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CATALOGUE

OF THE

PHÆNOGAMOUS AND VASCULAR CRYPTOGRAMOUS

PLANTS OF MICHIGAN,

INDIGENOUS, NATURALIZED, AND ADVENTIVE.

BY

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Hubbardston, Mich.

Hæc scire juvat.

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MICHIGAN FLORA.

PREPARED FOR THE MICHIGAN HORTICULTURAL SOCIETY BY CHARLES F. WHEELER AND ERWIN F. SMITH, HUBBARDSTON, MICHIGAN.

PREFACE.

This list of Michigan plants was made at the suggestion of the State Horticultural Society for publication in their tenth annual report. As a foundation, the authors have collected over 1,100 species of flowering plants and ferns in various parts of the State during the past fourteen years.

They have also made use of the following earlier catalogues of Michigan plants, and tender their acknowledgments accordingly: To the First (?) Catalogue of Michigan Plants, by Dr. Jno. Wright, embracing 850 species, which appeared in Dr. D. Houghton's Second Annual Report in the year 1839, published in "Senate Documents." This was a simple list of the plants collected during one season between Detroit river and Lake Michigan, in the first and second tiers of counties, alphabetically arranged and without notes. To W. A. Bart's Manuscript List of 185 species, from the central part of the Upper Peninsula, collected while running township lines in 1844, and identified by Dr. D. Cooley.

To W. D. Whitney's "List of Plants of the Upper Peninsula," with notes, published in the second volume of Foster & Whitney's Report, in the year 1851, and comprising 417 species of plants, collected chiefly along the shore of the Great Lakes. To a "Manuscript List of the Plants Growing Spontaneously within Ten Miles of Cooley's Corners, Washington, Macomb County," which embraces 900 species of flowering plants and ferns, and was prepared for the Smithsonian Institute by Dr. D. Cooley in 1853. To N. H. Winchell's "Catalogue of Phanogamous and Acrogenous Plants found Growing Wild in the Lower Peninsula of Michigan and the Islands at the Head of Lake Huron," published in Prof. A. Winchell's "Geological Report" for 1860, containing notes on distribution, frequency, etc. Cooley's plants form part of the Herbarium of the State Agricultural College. Wright's and Winchell's plants are in the State University Herbarium.

We also owe acknowledgments to the compilers of the following more recent Catalogues of Michigan Plants: To N. Coleman's List, published in 1874, by the Kent Scientific Institute, at Grand Rapids. To Miss E. C. Allmendinger's List of Ann Arbor Plants, which appeared in 1876. To Dr. A. B. Lyons' "Medicinal Plants Indigenous in Michigan,"—a paper read before the Detroit Academy of Medicine, Nov. 27, 1877. To a "List of Native Medicinal Plants of Michigan," prepared by Prof. Volney M. Spalding, of the University of Michigan.

Our acknowledgments are due to Prof. W. J. Beal, of the Michigan Agricultural College, for valuable assistance rendered. To Dr. D. Clark, of Flint, for specimens, and for a list of the plants of his vicinity. To Henry Gillman, Esq., of Detroit, for a list of Lake Superior plants collected by him. To Rev. E. J. Hill, of Engelwood, Ill., for lists and specimens from various localities along the east shore of Lake Michigan. To L. H. Bailey, Jr., of South Haven, for lists and specimens of plants growing in the vicinity of Lansing and South Haven.

More than a passing tribute is due to the little band of indefatigable naturalists of the past generation, who did so much pioneer work in developing all the resources of our fair State. First among them stands Dr. Douglass Houghton, while around him, among others, may be grouped the botanists, Dr. Zina Pitcher, Dr. Abram Sager, Dr. Dennis Cooley, and Dr. Daniel Clark, of whom alone Dr. Clark remains, full of years and still active in the pursuit of his favorite science. Miss Mary H. Clark, of Ann Arbor, was also well known, especially to the younger botanists of the State, as a life-long worker in this department of natural history, and one whose zeal and enthusiasm burned steadily through advancing years and only went out with her life.

Others have been connected, more or less, with the botanical interests of the State, either as teachers or collectors, among whom may be mentioned Prof. Geo. Thurber, Prof. A. N. Prentiss, and Prof. J. C. Holmes, of Detroit, all formerly connected with the State Agricultural College; Prof. M. W. Harrington, of the State University; O. B. Wheeler, Esq., of Detroit; Frank H. Tuthill, of Kalamazoo; and Rev. J. Shaup, of Hastings, Barry county.

In connection with the catalogue proper, the following hasty sketch of the main features of our flora may be of some interest. It is offered, however, only as a sketch, and is drawn chiefly from our own field-notes, jotted down during many a delightful ramble. The best part of botany, after all, is not in the books, and to any who find the following pages dry, we commend nature herself—that boundless, outdoor life, whose interest, beauty, and mystery is with us from the cradle to the grave, forever stimulating inquiry, and ever richly rewarding patient and loving toil.

The climate of the Upper Peninsula of Michigan is colder than that of the Lower Peninsula, the surface is considerably broken, especially in the western part, and the flora is in many respects decidedly northern, resembling in part that of British America, and in other respects like that of N. New England and Canada. Pines, firs, cedar, larch, junipers, elms, poplars, black ash, basswood, maples, and birches, are the principal trees. Pinus strobus, the prevailing species southward, is here largely supplanted by its more northern and less valuable congener, P. resinosa, whose tall, slim trunks are, however, in good demand for driving piles. Under-shrubs, like Rubus Nutkanus and Taxis bocace, var. Canadensis, are common, and indicate a tendency toward northern types that we find more strongly developed in the herbaceous plants. Among the latter we note as found rarely, or not at all, in the Lower Peninsula, but frequently northward, and often having a high northern range, such plants as Anemone parviflora, Viola Selkirkii, Potentilla frigida, Stellaria borealis, Saxifraga Aizoon, S. tricuspidata, Pinqucula vulgaris, Castillea pallida, Helonias deflexa, Physalis grandiflora, Tofieldia palustris, Salix adenophylla, Eriophorum alpinum, Aspidium fragrans, etc., etc.
The influence of climate on vegetation may be summed up in a few words. The climate of the Lower Peninsula is not as severe as that of the Upper, nor so even, but is subject to frequent, sudden, and extreme changes of temperature—as great a variation during the winter season as 53° Fahr. in less than 24 hours having been recorded. Such rapid changes more or less affect vegetation, especially the tender branches of cultivated trees, which are sometimes seriously injured. In one or two instances a like effect on our forest trees has been noticed. The annual range of temperature is about 116°, and the annual mean 40°. Of rain-fall, including what falls in form of snow, we have, yearly, about thirty inches. Our snow-fall is much less, for the same latitude, than that of New York and New England. In the center of the peninsula, we seldom have more than a few inches at a time.

The proximity of the Great Lakes exerts a marked influence in equalizing the temperature and the effects are marked upon our flora.

Trees like *Liriodendron Tulipifera*, *Asimina triloba*, *Cercis Canadensis*, *Gleditschia triacanthos*, *Cornus florida*, *Nyssa multiflora*, and *Morus rubra*, which belong to Ohio and Central Illinois, have crept northward, favored by the mild influence of the lake winds, through the central and western part of the Lower Peninsula, often beyond the middle, and the same is true of smaller and less noticeable plants.

As might be expected from the uniform surface of the peninsula, the flora is much alike throughout. Probably three-fourths of our species are common to all sections, though by no means equally distributed; some being very abundant in one district and rare in another at no great distance. In most cases such change is due to soil rather than to difference in elevation, temperature, or atmospheric moisture.

The Lower Peninsula is covered with a deep drift of alternating sands, clays, and gravels, and the flora of any section depends chiefly on which of these happens to lie uppermost. With reference to its flora, the Peninsula may be roughly divided into two great divisions—the hard-wood and the soft-wood lands; one representing the Appalachian flora, and the other, the Canadian.

The hardwood country lies south of latitude 43°, and consists of very fertile sand, clay, or loam, mostly cleared of the original forest, and largely cultivated.

The sandy or stony drift of many river valleys in this section supports a heavy growth of oak, frequently interspersed with walnut and hickory, while the margins of the streams, and the neighboring swamps, abound in soft maples, swamp and chestnut oak, white and black ash, elm, hackberry, sycamore, butternut, and similar trees. Willows, dogwoods, viburnums, and buttonbush, are common shrubs in the swamps; and hazel, hawthorn, wild cherry and plum, June berry, witch-hazel, etc., are abundant on the dryer ground.

On the uplands, and away from streams, clay, loam, and a peculiar black-muck soil, supersed the sands and gravels of the valleys. The prevailing timber here is beech and maple and oak forest in about equal proportions. Beech and maple (*Acer saccharinum* and var. *rigident*) generally grow together, forming magnificent forests of great extent. The best wheat farms are usually found on uplands near streams, where the oak timber gradually shades into beech and maple. Plains of fertile sand covered with a low, or scattering growth of oak (oak openings) are frequent, and always very desirable for farming purposes. Four species of oak are usually found on such plains—*Q. alba*, *macrocarpa*, *coccinea*, and *tintoria*.
Marshes densely covered with tamarack are common in this part of the State, and nourish in their thick shade such plants as Drosera rotundifolia, Sarracenia purpurea, Rhus venenata, Ribes rubrum, Chiogenes hispidula, Salix candida, Smilacina trifolia, Pogonia ophioglossoides and Calopogon pulchellum. Arbor-vite, red cedar and black spruce are comparatively rare.

A similar tract of soil and timber occurs in the upper end of the Peninsula, north of a line drawn from Thunder Bay west to the head of Grand Traverse Bay. This is commonly known as the “Traverse Region,” and has a flora much like that we have just described, with the exception that some of the southern species disappear, and northern ones begin to take their place, or if found growing further south, here first become frequent.

The littoral flora of Little Traverse Bay is rich in interesting species, among which may be mentioned a small form of Cakile Americana, Lathyrus maritimus, Potentilla Anserina, Tanacetum Huronense, Artemisia Canadensis, Onicus Pitcheri, Junecus Balticus, Triticum violaceum, T. dasycarpum, a peculiar form of Bromus ciliatus, Calamagrostis longifolia, C. arenaria, and Equisetum variegatum. The flora of the low dunes at the head of the Bay comprises, among others, the following specie: Juniperus Sabina, var. procumbens, Prunus pumila and Cornus stolonifera, half buried in the drifting sand, Hypericum Kalmianum, Salix glauca, and variety, Lilium Philadelphiun, etc. In a moist depression were found Arabis lyrata, Coreopsis lanceolata, Arctostaphylos Uva-ursi, Primula farinosa, Lithospermum hirtum, Triglochin maritimum, var. elatum, Carex aurea, C. Elederi, etc., etc. In thickets near the shore were found Abies balsamea, Picea alba, Sheperidia Canadensis, and Rubus Nutkanus. Deep forests of hemlock and yellow birch (B. lutea) mixed with a fine, tall growth of striped maple (A. Pennsylvanicum) are frequent, having underneath a tangled growth of Taxus baccata, var. Canadensis, and under all a carpet of Lycopodium annotinum. Alternating with these are sandy plains covered with a dense growth of Vacciniums, yielding a great abundance of fruit. Sugar maples and basswood are also abundant in this region, and reach an immense size. In fact, finer growers of maple it would be difficult to find in any part of the State.

The pine country proper lies between the two tracts we have described, and embraces about 15,000 square miles. It is composed largely of sand hills and plains, either scantily furnished with vegetation, or densely covered with pine forest. Argillaceous tracts wooded with beech and maple also occur, like oases in a desert; and swamps abound, with the usual lowland timber. Forests of hemlock spruce are frequent, and there are occasional ridges of oak. Birch (B. lutea) also begins to be a common forest tree, and attains a large size. The usual timber of the barrens is Jack Pine (P. Banksiana). Climatic and other influences have combined to produce groves composed entirely of this species of large size and of great beauty, for, instead of being “a struggling shrub, or low tree” (Gray), it rises, often 50–60 feet, straight and symmetrical. All through this region Pinus strobus is the prevailing species and furnishes most of the lumber, but P. resinosa is frequent as far south as Clare county, and occurs sparingly in the northern part of Isabella county, which appears to be its southern limit.

Such is the general character of the sylva down to about latitude 43°, but in the western part of the State, owing perhaps to moister climate, or to favorable soil, hemlock spruce is more abundant, and reaches much farther south, nearly or quite to the Indiana line, and the same is true of white pine.

Portions of the counties of Clare, Missaukee, and Roscommon represent an undulating plateau, which is 700–800 feet above the level of the great lakes,
and has an interesting flora, as yet little studied. This region was examined in June, 1876, and revealed a number of northern plants. In the southern part of Clare county were found Ledum latifolium, Kalmia glauca, Physalis grandiflora (not before found south of the Upper Peninsula), Corydalis glauca, and Geranium Carolinianum,—the two latter species growing luxuriantly in the deep woods, after fires. In the shade of the Jack Pines grew Prunus pumila, Potentilla tridentata (not before observed in Lower Peninsula), Krigia Virginica, Arctostaphylos Uva-ursi, Linaria Canadensis, Kaeleria cristata, Carex Houghtonii, etc., etc. Near Houghton Lake were found Adlumia cirsosa, Ribes lacustre, Dracocephalum parviflorum, Streptopus roseus, and S. amplexifolius; and in Muskegon river, near its source, Potamogeton lucens. Pinus resinosa was noticed frequently, growing with common pine, and near the center of Clare county it became more abundant, forming groups. Single individuals stretch upwards 150-160 feet, their clean, copper-colored boles often rising 100 feet to the first limbs.

The flora of the deep pine woods is interesting, though rather monotonous. Very little undergrowth is found, and their gloomy recesses nourish only such plants as love thick shade. Here the club-mosses (Lycopodiums) find a congenial home, and flourish luxuriantly, while Clintonia borealis covers the ground. The great round-leaved orchid (Habenaria orbiculata), with its tall, greenish spike and twin leaves close to the earth, is also frequent and striking. We shall also meet Mitchella repens, Smilacina bifolia, Trillium grandi-florum, perhaps, and a few ferns, particularly Asplenium Filicium, and Phleopteris Dryopteris. Other species occur, of course, but not so abundantly. In more open places, and on ridges, we meet Rhus aromatica and Comptonia along with wintergreen (Gaulltheria) and trailing arbutus (Epigea), and are often fortunate enough to find the wax-white, fragrant flower of Moneses uniflora, or Polygonum paucifolia, hiding its shining leaves under a wealth of showy pink blossoms.

The floral treasures of the pine region lie, however, in its swamps and lake borders rather than in the deep woods. Therein grows Linnea borealis in all its delicate beauty, carpeting the ground, and close at hand, the odd, brown-purple flower of Cypripedium acaule and the small yellow blossom of its water-loving relative C. parviforum. In such swamps, or within a stone’s throw of them, may be found many other plants of equal interest, such as Medeola Virginica, Ledum latifolium, Andromeda polifolia, Kalmia glauca, Lonicera oblongifolia, Cardamine pratensis, Gerardia aspara, Mitella nuda, Eriophorum vaginatum, etc. On lake margins we shall find Lysimachia and the blue Pontederia and more rarely, Nesaea and Eleocharis quadrangulata. The lake itself, most likely, will be full of Nymphaea, Nuphar, Utricularia, and a world of Potamageton and similar water weeds. Shrubby Vacciniums line the bluffs, and here and there gleam the white trunks of paper birches against the dark background of pines.

In the thick-pine country, where the lumberman’s axe has let in the sunlight, new plants spring up freely. Here, Prunus Pennsylvanica and poplars are frequent, and the blackberry is omnipresent. Aralia hispida and Physalis pubescens are also peculiar to such land, and in August Gnaphalium decurrens may be seen whitening thousands of acres.

One seldom beholds a drearer sight than a dead and deserted lumber region. The valuable trees were all felled years ago, and the lumberman moved on to fresh spoils, leaving behind an inextricably confused mass of tree tops, broken logs, and uprooted trunks. Blackberry canes spring up
everywhere, forming a tangled thicket, and a few scattering poplars, birches, and cherries serve for arboreal life, above which tower the dead pines, bleached in the weather and blackened by fire, destitute of limbs, and looking at a distance not unlike the masts of some great harbor. Thousands of such acres, repellent alike to botanist and settler, can be seen in any of our northern counties.

In certain districts considerable beech is found associated with the pine. The soil of such tracts is usually of better quality, and can be rendered productive without much labor. It may be noted that in such cases the pine also grows thriftier and makes better lumber.

Sections of this and the Traverse region of Michigan are still sparsely settled, or not at all, and have been visited rarely by botanists. Consequently, we may expect many additions to our flora, as well as corrections, when this region is as thoroughly known as the south half of the State now is; our ignorance, rather than nature’s parsimony, explaining why we have so few species credited to us. The most promising field for the botanist evidently lies in the Houghton Lake region and northward, and in the Upper Peninsula, many parts of the interior of which are botanically unknown.

Our flora, as here presented, contains in all 113 families (orders) and 1,634 species. The composites claim the largest number of species, 182—about one-ninth of all. Sedges follow with 176 species; grasses, 139; rosaceae, 61; ferns, 56; leguminose, 55; figworts, 46; mints, 40; mustard and crowfoot, 39 each; heath family, 35, and umbelliferae, 27. We have 165 trees and shrubs, about 20 of which are valuable timber trees. At least 40 of our trees and shrubs are worthy of cultivation for ornament. Sugar maples and elms are commonly planted, while the tulip tree, basswood, Kentucky coffee tree, black walnut, and butternut, among deciduous trees, and hemlock, white pine, black spruce, arbor vitae, and red cedar, among evergreens, deserve more attention. About 20 species of woody and herbaceous native climbers are frequent, and some are worthy of cultivation, (see State Pomological Report of ’79 for a list.) Ninety medicinal plants are admitted into the U. S. Pharmacopoeia, 45 belonging to the primary list, and an equal number to the secondary, while a number of others deserve attention at the hands of Pharmacists. (See papers previously noted.)

It may be stated in conclusion that, in the preparation of this catalogue, we have spared no pains to make it thoroughly reliable, a majority of the species enumerated having passed through our hands, and the remainder being admitted only on good authority. We have preferred to make a useful rather than a large catalogue, and, on this ground, we have rejected a number of species, some of which may yet make good their claim to be considered as part of our flora. We cannot hope to have escaped all errors, and crave charitable judgment for any such the kind reader may discover, trusting that they may be found errors of omission rather than of commission.

In our arrangement of orders, we have preferred, as more convenient, to follow the 5th edition of Gray’s Manual rather than later works. The vexations subject of synonymy has received considerable attention, and will, we believe, be found brought down nearly to date. Further observations will be published from time to time in the form of addenda, towards increase of which we solicit correspondence and contributions from all parts of the State.

_Ionia, Mich., January 30, 1881._
CATALOGUE.

Range of species north or south, when known, has been indicated by the following abbreviations in bold type at the right: S.—1st, 2d, and 3d tier of counties. C.—From 3d tier of counties northward to Houghton Lake region. N.—Remainder of the Lower Peninsula. L. P.—Lower Peninsula. U. P.—Upper Peninsula. Th.—Whole State so far as known. In a few instances S. E. and S. W. have been used, indicating the southeastern and southwestern slope of the Lower Peninsula. In case of rare or local species, we have given all the localities known, but for more common ones have usually indicated only the range and relative frequency. Throughout the catalogue: H. refers to Hubbardston, situated on Fish Creek, in the extreme northeastern part of Ionia Co.; Flint,—Dr. Clarke's List; Macomb Co.,—Dr. Cooley's MS. Cat.; So. Haven,—L. H. Bailey's List; Kalamazoo,—F. H. Tuthill; Detroit,—Dr. A. B. Lyons. Other abbreviations of this nature as Winch. Cat., Wr. Cat., Allmend. Cat., etc., will be readily understood from the preface. The (?) used after rare or local species indicates that we have collected the plant in the locality given, or have received it from others. A mark of doubt (?) follows a few species which we have introduced with some hesitation and on the authority of others. In most cases such species have been dropped altogether. Medicinal plants have been indicated by asterisks as follows: Those belonging to the Primary List of the U. S. Pharmacopœia (*); Secondary List (**); not official but in use, or worthy of trial (**). Introduced species are given in Italics, and are chiefly weeds from the Old World.

RANUNCULACEÆ.

(Crowfoot Family.)

CLEMATIS

Virginia Bower.

1. Virginiana, L. (***)

Sometimes cultivated as a climber. The plumose white fruit ornamental. Common.

ANEMONE

Small-flowered A.

2. parviflora, Mx.

Dr. Lyons; Ass Gray.

Long-fruited A.

3. cylindrica, Gray.

Virginian A.

4. Virginiana, L.

Many-cleft A.

5. multifida, Poir.

Mackinaw,—Whitney Cat.; mouth of Saginaw R. Winchell Cat.; Lake Superior,—Gray.

Pennsylvania Anemone.

6. dichotoma, L.

On low ground along streams, and worthy of cultivation. The handsome, white flowers are sometimes over two-inches in diameter, and the size could probably be increased by cultivation. Common.

Wind Flower.

Wood Anemone.

7. nemorosa, L. (***)

Early and very pretty. Flowers sometimes bright rose color. Common.

Liverleaf.

Acute-lobed Hepatica.

8. acutiloba, Lawson.

S. C. & N. (?) This species is very common on beech and maple land, while A. Hepatica prefers oak soil. No transition forms have been seen.

Liverleaf.

Round-lobed Hepatica.

9. Hepatica, L.

Less frequent than the preceding, at least in the center.

THALICTRUM

Rue Anemone.

10. anemonoides, Mx.

Quite local through the center. Flowers very pretty, white, sometimes pink. Found usually on oak soil.

S. & C.

Purple M. Rue. 12. purpurascens, L. Th. The flowers vary from white to deep purple, the fertile ones occasionally bearing stamens as in the next. Wet meadows. Common.

Tall M. Rue. 13. Cornuti, L. Th. Often confounded with the preceding. Frequent.

RANUNCULUS


Yellow Water Crowfoot. 16. multifidus, Ph. Th. Flowers an inch and three-eighths in diameter and full—double have been seen. Ponds and slow streams. Very common.

W. Plantain Spearwort. 17. multifidus, Ph., var. terrestris, Gr. Th. Ann Arbor,—Miss Clark. Very common.

Creeping Spearwort. 18. ambiguens, Watson. Th. Dr. Lyons. Not observed in C. & S.

Early Crowfoot. 19. flammula, L., var. reptans, Meyer. Th. Infrequent except northward, and not seen in the center of the State.


Cursed C. 22. abortivus, L., var. micranthus, Gr. Th.


Fascicularis, Muhl. Early and pretty. Often mistaken for Rue Anemone, from which the latter is easily distinguished by its dahlia-like roots. Very common on "beech and maple" land, but not on oak.


Butter-cups. 27. repens, L. (***) Th. Wet places. Very common.


ISOPYRUM

Isopyrum. 29. biternatum, T. & Gr. (***) C. & S. Early and pretty. Often mistaken for Rue Anemone, from which the latter is easily distinguished by its dahlia-like roots. Very common on "beech and maple" land, but not on oak.

ISOPYRUM


CALTHA
TROLLIUS
31. Iaxus, Salisb.
"Deep swamps, Mich."—Gray.

COPTIS
32. Trifolia, Salisb. (*)

AQUILEGIA
33. Canadensis, L.

TALL LARKSPUR
34. Exaltatum, Ait. (***)

DELPHINIUM
35. Canadensis, L. (*)

HYDRASTIS
36. Alba, Bigelow. (***)

ACTAEA
37. Spicata, L., var. rubra, Aiton. (***)

CIMICIFUGA
38. Racemosa, Nutt. (*)

NIGELLA
39. Damascena, L. (***)

MAGNOLIACEAE.
(Magnolia Family.)

LIRIODENDRON
40. Tulipifera, L. (**) C. & S.

ANONACEAE.
(Custard-Apple Family.)

ASIMINA
41. Triloba, Dunal. (***) C. & S.

MENISPERMACEAE.
(Moonseed Family.)

MENISPERMUM
42. Canadense, L. (***) C. & S.
BERBERIDACEÆ.

(Barberry Family.)

BERBERIS

Common Barberry.  43. vulgaris, L. (**)

Blue Cohosh.  44. thalictroides, Mx. (***)

JEFFERSONIA

Twin-leaf.  45. diphylla, Persoon. (***)

PODOPHYLLUM

Mandrake.  46. peltatum, L. (*)

NYMPHÆACEÆ.

(Water-Lily Family.)

BRASENIA

Water-shield.  47. peltata, Pursh.

NELUMBION

Battle-box.  48. Luteum, Willd.

NYMPHÆA

Sweet-scented Water-Lily.  49. odorata, Aiton. (***)

White Water-Lily.  50. tuberosa, Paine. (***)

NUPHAR

Spatter Dock.  51. advena, Aiton. (***)

Small Yellow Pond Lilly.  52. pumilum, Smith.

SARRACENIACEÆ.

(Pitcher-Plants.)

SARRACENIA

Pitcher Plant.  53. purpurea, L. (***)
MICHIGAN FLORA.

PAPAVERACEÆ.

(Poppy Family.)

Mexican Poppy.

Prickly Celandine.

Common Poppy.

Blood-root.

Yellow Celandine Poppy.

ARGEMONE

54. Mexicana, L. (***)

CHELIDONIUM

55. majus, L. (***)

PAPAVER

56. somniferum, L. (*)

These three plants occur in some localities, but are scarcely well enough established to deserve mention.

SANGUINARIA

57. Canadensis, L. (*)

The white flowers appear in early spring, and are sometimes 2½ inches in diameter. Does well in gardens, and is pretty.

STYLOPHORUM

58. diphyllum, Nutt. (***)

Rich woods in Oceana, Ionia, Clinton, Ingham, and other counties. Flower orange-yellow, over two inches in diameter. Deserves a place in the garden.

FUMARIACEÆ.

(Fumitory Family.)

ADLUMIA.

59. cirrhosa, Raf.

Hemlock woods in vicinity of Houghton Lake; Grand Rapids,—Miss Clark So. Haven; etc.; also in cultivation.

CORYDALIS.

60. aurea, Willd.

Not noticed in the center of the L. P., where the next is also rare; frequent northward; in the U. P., common.

61. glauca, Pursh.

Grand Haven(!); Clare Co.(!); L. Sup., etc. Infrequent except northward.

DICENTRA.

62. Canadensis, DC. (***)

63. cucullaria, DC. (***)

Both sp. common.

CRUCIFERÆ.

(Mustard Family.)

ALYSSUM.

64. calycinum, L.

Hubbardston (!); Ionia (!); Flint; Lansing (!), etc.; a recently introduced plant, becoming common in many localities. Door-yards and waste places.

ARABIS.

65. dentata, T. & Gr.

Low lands along Grand R. (!) and southward.

66. lyrata, L.

So. Haven; Flint; Petoskey(!); U. P.—Whitney Cat.

67. petraea, Lam.

Isle Royal—Gillman; Mackinac; Macomb Co.; Gd. Haven; etc.

C. & S.

Not common.

Th.

Infrequent.
Hairy Rock C.

68. hirsuta, Scop.

Smooth Rock C.

69. laevigata, Poir.

Canada Cress Sickle-Pod.

70. Canadensis, L.

Fields and rocky woods.

