

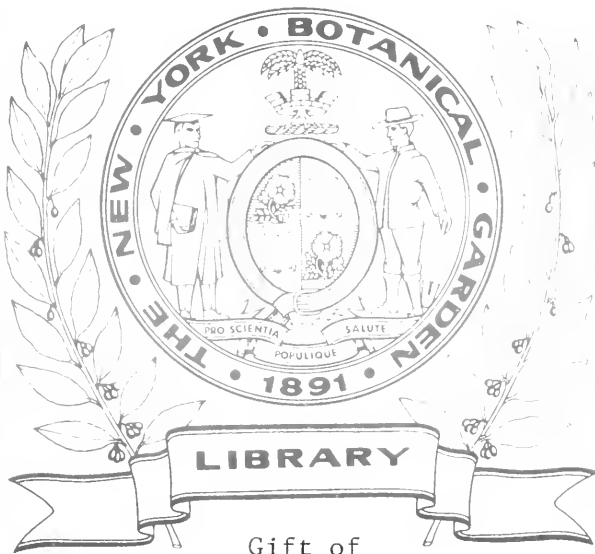
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FLORA OF BERKSHIRE COUNTY, MASSACHUSETTS

BY RALPH HOFFMANN.

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PREFACE.

THE following catalogue of the plants growing without cultivation in Berkshire County, Massachusetts, is based chiefly on the collections made by the writer during the last thirty years and now in the herbarium of the New England Botanical Club at Cambridge, supplemented by those of other members of the Club, deposited in the same place. A few species are entered in the list which are not represented in that herbarium but no species has been admitted which the writer has not personally examined. In the case of difficult groups every effort has been made to have the writer's identification verified by competent authorities. In the Appendix a list is given of plants which have been attributed to the County, specimens of which have not been seen by the writer or by some competent authority. A list is also given in the Appendix of plants which the writer believes have been attributed to the County through error.

No catalogue of the plants of Berkshire County has been published since Dewey's list in 1829 (*vid.* Introduction, p. 178). The great advance made in our knowledge of the New England flora since then seems to justify the publication at this time of a summary of our present knowledge of the flora of the region.

That such a list must be incomplete goes without saying. Additional introduced plants are likely to make their appearance at any time. There are doubtless a few native plants in the County which have up to the present eluded the search of collectors. Our knowledge of the range within the County of some of the plants in the list is still incomplete. One of the functions of a local list is to stimulate students to add to the knowledge therein contained. The writer will be glad to hear from anyone who has additional data to offer. Communications to be of value should be accompanied by specimens from which the identity can be determined, together with particulars of occurrence, etc. These specimens should be properly dried under pressure.

In the present list the names of all indigenous species, varieties, and forms are printed in bold-faced type; those of introduced species, varieties, and forms in small capitals. The nomenclature and order followed are those of Gray's Manual, seventh edition, except where a later name has apparently received the sanction of the editors of the

Manual. In such cases the name used in the Manual follows in parentheses. For the convenience of those who use Britton and Brown's Illustrated Flora, the name used in the second (1913) edition of that work is also given in parentheses wherever it differs (except in spelling) from that used in this list. If the generic name used by Britton and Brown differs from that here used but the specific names are the same (except for changes of gender), the generic name only is given. The Illustrated Flora, as is well known, does not recognize geographical varieties to the extent of naming them. It will be impossible therefore, for those who use the Illustrated Flora to discriminate between the species and the many varieties (over two hundred) recognized in this list.

A great number of our native plants are not sufficiently known by the people to have received a genuine popular name. Only striking plants, like the Cat-tail, Sweet Flag, and Butterfly-weed, have names that are actually current. Others belong to a group which is recognized, like Cotton Grass, but species within the group are not distinguished. Many vernacular names are given in the botanics, that are never used by the people, such as Dock-leaved Persicaria (*Polygonum lapathifolium*). In the following list all names known to be in current use are given, and others have been copied from the Manual.

The habitats given are those observed in the County.

The use of the expressions *valley* and *plateau* demands a word of explanation. The term *valley* is used to designate the trough formed by the Hoosic and Housatonic Rivers and their main tributaries. It contains the principal limestone and moraine deposits, and its slopes include wooded hillsides with well-drained leaf mould. The term *plateau* is used to designate the broad upland bounding the valley on the east. It is characterized by an absence of limestone and by cool rocky woods, ill-drained hillsides and moist fields (*vid.* Introduction, p. 182).

For convenience, the term Greylock is used to include the whole mountain-mass that culminates in Mt. Greylock of the topographic sheet, and The Dome for the mountain-mass that culminates in Mt. Everett of the topographic sheets.

To indicate the comparative frequency of the plants listed the following terms have been used, namely, "common," "frequent," "occasional," and "rare." These terms must be interpreted in connection

with the accompanying statement of habitat; thus, "Rich woods; common," implies that the species is infrequent or entirely absent except in rich woods. Moreover, the term "common" cannot be used with anything like mathematical precision. A species may be so designated if it occurs in fairly large numbers wherever the conditions are suitable, but owing to its association with a number of other species struggling for space in the same environment the total number of plants in a given area may not be nearly so great as in the case of a species which crowds out all competitors. "Frequent" means that the species may be found without much search but that there are areas in many apparently suitable localities where it is absent. "Occasional" and "rare" explain themselves. When a plant is "occasional" or "rare," all the stations where it has been found have been given. The term "local" is used when a species is common at a few stations.

Since the publication of the Manual a number of new species and varieties have been described, or the treatment of species or groups has been revised. Brief descriptions of these new species, varieties, or forms have been included in this list, generally copied from the original description, so that the list may supplement the Manual for the region which it covers.

All varieties and forms have been given a separate paragraph for convenience in using the list, instead of combining subordinate varieties and forms in the same paragraph with the species.

In a very few instances only, new combinations have been made in this list. A few combinations treated in the Manual as varieties have been reduced to forms, in accordance with the more recent treatment of these phenomena. The incised, or auricled forms of ferns, color phases of fruit or flower, which occur with the typical form and are not combined with any other character or any marked difference in range are treated as forms. A few color forms, most of which have been well known to collectors, but have not yet received a name, have been given names in this list. A list of all new forms and combinations is given in the Appendix.

Artificial keys for the determination of species in large and difficult groups are an essential feature of the standard manuals of botany. It has seemed to the author unnecessary to furnish the present work with such keys, except where the number of species found in Berkshire County is much smaller than the number covered by the manuals. In such cases keys covering only the species known to occur in Berk-

shire County have been prepared by editing the excellent keys in Gray's Manual, seventh edition.

It remains for the writer to express his sincere thanks to those who have generously helped in the preparation of the list both in the field and in the study. The assistance freely given by Prof. M. L. Fernald in the early years of the undertaking was of the greatest service to the writer. Dr. Harold St. John has kindly read the manuscript and has helped with many difficulties. Mr. C. A. Weatherby has generously given aid and advice. Mrs. Agnes Chase, Mr. W. W. Eggleston, Mr. F. F. Forbes, Mr. F. Tracy Hubbard, Mr. Bayard Long, Mr. K. K. Mackenzie, and Prof. K. M. Wiegand have very kindly aided in determining difficult species. Dr. B. L. Robinson and Miss M. Day have been frequently consulted. Without the keen eyes and industry of Mr. F. Walters and Judge J. R. Churchill the list would be poorer by a number of species. Mr. Walters has also been of great help in the study of Dewey's and Eaton's nomenclature. The map of Berkshire County has been kindly drawn by Mr. H. Harris. The writer wishes to take this opportunity to express his gratitude to Mr. and Mrs. Bernhard Hoffmann for the constant interest which they have shown in the preparation of the list.

CONTENTS.

	Page
Introduction	177
History	177
Physiography	182
Catalogue of Flowering Plants and Ferns	193
Appendix	353
Fugitive Species	353
Excluded Species	354
Doubtful Species	356
Tabular List of Families	357
Observations on Soil Relations	361
List of New Forms and Combinations	363
Index	365

INTRODUCTION.

