. PURPLE WILLOW.
Low grounds and along streams; common.
901. **S. cordata** Muhl. HEART-LEAVED WILLOW.
In springy places on rocky river banks, ravine sides, low grounds and along streams; very common.
902. **S. cordata** Muhl. × **S. sericea** Marsh. (*S. myricoides* Muhl.)
Reported only by *G. T. Fish*.
903. **S. myrtilloides** L. MYRTLE WILLOW.
Rare. Mendon, *G. T. Fish*; *M. S. Baxter*, 1895. Wayne county.
367. **POPULUS** Tourn. [L.]
904. **P. ALBA** L. WHITE POPLAR. ABELE.
Roadsides; occasional. Produced by suckers from the roots of planted trees.
905. **P. tremuloides** Michx. AMERICAN ASPEN.
River banks, ravines, hillsides; common.
906. **P. grandidentata** Michx. LARGE-TOOTHED ASPEN.
Dry woods, river banks and hills; common.
907. **P. balsamifera** L. BALSAM POPLAR.
Near the lake, in the town of Greece. Border of Bergen swamp.
- **P. BALSAMIFERA** L. var. **CANDICANS** Gray. [*P. balsamifera candicans* (Ait.) A. Gray.] BALM OF GILEAD.
Occasionally planted along roadsides.
908. **P. monilifera** Ait. COTTON WOOD.
Frequent along the banks of the Genesee river and about Irondequoit bay; common along the shore of lake Ontario. Wayne county.
909. **P. DILATATA** Ait. [*P. nigra* L.] LOMBARDY POPLAR.
Bank of Genesee river, Greece. Frequently planted along roadsides.

CERATOPHYLLACEÆ.

368. **CERATOPHYLLUM** L.

910. **C. demersum** L. HORNWORT.
Frequent in all our bays and ponds.

MONOCOTYLEDONES.

HYDROCHARIDACEÆ. [HYDROCHARITACEÆ.]

369. *ELODEA* Michx. [UDORA Nutt.]

911. **E. Canadensis** Michx. (*Anacharis Canadensis* Planchon.) [*Udora Canadensis* (Michx.) Nutt.] WATER-WEED.
Bays, ponds and slow streams; common.

370. *VALLISNERIA* L.

912. **V. spiralis** L. EEL-GRASS.
Common in all our bays and ponds along lake Ontario, and in the Erie canal.

371. *LIMNOBIUM* L. C. Richard.

913. **L. Spongia** L. C. Richard. AMERICAN FROG'S-BIT.
Braddock's bay, *Bradley*. Has not been seen for several years.

ORCHIDACEÆ.

372. *MICROSTYLIS* Nutt. [ACHROANTHES Raf.]

914. **M. monophyllos** Lindl. [*Achroanthes monophylla* (L.) Greene.]
Rare. Border of Bergen swamp, *John E. Paine*. Wayne county.

373. *LIPARIS* Richard. [LEPTORCHIS Du Petit Thouars.]

915. **L. liliifolia** Richard. [*Leptorchis liliifolia* (L.) Kuntze.]
Rich moist woods; infrequent. Greece, *Dr. Anna H. Searing*.
Brighton, *G. T. Fish*. Penfield, *M. S. Baxter*.
916. **L. Læselii** Richard. [*Leptorchis Læselii* (L.) MacM.]
Swamps and marshes; scarce. Irondequoit bay, *G. T. Fish*. Adams Basin, *Prof. W. H. Lennon*. Mendon, *G. T. Fish* and *M. S. Baxter*. West bank of Genesee river, below Rochester, and Fisher's Station, Ontario county, *M. S. Baxter*. Bergen swamp, *Dr. C. M. Booth!*

374. *CALYPSO* Salisb.

917. **C. borealis** Salisb. [*C. bulbosa* (L.) Oakes.]
Local. Hemlock woods bordering Bergen swamp. Discovered by *Dr. C. M. Booth* in 1863. There were about forty plants at the station when visited last by *Dr. Booth* and *Mr. Fuller*.

375. *TIPULARIA* Nutt.

918. **T. discolor** Nutt. [*T. unifolia* (Muhl.) B.S.P.] CRANE-FLY ORCHIS.
Rare. Parma, *Bradley*. Adams Basin, *M. S. Baxter*. *Prof. Lennon*.

376. *ALECTRUM* Nutt.

919. **A. hiemale** Nutt. [*A. spicatum* (Walt.) B. S. P.] ADAM AND EVE.
PUTTY-ROOT.
Damp woods, in rich soil; rare. Gates, *J. B. Fuller*. Penfield, *Dr. C. M. Booth*. Adams Basin, *M. S. Baxter*. Troutburg, *Prof. W. H. Lennon*. Macedon, Wayne county, *E. L. Hankenson*.

377. *CORALLORHIZA* Haller. [R. Br.]

920. **C. innata** R. Brown. [*C. Corallorhiza* (L.) Karst.]
Rare. Damp woods bordering Bergen swamp.
921. **C. odontorhiza** Nutt. [*C. odontorhiza* (Willd.) Nutt.]
Rare. Shore of Irondequoit bay, *G. T. Fish*.
922. **C. multiflora** Nutt.
Dry woods; common.
923. **C. striata** Lindl. (*C. Macraei* Gray.)
Rare. Troutburg, *Prof. W. H. Lennon* and *M. S. Baxter*.

378. *LISTERA* R. Br.

924. **L. cordata** R. Br. [*L. cordata* (L.) R. Br.] TWAYBLADE.
Rare. Bergen swamp, in wet moss.

379. *SPIRANTHES* Richard. [GYROSTACHYS Pers.] LADIES' TRESSES.

925. **S. latifolia** Torr. [*Gyrostachys latifolia* (Torr.) Kuntze.]
Rare. Near Rochester, *Dr. C. M. Booth*. Charlotte, *J. B. Fuller*.
Adams Basin, *M. S. Baxter*. Wayne county.
926. **S. Romanzoffiana** Cham. [*Gyrostachys Romanzoffiana* (Cham.) MacM.]
Rare. Bergen swamp, *G. T. Fish*, *Prof. W. H. Lennon*, *M. S. Baxter*.
Wayne county.
927. **S. cernua** Richard. [*Gyrostachys cernua* (L.) Kuntze.]
Marshes and wet meadows; abundant.
928. **S. gracilis** Bigel. [*Gyrostachys gracilis* (Bigel.) Kuntze.]
Hillsides and dry woods; frequent.

380. *GOODYERA* R. Br. [PERAMIUM Salisb.]

929. **G. repens** R. Br. [*Peranium repens* (L.) Salisb.]
Rare. In cold woods bordering Bergen swamp. Wayne county.
930. **G. pubescens** R. Brown. [*Peranium pubescens* (Willd.) C. C. Curtiss.]
RATTLESNAKE PLANTAIN.
In rich woods; scarce.

381. *EPIPACTIS* Haller. [R. Br.]

931. **E. Helleborine** Gray, Man., not Crantz. [*E. viridiflora* (Hoffm.) Reichb.]
Rare. Near Rochester, 1894, *M. S. Baxter*. Canandaigua, July 22,
1881, *Canandaigua Botanical Club*.

382. *ARETHUSA* Gronov. [L.]

932. **A. bulbosa** L.
Rare. Bergen swamp, Genesee county. Wayne county.

383. *CALOPOGON* R. Br. [LIMODORUM L.]

933. **C. pulchellus** R. Br. [*Limodorum tuberosum* L.]
Sphagnum swamps. West of Fairport. Mendon. Adams Basin.
Frequent in Bergen swamp, where white flowers also occur. Wayne
county. Ontario county.

384. *POGONIA* Juss.

934. **P. ophioglossoides** Nutt. [*P. ophioglossoides* (L.) Ker.]
Sphagnum swamps, with *Calopogon pulchellus*. Mendon. Bergen.
Wayne county.
935. **P. pendula** Lindl. [*P. trianthophora* (Sw.) B.S.P.]
Rare. Woods east of Windsor beach, Irondequoit, *Miss Mary E. Macauley*. Gates, *Miss F. Beckwith*. Parma, *Bradley*. Webster and Adams Basin, *M. S. Baxter*. Brockport, *Prof. Lennon*. Wayne Co.

385. *ORCHIS* L.

936. **O. spectabilis** L. SHOWY ORCHIS.
Rich moist woods; frequent.

386. *HABENARIA* Willd.

937. **H. tridentata** Hook. [*H. clavellata* (Michx.) Spreng.]
Shady swamps; rare. *Mrs. Mary E. Streeter*. Adams Basin, *M. S. Baxter*. Wayne county.
938. **H. virescens** Spreng. [*H. flava* (L.) A. Gray.]
Wet places; frequent.
939. **H. bracteata** R. Br. (*H. viridis* var. *bracteata* Reichenb.) [*H. bracteata* (Willd.) R. Br.]
Damp woods; scarce. Brighton, *Dr. C. M. Booth*. Near Coldwater, *G. T. Fish*. Troutburg, *M. S. Baxter*. Bergen, Genesee county.
940. **H. hyperborea** R. Br. [*H. hyperborea* (L.) R. Br.]
Cold swamps and marshy places; frequent.
941. **H. dilatata** Gray. [*H. dilatata* (Pursh) Hook.]
Scarce. Bergen swamp, Genesee county.
942. **H. Hookeri** Torr. [*H. Hookeriana* A. Gray.]
Damp rich woods; not uncommon. Gates. Greece. Irondequoit. Penfield. Perinton. Mendon. Rush. Troutburg. Bergen, Genesee county. Wayne county. Var. *oblongifolia* Paine occurs in the town of Penfield, *M. S. Baxter*.
943. **H. orbiculata** Torr. [*H. orbiculata* (Pursh) Torr.]
Rich damp woods; rare. Bergen, Genesee county, *Prof. W. H. Lennon*. Ontario, Wayne county, *G. T. Fish*. *E. L. Hankenson*.
944. **H. ciliaris** R. Br. [*H. ciliaris* (L.) R. Br.] YELLOW FRINGED ORCHIS.
Rare. On an island in Irondequoit bay, *J. B. Fuller*. Woods north of the Ridge road, *Robert Bunker*.
945. **H. blephariglottis** Torr. [*H. blephariglottis* (Willd.) Torr.] WHITE FRINGED ORCHIS.
Rare. Mendon, *M. S. Baxter*. Wayne county.
946. **H. leucophæa** Gray. [*H. leucophæa* (Nutt.) A. Gray.]
Rare. Wayne county, *E. L. Hankenson*.
947. **H. lacera** R. Br. [*H. lacera* (Michx.) R. Br.]
Wet meadows and swamps; rare. Gates, *Dr. C. M. Booth* and *G. T. Fish*. Barnard's Crossing, Greece, *J. B. Fuller*, *Miss M. E. Macauley*. Mendon and Kendall, *M. S. Baxter*. Wayne county.

948. **H. psycodes** Gray. [*H. psycodes* (L.) A. Gray.] PURPLE FRINGED O.
Wet meadows and swamps; frequent.
387. *CYPRIPEDIUM* L.
949. **C. arietinum** R. Br. RAM'S-HEAD LADY'S SLIPPER.
Mud pond, Wayne county, *Miss Weed* and *Miss Coleman*, in check list
E. L. Hankenson.
950. **C. candidum** Muhl. [*C. candidum* Willd.] WHITE LADY'S SLIPPER.
Rare. Bergen swamp, in the open marsh and along the edges of the
woods bordering.
951. **C. parviflorum** Salisb. SMALL YELLOW LADY'S SLIPPER.
Marshes and damp woods; infrequent. Gates. Riga. Mendon.
Adams Basin. Caledonia. Bergen. Wayne county.
952. **C. pubescens** Willd. [*C. hirsutum* Mill.] LARGE YELLOW LADY'S
SLIPPER.
Woods and swamps; common.
953. **C. spectabile** Salisb. [*C. reginae* Walt.] SHOWY LADY'S SLIPPER.
Swamps and wet meadows; frequent.
954. **C. acaule** Ait. STEMLESS LADY'S SLIPPER.
Dry or moist woods and swamps; frequent. Abundant in a swamp
at Mendon.

IRIDACEÆ.

388. *IRIS* Tourn. [L.]
955. **I. versicolor** L. LARGE BLUE FLAG.
Marshes and swamps; frequent.
389. *SISYRINCHIUM* L.
956. **S. angustifolium** Mill. (*S. Bermudiana* var. *mucronatum* Gray, excl.
descr.) [*S. Bermudiana* L.] BLUE-EYED GRASS.
Moist meadows; scarce.

AMARYLLIDACEÆ.

390. *HYPOXIS* L.
957. **H. erecta** L. [*H. hirsuta* (L.) Coville.] STAR-GRASS.
Damp meadows and grassy slopes; frequent.

LILIACEÆ.

391. *SMILAX* Tourn. [L.]
958. **S. herbacea** L. CARRION-FLOWER.
Woods and shaded banks of streams; frequent.
959. **S. rotundifolia** L.
Rare. Rochester, *Dewey*. Prof. *W. H. Lennon*.
960. **S. hispida** Muhl. GREEN-BRIER.
Moist thickets and swamps; frequent.
392. *ALLIUM* L.
961. **A. tricoccum** Ait. WILD LEEK.
Rich woods; infrequent.