Tower Mustard.

71. perfoliata, Lam.

Drummond’s M.

72. Drummondii, Gr.

Hubbardston(!); Flint; Macomb Co.; etc. Dry banks.

BARBAREA


73. vulgaris, R. Br.

So. Haven; Ann Arbor—Allmendinger Cat.; Macomb Co.; Hubbardston(!); and N. into the U. P., where it is indigenous and frequent.

BRASSICA

White Mustard.

74. alba, Gr. (*)

C. & S.

Charlock.

75. Sinapis, Boiss.

Infrequent.

Black Mustard.

76. nigra, Koch. (*)

Th.

CAKILE

Sea Rocket.

77. Americana, Nutt.

Th. Shores of the Gr. Lakes.

CAPSELLA

Shepherd’s Purse.

78. Bursa-pastoris, Mœnch. (***)

Th. The commonest of weeds.

CARDAMINE

Spring Cress.

79. rhomboidea, DC.

Th. Common.

Purple Spring C.

80. purpurea, Cham. & Schlecht.

An early spring flower.

Cuckoo Flower.

81. pratensis, L. (***)

Th. Bogs. Rare S., frequent in C., and common N.

Small Bitter Cress.

82. hirsuta, L.

Th. Common.

Woodland B. C.

83. hirsuta, L., var. sylvatica, Gr.

Ann Arbor,—Winch. Cat.; and Flint.

DENTARIA

Crinkle-root. Pepper-root.

84. diphylla, Mx. (***)

Th. Common.

Tooth-wort.

85. laciniata, Muhl.

C. & S.

DRABA

Whitlow-grass.

86. arabisans, Mx.

Shores of the Gr. Lakes.

Whitlow-grass.

87. nemorosa, L.

“Fort Gratiot and northwestward,”—Gray. Collected by Dr. Pitcher. Infrequent.

Whitlow-grass.

88. Caroliniana, Walt.

Ionia Co. (!), and southward.

Whitlow-grass.

89. verna, L.

Dr. Lyons.
LEPIDIUM

Wild Pepper-grass.  90.  Virginicum, L.  Th.
Wild P.-grass.  91.  intermedium, Gr.  Th.
This and the preceding are both very common in fields and waste places, but usually not together.
Pepper-wort.  92.  campestre, R. Br.  S. E.  Macomb Co., and Detroit.

NASTURTIUM

True Water-Cress.  93.  officinale, R. Br.  (***)  C. & S.  Ionia(!); Ann Arbor; South Haven; etc.  Frequent in brooks.
Marsh Cress.  94.  palustre, DC.  (***)  Th.  Frequent.
Hairy M. Cress.  95.  palustre, DC., var. hispidum, Fisch. & Mey.  Th.  C. & S.
Lake Cress.  96.  lacustre, Gr.  Th.  From Fish Cr. (!) and Maple R. (!) southward.  Frequent.
Horseradish.  97.  Armoracia, Fries.  (***)  Used in spring as a condiment. Escaped from gardens into waste places.  Frequent.

SISYMBRIUM

Hedge Mustard.  98.  officinale, Scop.  (***)  Road-sides and wet places.  Frequent.

CAMELINA

False Flax.  101.  sativa, Crantz.  C. & S.  Road-sides and waste places. Flint; Ann Arbor; Macomb Co.; etc.  Not common.

THALASPI


CAPARIDACEAE.

(Caper Family.)

POLANISIA

Polonisia.  103.  graveolens, Raf.  C.  Shores of Gr. Lakes; South Haven; Detroit (!); Put-in Bay (!), etc.  Not rare.

VIOLACEAE.

(Violet Family.)

IONIDIDUM

Green Violet.  104.  concolor, Benth. & Hook.  C. & S.  Hubbardston(!); Lansing—Beal; Ann Arbor,—Allm. Cat.; etc.  Scarce and local.

VIOLA


Lance-leaved V. 108. lanceolata, L. Rare. Roscommon Co.; L. Sup.; etc.


Hard-leaf V. 110. cucullata, Ait., var. palmata, Gr. Frequent on hills about Ionia.

Larkspur V. 111. sagittata, Ait. C. & S. Rare in some sections, common in others.

Bird-foot V. 112. delphinifolia, Nutt. (?) S. Common on light sand, our finest species.

Dog Violet. 113. pedata, L. (**) Th. Does nicely in cultivation and deserves attention. The flowers are light blue, or very rarely pure white, and are very pretty, being often 1½ in. in diameter. N. to "British Am., lat. 55°."—Torr. & Gr., Fl. N. Am.

Canada V. 114. canina, L., var. sylvestris, Regel. Th. Common.

Long-spurred V. 115. rostrata, Muhl. C. & S. Well distributed and frequent.


Downy Yellow V. 117. Canadensis, L. Th. Abundant on "beech and maple" land, but seldom, or never, under oaks.

Hairy Yellow V. 118. pubescens, Ait. Th. Common.

Wooly-fruit Y. V. 119. pubescens, Ait., var. eriocarpa, Nutt. Th. Common.

Smoother Y. V. 120. glabella, Nutt. C. & S. Hubbardston; etc.

CISTACEÆ. (Rock-rose Family.)

Frost-weed. 121. Canadense, Mx. (**) Th. Frequent.

Frost-wort. HUDSONIA


LECHEA

Pinweed. 123. major, Mx. C. & S. Common on poor soil.

DROSERACEÆ. (Sundew Family.)

DROSERA


Slender S. 126. linearis, Goldie. U. P. Dr. Lyons; L. Sup.—Can. Cat.
HYPERICACEÆ.

(St. John’s-wort Family.)

HYPERICUM

Great St. John’s-wort. 127. pyramidatum, Aiton. South Haven; Ann Arbor; Ft. Gratiot; Macomb Co.; Ionia (!); Stanton (!); Hubbardton (!); Crystal Lk. (!); Flint; Ontonagon River—Whitney Cat. Occurs at wide intervals and in small patches. Kare.  
Kalm’s St. J. 128. Kalmianum, L. Along the lakes; more common northward. S. Mich.—Wright Cat.; Fort Gratiot—Winch. Cat.; Petoskey (!); etc.  
Shrubby St. J. 129. prolificum, L. A low, compact shrub, with a profusion of bright yellow blossoms, from July to Sept. Sometimes cultivated, and worthy of more notice as a hardy flowering shrub. Frequent from C. southward.  
Slender St. J. 133. multilum, L. Th. Abundant.  
135. Canadense, L., var. major, Gray. Flint; Fruitport and Old Mission.—E. J. Hill; L. Sup.—Gray. Th.  
Marsh St. John’s-wort. 137. petiolata, Ph. (?) Grosse Isle—Miss Clark in Winch. Cat.  
CARYOPHYLLACEÆ.

(Pink Family.)

SAPONARIA

Cow-Herb. 139. vaccaria, L. C. & S. Muir(!); s. Mich.—Wright Cat.; etc. Sparingly introduced.  
SILENE

Starry Champion. 140. stellata, Aiton. Dr. Wright.  
Wild Pink. 141. Pennsylvanica, Mx.(?) S. Mont Lake—Miss Clark in Winch. Cat. We have specimens which were sent from Springfield, O., and the plant may grow in Mich.  
Night flowering C. 144. noctiflora, L.
LYCHNIS

145. Githago, L.
In wheat-fields, but easily eradicated by sowing clean seed-wheat.
Common.

ARENARIA

146. serpyllifolia, L.
Sandy fields. Not well distributed, but in places very common.
Th.

147. stricta, Mx.
S. Mich.—Wright Cat.; Macomb Co.; Montcalm Co. (!); L. Sup.—Can. Cat.
Infrequent.

Showy Sandwort.

148. lateriflora, L.
"From lat. 40° to the Arctic sea"—Torrey & Gray, in "Flora N. Am."
Rather common in C., and quite pretty.
Th.

STELLARIA

149. media, Smith.
Gardens and fields. A very abundant and hardy little weed, which has been seen in blossom every month in the year. In fact, even in mid-winter, a few warm days are enough to set it growing.
Th.

150. longifolia, Muhl.
Common.

151. uliginosa, Murr.
Dr. Lyons.
U. P.

152. crassifolia, Ehrh.
Dr. Lyons.
Rare.

Northern S.

153. borealis, Bigelow.
Point au Barques, L. Huron, and Isle aux Traine, L. Sup.—Gillman; also, Gray in Manual, and Can. Cat.
U. P.

Long-stalked Stitchwort.

154. longipes, Goldie.
"Gros Cap, L. Mich., abundant in pure sand."—Winch. Cat.
N. & U. P.

CERASTIUM

155. vulgatum, L.
Th.

156. viscosum, L.
Th.

157. nutans, Raf.
Macomb Co.; Flint; Lyons(!), etc. Found on low grounds from Louisiana to Hudson's Bay.
Th.

Field Chickweed.

158. arvense, L.
Th.

SAGINA

159. nodosa, E. Meyer.
"L. Sup. and northward."—Gray; Isle Royale.—Whitney's Cat.
U. P.

SPERGULA

160. arvensis, L.
Dr. Wright, Dr. Clark. Some other Caryophyllaceous plants occur, as Dianthus sp., Silene Armeria, etc., but are not well established.
Adv. and rare.

PARONYCHIEÆ.

(Whitlow-worts.)

ANYCHIA

161. dichotoma, Mx.
Dr. Wright.
S. W.

Infrequent.
SCLERANTHUS

162. annuus, L.
Lansing (!); naturalized on the Agrl. College grounds.

PORTULACACEÆ.
(Purslane Family.)

PORTULACA

163. oleracea, L. (***)
Very tenacious of life—a vile weed in gardens.

CLAYTONIA

164. Virginica, L.
An early and very pretty spring flower.

MALVACEÆ.
(Mallow Family.)

MALVA

165. rotundifolia, L. (***)

166. sylvestris, L. (***)

167. crispa, Gr.
Dr. Clark.

168. moschata, L.

169. Alcea, L.
Lansing (!); adventive on College grounds.

SIDA

170. Napaea, Cav.
Kalamazoo, R. R. track.

ABUTILON

171. Avicineae, Gært.
Roadsides and river banks. Very common in places, and, along with Datura stramonium, forming regular thickets. Sometimes cultivated, but rather to be cast out as a bad weed.

HIBISCUS

172. Moscheutos, L.
Flint; and Put-in Bay, Lake Erie. (!) This plant, long neglected, is worthy of cultivation. It is four feet high, with velvety leaves and beautiful light rose-colored flowers, six inches in diameter.

173. Trionum, L.
S.—Dr. Wright; Ann Arbor—Winch. Cat.; and Flint.

TILIACEÆ.
(Linden Family.)

TILIA

174. Americana, L.
Th.
Abundant in C. & S., common in Emmet Co. (!), and frequent in U. P., "especially in Ontonagon Valley."—Whitney Cat. A valuable timber tree, often planted for ornament, and much sought in flowering time by bees for its copious nectar, which makes the finest honey. Basswood lumber is much used in cabinet work for boxes, shelves, etc., whenever a wood is desired which is soft and easily worked, and, at the same time, tough and not liable to split.
LINUM

Wild Flax. 175. Virginianum, L. *S.* Ann Arbor—Dr. Lyons; S. Mich.—Wright Cat. Infrequent.

Wild Flax. 176. sulcatum, Riddell. *S.* Dr. Wright. Rare.

Common Flax. 177. usitatissimum, L. (* *) Dr. Clark, and Dr. Wright. Escaped from cultivation. C. & S. Infrequent.

GERANIACEÆ.

(Geranium Family.)


179. Carolinianum, L. Th. Macomb Co.; Clinton Co., etc. Rare in S. & C., abundant in vicinity of Farwell, Clare Co. (!), thence N. to L. Superior.

180. pusillum, L. Flint—Dr. Clark. Adventive.

181. Robertianum, L. (** *) Th. Put-in Bay, Lake Erie (!); Montcalm Co. (!); Saginaw Bay; Mackinac, and Drummond's Is.—Winch. Cat.; L. Sup.—Whitney's Cat. Common around the Gr. Lakes, but seldom seen in the interior.

182. cicutarium, L',Her. (** *) Oceana Co. (!); Ionia Co. (!); Kalamazoo, etc. Spreads rapidly—a bad weed in gardens and fields. Not yet common.

183. proserpinacoides, Willd. Ionia (!); Hubbardston (!); Flint, etc. Not rare but usually overlooked. A delicate, little herb in damp woods.

IMPATIENS

184. pallida, Nutt. (** *) Th. Macomb Co.; Ionia Co. (!); Sugar Is.—Winch. Cat., etc. Much rarer than the next.

185. fulva, Nutt. (** *) Th.

OXALIS

Common Wood-sorrel. 186. Acetosella, L. (** *) Th. Macomb Co.; and “L. Sup. and northward”—Gray. Rare in S. Peninsula.

Violet W. 187. violacea, L. (** *) S. E. Rare. Winchell Cat.

188. corniculata, L., var. stricta, Sav. (** *) Th. Marquette Co.—Burt's MS., etc., etc.

RUTACEÆ.

(Rue Family.)

ZANTHOXYLUM

Prickly Ash, Toothache Tree. 189. Americanum, Mill. (** *) L. P. Everywhere along streams and on low ground. The bark enters into various "bitters," and is gathered in considerable quantities for export.
PTELEA

190. trifoliata, L. (***) C. & S. An interesting shrub; sometimes cultivated. Very abundant on the low, rocky islands in the western end of Lake Erie (1), and frequent along river banks and the shore of the Gr. Lakes. Occurs in the interior as far north as Montcalm Co. (1). Does not occur at Flint and is not mentioned in Dr. Cooley's MS. Cat., but is given by Dr. Wright.

ANACARDIACEÆ.

(Cashew Family.)

RHUS

191. typhina, L. (***) Th. Seldom very large; less common than the next. Worth cultivating, and the next likewise.

192. glabra, L. (**) Th. Very common in C., and nearly, or quite, as large as R. typhina. The trunk occasionally 6-6 in. in diameter. These two species are much alike, and, pubescence aside, one might easily be mistaken for the other. It is no stretch of imagination to believe such closely allied species, and there are many such, are descended from a common stock. Indeed, one can scarcely believe otherwise if he studies plants extensively.


194. venenata, DC. (***) Th. Common in swamps and poisonous to the touch. A low shrub, with smooth, grayish bark, and dull, white fruit in clusters.

195. Toxicodendron, L. (**) Th. This is the dreaded "Poison Ivy." It is innocuous to some persons, and cows eat it with impunity. Frequent.

196. Toxicodendron, L., var. radican, Torr. Th. Tall-climbing, often to tops of forest trees; stems frequently several inches in diameter. More abundant than the sp.

197. aromaticá, Aiton. (****) Th. A low shrub, with bright red fruit; worthy of cultivation. Less frequent than other members of the genus. Found chiefly on bluffs and sandy hills through the middle counties of the L. P. "N. to Saskatchewan."—Torr. & Gr., Fl. N. Am.

VITACEÆ.

(Vine Family.)

198. Labrusca, L. C. & S. Dr. Clark and Dr. Cooley. Concord, Isabella, Catawba, etc., are seedlings of this species. Rare.

199. æstivalis, Mx. C. & S. Lyons (!); Stanton (!); Crystal Lk., Montcalm Co. (!); Flint; Ann Arbor.—Winch. Cat.; S. Mich.—Wright Cat., etc. Infrequent S.

200. riparia, Mx. Th. Common along our rivers; infrequent in the pine region, where V. æstivalis is very abundant. Flowers very fragrant, filling the air with odor. The small, glaucous fruit is sometimes eaten. Vitis cordifolia apparently does not occur.

AMPELOPSIS

201. quinquefolia, Mx. (****) Th. A very desirable climber, often cultivated. Some specimens seem to cling to walls and buildings much better than others. Common.
Rhamnaceae.

(Buckthorn Family.)

Rhamnus


Ceanothus

New Jersey Tea

203. Americanus, L. (***)  Th.  Frequent.

Red-root.

Ceanothus.

204. ovatus, Desf.  Dr. Pitcher; also, east shore L. Huron, E. Ont., and L. Sup.—Can. Cat.

Celastraceae

(Staff-tree Family.)

Celastrus

205. scandens, L. (***)  C. & S.

An ornamental climbing shrub, the orange and scarlet-arilled fruit remaining over winter. Easy to grow and desirable for its autumn and winter effect. The stamine and pistillate flowers are on different individuals, and this must not be overlooked when specimens are taken from the field for cultivation.

Euonymus

206. atropurpureus, Jacq.  C. & S.

Sandy woods, rarely on beach and maple land.

Wahoo.

Burning-Bush.

207. Americanus, L., var. obovatus, T. & Gr.  C. & S.

Trailing. The sp. does not occur.

Sapindaceae

(Soapberry Family.)

Staphylea

208. trifolia, L.  Th.

Bladder-Nut.

Marquette Co.—Burt; and frequent along river banks in L. P. A curious and interesting low shrub, with drooping white flowers, ovate, pointed, serrate leaflets, and large triangular pods, whence the common name. Sometimes cultivated and deserving attention.

Aesculus

209. glabra, Willd.  S.

Ohio Buckeye.

 Fetid B.

River-bottoms, Lenawee Co.—Prof. Beal; and probably in other localities in the southern tier of counties.

Acer

210. Pennsylvanicum, L. (***)  N. & U. P.

Stripped Maple.

Abundant in U. P.—Whitney, common at Petoskey (!), and occasional as far S. on the Huron shore as Alcona Co.—Winchell Cat., and in the interior as Houghton Lake(!).

Mountain Maple.

211. spicatum, Lam.  C. N. & U. P.

Common in U. P.; Alcona Co.—Winch. Cat.; Crystal Lake, Montcalm Co.(!); and occasional in cold swamps as far south as banks of Grand river near Lansing—Beal.

Sugar Maple.

Rock M.

212. saccharinum, Wang. (***)  Th.

This and the next yield "maple sugar." Frequent in the U. P., and abundant in the lower, forming extensive groves, either alone or in connection with beech. Largely used for fuel, and to some extent for cabinet purposes, especially the curled and bird's eye varieties. Extensively planted as a shade-tree. In localities badly infested with borers of the genus Clylus.

Silver Maple. White M. 214. dasycarpum, Ehrh. C. & S. Low ground along rivers. This and the next are fine shade and ornamental trees. Often planted.


Negundo. Box-elder. Ash-leaved Maple. 216. aceroides, Moench. C. & S. River banks. A small, handsome tree, with green twigs, ash-like leaves, H. P, flowers and keys. Sometimes planted, and would be more frequent if its value was known.

Purple Polygala. 217. sanguinea, L. (***) C. & S. Belding(!); Ionia(!); Flint; Macomb Co., etc. Local, but usually abundant when found at all.

Polygala. 218. cruciata, L. S. Mich.—Wright Cat.

Polygala. 219. verticillata, L. C. & S. Flint; Lansing(!); Macomb Co.; Wayne Co.(!), etc. Common in some places, rare in others. The fresh roots have the smell of wintergreen, or Spirea lobata.

Seneca Snake-root. 220. Senega, L. (*) Th. Rare.

Broad-leaved S. S. 221. Senega, L., var. latifolia, T. & Gr. Hubbardston(!); Flint, etc. Rare.


Flowering Wintergreen. Fringed Polygala. 223. paucifolia, Willd. (***) Common on pine land; the large, rose-purple flowers very beautiful. Comptonia, Rhus aromatica, Moneses, and this are often found together. Dr. Wright found a variety with white flowers.

LEGUMINOSÆ. (Pulse Family.)


Red Clover. 225. pratense, L. (***) Th. Meadows and fields. Very extensively cultivated for hay and pasture, and as a fertilizer of the soil, in which capacity it has no equal.


Yellow Mellilot. 228. officinalis, Willd. (***) C. & S. Rare.
Sweet Clover.  
White Melilot.  

**229.** *alba*, Lam. (***)

More common than the preceding, but only occasional. A valuable honey plant.

**MEDICAGO**

Lucerne.

230. *sativa*, L.

Escaped from cultivation in a few places.

Black Medick.  
Nonesuch.

231. *lupulina*, L.

Waste places. Mackinac; Jackson (!); Ann Arbor, etc.; forming patches.

**PETALOSTEMON**

Prairie Clover.

232. *violaceus*, Mx.

"Dry prairies, Mich."—Gray.

Prairie Clover.

233. *candidus*, Mx.

S. W.

"With the preceding.—Gray. These two and the next are "prairie plants,"

**AMORPHA**

Lead-plant.

234. *canescens*, Nutt.

W. Mich.—Winch. Cat.; Ann Arbor.—Prof. M. W. Harrington. Rare.

**TEPHROSIA**

Hoary Pea.  
Goat's Rue.

235. *Virginiana*, Pers. (***)

Clinton Co. (!); Montcalm Co. (!); Macomb Co.; Livingston Co.—Miss Clark, etc. On light sand. Infrequent.

**ASTRAGALUS**

Cooper's Vetch.

236. *Cooperi*, Gr.

Dr. A. B. Lyons; Cooley MS. Rare.

Milk V.

237. *Canadensis*, L.

Th. Put-in Bay (!); Ann Arbor (!); Macomb Co.; Orchard Lk. (!); Montcalm Co. (!); and northward. Well distributed but Infrequent.

**DESMODIUM**

Tick-Trefoil.

238. *nudiflorum*, DC.

Crystal Lk., Montcalm Co. (!); Flint; Lansing; Macomb Co.; S. Mich.—Wright Cat., etc. C. & S.

Tick-Trefoil.

239. *acuminatum*, DC.

Woodlands. Very common.

Tick-Trefoil.

240. *pauciflorum*, DC.

S. Mont Lk.—Miss Clark in Winch. Cat. Rare.

Round-leaved T.-T.  
Trailing T.-T.

241. *rotundifolium*, DC.

Hubbardston (!); Ionia (!); Flint; Lansing (!); So. Haven; Macomb Co.; Ann Arbor.—Allmend. Cat., etc. Infrequent.

Tick-Trefoil.

242. *canescens*, DC.

Ann Arbor—Allmend. Cat.; S. West—Wright Cat. Rare.

Tick-Trefoil.


Hubbardson (!); Flint; Lansing; Ann Arbor; Macomb Co.; S. Mich.—Wright, etc. Usually on oak land. C. & S. Frequent.

Tick-Trefoil.

244. *viridiflorum*, Beck.

Hubbardston (!); Macomb Co. Not common.

Tick-Trefoil.


C. & S. Oak woods. Hubbardston (!); Flint; Macomb Co.; S. Mich.—Wr. Cat.; Mont Lk.—Miss Clark, etc. Frequent.

Tick-Trefoil.

246. *paniculatum*, DC.

Oak woods. Hubbardston (!); Flint; Macomb Co.; Lansing; S. Haven; S. Mich.—Wr. Cat., etc. C. & S. Frequent.

Tick-Trefoil.

247. *Canadense*, DC.

Hubbardston (!) and probably farther N.; Flint; Lansing; Ann Arbor—Allmend. Cat. and Winch. Cat., etc. Flowers early. Frequent.

_N. C. State College_
| Tick-Trefoil | 248. sessilifolium, T. & Gr. | Rare. |
| Tick-Trefoil | 249. rigidum, DC. | C. & S. |
| Tick-Trefoil | Hubbardston (!); Flint; Macomb Co.; Ann Arbor, and S. W.—Winch. Cat. | Infrequent. |
| Tick-Trefoil | 250. ciliare, DC. | S. |
| Tick-Trefoil | Dr. Wright. | Rare. |
| Tick-Trefoil | 251. Marylandicum, Boott. | C. & S. |
| | Dry hills, Ionia(!), and southward. | Infrequent. |
| Creeping Lespedeza | 252. repens, Barton. (?) | S. |
| | Winchell Cat. | |
| | Ann Arbor—Miss Clark; S. W.—Wright. | |
| Bush Clover | 254. reticulata, Pers. | C. & S. |
| | Dry woods and fields. | Common. |
| Bush Clover | 255. reticulata, Pers., var. angustifolia, Maxim. | S. W. |
| | Wright Cat. | Rare. |
| Bush Clover | 256. Stuvel, Nutt. | S. |
| | Winchell Cat.; Gray in Manual. | Rare. |
| Bush Clover | 257. hirta, Elliott. | C. & S. |
| | | Common. |
| Bush Clover | 258. capitata, Mx. | C. & S. |
| | Abundant in old fields; prefers light sand. | |
| Bush Clover | 259. angustifolia, Ell. | C. & S. |
| | In the same situations, and along with the preceding two. | Frequent. |
| Common Vetch. Tare. | 260. sativa, L. | S. |
| | Detroit—Dr. Lyons; Springwells, near Detroit—Henry Gillman. | Infrequent. |
| Blue Vetch. | 261. Cracea, L. | S. |
| | S. Mich.—Wright Cat.; Ann Arbor—Prof. M. W. Harrington. | Rare or local. |
| | Dry soil. | Very common. |
| Purple V. American V. | 263. Americana, Muhl. | Th. |
| | Ann Arbor; Ionia(!); Montcalm Co.(!); etc.; N. to Lake Sup. Much rarer than the preceding, and very pretty. Spreads rapidly in C, along railroads and highways, and acts like an immigrant. | |
| Beach Pea. | 264. maritimus, Bigel. | Th. |
| | All around the Gr. Lakes, but seldom or never seen in the interior. | Com. |
| Vetchling. Everlasting Pea. | 265. venosus, Muhl. | C. & S. |
| | Ionia Co.(!); Clinton Co.(!); Flint; Macomb Co.; Ann Arbor, etc. Beautiful, and worthy a place in the garden, by reason of its large, purple flowers. | Infr. |
| Pale Vetch. Indian Pea. | 266. ochroleucus, Hooker. | Th. |
| | Hillsides and dry uplands. | Infr. |
| Marsh Vetchling. | 267. paluster, L. | Th. |
| | Ann Arbor; Ionia(!); Bay City; Antrim Co.; Petoskey to L. Sup. This and the next are both common in C, growing in marshes along with Apios tuberosa, Campanula aparinoides, etc. | Com. |

| Marsh Vetchling. | 268. paluster, L. var. myrtifolius, Gr. | Th. |
APIOS

PHASEOLUS
Wild Bean. 270. diversifolius, Pers. S. E. along shore, and on the islands of Lake Erie (!), and shore of Lake Michigan at So. Haven—Bailey. Probably not much farther north, and not found in the interior. S.

AMPHICARPÆA

BAPTISIA
False Indigo. Wild Indigo. 272. tinctoria, R. Br. (***) Woodard Lake, Ionia Co. (!); Flint; Macomb Co.; Ann Arbor—Winch. Cat.; etc. Abundant in places, but not well distributed; much commoner than the next two species. C. & S.

CERCIS
Red-bud. Judas-tree. 275. Canadensis, L. Indigenious through the southern part of the State, and as far N. in the west as Grand river valley. Plaster creek, Grand Rapids—Garfield; Ionia—Le Valley (?); banks of Thornapple river, Eaton county; Ann Arbor; Adrian; South Haven, etc. This tree is quite frequent in the valley of the river Raisin, 10 miles S. W. of Adrian, in company with Nequando, Gymnocladus, and Exclusus glabra. The largest trees are ten inches in diameter—Henry Owen. Frequently cultivated. C. & S.