HISTORY.

THE first two decades of the 19th century constituted a period of active study of North American plants, by both native and foreign collectors and systematists. Pursh traveled in North America from 1799 to 1811 and published his *Flora Americae Septentrionalis* in London in 1814. Michaux had already published the *Flora Boreali-Americana* in Paris in 1803. Local students were beginning an intensive study of the regions about the chief centers of scientific interest. Dr. Jacob Bigelow's *Florula Bostoniensis*, the first local list published in this country, appeared in 1814; Barton's *Florae Philadelphicae* was published in 1818. Nuttall's *Genera of North American Plants* appeared in the same year.

During the second decade of the century Williams College was a local center of botanical interest and activity. Two botanists of high rank were connected with the college at that time, Chester Dewey and Amos Eaton.

Chester Dewey was a native of Berkshire County, born at Sheffield in 1784. He was graduated from Williams College in 1806, accepted a tutorship at the college in 1808, and in 1810 was appointed Professor of Mathematics and Natural Philosophy in the same institution. He held this office for seventeen years. From 1827 to 1836 he was

head of a boys' high school at Pittsfield and was at the same time a professor of chemistry in the Medical College at Pittsfield and also at the Medical College at Woodstock, Vermont. He died in 1867.

Dewey prepared a list of the plants of Berkshire County for the History of the County which was published by Rev. Dr. Field in 1829. This list, now nearly one hundred years old, has remained the only catalogue of the flora of the County. It contains the names of about 800 species and varieties of native flowering plants, ferns, and fern allies. The habitat of each plant is indicated in a very general way, and occasionally a definite locality is given. With the assistance of Mr. Frank Walters, the writer has made an analysis of this list with the following results.

There are about twenty-five names on the list of plants which are undoubtedly erroneously determined, such as *Clintonia umbellulata*, *Desmodium viridiflorum*, *Viola striata*, etc. It is sometimes possible to determine with little doubt what plant Dewey had in mind, *e. g.*, *Clintonia umbellulata* is without doubt *C. borealis* (Ait.) Raf. which is not included in the list. What is intended by *Desmodium viridiflorum* is a matter of conjecture. It may be *D. paniculatum* (L.) DC., which is not listed.

There are about twenty species on the list which have not since been found in the County. These are species which Dewey could hardly have mistaken, and the synonymy is in no way confused. Several collectors besides the writer have looked for these plants but without success. The list is given in the Appendix in the hope that these plants may still be found in the County. In many cases plants listed by Dewey were looked for in vain for many years by those interested, and finally found. In the case of *Smilax rotundifolia* only one plant has been found, which may be Dewey's very individual. In the case of *Arctostaphylos* and *Phragmites* it is certain that we have followed in Dewey's very footsteps and found the same plants growing in the same stations where he found them one hundred years ago.

There are inexplicable omissions in Dewey's list; plants are absent which he must have seen in the County and which had been described and named before his day. He lists *Selaginella rupestris* under the name *Lycopodium rupestre*, but omits *Lycopodium apoda*. *Potamogeton pusillus* L., *Viola lanceolata* L., *Desmodium nudiflorum* (L.) DC. are not on his list.

Other plants which have since been added to the list Dewey simply

failed to find. Everyone knows how hard it is to find rarities when everything is unfamiliar. It is not to Dewey's discredit, that a keen collector like Mr. Frank Walters added *Arisaema Dracontium*, *Cimicifuga racemosa* and *Dentaria laciniata* to the County-list in Dewey's own town. The great majority of species and varieties in the present list which were not contained in Dewey's list, are plants now recognized as distinct which had not in his day been separated from closely related species. There are also a number of introduced species, like *Rudbeckia hirta*, which have made their way into the County during the last one hundred years. Anyone who studies Dewey's list, keeping in mind the state of botanical knowledge in his day, will entertain a great respect for his energy and acuteness.

Dewey's chief interest in botany early became the genus *Carex*. He began to contribute studies of this genus to the American Journal of Science and Arts in 1824 and continued till 1866, the year before his death.

The following species were named either by him or by his correspondents from material collected in Berkshire County.

- Carex formosa* Dewey from Stockbridge.
- Carex novae-angliae* Schwein. from Saddle Mt. (Greylock).
- Carex scabrata* Schwein. from Berkshire County.
- Carex longirostris* Torr. from Sheffield.
- Carex Darisii* Schwein. and Torr. from Sheffield.
- Carex Hitchcockiana* Dewey from Saddle Mt.
- Carex Tuckermanni* Dewey from Sheffield.
- Carex Schweinitzii* Dewey from Williamstown.
- Carex setacea* Dewey from Williamstown.

In 1840 Dewey was commissioned by the Governor of the State to prepare a report on the flowering plants of Massachusetts, a companion to Emerson's classic report on the trees and shrubs. There are a number of references in this report to Berkshire County, some of which are interesting enough to quote, as throwing light on the history of its flora during the last century. Of the Sweetbrier (*Rosa rubiginosa*) he says, p. 55, "Its perfectly wild state in the fields and along hedges in the north part of Berkshire County has led me to doubt its importation into that part of the state." Of the Shrubby Cinquefoil (*Potentilla fruticosa*), which is now a pest in moist pastures, he only says, p. 57, it "grows on the margin of ponds in marshy situations and on cold upland tracts." Dewey did not seem to know *Vicia Cracca* from

Berkshire, where it is now frequent. He gives it from Malden and Cambridge and calls it "a native of England." He says of *Trifolium officinale* and *Trifolium album* (*Medicago officinalis* and *alba*), p. 66, "The yellow-flowered and the white, both finely scented are often cultivated in gardens. The white is sparingly naturalized in some places." Both are now naturalized, the white commonly, and the yellow frequently. The Pitcher Plant, Dewey calls the Side-saddle Flower, "from the resemblance in shape and position of its curved and hollow leaf to the horn of a side-saddle." The name with the equipment is now practically unknown. He says nothing about the insectivorous habits of the plant. *Agrostemma Githago*, now rare, he calls, p. 87, "a well known weed of wheat fields." *Cerastium vulgatum* he speaks of, p. 89, as of "little consequence except as yielding seed for the food of small birds." *Pyrola* (now *Moneses*) *uniflora*, common in pine woods, he says is "found near Salem by Mr. Oakes." The Canada Thistle (*Cirsium arvense*) had already become a menace, but *Cirsium pumilum* he says, has been "found near Boston." Joe-Pye-Weed (*Eupatorium purpureum*) is "said to have been recommended to the whites by an Indian of the name." The Shakers "manufactured the heads and leaves of *Gnaphalium margaritaceum* [*Anaphalis margaritacea*] into mattresses, and which are said to be pleasant and healthful." *Rudbeckia hirta* is not mentioned. Of *Prunella*, of which the popular name in the books is Heal-all, Dewey says, "Not used to heal anything." *Galeopsis Tetrahit*, he says, has "sprung up from straw thrown out from crates of crockery." *Thymus Serpyllum*, now common in the central towns of the County, he says is "cultivated in gardens and naturalized in a few places, formerly used in cookery." *Dianthus Armeria*, *Saponaria officinalis*, *Rumex Acetosella*, *Plantago major*, *Aretium minus*, *Leontodon taraxacum* (= *Taraxacum officinale*), *Tanacetum*, *Inula*, *Tussilago*, *Veronica arvensis*, *V. agrestis*, and *V. serpyllifolia* had all become naturalized in Dewey's time.

Shortly after Dewey had become established as a professor at Williams College, A. A. Eaton, though not a member of the faculty, gave a series of lectures at the college on botany which created an unusual interest among the students and even in the community. Eaton, was born in Chatham, New York, a few miles from the border of Berkshire County in 1776; he graduated from Williams College in 1799. In 1817 he lectured on botany to enthusiastic classes at Williams College, and at their request published the first edition of his

Manual of Botany, followed in 1818 by the much enlarged second edition. In this edition is the first description of *Lonicera hirsuta*, found by one of Eaton's pupils "two miles west of the college." This species was later found in Vermont, New York, and westward, but in no other stations in Massachusetts. Moreover, Eaton's station was lost sight of until 1920, over one hundred years after its original discovery, when the writer had the pleasure of finding a flourishing colony of plants probably in the same locality that Eaton referred to.