962. **A. Canadense** Kalm. [*A. Canadense* L.] WILD GARLIC.
Ravines, moist meadows, and along streams; scarce. Rich's mills,
G. T. Fish. Near Rochester, *Dr. C. M. Booth*. Maxwell's Station, Liv-
ingston Co., *Miss F. Beckwith*. Macedon, Wayne Co., *M. S. Baxter*.
963. **A. VINEALE** L. FIELD GARLIC.
Rare. Scottsville, *L. Holzer!*
ORNITHOGALUM Tourn. [L.]
- **O. UMBELLATUM** L. STAR OF BETHLEHEM. Escaped.
- 393. HEMEROCALLIS** L.
964. **H. FULVA** L. ORANGE DAY-LILY.
Established by roadsides and on the banks of the Genesee river.
394. POLYGONATUM Tourn. [Adans.]
965. **P. biflorum** Ell. [*P. biflorum* (Walt.) Ell.] SMALLER SOLOMON'S SEAL.
River banks, ravine sides, moist woods; common.
966. **P. giganteum** Dietrich. [*P. biflorum commutatum* (R. & S.) Morong.]
GREAT SOLOMON'S SEAL.
Rare. Bank of Genesee River, Rochester, *J. B. Fuller*. *G. T. Fish*.
Wayne county.
395. ASPARAGUS Tourn. [L.]
967. **A. OFFICINALIS** L. Fields; frequent.
396. SMILACINA Desf. [*VAGNERA* Adans.]
968. **S. racemosa** Desf. [*Vagnera racemosa* (L.) Morong.] FALSE SOLO-
MON'S SEAL.
River banks, ravines, woods; common.
969. **S. stellata** Desf. [*Vagnera stellata* (L.) Morong.]
River banks and rich woods; frequent.
970. **S. trifolia** Desf. [*Vagnera trifolia* (L.) Morong.]
Rare. Adams Basin, *M. S. Baxter*. Bergen swamp.
397. MAIANTHEMUM Wigg. [UNIFOLIUM Adans.]
971. **M. Canadense** Desf. (*Smilacina bifolia* var. *Canadensis* Gray. [*Unifo-
lium Canadense* (Desf.) Greene.] TWO-LEAVED SOLOMON'S SEAL.
Woods, ravines, and river banks; common.
398. STREPTOPUS Michx.
972. **S. roseus** Michx. TWISTED-STALK.
Rich woods and ravines; infrequent.
399. DISPORUM Salisb.
973. **D. lanuginosum** Benth. & H. (*Prosartes lanuginosa* Don.) [*Disporum
lanuginosum* (Michx.) Britton.]
Rich woods; rare. Clem's woods (now Glen Haven R.R. station),
Dr. C. M. Booth. Greece, *Bradley*. Wayne county.
400. CLINTONIA Raf.
974. **C. borealis** Raf. [*C. borealis* (Ait.) Raf.]
Very rare. Bergen swamp, *Dr. C. M. Booth!* Wayne county.

401. *UVULARIA* L.

975. **U. perfoliata** L.
Rich woods and ravines; frequent.
976. **U. grandiflora** J. E. Smith.
Rich woods and ravines; frequent.

402. *OAKESIA* S. Watson.

977. **O. sessilifolia** Watson. (*Uvularia sessilifolia* L.) [*U. sessilifolia* L.]
Ravines and low woods; frequent.

403. *ERYTHRONIUM* L.

978. **E. Americanum** Ker. YELLOW ADDER-TONGUE.
Ravines, woods, meadows; very common.
979. **E. albidum** Nutt. WHITE DOG'S-TOOTH VIOLET.
Low rich woods and ravines; scarce. Rich's mills, *Dr. C. M. Booth!* Penfield, *G. T. Fish, Otto Betz.* Black creek, Chili, *J. B. Fuller.* Scottsville, *Miss F. Beckwith.* Prof. *W. H. Lennon.* Wayne county.

404. *LILIUM* L.

980. **L. Philadelphicum** L. WILD ORANGE-RED LILY.
Dry woods, river banks, and sandy ridges; frequent.
981. **L. Canadense** L. WILD YELLOW LILY.
Low woods, moist meadows, borders of swamps, etc.; common.

405. *MEDEOLA* Gronov. [L.]

982. **M. Virginiana** L. INDIAN CUCUMBER-ROOT.
Rich moist woods; common.

406. *TRILLIUM* L.

983. **T. sessile** L.
Between Norton street and Ridge road, and Hudson street and North avenue, 1863, *L. Holzer.* Only one specimen.
984. **T. erectum** L. BIRTHROOT.
Rich woods, ravines; common. A white-flowered form is occasional.
985. **T. grandiflorum** Salisb. [*T. grandiflorum* (Michx.) Salisb.] LARGE WHITE WAKE ROBIN.
Woods, meadows, river banks, ravines; very common.
986. **T. cernuum** L. NODDING TRILLIUM.
Rare. Wayne county, *E. L. Hankenson.*
987. **T. erythrocarpum** Mx. [*T. undulatum* Willd.] PAINTED TRILLIUM.
Cool woods and swamps; scarce. Shore of Irondequoit bay, *Dr. C. M. Booth.* Greece, *G. T. Fish.* Chili, *Miss F. Beckwith.* Adams Basin, *M. S. Baxter.* Wayne county.

407. *CHAMÆLIRIUM* Willd.

988. **C. Carolinianum** Willd. (*C. luteum* Gray.) [*C. luteum* (L.) A. Gray.] BLAZING STAR.
Scarce. Woods on the sandy ridges about Irondequoit bay and elsewhere. Maxwell's Station, Caledonia, Livingston Co., *Miss Beckwith.*

408. *TOFIELDIA* Huds.
 989. **T. glutinosa** Willd. [*T. glutinosa* Pers.] FALSE ASPHODEL.
 Rare. Bergen swamp, Genesee county.
409. *VERATRUM* Tourn. [L.]
 990. **V. viride** Ait.
 Rare. Gates, *Dr. C. M. Booth*.
410. *ZYGADENUS* Michx.
 991. **Z. elegans** Pursh. (*Z. glaucus* Nutt.)
 Swamps; rare. Mumford, *Miss F. Beckwith*. Caledonia, Livingston county. Bergen swamp.

PONTEDERIACEÆ.

411. *PONTEDERIA* L.
 992. **P. cordata** L. PICKEREL-WEED.
 Borders of bays, ponds and inlets of lake Ontario; frequent.
412. *HETERANTHERA* Ruiz. & Pav.
 993. **H. graminea** Vahl. (*Schollera graminifolia*, Willd.) [*Heteranthera dubia* (Jacq.) Morong.] MUD-PLANTAIN.
 Frequent in the lower Genesee and the bays, ponds and inlets of lake Ontario. Adams Basin. Wayne county. When in mud, it blooms at a height of only two to four inches.

JUNCACEÆ.

413. *JUNCUS* Tourn. [L.] RUSH.
 994. **J. effusus** L. BULRUSH.
 Marshy ground; common.
995. **J. filiformis** L.
 Rare. Shore of lake Ontario, *Dr. C. M. Booth*.
996. **J. Balticus** Deth. var. *littoralis* Englm. [*J. Balticus littoralis* Englm.]
 Rare. Sandy shore of lake Ontario and muddy portions of Bergen swamp. Wayne county.
997. **J. tenuis** Willd.
 Common in moist ground, fields, roadsides; abundant along paths.
998. **J. tenuis** Willd. var. ——— ? tall (20 to 30 inches) with crowded heads.
 Rare. Shore of lake Ontario, *Dr. Anna H. Searing!*
999. **J. bufonius** L.
 Low grounds and by roadsides; frequent.
1000. **J. articulatus** L.
 Wet sandy soil, principally along or near the shore of lake Ontario.
1001. **J. alpinus** Villars, var. *insignis* Fries. [*J. alpinus insignis* Fries.]
 Near the mouth of Genesee river, *J. B. Fuller*, Long pond, *Dr. A. H. Searing*. Banks of Genesee river near Avon, *Sartwell in Herb. Ham. Coll.* Wayne county.
1002. **J. acuminatus** Michx.
 Borders of marshes; not common.

1003. **J. scirpoides** Lam.
Rare. Shore of lake Ontario, Monroe county, *Dr. C. M. Booth*.
Sodus Point, Wayne county, *Dr. S. H. Wright*.
1004. **J. nodosus** L.
Low grounds and muddy shores; common.
1005. **J. nodosus** L. var. **megacephalus** Torr. [*J. nodosus megacephalus* Torr.]
Rare. Wet sandy soil near the shore of lake Ontario, *L. Hotzer!*
Long pond, *Dr. Anna H. Searing*.
1006. **J. Canadensis** J. Gay, var. **longicaudatus** Engl. [*J. Canadensis* J. Gay.]
Borders of swamps, marshes, etc.; frequent.
1007. **J. Canadensis** J. Gay, var. **coarctatus** Engelm. [*J. Canadensis coarctatus* Engelm.]
Bergen swamp, *M. S. Baxter*.
414. **LUZULA** DC. [JUNCOIDES Adans.]
1008. **L. vernalis** DC. (*L. pilosa* Willd.) [*Juncoides pilosum* (L.) Kuntze.]
Woods, banks, and moist grass land; common.
1009. **L. campestris** DC. [*Juncoides campestre* (L.) Kuntze.]
Dry fields and woods; common.

TYPHACEÆ.

415. **TYPHA** Tourn. [L.]
1010. **T. latifolia** L. COMMON CAT-TAIL FLAG.
Swamps and marshy places; common.
1011. **T. latifolia** L. var. **elongata** Dudley.
Characterized in Cay. Fl. p. 102. The prevailing form on the extensive marshes at Irondequoit bay.
1012. **T. angustifolia** L.
Frequent on the marshes at Irondequoit bay, Long pond, etc.
416. **SPARGANIUM** Tourn. [L.]
1013. **S. eurycarpum** Engelm.
Marshes on the borders of bays, ponds, etc.; frequent.
1014. **S. simplex** Huds.
Marshes and borders of ponds, etc.; frequent.
1015. **S. minimum** Fries.
Very rare. In a little pool, Irondequoit, *Dr. C. M. Booth*.

ARACEÆ.

417. **ARISÆMA** Martius.
1016. **A. triphyllum** Torr. [*A. triphyllum* (L.) Torr.] INDIAN TURNIP.
Rich woods and ravines; common.
1017. **A. Dracontium** Schott. [*A. Dracontium* (L.) Schott.] GREEN DRAGON.
Damp thickets; rare. Shore of Irondequoit bay, Irondequoit, and Black creek, Chili, *Dr. Booth*. Black creek, *Otto Betz*. Wayne county.
418. **PELTANDRA** Raf.
1018. **P. undulata** Raf. (*P. Virginica* Kunth.) [*P. Virginica* (L.) Kunth.]
Marshes along Genesee river and elsewhere; not uncommon.

419. *CALLA* L.1019. **C. palustris** L. WILD CALLA.

Borders of marshes and sphagnum bogs; infrequent. Genesee river, near lake Ontario. Borders of marshes at Henrietta, Mendon, Hamlin, and elsewhere. Wayne county.

420. *SYMPLOCARPUS* Salisb. [*SPATHYEMA* Raf.]1020. **S. foetidus** Salisb. [*Spathyema foetida* (L.) Raf.] SKUNK CABBAGE.
Marshes and wet ground; common.421. *ACORUS* L.1021. **A. Calamus** L. SWEET FLAG.
Marshes; common.

LEMNACEÆ.

422. *SPIRODELA* Schleiden.1022. **S. polyrhiza** Schleiden. (*Lemna polyrhiza* L.) [*Spirodela polyrhiza* (L.) Schleid.]
Bays, ponds and marshes; common.423. *LEMNA* L. DUCK-WEED. DUCK'S-MEAT.1023. **L. trisulca** L.
Bays, ponds, marshes, etc.; common.1024. **L. minor** L.
Bays, ponds, pools, marshes, ditches; abundant.424. *WOLFFIA* Horkel.1025. **W. Columbiana** Karsten.
Abundant at Irondequoit bay and elsewhere.

ALISMACEÆ.

425. *ALISMA* L.1026. **A. Plantago** L. (*A. Plantago* L. var. *Americanum* Gray.) [*A. Plantago-aquatica* L.] WATER PLANTAIN.
Marshes, ditches, and borders of streams; common.426. *SAGITTARIA* L. ARROW-HEAD.1027. **S. variabilis** Engelm. (incl. vars. *obtusa*, *latifolia*, *diversifolia*, *angustifolia*, and *gracilis* of Man. ed. 5). [*S. latifolia* Willd.]
Aquatic or in wet places; common.1028. **S. heterophylla** Pursh. [*S. rigida* Pursh, incl. var. *elliptica* Engelm.]
Genesee river and elsewhere; frequent.1029. **S. heterophylla** Pursh, var. **elliptica** Engelm.
Frequent along the margin of Genesee river.

NAIADACEÆ.

427. *TRIGLOCHIN* L. ARROW-GRASS.1030. **T. palustris** L.
Abundant in Bergen swamp.

1031. **T. maritima** L.
Common in Bergen swamp. Wayne county.
428. *SCHEUCHZERIA* L.
1032. **S. palustris** L.
Rare. In sphagnum bogs at Mendon. Wayne county.
429. *POTAMOGETON* Tourn. [L.] POND-WEED.
1033. **P. natans** L.
Ponds and stagnant water; common.
1034. **P. fluitans** Roth. (*P. lonchites* Tuckerm.) [*P. lonchites* Tuckerm.]
Genesee river, Irondequoit bay, Long pond, etc.
1035. **P. amplifolius** Tuckerm.
Irondequoit bay, Long pond, etc. Wayne county.
1036. **P. heterophyllus** Schreb. (*P. gramineus* Fries.)
Irondequoit bay, etc.; common.
1037. **P. lucens** L.
Genesee river, Irondequoit bay, etc.; frequent.
1038. **P. praelongus** Wulf.
Wayne county.
1039. **P. perfoliatus** L.
Bays, ponds and slow streams; common.
1040. **P. crispus** L.
Long pond, *Dr. Anna H. Searing*.
1041. **P. zosteræfolius** Schum. (*P. compressus* Man.)
Frequent in Irondequoit bay, Long pond, etc.
1042. **P. pauciflorus** Pursh. [*P. foliosus* Raf.]
Near Rochester, *Dr. C. M. Booth*. Wayne county.
1043. **P. pusillus** L.
Irondequoit bay. Wayne county, *E. L. Hankenson*.
1044. **P. pectinatus** L.
Genesee river, bays, ponds, etc.; common.
1045. **P. Robbinsii** Oakes.
Irondequoit bay, etc.; common.
430. *ZANNICHELLIA* Micheli. [L.]
1046. **Z. palustris** L.
Irondequoit bay, etc.; not common. The var. *pedunculata* occurs in Thomas's creek, Brighton, *Dr. C. M. Booth*.
431. *NAIAS* L. NAIAD.
1047. **N. marina** L. var. **recurvata** (?) Dudley.
Abundant in two of the coves and sparingly elsewhere in Irondequoit bay.
1048. **N. flexilis** Rostk. & Schmidt. [*N. flexilis* (Willd.) Rostk. & Schmidt.]
Bays, ponds, etc.; common.