CASSIA

GYMNOCladUS
Kentucky Coffee-tree. 277. Canadensis, Lam. A slender tree along river banks, as far N. as Maple river, in Clinton Co. (!); also Fisk creek, Montcalm Co. (!); banks of Grand river (!); etc. The largest specimen seen was about 66 feet high, and less than a foot in diameter. The wood is reddish, fine-grained, tough, and takes a good polish. Sometimes planted, and a valuable ornamental tree, with clubby branches, large and graceful bi-pinnate leaves, and large, flat pods in autumn. Farther south, a large tree. C. & S. Infrequent.

GLEdITSCHIA
Honey Locust. Three-thorned Acacia. 278. triacanthos, L. Grows along the river Raisin, and is certainly indigenous. Often two feet in diameter.—Prof. Beal, Henry Owen, et al. Probably along the St. Joseph, also, and in other localities in the extreme S. Frequently planted for hedges. S.

ROSACEÆ.
(Rose Family.)

PRUNUS
Wild Plum. 279. Americana, Marshall. Along our rivers; the fruit either round or oblong, yellow, red, or green, and pleasant or bitter. Occasionally a tree bears large fruit which is quite palatable. Frequently the plums blast and the trees bear instead hollow, green bodies somewhat resembling plums. C. & S. Common.
Dwarf Cherry. Sand Cherry. 280. pumila, L. Th. L. Sup.; Emmet Co.(!); Houghton Lake(!); Mecosta Co.(!); South Haven; Saginaw Bay—Winchell, etc. Frequent in the N. half of the L. P., but not yet found in the interior S. of Saranac, Ionia Co.(!), where it occurs in a dry glade along with Synthyris, Castillea, Lupinus, and Senecio aureus.

Wild Red Cherry. Pin Cherry. 281. Pennsylvanica, L. Th. Very abundant on sandy land in the N. half of the State, but less common southward, where P. serotina takes its place. Occasionally it becomes a good sized tree,—40-50 feet high, a foot and a half in diameter. One such stands by the road-side near Prairie Cr., in Ronald Tp., Ionia Co.


Wild Black Cherry. 283. serotina Ehrh. (*) Th. A medium sized timber tree, well known as “Black Cherry.” Frequent in C. and S., in places sufficiently so for economic use. Rare in N. and U. P. The bark is often used as a tonic.

NEILLIA 284. opulifolia, Bentham. and Hook. Th. Along streams. A low shrub with re-curved branches, white flowers, clusters of reddish pods, and something the habit of red currant but larger. Occasionally cultivated and a good addition to the lawn.


GILLENIA 288. trifoliata, Monch. (**) S. Rare.


Agrimony. Small-flowered A. 291. parviflora, Ait. (***) Detroit—Miss Clark; Macomb Co. S. E. Infrequent.


Virginia G. Large-leaved G. 294. macrophyllum, Willd. U. P. Rare, or not at all in L. P.

Strict G. 295. strictum, Aiton. Th. New Haven, Gratiot Co.(!); Petoskey(!), etc. Rare S.

<table>
<thead>
<tr>
<th>Three-flowered Geum</th>
<th>297. triflorum, Pursh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OtiscoTp., Ionia Co.(!)—A. B. Morse; Montcalm Co., near Greenville(!); the only reported localities in the State. Attractive by reason of its long, plumose styles, and dissected, fern-like leaves.</td>
<td>Rare.</td>
</tr>
</tbody>
</table>

**WALDSTEINIA**

<table>
<thead>
<tr>
<th>Barren Strawberry</th>
<th>298. fragarioides, Tratt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livingston Co.—Winch. Cat.; Ionia(!); Flint, etc.; to L. Sup.—Whitney Cat. Rather local, but abundant when found at all.</td>
<td>Th.</td>
</tr>
</tbody>
</table>

**POTENTILLA**

<table>
<thead>
<tr>
<th>Cinquefoil.</th>
<th>299. Norvegica, L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common C.</td>
<td>Th.</td>
</tr>
<tr>
<td>Five-Finger.</td>
<td>Common.</td>
</tr>
<tr>
<td>Five-Finger.</td>
<td>Th.</td>
</tr>
<tr>
<td>Arctic Potentilla.</td>
<td>300. Canadensis, L.</td>
</tr>
<tr>
<td></td>
<td>Macomb Co., and Flint to L. Sup. Rare in C. &amp; S.</td>
</tr>
<tr>
<td></td>
<td>Th.</td>
</tr>
<tr>
<td>Silvery Cinque foil.</td>
<td>301. Canadensis, L., var. simplex, T. &amp; Gr.</td>
</tr>
<tr>
<td></td>
<td>Range unknown; the common form in C. &amp; S., where it is abundant.</td>
</tr>
<tr>
<td></td>
<td>Th.</td>
</tr>
<tr>
<td>Stout Potentilla.</td>
<td>302. frigida, Villars.</td>
</tr>
<tr>
<td></td>
<td>Dr. Lyons.</td>
</tr>
<tr>
<td></td>
<td>U. P.</td>
</tr>
<tr>
<td></td>
<td>Rare.</td>
</tr>
<tr>
<td>Silver-Weed.</td>
<td>303. argentea, L.</td>
</tr>
<tr>
<td></td>
<td>Ann Arbor—Clark and Allmendinger. Not reported by any other observers.</td>
</tr>
<tr>
<td></td>
<td>S.</td>
</tr>
<tr>
<td>Silvery Cinque-foil.</td>
<td>304. arguta, Ph.</td>
</tr>
<tr>
<td></td>
<td>Flowers either white or yellow, generally all in one locality of one color; the same is true of moleh muticum; Ann Arbor; Macomb Co.; Lansing(!); Ionia(!); and N. to Isle Royal. Frequent on light sand; in places, common.</td>
</tr>
<tr>
<td></td>
<td>Th.</td>
</tr>
<tr>
<td>Shrubby Cinque-foil.</td>
<td>305. Anserina, L.</td>
</tr>
<tr>
<td></td>
<td>Frequent along the Great Lakes, but rare in the interior.</td>
</tr>
<tr>
<td></td>
<td>Th.</td>
</tr>
<tr>
<td>Three-toothed C.</td>
<td>306. fruticosa, L.</td>
</tr>
<tr>
<td></td>
<td>Edges of swamps. A low shrub with small, silky leaves, and a profusion of showy yellow blossoms, in August. Ranges N. to Arctic America.</td>
</tr>
<tr>
<td></td>
<td>Th.</td>
</tr>
<tr>
<td>Marsh Five-Finger.</td>
<td>307. tridentata, Solander.</td>
</tr>
<tr>
<td></td>
<td>Barrens of Missaukee Co. (!); &quot;shores of the Upper Great Lakes&quot;—Gray; Isle Royal—Dr. Lyons.</td>
</tr>
<tr>
<td></td>
<td>N. &amp; U. P.</td>
</tr>
<tr>
<td></td>
<td>Infrequent.</td>
</tr>
<tr>
<td>Wild Strawberry.</td>
<td>308. palustris, Scop.</td>
</tr>
<tr>
<td></td>
<td>Swamps throughout, but nowhere abundant.</td>
</tr>
</tbody>
</table>

**FRAGARIA**

| Wild Strawberry. | 309. Virginiana, Duchesne. (*** ) |
| Wild Strawberry. | Very common. |
| Wild Strawberry. | 310. Virginiana, Duch., var. Illinoensis, Gr. |
| | U. P.—Henry Gillman, in Am. Nat., Sept. '69; and probably in Lower P., also. |
| Wild Strawberry. | 311. vesca, L. |
| | Occasional in S., frequent in C., and abundant northward, where it seems to take the place of F. Virginiana. Moist woodlands and borders of swamps. |
| | Th. |

**RUBUS**

| Dalibarda. | 312. Dalibarda, L. |
| Dalibarda. | S. |
| | Ann Arbor—Mary Clark; Macomb Co.—Cooley. May occur farther north, and perhaps throughout. |
| | Rare. |
| Purple Flowering Raspberry. | 313. odoratus, L. |
| Purple Flowering Raspberry. | Th. |
| | From Ft. Gratiot (Winchell) northward. Not observed in the interior through C. & S. Common in N. & U. P. |
| White Flowering R. | N. & U. P. |
| | Frequent at Petoskey (!) and common farther north. |
| | Th. |
| Dwarf R. | 315. triflorus, Richard. |
| Dwarf R. | Th. |
| | Frequent. |

Black R. Thimbleberry
317. occidentalis, L. Th. Our garden Black-caps are seedlings of this. Hybrids between this and the preceding frequently occur.

Blackberry
318. villosus, Aiton. (*) Th. Very common in C, covering thousands of acres of waste pine-land to the exclusion of almost everything else. Rare in U. P. The fruit is agreeable and much gathered. Occasionally a plant is found bearing large berries of superior quality. This sp. is the original of the Lawton, Wilson, Kittattiny, and other cultivated sorts.

Dewberry. Low Blackberry
319. Canadensis, L. (*) C. & S. Extensively trailing—12 ft. or more—deep-rooted, hard to exterminate, and troublesome in sandy fields. Fruit ripe about the middle of July, sweeter than that of R. villosus.

Running Swamp B. 320. hispidus, L. Th. Very abundant through the C. in the pine country, frequently covering the ground; also, S. and probably Th.

ROSA
Prairie Rose. Climbing Rose
321. setigera, Mx. C. & S. So. Havener—Bailey; Jackson Co.—Winchell; Flint—Dr. Clark; Macomb Co.—Cooley; Grosse Isle—Miss Clark. Possibly Indigenous, but very rare or local. Cultivated.


Dwarf Wild Rose
323. parviflora, Ehrh. C. & S. Abundant and pretty. In the C. it is our common wild-rose. Dry soil. A low form on hills about Ionia has narrow leaves, with peduncles and ripe fruit glandular-bristly.

Early Wild Rose
324. blandu, Aiton. Th. Ionia (?); Hubbardston (?); Flint; Ft. Gratiot—Winch. Cat., etc. Common northward, but infrequent south of lat. 43°.

Sweet Briar

CRATAEGUS
Scarlet-fruit-ed Thorn
326. coccinea, L. Th. Roadsides.

Downy Thorn

Black Thorn. Pear T.
328. tomentosa, L. C. & S. The form doubtfully referred to this species is a shrub with large, thick, oval, sharply-serrate leaves, beneath prominently veined, and tapering into a marginal petiole; coryms very straggling and fruit quite small—½ in. Infrquent.

Pear T.
329. tomentosa, L., var. pyriformia, Gr. Th. Common.

Pear T.

Cockspur Thorn

PIRUS
American Crab-apple
332. coronaria, L. C. & S. Thickets and along streams; the fine rose colored flowers delightfully fragrant in May. The fruit green and bitter.

Choke-berry
333. arbutifolia, L. Th. Hubbardston (!), etc. Rare in C.
choke-berry. 334. arbutifolia, L., var. melanocarpa, Hook. Th. Burt, MS.; Isle Royale—Whitney's Cat., etc. Frequent in swamps through C.

American Mountain Ash. 335. Americana, DC. (***). N. & U. P. Ludington, and north along the Michigan shore to Charlevoix; Sainte Marie; and into Canada where it is common; also westward through U. P.—Burt, and Whitney.

AMELANCHIER

June-berry. Shad-bush. Service-berry. 336. Canadensis, Torr. & Gr. Th. A shrub or small tree. Fruit variable in size and flavor, frequently delicious, and so well known to the birds that one can seldom find it well ripened. Undoubtedly horticulturists could develop this into a profitable fruit, but having already so many choice kinds, it is questionable if there would be any immediate profit. It is well, however, to remember that all our choice fruits have come from very ordinary wild sorts.


Service-berry. 338. Canadensis, Torr. & Gr., var. rotundifolia, T. & Gr. C. & S. Along streams, nearly as large as the sp.; leaves oval, serrate, prominently veined beneath. Flint; Hubbardston (!), etc. Not-common.

Service-berry. 339. alnifolia, Nutt. Presque Isle—Winchell; Flint—Dr. Clark. L. P. Rare.

SAXIFRAGACEÆ.

(Saxifrage Family.)

RIBES


Wild Goose-berry. 341. oxyacanthoides, L. C. & S. Low grounds along Fish Creek, and Maple River (!); Flint; Macomb Co., etc. Fruit smooth. Common.


Swamp Goose-berry. 343. lacustre, Poir. N. & U. P. As far south as Houghton Lake (!).

Fetid Currant. 344. prostratum, L'Her. C. N. & U. P. Flint; Isabella Co. (!); Missaukee Co. (!); St. Joseph's Is.—Winch. Cat., etc.


PARNASSIA


Grass of Parnassus. 348. palustris, L. U. P. Drummond's Is.—Winch Cat.; "Shore of L. Sup., and northward"—Gray, from Dr. Pitcher.

Grass of Parnassus. 349. Caroliniana, Mx. Swamps and wet banks. Rare northward; common in C. & S.

SAXIFRAGA

351. tricuspidata, Retz.  
"Shore of L. Sup. and northward"—Gray; Isle Royale—Dr. Lyons and Whitney Cat.

352. Aizoon, Jacq.  
"Upper Mich."—Gray; Isle Royale—Lyons, and Whitney.

353. Virginiensis, Mx.  
L. Sup.—Can. Cat., etc.

354. Pennsylvanica, L.  
Bogs.

355. Americana, L. (***)

356. hispida, Ph.

357. diphylla, L.

358. nuda, L.

359. cordifolia, L.

360. Americanum, Schw.

361. sedoides, L. (***)

362. Telephium, L. (***)

363. Virginiana, L. (***)
HALORAGÆ.

( Water-Milfoil Family.)

MYRIOPHYLLUM

Water-Milfoil.  364. spicatum, L.  Th.
L. Sup.—Can. Cat.; etc.

Water-Milfoil.  365. verticillatum, L.  Th.
Hubbardston (!); Flint; Macomb Co.; S. Mich.—Wright Cat.

Water-Milfoil.  366. heterophyllum, Mx.  C. & S.
Fruitport—E. J. Hill; Huron R. at Ypsilanti—Lyons; Macomb Co.—Cooley.

Water-Milfoil.  367. tenellum, Bigel. (?)

PROSERPINACA

Mermaid-weed.

368. palustris, L.
In swamps along with Alopeurus aristatus, and Ludwigia palustris.  Freq.

HIPPURIS.

Mare's-Tail.

369. vulgaris, L.  Th.
L. Sup.—Can. Cat.; S. Mich.—Wright Cat.
Rare.

ONAGRACEÆ.

(Evening-Primrose Family.)

CIRCEA

Enchanter's Night-shade.

370. Lutetiana, L.  Th.
Woods.  Very common.

371. alpina, L.  Th.

GAURA

372. biennis, L.  S.
Dr. Wright.

EPILOBium

Great Willow-herb.

373. spicatum, Lam.  (***)  Th.
Springs up abundantly where forests have been burned over, hence one common name.

374. origanifolium, Lam.  U. P.
"Upper Wisconsin and Michigan"—Gray.

Linear-Headed Epilobium.

375. palustre, L., var. lineare, Gr.
Hubbardston (!); Flint; Stanton (!); and north to L. Sup. Infrequent in C. and rare or not at all in S.

Downy Willow-herb.

376. molle, Torr.
Hubbardston (!); Flint; Lansing (!); Ann Arbor; Macomb Co., etc. Prob.
Th.
Frequent.

377. coloratum, Muhl.  Th.
Common.

OENOTHERA

Evening Primrose.

378. biennis, L.  (***)  Th.
Common.

379. biennis, L., var. muricata, Lindl.  Th.
L. Sup.—Can. Cat.; Petoskey (!); Ionia (!), etc.

Sundrops.

381. fruticosa, L.
   Palo, Ionia Co. (!); Flint; Macomb Co.; Ann Arbor—Allmend. Cat.
   Infrequent.

Small Oenothera.

382. pumila, L. (includes E. chrysantha, Mx.)
   Ontonagon Falls—Whitney Cat.; So. Mich.—Wr. Cat.
   Infrequent.

LUDWIGIA

383. alternifolia, L.
   Dr. Wright.
   S. W.

False Loosestrife.

384. sphaerocarpa, Ell. (?)
   Near Detroit—Dr. Cooley.
   C. & S.

False L.

385. polycarpa, Short & Peter.
   Dr. Pitcher and Dr. Clark.
   Rare.

Water Purslane.

386. palustris, Ell.
   L. P.

Common.

LYTHRACEÆ.

(Loosestrife Family.)

AMMANNIA

387. humilis, Mx.
   “Michigan, Ill., and southward”—Gray.
   Rare.

LYTHRUM.

388. alatum, Ph.
   Near Detroit—Cooley MS.; S. Mich.—Wright Cat.; Kalamazoo—Tuthill.
   S.

NESÆA

389. verticillata, HBK.
   Crystal Lake, Montcalm Co. (!); Flint; Birmingham, Oakland Co. (!); So. Haven, etc.
   C. & S.

CACTACEÆ.

(Cactus Family.)

OPUNTIA

390. Rafinesquii, Engelm.
   Common in Newaygo Co. along the Muskegon R. (!) (“a quite spiny form” Engelmann), and a stunted variety on sand barrens near Greenville (!)—Mr. Satterlee; also, northward into British Am.—Engelmann. O. vulgaris does not occur.

CUCURBITACEÆ.

(Gourd Family.)

SICYOS

391. angulatus, L.
   Put-in Bay, Lk. Erie (!), and undoubtedly within our limits.
   Rare.

ECHINOCYSTIS

392. lobata, Torr. & Gr.
   Common in low woods along streams. Ionia (!); Lansing (!); So. Haven; Macomb County; Ann Arbor—Allmend. Cat., etc. Cultivated in the east for arbors, window-screens, etc., but rarely here.
MOLLUGO


UMBELLIFERÆ

(Fig Family.)

HYDROCOTYLE

(Parsley Family.)

394. Americana, L. L. P. Common in C.

Water Pennywort. 395. umbellata, L. Pine Lake, Lansing (!); Woodard Lake, Ionia Co. (!); S. Mich.—Wright Cat., etc. Much rarer than the preceding. Either grows on sandy shores or is wholly aquatic, with floating leaves.

SANICULA


ERYNGIUM

Rattlesnake Master. 398. yuccæfolium, Mx. (**) S. W. Rare. Dr. Wright.

Button Snake-root. Eringo.

Polytænia. 399. Nuttallii, DC. S. Rare. Dr. Wright, also Gray.

HERACLEUM

Cow-parsnip. 400. lanatum, Mx. (**) Th. Common. Low ground; tall and coarse.

PASTINACA

Parsnip. 401. sativa, L. Infrequent. Fields, etc.

ARCHEMORA


403. rigida, DC., var. ambigua, T. & Gr. Dr. Wright.

ARCHANGELICA

Hairy Archangelica. 404. hirsuta, Torr. & Gr. (***). L. P. Th. Emmet Co.—Winch. Cat.; Lansing (!); Pontiac (!); Detroit, etc. Dry banks and open woods.


SELINUM

THASPIUM

Meadow-Parsnip.

407. aureum, Nutt. Th.
Meadow-Parsnip.

408. aureum, Nutt., var. apterum, Gr. C. & S.
Meadow-Parsnip.

409. trifoliatum, Gr. C. & S.

Alexanders.

410. integerrima, Benth. & Hook. Th.

CICUTA

Spotted-Hemlock.

411. maculata, L. (***). Th.

Beaver-Poison.

Musquash-root.

412. bulbifera, L. Th.

Bulbous Cicuta.

Swamps.

SIUM

Water-Parsnip.

413. cicutaefolium, Gmelin. (***). Th.

BERULA

Water-Parsnip.

414. augustifolia, Koch. (***). S. Frequent.

CRYBOTÉNIA

Honeworkt.


CHÆROPHYLLUM

Chervil.


OSMORRHIZA

Sweet Cicely.

417. longistyliis, DC. Th.

Hairy S. C.

418. brevistyliis, DC. Th.

"The prevailing species."—Winchell. Probably true of counties along the Huron shore. Common.

CONIUM

Poison Hemlock.

419. maculatum, L. (*) Th.


ERIGENIA

Harbinger-of-Spring.

Pepper-and-Salt.

420. bulbosa, Nutt. Th.

A delicate little plant in low woods, the flowers peeping from under matted leaves in earliest spring, often before the snow is gone. Common.

ARALIACEÆ.

(Ginseng Family.)

ARALIA

Spikenard.

421. racemosa, L. (***). Th.

Bristly Sar-saparilla.

Wild Elder.

422. hispida, Ventenat. (***). C. N. & U. P. Common.
Wild Sarsaparilla

423. nudicaulis, L. (**)  
Th.

Very common.

Ginseng

424. quinquefolia, Deesne. and Planch. (**)  
Th.

Sault Ste. Marie; Ludington (!); Stanton (!), in great abundance; Hubbardston (!); Flint; Macomb Co.; Southwest—Wright Cat., etc. Usually rare, but so common in places that it has been dug for profit, and nearly exterminated. Root aromatic, medicinal.

Ground-nut.

425. trifolia, Deesne. & Planch.  
C. & S.

Very common in C.

CORNACEÆ.  
(Dogwood Family.)

CORNUS

Dwarf Cornel.

426. Canadensis, L.  
C. N. & U. P.

Rare, or not at all in S.

Bunch-berry.

427. florida, L. (*)  
C. & S.

Frequent as far north as Grand-Saginaw Valley, usually as a low tree in oak woods. Montcalm Co. is its northern limit (?). Not given in Wisconsin State Cat. Worthy of cultivation for its showy white blossoms, red fruit, and autumn foliage. Frequently blooms when only a bush, 3-4 ft.

Flowering Dogwood.

428. circinata, L'Her. (**)  
Th.

Frequent.

Round-leaved Dogwood.

429. sericea, L. (**)  
C. & S.

Perhaps further north. Indians use the inner bark for smoking.

Silky Cornel.

430. stolonifera, Mx.  
Th.

Marshes, borders of streams, etc.; abundant on sand dunes of Emmet Co. (!)

Kinnikinnick.

431. paniculata, L'Her.  
L. P.

The white flower eagerly devoured by partridges.

Red-osier Dogwood.

432. alternifolia, L.  
L. P.

Banks. The dead stems bright yellow.

Alternate-leaved C.

NYSSA

C. & S.

Edges of swamps as far north as Gratiot Co.(!). A small or medium-sized tree. Largest specimens seen, 2 to 3 ft. in diameter.

CAPRIFOLIACEÆ.  
(Honeysuckle Family.)

LINNÆA

Twin flower.

434. borealis, Gronovius.  
C. N. & U. P.

Very abundant in N. & U. P.; south to Grand river valley, and S. E. to Macomb Co. Probably in S. W.

SYMPHORICARPUS

Wolf-berry.

435. occidentalis, R. Br.  
C. N. & U. P.

Pt. Gratiot—Austin; N. Mich.—Gray.

Snowberry.

436. racemosus, Mx.  
C. N. & U. P.

Rare.  

Along the Great Lakes, Saginaw bay, and Alpena Co.—Winchell; L. Sup.—Can. Cat. Not observed in interior of L. P. Common in cultivation.

Snowberry.

437. racemosus, Mx., var. pauciflorus, Robbins.  
U. P.

Indian Currant.

438. vulgaris, Mx. (?)  
S.
I. ONICERA

Small Honey-suckle. 439. parviflora, Lam.
L. Sup.—Whitney’s Cat.; Petoskey(!), where it appears distinct from
the next; Ann Arbor—Miss Allmendinger; Macomb Co.

Small Honey-suckle. 440. parviflora, Lam., var. Douglasii, Gr.
Ionia(!); Montcalm Co(!); Ann Arbor—All. Cat., etc. This and the
former apparently run together in C., forms occurring that do not
answer well to Gray’s description of either species. Flowers bright
yellow to crimson purple; corolla downy or nearly smooth; leaves
glaucous. Swamps or dry soil. Common.

Hairy H. 441. hirsuta, Eaton.
Frequent northward; rare in C. & S., Flint, and Macomb Co.

American Woodbine. 442. grata, Aiton.
Dr. Lyons.

Fly-Honey-suckle. 443. involucrata, Banks.
Mainland and Isle Royale.

Mountain F. 444. ciliata, Muhl.
Common in C.

Swamp F. 445. coerula, L.
Dr. Lyons.

DIERVILLA

Bush Honey-suckle. 446. oblongifolia.
Macomb Co.; Stanton(!); Edmore(!); Isabella Co. (!), etc. More frequent
in N. & U. P. Rare in S.

TRIOSTEUM

Horse-Gentian. 447. trifida, Moench. (***)
Rocky woods and bluffs.

VIBURNUM

Sweet Viburnum. 448. perfoliatum, L. (**) Clinton Co.(!); Ionia Co.(!); Flint; Macomb Co., etc.

SAMBUCUS

Common Elder. 449. Canadensis, L. (*)
Follows settlements.

Red-berried Elder. 450. pubens, Mx.
More northern in its range than the last. Variety with dissected leaves
seen in Clare county.

Sweet Viburnum. 451. Lentago, L.
Frequent in C. and S., and probably Th.

Black Haw. 452. prunifolium, L.
Dr. Lyons.

With-rod. 453. nudum, L.
Macomb Co.; Hubbardston(!); Stanton(!); Riverdale, Gratiot Co.(!);
Houghton Lk.(!); to L. Superior. Frequent.

Arrow-wood. 454. dentatum, L.
Lansing—Bailey; Macomb Co.—Cooley.

Downy A. 455. pubescens, Ph.
Infr.

Maple-leaved A. 456. acerifolium, L.
L. P. Common.

Dockmackie. 457. pauciflorum, Pylaie.
U. P.

Few-flowered A. 458. Opulus, L. (***)
Swamps and borders of streams.

Cranberry tree. 459. pauciflorum, Pylaie.

Bush Cranberry.
Hobble-bush. American Way-faring tree. 459. lantanoides, Mx. Whitney's Cat. Mr. Whitney found none of the sp. abundant in the U. P.

Rubiaceæ.  

(Madder Family)

**GALIUM**

460. Aparine, L. (***)  
461. asprellum, Mx.  
462. concinnum, Torr. & Gray.  
463. trifidum, L. var. pusillum, Gr.  
464. trifidum, L., var. tinctorum, Gr. (***)  
465. trifidum, L., var. latifolium, Gr.

**Cleavers.**  
**Goose Grass.**  
**Rough Bed-straw.**  

**Small B.**  

466. triflorum, Mx.  
467. pilosum, Aiton.  
468. circæanzs, Mx.

**Wild Liquor-ice.**  

469. lanceolatum, Torrey.  
470. boreale, L.  

**Northern Bed-straw.**  

**Sweet-scented B.**  
**Hairy B.**  
**Wild Liquor-ice.**  

466. triflorum, Mx.  
467. pilosum, Aiton.  
468. circæanzs, Mx.

**Cephalaria**

471. occidentalis, L. (***)  

**MITCHELLA**

472. repens, L. (***)  

**Partridge-berry.**  

472. repens, L. (***)  

**HOUSTONIA**

473. purpurea, L. (?)  
474. purpurea, L., var. longifolia, Gr.  
475. purpurea, L., var. ciliolata, Gr.

**Bluets.**  

476. corulea, L. (?)  

Valerianaceæ.  

(Valerian Family.)

**Valeriana**

477. sylvatica, Mx.  