Eaton made occasional references in his Manual to definite localities in Berkshire, which represent either his own knowledge of the County or information acquired from his pupils or from Dewey. He refers in particular to the activity of Dr. E. Emmons, who was his pupil.

Eaton must have had unusual power to arouse interest and even enthusiasm for scientific study. There is a tradition in Williamstown, for which I am indebted to Professor S. F. Clarke, that after his lectures on botany, the loafers in the village taverns when meeting in the evening discussed the new flowers that they had found. Eaton was not so accomplished a botanist as Dewey, but probably a more inspiring teacher.

In 1824 Eaton went to Troy, there to found the Polytechnic School, and in 1827 Dewey took charge of a school in Pittsfield. The latter still worked at the genus *Carex*, and doubtless kept up his interest in Berkshire plants, but the period of active botanical work on the flora of the County carried on by resident botanists was practically over. The collections in the County from that time to the present were made by botanists from the centers of scientific activity, chiefly from Boston and its vicinity, although a sheet of *Thelypteris Goldiana* in the herbarium of the Boston Society of Natural History collected in Williamstown by Torrey, but bearing no date, testifies to the presence in the County of that distinguished botanist. Oakes, also, visited the County, probably on the occasion of his trip to western Vermont. Sheets from Pittsfield and Williamstown bearing his name as collector are in the herbarium of the Boston Society of Natural History. They must have been collected prior to 1818, the date of Oakes' death. In 1858 William Boott was collecting *Carex Schurinitzii* in Williamstown, as sheets in the Gray Herbarium testify. J. W. Robbins in 1864 collected *Potamogeton alpinus* in Richmond. In 1877 the modern period of botanical work in the County may be said to have begun, inaugurated by the first visit of Judge J. R. Churchill to the County.

In that year he collected *Arabis Drummondii* on Hoosac Plateau and in the year 1920, forty-three years later, he is still active in the field, adding new plants and new stations to the list. The brothers Charles E. and Walter Faxon visited Lenox in 1872, and made collections there. Professor C. S. Sargent collected *Crataegus* in the County in 1902 and was the first to discover *Quercus Muhlenbergii* as a native of the State. Professor Brainerd was studying the violets of the County in the first decade of the 20th century. The formation in 1895 of the New England Botanical Club and the increased interest in the New England flora resulting from that step has attracted to the County in the last two decades many active collectors, whose work has enriched our knowledge of its flora. Particularly notable was a visit by Professor Fernald to Florida. Attracted by the presence on the geological map of the County of a strip of serpentine, he visited the outcrop and added two species to the county list: *Arenaria macrophylla* and an indigenous form of *Cerastium arvense*.

From 1913 to 1917 the County had again for too short a time a resident botanist. Mr. F. Walters in three seasons' collecting discovered in the southern tier of towns a large number of interesting plants which had not previously been reported from the County, besides adding materially to our knowledge of the distribution of many other species.

PHYSIOGRAPHY.

The plants comprised in the list published in this paper have been all collected within the boundaries of Berkshire County, Massachusetts. A brief description of the physiographic features of the County is essential to an understanding of the distribution of the plants here listed.

Berkshire County is the westernmost county in Massachusetts and extends entirely across the State, from Vermont to Connecticut. Its northern boundary is formed by Bennington County in Vermont and its southern boundary by Litchfield County, Connecticut. On the west it is bounded by Rensselaer and Columbia Counties, New York. It extends from lat. $42^{\circ} 45'$ north to about $42^{\circ} 2'$ south, a distance of about 49 miles. In breadth it varies from about 24 to about 12 miles. Its area is about 1000 square miles.

The main topographical features of the County are the Housatonic

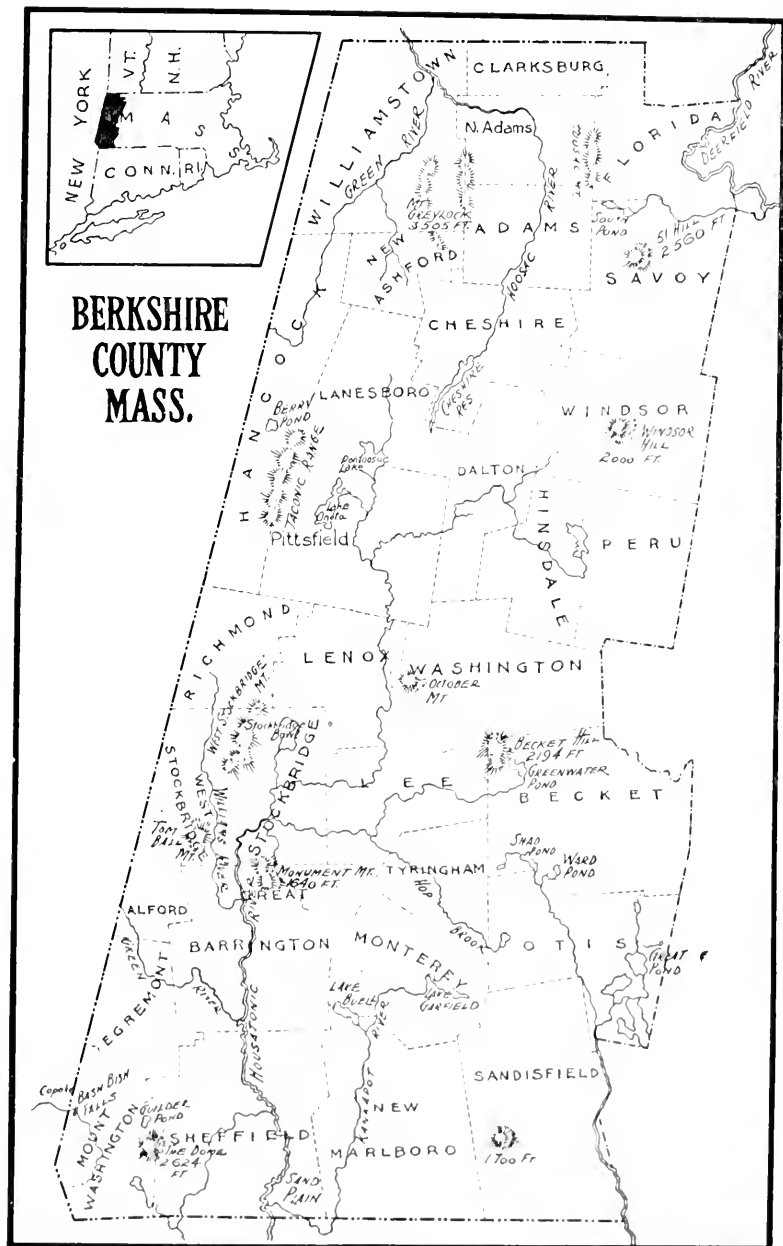


FIG. 1. Map of Berkshire County, Massachusetts

and the Hoosac Valleys, the Taconic Range, the mountain-mass of which Mt. Greylock is the highest peak, and the Hoosac Range.

The Housatonic Valley extends from Lanesboro to Sheffield, a distance of 32 miles, about two-thirds of the length of the County. The elevation of Pontoosue Lake on the southern boundary of Lanesboro is 1120 feet. At the southern boundary of the County, the river has fallen to less than 700 feet. The floor of the valley varies considerably. It is broad in Pittsfield, occupying about seven miles, and in Sheffield six miles, and is narrowest at Glendale, where steep hills rise abruptly from each bank. Several long valleys extend eastward from the main valley of the Housatonic: that occupied by Muddy Brook in Great Barrington, that of Hop Brook in Tyringham and that of the west branch of the Housatonic in Hinsdale and Dalton. Lake Garfield (Brewer Pond) and Lake Buel in Monterey are drained by the Konkapot River, a tributary of the Housatonic which flows south, through New Marlboro. Several long narrow valleys bring streams from the northwest to the western bank of the Housatonic, notably the Williams River through West Stockbridge and Great Barrington and the Seekonk River, with its tributary, the Green River, through Alford and Egremont.