CYPERACEÆ.

432. *CYPERUS* Tourn. [L.] GALINGALE.

1049. **C. diandrus** Torr.
Moist or wet ground; frequent.
1050. **C. diandrus** Torr. var. **castaneus** Torr.
With the preceding.
1051. **C. aristatus** Rottb. (*C. inflexus* Muhl.)
Rare. Sodus bay, Wayne county, *G. T. Fish*.
1052. **C. Schweinitzii** Torr.
Scarce. Shore of lake Ontario, from Braddock's bay to Sodus.
1053. **C. filiculmis** Vahl.
Rare. Dry banks of Irondequoit bay: west side, Irondequoit, *G. T. Fish*; east side, Penfield, *L. Holzer*; Webster, *Dr. Booth, M. S. Baxter*.
1054. **C. esculentus** L. (*C. phymatodes* Muhl.)
Low grounds; not common. Center square, Rochester. In grass along Lake avenue, near the city line. Riverside avenue and vicinity. Wayne county.
1055. **C. strigosus** L.
Low grounds; common.
1056. **C. speciosus** Vahl. (*C. Michauxianus* Man.)
Frequent on the shore of lake Ontario. Mud creek flats, Wayne Co.

433. *DULICHIMUM* Pers. [L. C. Richard.]

1057. **D. spathaceum** Pers. [*D. arundinaceum* (L.) Britton.]
Frequent in marshes and on the borders of ponds.

434. *ELEOCHARIS* R. Br. SPIKE-RUSH.

1058. **E. ovata** R. Br. (*E. obtusa* Schult.) [*E. ovata* (Roth) Roem. & Schult.]
Low grounds and muddy shores; common.
1059. **E. olivacea** Torr.
Monroe county, *Dr. Searing*. Wayne county, *E. L. Hankenson*.
1060. **E. palustris** R. Br. [*E. palustris* (L.) Roem. & Schult.]
Shallow water, muddy shores, marshes, etc.; common.
1061. **E. rostellata** Torr.
Common in Bergen swamp.
1062. **E. intermedia** Schult. [*E. intermedia* (Muhl.) Schult.]
Shore of lake Ontario, ponds, etc.; frequent.
1063. **E. tenuis** Schult. [*E. tenuis* (Willd.) Schult.]
Marshes; frequent.
1064. **E. compressa** Sullivant. [*E. acuminata* (Muhl.) Nees.]
Dr. Anna H. Searing.
1065. **E. acicularis** R. Br. [*E. acicularis* (L.) Roem. & Schult.]
Muddy shores; common.

1066. **E. pauciflora** Link. (*Scirpus pauciflorus* Lightfoot.) [*Scirpus pauciflorus* Lightfoot.]
Rare. Bergen swamp, Genesee county. Sodus bay, *Geo. T. Fish.*
Wayne county, *E. L. Hankenson.*
435. *SCIRPUS* Tourn. [L.]
1067. **S. caespitosus** L.
Common in Bergen swamp.
1068. **S. subterminalis** Torr.
Wayne county, *E. L. Hankenson.*
1069. **S. pungens** Vahl. [*S. Americanus* Pers.]
Shores and swamps; frequent. A form with 3-cleft style is abundant along the margin of Genesee river a short distance below the lower falls.
1070. **S. lacustris** L. (*S. validus* Vahl.)
Genesee river, bays, ponds, marshes; common.
1071. **S. Smithii** Gray.
Rare. Shore of lake Ontario at the outlet of Braddock's bay, *J. B. Fuller.* Sodus bay, *G. T. Fish.*
1072. **S. fluviatilis** Gray. [*S. fluviatilis* (Torr.) A. Gray.]
Common in Genesee river, Irondequoit bay, Long pond, etc.
1073. **S. sylvaticus** L. var. **digynus** Boeck. (*S. microcarpus* Presl.) [*S. microcarpus* Presl.]
Low, wet grounds; infrequent.
1074. **S. atrovirens** Muhl.
Low grounds and swamps; common.
436. *ERIOPHORUM* L. COTTON-GRASS.
1075. **E. lineatum** Benth. & Hook. (*Scirpus lineatus* Michaux.) [*Scirpus lineatus* Michaux.]
Low grounds; not common.
1076. **E. cyperinum** L. [*Scirpus cyperinus* (L.) Kunth.] WOOL-GRASS.
Low grounds; common.
1077. **E. cyperinum** L. var. **laxum**. [*Scirpus cyperinus Eriophorum* (Michx.) Britton.]
Low grounds and marshes; frequent.
1078. **E. alpinum** L.
Wayne county, *E. L. Hankenson.*
1079. **E. vaginatum** L.
Wayne county, *E. L. Hankenson.*
1080. **E. Virginicum** L.
Sphagnum swamps; frequent.
1081. **E. Virginicum** L. var. **album** Gray. [*E. Virginicum album* A. Gray.]
Mendon, *M. S. Baxter.* Wayne county, *E. L. Hankenson.*
1082. **E. polystachyon** L.
Sphagnum swamps; common.

1083. **E. gracile** Koch.
Sphagnum swamps; rare. Mendon, *J. B. Fuller*. Wayne county.
437. *RHYNCHOSPORA* Vahl.
1084. **R. alba** Vahl. [*R. alba* (L.) Vahl.]
Frequent in the sphagnum swamps at Mendon and Bergen. Wayne county.
1085. **R. capillacea** Torr.
Rare. Rocky bank of Genesee river, Rochester, *J. B. Fuller*. Bergen swamp, Genesee county.
438. *CLADIUM* P. Browne.
1086. **C. mariscoides** Torr. [*C. mariscoides* (Muhl.) Torr.]
Scarce. In the marshes at Mendon and Bergen. Wayne county.
439. *SCLERIA* Berg.
1087. **S. triglomerata** Michx.
Rare. Near Rochester, *Dr. C. M. Booth*.
1088. **S. pauciflora** Muhl.
Rare. Greece, *Bradley*.
1089. **S. verticillata** Muhl.
Cold swamps. Mendon, *M. S. Baxter*. Bergen, *Dr. Booth, G. T. Fish*.
440. *CAREX* Ruppilus. [L.] SEDGE.
1090. **C. intumescens** Rudge.
Wet meadows and swamps; frequent.
1091. **C. Grayii** Carey. [*C. Asa-Grayi* Bailey.]
Rare. Near Rochester, *Dr. C. Dewey, Dr. C. M. Booth, L. Holzer*. Wayne county.
1092. **C. lupulina** Muhl.
Swamps; common.
1093. **C. lupulina** Muhl. var. **pedunculata** Dew. (*C. gigantea* Rudge.) [*C. lupulina gigantea* (Rudge) Britton.]
Rare. Monroe county, *G. T. Fish*.
1094. **C. lupulina** Muhl. var. **polystachya** Schwein. & Torr. (*C. lupuliformis* Sartwell.) [*C. lupulina polystachya* Schwein. & Torr.]
Monroe county, *G. T. Fish*. Wayne county, *E. L. Hankenson*.
1095. **C. utriculata** Boott.
Swamps; frequent.
1096. **C. utriculata** var. **minor** Boott. [*C. utriculata minor* Boott.]
Swamps; frequent.
1097. **C. monile** Tuckerm.
Rare. *L. Holzer*.
1098. **C. Tuckermani** Dewey.
Infrequent. Near Charlotte, *George T. Fish*. Chili, *M. S. Baxter*. Wayne county.

1109. **C. retrorsa** Schw.
Wet meadows and marshes; frequent.
1100. **C. retrorsa** Schw. var. **Hartii** Gray. [*C. retrorsa Hartii* (Dew.) A. Gray.]
Rare. *E. L. Hankenson*.
1101. **C. lurida** Wahl. (*C. tentaculata* Muhl.)
Marshy places and swamps; common.
1102. **C. hystricina** Muhl.
Swales and along streams; frequent.
1103. **C. Pseudo-Cyperus** L.
Frequent in marshes along the Genesee river, and elsewhere.
1104. **C. Pseudo-Cyperus** L. var. **Americana** Hochst. (*C. comosa* Boott.)
[*C. Pseudo-Cyperus Americana* Hochst.]
Marshes; frequent.
- **C. squarrosa** L. is reported by *L. Holzer*.
1105. **C. scabrata** Schwein.
Rare. Wet woods near Rich's dugway, *M. S. Baxter*. Bergen swamp, *Dr. C. M. Booth* and *G. T. Fish*. Wayne county.
1106. **C. Houghtonii** Torr.
Rare. Long pond, *Dr. Anna H. Searing*.
1107. **C. filiformis** L.
Bergen swamp, Genesee county. Sodus bay, Wayne county.
1108. **C. filiformis** L. var. **latifolia** Bœckl. (*C. lanuginosa* Michx.) [*C. filiformis lanuginosa* (Michx.) B.S.P.]
Marshes; infrequent. Irondequoit bay, Round pond, etc.
1109. **C. trichocarpa** Muhl.
Marshes; scarce. Margin of Genesee river, Greece, *J. B. Fuller*. Irondequoit bay, *Dr. C. M. Booth* and *G. T. Fish*. Ontario county, *E. L. Hankenson*.
1110. **C. trichocarpa** Muhl. var. **aristata** Bailey. (*C. aristata* R. Brown.)
[*C. trichocarpa aristata* (R. Br.) Bailey.]
Greece, eleven miles west of Rochester, six miles south of lake Ontario, *Dr. Bradley*, 1829: *Dewey* in *Sill. V. 38, p. 290.—18th N. Y. Rep.*
1111. **C. riparia** Curtis.
Marshes; frequent.
1112. **C. fusca** All. (*C. Buxbaumii* Wahl.)
Rare. Bank of Genesee river, *Bradley*. Bergen swamp.
1113. **C. rigida** Good. var. **Goodenovii** Bailey. (*C. vulgaris* Fries.) [*C. rigida Goodenovii* (J. Gay) Bailey.]
Rare. Monroe county, *Dr. Anna H. Searing*. Wayne county.
1114. **C. stricta** Lam.
Marshes; frequent.
1115. **C. aquatilis** Wahl.
Marshes; scarce. Mendon, *J. B. Fuller*. Adams Basin, *M. S. Baxter*. Wayne county.

1116. **C. torta** Boott.
Rare? *Dr. C. M. Booth.*
1117. **C. prasina** Wahl. (*C. miliacea* Muhl.)
Wet woods and meadows; frequent.
1118. **C. crinita** Lam. (*C. gynandra* Schwein.)
Low wet woods and swales; common.
1119. **C. limosa** L.
Scarce. Mendon, *M. S. Baxter.* Wayne county.
1120. **C. virescens** Muhl.
Woods; infrequent. Near Rochester, *Dr. C. M. Booth, L. Holzer.*
Adams Basin, *M. S. Baxter.*
1121. **C. virescens** Muhl. var. **costata** Dewey. [*C. virescens costata* (Schw.)
Dewey.]
Woods; infrequent. Monroe county. Wayne county.
1122. **C. triceps** Mx. var. **hirsuta** Bailey. [*C. triceps hirsuta* (Willd.) Bailey.]
Rare. Vicinity of Rochester, *Dr. C. M. Booth, L. Holzer.*
1123. **C. longirostris** Torr.
Rare. Western part of Monroe county, *Prof. Lennou.* Wayne Co.
1124. **C. arctata** Boott.
Dry rich woods and shady banks; infrequent.
1125. **C. debilis** Michx. var. **Rudgei** Bailey. (*C. debilis* Man.) [*C. debilis*
Rudgei Bailey.]
Rare. Near Rochester, *Dr. C. M. Booth, Dr. Anna H. Searing.*
1126. **C. gracillima** Schwein.
Woods and low meadows; common.
1127. **C. gracillima** Schw. × **C. arctata** Boott.
Adams Basin, *M. S. Baxter.*
1128. **C. grisea** Wahl.
Scarce. Vicinity of Rochester, *Dr. Booth, L. Holzer.* Wayne Co.
1129. **C. granularis** Muhl.
Wet grassy places and along streams; common.
1130. **C. granularis** Muhl. var. **Haleana** Porter. [*C. granularis Haleana*
(Olney) Porter.]
Bergen swamp, *J. B. Fuller.*
1131. **C. Crawei** Dewey.
Rare. On barren spots of marl in Bergen swamp.
1132. **C. flava** L.
Wet grassy meadows and swamps; not common. Frequent in low
ground and wet woods bordering Bergen swamp. Wayne county.
1133. **C. flava** L. var. **viridula** Bailey. (*C. Ederi* Man.) [*C. flava viridula*
(Michx.) Bailey.]
Cold bogs; rare. Frequent in the marly soil of Bergen swamp.
Sodus Point, Wayne county.