Sphagnous swamps, local. Frequently cultivated. C. & S., and probably Th.
Valerian. 478. edulis, Nutt. Ann Arbor and Macomb county. S. E. Rare.

FEDIA
Mich.—Gray; Macomb Co.—Cooley.

DIPSACEAE.
(Teasel Family.)

DIPSACUS
Wild Teasel. 481. sylvestris, Mill. C. & S.
Fields and roadsides. Gratiot Co.(!); Ann Arbor; Detroit(!); Flint, etc. Infrequent.

COMPOSITAE.
(Composite Family.)

VERNONIA
River banks. Flint; S. Mich.—Wright's Cat.
Ionia Co.(!); Macomb Co.; Lansing, and South Haven—Bailey.

LIATRIS
Blazing-Star. 484. squarrosa, Willd. (***) C. & S. Dry soil.
Montcalm Co.(!); Macomb Co.; Ann Arbor; Grand Rapids. Infrequent.


Blazing-Star. 486. scariosa, Willd. (***) C. & S. Not common.
Rarely the flowers vary to white. Dry soil.
Low grounds. Near Lansing; Ionia Co.(!); Macomb Co.
Blazing-Star. 488. pycnostachya, Michx. S. Barrens. Near Mont Lake—Miss Clark; Grand Rapids—Coleman's Cat.

KUHNIA
Ionia Co.(!); S. Mich.—Winch. Cat.

EUPATORIUM
Low grounds.
Tall Boneset. 491. altissimum, L. (?) S.
Smooth Boneset. 492. sessilifolium, L. S.
Boneset. Low grounds.
White Snake-root. 494. ageratoides, L. Th. Frequent.
Woods.
## MICHIGAN FLORA.

### CONOCLINIUM

**Mist-Flower.**

495. cœlestinum, DC.


### NARDOSMIA

**Sweet Coltsfoot.**

496. palmata, Hook.

"Swamps, Michigan, rare."—Gray.

### TUSSILAGO

**Coltsfoot.**

497. Farfara, L. (***)

Sault de Ste. Marie—Whitney's Cat.

### ADENOCALON

**Adenocaulon.**

498. bicolor, Hook.

Moist ground. Ontonagon River.

### SERICOCARPUS

**White Topped Aster.**

499. conyzoides, Nees. (?)

### ASTER

**Starwort Aster.**

500. corymbosus, Ait.

Woods.

**Large-leaved Aster.**

501. macrophyllus, L.

Woods.

**Silky Aster.**

502. sericeus, Vent.


### BARRENS

**Spreading Aster.**

503. patens, Ait.

Dry grounds. Ann Arbor; Macomb Co.

**Smooth Aster.**

504. laevis, L., var. levigatus, Gray.

Border of oak woods.

**Azure Aster.**

505. azureus, Lindl.

Sterile soil. Flint; Ann Arbor; Ionia Co. (!); Macomb Co.

**Wavy Aster.**

506. undulatus, L.

Dry copes. Flint; Lansing (!); S. Mich.

**Heart-leaved Aster.**

507. cordifolius, L.

Woods.

**Arrow-leaved Aster.**

508. sagittifolius, Willd.

Dry grounds.

**Heath-like Aster.**

509. ericoides, L., var. villosus, Gr.

Dry places. Ann Arbor; Flint; Drummond's Is.

**Many-flowered Aster.**

510. multiflorus, Ait.

Sandy soil.

511. dumosus, L.

Thickets. Macomb Co.; Petoskey—Dr. D. Clark.

**Tradescants' Aster.**

512. Tradescanti, L.

Low grounds.

**Dwarf Aster.**

513. miser, L., Ait.

Fields. Exceedingly variable.

**Pale Aster.**

514. simplex, Willd.

Shady banks. Flint, etc.

**Thin-leaved Aster.**

515. tenuifolius, L.

Low grounds. Flint; Macomb Co.

**Flesh-colored Aster.**

516. carneus, Nees.

Moist soil. Flint; Macomb Co.
517. àestivus, Ait. Swamps. Ionia Co. (!); Flint; Macomb Co., etc. Th. Frequent.


519. puniceus, L. Low grounds. Th. Frequent.


New England Aster.


522. graminifolius, Pursh. "Lake Superior, and northward"—Gray; Dr. Lyons. U. P.

523. acuminatus, Michx. S. Mich.—Wright's Cat.; U. P.—Whitney's Cat. Th.

524. ptarmicoides, Torr. and Gray. S. E. Michigan; Macomb Co.; and northward.

ERGERON

Horse Weed.


526. acre, L. "Shores of Lake Superior"—Gray; Dr. A. B. Lyons. U. P.

Butter Weed.

Robin's Plantain.

527. bellidifolium, Muhl. Moist banks. C. & S.

Common Fleabane.

528. Philadelphicum, L. (*) Low grounds. Th. Frequent.

529. glabellum, Nutt. Plains. Dr. A. B. Lyons. U. P.

Daisy Fleabane.

530. annuum, Pers. (***) Fields. L. P.

Daisy Fleabane. Sweet Scabious.


DIPLOPAPPUS

Daisy Fleabane.

532. linariifolius, Hook. Dry soil. Dr. A. B. Lyons. Th.

Double-bristled Aster.

533. umbellatus, T. & G. Moist places. Ionia Co. (!); Flint; Macomb Co.; and northward. Th. Frequent.

SOLIDAGO

Golden-rod.

534. bicolor, L. Macomb Co.; Ionia Co. (!). Th. Frequent.

Golden-rod.

535. bicolor, L., var. concolor, Gr. Dry places. Ionia Co. (!); Flint; Macomb Co.; and northward. Appa-

amently more common than the species. Th.

Golden-rod.

536. latifolia, L. Moist woods, frequent. All golden-rods furnish bees with pollen and honey, some, however, more abundantly than others. A great many plants, in fact, furnish bees with honey, and, contrary to a common notion among "bee men," almost every plant one meets, especially if it have showy flowers, is quite likely to be "an excellent bee plant." Th.

Golden rod.

537. cosea, L. Rich woods. L. P.


INULA


POLYMNIA


Yellow Leaf-cup. 560. *Uvedalia*, L. (***) S. Michigan.—Wright's Cat.
SILPHIUM
Rosin-weed.  561. laciniatum, L.  S.
Compass Plant.  S. Mich.—Wright’s Cat.

Prairie Dock.  562. terebinthinaeum, L.  (***)
Oak openings. Ionia (!); Macomb Co.; and southward.  Infrequent

Cup-plant.  563. integrifolium, Michx.
S. W.—University Herb.

564. perfoliatum, L.
S. Mich.—Wright’s Cat.

AMBROSIA
Great Ragweed.  565. trifida, L.  (***
Low grounds along Grand and Maple Rivers, abundant, etc.

Roman Wormwood.  566. artemisiaefolia.  (***
Roadsides. A worthless weed.

Cocklebur.  567. strumarium, L., var. echinatum, Gr.  (**
Waste places and along river banks.

Ox-eye.  568. laevis, Pers., var. scabra, Gr.
Banks.

HELIOPSIS

Purple Coneflower.  569. purpurea, Mœnch.
Univ. Herb.

ECHINACEA

RUDBECKIA

Sunflower.  570. laciniata, L.  (***
Low grounds.

Cone-flower.  571. speciosa, Wenderoth.
Dry soil. Ionia Co. (!); Flint; Macomb Co.; Ann Arbor.

Cone-flower.  572. fulgida, Ait.
Ann Arbor.—Miss Clark; Grand Rapids.—Coleman’s Cat., etc.

Cone-flower.  573. hirta, L.
Dry soil.

LEPACHYS

Sunflower.  574. pinnata, T. & G.
Dry ground. Ionia Co. (!); Grand Rapids; S. Mich.

HELIANTHUS

Sunflower.  575. rigidus, Desf.
Dry soil. Ann Arbor.—Winch. Cat.

Sunflower.  576. laetiflorus, Pers.
Grand Rapids.—Coleman’s Cat.

Sunflower.  577. occidentalis, Riddell.
Sterile soil. Ionia Co. (!); Flint; Grand Rapids; Macomb Co.; etc.

Sunflower.  578. giganteus, L.
Low grounds; variable. Ionia Co. (!); Flint; Ann Arbor; Macomb Co.
Forms of this and the following species are very puzzling, and the two
ought probably to be considered as one polymorphous species.  Com.

Sunflower.  579. grosse-serratus, Martens.
Dry plains. Ionia (!); Grand Rapids, etc.

Frequent.
**Sunflower.**

  - Dry woods.

  - Dry soil.

- 582. *hirsutus*, Raf. C. & S.
  - Dry soil. Flint; Grand Rapids,—Coleman’s Cat.; Ann Arbor; and S. W.

  - Copses. Grand Rapids,—Coleman’s Cat.; S. Mich.—Wright’s Cat.

  - Low grounds.

- 585. *doronicoides*, Lam. C. & S.
  - Banks of Maple and Grand River (!); Ann Arbor; and Grand Rapids.

- *Jerusalem Artichoke.*


**ACTINOMERIS**


**COREOPSIS**

- *Coreopsis.*

  - 588. *lanceolata*, L. C. & S.
    - Sandy shores of Lake Huron; Little Traverse Bay; and Lake Superior.
    - Worthy of cultivation for its showy flowers.

  - Gray, and Lyons.

  - S. Mich.,—Wright’s Cat. Not seen in C. and W. part of the State.


- 592. *aristosa*, Michx. C. & S.

- 593. *trichosperma*, Michx. C. & S.
  - Swamps. Flint; Montcalm Co.(!); Ionia Co.(!); S. Mich.—Wright’s Cat. Common in pine country, infrequent elsewhere. Flowers a beautiful golden yellow. Frequently, in September, swamps of large size may be seen so full of this Coreopsis that at a little distance they seem one mass of yellow.

  - Wet ground. Ionia Co.

**BIDENS**

- *Common Beggarticks.*

    - Low grounds. A troublesome weed.

- *Swamp Beggarticks.*

    - Low grounds.

- *Nodding Bur Marigold.*

    - Wet places.

- *Bur-Marigold.*

    - Swamps.

- *Water Marigold.*

  - 599. *Beckii*, Torr. S. Mich.—Wright’s Cat.; Ann Arbor; Wexford Co.—Cooley. Not observed in the central part of the State.
HELENium

Sneeze-weed.  600.  autunnale, L.  (***)
River tanks.

C. & S.
Common.

MARA
d

Mayweed.
Dog Fennel.

601.  Cotula, DC.  (**)
Roadsides, etc.

Th.
Everywhere very common.

AChIlleA

Common Yarrow.

602.  Millefolium, L.  (**)
Fields.

Th.
Common.

LEUCAN
tHemuM

Ox-eye Daisy.  603.  vulgare, Lam.
Meadows and pastures.  A vile weed, becoming frequent in E. & S. parts
of the State.

Th.

MAtrIcArIA

604.  inodora, L.
Flint.

Rare.

TANAC
etum

Tansy.  605.  vulgare, L.  (**)
Escaped from gardens.

606.  Huronense, Nutt.
Sand dunes at the head of Little Traverse Bay, and northward.

Frequent.

ARTEMISIA

607.  borealis, Pallas.
"Shore of Lake Superior and northward."—Gray.

608.  Canadensis, Michx.

C. N. & U. P.

609.  candida, Michx.
Sandy fields.  Ionia Co. (!); Montcalm Co. (!); S. Haven.—Bailey.

C. & S.

610.  Ludoviciana, Nutt.  var.  gnaphalodes, Gr.
Dry banks.  Niles.—J. T. Seoville; Univ. Herb.

611.  vulgaris, L.  (***)
Waste places.

Infrequent.

612.  biennis, Wild.
A roadside weed, lately introduced and rapidly extending throughout
the State.

Common Mug-wort.

613.  Absinthium, L.  (*)
Ionia Co. (!); Flint; Gratiot Co. (!).  Sparingly escaped from gardens.

614.  frigida, Wild.
"Lake Superior."—Gray.

Biennial Wormwood.

Common Wormwood.

615.  decurrens, Ives.
Fields.  Abundant in the pine region.  Cultivated as an "Immortelle"
in Germany.

Common Ever-last
ing.

616.  polycephalum, Michx.  (***)
Fields.

Th.

C. & S.
Common.

Low Cud-
weed.

617.  uliginosum, L.
Roadsides in clayey soil.

C. & S.
Frequent.

Purplish C.

618.  purpureum, L.
Only reported from Macomb Co. by Dr. D. Cooley.
### ANAPHALIS

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearly Everlasting</td>
<td>619. margaritacea, Benth. &amp; Hook. (***), Montcalm Co. (!); Petoskey (!); and Mackinac.</td>
<td>Infrequent</td>
</tr>
</tbody>
</table>

### ANTENNARIA

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
</table>

### ERECHTHITES

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireweed</td>
<td>621. hieracifolia, Raf. (***), New clearings.</td>
<td>L. P.</td>
</tr>
</tbody>
</table>

### CACALIA

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Plantain</td>
<td>622. suaveolens, L. Lodi.—Miss Clark, in Winch. Cat.</td>
<td>C. &amp; S.</td>
</tr>
<tr>
<td>Pale Indian Plantain</td>
<td>623. atriplicifolia, L. Woods. Ionia Co. (!); S. Mich.—Wright’s Cat.</td>
<td>Frequent.</td>
</tr>
<tr>
<td>Tuberous Indian Plantain</td>
<td>624. tuberosa, Nutt. S. Mich.—Wright’s Cat.</td>
<td>S.</td>
</tr>
</tbody>
</table>

### SENECIO

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Groundsel</td>
<td>625. vulgaris, L. Flint; Macomb Co.; S. W. Mich.—Wright’s Cat.</td>
<td>Th.</td>
</tr>
<tr>
<td>Golden ragwort, Squaw-weed, Life-root</td>
<td>626. aureus, L.</td>
<td>Common.</td>
</tr>
<tr>
<td></td>
<td>627. aureus, L., var. obovatus, Gr. More common southward.</td>
<td>Th.</td>
</tr>
</tbody>
</table>

### ARNICA

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arnica</td>
<td>629. mollis, Hook. “Shores of Lake Superior and N. W.”—Gray; Copper Harbor—Whitney’s Cat.</td>
<td>U. P.</td>
</tr>
</tbody>
</table>

### CNICUS

<table>
<thead>
<tr>
<th>Name</th>
<th>Location/Remarks</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Thistle</td>
<td>630. lanceolatus, Hoffm. Road-sides and fields.</td>
<td>Th.</td>
</tr>
<tr>
<td></td>
<td>632. undulatus (Spreng.). “Islands of L. Huron and Michigan.”—Gray; Drummond’s I.—Winch. Cat.</td>
<td>N. &amp; U. P.</td>
</tr>
<tr>
<td></td>
<td>633. discolor, Muhl. Meadows. Montcalm Co. (!); Ionia Co. (!); Flint; and southward. Flowers sometimes white.</td>
<td>C. &amp; S.</td>
</tr>
<tr>
<td>Tall Thistle</td>
<td>634. altissimus, Wild. Dry fields. Ionia Co. (!); Flint; Macomb Co.</td>
<td>C. &amp; S.</td>
</tr>
<tr>
<td>Swamp Thistle</td>
<td>635. muticus, Ph. Swamps. Flowers sometimes white.</td>
<td>Th.</td>
</tr>
<tr>
<td>Pasture Thistle</td>
<td>636. pumilus, Torr. S. W. Mich.—Wright’s Cat.; Grand Rapids—Coleman’s Cat.</td>
<td>S.</td>
</tr>
<tr>
<td>Canada Thistle</td>
<td>637. arvensis, Hoffm. Fields. A vile pest. Infrequent in centre of the State, but increasing rapidly, and already troublesome in some localities. Our Canada thistle law ought to be rigidly enforced.</td>
<td>Th.</td>
</tr>
</tbody>
</table>
ONOPORDON
638. Acaule, L. 
Grand Rapids (1). 

LAPPA
639. officinalis, All., var. major, Gr. (**)
Waste places.

CICHORIUM
640. Intybus, L. (***) 
Ionia Co.(!); Flint; Detroit, etc. Roadsides.

KRIGIA
641. Virginica, Willd.
Barrens. N. part of Clare Co.(!)

CYNTHIA
642. Virginica, Don.
Moist hillsides.

HIERACIUM
643. Canadense, Michx. (***) 
Woods.

Rough Hawkweed.
644. scabrum, Michx. (***) 
Woods.

Long-bearded Hawkweed.
645. longipilum, Torr.
Fields. Macomb Co.; Traverse City; S. W.—Wright Cat. 

Hairy Hawkweed.
646. Gronovii, L. (***) 
Dry soil. Ionia Co.(!); Flint; Macomb Co.; S. W. Mich.—Wright Cat. 

Rattlesnake weed.
647. venosum, L. (***) 
Dry soil in pine woods, or on oak land. A form has been seen at Ionia not having purple veins in the root leaves. 

Panicled Hawkweed.
648. paniculatum, L. 
Lansing(!); Macomb Co.; S. Mich.—Wright Cat. 

NABALUS
649. albus, Hook. (***) 
Woods.

Tall White Lettuce.
650. altissimus, Hook. 
Rich woods.

651. racemosus, Hook. 
Flint; Macomb Co.; shore of L. Mich., near Sitting Rabbit—Winch. Cat.; S. W.—Wright Cat., etc.

652. asper, Torr. & Gray. (?) 

TARAXICUM
653. Dens-leonis, Desf. (*) 
Fields everywhere.

LACTUCA
654. Canadensis, L. 
Rich soil.

Wild Lettuce.
655. integrifolia, Bigel. (?) 

Wild Lettuce.
656. sanguinea, Bigel. 
Hubbardston(!); Gratiot Co.(!), etc.

False blue Lettuce.
657. foliosa. 
Flint; Macomb Co.; and northward to L. Superior.
Wild Lettuce. 658. pulchella, DC. "Upper Michigan,"—Prof. Porter. U. P.

Wild Lettuce. 659. villosa, Jacq. Macomb Co.—Dr. D. Cooley.


SONCHUS


Field Sow-Thistle. 663. arvensis, L. Grand Rapids—Coleman's Cat.

LOBELIACEÆ. (Lobelia Family.)

LOBELIA


Great Lobelia. 665. syphilitica, L. (***). Low grounds. Flowers vary to white. L. P. Common.


667. spicata, Lam. Oak openings. L. P. Frequent.

Kalm's Lobelia. 668. Kalmii, L. Wet banks, and rocks along shore. Ionia Co. (!); Ann Arbor; Oakland Co. (!); Petoskey (!); to L. Superior. Th. Frequent.


Indian Tobacco.

CAMPANULACEÆ. (Bell-flower Family.)

SPECULARIA


CAMPANULA


Marsh Bellflower. 672. apanoides, Ph. Th. Wet grassy grounds. Common.

ERICACEÆ.

(Heath Family.)

GAYLUSSACIA


VACCINIUM


Low Blueberry. 678. vacillans, Solander. Barrens. Common northward, but rare in C. & S. This species furnishes large quantities of berries for market in the northern lake region. Th.


Bilberry. 681. caesititum, Michx., var. cuneifolium, Nutt. Gray, Fl. N. A.; Lyons. U. P.


Cowberry. 682. myrtillus, L. (?) Woods Lake Superior, S. shore—Robbins. U. P.

Mountain Cranberry. 683. ovalifolium, Smith. N. shore L. Superior—Dr. A. B. Lyons; and probably in our district. U. P.


Large American Cranberry. 685. Oxycoccus, L. Sphagnous Swamps. Th.


CHIOGENES

Creeping Snowberry. 687. hispidula, Torr. and Gray. S. Mich.—Wright's Cat; Ionia Co. (!); Montcalm Co. (!); Petoskey (!), etc. Sphagnous Swamps. Th.

ARCTOSTAPHYLOS

Bearberry. 688. Uva-ursi, Spreng. (*) Sandy soil. Abundant northward, but rare S. of lat. 43°. Th.

EPIGAEA

Trailing Arbutus. May Flower. 689. repens, L. (***) Borders of marshes, and woods in sandy soil. Rare S., frequent in C., and common northward. Specimens with double flowers were found in the vicinity of Hubbardston in 1879.

Ground Laurel.


ANDROMEDA

Wild Rosemary. 691. polifolia, L. Sphagnous swamps, S. Mich.—Wright's Cat.; Ionia Co. (!). Frequent.
CASSANDRA

Leather-leaf. 692. calyculata, Don. Th. Swamp.

KALMIA

Sheep Laurel. 693. angustifolia, L. (***) Th. Lamb-kill.
Hillsides. Tawas City and Thunder Bay, common—Winch. Cat.
Swamp Laur'l. 694. glauca, Ait. (***) Th.
Bogs. S. Mich.—Wright Cat.; Ionia Co.(!); Macomb Co.; northward.

LEDUM

Labrador Tea. 695. latifolium, Ait. (***) C. N. & U. P. Th.
Swamps and bogs. Common northward, but not observed south of Farwell, Clare Co.

CHIMAPHILA

Pipsissewa. 696. umbellata, Nutt. (*) Th. Prince's Pine.
Pine woods. Common.

Spotted Wintergreen. 697. maculata, Pursh. (***) C. & S.
Oak woods. Ionia(!); Bangor and South Haven, Van Buren Co.; Flint.

MONESSES

Moneses. 698. uniflora, Gray. Th. Ore-flowered
Pyrula. Pine forests. Flowers very fragrant when a little wilted. Montcalm
Co.(!); Flint; Ft. Gratiot—Winch. Cat.; and northward.

PYROLA

"Cold woods, L. Superior"—Gray.

Shin-leaf. 700. secunda, L. Th. Wintergreen.
Rich woods.

Pine woods. Rare south of lat. 43°


Pear-leaf 703. rotundifolia, L. Th. Wintergreen.
Dry oak woods.

The Cove, L. Huron—Winch. Cat.

705. rotundifolia, L., var. uliginosa, Gray. Th.
L. Superior—Prof. J. Macoun.

PTEROSPORA


MONOTROPA

Indian Pipe. 707. uniflora, L. Th. Corpse-plant.
Damp woods.

False Beech-drops. Oak and pine woods. Macomb Co.; Ft. Gratiot—Austin; to Ontonagon
River, L. Superior—Whitney Cat.

Infrequent.
MICHIGAN FLORA.

AQUIFOLIACEÆ.

(Holly Family.)

ILEX

Black Alder. Winterberry.

709. verticillata, Gray. (**)
Th.
Low grounds. The bright red berries are very noticeable in swamps during the winter. This shrub is readily transplanted, and should be often planted in small grounds.

NEMOPANTHES

Mountain Holly.

710. Canadensis, DC.
Th.
Borders of swamps. S. Mich.—Wright Cat.; Ionia Co.(!); Montcalm Co.(!); Flint; Macomb Co.; and northward.

PLANTAGINACEÆ.

(Plantain Family.)

PLANTAGO

711. cordata, Lam.
C. & S.
Borders of streams. S. Mich.—Wright Cat.; Tuscola Co.—Winch. Cat.; Ionia Co.(!); Clinton Co.(!); Flint; Macomb Co.
Frequent.

Common Plantain.

712. major, L. (***)
Th.
Waysides and about dwellings everywhere. Decaisne's variety minima occurs in salt marshes,—Maple river, Clinton Co., etc.
Common.

713. Rugelii, Decaisne.
Waste places. Often confounded with the previous species.
Frequent.

Ripple-grass.

714. lanceolata, L. (***)
C. & S.
Meadows and fields.
Too common.

English Plantain.

715. Virginica, L. (?)
Coleman Cat.

PRIMULACEÆ.

(Primrose Family.)

DODECATHEON

Shooting Star. American Cowslip.

716. Meadia, L.
S.
Moist, shaded grounds. Gray, Flora of N. A.; Dr. A. B. Lyons.

PRIMULA

Primrose.

717. farinosa, L.
N. & U. P.
Shores of Little Traverse Bay(!); Drummond's Island—Winch. Cat.; L. Superior—Whitney Cat.

718. Mistassinica, Mx.
S. E.,—University Herb; Lake Superior—Whitney Cat.

TRIENTALIS.

Star-flower. Chickweed. Wintergreen.

719. Americana, Pursh.
Th.
Damp woods.
Common.

STEIRONEMA

Loosestrife.

720. ciliatum, Raf.
Th.
Common.

Loosestrife.

721. lanceolatum, Gray, var. hybridum, Gr.
C. & S.
Low grounds. Exceedingly variable.
Frequent.

Loosestrife.

722. longifolium, Gray.
C. & S.
Banks of streams. Ann Arbor and Ft. Gratiot—Winch. Cat.; Ionia Co.(!); Flint, etc.
Frequent.
LYSIMACHIA

Loosestrife. 723. quadrifolia, L. Sandy soil. Ann Arbor—Winch. Cat.; Ionia Co.(1); Montcalm Co.(1); Flint; Macomb Co.

Loosestrife. 724. stricta, Ait. Borders of marshes. A form of this species was found in a sphagnous swamp near Hubbardston, bearing bulblets in the axils instead of flowers. Frequent.

Tufted Loosestrife. 725. thyrsiflora, L. Swampy soil. Th.

ANAGALLIS

Common Pimpernel. 726. arvensis, L. (***) Ann Arbor—Mary H. Clark.

SAMOLUS

Water Pimpernel. 727. Valerandi, L., var. Americanus, Gray. Springy places. Common along Maple river(1); Flint; Macomb Co.; N. W.—University Herb.

LENTIBULACEÆ.

(Bladderwort Family.)

UTRICULARIA

Bladderwort. 728. vulgaris, L. Th. Slow streams. Throat of corolla orange, veined with brown-purple. Frequent.


Bladderwort. 731. gibba, L. Old Mission, Grand Traverse Co.—E. J. Hill.

Bladderwort. 732. resupinata, B. D. Greene. Very abundant on the east shore of Woodard lake, in Ionia Co., the only known locality in the State. Was found near Erie, Pa., last year. Dr. Wright's U. purpurea is probably this species.

PINGUICULA

Butterwort. 733. vulgaris, L. U. P. Wet rocks. Whitney's Catalogue; Isle Royale,—Dr. A. B. Lyons.

OROBANCHACEÆ.

(Broom-rape Family.)

APHYLLON


CONOPHOLIS

Squaw-root. 736. Americana, Wallr. (***). Moist Woods. Ann Arbor; S. Mich.—Wright Cat.; Ionia Co.(1); Flint; Macomb Co.
EPIPHEGUS

Beech-drops. 737. Virginiana, Bart.  (***)  Beech woods. Ionia Co.(!); Flint; Macomb Co., etc. Very common in Grand-Saginaw Valley.

SCROPHULARIACEÆ.

(Figwort Family.)

VERBASCUM

Common Mullein. 738. Thapsus, L.  (***)  L. P.  Fields and road sides everywhere,—a common weed. Cultivated in England under the name of Aaron’s Rod.

Moth Mullein. 739. Blattaria, L.  Road sides. S. Mich.; Ionia Co.(!); Detroit (!); Lansing (!), etc.

LINARIA


Toad-Flax, Butter and Eggs. 741. vulgaris, Mill.  (***)  Road sides. Spreading from cultivation, but not yet a troublesome weed.

COLLINSIA


743. parviflora, Dougl.  "Shady, moist ground, Upper Michigan."—Gray Fl. N. A.