The Hoosac River rises in Lanesboro and flows north through Cheshire, Adams, North Adams, and Williamstown, falling into the Hudson in Rensselaer County, New York.* Its course is rapid throughout and it has a narrower valley than the Housatonic. In Williamstown it receives from the west the Green River which rises in Hancock and flows north in a long, narrow valley.

The Deerfield River, a tributary of the Connecticut River, borders the town of Florida for about seven miles.

The Farmington, another tributary of the Connecticut River, heading in the southern part of Becket, drains the greater portions of Otis and Sandisfield.

The western part of Mt. Washington in the extreme southwestern corner of the County lies almost entirely in the Hudson River drainage system.

The Taconic Range forms the chief feature of the western border of the County. It is formed of a succession of ranges, many of them rising in isolated peaks to over two thousand feet in height, separated by the valleys above described or by passes such as that above Lebanon, which has an altitude of 1500 feet. In the southwestern corner

of the County Mt. Everett, better known in the County as The Dome, rises to an elevation of 2624 feet. In the northern end of the County, lies the mass of which Mt. Greylock is the highest point. This peak is 3505 feet above sea level, and is the highest mountain in the State.

The eastern portion of the County is composed of a broad series of ranges, which are a continuation of the Green Mountain range of Vermont. The highest peaks rise to an elevation of 2840 feet in Florida and 2280 feet in Windsor, but there are no deep valleys separating one range from another as in the Taconic range. For long distances the upland rises steeply from the valleys of the Housatonic and the Hoosac to a very uniform level, about 2000 feet in the north, falling to 1500 feet in the south. The whole upland is so distinct in its character from either the valleys above described or from the well-drained Taconics that for convenience it will be called, in the following list, the Hoosac Plateau or the Plateau.

There are nine or ten large lakes and a number of small ponds in the County. Most of the lakes are remnants of glacial lakes formed in the river valleys. The largest are Onota and Pontoosuc in Pittsfield, Lake Mahkeenac (Stockbridge Bowl) in Stockbridge, Lakes Garfield (Brewer Pond) and Buel in Monterey, and Cheshire Reservoir in Cheshire. Several of these have comparatively soft bottoms and marshy places along part of the shore-line. There are in the upland, particularly in Becket and Otis, a number of small ponds with hard bottoms and rocky shores. There are also small ponds both on the upland and in the valleys in the center of "quaking" peat bogs. In Lenox and Sheffield there are extensive swampy woods bordering the Housatonic and its tributaries.

The altitude of much of the Plateau and of many of the hills, notably The Dome and the Greylock mass, is such that snow falls earlier and lingers later there than in the valleys, and clouds and mist often rest on the heights when the valley is clear.

The distribution of plants depends so intimately on the character of the soil and this in turn so much on past geological history that a brief account of the main geological changes that have taken place in the County is necessary. The upland designated above as the Hoosac Plateau is composed for the most part of hard igneous or metamorphic rocks dating from the Archaean and Cambrian periods. The principal rocks are granitic gneiss, sericite schist, and quartzite. The valleys of the Housatonic and Hoosac and their principal tribu-

aries have been formed in a broad belt of limestone of Cambrian and Ordovician formation. The Taconics are formed of sericite schist. The hills which rise everywhere in the valley, even at times bordering the river, are for the most part portions of the schist and the quartzite formations which through faulting have been separated from the main ranges and are often hard knobs, overlain on their flanks with limestone. A narrow band of serpentine is exposed in Florida.

The greatest differences in soil in the County are due to the presence of limestone in the valleys and its absence from the Plateau and the higher ranges. Another very important factor in the formation of soils of different nature was the glacier. Not only did the glacier transport materials of different composition and mingle them together, not only did it scrape the summits of the hills bare of soil, but at its periods of halt it caused the formation of lakes and streams through whose agency much of the transported and ground material was deposited in the form of sand-plains and moraines. On the sides of all the larger valleys are mounds of sandy or gravelly material deposited by the halting ice-sheet, and on many of the valley floors are level sandy plains, the former beds of lakes formed by an ice-obstructed gorge.

Taking into account the factors of shade, moisture, and soil the native plants of Berkshire County may be divided, with more or less exactness, into various groups or associations. The most characteristic of these groups are indicated in the following lists, which are not intended to be exhaustive but merely suggestive.

(1) Plants growing in water with submersed or floating leaves: *Isoetes echinospora*, var. *Braunii*, *Sparganium angustifolium* and *S. fluctuans*, all the *Potamogetons*, *Elodea*, *Vallisneria*, *Ceratophyllum*, *Nymphoanthus* (*Nuphar*, Man. ed. 7), *Castalia*, *Brasenia*, *Myriophyllum exalbreseus* and *M. verticillatum*, var. *pectinatum*, *Bidens Beckii*, etc.

(2) Plants of muddy, sandy or rocky shores: *Eriocaulon septangulare*, *Eragrostis hypnoides*, *Carex flava*, var. *rectirostra*, *C. Oederi*, var. *pumila*, *Cyperus aristatus*, *C. esculentus*, *C. strigosus*, *Juncus articulatus*, *J. brevicaudatus*, *J. marginatus*, *J. nodosus*, *J. pelocarpus*, *Radicula palustris*, *Hypericum boreale*, *H. canadense*, *H. ellipticum*, *Viola lanecolata*, *Apocynum cannabinum*, etc.

(3) Plants of low river banks and swales: *Pteretis nodulosa* (*Onoclea Struthiopteris*), *Bromus altissimus*, *Elymus riparius*, *E. striatus*, *Panicum clandestinum*, *Carex crinita*, *C. cristata*, *C. grisea*, *C. lanugi-*

nosa, *C. longirostris*, *C. pubescens*, *C. vesicaria*, and var. *monile*, *C. tribuloides*, *Populus balsamifera*, var. *virginiana* (*P. deltoides* Man. ed. 7), *Salix alba*, var. *vitellina*, *S. nigra*, *Polygonatum commutatum*, *Smilacina stellata*, *Urtica gracilis*, *Polygonum lapathifolium*, *P. virginianum*, *Ribes americanum*, *Geum virginianum*, *Apios tuberosa*, *Acer saccharinum*, *Impatiens pallida*, *Psedera ritacea*, *Vitis vulpina*, *Hypericum Ascyron*, *Veronica virginica*, *Helianthemum autumnale*, *Xanthium pungens*.

(4) Plants of low calcareous meadows: *Scelaginella apoda*, *Carex aurea*, *C. flava*, var. *elatior*, *Scirpus lineatus*, *Juncus Dudleyi*, *Parnassia caroliniana*, *Lythrum alatum*, *Lobelia Kalmii*.

(5) Plants of calcareous bogs: *Cypripedium hirsutum*, *Quercus macrocarpa*, *Salix candida*, *S. serissima*, *Cardamine pratensis*, var. *palustris*, *Viola renifolia*, var. *Brainerdii*, *Aster puniceus*, var. *lucidulus*, *Solidago patula*, *S. uliginosa*.