1134. **C. pallescens** L.
Scarce. In clayey soil, Seneca park, near Maple Grove, *J. B. Fuller*.
L. Holzer. Wayne county. The form with lower bract transversely
wavy-lined, *C. undulata* Kunze, occurs with the type in Seneca park.
1135. **C. conoidea** Schk.
Long pond, *Dr. Anna H. Searing*. *L. Holzer*.
1136. **C. oligocarpa** Schk.
Rare. Black creek, *Dr. Anna H. Searing*.
1137. **C. Hitchcockiana** Dewey.
Scarce. Sandy grove, Irondequoit, *L. Holzer*. Abundant south of
Rochester, *Dewey*. Murray, Orleans Co., *M. S. Baxter*. Wayne Co.
1138. **C. laxiflora** Lam.
Dry or moist woods, ravines, meadows; infrequent.
1139. **C. laxiflora** Lam. var. **striatula** Carey. [*C. laxiflora blanda* (Dewey)
Boott.]
Wayne county, *E. L. Hankenson*.
1140. **C. laxiflora** Lam. var. **latifolia** Boott. [*C. albursina* Sheldon.]
Rich woods and ravines; frequent.
1141. **C. laxiflora** Lam. var. **patulifolia** Carey. [*Carex laxiflora patulifolia*
(Dewey) Carey.]
Dry or moist woods, meadows, ravines, hills; common.
1142. **C. digitalis** Willd.
River banks, ravines, etc.; common. Wet meadows, Greece, *Holzer*.
1143. **C. laxiculmis** Schwein. (*C. retrocurva* Dewey.)
Woods and copses; common.
1144. **C. platyphylla** Carey.
Rich shady woods, river banks, ravines; common.
1145. **C. Careyana** Torr.
Rare. Woods near Genesee river, four or five miles above Rochester,
W. Boott; *Dr. C. Dewey*. Copses in Henrietta, *J. E. Paine*. Wayne
county, *E. L. Hankenson*.
1146. **C. plantaginea** Lam.
Wet woods, river banks and ravines; frequent.
1147. **C. Saltuensis** Bailey. (*C. vaginata* Man.)
Local. Moist banks, under evergreens, on the border of Bergen
swamp, Genesee county.
1148. **C. tetanica** Schk.
Wayne county, *E. L. Hankenson*.
1149. **C. aurea** Nutt.
Wet rocks and banks; infrequent. Rocky banks of Genesee river,
Rochester; shores of Irondequoit bay; and elsewhere.
1150. **C. eburnea** Boott.
Frequent on dry cliffs of the Genesee river. Shady borders of
Bergen swamp.

1151. **C. Richardsoni** R. Br.
Rare. Dry woods, Parma, *Bradley*.
1152. **C. pedunculata** Muhl.
Low woods, ravines, etc.; common.
1153. **C. varia** Muhl. (*C. Emmonsii* Dew.)
Dry woods, ravines, hillsides; frequent.
1154. **C. Pennsylvanica** Lam.
Dry woods and banks; common.
1155. **C. communis** Bailey. (*C. varia* Man.) [*C. pedicellata* (Dew.) Britton.]
Dry wooded hills and ravine sides; common.
1156. **C. umbellata** Schk.
Sandy knolls and banks; infrequent.
1157. **C. pubescens** Muhl.
Wayne county, *E. L. Hankenson*.
1158. **C. Jamesii** Schwein. (*C. Steudelii* Kunth.)
Wayne county, *E. L. Hankenson*.
1159. **C. polytrichoides** Muhl. [*C. leptalea* Wahl.]
Bogs and marshes; abundant.
1160. **C. chordorhiza** Ehrh. [*C. chordorhiza* L. f.]
Wayne county: Sodus point, *Mr. Baxter*; Mud pond, *Mr. Hankenson*.
1161. **C. stipata** Muhl.
Wet meadows, etc.; common.
1162. **C. decomposita** Muhl.
Rare. Livingston county, *E. L. Hankenson*.
1163. **C. teretiuscula** Gooden.
Swamps; infrequent. *Dr. C. Dewey*. *Dr. Searing*. Wayne county.
1164. **C. teretiuscula** Gooden. var. **ramosa** Boott. [*C. teretiuscula ramosa* Boott.] Bergen swamp.
1165. **C. alopecoidea** Tuckerm.
Monroe Co., *Dr. Booth*, *L. Holzer*. Ontario Co., *Mr. Hankenson*.
1166. **C. vulpinoidea** Michx.
Low grounds; common.
1167. **C. Sartwellii** Dewey. (*C. disticha* Huds.)
Rare. Monroe county, *Dr. C. M. Booth*. Wayne county.
1168. **C. tenella** Schk.
Rare. Adams Basin, *M. S. Baxter*. Bergen swamp, *G. T. Fish* and *Dr. C. M. Booth*. Wayne county.
1169. **C. rosea** Schk.
Woods and banks; common.
1170. **C. rosea** Schk. var. **radiata** Dewey. [*C. rosea radiata* Dewey.]
Scarce. *Dr. Searing*. Adams Basin, *M. S. Baxter*.
1171. **C. rosea** Schk. var. **retroflexa** Torr. [*C. retroflexa* Muhl.]
Vicinity of Rochester, *Dr. Anna H. Searing*.

1172. **C. sparganioides** Muhl.
Rich woods, wet meadows, etc.; common.
1173. **C. Muhlenbergii** Schk.
Rare. Dry sandy ridges near Irondequoit bay. Sandy knolls at Mendon ponds. Braddock's bay, *Bradley*.
A form approaching var. *enervis* Boott occurs at Mendon, *Mr. Baxter*.
1174. **C. cephalophora** Muhl.
Dry fields, knolls, etc.; common.
1175. **C. cynocrates** Wormsk. [*C. Redowskyana* C. A. Meyer.]
Rare. Springy banks a few miles south of Rochester, *Dr. C. Dewey*.
Bergen swamp, Genesee county.
1176. **C. exilis** Dewey.
Wayne county, *E. L. Hankenson*.
1177. **C. interior** Bailey, Bull. Torr. Club, 20: 426 (1893).
Low ground, Adams Basin and Macedon, *M. S. Baxter*.
1178. **C. echinata** Murray, var. **microstachys** Bœckl. (*C. scirpoides* Schk. *C. sterilis* Willd.) [*C. sterilis* Willd.]
Frequent in sphagnum swamps.
1179. **C. sterilis excelsior** Bailey, Bull. Torr. Club, 20: 424 (1893).
Bergen swamp, *M. S. Baxter*.
1180. **C. trisperma** Dewey.
Swamps; scarce. Gates, *Geo. T. Fish*. Mendon, *M. S. Baxter*.
Wayne county.
1181. **C. Deweyana** Schwein.
Dry woods; infrequent. Henrietta, Adams Basin, Brockport, Macedon, and elsewhere.
1182. **C. bromoides** Schk.
Swamps, marshes; common.
1183. **C. siccata** Dewey.
Rare. Dry hillsides, Penfield, *M. S. Baxter*. Bergen swamp, *Clinton*.
1184. **C. tribuloides** Wahl. (*C. lagopodioides* Schk.)
Open marshes and low meadows; common.
1185. **C. tribuloides** Wahl. var. **Bebbia** Bailey. [*C. tribuloides Bebbii* (Olney) Bailey.]
Low grounds; common.
1186. **C. tribuloides** Wahl. var. **cristata** Bailey. (*C. cristata* Schweinitz)
[*C. tribuloides cristata* (Schwein.) Bailey.]
Low grounds and fields; common.
1187. **C. scoparia** Schk.
Wet grass lands; common.
1188. **C. straminea** Willd.
Moist copses and fields; infrequent.
1189. **C. straminea** Willd. var. **mirabilis** Tuckerm. [*C. straminea mirabilis* (Dewey) Tuckerm.]
Wet meadows; frequent.

1190. **C. straminea** Willd. var. **brevior** Dewey. [*C. straminea festucacea* (Willd.) Tuckerm.]
Moist grass lands ; frequent.

GRAMINEÆ.

441. *SPARTINA* Schreber.

1191. **S. cynosuroides** Willd. [*S. cynosuroides* (L.) Willd.]
Frequent in the marshes bordering the Genesee river.

442. *PASPALUM* L.

1192. **P. setaceum** Michx. *Dr. Anna H. Searing.*

443. *PANICUM* L.

1193. **P. GLABRUM** Gaudin. [*P. lineare* Krock.]
Cultivated and waste grounds ; frequent.
1194. **P. SANGUINALE** L. CRAB GRASS.
Cultivated and waste grounds, roadsides ; common.
1195. **P. proliferum** Lam.
Sandy fields ; rare. Penfield, *Dr. C. M. Booth.*
1196. **P. capillare** L. OLD-WITCH GRASS.
Cultivated fields and waste places ; common.
1197. **P. virgatum** L.
Rare. Sandy soil, Penfield, *Dr. C. M. Booth, G. T. Fish.*
1198. **P. latifolium** L. [*P. Walteri* Poir.]
Moist woods and banks of streams ; frequent.
1199. **P. clandestinum** L.
Rare. Penfield, *Dr. C. M. Booth. L. Holzer. A. B. Leckenby.*
1200. **P. depauperatum** Muhl.
Dry woods and banks ; frequent.
1201. **P. dichotomum** L.
Dry woods and banks ; common and very variable.
1202. **P. CRUS-GALLI** L. BARN-YARD GRASS.
Waste places, ditches, marshes ; common.
1203. **P. CRUS-GALLI** L. var. **MUTICUM** Vasey.
Low ground, near the eastern wide-water, Brighton.
1204. **P. Crus-galli** L. var. **hispidum** Torr. [*P. Crus-Galli hispidum* (Muhl.)
Torrey.]
Marshes at Irondequoit bay and elsewhere.

444. *SETARIA* Beauv. [*CHAMÆRAPHIS* R. Br.] FOXTAIL.

1205. **S. GLAUCA** Beauv. [*Chamæraphis glauca* (L.) Kuntze.]
Fields and waste grounds ; common.
1206. **S. VIRIDIS** Beauv. [*Chamæraphis viridis* (L.) Porter.]
Cultivated fields ; common.
1207. **S. ITALICA** Kunth. [*Chamæraphis Italica* (L.) Kuntze.]
Occasionally spontaneous.

445. *CENCHRUS* L.
1208. *C. TRIBULOIDES* L.
Along the N. Y. C. railroad from East Rochester eastward.
446. *LEERSIA* Swartz. [*HOMALOCENCHRUS* Mieg.]
1209. *L. Virginica* Willd. [*Homalocenchrus Virginicus* (Willd.) Britton.]
Rare. Shore of Irondequoit bay, *Dr. C. M. Booth*. Wayne county.
1210. *L. oryzoides* Swartz. [*Homalocenchrus oryzoides* (L.) Poll.] CUT GRASS.
Marshes and wet ground along streams; common.
447. *ZIZANIA* Gronov. [L.]
1211. *Z. aquatica* L. INDIAN RICE.
Frequent in all the bays, inlets and marshes along lake Ontario.
448. *ANDROPOGON* Royen. [L.]
1212. *A. furcatus* Muhl. [*A. provincialis* Lam.]
Dry banks; frequent.
1213. *A. scoparius* Michx.
Dry ground; common.
449. *CHRYSOPOGON* Trin.
1214. *C. nutans* Man. 6th ed. (*Sorghum nutans* Gray.) [*Andropogon nutans avenaceus* (Michx.) Hack.]
Frequent on dry banks and shores.
450. *PHALARIS* L.
- *P. CANARIENSIS* L. CANARY GRASS.
Frequent in waste places and door-yards.
1215. *P. arundinacea* L. REED CANARY GRASS.
Abundant in marshes along the Genesee river.
1216. *P. ARUNDINACEA* L. var. *PICTA*. RIBBON GRASS.
Escaped and established along N.Y. C. R. R. in Chili, *Miss Beckwith*.
451. *ANTHOXANTHUM* L.
1217. *A. ODORATUM* L. SWEET VERNAL GRASS.
Roadsides and pastures; infrequent. Irondequoit. Gates.
452. *HIEROCHLOE* Gmelin. [*SAVASTANA* Schrank.]
1218. *H. borealis* Roem. & Schultes. [*Savastana odorata* (L.) Scribn.]
Rare. Wayne county, *E. L. Hankenson*.
453. *ORYZOPSIS* Michx.
1219. *O. melanocarpa* Muhl.
Rocky woods, banks and ravine sides; frequent.
1220. *O. asperifolia* Michx. MOUNTAIN RICE.
Common in woods along river banks and ravines and on hillsides.
1221. *O. Canadensis* Torr. [*O. juncea* (Michx.) B. S. P.]
Rare. Sandy bank of Irondequoit bay, *Dr. C. M. Booth*.
454. *MILIUM* Tourn. [L.]
1222. *M. effusum* L. MILLET GRASS.
Wet places and swamps; not common.

455. *MUHLENBERGIA* Schreber.

1223. **M. sobolifera** Trin. [*M. sobolifera* (Muhl.) Trin.]
Rare. L. Holzer.
1224. **M. glomerata** Trin. [*M. racemosa* (Michx.) B. S. P.]
Swamps and ravines. Abundant in Bergen swamp.
1225. **M. Mexicana** Trin. [*M. Mexicana* (L.) Trin.]
Low grounds; common.
1226. **M. sylvatica** Torr. & Gray. [*M. sylvatica* (Torr.) A. Gray.]
Moist soil, borders of woods and streams. Abundant on the flats of the Genesee river and on the banks of Irondequoit creek.
1227. **M. Willdenovii** Trin. [*M. tenuiflora* (Willd.) B. S. P.]
Infrequent. Bank of Genesee river, below the lower falls. Sandy knolls at Mendon ponds.
1228. **M. diffusa** Schreber. NIMBLE WILL.
Fields and roadsides; frequent.

456. *BRACHYELYTRUM* Beauv.

1229. **B. aristatum** Beauv. [*B. erectum* (Schreb.) Beauv.]
Ravine sides and rocky banks of Genesee river; frequent.

457. *PHLEUM* L.

1230. **P. PRATENSE** L. TIMOTHY.
Fields and waysides; common.

458. *ALOPECURUS* L. FOXTAIL GRASS.

1231. **A. PRATENSIS** L. MEADOW FOXTAIL.
Scarce. L. Holzer. Prof. W. H. Lennon.
1232. **A. geniculatus** L. var. **aristulatus** Torrey. (*A. aristulatus* Michaux.)
[*A. geniculatus fulvus* (J. E. Smith.) Scribn.]
Wet meadows; frequent.

459. *SPOROBOLUS* R. Br.

1233. **S. vaginæflorus** Vasey. (*Vilfa vaginæflora* Torr.) [*Sporobolus vaginæflorus* (Torr.) Wood.]
Rare. Wayne county, E. L. Hankenson.
1234. **S. cryptandrus** Gray. [*S. cryptandrus* (Torr.) A. Gray.]
Rare. Sandy shore of lake Ontario.

460. *AGROSTIS* L. BENT-GRASS.