SCROPHULARIA


CHELONE

Snake Head. 745. glabra, L.  (***)  Th.  Borders of streams. Frequent.

PENTSTEMON


Beard-tongue. 747. laevigatus, Solander, var. Digitalis, Gr. (?)  May occur in the S.

MIMULUS


Monkey-flower. 749. alatus, Solander.  S. W.—Wright Cat.

Monkey-flower. 750. Jamesii, Torr. & Gray.  Abundant at Mackinac—Winch. Cat.; “Upper Michigan.”—Gray. This species reaches its S. limits (?) in Ionia Co.(!), where it is rarely found growing near cool springs.

GRATIOLA

ILYSANTHES
False Pimpernel.
752. gratioloides, Benth. C. & S. Low grounds.

LIMOSSELLA
Mudwort.
753. aquatica, L., var. tenuifolia, Hoffmann. Dr. A. B. Lyons. Frequent.

SYNTHYRIS
Synthyris.

VERONICA
Calver's Physic.

Water Speedwell.

American Brooklime.
757. Americana, Schweinitz. (***)

Marsh Speedwell.
758. scutellata, L. Th. Frequent. Swamps.

Common Speedwell.

Alpine Speedwell.
760. alpina, L. U. P. Winchell Cat.

Thyme-leaved Speedwell.
761. serpyllifolia, L. Th. Frequent. Open grounds.

Purslane Speedwell.

Corn Speedwell.

Neckweed.
764. agrestis, L. Rare. Sandy fields. Coleman Cat.; and Flint.

Buxbaumii, Tenore. Waste grounds. Coleman Cat.

BUCHNERA
Blue-hearts.

GERARDIA
Lousewort Foxglove.
767. pedicularia, L. L. P. Woods.

Downy Foxglove.
768. flava, L. C. & S. Frequent. Open woods.

Smooth Foxglove.
769. quercifolia, Pursh. C. & S. Frequent. Oak woods.

Gerardia.
770. auriculata, Michx. Wright Cat. S.

Gerardia.
771. lævigata, Raf. Coleman Cat.; Flint; Dr. Lyons. S.

Purple Gerardia.
772. aspera, Douglas. C., N. & U. P. Low ground. Ionia Co. (!); Montcalm Co.(!); Sitting Rabbit—Winch. Cat. This species probably reaches its E. limits in Ionia Co.
Purple Gerardia. 773. purpurea, L.  L. P.
   Moist, sandy ground near the Great Lakes.
774. purpurea, L., var. paupercula, Gr.  Oakland Co.(!)
Slender Gerardia. 776. tenuifolia, Vahl., var. asperula, Gr.
   See Bot. Gazette, vol. 4, no. 5.

CASTILLEIA
Scarlet Painted-cup. 777. coccinea, Spreng.  Th.
   Wet and dry grounds. Varies in color of bracts from scarlet to yellow. Common.
778. pallida, Kunth, var. septentrionalis, Gray.
   Lake Superior—Gray.

EUPHRASIA
Eyebright. 779. officinalis, L. (***) U. P.
   “Shore of Lake Superior”—Gray; Isle Royale.—Whitney Cat.

PEDICULARIS
Lousewort. 780. Canadensis, L.  Th.
   Moist banks and woodlands. Common.
Lousewort. 781. lanceolata, Michx.  C. & S.  Frequent.

RHINANTHUS
Yellow Rattle. 782. Crista-galli, L.  U. P.
   “Lake Superior”—Gray, Fl. N. A.

MELAMPYRUM
Cow-Wheat. 783. Americanum, Michx.  Th.
   Sandy woods. Common.

ACANTHACEÆ.
(Acanthus Family.)

RUELLIA
Ruellia. 784. ciliosa, Pursh.  S.
   Dry grounds. Wright Cat.;
Ruellia. 785. strepens, L.  S.
   Dry soil. Wright Cat.

DIANTHERA
Water Willow. 786. Americana, L.  S.

VERBENACEÆ.
(Verbena Family.)

PHRYMA
Lopseed. 787. Leptostachya, L.  C. & S.
   Moist woods. Pt. au Chene—Winch. Cat.; Flint; Macomb Co.; S. Mich.—Wright Cat.; Ionia Co.(!)
   Infrequent.
VERBENA

White Vervain.  788.  urticifolia, L.  (***)

Narrow Leaved Vervain.  789.  angustifolia, Michx.
Dry grounds.  Winch. Cat.  S.

Blue Vervain.  790.  hastata, L.  (***)
Roadsides. Th.  Common.

791.  bracteosa, Michx.

LIPPIA

Frog-Fruit.  792.  lanceolata, Michx.  (?)
Coleman Cat.

LABIATÆ.

(Mint Family.)

TEUCRIUM

Germander.  793.  Canadense, L.  (***)

Horse-weed.  794.  Canadensis, L.

MENTHA

Spearmint.  795.  viridis, L.  (*)
Roadsides. Escaped from cultivation. Frequent.

Peppermint.  796.  piperita, L.  (*)
Along streams. Extensively cultivated in St. Joseph and Wayne counties for the oil. Michigan produces about two-fifths of the world’s crop. St. Joseph county leads in production, followed by Wayne county, and then by Wayne county, N. Y., which is the only other locality in the United States where peppermint is grown to great extent. The annual production in Michigan varies greatly, ranging from 20,000 to 60,000 pounds of oil. Some growers estimate the yield, in exceptionally favorable years, as high as 75,000 pounds. In severe seasons the plants are very apt to winter kill.—T. F. Wood, et al. Common.

Horse-mint.  797.  Canadensis, L.
Low grounds. Th. Common.

LYCOPUS

Bugle-weed.  798.  Virginicus, L.  (***)
Low grounds. Th. Common.

Water Horehound.  799.  sinnatius, Ell.
Th. Frequent.

Water Horehound.  800.  rubellus, Moench.  (***)
Clinton Co.(!)

HYSSOPUS

Hyssor.  801.  officinalis, L.  (***)
Escaped from gardens. Flint; S. W.—Winch. Cat.

Basil.  802.  lanceolatum, Pursh.
Low grounds. Ionia Co.(!); Flint; Macomb Co.; and southward. C. & S. Frequent.

Basil.  803.  linifolium, Pursh.
Ann Arbor—Winch. Cat. S.
THYMUS
Creeping Thyme.
804. *Serpyllum*, L. (***)
Flint; Coleman Cat. Scarcely escaped from gardens.

CALAMINTHA
805. *Nuttallii*, Benth.
Drummond's Island, and northward, common. Not seen in C. of the State; S. E.—Wright Cat.

Basil.
806. *Clinopodium*, Benth.
Fields. Ionia Co. (!); Fort Gratiot—Winch. Cat.; and northward to Lake Superior.

AMERICAN PENNYROYAL
807. *pulegioides*, Pers. (*)
C. & S. Fields. Hubbardston (!); S. Mich.—Wright Cat; Macomb Co. Scarcely escaped from gardens.

MONARDA
808. *didyma*, L. (***)
Rare in Michigan, only reported from one locality: Fort Gratiot—Winch. Cat.

Wild Bergamot.
809. *fistulosa*, L. (***)
Sandy soil. An extract of this aromatic plant has lately been introduced as a "sure cure" of malarial fever. The flowers are sometimes pure white, in which case the albinism extends to the stems also, which are green instead of the usual reddish-brown, or purple. Common.

Horse-mint.
810. *punctata*, L. (*)

BLEPHILIA

812. *hirsuta*, Benth.
C. & S. Low woods. Ionia Co. (!), where it is frequent; S. Mich.—Wright Cat.

Giant Hyssop.
813. *nepetoides*, Benth.
C. & S. Low grounds. Ionia Co. (!); Flint; Lansing (!); S. W.—Wright Cat; Grosse Isle—Miss Clark. Infrequent.

GIANT HYSSOP
814. *scrophulariaefolius*, Benth.

NEPETA
815. *Cataria*, L. (*)

816. *Glechoma*, Benth. (***)
C. & S. Sparingly escaped from culture. Flint; Grand Rapids—Coleman Cat.

DRACOCEPHALUM
817. *parviflorum*, Nutt.
This interesting plant was first detected in the Lower Peninsula in June, 1876, when it was found in Roscommon Co., a little south of Houghton Lake. Its range is northward to Lake Superior.—Gray.

SCUTELLARIA
818. *lateriflora*, L. (*)

Skullcap. Banks of streams. S. Mich.—Wright Cat. S.

820. *canescens*, Nutt. (?)
Coleman Cat., etc.
Skullcap. 821. pilosa, Michx.  S. W.  —Winch. Cat.; Gray, Fl. N. A.
Skullcap. 822. parvula, Michx.  Ionia (!).  Infrequent.
Skullcap. 823. galericulata, L.  (**)
Low grounds.  Th.  Common.

BRUNELLA
Self-heal, or Heal-all.  824. vulgaris, L.  (***)
Fields. Occasionally the flowers are white.  Th.  Common.

PHYSOSTEGIA
False Dragon Head.  825. Virginiana, Benth.

MARRUBIUM
Horehound.  826. vulgare, L.  (*)
Roadsides escaped from cult. Ionia Co. (!); Flint; S. Mich.—Winch. Cat.  Th.  Frequent.

LEONURUS
Motherwort.  827. Cardiaca, L.  (***)

LAMIUM
Dead-Nettle.  828. amplexicaule, L.  (***)
Ionia (!), common.  L. P.  Common.

GALEOPSIS
Hemp Nettle.  829. Tetraphis, L.  (***)
Rare in C. of the State. Abundant at Mackinac—Winch. Cat.  Th.  Frequent.
Red Hemp Nettle.  830. Ladanum, L.

STACHYS
Hedge Nettle.  831. aspera Michx.
Wet grounds.  S.  Frequent.
Hedge Nettle.  832. hyssopifolia, Michx.
Wet grounds. S. Mich.—Wright Cat.  Th.

BORRAGINACEÆ.
(Borage Family.)

CYNOGLOSSUM
Hounds-tongue.  833. officinale, L.  (***)
Roadsides.  Th.  Frequent.
Wild Comfrey.  834. Virginicum, L.
Open Woods.  Th.  Frequent.

ECHINOSPERMUM
Beggars' Lice.  835. Virginicum, Lehman.
Woods.  Th.  Frequent.
Stick-seed.  836. Lappula, Lehman.
A worthless weed along roadsides and in waste places.  L. P.
MICHIGAN FLORA.

MERTENSIA

837. Virginica, DC. (***)
  Common in gardens. Coleman Cat.; Lyons.
  U. P.

838. paniculata, Don.
  Whitney Cat.; Gray, Fl. N. A.

MYOSOTIS

839. verna, Nutt.
  Winch. Cat.; Coleman Cat., etc.

LITHOSPERMUM

840. arvense, L.
  C. & S.
  In wheat fields. A bad weed which is being rapidly distributed
  by threshing machines. Farmers should be on their guard. It may be
  known by its branching stems, narrow, rough leaves, small white flow-
  ers, and gray, bony seeds.

841. officinale, L. (***)
  Th.
  Roadsides.

842. latifolium, Michx.
  C. & S.
  Borders of woods. S. Mich.—Winch. Cat.; Ionia Co.(!); Flint, etc.
  Frequent.

843. canescens, Lehm.
  Th.
  Sandy fields. Ann Arbor.—Winch. Cat.; Ionia Co.(!); Macomb Co.

844. hirtum, Lehm.
  Th.
  Light sand. Flowers bright yellow, showy.

845. angustifolium, Michx. (?)
  Frequent.
  Credited to the State by Dr. A. B. Lyons, and may be looked for in the
  extreme S. W.

ONOSMIDIUM

846. Carolinianum, DC.
  Only noticed by Dr. D. Cooley, Macomb Co.

SYMPHYTUM

847. officinale, L. (***)
  Infrequent.
  Escaped from gardens.

BORRAGO

848. officinalis, L.

HYDROPHYLLACEÆ.

(Waterleaf Family.)

HYDROPHYLLUM

849. Virginicum, L.
  Rich woods.
  C. & S. Frequent.

850. Canadense, L.
  Damp rich woods.
  C. & S. Frequent.

851. appendiculatum, Michx.
  Moist hillsides and rich woods.
  C. & S. Frequent.

PHACELIA

852. Franklinii, Gray.
  "Shores of L. Superior, especially on Isle Royale."—Gray; and Dr. A. B.
  Lyons.
PHLOX

Hairy Phlox. 833. pilosa, L. C. & S.
Dry, sandy fields. Flowers bright rose, or rarely pure white. Deserves a place in the garden. Ann Arbor—Winch. Cat.; Ionia Co.(?); Flint; Macomb Co., etc.

Divaricate Phlox. 854. divaricata, L. C. & S.
Woods and fields.

Ground or Moss Pink. 855. subulata, L. Common.

CONVOLVULACEÆ.

(Convolvulus Family.)

IPOMEA

Wild Potato-vine. 856. pandurata, Meyer. (***) Common.
Man-of-the-Earth.

CONVOLVULUS

Low Bindweed. 857. spíthaméus, L. Th. Infrequent.
Sandy fields.

Hedge Bindweed. 858. sepíum, L. Th. Common.
Low grounds. Very variable.

CUSCUTA

Dodder. 859. chlorocarpa, Engelmann. S. W.
S. Haven—Mrs. Millington.

Dodder. 860. Gronovií, Wildl. C. & S.
Low grounds.

Dodder. 861. glomerata, Choisy. (?) Frequent.
"Wet prairies, Ohio to Wisconsin."—Gray.

Dodder. 862. tenuíflora, Engelm. C. & S.
Maple River valley(!); Coleman Cat.

SOLANACEÆ.

SOLANUM

Common Nightshade. 863. nigrum, L. (***) Common.
Black N.
Moist, cultivated fields.

Bittersweet. 864. Dulcamara, L. (*) C. & S.
Roadsides.

PHYSALIS

Ground Cherry. 865. grandiflora, Hook. N. & U. P.

Grand Rapids—Coleman Cat.

Ground Cherry. 867. Virginiana, Mill. (***) C. & S.
Light, sandy soil.

Ground Cherry. 868. lanceolata, Michx. Frequent.
Sandy soil. Ionia Co. (?), etc.
Ground Cherry. 869. *pubescens*, L. (***)

Common throughout the pine country. Ann Arbor—Winch. Cat.; Montcalm Co., etc.

NICANDRA 870. *physaloides*, Gaertn. (***)

Gardens. Ann Arbor—Winch. Cat.; Flint; Ionia Co. (!)

Scarce.

Matrimony Vine. 871. *vulgare*, Dunal. (***)

Escaped from gardens in some places.

HYOSCYAMUS 872. *niger*, L. (*)

Macomb Co.; Ft. Gratiot; Mackinac, abundant—Winch. Cat.

DATURA 873. *Stramonium*, L. (*)

Roadsides.

874. *Tatula*, L. (***)

Flint; Macomb Co.

Rare.

NICOTIANA 875. *rustica*, L. (***)

Emmet Co., cultivated by the Indians—Winch. Cat.

ERYTHRÆA (Gentian Family.)


Lansing—Bailey.

Adv. and rare.


SABBATIA 878. *crinita*, Fröl.

Low grounds. Ann Arbor—Winch. Cat.; Lansing and So. Haven—Bailey; Mackinac—Whitney; Ionia Co. (!), etc.


With the last.

Th. Common.

Five-flowered Gentian. 880. *quinqueflora*, Lam. (***)

Moist hillsides. Ann Arbor—Winch. Cat.; Ionia Co. (!)

Occasional.


Ann Arbor—Winch. Cat.

Blue Gentian. 882. *puberula*, Michx. (**)

Barrens. Ann Arbor—Miss Clark, Miss Allmendinger.

Saponaria, L. (***)

Moist woods. Macomb Co.; S. Mich.—Wright Cat.

Closed Gentian. 884. *Andrewsii*, Griesb. (***)

River banks.
Whitish Gentian.

885. alba, Muhl. Th.
Low meadows and borders of woods. Ionia Co. (!); Clinton Co. (!); Ann Arbor and S. W.—Winch. Cat.; to L. Superior. Rare or local.

886. linearis, Froel., var. lanceolata, Gr. N. & U. P.

American Columbo.

FRAEIRA

887. Carolinensis, Walt. (**)
Rich, dry soil. Jackson Co. and westward—Winch. Cat.; Ann Arbor—Miss Clark; Grand Rapids (!); Macomb Co. C. & S.

Spurred Gentian.

HALENIA

888. deflexa, Griesb. N. & U. P.
Shore of Little Traverse Bay, near Harbor Point (!); Drummond's Is. and St. Helen's Is.—Winch. Cat.; northward to L. Superior. Frequent.

Bartonia.

889. tenella, Muhl. Th.
Open woods. S. Mich.—Wright Cat.; Hubbardston (!); Flint. Rare.

Buckbean.

MENYANTHES

890. trifoliata, L. (***) Th.
Bogs. Common.

APOCYNACEÆ.

(Dog-bane Family.)

APOCYNUM

891. androsemifolium, L. (**)
Borders of woods. Th.
Common.

Indian Hemp.

892. cannabim, L. (**)
Low grounds. Exceedingly variable in size, habit, shape of leaves, pubescence, etc. De Candolle's varieties glaberrimum and pubescens occur, but also intermediate forms, rendering useless any sub-specific names. Th. Common.

ASCLEPIADACEÆ.

(Milkweed Family.)

ASCLEPIAS

893. tuberosa, L. (**)

Purple Milkweed.

894. purpurascens, L. C. & S.
Woods. Ann Arbor.—Winch. Cat.; Ionia Co. (!); Clinton Co. (!); Flint; Macomb Co. Frequent.

Indian Hemp.

895. incarnata, L. (**)
Banks of streams. Th. Common.

Milkweed.

896. Cornuti, Decaisne. (**)

Poke Milkweed.

897. phytolacoides, Pursh. (***) C. & S.
Moist grounds. Ann Arbor; Ft. Gratiot.—Winch. Cat.; Ionia Co. (!); Lansing (!); Flint; Macomb Co. Infrequent.

Four-leaved Milkweed.

898. quadrifolia, L. (?) Ann Arbor.—Winch. Cat.

Whorled Milkweed.

899. verticillata, L. (***) S.
Barrens. S. Mich.—Wright Cat. Infrequent.
ACERATES

Green Milkweed.

900. viridiflora, Ell.

Ft. Gratiot.—Winch. Cat.; S. W.—Wright Cat.

C. & S.

Rare.

OLEACEÆ.

(Olive Family.)

FRAXINUS

White Ash.

901. Americana, L.

Not frequent enough N. and in U. P. to be of economic importance. Moist woods. A valuable timber tree of medium size, which on account of the toughness, elasticity, and beauty its wood is much used for cabinet making, wainscoting, carriage making, handles of scythes, rakes, etc., etc. Ought to be planted oftener for shade and ornament.

Common.

Red Ash.

902. pubescens, Lam.


Said to occur in the S. part of the State.

Green Ash.

903. viridis, Michx. f.

Ann Arbor.—Winch. Cat.

Scare.

Blue Ash.

904. quadrangulata, Michx.

Rich woods. "Large timber tree, the inner bark yielding a blue color to water."—Gray, Fl. N. A. This tree is frequently confounded with White Ash, from which it may easily be distinguished by its square branchlets. Wood valuable.

Frequent.

Black Ash.

905. sambucifolia, Lam.

A common tree in swamps; less valuable than white ash. Wood used for hoops, basket work, etc. Also beginning to be used for inside finishing in houses—doors, cabinets, etc. Black ash doors with hard maple panels, finished in oil, are said to present a very pleasing appearance, and to be both inexpensive and durable.

Common.

ARISTOLOCHIACEÆ.

(Birthwort Family.)

ARISTOLOCHIA

906. Serpentina, L. (?)

Said to occur in the S. part of the State.

ASARUM

Asarabacca.

907. Canadense, L. (**)

Wild Ginger.

Coltsfoot.

Moist woods.

Phytolaccaceæ.

(Poke-weed Family.)

PHYTOLACCA

Garget.

908. decandra, L. (**)

Poke. Soke.

Pigeon Berry.

Fields. The young shoots in spring may be eaten like asparagus.

Frequent.

CHENOPODIACEÆ.

(Goosefoot Family.)

CHENOPODIUM

Lamb's Quarters.

909. album, L.

Pigweed.

Waste and cultivated ground.

Oak-leaved

Glaucescens.

Goosefoot.

910. glaucum, L.

Lansing, College grounds.

Common.
911. urticum, L., var. rhombifolium, Moquin.
Waste grounds. Ionia Co. (!); Flint; Grand Rapids—Coleman Cat.
Infrequent.

912. hybridum, L.
Waste grounds.

913. murale, L.
Grand Rapids—Coleman Cat.
Rare.

914. Botrys, L. (***)
Escaped from gardens. Abundant in places.

915. ambrosioides, L. (***)
Waste places. Macomb Co.; Ann Arbor—Miss Clark; S. W.—Wright Cat.
Scarce.

BLITUM

916. capitatum, L.
Dry, rich grounds. Very noticeable from the fleshy, bright-red calyx.
Common.

917. Bonus Henricus, Reich.
Flint.
Scarce.

ATRIPLEX

918. patula, L., var. hastata, Gr.
Common at Detroit.—Dr. A. B. Lyons.

CORISPERMUM

919. hyssopifolium, L.
S. Haven—Bailey; and northward to L. Superior, along the shores of the Great Lakes.

AMARANTACEÆ.
(Amaranth Family.)

AMARANTHUS

920. hypochondriacus, L. (***)
Scarcey escaped from gardens. Ann Arbor—Miss Clark.

921. retroflexus, L.
A common weed in gardens.

922. albus, L.
Fields and gardens, less troublesome than the preceding species.
Frequent.

ACNIDA

923. tuberculata, Moquin-Tandon.

POLYGONACEÆ.
(Buckwheat Family.)

POLYGONUM

924. viviparum, L. (***)
Shore of L. Superior—Gray; Isle Royale, common.—Whitney Cat.

925. orientale, L.
Sparingly escaped from gardens.

926. Careyi, Olney. (?)
Grand Rapids.—Coleman Cat.

927. Pennsylvanicum, L.
Low grounds. Ionia Co.(!); Clinton Co.(!); Flint; S. Mich.—Wright Cat.
Frequent.
Lady’s Thumb.

Common Smartweed, or Water-pepper.

Water Smartweed.

Mild Water-pepper.

Water Persicaria.

Water Persicaria.

Joint-weed.

Door-weed.

Knotgrass.

Goose-grass.

Erect knotgrass.

Slender Knot-grass.

Halberd-leaved Tear-thumb.

Arrow-leaved Tear-thumb.

Black Bindweed.

Climbing False Buckwheat.

Buckwheat.

FAGOPYRUM

Buckwheat.

FAGOPYRUM

928. _incarnatum_, Ell.
River banks. Ionia Co.(!); Grand Rapids—Coleman Cat. C. & S. Frequent.

929. _lapithifolium_, Ait.
L. Superior—O. B. Wheeler. U. P.

930. _Persicaria_, L. (***)

931. _Hydropiper_, L. (***)
Moist grounds. Th.

932. acre, HBK. (***)

933. _hydropiperoides_, Michx. (***)
Wet places. C. & S.

934. _amphibium_, L., var. aquaticum, Willd.

935. _amphibium_, L., var. terrestre, Willd.
E. shore L. Huron.—J. Macoun; Ionia Co.(!); Flint; Grand Rapids C.

936. _Hartwrightii_, Gray.
Kalamazoo—Tuthill.

937. _Virginianum_, L.
Thickets. C. & S. Common.

938. _articulatum_, L.
Traverse City—Winch. Cat.; L. Superior—Whitney Cat. N. & U. P.

939. _avicular_, L. (***)
The commonest of weeds. Th.

940. _erectum_, L.
Waste places with the preceding species. Common.

941. _ramosissimum_, Michx.
Banks of streams. Th.

942. _tenue_, Michx.
Sterile soil. S. Mich.—Wright Cat.; common in Ionia Co.(!); Macomb Co. L. P.

943. _arifolium_, L.

944. _sagittatum_, L.
Low grounds. Th.

945. _Convolvulus_, L.
Waste grounds. S. W.—Wright Cat.; Flint; Macomb Co. C. & S. Infrequent.

946. _cilinode_, Mx.
Copes. S. Haven—Bailey; Lyons, and northward. Th.

947. _dumetorum_, L.
Moist thickets. Common.

FAGOPYRUM

Buckwheat.

FAGOPYRUM

948. _esculentum_, Mœnch.
Persistent in fields.

RUMEX

Great Water dock.

949. _orbiculatus_, Gray.
Wet places. S. Mich.—Winch. Cat.; Ionia Co.(!); Flint; Macomb Co.; and northward. Th.

Pale Dock.

950. _Britannica_, L. (***)


Curled Dock. 953. crispus, L. (**) Th. Yellow D.

Bitter Dock. 954. obtusifolius, L. (***). Th. Field or Sheep Sorrel.


Field or Sheep Sorrel. 956. Acetosella, L. (***). Th. Common.

LAURACEÆ. (Laurel Family.)

SASSAFRAS

Sassafras. 957. officinale, Nees. (*) C. & S. Woods—sandy soil. A shrub or low tree, not found north of the C. of the State. Frequent.

LINDERA

Spice-bush. 958. Benzoin, Meisner. (***). C. & S. Benjamine-
bush. Frequent.

THYMELEACEÆ. (Mezereum Family.)

DIRCA


ELÆAGNACEÆ. (Oleaster Family.)

SHEPHERDIA


SANTALACEÆ. (Sandalwood Family.)

COMANDRA

Bastard Toad-

962: livida, Richards. N. & U. P. “Sandy shores, L. Superior.”—Gray; Traverse City—Dr. A. B. Lyons; Isle Royale—Whitney Cat.
SAURURACEÆ.

(Lizard's-tail Family.)

SAURURUS


Hornwort.  964. demersum, L.  Th.  Common.

CERATOPHYLLACEÆ.

(Hornwort Family.)

CERATOPHYLLUM

Ponds. Fruit in August.

CERATOPHYLLUM

Hornwort.  964. demersum, L.  Th.  Common.

CALLITRICHACEÆ.

(Water-Starwort Family.)

CALLITRICHE

(Water-Starwort Family.)

Water-Starwort.  965. verna, L. (***)  Th.

Water-Starwort.  966. autumnalis, L.  Rivers. Flint—Dr. Daniel Clark; to Lake Superior—Gray.

PODOSTEMACEÆ.

(River-weed Family.)

PODOSTEMON

River-weed.  967. ceratophyllus, Michx.  Dr. A. B. Lyons.

EUPHORBIACEÆ.

(Spurge Family.)

EUPHORBIA


Spotted Spurge.  969. maculata, L. (***)  C. & S.  Frequent.

Roadsides and fields, everywhere. One of the few northern plants, observed by Prof. A. N. Prentiss in Brazil.


Flowering Spurge.  971. corollata, L. (***)  C. & S.

Sandy soil. A weed difficult to eradicate on account of its deep roots. Beginning to be cultivated by gardeners for its abundant, small, white flowers. Its milky juice is acrid-poisonous.

972. platyphylla, L.  Macomb Co.; "Along the Great Lakes."—Gray.

973. Helioscopia, L. (***)  C. & S.  Common at Detroit.—Dr. A. B. Lyons.

MICHIGAN FLORA.