(6) Plants of rich leaf mould: *Adiantum pedatum*, *Athyrium acrostichoides*, *Botrychium angustisegmentum*, *B. ramosum*, *B. virginianum*, *Carex laxiflora*, var. *blanda*, *C. laxiflora*, var. *latifolia*, *C. plantaginea*, *C. platyphylla*, *Arisaema triphyllum*, *Allium tricoccum*, *Trillium erectum*, *Cypripedium parviflorum*, var. *pubescens*, *Orchis spectabilis*, *Laportea canadensis*, *Asarum canadense*, *Claytonia caroliniana*, *Actaea alba*, *A. rubra*, *Hepatica acutiloba*, *H. americana* (*H. triloba* Man. ed. 7), *Ranunculus abortivus*, var. *eucyclus*, *Caulophyllum thalictroides*, *Sanguinaria canadensis*, *Dicentra canadensis*, *D. Cucullaria*, *Dentaria diphylla*, *Viola canadensis*, *V. eriocarpa* (*V. scabriuscula* Man. ed. 7), *V. rostrata*, *V. Sellkirkii*, *Panax trifolium*, *Osmorhiza Claytoni*, *Sanicula gregaria*, *S. trifoliata*, *Hydrophyllum virginianum*, *Collinsonia canadensis*, *Eupatorium urticifolium*, *Solidago latifolia*, etc.

(7) Plants of dry woods: *Lycopodium claratum*, *Panicum dichotomum*, *P. latifolium*, *Carex rosea*, *C. pennsylvanica*, *C. virescens*, *Lilium philadelphicum*, *Hypoxis hirsuta*, *Cypripedium acaule*, *Castanea dentata*, *Quercus alba*, *Q. Prinus*, *Anemone thalictroides*, *Sassafras officinale*, *Baptisia tinctoria*, *Desmodium Dillenii*, *D. nudiflorum*, *D. paniculatum*, *Polygala pauciflora*, *Cranothus americanus*, *Viola palmata*, *V. sororia*, *Circaea lutetiana*, *Aralia nudicaulis*, *Chimaphila umbellata*, *Pyrola rotundifolia*, var. *americana*, *Vaccinium vacillans*, *Lysimachia quadrifolia*, *Auricularia virginica* (*Gerardia virginica* Man. ed. 7), *Melampyrum lineare*, *Antennaria plantaginica*, *Helianthus divaricatus*, *Hieracium venosum*, *Scirpocarpus asteroides*, *Solidago bicolor*.

(8) Plants of cool, moist woods: *Thelypteris Phegopteris*, *Lycopodium lucidulum*, *Taxus canadensis*, *Cinna latifolia*, *Carex leptoneuria*, *C. norac-angliae*, *C. rosea*, var. *radiata*, *Clintonia borealis*, *Streptopus roseus*, *Trillium undulatum*, *Fagus grandifolia*, *Ribes lacustre*, *R. prostratum*, *Rubus canadensis*, *Oxalis Acetosella*, *Acer pennsylvanicum*, *A. spicatum*, *Circaea alpina*, *Cornus canadensis*, *Sambucus racemosus*, *Viburnum alnifolium*, *Aster acuminatus*.

(9) Plants of wooded swamps: *Thelypteris cristata*, *Osmunda cinnamomica*, *O. regalis*, var. *spectabilis*, *Carex intumescens*, var. *Fernaldii*, *C. tenella*, *Symplocarpus foetidus*, *Habenaria psycodes*, *Benzoïn acstivale*, *Mitella nuda*, *Ribes hirtellum*, *R. triste*, var. *albinerrium*, *Rubus hispidus*, *R. pubescens*, *Rhus Vernix*, *Ilex verticillata*, var. *tenuifolia*, *Nemopanthus mucronata*, *Rhamnus alnifolia*, *Viola incognita*, var. *Forbesii*, *Lysimachia thyrsoiflora*, *Lycopus uniflorus*, *Viburnum cassinoides*, *V. Opulus*, var. *americanum*, *Aster puniceus*, *Bidens connata*, *Cirsium muticum*, *Senecio aureus*.

(10) Plants of bogs: *Carex canescens*, var. *sublobiacea*, *C. diandra* and var. *ramosa*, *C. limosa*, *C. paupercula*, *C. rostrata* and var. *utriculata*, *Eriophorum tenellum*, *Rhyncospora alba*, *Scirpus hudsonianus*, *Snailacina trifoliata*, *Pogonia ophioglossoides*, *Liparis Loeselii*, *Sarracenia purpurea*, *Drosera rotundifolia*, *Potentilla palustris*, *Epilobium molle*, *Andromeda glaucophylla*, *Chamaedaphne calyculata*, *Ledum groenlandicum*, *Vaccinium corymbosum*, *V. macrocarpon*, *V. Oxycoccus*, *Menyanthes trifoliata*, *Galium labradoricum*, *Lonicera caerulea*, var. *villosa*.

(11) Plants of rocky summits: *Woodsia ilvensis*, *Agropyron caninum*, *Deschampsia flexuosa*, *Carex umbellata*, *Aquilegia canadensis*, *Corydalis sempervirens*, *Potentilla tridentata*, *Pyrus melanocarpa*, *Rhus copallina*, *Rhus toxicodendrum*, *Psedera quinquefolia*, var. *hirsuta*, *Aralia hispida*, *Gaylussacia baccata*, *Vaccinium pennsylvanicum*.

(12) Plants of dry open sand or gravel: *Juniperus communis*, var. *depressa*, *J. virginiana*, *Andropogon scoparius*, var. *frequens*, *Eragrostis pectinacea*, *Panicum linariifolium*, *Carex cephalophora*, *C. festucacea*, var. *brevior*, *C. triiceps*, var. *hirsuta*, *Cyperus filiculmis*, var. *macilentus*, *Spiranthes gracilis*, *Quercus ilicifolia*, *Potentilla pumila*, *Rubus villosus*, *Lespedeza hirta*, *Polygala verticillata*, var. *ambigua*, *Hypericum gentianoides*, *Helianthemum Bicknellii* (*H. majus* Man. ed. 7), *H. canadense*, *Lechea intermedia*, *Trichostema dichotomum*, *Aster ericoides*, *Gnaphalium polycephalum*, *Krigia virginica*.

Besides the factors above stated which determine the distribution of plants within their geographical range, there is the question of geographical range itself which determines the flora of a given region. The past history of plant life on this continent is not well enough known to enable us to do more than guess at the different courses which plants have taken to reach the same region, but we do know of the plants of any given region that some are commoner to the north, south, east, or west, and we think of certain plants therefore as representatives of northern, southern, eastern, or western floras. Berkshire County is a particularly interesting field for the study of the distributional relationships of plants. Its flora contains a large proportion of plants that reach the limits of their ranges within or very near its borders. The great wall of the Hoosac Plateau and the broad valley of the Connecticut apparently form a barrier against the progress farther east of many plants which are found from Berkshire County far westward. The drier soil and lower elevation of the country south of Berkshire proves a barrier to the further progress of northern plants, or it may well be that these plants have been retreating northward, after the glacial waters were drained off and that the high land or bogs of Berkshire still offer a suitable environment.

A number of plants that occur in Berkshire County have not been found farther north. These are either plants that require the warm well-drained country lacking to the north, or plants that occupy the ridges of the Alleghanics southward to Georgia and a very few that follow the coastal plain to Florida.

A great number of plants characteristic of Berkshire County are plants that need lime in the soil. Their range coincides with surprising exactness with that of the ancient sea-floors which are now exposed in the limestone areas of the north and west. These plants extend either from northern Maine through northern New Hampshire, Vermont and across New York, Ohio, and Wisconsin to Alaska, or south through Kentucky, Missouri and Kansas to Texas, according as they are plants that love warmth, or are plants of northern latitudes.

The distribution of some plants seems to be determined by none of the factors of soil or warmth as at present understood. Such plants are everywhere rare or local in their distribution.

The changes brought about by the white man have profoundly altered the original flora of the County. The clearing of the forests and the cultivation of meadows and fields have changed the appear-

ance of the valleys and to a certain extent also that of the slopes of the mountains. In 1828, according to Bascom (Appearance and Disappearance of Plants, Proceedings of the Berkshire Historical and Scientific Society, 3: 301-315, 1899), there were in Berkshire 185 sawmills and 38 tanneries. Pine, Hemlock and Spruce have diminished more than the hardwoods. The only places where the original flora has remained unaltered are the peat bogs around small ponds and deep gorges and steep cliffs where lumbering was impossible.