1235. **A. ALBA** L. WHITE BENT-GRASS.
Low grass lands; common.
1236. **A. ALBA** L. var. **VULGARIS** Thurb. (*A. vulgaris* With.) [*A. alba vulgaris* (With.) Thurb.] RED-TOP.
Meadows, fields, pastures; common.
1237. **A. perennans** Tuckerm. [*A. perennans* (Walt.) Tuckerm.]
Common in open woods about Irondequoit bay; frequent elsewhere.
1238. **A. scabra** Willd. [*A. hiemalis* (Walt.) B. S. P.] HAIR-GRASS.
Bluffs along lake Ontario and Irondequoit bay.

461. CINNA L.

1239. **C. arundinacea** L.

Marshes and swampy woods ; frequent.

1240. **C. pendula** Trin. (*C. arundinacea* var. *pendula* Gray.) [*C. latifolia* (Trev.) Griesb.]

Rare. Ravines, Irondequoit. Wayne county.

462. CALAMAGROSTIS Adans.

1241. **C. Canadensis** Beauv. [*C. Canadensis* (Michx.) Beauv.] BLUE-JOINT.
Marshes ; common.

463. AMMOPHILA Host.

1242. **A. arundinacea** Host. (*Calamagrostis arenaria* Roth.) [*Ammophila arenaria* (L.) Link.]

Common on the barren beach of lake Ontario.

464. ARRHENATHERUM Beauv.

1243. **A. AVENACEUM** Beauv. [*A. elatius* (L.) Beauv.] OAT GRASS.
Rochester, *Dr. C. M. Booth*. *Dr. A. H. Searing*. Wayne county.

465. HOLCUS L.

1244. **H. LANATUS** L. MEADOW SOFT-GRASS. VELVET-GRASS.
Meadows in Genesee Valley park, Rochester. *L. Holzer*.

466. DESCHAMPSIA Beauv.

1245. **D. flexuosa** Trinius. (*Aira flexuosa* L.) [*D. flexuosa* (L.) Trinius.]
Common in dry woods along the banks of the Genesee river, below Rochester ; occasional on dry slopes elsewhere.1246. **D. cæspitosa** Beauv. (*Aira cæspitosa* L.) [*D. cæspitosa* (L.) Beauv.]
Rare. Rocky bank of Genesee river, near foot of White street, Rochester, *J. B. Fuller*. Bergen swamp, *J. E. Paine!* Sodus, Wayne county, *E. L. Hankenson*.

467. TRisetum Pers.

1247. **T. subspicatum** Beauv. var. **molle** Gray. [*T. subspicatum molle* (Mx.) A. Gray.]Rare. Dry sandy bank, Brighton, *Dr. C. M. Booth!*1248. **T. palustre** Torr. [*T. palustre* (Michx.) Torr.]Rare. Near Rochester, *Dr. C. M. Booth*.

468. AVENA Tourn. [L.]

1249. **A. striata** Michx.Monroe county, *Dr. Anna H. Searing*. *G. T. Fish*.— **A. SATIVA** L., COMMON OAT, is frequently spontaneous.

469. DANTHONIA DC.

1250. **D. spicata** Beauv. [*D. spicata* (L.) Beauv.] WILD OAT-GRASS.
Dry banks and hills ; common.

CYNODON Richard. [CAPRIOLA Adans.]

— **C. DACTYLON** Pers. [*Capriola Dactylon* (L.) Kuntze.] BERMUDA GRASS.
In mold brought from the woods, *Dr. A. H. Searing*.

470. *BOUPELOUA* Lagasca.

1251. **B. racemosa** Lagasca. (*B. curtifendula* Gray.) [*B. curtifendula* (Michx.) Torr.] MUSKIT GRASS.
Rare. Irondequoit, Prof. W. H. Lennon and M. S. Baxter.

471. *ELUSINE* Gært. n.

1252. **E. INDICA** Gært. n. [*E. Indica* (L.) Gært. n.] CRAB GRASS.
Pittsford, Dr. C. M. Booth. Wayne county.

472. *PHRAGMITES* Trin.

1253. **P. communis** Trin. [*P. Phragmites* (L.) Karst.] REED.
Marshes; scarce. Mendon and Hamlin, M. S. Baxter. Bergen swamp, Genesee county. Wayne county.

473. *EATONIA* Raf.

1254. **E. Pennsylvanica** Gray. [*E. Pennsylvanica* (D. C.) A. Gray.]
Moist banks and borders of marshes; frequent.

1255. **E. Dudleyi** Vasey.
Moist bank of Genesee river, with *E. Pennsylvanica*, J. B. Fuller, 1862.

474. *ERAGROSTIS* Beauv.

1256. **E. reptans** Nees. [*E. hypnoides* (Lam.) B. S. P.]
Frequent in wet sand on the shore of lake Ontario and along the Genesee river.

1257. **E. MAJOR** Host. (*E. poaeoides* var. *megastachya* Gray.)
Railroad yard, East Rochester, Dr. C. M. Booth! Roadside, Central avenue, Rochester, J. B. Fuller.

1258. **E. PURSHII** Schrader. [*E. Caroliniana* (Spreng.) Scribn.]
Railroad yard, East Rochester, Dr. C. M. Booth!

1259. **E. capillaris** Nees. [*E. capillaris* (L.) Nees.]
Brockport, Prof. W. H. Lennon, M. S. Baxter.

475. *DACTYLIS* L.

1260. **D. GLOMERATA** L. ORCHARD GRASS.
Fields, door-yards, waysides; common.

CYNOSURUS L.

- **C. CRISTATUS** L., CRESTED DOG'S-TAIL GRASS, is occasionally spontaneous in the vicinity of Rochester.

476. *POA* L.

1261. **P. ANNUA** L. LOW SPEAR-GRASS.
Lawns, roadsides, fields; common.

1262. **P. COMPRESSA** L. WIRE-GRASS.
Fields, waysides, waste places, dry banks; common. Sometimes called *Canadian Blue Grass*.

1263. **P. serotina** Ehrh. [*Poa flava* L.] FOWL MEADOW-GRASS.
Wet meadows, low banks of streams and springy places; frequent.

1264. **P. pratensis** L. JUNE GRASS. KENTUCKY BLUE-GRASS.
Everywhere abundant.

1265. *P. TRIVIALIS* L. ROUGH-STALKED MEADOW-GRASS.
Low grass lands and marshes ; not common.
1266. *P. sylvestris* Gray.
Rare. *Dr. C. M. Booth.*
1267. *P. debilis* Torr.
Irondequoit, *Dr. C. M. Booth!* Wayne county.
1268. *P. alsodes* Gray.
Woods on river banks and hillsides ; infrequent.
477. *GLYCERIA* R. Br. [PANICULARIA Fabr.]
1269. *G. elongata* Trin. [*Panicularia elongata* (Torr.) Kuntze.]
Rare. *L. Holzer.*
1270. *G. nervata* Trin. [*Panicularia nervata* (Willd.) Kuntze.] FOWL
MEADOW-GRASS.
Moist meadows, brooksides, marshy ground ; common.
1271. *G. pallida* Trin. [*Panicularia pallida* (Torr.) Kuntze.]
Monroe county, *L. Holzer.* Wayne county, *E. L. Hankenson.*
1272. *G. grandis* Watson. (*G. aquatica* J. E. Smith.) [*Panicularia aquatica*
(L.) Kuntze.] REED MEADOW-GRASS.
Low meadows and shallow slow streams ; common.
1273. *G. fluitans* R. Br. [*Panicularia fluitans* (L.) Kuntze.]
Shallow water in slow streams, ditches, pools ; infrequent.
478. *FESTUCA* L. FESCUE GRASS.
1274. *F. tenella* Willd. [*Festuca octoflora* Walt.]
Wooded bank of Irondequoit bay, Penfield, *Dr. C. M. Booth!*
Wayne county.
1275. *F. OVINA* L. SHEEP'S FESCUE.
Bank of Genesee river, near the lower falls, and elsewhere. Occa-
sionally on lawns.
1276. *F. OVINA* L. var. *DURIUSCULA* Koch. [*Festuca ovina duriuscula* (L.)
Hack.] HARD FESCUE.
Sandy fields near Irondequoit bay, *Dr. C. M. Booth.* Sandy bank of
Irondequoit bay, near Sea Breeze, *J. B. Fuller. L. Holzer. G. T. Fish.*
1277. *F. nutans* Willd.
Frequent in woods on the banks of Genesee river and elsewhere.
1278. *F. ELATIOR* L. TALL MEADOW FESCUE.
Low, rich grass land ; common.
1279. *F. ELATIOR* L. var. *PRATENSIS* Gr. [*F. elatior pratensis* (Huds.) Hack.]
MEADOW FESCUE.
Fields and waysides ; common.
479. *BROMUS* L.
1280. *B. Kalmii* Gray.
Not common. Copses along the banks of Genesee river. Mendon,
G. T. Fish. Adams Basin, M. S. Baxter.

1281. *B. SECALINUS* L. CHESS or CHEAT.
Fields and waste lands; common.
1282. *B. MOLLIS* L. [*B. hordeaceus* L.]
L. Holzer. Prof. W. H. Lennon.
1283. *B. RACEMOSUS* L. *L. Holzer.*
1284. *B. ciliatus* L.
River banks and ravines; common.
1285. *B. ciliatus* L. var. *purgans* Gray. [*B. ciliatus purgans* (L.) A. Gray.]
Common on rocky banks of the Genesee river.
1286. *B. TECTORUM* L.
Not common. Irondequoit, *Dr. C. M. Booth!*
480. *LOLIUM* L. DARNEL.
1287. *L. PERENNE* L.
Roadsides, Rochester. Wayne county.
1288. *L. ITALICUM* A. Br. [*L. perenne Italicum* (A. Br.) Scribn.]
Roadside, Rochester, *J. B. Fuller.*
1289. *L. TEMULENTUM* L. POISONOUS DARNEL.
Wayne county, *E. L. Hankenson.*
481. *AGROPYRUM* Gærtn. [*AGROPYRON* J. Gærtn.]
1290. *A. repens* Beauv. (*Triticum repens* L.) [*Agropyron repens* (L.) Beauv.]
COUCH, QUACK, QUITCH or QUICK GRASS.
Fields, roadsides and waste places; common.
1291. *A. caninum* Roem. & Schultes. (*Triticum caninum* L.) [*Agropyron caninum* (L.) Roem. & Schultes.]
River banks, dry ravine sides; frequent. Occasionally in swamps.
482. *HORDEUM* Tourn. [L.]
1292. *H. JUBATUM* L. SQUIRREL-TAIL GRASS.
Fields and roadsides, Irondequoit, *Dr. C. M. Booth.*
483. *ELYMUS* L. WILD RYE.
1293. *E. Virginicus* L.
River banks and ravines; frequent.
1294. *E. Canadensis* L.
River banks and shores; frequent.
1295. *E. Canadensis* L. var. *glaucifolius* Gray. [*E. Canadensis glaucifolius* (Willd.) Torr.]
Common on the banks of Genesee river, below Rochester.
1296. *E. striatus* Willd.
Monroe county, *L. Holzer.* Wayne county, *E. L. Hankenson.*
484. *ASPRELLA* Willd. [*HYSTRIX* Moench.]
1297. *A. Hystrix* Willd. (*Gymnosticum Hystrix* Schreb.) [*Hystrix Hystrix* (L.) Millsp.]
River banks and ravine sides, borders of woods; frequent.

GYMNOSPERMÆ.

CONIFERÆ.

485. *PINUS* Tourn. [L.]
1298. **P. Strobis** L. WHITE PINE.
Woods and hills; frequent.
1299. **P. rigida** Mill. PITCH PINE.
Dry hills and sandy banks; infrequent. Irondequoit. Brighton.
Penfield. Webster.
486. *PICEA* Link.
1300. **P. nigra** Link. (*Abies nigra* Poir.) [*Picea Mariana* (Mill.) B. S. P.]
BLACK SPRUCE.
Scarce. Swamps at Mendon.
487. *TSUGA* Carriere.
1301. **T. Canadensis** Carr. (*Abies Canadensis* Michx.) [*Tsuga Canadensis*
(L.) Carr.] HEMLOCK.
Swampy woods and river banks; common.
488. *ABIES* Link. [Juss.]
1302. **A. balsamea** Mill. [*A. Balsamea* (L.) Mill.] BALSAM FIR.
Reported only by *L. Holzer*.
489. *LARIX* Tourn. [Adans.]
1303. **L. Americana** Michaux. [*L. laricina* (Du Roi) Koch.] TAMARACK.
AMERICAN LARCH.
Common in the larger swamps.
490. *THUYA* Tourn. [THUJA L.]
1304. **T. occidentalis** L. ARBOR VITÆ. WHITE CEDAR.
Rocky river banks, ravines and swamps; common.
491. *JUNIPERUS* L.
1305. **J. communis** L. COMMON JUNIPER.
Rare. Bank of the Genesee river, below the lower falls. Bank of
Irondequoit bay, *G. T. Fish*.
1306. **J. Sabina** L. var. **procumbens** Pursh. [*J. Sabina* L.]
Bank of the Genesee river, *Bradley*. Caledonia, Livingston county.
Abundant in Bergen swamp, Genesee county.
1307. **J. Virginiana** L. RED CEDAR.
Rare. Banks of Genesee river, Rochester. East bank of Ironde-
quoit bay, Webster. Oak Orchard, Orleans county.
1308. **J. VIRGINIANA** L. var. PROSTRATA.
Abandoned nursery grounds on Prince street, Rochester.
492. *TAXUS* Tourn. [L.]
1309. **T. Canadensis** Willd. (*T. baccata* L. var. *Canadensis* Gray.) [*T. minor*
(Michx.) Britton.] AMERICAN YEW.
River banks, ravine sides, hemlock woods and cold swamps.

CRYPTOGAMIA.

VASCULAR ACROGENS. [PTERIDOPHYTA.]

EQUISETACEÆ.

493. *EQUISETUM* L.