975. Cyparissias, L. (***)
Garden Spurge. Door-yard S. Escaped from cultivation. Frequent.


ACALYPHA

Three-seeded Mercury.


EMPETRACEÆ.
(Crowberry Family.)

EMPETRUM

Black Crowberry.

978. nigrum, L. Whitney Cat. U. P.

URTICACEÆ.
(Nettle Family.)

ULMUS

Slippery Elm. Red Elm.

979. fulva, Michx. (*)
Rich soil. Wood reddish, tough and hard. The inner bark mucilaginous and much used in medicinal preparations. Frequent.

White Elm. American Elm.

980. Americana, L. (***)
Low grounds. Wood tough, fine grained, valuable, used for wagon hubs, etc. One of our finest ornamental trees. Common.

Rock Elm.

981. racemosa, Thomas.
River banks. Wood similar to the last but more valuable; takes a fine polish. A large, fine tree, frequently planted. Frequent.

CELTIS


982. occidentalis, L.
River banks. Sap wood, yellow, inner wood, grayish, coarse grained, soft and of little value, used for fuel. A medium or large sized tree. Frequent.

MORUS

Red Mulberry.

983. rubra, L. (***)
A small tree on river bottoms. Wood valuable. Wayne Co.; Ionia Co. (!); Lansing (!). The largest specimen observed grows near Ionia, and measures fourteen inches in diameter two feet above the ground. Frequent as far north as latitude 43°, where the abundant fruit ripens the last of June.

URTICA

Tall Wild Nettle. Great Stinging Nettle.

984. gracilis, Ait.
Moist ground. Th. Common.

985. dioica, L. (***)
Waste places. Th. Occasional.

LAPORTEA

Wood Nettle. Cursed Nettle.

986. Canadensis, Gaud. (***)

PILEA

Richweed.

987. pumila, Gray.
Low woods. C. & S. Common.

BOEHMERIA

False Nettle.

988. cylindrica, Willd.
Moist ground. C. & S. Common.
MICHIGAN FLORA.

PARIETARIA

CANNABIS

HUMULUS

PLATANACEÆ.

(Plane-tree Family.)

PLATANUS
Platanus. 992. *occidentalis*, L. C. & S.
Along our rivers. "The largest tree of the Atlantic forest."—Sargent. Presents a striking appearance by reason of its mottled bark, which is rarely more than one-sixteenth of an inch thick. Wood reddish, tough, and unwedgeable; can be used in short sections for cabinet work, sewing machines, tables, etc., but is very liable to warp. Frequent.

JUGLANDACEÆ.

(Walnut Family.)

JUGLANS
Low, rich woods. A medium-sized tree, often planted. The wood is lighter and softer than the next, but takes a fine polish—used in cabinet making and in houses in inside finishing. Recommended, in connection with lighter woods, for wainscoting, mouldings, etc., where black walnut would have too glaring and pronounced an appearance; makes good doors—not liable to warp. Common.

Black Walnut. 994. *nigra*, L. (***) C. & S.
One of our most valuable timber-trees, and more used in cabinet-making than any other. At its present rate of consumption, the black walnut in Michigan will soon be a thing of the past. Frequent.

CARYA
Shag-bark Hickory. 995. *alba*, Nutt. (***) C. & S.
Timber very valuable; used wherever great durability, strength, and elasticity are required. *C. microcarpa*, Nutt., occurs and seems to be distinct. Common.

Western Shell-bark Hickory. 996. *sulcata*, Nutt. C. & S.
River bottoms. Ionia Co.(!), where it reaches its northern limits. Rare. except in the extreme south.

Dry woods. Flint; Grand Rapids—Coleman's Cat. Rare.

Pignut. 998. *porcina*, Nutt. C. & S.

Bitternut. 999. *amara*, Nutt. C. & S.
Moist soil. No member of this family gets much north of lat. 43°. Common.
CUPULIFERÆ.

(Oak Family.)

**QUERCUS**

White Oak.

1000. *alba, L. (*) Th.*
Rich woods. Rare in U. P., Menominee Co.—Burt MS. Cat.; etc. Our most valuable species. Much used in inside finishing, carriage-making, etc., etc., wherever a strong, durable, and beautiful timber is desired.

Bur Oak.

1001. *macrocarpa, Michx. (*** C. & S.*
Rich soil.

Swamp White Oak.

1002. *bicolor, Wild. C. & S.*
Low ground. A large tree. Scales of the involucre often bear galls which resemble abortive acorns.

Yellow Chestnut Oak.

1003. *Muhlenbergii, Engelm. C. & S.*

Dwarf Chestnut Oak.

1004. *prinoides, Wild. C. & S.*
A low shrub or small tree. Macomb Co.; Hubbardston (!); Muir (!); Gratiot Co. (!). This and the preceding seem to run together.

Laurel or Shingle Oak.

1005. *imbricaria, Michx. (S.*

Black Jack Oak.

1006. *nigra, L. (?) Rare.*
Said to occur in the extreme S. W.

Scarlet Oak.

Inner bark reddish; scales of involucre, brown, glabrate, appressed. In the C., this species blossoms and puts forth its leaves about two weeks earlier than the next, and the leaves are smooth and glossy before the leaves of the next have become well divested of their reddish down.

Black Oak.

1008. *tinctoria, Bartram. (*) Th.*
Inner bark bright yellow; scales of involucre yellowish-canescent, somewhat squarrose; leaves less pinnatifid, more *ovulate in outline and less glossy-green than those of *Q. coccinea.* This species and the preceding occur together in the C. and are seldom large—usually 40-50 ft., and 12-13 inches in diameter. Considerable study has shown no gradations between the two forms, except one anomalous specimen, with very long acorns, and some characteristics of both species.

Red Oak.

1009. *rubra, L. (*** Th.*
Wood reddish, coarse; used chiefly for fence rails and fuel. In the C. & S., a large tree; in the N. either a very large tree, (Emmet Co.—Winchell), or, at Petoskey, a low tree or tall shrub(!); in U. P., along the shore, a low shrub or scraggy tree (the common form), or, in Ontonagon valley, a good-sized tree—Whitney. *Q. ambigua* Mx., apparently belongs here.—(See Engelm. "Oaks of the U. S." Tr. Ac. Sc., St. Louis, Vol. III.) "One of the most variable of the Atlantic species." —Engelmann.

**CASTANEA**

1010. *vulgaris, var. Americana, A. DC. (*** S. E.*
Occurs rarely in the S. E. Does well when planted, at least as far north as lat. 44°; Macomb Co.; Wayne Co.; Monroe Co.; Ann Arbor—Dr. Steere.

**FAGUS**

Beech.

1011. *ferruginea, Ait. Th.*

**CORYLUS**

Wild Hazelnut.

1012. *Americana, Walt. (*** Th.*
Thickets.
Beaked Hazel. 1013. rostrata, Ait. (***)
Lansing—Bailey, probably its southern limit; Hubbardston(!); and common northward.

OSTRYA
1014. Virginica, Wild.
Rich woods.

CARPINUS
1015. Americana, Michx.
Th. (??)
Along streams. Wood of this and the preceding tough and durable; used for wedges, levers, etc.

MYRICACEÆ.
(Sweet Gale Family.)

MYRICA
1016. Gale, L. (***)
Swamp near Crooked Lake, Emmet Co.(!); Manistee—E. J. Hill; Isle Royale—Dr. A. B. Lyons.

Carp. Tree.

COMPTONIA
1018. asplenifolia, Ait. (***)
Th.
South—Wr. Cat.; Detroit—Dr. A. B. Lyons. Very common in the center of the State and northward throughout the pine country, of which it is a characteristic species.

BETULACEÆ.
(Birch Family.)

BETULA
1019. lentia, L. (***)
Th.
Ann Arbor—Allmend. Cat.; S. Haven—Bailey; near Lansing—Prof. W. J. Beal; Hubbardston(!); Flint; and northward to L. Superior. Rare in the south, but attains a "monstrous size" on Drummond's L.—Winch. Cat.

Yellow Birch.
1020. lutea, Michx., f.
Th.
Ann Arbor—Winch. Cat.; S. Haven—Bailey; to L. Superior. "Common along the line of the F. & P. M. R., and northward to the Traverse country; a large tree; timber valuable."—Prof. W. J. Beal. Rare south of the Grand-Saginaw valley.

Paper Birch.
1021. papyracea, Ait. (***)
Th.
Extends southward to Lansing and perhaps further. Frequent at Crystal Lake, Montcalm Co.(!) as a small tree. Often springs up, forming a dense thicket, where pine lands have been burned over. Bark separating into thin, papery strips, used by Indians for canoes, basket-work, etc. A large tree at the north.

Low Birch.
1022. pumila, L.
Th.
Swamps.
1023. glandulosa, Michx.
Burt’s MS. Cat.

ALNUS
1024. viridis, DC.
"Dry rocky land"—Whitney Cat.; Isle Royale—Dr. A. B. Lyons. Common.

Speckled or 
Hoary Alder.
1025. incana, Wild. (***)
Th.
Borders of streams. The prevailing Alder in center of the State and in U. P.
Smooth Alder.  1026.  serrulata, Ait.  (***)  Th.
Macomb Co.; Traverse City and S. Mich.—Winch. Cat.; Burt, MS. Cat.
Rare or local.

SALICACEAE.
(Willow Family.)

Rarer sp. determined by M. S. Bebb, of Fountaindale, Illinois.

SALIX

Hoary Willow.  1027.  candida, Willd.  Th.
Usually in Tamarack swamps. Rare in S. part of the State.
Com.

Prairie Willow.  1028.  humilis, Marshall.  Th.
Not reported south of Lansing. Common along the line of D. M. & G. H.
R. R.; Ionia Co. (!) and northward to Marquette Co.—Burt MS. Cat.

Glaucous Willow.  1029.  discolor, Muhl.  (***)  Th.
River banks. This species and the preceding are much visited by bees in
early spring for pollen and honey.
Common.

Drummonds’ Ts.—Winch. Cat.; Ionia Co. (!); and southward to S. Haven—
Bailey. Very common in central part of the State.

Petioled Willow.  1031.  petiolaris, Smith.  Th.
With the last. From Sault St. Marie southward. Ionia Co. (!); Lansing—
Bailey.

Basket Osier.  1032.  viminalis L.  Th.
Woodard Lake, Ionia Co. (!); S. Haven.—Bailey.

Heart-leaved Willow.  1033.  cordata, Muhl.  Th.
Along streams. Narrow-leaved forms occur in the central and southern
parts of the State; at Petoskey (!), broadly ovate-heart-shaped leaved
forms occur.
Common.

Glaucous Willow.  1034.  glaucocephylla, M. S. Bebb, sp. nov. ined.
Hubbardston (!); Petoskey (!); frequent along the shores of Little Trav-
erse Bay (!). Has been confounded with & Barcayi, Anders. (See Bot.
Gaz., March, 1878.)
The following notes and description of this interesting species and its
varieties have been furnished by Mr. Bebb, who is preparing a Mono-
graph on the Salixesese:

"S. glaucocephylla, n. sp. Leaves broadly ovate or elliptical lanceolate,
rounded or narrowed at base, apex more or less cuspitate acuminate,
coraceous in texture, glabrous, dark green above except the yellowish
mildly, intensely glaucous and obscurely reticulate veined beneath,
the young drying black, margin sharply serrate with glandular indexed
serratures, petioles short downy, stipules ovate, serrate; amnts with
lent-like bracts at base, thick, cylindrical, densely flowered appearing
with the leaves, when in flower about one inch long; the fertile when
mature sometimes very large, 3 inches long, ¾ in. thick; capsules elong-
eted-conical from an ovate base 3-5 lines long, glabrous, greenish,
turning brown in drying; pedicels 4-5 times the length of the nectary,
concealed by the copious long white hairs with which the scales are
clothed; style produce; stigma short thick, entire or 2-lobed.

Var. latifolia. Leaves crowded, broadly ovate-lanceolate, rounded or
sub-cordate at base, 3-4 inches long, nearly 2 inches wide, stipules con-
spicuous, reniform. Chicago, Babcock, exsic. Nos. 3, 4, 15, 16, 47;
Madison, Wisconsin, S. J. Watson, in Herb, Canby. Fountaindale (!).

Var. angustifolia. Leaves lanceolate cuspitate, narrowed at base, 3 in.
long, ¾ in. wide; stipules small, often wanting; amnts elongated-
cylindrical. Chicago, Babcock, exsic. 14, 28, 45, 25, 8.

Var. brevifolia. Leaves obovate, acute, wedge-shaped at base, ½ inches
long, 5-6 lines wide, prominently reticulate veined; stipules none.
Leaves strikingly like those of S. arbuscula. Sand dunes, Little Trav-

Ten years ago I was inclined to regard this as a robust variety, of S.
cordata, but in a constantly increasing accession of specimens, from the
most luxuriant growth down to the starveling of the arid sand dunes of
Lake Michigan, it was always clearly recognizable as something dis-
tinct from & cortata. I next tried to find a place for it under & Barcayi
Anders., being misled by the author’s assertion that & Barcayi was
very nearly related to S. cordata, of which it might be regarded as a
"racem modification occidentalis robustior," with "shorter and broader
leaves" "turning black," etc.; misled, also, by the figure in the Mono-
graphia Salicimn, which, whatever it may represent, was certainly not
drawn from the type specimen of S. Barclayi. This (& Barclayi) was published as a new species in the author's preliminary Synopsis of N. A. Willows, 1858, based wholly upon a single specimen (in Herb. Hook.) from Kodiak, Barclay, and on p. 31, l. c., it was arranged in a group of American species, "manifestly representing European types" as "be-
longing to the type of & Glauca."

"It answers my present purpose to show that & glauca, n. sp. differs
widely from the typical & Barclayi in its smooth capsules, longer pedi-
cels, shorter style, and very different stigmas. It also differs from S. cory-
data in the leaves proportionately shorter and broader with some-
what the texture of & lucida, the young drying black, more glaucous
beneath, especially when old; anthers thicker and more densely hirsute
(much as in & discolor); capsules very much larger and drying brown.
As indigenous at Fountaindale, this is a straggling shrub, about 6 feet
high, the young twigs glabrous and bright yellow, stamened with crimson
where exposed to much sunlight. Some of the plants in the Salicetum
however, are more erect, 8 feet high, brownish twigs, puberulent, and
the whole habit that of & discolor."

1035. balsamifera, Barrett.

Th. Palmer; 0. & Th. Tbor.

Tomentous Willow.

1036. adenophylla, Hook.

Leaves ovate, ovate-lanceolate, cordate, glandular-serrate, densely to-
mentose. On old stems the leaves are ovate-lanceolate and densely
tomentose all over, while on young shoots they are broadly ovate, cor-
date, and sometimes smooth late in the season. Low, 2-3 feet. Beach
sand, Lake Michigan, Illinois, and northwestern. Petoskey (l); St.
Jo., Dr. Wright in Torr. Herb.—Bebb. Hooker's original specimens
came from Labrador. "Well marked by the copious, long, narrow
serratures to the leaves tipped with a gland, so that the leaf looks as if
it were fringed with pedicellate glands. These leaves are an inch or
more long, clothed, even when fully grown, with long silky tomentum
on both sides, etc."—Part of Hooker's original description of specimen
in Harvard Herb.

Livid Willow. 1037. rostrata, Richardson.

Th. Moist or dry ground.

Shining Willow.

1038. lucida, Muhl.

Along streams.

Black Willow.

1039. nigra, Marshall. (***)

Along streams; a small tree.

1040. amygdaloides, Anders.

Flint,—Dr. Clark.

White Willow.

1041. alba, L., var. vitellina, Carey.

Naturalized from Europe.

Brittle W.

1042. fragilis, L., var. Russelliana, Carey.

Coleman Cat.; Palmer Cat.

Long-leaved Willow.

1043. longifolia, Muhl.

Wet places.

Myrtle Willow.

1044. myrtilloides, L.

Wet places.

Sphagnous swamps. S. E.—Winch, Cat. Iona (l); etc., to L. Superior.

Frequent.

** POPULUS **


1045. tremuloides, Michx. (***)

Th. Woods and lake shores, most abundant in U. P.—Whitney.

Common.

Large-toothed Aspen.

1046. grandidentata, Michx.

Th. Woods. Common northward, but "rare in U. P."—Whitney Cat. This
tree and the last are being ground into pulp for making paper.


1047. monilifera, Ait.

Th. Often a large tree, three feet in diameter. Not observed north of Crystal
Lake, Montcalm Co. (l).

C. & S.

Balsam Poplar.

1048. balsamifera, L. (***)

River banks. A small tree in Michigan, often mistaken for the next.

Th.

Balm of Gilead.

1049. balsamifera, L., var. candidans, Gray. (***)

Th.

Not common, either wild or in cultivation, but certainly indigenous. S.
Haven—Bailey; Flint; Sanford, Midland Co.—Prof. W. J. Beal; Elk
Rapids—Winch, Cat.
Lombardy Poplar.  
1050.  *dilatata*, Ait.  
Common in cultivation.

TAXACEÆ.  
(*Yew Family.*)

TAXUS

American Yew.  
1051.  *baccata*, L., var. Canadensis, Gray.  (***)  
Moist woods in the shade of evergreens.  
Along the east shore of Lake Michigan as far south as S. Haven.  
—Bailey; Grand Ledge.  
—Beal; Macomb Co., where it is rarely found.  
Common north of the center of the State(!).

CONIFERÆ.  
(*Pine Family.*)

JUNIPERUS

Red Cedar.  
1052.  *Virginiana*, L.  (***)  
Bluffs and sterile soil.  
Throughout, but scarce.

Juniper.  
1053.  *communis*, L.  (*)  
Frequent throughout, along the highest grounds.

Savin.  
1054.  *Sabina*, L., var. procumbens, Ph.  (*)  
N. & U. P.  
Abundant, trailing over low sand dunes at the head of Little Traverse Bay (!); Old Mission,—Prof. W. J. Beal, etc.

THUJA

Arbor-vitae.  
1055.  *occidentalis*, L.  (***)  
Th.  
Very common northward.  Timber very durable, much used for fence posts, etc.

White Cedar.  
C. N. & U. P.  
Frequent in the northern part of Clare Co. (!); abundant at Petoskey (!); and northward.

TSUGA

Hemlock.  
1057.  *Canadensis*, Carrière.  (*)  
Th. except S. E.  
Rarely seen south of latitude 43° except west, and scarce on the Huron shore, but common on the east shore of L. Michigan, and from the central part of the State northward.  Very abundant and of great size in Emmet Co.(!).  Bark an article of commerce, used for tanning.

PICEA

White Spruce.  
1058.  *alba*, Link.  
N. & U. P.  
From Ludington,—Prof. Beal; to Petoskey (!); and northward.  Common.

Black Spruce.  
1059.  *nigra*, Link.  (***)  
Th.  
Frequent northward, and occasional south of lat. 43°,—a small tree in sphagnous swamps.  The preceding species is more common northward.

LARIX

American Larch.  
1060.  *Americana*, Michx.  (***)  
Th.  
Swamps.  A slender tree southward, but sometimes reaching 100 feet in height northward, where it is abundant.
**PINUS**

**Scrub Pine.**

**Gray Pine.**

1061. Banksiana, Lambert.

In the western part of the State, noticed as far south as Newaygo Co.(1); "Sand Pt., Saginaw Bay, and northward along the shore of L. Huron, not common."—Winch. Cat. In the central part of the State this pine is first seen in the northern part of Clare Co.(1), where it is common in groves on sandy barrens. In the S. E. township of Missaukee Co., along the west bank of the Muskegon river, occurs a barren terrace, about five miles long by two wide, which is covered with groves of this pine in all stages of growth from seedlings to fine shapely trees 50 to 60 feet in height, and 12 to 14 inches in diameter. The groves were not dense, but orchard-like, and disposed without regularity. There was little under-growth except occasionally a few sand-cherrys, stunted service bushes, and the rare alpine, three-toothed cinquefoil. The ground was barely carpeted with tufts of panic grass (P. depauperatum, L.) bird-foot violet, and bear berry.

**Red Pine.**

**Norway Pine.**

1062. resinosa, Ait.

Dry woods. First noticed in Isabella Co., in center of the L. P.; very abundant in Clare Co.(1), and northward. "Frequent on low, sandy plains in U. P., where it forms orchard-like groves."—Whitney. Usually 100-110 feet high.

**White Pine.**

1063. Strobus, L. Th.

Ranges from at least Mason, Ingham Co., in the center of the State, northward. Follows the shore of L. Michigan to the Indiana line. Usually 3 to 4 feet in diameter and 100 feet high, but often larger. Furnishes the pine lumber of commerce. The tallest white pine we have measured was 154 feet, and the largest diameter, scant 6 feet. Much taller and larger specimens are reported by lumbermen. The annual production of pine lumber in Michigan for the last decade has exceeded 2,000,000,000 feet. Yet, in spite of this enormous consumption, it is safe to say that Michigan still contains more valuable pine than any like area in North America. The lumber interest alone enriches the State something like $40,000,000 a year.

**ARACEÆ.**

*(Arum Family.)*

**ARISÉMA**

**Indian Turnip.**

**Jack-in-the-Pulpit.**

1064. triphyllum, Torr. (***)

Rich woods.

C. & S.

**Green Dragon.**

**Dragon Root.**

1065. Dracontium, Schott. (***)

Low grounds.

Infrequent.

**PELTANDRA**

**Arrow Arum.**

1066. Virginica, Raf.

S. Mich.—Wright Cat.; Huron River—Allmendinger Cat.; Ionia Co.(1); Flint.

Th.

**CALLA**

**Water Arum.**

1067. palustris, L.

Bogs.

Frequent.

**SYMPLOCARPUS**

**Skunk Cabbage.**

1068. foetidus, Salisb. (**)

Th.

**ACORUS**

**Sweet Flag.**

1069. Calamus, L. (**)

Margin of streams.

Th.

Infrequent.

**LEMNA**

**Duckweed.**

1070. trisulca, L.

Ponds.

C. & S.

Common.
Duck’s-meat.

Duck’s-meat.

Duck’s-meat.

**WOLFFIA**

1075. *Brasiliensis*, Weddell. With the last. Nearly covering the surface of ponds and slow streams in July.

**TYPHACEÆ.**

*(Cat-tail Family.)*

**TYPHA**

Common Cat-tail.

Small Cat-tail.
1077. *angustifolia*, L. (Detroit—Dr. A. B. Lyons.

**SPARGANIUM**

Bur-reed.

Bur-reed.

Bur-reed.

Bur reed.
1081. *simplex*, Hud., var. angustifolium, Gr. (U. P.)(Isle Royale—Whitney Cat.

Bur-reed.
1082. *heterophylla*, var. *rigida*, Engelm. (Rare.)(Fruitport—E. J. Hill.

Bur-reed.

Naiad.
1084. *major*, All. (Th.)(Frequent. Flint—Dr. D. Clark.

Naiad.

**ZANNICHELLIA**

Horned Pond-weed.
1086. *palustris*, L. (Dr. A. B. Lyons.

**POTAMOGETON**

Pond-weed.
MICHIGAN FLORA.

Ionia Co. (!); Macomb Co.—Dr. D. Cooley; Fruitport—E. J. Hill.

Pond-weed. 1089. lateralis, Morong.
Bear Lake, Van Buren Co.—E. J. Hill.

Pond-weed. 1090. Spirillus, Tuckerman.

Pond-weed. 1091. hybridus, Michx.
Dr. A. B. Lyons.

Pond-weed. 1092. rufescens, Schrader.
Mud Lake and Bear River, Petoskey—E. J. Hill.

Pond-weed. 1093. lonchites, Tuckerman.
Hubbardston (!); Macomb Co.

Pond-weed. 1094. amplifolius, Tuckerman.
Maple River (); Macomb Co.; Pere Marquette River at Ludington—E. J. Hill.

Pond-weed. 1095. gramineus, L., var. graminifolius, Fries.
Bear Lake, Van Buren Co.—E. J. Hill.

Pond-weed. 1096. gramineus, L., var. heterophyllus, Fries.
Woodard Lake, Ionia Co. (); Flint; Macomb Co.; and northward.

Pond-weed. 1097. lucens, L.
Muskegon River, near Houghton Lake (); Flint; S. Mich.—Wright Cat.

Pond-weed. 1098. zizii, Schum.
Crystal Lake, near Frankfort, and Bear Lake, Manistee Co.—E. J. Hill; Crystal Lake, Montcalm Co. (); and Woodard Lake, Ionia Co. (1).

Pond-weed. 1099. prelongus, Wulfen.
Maple River (), etc.

Pond-weed. 1100. perfoliatus, L.
Maple River (), etc.

Pond-weed. 1101. perfoliatus, L., var. lanceolatus, Robbins.
Little Traverse Bay, etc.; "Along the Great Lakes"—Gray.

Pond-weed. 1102. zosterefolius, Sch.
Maple River and its tributaries (), etc.

Pond-weed. 1103. obtusifolius, Mertens & Koch.

Pond-weed. 1104. panceiflorus, Pursh.
Hubbardston (); Grand Rapids (); Flint; Macomb Co.; and northward.

Pond-weed. 1105. pusillus, L.
Manistee Lake—E. J. Hill.

Pond-weed. 1106. pusillus, L., var. major, Fries.
Crooked River, Cheboygan Co., and common at Manistee and Frankfort—E. J. Hill.

Pond-weed. 1107. pectinatus, L.
Fish Creek, Hubbardston (!).

Pond-weed. 1108. marinus, L.
Crystal Lake, near Frankfort, Benzie Co.—E. J. Hill. Rarer species determined by E. J. Hill, of Engelwood, Illinois, whose knowledge of this difficult genus is well known.

ALISMACEAE.

(Water-Plantain Family.)

TRIGLOCHIN

Arrow-grass. 1109. palustre, L.
Marshes.

Th. Frequent.
MICHIGAN FLORA.

1110. maritimum, L.
   Arrow-grass.
   Macomb Co.; S. Mich.—Wright Cat.; Petoskey (!).

1111. maritimum, L., var. elatum, Gr.
   Arrow-grass.
   Ann Arbor,—Allmendinger Cat.; Flint; Macomb Co.; and northward.

SCHUCHZERIA

1112. palustris, L.
   Scheuchzeria.
   S. W.—Wright Cat.; Macomb Co.; Hubbardston (!); Montcalm Co. (!).
   Frequent northward in cold bogs.

ALISMA

1113. Plantago, L., var. Americanum, Gr. (***)
   Water Plantain.
   Shallow water.

ECHINODORUS

1114. parvulus, Engelm.
   Arrow-head.
   Dr. A. B. Lyons.

SAGITTARIA

1115. variabilis, Engelm.
   Arrow-head.
   Wet places. Occurs in many forms.

1116. heterophylla, Ph.
   Arrow-head.
   Elk Rapids,—Winch. Cat., etc.

1117. heterophylla, Ph., var. rigida, Engelm.
   Arrow-head.
   Fruitport,—E. J. Hill.

ALISMA

1118. graminea, Michx.
   Ann Arbor,—Winch. Cat.; S. Haven,—Bailey; Hubbardston (!); Kalamazoo; to Petoskey (!).
   Slow streams. Common in Grand River and tributaries.

HYDROCHARIDACEÆ.

(Frog's-bit Family.)