The introduction of plants foreign to the County, either from Europe or from other parts of the New World, is chiefly noticeable in towns and about farm land. Certain weeds, however, follow every highway, and even wood roads, and other introduced species have invaded the rocky summits of the remotest hills. On the summit of Greylock, one can count a dozen introduced species. Three introduced species have spread so widely that they have become characteristic features of the landscape. These are the Buttercup (*Ranunculus acris*), the Daisy (*Chrysanthemum leucanthemum*, var. *pinnatifidum*) and the White Willow (*Salix alba*, var. *vitellina*).

In many parts of the County the clearings and hillside pastures are reverting to brush and small timber. Steeple-bush (*Spiraea tomentosa*) and Raspberries (*Rubus idaeus*, var. *strigosus*) first cover the ground, then Birches and White Pines spring up. A rough estimate by Mr. Cook, the State Forester, puts the percentage of forested area in five Berkshire towns as follows:—

<i>Town</i>	<i>Total area in acres</i>	<i>Percentage forest</i>
Pittsfield	27,000	30%
Sheffield	32,000	40%
Savoy	25,000	60%
Sandisfield	24,000	70%
Florida	12,800	85%

The plants in the following groups are those which reach the limits of their ranges in or near Berkshire County. The list is confined to species or well-marked varieties whose distribution is well known. The geographical range is based on published records and on an examination of the collections of the New England Botanical Club and the Gray Herbarium.

(1) Plants that occur in Berkshire County, but have not been found native east of the Connecticut River, ranging northwestward, westward, or southwestward, and in the case of certain calciphiles

northeastward (stations in the Connecticut Valley in parentheses): *Asplenium ebnooides*, *Pellaea atropurpurea*, *Equisetum variegatum*, *Sparganium fluctuans*, *Potamogeton alpinus*, *P. Friesii*, *Sagittaria cuneata* (*S. arifolia* Man. ed. 7), *Carex alopecoidea*, *C. rosea*, var. *minor*, *C. cburnea*, *C. Davisii*, *C. formosa*, *C. Hitchcockiana*, *C. oligocarpa*, *C. Schweinitzii*, *C. trichocarpa*, *C. Tuckermani*, *Scirpus Peckii*, *S. lineatus*, *Juncus Dudleyi*, *Utricularia grandiflora*, *Populus Tacamahacca* (*P. balsamifera* Man. ed. 7), *Salix scrissima*, *Quercus macrocarpa*, *Q. Muhlenbergii*, *Morus rubra*, *Chenopodium Boscianum*, *Arenaria macrophylla*, *Cerastium nutans*, *Ranunculus circinatus*, *Podophyllum peltatum*, *Arabis lyrata*, *Ribes triste*, var. *albicerium*, *Waldsteinia fragarioides* (Greenfield), *Polygala Senega*, *Ilex monticola*, var. *mollis*, *Impatiens pallida* (Deerfield), *Hypericum Aescron* (Northampton), *Viola latiuscula*, *V. nephrophylla*, *V. Selkirkii*, *Sanicula trifoliata*, *Agastache nepetoides*, *A. scrophulariaefolia*, *Blephilia ciliata*, *B. hirsuta*, *Stachys palustris*, var. *homotricha*, *Physalis heterophylla*, var. *ambigua*, *Veronica virginica*, *Lonicera hirsuta*, *Viburnum affine* (*V. pubescens* Man. ed. 7), *Lobelia siphilitica*, *Aster prenanthoides*, *Cirsium Hillii*, *Helenium autumnale*, *Solidago hispida* (Northampton).

(2) Plants that occur in Berkshire County, that have not been found in Connecticut, ranging northward, northwestward, or northeastward: *Polystichum Braunii*, *Thelypteris spinulosa*, var. *americana*, *Potamogeton strictifolius*, *Poa nemoralis*, *Cyperus Houghtonii*, *Carex setacea*, *C. lenticularis*, *C. deflexa*, *C. albicans*, *Juncus filiformis*, *Luzula parviflora*, *Cypripedium arietinum*, *Habenaria obtusata*, *Salix lucida*, var. *angustifolia*, *Alnus mollis*, *Polygonum lapathifolium*, var. *salicifolium* (*P. tomentosum*, var. *incanum* Man. ed. 7), *Pyrus sitchensis*, *Amelanchier Bartramiana*, *Viola renifolia*, *Circaea canadensis* (*C. intermedia* Man. ed. 7), *Pyrola asarifolia*, var. *incarnata*, *P. secunda*, var. *obtusata*, *Hydrophyllum canadense*, *Isanthus brachiatus*, *Symphoricarpos albus*, var. *pauciflorus*, *Solidago macrophylla*, *S. Raudii*, *Aster polyphyllus*, *A. longifolius*, var. *villicaulis*.

(3) Plants that occur in Berkshire County, not found native in Vermont, ranging southward, or southwestward: *Juniperus communis*, *Digitaria filiformis*, *Eragrostis Frankii*, *Panicum umbrosum*, *Carex albolutescens*, var. *cumulata*, *C. laxiculmis*, *C. scorsia*, *C. atlantica* (*C. sterilis* Man. ed. 7), *C. tetanica*, *C. typhina*, *Orontium aquaticum*, *Juncus militaris*, *Chamaelirium luteum*, *Smilax rotundifolia*, *Hypoxis hirsuta*, *Sisyrinchium graminum*, *Quercus coccinea*, *Polygonum tenue*,

Silene pennsylvanica, *Cimicifuga racemosa*, *Cardamine Douglassii*,
Sedum ternatum, *Potentilla pumila*, *Prunus americana*, *Rubus*
Ensleri, *Linum virginianum*, *Vitis aestivalis*, *Elatine americana*
(*E. minima* Man. ed. 7), *Viola palmata*, *Angelica villosa*, *Clethra alni-*
folia, *Rhododendron nudiflorum*, *Vaccinium stamineum*, *Gentiana*
Andrewsii, *Cuscuta arvensis*, *Lycopus virginicus*, *Utricularia minor*,
Aster Lowreianus, var. *lanceolatus*, *Prenanthes Serpentaria*, *Solidago*
rigida, *S. speciosa*.

FLORA OF BERKSHIRE COUNTY, MASSACHUSETTS.

PTERIDOPHYTA. FERNS AND FERN ALLIES.

POLYPODIACEAE. FERN FAMILY.

ADIANTUM. MAIDENHAIR.

A. pedatum L. MAIDENHAIR.—Rich woods; common. On the slopes of the plateau to 1500 feet; on the slopes of Greylock to 2000 feet.

ASPLENIUM. SPLEENWORT.

× **A. ebenoides** R. R. Scott.—A hybrid between *Asplenium platyneuron* and *Camptosorus rhizophyllus*. First reported from Berkshire Co. by Mrs. J. R. Sanford (*vid.* *Rhodora*, 8: 113, 1906), growing on limestone rocks in the southern part of Sheffield. Three plants were subsequently found by Walters in another locality in the same town.

A. platyneuron (L.) Oakes. EBONY SPLEENWORT.—Rocky pastures and open rocky woods, generally at the bases of ledges; frequent. Grows chiefly on limestone, but also on serpentine (Florida) and schist (West Stockbridge). Rare on the plateau; Washington (C. S. Lewis).

forma **serratum** (E. S. Miller), *comb. nov.*—(*A. platyneuron*, var. *serratum* E. S. Miller, *Bull. Torr. Bot. Club*, 4: 11, 1873.)

Occasional with the type, Sheffield.

A. Ruta-muraria L. RUE SPLEENWORT.—Limestone cliffs and boulders; occasional. Williamstown; North Adams; Lenox; Stockbridge; New Marlboro; Sheffield.

A. Trichomanes L. MAIDENHAIR SPLEENWORT.—On or near shaded rocks, chiefly calcareous; frequent. Rare on the plateau; Washington and Becket (C. S. Lewis).

ATHYRIUM.

(*Asplenium* Man. ed. 7 and Ill. Fl. ed. 2 in part;
vid. *Rhodora*, 19: 170, 1917.)