1310. **E. arvense** L. COMMON HORSETAIL.
Moist sandy or gravelly soil, railroad embankments, river banks and ravine sides; common.
1311. **E. sylvaticum** L.
Wet shady places; infrequent.
1312. **E. palustre** L.
Rare. Margin of Genesee river, near lake Ontario, *J. B. Fuller*.
1313. **E. limosum** L. [*E. fluviatile* L.]
Infrequent. Rochester, *Dr. C. M. Booth*, *J. B. Fuller*. Gates, *G. T. Fish*. Brockport, *M. S. Baxter*. Wayne county.
1314. **E. hyemale** L. SCOURING RUSH.
Moist or dry banks; common.
1315. **E. variegatum** Schleicher.
Frequent on the shore of lake Ontario.
1316. **E. scirpoides** Michx.
Wooded hillsides; not common. Mount Hope. Banks of Irondequoit creek and bay. Hopper's hill, Greece. Webster. Wayne county.

FILICES.

494. *POLYPODIUM* L.

1317. **P. vulgare** L. COMMON POLYPODY.
On rocks and roots of trees; infrequent. Four stations on the banks of Genesee river, between the lower falls and the rifle range. East side of Irondequoit bay, near the sand bar, *C. W. Seelye*. "The Gulf", Genesee county, *Miss F. Beckwith*. Holley, Orleans county, *Prof. W. H. Lennon*. Oak Orchard, *M. S. Baxter*. Cliffs on the eastern shore of Canandaigua lake, *C. W. Seelye*. Wayne county.

495. *ADIANTUM* L. MAIDENHAIR.

1318. **A. pedatum** L.
Rich moist woods, shady banks, ravine sides; common.

496. *PTERIS* L.

1319. **P. aquilina** L. COMMON BRAKE.
Thickets, hillsides, old fields; common.

497. *WOODWARDIA* J. E. Smith. CHAIN-FERN.

1320. **W. Virginica** Smith. [*W. Virginica* (L.) J. E. Smith.]
Abundant in a swamp at Mendon ponds. Adams Basin, *M. S. Baxter*.

498. *ASPLENIUM* L. SPLEENWORT.1321. **A. Trichomanes** L.

Shaded cliffs; rare. Glen east of Float bridge, *Dr. C. M. Booth!*
"The Gulf", Genesee county, *Miss Beckwith*. Holley, *Prof. Lennon*.

1322. **A. ebeneum** Ait. [*A. platyneuron* (L.) Oakes.]

Rare. Bank of Genesee river, *M. S. Baxter*. Near the Sea Breeze,
Irondequoit, *C. W. Seelye*. Mendon, *M. S. Baxter*. Holley, *Prof. Lennon*.

1323. **A. angustifolium** Michx.

Rich woods and ravine bottoms; not common. Woods, east of
Rochester, *C. W. Seelye*. Near Rochester, *Dr. C. M. Booth*. Dugway,
Mrs. M. E. Streeter. Gates, *Geo. T. Fish*. Brockport, *M. S. Baxter*.
Glen at Seneca point, Canandaigua lake, *C. W. Seelye*. Wayne county.

1324. **A. thelypteroides** Michx. [*A. acrostichoides* Swartz.]

Rich woods; common.

1325. **A. Filix-fœmina** Bernh. [*A. Filix-fœmina* (L.) Bernh.]

Moist rich woods; common.

499. *CAMPTOSORUS* Link.1326. **C. rhizophyllus** Link. [*C. rhizophyllus* (L.) Link.] WALKING-LEAF.

Shaded rocks; not common. Brighton, *C. W. Seelye*. Gates, *G. T.*
Fish. Bank of Genesee river and glen east of Float bridge, *Dr. C. M.*
Booth! Ogden, *M. S. Baxter*. "The Gulf", Genesee county, *Miss M.*
E. Macauley, *Miss F. Beckwith*. Holley, *M. S. Baxter*. Glen at Seneca
point, Canandaigua lake, *G. T. Fish*, *C. W. Seelye*. Wayne county.

500. *PHEGOPTERIS* Fee. BRECH FERN.1327. **P. polypodoides** Fee. [*P. Phegopteris* (L.) Underw.]

Rare. Irondequoit, *C. W. Seelye*. *L. Holzer*. Wayne county.

1328. **P. hexagonoptera** Fee. [*P. hexagonoptera* (Michx.) Fee.]

Open woods; common.

1329. **P. Dryopteris** Fee. [*P. Dryopteris* (L.) Fee.]

Scarce. Webster, Mendon, Hamlin, *M. S. Baxter*. Holley, Orleans
county, *Prof. Lennon*. Wayne county.

501. *ASPIDIUM* Swartz. [DRYOPTERIS Adans.] SHIELD FERN.1330. **A. Thelypteris** Swartz. [*Dryopteris Thelypteris* (L.) A. Gray.]

Moist or marshy ground; common.

1331. **A. Noveboracense** Swartz. [*Dryopteris Noveboracensis* (L.) A. Gray.]

Moist woods and moist shady places; common.

1332. **A. spinulosum** Swartz. [*Dryopteris spinulosa* (Retz) Kuntze.]

Dry or wet woods, and swamps; not uncommon.

1333. **A. spinulosum** Swartz var. **intermedium** D. C. Eaton. [*Dryopteris spinulosa intermedia* (Muhl.) Underw.]

Woods; common.

1334. **A. spinulosum** Swartz var. **dilatatum** Hooker. [*Dryopteris spinulosa dilatata* (Hoffm.) Underw.]

Charlotte, *C. W. Seelye*. *Dr. Anna H. Searing*.

1335. **A. Boottii** Tuckerm. (*A. spinulosum* var. *Boottii* Man.) [*Dryopteris Boottii* (Tuckerm.) Underw.]
Rare. Swamp near Scottsville, *M. S. Baxter*.
1336. **A. cristatum** Swartz. [*Dryopteris cristata* (L.) A. Gray.]
Moist and marshy woods and thickets; not uncommon.
1337. **A. cristatum** Swartz var. **Clintonianum** D. C. Eaton. [*Dryopteris cristata Clintoniana* (D. C. Eaton) Underw.]
Low rich woods; not uncommon.
1338. **A. Goldianum** Hook. [*Dryopteris Goldiana* (Hook.) A. Gray.]
Rich moist woods and shady places; scarce.
1339. **A. marginale** Swartz. [*Dryopteris marginalis* (L.) A. Gray.]
Dry woods and rocky banks and hillsides; common.
1340. **A. acrostichoides** Swartz. [*Dryopteris acrostichoides* (Michx.) Kuntze.]
CHRISTMAS FERN.
Common in rocky woods. Var. *incisum* Gray is found in Webster by *M. S. Baxter*.
502. **CYSTOPTERIS** Bernhardt. BLADDER FERN.
1341. **C. bulbifera** Bernh. [*C. bulbifera* (L.) Bernh.]
Rocky walls and bottoms of shaded ravines, shaded river banks and cold swampy woods; abundant.
1342. **C. fragilis** Bernh. [*C. fragilis* (L.) Bernh.]
Common on shaded cliffs, rocky banks, shaded hillsides and banks of brooks. Var. *dentata* is at Adams Basin, *M. S. Baxter*; also reported by *Dr. Searing*. Var. *angustata* occurs at Ogden, *C. W. Seelye*.
503. **ONOCLEA** L.
1343. **O. sensibilis** L.
Moist fields and thickets; common. The so-called var. *obtusilobata* occurs in Webster, *M. S. Baxter*; also reported by *G. T. Fish*.
1344. **O. Struthiopteris** Hoffm. (*Struthiopteris Germanica* Willd.) [*Onoclea Struthiopteris* (L.) Hoffm.] OSTRICH FERN.
Rich moist soil, in shaded places; not rare.
504. **DICKSONIA** L'Her.
1345. **D. pilosiuscula** Willd. (*D. punctilobula* Kuntze.) [*D. punctilobula* (Mx.) A. Gray.] HAY-SCENTED FERN.
Rare. Vicinity of Rochester, *Dr. Booth*. Brockport, *M. S. Baxter*. Holley, *Prof. W. H. Lennon*. Ontario, Wayne county, *Geo. T. Fish*.
505. **OSMUNDA** L.
1346. **O. regalis** L. ROYAL FLOWERING FERN.
In dry or swampy ground, in the open or in light shade; not uncommon.
1347. **O. Claytoniana** L.
Low grounds, in the open or in shade; common.
1348. **O. cinnamomea** L. CINNAMON FERN.
In similar situations and as common as the last mentioned. Var. *frondosa* is found at Adams Basin, *M. S. Baxter*.

OPHIOGLOSSACEÆ.

506. *BOTRYCHIUM* Swartz.

1349. **B. lanceolatum** Angstroem. [*B. lanceolatum* (S. G. Gmel.) Angstroem.]
Rare. Holley, Orleans county, *Prof. W. H. Lennon*.
1350. **B. matricariæfolium** A. Braun.
Rare. Henrietta, *J. B. Fuller*. Webster, *M. S. Baxter*. Holley,
Orleans county, *Prof. W. H. Lennon*. Wayne county.
1351. **B. ternatum** Swartz. [*B. ternatum* (Thunb.) Swartz.]
Rare. Holley, Orleans county, *Prof. W. H. Lennon*.
Var. *intermedium* (*B. lunarioides* Man.), Adams Basin, *M. S. Baxter*
Woods bordering Bergen swamp, Genesee county, *Dr. C. M. Booth* and
G. T. Fish! Wayne county.
Var. *obliquum*, Adams Basin, *M. S. Baxter*. *Dr. C. M. Booth*.
Var. *dissectum*, Webster, *M. S. Baxter*.
1352. **B. Virginianum** Swartz. [*B. Virginianum* (L.) Swartz.]
Rich woods; common.

507. *OPHIOGLOSSUM* L. ADDER'S TONGUE.

1353. **O. vulgatum** L.
Rare. Buck pond, *Dr. A. H. Searing*. Henrietta, *Dr. C. M. Booth*.
Adams Basin, *M. S. Baxter*.

LYCOPODIACEÆ.

508. *LYCOPODIUM* L. CLUB MOSS.

1354. **L. lucidulum** Michx.
Cold woods, ravine sides, shady margins of ponds, etc.; frequent.
1355. **L. obscurum** L. var. **dendroideum** Man. (*L. dendroideum* Michaux.)
[*L. obscurum* L.]
Rare. Near Rich's mills, Penfield, *Dr. C. M. Booth!* Gates, *G. T.*
Fish. Webster, *M. S. Baxter*.
1356. **L. clavatum** L. COMMON CLUB MOSS.
Dry woods; common.
1357. **L. complanatum** L. GROUND PINE.
Woods on sandy hills and slopes; frequent.

SELAGINELLACEÆ.

509. *SELAGINELLA* Beauv.

1358. **S. rupestris** Spring. [*S. rupestris* (L.) Spring.]
Rare. Dry exposed rock, Penfield, *M. S. Baxter*.

SALVINIACEÆ.

510. *AZOLLA* Lam.

1359. **A. Caroliniana** Willd.
In all the side-waters of lake Ontario, throughout the northern border
of our district. "Common near the shore, but not observed at any
distance from the lake", *John E. Paine*. Gates, *Geo. T. Fish*.

BIBLIOGRAPHY.

1687.—Denonville's Report of his Expedition to the Genesee Country. Doc. Hist. State of New York, Vol. I. Albany, 1849.

He describes the country, the forest growth, the orchards and the cultivated fields, and gives details of the great quantity of corn destroyed.

1715.—Account of the Expedition of Denonville as related by the Baron La Hontan in his "Travels in America." Collections of the New York Historical Society. Second Series, Part I. New York, 1848.

Speaks of marching through immense forests of lofty trees, and of the woods abounding in oak, walnut and wild chestnut trees.

1755.—Memoir upon the Late War in North America between the French and English. By M. Pouchot. Trans. by F. B. Hough. Roxbury, 1866.

Describes the finding of ginseng by Father Lafitan, and says that it is most frequently found in the country of the Five Nations. Describes the oaks on the banks of the "Casconchiagon" (Genesee river).

1785.—The North American Sylva. By F. A. Michaux. With Notes by J. J. Smith. Philadelphia, 1855.

The author, who traveled through this country from 1785 to 1796, making a special study of the trees, makes numerous mention of the trees of the Genesee region. Of the iron-wood (*Carpinus ostrya*) he says: "I have nowhere seen it more common nor more vigorous than in Genesee, near Lake Ontario and Lake Erie." "The white elm (*Ulmus Americana*) appears to be the most multiplied and of the loftiest height between the 42d and 46th degrees of latitude, which comprises the provinces of Lower Canada, New Brunswick and Nova Scotia, the north-eastern section of the United States and Genesee in the State of New York." "Basswood (*Tilia Americana*) is most abundant in Genesee. In some districts, particularly between Batavia and New Amsterdam, it frequently constitutes two-thirds and sometimes the whole of the forests." "The mossy-cup oak (*Quercus olivæformis*) I have observed only in the State of New York, on the banks of the Hudson, above Albany, and in Genesee, where it is so rare that it has hitherto received no specific name." He says that *Juglans porcina* (pignut) is not found in the Genesee country, but our collectors have proved that assertion to be incorrect. He makes special mention of the sugar maple being common only in Genesee and the upper part of Pennsylvania. He calls particular attention to the fact that the black sugar maple (*Acer nigrum*) has hitherto been confounded by botanists with the sugar maple, and says that "it forms a large part of the forests of the Genesee. He mentions the coffee tree (*Gymnocladus Canadensis*) as being found in that part of Genesee which borders on Lake Ontario and Lake Erie. Of *Populus Canadensis*, he speaks particularly of its growing on the banks of the Genesee, and that the trees are seventy or eighty feet in height and three or four feet in diameter. He mentions white ash, wild

cherry, white beech, shellbark hickory and black walnut, as being abundant in the Genesee country.

1792.—*Reflections offertes aux Capitalistes de l'Europe.* By Capt. Van Pradelles. Amsterdam, 1792.

This author gives a glowing description of the Genesee country and its advantages, chief among which he places the forests of sugar maple trees, speaking of a process discovered two years previously by which it was possible to obtain, from the syrup of the maple, sugar equal to that produced from the cane, and stating that maple trees were so abundant as to furnish all the sugar needed for home consumption in the United States and leave a surplus of thousands of tons for export. The pamphlet is accompanied by a map showing the position of the Genesee country and indicating the regions most abounding in sugar maples.