ANACHARIS

1119. Canadensis, Planchon.
   Water-weed.
   Slow streams.

VALLISNERIA

1120. spiralis, L.
   Tape-grass.
   Eel-grass.
   Ann Arbor—Winch. Cat.; S. Haven,—Bailey; Hubbardston (!); to Petoskey (!).
   Slow streams. Common in Grand River and tributaries.

ORCHIDACEÆ.

(Orchis Family.)

ORCHIS

1121. spectabilis, L.
   Showy Orchis.
   Rich woods. Widely distributed.

1122. rotundifolia, Ph. (?)
   Flint—Dr. D. Clark; "Shore of L. Mich. in Wis."—Foote.

HABENARIA

1123. tridentata, Hook.
   Naked-gland Orchis.
   S. W.—Wright Cat.; Ann Arbor—Allmend. Cat.; Hubbardston (!); and northward.

1124. virescens, Spreng.
   Greenish Orchis.
   Macon Co.; Ann Arbor,—Winch. Cat.; S. W.—Wright Cat.

1125. viridis, R. Br., var. bracteata, Reich.
   Bracted Green Orchis.
   Ann Arbor and Emmet Co.—Winch. Cat.; Macomb Co.; Kalamazoo; Hubbardston (!); Flint; Lansing—Bailey.
Northern Green Orchis.

1126. hyperborea, R. Br.
Wet woods. Th.

Northern White Orchis.

1127. dilatata, Gr.
S. E.—Winch. Cat.; Flint; Macomb Co.; and northward. Th.

1128. obtusata, Richardson.
Isle Royale—Dr. A. B. Lyons; L. Sup., common—Whitney Cat.; Cove L. L. Huron—Austin. U. P.

Smaller Two-leaved Orchis.

S. E.—Winch. Cat.; Hubbardston (!); Flint; Lake Superior—Whitney Cat; Th.

Large Round-leaved Orchis.

1130. orbiculata, Torr.
Frequent in the pine region, not rare on U. P.—Whitney Cat.; Lansing—Bailey; Hubbardston (!); Flint, etc. Th.

Yellow Fringed-Orchis.

1131. ciliaris, R. Br.
Ann Arbor—Winch. Cat.; Macomb Co. S. E.

White Fringed-Orchis.

1132. blephariglottis, Hook.
S. Mich.—Winch. Cat.; Stanton (!). C. & S.

Western Orchis.

1133. leucophoea, Gray.
Ann Arbor—Winch. Cat.; Woodard Lake, Ionia Co. (!); Macomb Co. Rare.

Ragged Orchis.

1134. lacera, R. Br.
Ann Arbor—Winch. Cat.; Woodard Lake (!); Flint; Macomb Co.; Lansing—Bailey. C. & S.

Small Purple Fringed-Orchis.

1135. psycodes, Gray.
Low grounds. Th.

Large Purple Fringed-Orchis.

1136. fimbriata, R. Br.
Ann Arbor—Winch. Cat.; Macomb Co. Infrequent.

GOODYEAA

1137. repens, R. Br. Th.
Bangor, Van Buren Co.—Bailey; Grand Rapids—Coleman Cat.; Roscommon Co.—Dr. Cooley; Petoskey (!); and northward. Infrequent.

Rattlesnake Plantain.

1138. pubescens, R. Br.
Woods. Th.

Rattlesnake Plantain.

1139. Menziesii, Lindl. N. & U. P.
Boyne Falls, Northport, and Frankfort—E. J. Hill; Petoskey (!); Isle Royale and Traverse Bay—Dr. A. B. Lyons.

SPIRANTHES

1140. latifolia, Torr.
Drummond’s L., common, and S. E.—Winch. Cat.; Hubbardston (!); Flint. Rare in L. P.

Ladies’ Tresses.

1141. Romanzoviana, Chamisso. N. & U. P.
Borders of Mud lake, Northport—E. J. Hill; northward to L. Sup.

Ladies’ Tresses.

1142. cernua, Richard. Th.
Sphagnous swamps. Frequent.

Ladies’ Tresses.

1143. gracilis, Bigelow.
S. W.—Wright Cat.; Macomb Co.; Grand Rapids—Coleman Cat.; Kalamazoo—Tuthill.

LISTERA

Twayblade.

1144. cordata, R. Br.
Whitney Cat.; and Isle Royale—Dr. A. B. Lyons. U. P.

Twayblade.

1145. convallarioides, Hook.
Not common—Whitney Cat.; Isle Royale—Dr. A. B. Lyons. U. P.

ARETHUSA

1146. bulbosa, L.
Th.
In sphagnous swamps. S. Mich.—Wright Cat.; Ann Arbor—Allmend. Cat.; Kalamazoo—Tuthill; Hubbardston (!); and northward. Rare.
POGONIA

Pogonia. 1148. pendula, Lindl. Dr. Wright. S. W. Rare.
Pogonia. 1149. verticillata, Nutt. Kalamazoo; Flint; Macomb Co. C. & S. Rare.

CALOPOGON

Beautiful Calopogon. 1150. pulchellus, R. Br. Th. Bogs.

CALYPSO


TIPULARIA


MICROSTYLIS

Adder's-mouth. 1153. monophyllos, Lindl. Hubbardston(!); Flint; Macomb Co. Rare.
Adder's-mouth. 1154. ophioglossoides, Nutt. Ann Arbor—Allmendinger Cat.; Hubbardston(!). Rare.

LIPARIS

Twayblade. 1155. Loeselii, Richard. Ann Arbor—Allmendinger Cat.; abundant in a tamarack swamp near Hubbardston(!); S. Haven—Bailey; Flint; Macomb Co. S. W.—Wright's Cat.
Twayblade. 1156. liliifolia, Richard. S. W.—Wright's Cat.

CORALLORHIZA

Coral-root. 1157. innata, R. Br. Th. S. E.—Wright Cat.; L. Superior, not rare—Whitney Cat.
Coral-root. 1158. odontorhiza, Nutt. (***). Hubbardston(!); Flint; northward to L. Superior—Whitney Cat. Th.
Coral-root. 1159. multiflora, Nutt. Hubbardston(!); Lansing—Bailey; S. W.—Wright Cat.; northward to L. Superior. Th.

APLECTRUM


CYPRIPEDIUM

Ram's head Lady's Slipper. 1162. arietinum, R. Brown. (***). Isle Royale—Dr. A. B. Lyons. May be looked for in L. P. U. P.
MICHIGAN FLORA.

Smaller Yellow Lady's Slipper.

1164. parviflorum, Salisb. (**)
Swamps. A slender species; leaves slightly pubescent, not much plaited; flowers much smaller than those of the next; corolla bright yellow and much brown spotted inside in lines; sepals and side petals dark brown-purple, the latter several times twisted. Usually grows in clumps, preferring very wet swamps.

Larger Yellow Lady's Slipper, Moccasin Flower.

1165. pubescens, Wildl. (**)
Woods, in moist or dry ground. Much coarser every way than the preceding, with strongly-plaited, hairy leaves, and large light yellow flowers, more or less brown-spotted. Small forms of this are often mistaken for C. parviflorum, but the two species are apparently distinct in Mich.

Showy Lady's Slipper, Pink L.S.

1166. spectabile, Swartz. (***)
Swamps. The largest species, as well as the most beautiful; leaves frequently 6×10 inches. Ann Arbor—Winch. Cat.; Kalamazoo—Tuthill; Lansing—Bailey; Macomb Co.; Flint; Hubbardston (!), etc. Desirable for cultivation.

Stemless Lady's Slipper.

1167. acaule, Ait. (***)
Moist woods and sphagnumous swamps. Montcalm Co. (!), etc.

AMARYLLIDACEÆ.
(Amaryllis Family.)

HYPOXYS
Star-grass.

1168. erecta, L.
Meadows.

HIEMODORACEÆ.
(Bloodwort Family.)

ALETRIS
Colic root, Star-grass.

1169. farinosa, L. (***)
Ann Arbor—Allmend. Cat.; Macomb Co.; Flint; Hubbardston (!). Rare.

IRIDACEÆ.
(Iris Family.)

IRIS
Wild Flower-de-Luce, L.

1170. versicolor, L. (**)
Low grounds.

Lake Dwarf Iris.

1171. lacustris, Nutt.

SISYRINCHIUM

1172. Bermudiana, L.
Moist grassy places.

DIOSCOREACEÆ.
(Yam Family.)

DIOSCOREA
Wild Yam-root.

1173. villosa, L. (***)
Rich woods.

Frequent.
SMILAX

Common Greenbriar.

1174. rotundifolia, L. C. & S.
Ann Arbor—Allmend. Cat.; Flint; Macomb Co.; Kent Co.—Coleman Cat.

1175. hispida, Muhl. Th.
The common woody species in Ionia and adjacent counties. Ann Arbor—Winch. Cat.; Hubbardston (!); Flint; Houghton Lake (!); northward to Lake Superior—Whitney Cat.

Carrion Flower.

1176. herbacea, L. Th.

1177. herbacea, L., var. pulverulenta, Gr.
Ann Arbor—Allmend. Cat.

LILIACEÆ.

(Lily Family.)

TRILLIUM

Sessile Trillium.

1178. sessile, L. S.
Dr. A. B. Lyons.

Large White Trillium, or Wake Robin.

1179. grandiflorum, Salisb. (***) Th.
Rich woods, Exceedingly variable and apt to sport.

Birthroot.

1180. erectum, L. (***) Ann Arbor—Winch. Cat.

1181. erectum, L., var. album, Ph.
Ann Arbor—Winch. Cat.

Birthroot.

1182. erectum, L., var. declinatum, Gr.
The common form in low ground from the C. north. Fruit dark red, six-ribbed, ⅝ in. in diameter—larger than the fr. of T. grandiflorum.

Nodding Trillium.

1183. cernuum, L. C. & S.
S. Mich.—Winch. Cat.; Macomb Co.; Flint; Grand Rapids.—Coleman Cat.

Dwarf White Trillium.

1184. nivale, Riddell. C. & S.
Low woods. One of our earliest spring flowers. Only observed along Grand River Valley. Hubbardston (!); Ionia (!); Grand Rapids.—Coleman Cat.

Painted T.

1185. erythrocarpum, Michx.
S. Mich.—Wright Cat.; not observed in the center of the State; said to occur in U. P.—Gray’s Manual.

MEDEOLA

Indian Cucumber-root.

1186. Virginica, L. (***) L. P.

MELANTHIUM

1187. Virginicum, L.
Macomb Co.—Dr. D. Cooley.

ZYGADENUS

1188. glaucus, Nutt. L. P.
S. W.—Wright Cat.; Dexter.—Dr. Elmore Palmer; Ann Arbor—Allmend. Cat.; Ionia (!); Davisburgh (!); Petoskey (!).

VERATRUM

American White Hellebore.

1189. viride, Ait. (?) (*) Dr. A. B. Lyons.
CHAMÆLIRIUM

1190. luteum, Gray. (***)
Dr. A. B. Lyons.

TOFIELDIA

1191. palustris, Hudson.
Isle Royale.—Dr. A. B. Lyons.

1192. glutinosa, Willd.
Sphagnous swamps.

UVULARIA

1193. grandiflora, Smith.
Rich woods.

1194. perfoliata, L.
Rich woods. Marquette Co.—Burt MS. Cat.; Flint; Macomb Co.

OAKESIA

1195. sessilifolia.
Low woods. Apparently infrequent S. Ann Arbor—Allmend. Cat.; Ypsilanti (!); Flint; Macomb Co.; Crystal Lake, Montcalm Co. (!); and northward to Marquette Co.,—Whitney Cat.

STREPTOPUS

1196. amplexifolius, DC.
Fort Gratiot.—Winch. Cat.; Houghton Lake (!); to L. Superior where it is rare—Whitney Cat.

1197. rosentis, Michx.
Drummond's Is. and Sugar Is.—Winch. Cat.; to L. Superior where it is very common—Whitney Cat.

CLINTONIA

1198. borealis, Raf.
Follows the Lake Michigan shore down as far as S. Haven; on the eastern side of the State reaches to Macomb Co.—Dr. D. Cooley; and in the center of the State is found in Ionia Co. (!). Very common north of latitude 43°.

SMILACINA

1199. racemosa, Desf. (***)
Moist grounds.

1200. stellata, Desf.
Moist banks.

1201. trifolia, Desf.
Sphagnous swamps.

MAIANTHEMUM

1202. bifolia, DC.
Woods, everywhere.

POLYGONATUM

1203. biflorum, Ell. (***)
Ann Arbor.—Winch. Cat.; Ionia Co.(!); and northward. Open woods.

1204. giganteum, Dietrich. (***)
River banks. Stems often very tall and channeled on one side. Intermediate forms between this and the preceding, occur.

ASPARAGUS

1205. officinalis, L. (***)
Sparingly escaped from gardens in older parts of the State.
**LILIAM**

<table>
<thead>
<tr>
<th>1206.</th>
<th>Philadelphicum, L.</th>
<th>Th.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Arbor—Allmend, Cat.; Hubbardston (!); Petoskey (!); and northward. Not common in the central part of the State.</td>
<td></td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>1207.</th>
<th>Canadense, L.</th>
<th>Th.</th>
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</thead>
<tbody>
<tr>
<td>Meadows and along streams. Common in the center of the State.</td>
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<thead>
<tr>
<th>1208.</th>
<th>superbum, L.</th>
<th>C. &amp; S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low grounds. Ann Arbor (Miss Clark)—Winch. Cat.; Flint; S. Haven—Bailey.</td>
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</table>

**ERYTHRONIUM**

<table>
<thead>
<tr>
<th>1209.</th>
<th>Americanum, Smith. (***</th>
<th>Th.</th>
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</thead>
<tbody>
<tr>
<td>Low copees. Common.</td>
<td></td>
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<thead>
<tr>
<th>1210.</th>
<th>albidum, Nutt.</th>
<th>C. &amp; S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Arbor—Allmend. Cat.; Lansing—Bailey; Macomb Co.; Flint; Hubbardston (!). &quot;At L. Superior Dr. Robbins found a plant like this but yellow-flowered, a transition towards E. grandiflorum.&quot;—Gray’s Man.</td>
<td></td>
<td></td>
</tr>
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</table>

**ALLIUM**

<table>
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<tr>
<th>1211.</th>
<th>tricoecum, Ait.</th>
<th>Th.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich woods. Cattle pastured in woodlands in early spring are sure to find and eat this plant, and the “garlic” odor of wild leek is only too well known to butter buyers in the rural districts.</td>
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<thead>
<tr>
<th>1212.</th>
<th>cernuum, Roth.</th>
<th>S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Arbor—Allmend. Cat.; Put-in Bay, O. (!)</td>
<td></td>
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<tr>
<th>1213.</th>
<th>Schoenoprasum, L.</th>
<th>U. P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A. B. Lyons; Gray’s Manual.</td>
<td></td>
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<thead>
<tr>
<th>1214.</th>
<th>Canadense, Kalm. (***</th>
<th>C. &amp; S.</th>
</tr>
</thead>
</table>

**JUNCACEÆ.**

*(Rush Family.)*

**LUZULA**

<table>
<thead>
<tr>
<th>1215.</th>
<th>pilosa, Willd.</th>
<th>Th.</th>
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<thead>
<tr>
<th>1216.</th>
<th>parviflora, Desv., var. melanocarpa, Gr.</th>
<th>U. P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A. B. Lyons.</td>
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<tr>
<th>1217.</th>
<th>campestris, DC.</th>
<th>C. &amp; S.</th>
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<tbody>
<tr>
<td>Dry woods. Frequent.</td>
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<tr>
<th>1218.</th>
<th>spicata, Desvaux.</th>
<th>U. P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A. B. Lyons.</td>
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</table>

**JUNCUS**

<table>
<thead>
<tr>
<th>1219.</th>
<th>effusus, L.</th>
<th>Th.</th>
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</thead>
<tbody>
<tr>
<td>Marshy grounds. Common.</td>
<td></td>
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<tr>
<th>1220.</th>
<th>filiformis, L.</th>
<th>Th.</th>
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<tr>
<th>1221.</th>
<th>Balticus, Dethard.</th>
<th>Th.</th>
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</thead>
<tbody>
<tr>
<td>Sandy shores. S. Haven—Bailey; to Petoskey (!); and northward.</td>
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<tr>
<th>1222.</th>
<th>stygius, L.</th>
<th>Th.</th>
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</thead>
<tbody>
<tr>
<td>&quot;N. shore of Lake Superior, Mr. Wheeler.&quot;—Gray’s Manual.</td>
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</table>

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<thead>
<tr>
<th>1223.</th>
<th>marginatus, Rostk.</th>
<th>C. &amp; S.</th>
</tr>
</thead>
</table>

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<thead>
<tr>
<th>1224.</th>
<th>bufonius, L.</th>
<th>Common.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadsides.</td>
<td></td>
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</tbody>
</table>


Bog Rush. 1227. Greenii, Oakes & Tuckerman. Detroit(!).

Bog Rush. 1228. Vaseyi, Engelm. S. E.

Bog Rush. 1229. pelocarpus, E. Meyer. Bear Lake, Manistee Co.—E. J. Hill; Macomb Co.—Dr. D. Cooley. L. P.


Bog Rush. 1231. alpinus, Villars, var. insignis, Fries. Macomb Co.; Fruitport—E. J. Hill; Hubbardston(!).


Bog Rush. 1235. brachycarpus, Engelm. Dr. Engelmann.


PONTEDERIACEÆ. (Pickerel-weed Family.)

PONTEDERIA

Pickerel-weed. 1239. cordata, L. Th. Borders of lakes and slow streams. Lakes in Oakland Co.(1); Ann Arbor; Ionia Co. (!); and northward.

SCHOLLERA


COMMELYNACEÆ. (Spiderwort Family.)

COMMELYNNA

Day-flower. 1241. Virginica, L. S. W. Wright Cat.

TRADESCANTIA

### Xyridaceae

*Yellow-eyed Grass Family*

<table>
<thead>
<tr>
<th>Species</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Yellow-eyed Grass</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1243. flexuosa, Muhl.</td>
<td>Macomb Co.; S. W.—Wright Cat.</td>
<td></td>
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</tbody>
</table>

### Eriocaulonaceae

*Pipewort Family*

<table>
<thead>
<tr>
<th>Species</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pipewort</em></td>
<td></td>
<td>Infrequent</td>
</tr>
<tr>
<td>1244. septangulare, With.</td>
<td>S. W.—Wright Cat.; Macomb Co.</td>
<td></td>
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</tbody>
</table>

### Cyperaceae

*Sedge Family*

<table>
<thead>
<tr>
<th>Species</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Galingale</em></td>
<td></td>
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<tr>
<td>1245. flavescens, L.</td>
<td>Grand Rapids.—Coleman Cat.; S. Mich.—Wright Cat.</td>
<td>C. &amp; S.</td>
</tr>
<tr>
<td>1246. diandrus, Torr.</td>
<td>Low grounds.</td>
<td></td>
</tr>
<tr>
<td>1247. erythrorhizos, Muhl.</td>
<td>Macomb Co.—Dr. D. Cooley.</td>
<td></td>
</tr>
<tr>
<td>1248. inflexus, Muhl.</td>
<td>Coleman Cat.</td>
<td></td>
</tr>
<tr>
<td>1250. strigosus, L.</td>
<td>Low grounds.</td>
<td>C. &amp; S.</td>
</tr>
<tr>
<td>1251. Michauxianus, Schultes.</td>
<td>Low grounds. Hubbardston (!); Flint, etc.</td>
<td>Common.</td>
</tr>
<tr>
<td>1252. Engelmanni, Steud.</td>
<td>Fruitport.—E. J. Hill.</td>
<td></td>
</tr>
<tr>
<td>1254. filiculmis, Vahl.</td>
<td>Sterile soil.</td>
<td>C. &amp; S.</td>
</tr>
</tbody>
</table>

### Kyllingia

<table>
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<tr>
<th>Species</th>
<th>Location</th>
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<tbody>
<tr>
<td><em>Kyllingia</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1255. pumila, Michx.</td>
<td>Dr. Lyons.</td>
<td></td>
</tr>
</tbody>
</table>

### Dulichium

<table>
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<th>Species</th>
<th>Location</th>
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<tr>
<td><em>Dulichium</em></td>
<td></td>
<td>Th.</td>
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### Fuirena

<table>
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<th>Species</th>
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<tr>
<td><em>Umbrella Grass</em></td>
<td></td>
<td>Common.</td>
</tr>
<tr>
<td>1257. squarrosa, Michx., var. pumila, Torr.</td>
<td>Macomb Co.—Dr. D. Cooley.</td>
<td></td>
</tr>
</tbody>
</table>
HEMICARPHA

Hemicarpha. 1258. subsquarrosa, Nees. S. W.—Wright Cat.

ELEOCHARIS

Spike-rush. 1260. quadrangulata, R. Br. C. & S. S. Mich.—Gray; Flint; border of Crystal Lake, Montcalm Co. (!) Rare.
Spike-rush. 1264. intermedia, Schultes. Macomb Co.—Dr. D. Cooley; Grand Traverse Bay.—Winch. Cat.
Spike-rush. 1265. tenuis, Schultes. S. E.—Wright Cat.; Hubbardston (!) Infrequent.
Spike-rush. 1267. pygmaea, Torr. Near salt springs. Flint; Maple River, Clinton Co. (!) Rare.

SCIRPUS

1269. caespitosus, L. Dr. A. B. Lyons. C.
1270. Clintonii, Gray. Bluffs along Fish Creek, Hubbardston(!); Flint—Dr. D. Clark. Rare.
1271. planifolius, Muhl. Flint; Macomb Co. Rare.

Bulrush.

1276. Smithii, Gray. Macomb Co.

Sea Club Rush.

1277. maritimus, L. S. Mich.—Wright Cat. C. & S.

River Club Rush.

1279. atrovirens, Muhl. Wet meadows.
1280. polyphyllus, Vahl. S. Mich.—Wright Cat.
MICHIGAN FLORA.

Bulrush. 1281. lineatus, Michx.  C. & S.  
River banks. S. Mich.—Winch. Cat.; Flint; Macomb Co.; Hubbardston (!).  
Infrequent.

Wool-grass. 1282. Eriophorum, Michx.  Th.  
Wet meadows.

ERIOPHORUM

Alpine Cotton-grass. 1283. alpinum, L.  Th.  
Mud Lake (!); Petoskey—E. J. Hill; Macomb Co.  Infrequent.

Sheathed Cotton-grass. 1284. vaginatum, L.  Th.  

Virginia Cotton-grass. 1285. Virginicum, L.  Th.  

Many Stemmed Cotton-grass. 1286. polystachyon, L.  L. P.  
Swamps.  Common.

Graceful Cotton-grass. 1287. gracile, Koch.  Th.  
S. Mich.—Wright Cat.; Flint; Hubbardston (!); Montcalm Co. (!); and northward.  Rare.

FIMBRISTYLIS

1288. spadicea, Vahl., var. castanea, Gr.  S.  
S. W.—Wright Cat.

1289. autumnalis, Rem. & Schultes.  .

1290. capillaris, Gray.  S. Mich.—Winch. Cat.; Detroit (!).

RHYNCHOSPORA

1291. alba, Vahl.  L. P.  

Beak Rush. 1292. capillacea, Torr.  Th.  
Bogs and sandy lake shores. Hubbardston (!); Flint; Macomb Co.; Petoskey (!).  Infrequent.

Beak Rush. 1293. capillacea, Torr., var. leviseta, Hill.  
Shore Grand Traverse Bay, near Torch Lake—E. J. Hill.


CLADIUM

1295. marisicoides, Torr.  C. & S.  
Bogs. S. Mich.—Wright Cat.; Macomb Co.; Flint; Hubbardston (!).

SCLERIA

Nut Rush. 1296. triglomerata, Michx.  C. & S.  
S. Mich.—Wright Cat.; Macomb Co.; Flint.

Nut Rush. 1297. verticillata, Muhl.  Macomb Co.—Dr. D. Cooley.

CAREX

Sedge. 1298. gynocrates, Wormskiold.  C. & S.  
N. E. and N. W.—Winch. Cat.

Sedge. 1299. scirpoidea, Michx.  N. E.—Winch. Cat.

Sedge. 1300. pauciflora, Lightfoot.  U. P.  
U. P.—Dr. A. B. Lyons; Chocolate R., L. Superior—Henry Gillman.
Sedge. 1303. Stendelii, Kunth. Dr. A. B. Lyons. R.
Sedge. 1304. Backii, Boott. Ontonagon River.—Whitney Cat. U. P.
Sedge. 1309. teretinscula, var. major, Koch. Hubbardston(!). Th.
Sedge. 1314. conjuncta, Boott. Flint.—Dr. D. Clark. Hubbardston(!). Infrequent.
Sedge. 1315. alopecoidea, Tuckerman. Macomb Co.; Gray’s Man. C. & S.
Sedge. 1316. muricata, L. Macomb Co.—Dr. D. Cooley. C. & S.
Sedge. 1317. sparganioides, Muhl. Low, rich grounds. C. & S.
Sedge. 1322. rosea, Schk., var. retroflexa, Olney. Dr. A. B. Lyons. Frequent.
Sedge. 1323. chordorrhiza, Ehrh. Upland swamps. Macomb Co.; Hubbardston (!); Stanton, Montcalm Co. Rare.
Sedge. 1324. tenella, Schk. S. E.—Wright Cat.; Macomb Co.; Flint; Hubbardston (!); Petoskey; and northward. Th.


Sedge. 1328. *vitilis*, Fries. Th. Hubbardston (!); Flint, etc. Infrequent.


Sedge. 1331. *stellulata*, L. Th. S. E.—Wright Cat.; Hubbardston (!); Flint, etc. Infrequent.


Sedge. 1338. *albalutescens*, Schw. Hubbardston (!).


Sedge. 1345. *torta*, Boott. (?) Infrequent.


Sedge. 1351. irrigua, Smith. C., N. & U. P. Sphagnous swamps. Macomb Co.; Isabella Co.(!)


Sedge. 1353. alpina, Schw. U. P. Isle Royale—Whitney Cat.


Sedge. 1355. livida, Willd. (?) U. P.

Sedge. 1356. panicea, L., var. refracta, Olney. U. P. "Lake Superior (Robbins and Porter) and northward."—Gray.

Sedge. 1357. panicea, L., var. Meadii, Olney. C. & S. Macomb Co.; Hubbardston(!).


Sedge. 1360 Haleana, Olney. Banks of Fish creek, Hubbardston(!).


Sedge. 1362. Torreyi, Tuckerman. U. P. Dr. A. B. Lyons.

Sedge. 1363. pallescens, L. Dr. A. B. Lyons.


Sedge. 1369. virescens, Muhl. S. Mich.—Winch. Cat.; Detroit(!). S.

Sedge. 1370. triceps, Michx. Th. In an oak wood on the farm of Hon. N. B. Hayes, in North Plains township, Ionia Co.(!); not known to occur elsewhere in the state. Rare.


Sedge. 1373. platyphylla, Carey. C. Grand Rapids—Coleman's Cat.; Hubbardston (!). Infrequent.

Sedge. 1374. retrocurva, Dew. C. Flint; Hubbardston (!). Infrequent.
Sedge. 1375. digitalis, Willd. 
Macomb Co.; Flint; Hubbardston (!). C.

Sedge. 1376. laxiflora, Lam. 