A. acrostichoides (Sw.) Diels. SILVERY SPLEENWORT.—(*Athyrium thelypteroides* Ill. Fl. ed. 2.)

Rich, moist woods, particularly along brooks; frequent, except on the plateau.

A. angustifolium (Michx.) Milde. NARROW-LEAVED SPLEENWORT.—(*Asplenium pycnocarpon* Ill. Fl. ed. 2).

Rich woods, generally in alluvial pockets spread by brooks at the bases of rich slopes, often with *Thelypteris Goldiana*; occasional in the valley. Williamstown (Churchill); Adams (Schweinfurth); Cheshire (Winslow); Pittsfield; Lenox; Stockbridge; Sheffield. On South Mountain, Pittsfield, one colony grows in rich soil on a flat rock.

The ferns which have passed in Massachusetts as *Asplenium Filix-femina* (L.) Bernh. have been lately treated as including two species and several varieties (*vid.* Butters, *Rhodora*, **19**: 181 seq., 1917). *Athyrium angustum* (Willd.) Presl. is apparently the only species in this group that occurs in Berkshire County. It differs from *Athyrium asplenioides* (Michx.) Desv., which is found in eastern Massachusetts; in having the horizontal or somewhat oblique rootstock completely concealed by the thick fleshy bases of the old fronds. The species and two varieties may be distinguished by the following key.

Key to Athyrium angustum and varieties.

- a. Fronds dimorphic, the fertile coriaceous, contracted, sori at maturity confluent and covering the lower side of the fertile pinnules. Sun forms, found only in region of hot summers.
- b. Longest pinnae of the fertile frond 5–12 cm. long, pinnules 4–12 mm. long, simple, sori mainly asplenoid (*vid.* *Rhodora*, **19**: 174, 176, 1917); pinnules of sterile fronds oblong-obtuse, but slightly toothed or lobed. *A. angustum*, f. *typicum*.
- b'. Longest pinnae of fertile frond 1–2 dm. long, pinnules 12–25 mm. long, pinnatifid, sori several on each of the lower segments, often horseshoe-shaped; pinnules of sterile fronds oblong-lanceolate, strongly toothed or pinnatifid, somewhat acute.
- A. angustum*, var. *elatius*.
- a'. Fronds not dimorphic, coriaceous or contracted, sori discrete at maturity. Forms of regions with cool summers, found also in dense shade in warmer regions. Pinnules lanceolate, sub-acute, strongly toothed or pinnatifid, the segments toothed, membranous wing along the rachis obscure or wanting *A. angustum*, var. *rubellum*.

A. angustum (Willd.) Presl. LADY FERN.—(*Asplenium Filix-femina* Man. ed. 7 in part; *Athyrium Filix-femina* Ill. Fl. ed. 2 in part; *vid.* *Rhodora*, **19**: 190, 1917.)

Dry open thickets; frequent.

var. **elatus** (Link) Butters.— (*Ibid.* Rhodora, **19**: 191, 1917.)
Dry woods, thickets and clearings; frequent in the southern part of the valley.

var. **rubellum** (Gilbert) Butters. — (*Ibid.* Rhodora, **19**: 193, 1917.)
Rich woods and swamps; common.

CAMPTOSORUS. WALKING LEAF.

C. rhizophyllus (L.) Link. WALKING LEAF; WALKING FERN.—
On limestone, chiefly in shade; frequent in the valley. Becket (C. S. Lewis).

forma **auriculatus**, f. nov.— Auriculis elongatis. Auricles elongated, sometimes rooting.

Limestone ledge, New Marlboro.

CRYPTOGRAMMA. ROCK BRAKE.

C. Stelleri (Gmel.) Prantl. SLENDER ROCK BRAKE.— On shaded limestone cliffs, Bullock's Ledge, Williamstown.

CYSTOPTERIS. BLADDER FERN.

(*Filix* III. Fl. ed. 2.)

C. bulbifera (L.) Bernh. BULB-BEARING FERN.— Wet banks and moist rocks, chiefly in shade, generally but not always in calcareous soil; frequent in the valley and on the slopes of Greylock and of The Dome, but rarer on the plateau. Washington and Becket (C. S. Lewis).

C. fragilis (L.) Bernh. FRAGILE BLADDER FERN.— Shaded cliffs, moist banks and rocky wooded hillsides; frequent.

DENNSTAEDTIA.

(*Dicksonia* Man. ed. 7; *vid.* Rhodora, **21**: 175, 1919.)

D. punctilobula (Michx.) Moore. HAY-SCENTED FERN.— Dry woods and upland hillsides; common. When growing in shade near an opening, this fern turns the face of the frond, that is the side that does not bear the spores, to the light.

ONOCLEA.

O. sensibilis L. SENSITIVE FERN.— Wet meadows, swampy thickets and wet woodland; common.

forma **obtusilobata** (Schkuhr) Gilbert.—Washington (C. S. Lewis); Lenox; New Marlboro.

PELLAEA. CLIFF BRAKE.

P. atropurpurea (L.) Link. PURPLE CLIFF BRAKE.—Limestone ledges; occasional.

POLYPODIUM. POLYPODY.

P. vulgare L. COMMON POLYPODY.—Shaded rocks, chiefly on schist, but occasionally on limestone; common.

forma **attenuatum** (Milde) Gilbert.—Rich woods; occasional. Becket (C. S. Lewis); South Mountain, Pittsfield; Bash Bish Falls, Mt. Washington.

forma **auritum** (Willd.), comb. nov.—(*P. vulgare* β *auritum* Willd. Sp. Pl. 5: 173, 1810.)

Becket (C. S. Lewis).

POLYSTICHUM.

P. acrostichoides (Michx.) Schott. CHRISTMAS FERN.—Rocky woods; common. A plant from Lee has the frond subdivided at the tip, so that there are four separate tips, the two longest 10 cm. in length.

forma **incisum** (Gray) Gilbert.—(var. *Schweinitzii* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 11: 35, 1909.)

Occasional with the type. Williamstown; Florida; Washington and Becket (C. S. Lewis); Lenox; Stockbridge; Great Barrington. A plant collected by Walters in Lanesboro has broad obtuse and incised pinnae of the year, while the fronds of the year before are normal.

P. Braunii (Spenner) Fée.—On the margins of cold mountain brooks, on Greylock and on Fife Brook, Florida. Two plants in rich leaf mould, South Mountain, Pittsfield (S. W. Bailey). These are the only known stations for this northern fern in Massachusetts.

PTERETIS.

(*Matteuccia* Ill. Fl. ed. 2; *Onoclea* Man. ed. 7; *vid.* Rhodora, 21: 175, 1919.)

P. nodulosa (Michx.) Nieuwl. OSTRICH FERN.—(*M. Struthiopteris* Ill. Fl. ed. 2; *O. Struthiopteris* Man. ed. 7.)

Alluvial soil along rivers and brooks to an altitude of 1500 ft.; common.

PTERIDIUM. BRAKE; BRACKEN.

(*Pteris* Man. ed. 7; *vid.* *Rhodora*, 21: 176, 1919.)

P. latiusculum (Desv.) Maxon. COMMON BRAKE.—(*Pteris aquilina* Man. ed. 7; *Pteridium aquilinum* Ill. Fl. ed. 2.)

Borders of woods, open woodland, rocky upland pastures and clearings; common.

THELYPTERIS. SHIELD FERN.

(*Aspidium* Man. ed. 7; *Phegopteris* Man. ed. 7; *Dryopteris* Ill. Fl. ed. 2; *vid.* *Rhodora*, 21: 174, 176, 1919.)

T. Boottii (Tuckerman) Nieuwl. BOOTT'S SHIELD FERN.—Swampy woods; frequent. Perhaps a hybrid between *Thelypteris cristata* and *T. spinulosa*, var. *intermedia*. Specimens collected in Washington by C. S. Lewis have the later fronds with lacinate segments, apparently due to the presence of a borer in the rootstock.