1792.—*Description of the Country between Albany and Niagara in 1792.* Doc. Hist. State of New York, Vol. II. Albany, 1849.

The writer describes the famous Genesee flats, speaking of the remarkably fertile soil, quite clear of trees, producing grass ten feet high.

1795.—*Historical, Geographical, Commercial and Philosophical View of the American United States, etc., etc.* By W. Winterbotham. London, 1795.

1795.—*Travels through the United States of America, the Country of the Iroquois and Upper Canada, in the years 1795, 1796, and 1797.* By the Duke de la Rochefoucault Liancourt. 2 Vols. London, 1799.

The author refers to the production of large quantities of maple sugar by the white settlers. He also speaks of the great fertility of the region, the great size of the trees, and the variety of shrubs and flowers.

1799.—*Description of the Settlement of the Genesee Country in the State of New York.* By Capt. Charles Williamson. Doc. Hist. State of New York, Vol. II. Albany, 1849.

This writer speaks of the uplands as being timbered chiefly with hickory, oak and walnut, and the intervalles with elm, basswood, sugar-tree, etc. He also speaks of the open Genesee flats, not even encumbered with a bush, but covered with extremely tall grass.

1800.—*"Holland Land Company West Genesee Lands-Information." Holland Purchase.* By O. Turner. Buffalo, 1849.

A handbill describing the lands of the company, mentions trees growing near Genesee: black and white oak, hickory, poplar, chestnut, wild cherry, butternut, dogwood, basswood or lynn, sugar tree, white ash, cucumber and black walnut.

1800.—*Visit to the Falls of Niagara in 1800.* By John Maude. London, 1826.

The author speaks of the Genesee flats being covered with grass ten

feet high, with no trees. Oak the principal timber near New Hartford (Canaugus.) Along the Genesee river above the falls at Rochester were thick woods of beech, basswood, sugar maple, tulip tree, oak, hickory, chestnut, butternut, black walnut, dogwood, ironwood, and two or three hemlock pines. He observed white pines on the east side of the river, and could see the tops of pines which lined the shores of lake Ontario. He speaks of the sugar maple abounding more than any other tree in the Genesee country.

1800.—An Account of the Soil, Growing Timber, and other productions of the land in the countries situated in the back parts of the States of New York and Pennsylvania, in North America; and particularly the lands in the County of Ontario, known by the name of the Genesee Tract, lately located, and now in the progress of being settled. (Report of the Deputy Marshal of New York on the preëmption lands in the County of Ontario, December, 1800.) Doc. Hist. State of New York, Vol. II. Albany, 1849.

Among the peculiar advantages of this region the report claims: The uncommon excellence and fertility of the soil; the superior quality of the timber, and the advantages of easy cultivation in consequence of being generally free from underwood; the abundance of grass for cattle, in the woods and on the extensive meadow grounds upon the lakes and rivers; the vast quantities of the sugar maple tree in every part of the tract; the great variety of other fine timber, such as oak, hickory, black walnut, chestnut, ash of different kinds, elm, butternut, basswood, poplar, pines, and also thorns of prodigious size; the variety of fruit trees, and also smaller fruits, such as mulberries, grapes of different kinds, raspberries, blackberries, huckleberries, wild gooseberries and strawberries in vast quantities, also cranberries and black haws.

The report also speaks of the extensive ranges of meadow grounds on the Genesee flats, on which there was little or no underwood and which are represented as being covered with a growth of coarse grass, luxuriant beyond description and very fit for hay.

1803.—Le Pour et le Contre, ou Avis à ceux qui se proposent de passer dans les États-Unis d'Amérique. Suivi d'une description du Kentucky et du Genesey, deux des nouveaux établissemens les plus considérables de cette partie du nouveau monde. Par Louis Bridel. Paris, 1803.

The writer describes the Genesee country, comparing it with Kentucky; speaks of the fertility of the soil and the enormous size of the trees, one black walnut measuring 22 feet in circumference, and near it a sycamore measuring 44 feet. Speaks of a bundle of grass, gathered by chance in the forest and sent to Amsterdam, which measured $4\frac{1}{2}$ feet in height. He says the forests were made up of fir, oak, elm, birch, black walnut, chestnut, cherry, mulberry and apple trees. Says that the sugar maple was very common, and speaks of the sumac as being peculiar to this part of the country.

- 1804.**—A Description of the Genesee Country in the State of New York. By Robert Munro. Doc. Hist. State of New York, Vol. II. Albany, 1849.

The author mentions the most common and the most useful of the forest trees, describing somewhat at length the characteristic features of the soil upon which particular species grow. He speaks of the hemlock, cucumber tree, white poplar, white and black birch, turmeric tree, spruce pine, locust tree, prickly ash, spice wood, hazelnut, willow and alder as being scarce. Among the plants mentioned are sassafras, ginseng, sarsaparilla, snakeroot, spikenard, mandrake, etc. The Genesee flats are mentioned as cleared of timber for several thousand acres, and covered with very high and thick grass.

- 1804.**—A View of the Present Situation of the Western Parts of the State of New York, called the Genesee Country, etc., etc. (Author unknown.) Fredericktown, 1804. 23 pp.

This pamphlet mentions the most common forest trees and their indication regarding character of the soil, and names a few of the noted shrubs and herbs used as food or medicine.

- 1809.**—Map of the Military Lands of the State of New York. Doc. Hist. State of New York, Vol. I. Albany, 1849.

Gives location of the "Big Tree" on the Genesee river.

- 1816.**—Travels in Canada and the United States in 1816 and 1817. By Lieut. Francis Hall. London, 1818.

The writer describes Rochester, saying that the vicinity is still an unbroken forest, consisting of oak, hickory, ash, beech, bass, elm and walnut. Speaks of a black walnut tree "betwixt the town and the great fall, 24 feet in its girth". Speaks of Allen's creek, near Caledonia, with its banks adorned with natural groves and copses, in which he observed the "candleberry myrtle" in great abundance.

- 1816.**—Travels through the Western Country in the Summer of 1816. By David Thomas. Auburn, 1819.

This author mentions many of the trees and plants of this region, and notes the relations of the geological features to the distribution of the flora. We quote some of his observations. "As we approach the Genesee river oak and chestnut appear on the hills, but in the moist rich lands to the eastward the latter is very rare. Fences of considerable extent have been made from white cedar, which is procured in the swamps. It is not that of West Jersey (*Cupressus thyoides*), which it greatly resembles in the grain of the wood, but the *Thuja occidentalis*". "The road was bordered by many detached patches of poisonous hemlock (*Cicuta maculata*)". He speaks of the stunted white oaks growing on the limestone foundation between the Genesee river and Caledonia, and notes that two miles beyond the latter place beech and maple become the principal timber. He speaks of noticing the papaw (*Annona triloba*) eight miles from Erie, and says that he had not discovered it in any other part of the State of New York; from which we suppose that he

did not visit the towns of Greece and Parma, in this county, where it is found. He speaks of first noticing the colombo root (*Frasera Walleri*) on the oak plains west of the Genesee river.

1818.—A Tour from the City of New York to Detroit in the Michigan Territory. By William Darby. New York, 1819.

The writer describes the country between Canandaigua and Batavia, by way of Avon. He speaks of the great fertility of the soil, and mentions that oak was the prevalent timber after passing the Genesee flats. Also mentions sugar maple, linden, elm, white hickory, ash and hemlock.

1820.—Remarks on the Environs of Carthage Bridge near the mouth of the Genesee River. By Dr. John I. Bigsby, of the Medical Staff of the British Army in Canada. Amer. Jour. of Science, Vol. II. New Haven, 1820.

The writer speaks of the cedar, hemlock, pine, oak and beech trees on the banks of the river, near the bridge.

1821.—Travels in New England and New York. By Timothy Dwight, S.T. D., LL. D. 4 Vols. New Haven, 1821.

The author notes the growth of hemp, wheat, etc., and the maple and "oak plains", apparently on the corniferous limestone.

1822.—Letters on the Natural History and Internal Resources of the State of New York. By Hibernicus (DeWitt Clinton). New York, 1822.

Speaks of the curled or birdseye maple, black walnut and wild cherry as being plenty and valuable for the manufacture of furniture, and makes frequent reference to the trees of the region around Canandaigua.

1823.—Observations on the Lake Fevers and other Diseases of the Genesee Country in the State of New York. By Edward G. Ludlow. New York, 1823.

Describes the marshes of Braddock's and Irondequoit bays, and says: "Numerous medicinal plants, whose virtues have been tested, are found in this region, and are much used, especially in those parts of the country where the scarcity or high price of pharmaceutical preparations render it necessary to resort to the less expensive simples of nature." Speaks of the barks of the *Liriodendron Tulipifera*, *Cornus florida* and *Prinus verticillata* being used as substitutes for cinchona.

1824.—Life of Mary Jemison. By James E. Seaver. Batavia, 1824.

Speaks of the banks of the Genesee river being covered with white and Norway pines. Ginseng was plenty and commanded a high price.

1830.—View taken from the Upper Falls of the Genesee River. By D. Wadsworth. Amer. Jour. Science, Vol. XVIII. New Haven, 1830.

The writer speaks of the gigantic evergreens growing on the river banks at Portage.

- 1831.**—Annals of Tryon County. By William W. Campbell. New York, 1849.

The author makes frequent mention of the forest trees of the Genesee region. Describes the Genesee flats, with scarcely a tree to be seen over the whole extent and with grass ten feet high. Calls it the garden of the State. The forests beyond the flats were mostly white oak.

- 1832.**—The Sylva Americana. By D. J. Browne. Boston, 1832.

The author makes numerous references to the trees of the Genesee region.

- 1836-1850.**—Annual Reports of the Regents of the University of the State of New York. Albany, 1836-1850.

In every volume mention is made of the plants of this vicinity, under heads of "Progress of Vegetation", "Journal of Occurrences", "Catalogue of Plants and Time of Flowering", "Botanical Calendar", "Calendar of Flowering", etc.

- 1837.**—Second Annual Report of the Fourth Geological District of New York. By James Hall. Albany, 1837.

Dr. Hall speaks of there being very little evergreen timber along the river banks between Moscow and Rochester, but in going south a short distance from the former place the pines and hemlocks and their associates are more frequent. He speaks of the trees growing in the swamps near the lake shore as being commonly black ash, tamarack and cedar, while those on the ridges near the lake are oak, elm, beech and buttonwood. Also of the sandy hills of Perinton being covered with a growth of shrub oak and whortleberries.

- 1838.**—Sketches of Rochester. By Henry O'Reilly. Rochester, 1838.

The author speaks of the geological formations of Western New York, and of the native forests of the Genesee valley serving as almost unfailing indications of the soil beneath. He mentions the oak, elm, beech, maple, pine, hemlock and birch, and tells upon what kinds of soil they may be looked for.

- 1838.**—Life of Brant. By William L. Stone. Buffalo, 1838.

Speaks of the fertility of the Genesee flats, which were cleared for miles at the time of Sullivan's raid, and covered with orchards and fields of corn. Mentions some of the trees of the region.

- 1839.**—Report of Dr. John Torrey, of the Botanical Department of the Geological Survey. Ann. Rept. of the State Geologist. Albany, 1839.

Frequent mention of species of plants found in this vicinity, with names of collectors.

- 1840.**—Fourth Annual Report of the Survey of the Fourth Geological District. By James Hall. Albany, 1840.

Mention is made of the forest growth in different parts of the county.

- 1841.**—Sketches of the Life and Adventures of Moses Van Campen.
By John Niles Hubbard. Dansville, 1841.

The writer describes the Genesee flats and country beyond, with here and there a beautiful grove, orchards of apple and peach trees, and wide and flourishing corn fields.

- 1842**—Catalogue of Plants and their Time of Flowering in and about the City of Rochester, for the year 1841. By Dr. Chester Dewey. Fifty-fifth Ann. Rept. Regents of the University, State of New York. Albany, 1842.

- 1843.**—Flora of the State of New York. By John Torrey, M. D. Albany, 1843.

Frequent mention is made of rare plants found in this vicinity, with names of the collectors, and other particulars.

- 1843.**—Botanical Calendar kept at Rochester by Dr. Chester Dewey. Fifty-sixth Ann. Rept. Regents of the University, State of New York. Albany, 1843.

- 1843.**—Natural History of New York, Part V. Agriculture, Vols. I, II. By E. Emmons. Albany, 1843.

The author, describing Plate III, A View from Mt. Hope, says: "The city appears in the back part of the middle ground. In the open fields stand the superb elms of the deep and rich clay soil peculiar to this district. They are the only remains of the great and noble forests which have fallen before the axe of civilization in the last half century. They run up an unbroken shaft near one hundred feet, where they at once form a heavy dense head. They are in strict contrast with the elms of a second growth in the valleys of the Mohawk and Hudson, whose trunks are thickly covered with slender limbs, and their heads formed of long, pendulous branches.

"For magnificent specimens of the elm the valleys of the Genesee and the Black river in Jefferson county are surpassed by no other parts of the world. Hundreds of elms may be seen in either of these sections of country exceeding by far the famous Pittsfield Elm in Berkshire, Mass."

- 1848.**—The Meadow Park at Genesee. By A. J. Downing. The Horticulturist, Vol. III, No. 4. Albany, 1848.

The writer describes the great oak, "Big Tree", under which the first treaty was signed between the Indians and the first settlers of Genesee. At the time of writing, 1848, the old tree was healthy and green. He also speaks of other magnificent specimens of oak and elm trees to be seen in the Meadow Park, and of the remains of a former rival of the "Big Tree". Of the latter he says: "Not far from it stands the stump of a contemporary, destroyed a few seasons before by the elements. The annual rings of its trunk tell the story of nine hundred years' growth."

- 1851.**—Phelps and Gorham Purchase. By O. Turner. Rochester, 1851.

The author speaks of the magnificent forest trees of the valley of the

Genesee, and of the oak openings and pine plains of the towns east of the river. In Rochester, in 1817, along where St. Paul street now is, there was a dense forest of hemlocks, spruce and cedar. Along the river and Honeoye creek were large patches of rushes. Mention is also made of apple trees, the seeds of which were planted by the Jesuit missionaries.