Sedge. 1377. oligocarpa, Schk. 
Flint; Macomb Co.—Dr. D. Cooley. C.

Sedge. 1378. Hitchcockiana, Dew. 
Woods. Flint; Hubbardston (!). C.

Sedge. 1379. eburnea, Booth. 
Hillsides. Th.

Sedge. 1380. pedunculata, Muhl. 
Hillsides. C. & S.

Sedge. 1381. umbellata, Schk. 
Flint—Dr. D. Clark. Rare.

S. E.—Wright Cat. C. & S.

Sedge. 1383. Emmonsii, Dew. 
Grand Traverse—Winch. Cat. C. & S.

Sedge. 1384. Pennsylvanica, Lam. 
Dry woods. Common.

Sedge. 1385. varia, Muhl. 
With the last. Macomb Co.; Hubbardston (!). Th.

Sedge. 1386. Richardsonii, R. Br. 

Sedge. 1387. pubescens, Muhl. 
S. Mich.—Wright Cat.; Macomb Co.; Hubbardston (!) to Lake Superior—Whitney Cat. C. & S.

Sedge. 1388. miliacea, Muhl. 
Wet meadows. S. Mich.—Winch Cat; Flint. Frequent.

Sedge. 1389. Scabrata, Schw. 
Banks of streams. Flint; Grand Rapids—Coleman Cat.; Hubbardston (!) to Lake Superior—Whitney Cat. Th.

Sedge. 1390. arctata, Booth. 
Woods. S. Mich.—Winch Cat; Petoskey (!). Infr.

Sedge. 1391. debilis, Michx. 
Bear Lake, Van Buren Co.—E. J. Hill. Infr.

Sedge. 1392. capillaris, L. 
Point de Tour, Lake Michigan—Gray. U. P.

Sedge. 1393. flexilis, Rudge. 

Sedge. 1394. flava, L. 
Sphagnous swamps. S. E.—Wright Cat.; Montcalm Co.; Hubbardston (!); Petoskey (!); and northward. Rare. Th.

Sedge. 1395. Ederi, Ehrh. 
Margins of lakes. Oakland Co. (!); Flint; Petoskey (!); Drummond’s I. Th. —Winch. Cat.

Sedge. 1396. filiformis, L. 
Bogs. S. Mich.—Wright Cat.; Hubbardston (!); Macomb Co.; Flint. Rare.

Sedge. 1397. lanuginosa, Michx. 

Sedge. 1398. Houghtonii, Torr. 
N. part of Clare Co. (!). Only station known in the State.
Sedge. 1405. tentaculata, Muhl. Antrim Co.; S. Mich.—Wright Cat. L. P.
Sedge. 1410. folliculata, L. S. Mich.—Wright Cat.; Flint; Macomb Co.; to L. Superior. Rare.
Sedge. 1411. rostrata, Michx. (?) Th. Frequent.
Sedge. 1412. subulata, Michx. (?) Th. Common.
Sedge. 1413. squarrosa, L. S. Mich.—Wright Cat.; Hubbardston (!); Rare.
Sedge. 1415. utriculata, Boott. Swamps. N.
Sedge. 1416. monile, Tuckerman. Mud Lake, Petoskey—E. J. Hill.
Sedge. 1418. bullata, Schk. Macomb Co.; Flint. C.
Sedge. 1420. longirostris, Torr. Woods. Flint; Hubbardston (!).

GRAMINEÆ.
(Grass Family.)

LEERSIA

Rice Cut-grass.

1422. oryzoides, Swartz.
River banks.

ZIZANIA

Indian Rice. Water-oats.

1423. aquatica, L.
Borders of large streams and lakes. Wright Cat.; South Haven—Bailey; Montcalm Co.; Hubbardston (!); and northward. Yields an edible grain, formerly gathered by the Indians, and now greedily eaten by wild ducks which haunt lakes and rivers during its ripening in innumerable numbers.

1424. miliacea, Michx.
Grand Ledge.—Prof. W. J. Beal.

ALOPECURUS

Meadow Foxtail.

1425. pratensis, L.
L. Superior—Whitney Cat.

Floating Foxtail.

1426. geniculatus, L.
S. Mich.—Wright Cat.; Macomb Co.

Wild Foxtail.

1427. aristulatus, Michx.
In water. Lansing—Bailey; Hubbardston (!); Flint; and northward.

PHLEUM

Timothy. Herd’s Grass.

1428. pratense, L.
Meadows everywhere. Cultivated for hay.

1429. alpinum, L.
L. Superior—Whitney Cat.

VILFA

Rush Grass.

1430. aspera, Beauv.
Dr. Lyons.

Rush Grass.

1431. vaginæflora, Torr.
Dr. Lyons; Flint.

SPOROBOLUS

Drop-seed Grass.

1432. junceus, Kunth.
Dr. Lyons.

Drop-seed Grass.

1433. cryptandrus, Gray.
S. Mich.—Winch. Cat.

Drop-seed Grass.

1434. serotinus, Gray.
Sandy wet places—Gray’s Manual.

AGROSTIS

Thin Grass.

1435. perennans, Tuckerman.
Swamps. S. Mich.—Wright; Macomb Co.; Hubbardston (!).

Hair Grass.

1436. scabra, Willd.
Sterile soil.

Brown Bent-grass.

1437. canina, L.
Ann Arbor—Winch. Cat.

Red-top.

1438. vulgaris, With.
Low meadows everywhere. Naturalized from Europe.

Florin. White Bent-grass.

1439. alba, L.
With the last, along river banks. Naturalized from Europe. This and the preceding are thought by some authors to be indigenous.

CINNA

Wood Reed-grass.

1440. arundinacea, L.
Low Grounds.
Wood Reed-grass. 1441. arundinacea, L., var. pendula, Gray. Petoskey (!); L. Superior—Whitney Cat. N. & U. P.

MUHLENBERGIA


1443. glomerata, Trin. Drop-seed Grass. Marshes. Used for forage in Dakota, but too coarse to be of value where anything else is attainable. Frequent.

1444. Mexicana, Trin. Low grounds. C. & S.


1446. Willdenovii, Trin. Woods. Flint; Macomb Co.; S. Mich.—Wright Cat. C. & S.

Nimble Will. 1447. diffusa, Schreber. Open woods, and becoming frequent around dwellings. S. Mich.—Wright Cat.; So. Haven—Bailey; Flint (!); Hubbardston (!). C. & S.

BRACHYELYTRUM


CALAMAGROSTIS

1449. Canadensis, Beauv. Blue Joint. This is a very valuable grass to the lake settlers (U. P.), rarely of many acres in extent. It is cut and stacked in August, and in winter is hauled home by sled or dog-train. It is said to be greedily eaten by the cattle and to be as nourishing as herd's grass [?]. It grows shoulder-high, so that even a small meadow furnishes a great store of hay—Whitney Cat., in 1851. Th.

1450. Langsdorffii, Trin. Flint—Dr. D. Clark. Th.

1451. stricta, Trin. Flint—Dr. D. Clark; and northward to L. Superior.—Gray. Rare.

1452. confinis, Nutt. Flint—Dr. D. Clark.

Reed Bent-grass. 1453. Nuttalliana, Steud. S. Mich.—Wright Cat.


1455. arenaria, Roth. Sea Sand-reed. This is one of the few plants found both on the ocean and Great Lake shores. Petoskey (!); Point au Chene—Winch. Cat. N. & U. P.

ORYZOPSIS


STIPA

1459. avenacea, L. Black Oat Grass. S. W.—Wright Cat.; South Haven—Bailey.
Porcupine Grass. 1460. spartea, Trin., not of Hook. Th.
    Dry plains. S. Mich.—Wright Cat.; Lansing—Bailey; Macomb Co.; shore of Woodard Lake, Ionia Co. (!); hills along Grand R. near Ionia.

ARISTIDA


Fresh-water Cord-Grass. 1462. cynosuroides, Willd. C. & S. Frequent.

BOUTELOUA


ELEUSINE

Dog’s-tail or Wire-Grass. 1464. Indica, Gærtn. Ionia Co. (!); Lansing and South Haven—Bailey; S. Mich.—Wright Cat.

TRICUSPIS

Tall Red-top. 1465. seslerioides, Torr. S. Mich.—Wright Cat.

GRAPHEPHORUM


1467. melicoides, Beauv., var. major, Gray. Montcalm Co. (!); Macomb Co.

DIARRHENA

1468. Americana, Beauv. S. S. Mich.—Wright Cat.; Flint; Hubbardston (!). Reaches its northern limits in Ionia Co. Rare.

DACTYLIS

Orchard Grass. 1469. glomerata, L. A valuable grass for pasture and hay; becoming naturalized.

KÉLERIA

1470. cristata, Pers. Th.
    Dry hills. Frequent.

EATONIA

1471. obtusata, Gray. S. E.—Wright Cat.; Flint; Hubbardston (!). Rare.


EATONIA

1473. Pennsylvanica, Gray, var. major, Torr. Flint; spikelets purplish-tinged at Petoskey (!).

MELICA

Melic-Grass. 1474. mutica, Walt. Macomb Co.—Dr. D. Cooley.

GLYCERIA

<table>
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Wet woods—Gray; Flint—Dr. Clark. |
Low meadows |
Shallow water. Macomb Co.; Flint; Hubbardston (!); and northward. |
Wet grounds. |
| 1480. | *fluitans*, R. Br.  
Shallow water. |
Flint—Dr. D. Clark. |
| 1482. | *annua*, L.  
Low grounds. |
| 1483. | *compressa*, L.  
Dry fields. Nutritious and would make good hay if it could be grown in quantity. |
| 1484. | *alpina*, L.  
Isle Royale—C. G. Loring, Jr., in Gray’s Manual. |
| 1485. | *cesia*, Smith  
Flint; Petoskey (!); and northward. |
| 1486. | *cesia*, Smith, var. strictior, Gr.  
Petoskey (!); Isle Royale—C. G. Loring, Jr., in Gray’s Manual. |
| 1487. | *serotina*, Ehrh.  
Wet meadows, where it is a valuable grass—sometimes mistaken for Red-top, *Agrostis vulgaris*. |
| 1488. | *pratensis*, L.  
Pastures and meadows. Our most valuable pasture grass; not of much value for hay. Blossoms in June. |
| 1489. | *trivialis*, L.  
S. Mich.—Wright Cat.; Flint. |
| 1490. | *sylvestris*, Gray.  
Low woods. S. Mich.—Winch. Cat.; Flint; Hubbardston (!).  
Rare. |
Hillsides. S. Mich.—Winch. Cat.; Macomb Co.; Hubbardston (!).  
Frequent. |
| 1492. | *alsodes*, Gray.  
Banks of streams. Flint; Hubbardston (!); etc.  
Infrequent. |
Flint—Dr. D. Clark; Hubbardston (!).  
Rare. |
| 1494. | *reptans*, Nees.  
Gravelly borders of streams.  
C. & S. |
Waste places and gardens,—a common weed. The sp. does not occur.  
C. & S.  
Common. |
Grand Rapids—Coleman’s Cat.; Macomb Co.  
S. |
| 1497. | *Frankii*, Meyer.  
Roadsides in low ground. Lansing (!); Hubbardston (!); Gratiot Co. (!), etc.  
Frequent. |
Eragrostis. 1498. capillaris, Nees.
Coleman's Cat.; S. Mich.—Wright Cat.; Prof M. W. Harrington.

Eragrostis. 1499. pectinacea, Gray.
Dry sandy ground. S. Mich.—Wright Cat. Reaches its northern limits at Muir, Ionia Co. (1). C. & S.

FESTUCA
Fescue-Grass. 1500. tenella, Wild. L. P.
Dry grounds. Common in the center of the State; N. to Petoskey (!).

Sheep's Fescue. 1501. ovina, Gray. Th.
Dry ground. Common.

Sheep's Fescue. 1502. ovina, Gray, var. duriuscula, Gray.
S. Mich.—Wright Cat.; Petoskey (!).

Sheep's Fescue. 1503. ovina, Gray, var. rubra, Gray.
"Lake Superior, Dr. Robbins."—Gray’s Manual.

Meadow Fescue. 1504. elatior, L. Meadows. Flint.

Meadow Fescue. 1505. elatior, L., pratensis, Gray.
Kalamazoo—Tuthill; Hubbardston (!).

Nodding Fescue. 1506. nutans, Wild. L. P.
Woods. Frequent.

CHEAT or Chess. 1507. secalinus, L. Th.
Fields. Too common in wheat fields. There is a wide-spread notion, among farmers, that wheat changes or degenerates into this grass. It is needless to say that it is wholly without foundation. Often as many as thirty well-developed stalks grow from a single grain in rich soil, each stalk maturing a hundred grains or more. It is perhaps the worst intruder in our wheat fields, from the fact that its grain is about the size of the wheat kernel, and not easily separated from it. This grass seldom troubles the better class of farmers.

Upright Chess. 1508. racemosus, L. Flint—Dr. D. Clark.

Wild Chess. 1509. Kalmii, Gray. C. & S.
Dry, open woods. S. E.—Wright Cat.; Flint; Macomb Co.; Hubbardston (!).

1510. ciliatus, L. Th.
Moist woods. We have several forms; the most peculiar of which is found growing on low sand dunes at the head of Little Traverse Bay (!).

PHRAGMITES 1511. communis, Trin. L. P.
Swamps. From S. Mich.—Wright Cat.; Chandler marsh, Lansing (!); Maple River (!), etc.; to Crooked Lake, Emmet Co. (!). Infrequent.

LOLIUM 1512. perenne, L. Macomb Co.—Dr. Cooley; Ionia Co. (!), etc. Scarcely naturalized.

Bearded Darnel 1513. temulentum, L. (***) Scarcely naturalized. Flint; Macomb Co.; S. Mich.—Wright Cat.

TRITICUM.

Couch, Quitch, Quick, or Quack Grass. 1514. repens, L. (***) Cultivated grounds. Varies greatly. Sometimes grows to the exclusion of everything else, but not wide-spread enough to be considered a pest.

1515. repens, L., var. nemorale, Anders. Petoskey—E. J. Hill.

1517. violaceum, Horneman. Th.

1518. caninum, L. Th.

S. Mich.—Winch. Cat.; Macomb Co.; Hubbardston (!).

HORDEUM

1519. jubatum, L. S. W. Lands.

ELYMUS


1522. Canadensis, L., var. glaucifolius, Gray. Common. Ionia Co. (!); Ingham Co. (!), etc. Specimens from banks of Red Cedar River, Lansing, measured six feet, with leaves one inch wide.

Wild Rye.


Wild Rye.

1524. striatus, Wild. Th. S. Mich.—Wright Cat.; Flint; Hubbardston (!); northward to L. Superior.


Bottle-brush Grass.

1526. Hystrix, Schreb. Th. Moist woods. A variety of this grass is found in one locality near Hubbardston with smooth and very glaucous culms, leaves rough, hairy.

DANTHonia


AVENA

1528. striata, Michx. C. & S. S. E.—Wright Cat.; Macomb Co.; Flint; Hubbardston (!).


TRISETUM

1530. subspicatum, Beav., var. molle, Gray. U. P. Whitney Cat.

Common Hair-Grass.

1531. flexuosa, L. Th. Infrquent. Dry places.

Hair-Grass.

1532. caespitosa, L. Th. Bogs. S. Mich.—Wright Cat.; Flint; Hubbardston (!); Petoskey (!).

ARHENATHERUM

1533. avenaceum, Beav. Frequent. Macomb Co., etc. Escaped from culture.

Oat-Grass.

1534. borealis, Röm. & Schultes. Not confined to the shores of the Great Lakes; found in the central part of the State at Ionia (!); Hubbardston (!); Macomb Co.; Flint; S. E.—Winch. Cat., etc.

Hierochloa

Vanilla or Seneca-Grass.

1534. borealis, Röm. & Schultes. Common.
ANTHOXANTHUM

Sweet Vernal-Grass.

1535. odoratum, L.

Ionia (!); Grand Rapids—Coleman Cat.; Petoskey (!).

TH.

PHALARIS

Reed Canary-Grass.

1536. arundinacea, L.

Borders of streams. Rare in L. P. "Var. picta, the leaves striped with white, is the familiar ribbon-grass of the garden."—Gray's Manual. Lansing—Bailey; Ann Arbor—Prof. M. W. Harrington; S. Mich.—Winch Cat.; Macomb Co.; Flint; Hubbardston (!); northward to L. Superior—Whitney Cat.

Millet-Grass.

1537. effusum, L.

Woods.

Th.

PANICUM

Millet-Grass.

1538. filiforme, L.

S. W.—Wright Cat.

1539. glabrum, Gaudin.

Waste places.

Common.

Common Crab or Finger Grass.

1540. sanguinale, L.

Waste places, gardens, and fields. A bad weed, difficult to dig up or pull out; grows quickly and is perhaps the worst weed we have in gardens at least in some localities. *P. glabrum* grows in the same situations but is smaller and easily eradicated.

Old-witch Grass.

1541. capillare, L.

Sandy soil, fields. The spreading panicle is easily broken off and blown about by the wind.

Common.

Panic-Grass.

1542. virgatum, L.

S. Mich.—Wright Cat.; and northward to Ionia (!); Flint. A tall coarse grass along rivers.

C. & S.

Panic-Grass.

1543. latifolium, L.

Rich woods

Common.

Panic-Grass.

1544. clandestinum, L.

Low grounds. Macomb Co.; Lansing (!), Flint (!), Hubbardston (!). Rare.

Panic-Grass.

1545. microcarpon, Muhl.


Panic-Grass.

1546. pauciflorum, Ell.

Hubbardston (!). Along the R. R. between St. Johns and Muir (!).

Common.

Panic-Grass.

1547. dichotomum, L.

Dry or low grounds. A very common and exceedingly variable grass. Some forms seem distinct enough to be considered species.

Common.

Panic-Grass.

1548. depauperatum, Muhl.

Dry woods and barrens.

Common.

Barnyard-Grass.

1549. Crus-galli, L.

Low grounds. Variable.

Common.

1550. Crus-galli, L., var. hispidum, Gray.

In swamps, where it seems indigenous.

Common.

SETARIA

1551. verticillata, Beav.

Lansing, College grounds.

Th.

Foxtail.

1552. glauca, Beav.

Fields and gardens.

Common.

Pigeon-Grass.

1553. viridis, Beav.

Cultivated grounds.

Common.
MICHIGAN FLORA.

1554. *Italica*, Kunth.
Remaining after cultivation.

**CENCHRUS**

1555. *tribuloides*, L.
This bad weed has began to occupy the S. part of the State, not having been reported N. of Grand Rapids (!). Not as yet troublesome in fields, but likely to become so on sandy farms along the Great Lakes.

**ANDROPOGON**

Light soil. C. & S. Common.
1557. *scoparius*, Mx.
Sterile soil. C. & S. Frequent.
1558. *Virginicus*, L.
S. Mich.—Wright Cat.

**SORGHUM**


**(EQUISETACEÆ.**

**(Horsetail Family.**

**EQUISETUM**

1561. *arvense*, L. (***)
Damp, sandy grounds. Common.
1562. *pratense*, Ehrh.
Macomb Co.; Flint; to Pine Lake, Emmet Co.—Winch. Cat. L. P. Rare.
1563. *sylvaticum*, L.
Ann Arbor, rare.—Allmend. Cat.; Clinton Co. (!); Montcalm Co. (!); Flint; and northward where it is common. Th.

1564. *palustris*, L. U. P.

**Filices.**

**(Ferns.**

**POLYPODIUM**

1569. *vulgare*, L. (***)
Dry banks and rocks. Grand Ledge—Prof. W. J. Beal; Hubbardston (!), etc. Rarely seen in L. P., but very common in U. P.
ADIANUM
1570. pedatum, L. Rich, moist woods. One of our most beautiful ferns.

PTERIS
1571. aquilina, L. (***)
Th. Common.

PELLÉA
1572. gracilis, Hook. Thickets.
1573. atropurpurea, Link. Sharped limestone rocks. N. E.—Winch Cat.; Put-in-Bay (!)

CRYPTOGRAMME

WOODWARDIA
1576. angustifolia, Smith. The only known locality of this fern in Michigan is at South Haven, where it was detected in 1880 by L. H. Bailey, Jr.

ASPLENIUM
1578. ebeneum, Ait. Allegan (!)—Miss Josie A. Williams.
1580. angustifolium, Michx. Rich woods. S. W.—Wright Cat.; Ann Arbor, rare—Allmendinger Cat.; Flint; S. Haven and Lansing—Bailey; Ionia Co. (!). Infrequent.
1581. thelypteroides, Michx. (***)
Th. Common.

CAMPTOSORUS

PHEGOPTERIS
1583. Filix-femina, Bernh., var. exile, Eaton. Hubbardston (!).
1584. rhizophyllus, Link. (?) Occurs in N. Ohio, and may be looked for S.

Walking-Leaf
1585. polypodioides, Fée. Isle Royale—Dr. A. B. Lyons.

Common Beech-Fern
1586. hexagonoptera, Fée. Beech woods. Flint; Hubbardston (!); Ann Arbor—Allmendinger Cat. Rare.

Oak-Fern
1587. Dryopteris, Fée. Th.
Open woods. Frequent n. of lat. 43°, especially under pines.
ASPIDIUM

1588. Thelypteris, Swartz.
Swamps.

Swamps. Ann Arbor—Allmendinger Cat.; Macomb Co.; Lansing—Bailey; Hubbardston (!).

1590. fragrans, Swartz.
Crevices of shaded cliffs. Isle Royale, and Keweenaw Peninsula.—Dr. Lyons.

1591. spinulosum, Swartz, var. vulgare, Eaton.
Shady woods. Flint; Hubbardston (!); L. Superior—D. C. Eaton, Ferns of N. A.

1592. spinulosum, Swartz, var. intermedium, Eaton.

1593. spinulosum, Swartz, var. dilatatum, Eaton.

1594. Boottii, Tuckerman.

1595. cristatum, Swartz.
Swamps.

1596. cristatum, Swartz, var. Clintonianum, Eaton.
Ann Arbor.—Allmendinger Cat.; Hubbardston (!).

1597. Goldianum, Hook.
Moist woods. Lansing.—Bailey; Flint; Hubbardston (!).

1598. Filix-mas, Swartz. (*)
Rocky woods. Keweenaw Peninsula, Lake Superior.—Gray.

1599. marginale, Swartz. (***)
Hillsides in rich woods. S. Haven—Bailey; Flint; Hubbardston (!); and northward.

1600. acrostichoides, Swartz.
Shady hillsides. Fronds evergreen, used for decoration. Common.

1601. Louchitis, Swartz.
Woods. Southern shore of L. Superior.—Prof. Whitney.

1602. aculeatum, Swartz, var. Braunii, Koch.
Ontonagon Peninsula.—Eaton's Ferns of N. A.

CYSTOPTEKIS

1603. bulbifera, Bernh.
Moist shaded hillsides.

1604. fragilis, Bernh.

ONOCLEA

1606. struthiopteris, Hoff.
Alluvial soil. Worthy of cultivation; one of our finest ferns. Infrequent.

1607. sensibilis, L.
Wet places. Abundant.

WOODSIA

1608. obtusa, Torr.
Rocky places. Not rare.
104 MICHIGAN FLORA.

Rusty Woodsia.


Smooth Woodsia.


Northern Woodsia.

1611. hyperborea, R. Br. ? North shore of Lake Superior—J. Macoun. The last two species may be looked for in our district.

Oregon Woodsia.


Hairy Dicksonia.


Royal-Fern.

1614. regalis, L. (***) Swamps. N.

Clayton’s Flowering-Fern.

1615. Claytoniana, L. Moist grounds. Th.

Cinnamon-Fern.


Botrychium.

1617. Lunaria, Swartz. "Lake Superior (Lesquereux), and sparingly northward.”—Eaton in Gray’s Manual. U. P.


Virginia Grape-Fern.


1622. ternatum, Swartz, var. lunaroides, Eaton. J. Macoun.


1624. ternatum, Swartz, var. dissectum, Eaton. South Haven (!)—Bailey.

Lycomniaceæ.

(Club-moss Family.)

Lycomniaceæ.

1625. lucidulum, Mx. Th. Frequent.

Club-moss.


Club-moss.

1627. inundatum, L. Th. Drummond’s I., Willow River, Huron Co., Sugar Is.—Winch Cat.

Tree-like C. Ground-Pine. 1629. dendroidesum, Michx. Th. Moist woods.

Common Club-moss. 1630. clavatum, L. (***)

Club-moss. 1631. complanatum, L. Th. 

Bangor, Van Buren Co.—Bailey; Woodard Lake, Ionia Co. (!); Flint; Macomb Co.; Stanton (!); and northward.

SELAGINELLA

Selaginella. 1633. selaginoides, Link. U. P.

Common 1633. rupestris, Spring. Th.

Flint; Woodard Lake (!); rare in L. P., but common in U. P.

Selaginella. 1634. apus, Spring.

Ann Arbor—Allmendinger Cat.; Hubbardston (!) Infrequent.

ERRATA.

Page 5, line 22. For “three-fourths” read two-thirds.
Page 6, line 22. For “eltaum” read elatum.
Page 6, line 24. For “Sheperdia” read Shepherdia.
Page 7, line 13 from the bottom. For “Potamgeton” read Potamogeton.
Page 10, note under No. 16. For “full—double” read full-double.
Page 12, under No. 43, after “Flint, etc.,” read Commonly cultivated for hedges, and rarely adventive.
Page 12, note under No. 44. For “Comman” read Common.
Page 14. No. 78 is an introduced plant.
Page 18, No. 150, com. name. For “Long-eared” read Long-leaved.
Page 18, No. 160. Read “Adv. and rare,” after “Dr. Wright, Dr. Clark.”
Page 19, No. 171, com. name. Insert a period after “Indian Mallow.”
Page 19. No. 172 is indigenous.
Page 19, No. 174, com. name. Insert a period after “Basswood.”
Page 20. No. 182 is adventive from Europe.
Page 21, note under No. 195. For “inoculous” read innocuous.
Page 21, No. 196. For “radican” read radicans.
Page 26, No. 273. For “Leucantha” read leucantha.
Page 29, note under No. 318. For “Kittattiny” read Kittatinny.
Page 29, note under No. 330. For “Crategus” read Crataegus.
Page 36, note under No. 431. For “flower” read fruit.
Page 40. Read “BARRENS” as part of note under No. 502—Bowens, S. Mich., etc.
Page 42, No. 541. For “var. L.” read L. var.
Page 56, No. 792, com. name. For “Frog-Fruit” read Frog-fruit.
Page 64, No. 911. For “S,” read C. & S.
Page 65, No. 929. For “lapithifolium” read lapathifolium.
Page 70, No. 1010. For “vulgoris,” read vulgaris Lam.
Page 74, note under No. 1057. For “central” read central.
Page 79, note under No. 1130. Substitute a period for the comma after “pine region.”
Page 87, No. 1261. For “Shultes,” read Schultes.
Page 88, note under No. 1284. For “Baily” read Bailey.
Page 89, No. 1309. For “teretinscule,” read teretisscule, Good.
Page 92, No. 1389. For “Scabrata,” read scabrata.
Page 94, No. 1440. For “Low Grounds,” read Low ground.
Page 96, note under No. 1466. Substitute a period for the comma after “River banks.”