1851.—Notice of some large Trees in Western New York. By S. B. Buckley. Amer. Jour. of Sc., Second Series, Vol. 13. New Haven, 1852.

Describes some large trees on the Genesee flats, and speaks particularly of the "Big Tree" near Genesee.

1852.—Large Trees in the State of New York. The Horticulturist. Albany, 1852.

The writer (name not given) describes some of the large trees of the Genesee valley, quoting the article by S. B. Buckley in the American Journal of Science, Second Series, Vol. 13, and also mentions some large sycamores in the township of Sodus, Wayne county, several of which were from 14 to 16 feet in diameter.

1852.—Forest Trees of America. By James H. Watts. The Horticulturist, Vol. VII. Albany, 1852.

The writer says: "I have ever regretted that so ruthless a disposition was made by the early settlers of Rochester of the beautiful forest trees which abounded here. The elm, maple, chestnut, oak, walnut and beech grew in abundance, and were mostly cut down by those whose province it was to clear away the forest." He mentions a large elm then standing on South Clinton street as being a very fine specimen, and expresses the hope that it may long be spared, but it has since his writing been cut down.

1863.—Preliminary List of the Plants of Buffalo and Vicinity. By G. W. Clinton. Rept. of Regents. Albany, 1864.

Plants found in Rochester, Caledonia and Bergen are mentioned.

1864-1894.—Annual Reports of the New York State Museum of Natural History. Albany, 1864-1894.

Frequent mention is made of plants of this vicinity, with names of collectors, donors of specimens, etc., etc.

1864.—Catalogue of Plants found in Oneida County and Vicinity. By John A. Paine, Jr. Rept. of Regents. Albany, 1865.

Plants found in Monroe county are frequently mentioned.

1867.—Gray's Manual of Botany. Fifth Edition. By Asa Gray. New York, 1867.

Mention is made of plants in this vicinity, with names of collectors.

1871.—Pioneer History of Orleans County, N. Y. By Arad Thomas. Albion, 1871.

In the reminiscences of the early settlers frequent mention is made of the wild fruits of the Genesee region: strawberries, cranberries, gooseberries,

blackberries and raspberries. The mandrake is also mentioned. Butternut, chestnut, beech, walnut, hemlock, basswood, black ash and oak composed the primitive forest. Speaking of the forest near Oak Orchard creek, one of the pioneers says: "The dense forest, composed of large, sturdy oaks, extended as far as the eye could see, east and west, on the south side of the Ridge road. On the north side the forest was still more dense, and was composed of a greater variety of timber."

1871.—The Tourist's Guide through the Empire State. By Mrs. E. S. Colt. Albany, 1871.

The author gives a description of the "Big Tree", and the date when it was swept away by a great flood, November, 1857.

1873.—The Longevity of Trees. By Elias Lewis. Pop. Sc. Monthly, Vol. III, July, 1873.

Speaking of noted trees, the writer says: "The Wadsworth Oak, at Geneseo, New York, is said to be five centuries old, and 27 feet in circumference at the base."

1876.—A History of Livingston County, N. Y. By L. L. Doty. Geneseo, 1876.

Reference is made to the elms and oaks on the banks of the Genesee river; to the dense forests and impassable marshes; and to the wild fruits—plums, grapes and cranberries. Quotes Col. Hubbard, describing the Genesee flats as containing not less than 6,000 acres, not having a bush standing, but filled with grass considerably higher than a man. Speaks of the "oak openings" near Caledonia, and the great oak near Geneseo.

1877.—Frontenac and New France under Louis XIV. By Francis Parkman. Boston, 1878.

Describing the expedition of Denonville against the Senecas, he speaks of the open forests of oaks, the tangled growth of beech trees, and the rank grass, waist-deep, of the intervalles.

1877.—History of Monroe County, N. Y. By W. H. McIntosh.
Contains many references to the early forest growth.

1883.—A Catalogue of the Native and Naturalized Plants of the City of Buffalo and Vicinity. By David F. Day. Buffalo, 1883.

Frequent mention is made of plants found in Rochester, Caledonia, Bergen, etc.

1884.—Rochester, a Story Historical. By Jane Marsh Parker. Rochester, 1884.

The author mentions oak, chestnut, hickory, black walnut and white-wood as the most common trees in the primitive forest where the city of Rochester now stands. Also mentions a grove of sycamores on an island in the river, near the present dam, and an old sycamore tree which served as a landmark to the helmsman in ferrying across the river.

- 1884.—History of the City of Rochester. By William F. Peck. Syracuse, 1884.

Frequent mention is made of the primitive forest growth. George H. Harris, in one of the introductory chapters, says: "The town of Irondequoit, north of the ridge, was known as the 'pine barrens' to the early settlers, who cleared it of a heavy growth of pine trees, many of which stood upon the top of the bluff and over the ancient cemetery sixty years ago."

- 1884.—Report on the Forests of North America. By Charles S. Sargent. Tenth Census of the United States, Vol. IX. Washington, 1884.

Mentions trees growing in this region, naming particularly *Asimina triloba* (papaw) as being in Monroe county, and *Quercus prinus* (chestnut oak) in the valley of the Genesee. Speaks of the Wadsworth Oak, near Geneseo, as over three meters in diameter.

- 1888.—An Historic Elm. The Story of the Great Elm on the Markham Estate. By Geo. H. Harris. Rochester Democrat and Chronicle, May 13, 1888.

The writer describes an old elm on the Markham estate in the town of Rush, Monroe county. Says it was for many years a conspicuous landmark in the Genesee valley, and an important natural feature well known to and venerated by the Indians. For nearly a hundred years it had been known as the Markham Elm. The trunk, at the smallest place below the branches, was a little over 11 feet in diameter; its circumference just below the branches was 38 feet; three feet above the ground it measured 45 feet. At noon it shaded an acre of ground. The limbs were remarkably long and slender, the ends hanging down like ropes of trailing vines.

- 1890-1896.—Silva of North America. By Charles Sprague Sargent. Boston, 1890-1896.

Mentions trees of this region. Says of *Acer barbatum*, or black maple, that it was first noticed by the younger Michaux on the banks of the Genesee river, where it formed a forest of considerable size. Speaks of *Hicoria laciniosa* (*Carya sulcata*) as not rare in the valley of the Genesee river, and of the nuts being sold in the markets of Geneseo under the name of "king nut". Speaks of the "Wadsworth Oak", which grew on the bottom lands of the Genesee river, on the Wadsworth estate, a mile from Geneseo, as being the largest specimen of *Quercus platanoides* (*Q. bicolor*) of which a record has been preserved, and says: "In 1851, the short trunk, which varied little in size between the ground and the branches, had an average circumference of 27, with a minimum circumference of 24 feet." Mentions *Quercus prinus* as being found in the valley of the Genesee.

- 1890.—Report of the Botanical Section of the Rochester Academy of Science for 1889. By Mrs. J. H. McGuire, Recorder. Proc. Roch. Acad. of Sci., Vol. I. pp. 26-28.

- 1890.—The Fungi of Western New York. By Charles E. Fairman. Proc. Roch. Acad. Sci., Vol. I, pp. 44-54.
- 1891.—Root-foods of the Seneca Indians. By George H. Harris. Proc. Roch. Acad. Sci., Vol. I, pp. 106-117.
- 1891.—Report of the Botanical Section of the Rochester Academy of Science for 1890. By Mrs. J. H. McGuire, Recorder. Proc. Roch. Acad. of Sci., Vol. I, pp. 119-123.
- 1891.—*Jeffersonia diphylla*, and its occurrence near Rochester. By Charles Wright Dodge. Proc. Roch. Acad. Sci., Vol. I, p. 175.
- 1891.—A List of the Indigenous Ferns of the Vicinity of Rochester, with notes. By Charles W. Seelye. Proc. Roch. Acad. Sci., Vol. I, pp. 186-197.
- 1892.—Notes on the Aboriginal Terminology of the Genesee River. By George H. Harris. Publications of the Rochester Historical Society. Rochester, 1892.
- 1892.—*Rudbeckia hirta*. Meehan's Monthly, Vol. II, pp. 165, 166. Philadelphia, 1892.
- 1892.—Report of the Botanical Section of the Rochester Academy of Science for 1891. By Mrs. J. H. McGuire, Recorder. Proc. Roch. Acad. of Sci., Vol. II, pp. 44-48.
- 1893.—Hymenomycetæ of Orleans County, New York. By Charles E. Fairman. Proc. Roch. Acad. Sci., Vol. II, pp. 154-167.
- 1893.—Variations of Ray-flowers in *Rudbeckia hirta*. By Florence Beckwith. Proc. Roch. Acad. Sci., Vol. II, pp. 170, 171.
- 1893.—Report of the Botanical Section of the Rochester Academy of Science for 1892. By Mrs. J. H. McGuire, Recorder. Proc. Roch. Acad. of Sci., Vol. II, pp. 176-180.
- 1893.—*Blephilia ciliata* in Western New York. By Elias T. Durand. Torrey Bulletin, Vol. XX, 1893.
- 1894.—Report of the Botanical Section of the Rochester Academy of Science for 1893. By Mrs. J. H. McGuire, Recorder. Proc. Roch. Acad. of Sci., Vol. II, pp. 237-243.
- 1894.—Our Trees. By C. C. Laney. Roch. Dem. & Chron., June, 1894.
- 1895.—The Flora of Long Pond. By Anna H. Searing. Proc. Roch. Acad. Sci., Vol. II, pp. 297-300.
- 1895.—A List of Trees and Shrubs growing spontaneously in Seneca Park. By J. B. Fuller. Roch. Dem. & Chron., Aug. 31, 1895.

CORRECTIONS AND INSERTIONS.

- Page 17. In comparative table, under head of Monroe, read *Carex* 102.
- Page 18. 10th line from bottom, for 1309 read 1314.
- Page 19. *Plants common to the Monroe and Cayuga Floras.* Add *Iris Pseudacorus*, *Carex laxiflora* var. *striatula*, *C. utriculata* var. *minor*, *C. virescens* var. *costata*.
- Page 20. *Plants common to Monroe and Buffalo Floras.* Add *Eragrostis Purshii*.
- Page 22. *Plants common to the Cayuga and Buffalo Floras.* Strike out *Juncus Canadensis* var. *brachycephalus*.
- Page 22. *Plants peculiar to the Monroe Flora.* Add *Mentha citrata*, *Carex gracillima* × *C. arctata*, *C. granularis* var. *Haleana*, *C. tribuloides* var. *Bebbii*. Strike out *Lemna perpusilla*, *Andropogon Virginicus*, *Eragrostis pilosa*.
- Page 24. *Plants peculiar to the Cayuga Flora.* Strike out *Iris Pseudacorus*, *Carex laxiflora* var. *blanda*, *C. utriculata* var. *minor*, *C. virescens* var. *elliptica*.
- Page 26. *Plants peculiar to the Buffalo Flora.* Strike out *Eragrostis Purshii*.
- Page 46. 67. For [*A. glabra* L.] read [*A. glabra* (L.) Bernh.]
- Page 47. 76. For McM. read MacM.
- Page 48. Following 89 insert—
— *L. SATIVUM* L., GARDEN CRESS. In waste places occasionally.
- Page 48. 94. Read *L. minor* Man. ed. 6, in part; not *L. [L. intermedia* Leggett.] and omit SMALLER PINWEED.
- Page 51. Genus 60. For *SPERGULARIA* read *SPERGULA*.
- Page 56. Following 203, for — *T. INCARNATUM*, etc., read—
203a. *T. INCARNATUM*, etc., and add— Frequent, 1896.
- Page 61. 276. For [Prince.] read [*F. Virginiana Illinoisensis* Prince.]
- Page 63. 313. *S. Pennsylvanica*. Add locality— Mendon ponds.
- Page 65. Before genus 138. *LYTHRUM* L. insert Order— LYTHRACEÆ.
- Page 68. 376. Add localities— Scottsville and Rich's mills.
- Page 70. 403. Read *L. borealis* Gronov. [*L. borealis* L.]
- " " 404 and 412. For McM. read MacM.
- " " 413. *H. cœrulea*. Add locality— Hemlock lake.
- Page 72. 433. For *D. SYLVESTRIS* read *D. SYLVESTRIS*.
- Page 74. 466. Read *A. sagittifolius* Willd. [*A. sagittifolius* Wedem.]
- Page 79. Genus 217. For *CHICORIUM* read *CICHORIUM*.
- Page 81. 572. For [*S. asper* (L.) Vill.] read [*S. asper* (L.) All.]
- Page 83. 602. For *Azalia* read *Azalea*.
- Page 85. 638. For *Synanchum* read *Cynanchum*.
- Page 87. 654. *C. Virginicum*. Add locality— Mendon, Mrs. J. H. McGuire!
657. Read *M. Virginica* DC. [*M. Virginica* (L.) D. C.]
- Page 89. 689. Read *L. Canadensis* Dumont. [*L. Canadensis* (L.) Dumont.]
- Page 90. Following 706, for — *V. CHAMÆDRYS*, etc., read—
706a. *V. CHAMÆDRYS*, etc., and add locality— East ave., Rochester.
- Page 92. 723. For A. Wallr. read Wallr.
- Page 93. 744. For Monroe avenue read South Clinton street.
- " " 747. Read *P. incanum* Michx. [*Kœllia incana* (L.) Kuntze.]
- Page 108. Insert—
955a. *I. PSEUDACORUS* L. EUROPEAN YELLOW IRIS.
Well established near Shortsville, Ontario county, Mrs. E. O. Cartwright, Canandaigua.
- Page 112. Insert—
1006a. *J. Canadensis* J. Gay, var. *brachycephalus* Engelm.
Bergen swamp, Genesee county, M. S. Baxter.
- Page 118. Insert—
1101a. *C. Schweinitzii* Dewey.
Rare. Wayne county, E. L. Hankenson.
- Page 127. Genus 471. For *ELUSINE* read *ELEUSINE*.

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