T. cristata (L.) Nieuwl. CRESTED SHIELD FERN.—Borders of swampy woods and low meadows; frequent.

var. **Clintoniana** (D. C. Eaton) Weatherby. CLINTON'S SHIELD FERN.—(*D. Clintoniana* Ill. Fl. ed. 2.)

Swampy woods; frequent in the valley, occasional on the plateau.

T. Dryopteris (L.) Slosson. OAK FERN.—Cool woods, often under conifers; frequent.

T. Goldiana (Hook.) Nieuwl. GOLDIE'S SHIELD FERN.—Rich woods, generally in alluvial pockets spread by brooks at the bases of slopes of rich soil, often in company with *Athyrium angustifolium*; occasional in the valley. Florida (Hunnell); Williamstown (Churchill); Cheshire (Winslow); Lanesboro (Churchill); Pittsfield; Washington (C. S. Lewis); Lenox; Stockbridge; Sheffield (Walters).

T. hexagonoptera (Michx.) Weatherby. BROAD BEECH FERN.—Rich moist soil in rather open woodland; occasional in the valley. Williamstown (Churchill); Hancock (Churchill); Lenox; Stockbridge; Great Barrington; Sheffield.

T. marginalis (L.) Nieuwl. MARGINAL SHIELD FERN.—Rocky or swampy woods, often on rocks; common.

forma **elegans** (Robinson) Weatherby, comb. nov. — (*Aspidium*

marginale, var. *elegans* J. Robinson, Ferns of Essex County, Mass., 151, 1875.)

Rich woods; frequent.

T. noveboracensis (L.) Nieuwl. NEW YORK SHIELD FERN.—Moist well-drained woods; common.

T. palustris Schott. MARSH FERN.—(*D. Thelypteris* Ill. Fl. ed. 2; *A. Thelypteris* Man. ed. 7.)

Wet meadows, swampy thickets and moist woodland; common. On the summit of Greylock, 3500 feet.

T. Phegopteris (L.) Slosson. BEECH FERN.—Cool woods, especially on moist banks; frequent in the valley, common on the plateau.

T. simulata (Davenp.) Nieuwl.—Swampy woods, in small colonies; occasional. Washington (C. S. Lewis); Ward Pond, Becket; Shaw Pond, Otis; Big Pond, Otis; Sandisfield (Walters).

T. spinulosa (O. F. Müller) Nieuwl. SPINULOSE SHIELD FERN.—Swampy woods; frequent.

var. **americana** (Fisch.) Weatherby.—(var. *dilatatum*, f. *anadenium* Man. ed. 7; *D. dilatata* Ill. Fl. ed. 2.)

Common in rocky woods on the upper slopes of Greylock, and probably occasional on the plateau, as a specimen collected by C. S. Lewis from a shady swamp in Washington (altitude 1700 feet) has been identified by C. A. Weatherby as this variety.

var. **intermedia** (Muhl.) Nieuwl.—(*D. intermedia* Ill. Fl. ed. 2.)

Rocky or swampy woods; common. Broad forms approaching var. *americana* occur in cool woods and swamps, as at Ice Glen, Stockbridge; Ice Gorge, Great Barrington; The Dome, Mt. Washington. A form with very narrow pinnules, approaching var. *concordiana* occurs on Fern Cliff, Lee.

Hybrid forms of Thelypteris.

T. cristata × **marginalis**.—Lenox; Washington (C. S. Lewis).

T. cristata × **spinulosa**.—Lenox; Washington (C. S. Lewis).

T. cristata, var. **Clintoniana** × **spinulosa**, var. **intermedia**.—Cheshire (Winslow); Washington (C. S. Lewis).

T. cristata, var. **Clintoniana** × **Goldiana**.—North Adams (Churchill).

T. Goldiana × **marginalis**.—Cheshire (Winslow).

T. marginalis × **spinulosa**, var. **intermedia**.—Washington (C. S. Lewis).

WOODSIA.

W. ilvensis (L.) R. Br. RUSTY WOODSIA.— Exposed rocks; occasional. Stockbridge; West Stockbridge; Monterey; New Marlboro; Mt. Washington; Sheffield.

W. obtusa (Spreng.) Torr. BLUNT-LOBED WOODSIA.— Exposed rocks or shaded ledges, chiefly calcareous; occasional in the valley. Cheshire (Winslow); Pittsfield; Stockbridge; New Marlboro; Egremont (Walters); Sheffield.

OSMUNDACEAE. FLOWERING FERN FAMILY.

OSMUNDA. FLOWERING FERN.

O. cinnamomea L. CINNAMON FERN.— Low wet woods, borders of swamps in the valley, and wet hillsides on the plateau, where it reaches an altitude of 2100 feet (Florida); common.

forma **bipinnatifida** Clute.— Swampy woods, Sandisfield.

forma **frondosa** (T. & G.) Britton.— (var. *frondosa* Man. ed. 7.) Sheffield (Churchill).

O. Claytoniana L. INTERRUPTED FERN.— Moist woods and on the plateau on ill-drained hillsides; common.

O. regalis L., var. **spectabilis** (Willd.) Gray. ROYAL FERN.— (*O. regalis* Man. ed. 7; *rid.* Rhodora, 21: 176, 1919.)

Borders of ponds, swamps and wet woods, reaching an altitude of 2000 feet (Savoy); frequent.

OPHIOGLOSSACEAE. ADDER'S TONGUE FAMILY.

BOTRYCHIUM. MOONWORT; GRAPE FERN.

B. angustisegmentum (Pease & Moore) Fernald.— (*B. lanccolatum*, var. *angustisegmentum* Man. ed. 7; *rid.* Rhodora, 17: 87, 1915; *B. lanccolatum* Ill. Fl. ed. 2.)

Rich leaf mould, chiefly under deciduous trees, often with *B. ramosum*; frequent.

B. dissectum Spreng.— (*B. obliquum*, var. *dissectum* Man. ed. 7.) Woods and pastures; frequent.

forma **elongatum** (Gilbert & Haberer), comb. nov.— (*B. obliquum*, var. *elongatum* Gilbert & Haberer, Fern Bull. 11: 89, 1903, and Man. ed. 7.)

Pasture, Mt. Washington.

forma **obliquum** (Muhl.) Fernald.— (*B. obliquum* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 23: 151, 1921.)

Fields, hillsides, pastures and open woods; frequent.

B. ramosum (Roth) Aschers.— (*B. neglectum* Ill. Fl. ed. 2.)

Rich leaf mould, chiefly under deciduous trees, often associated with *B. angustisegmentum*; frequent.

B. simplex E. Hitchcock.— New Ashford, in pastures not far from brook (Andrews); Washington (C. S. Lewis); rich woods, Stockbridge; Sheffield (Churchill).

B. ternatum (Thumb.) Sw., var. **intermedium** D. C. Eaton.— (*B. silaifolium* Ill. Fl. ed. 2.)

Pastures and open woods; frequent.

B. virginianum (L.) Sw. RATTLESNAKE FERN.— Rich woods; common. A plant from Florida has the fertile segment divided into two full-sized divisions.

var. **intermedium** Butters.— (*B. virginianum* Man. ed. 7 in part.)

Dry, rocky upland woods, North Adams (Fernald and Long).

Botrychium virginianum, var. *intermedium* has lately been distinguished from the type (*vid.* Rhodora, 19: 207, 1917).

Ripe sporangia straw-colored, opening but slightly in dehiscence, their walls composed of regular cells; pinnules of the sterile frond ovate to lance-ovate, their ultimate segments spatulate. *B. virginianum*, var. *intermedium*.

Ripe sporangia brown, opening rather widely in dehiscence, their walls composed, at least in part, of irregular cells with sinuous walls; pinnules of the sterile frond much dissected, lanceolate, deeply pinnatifid or nearly pinnate, and the ultimate segments oblong or cuneate or decurrent at the base, lanceolate and scarcely or not at all spatulate. *B. virginianum*.

OPHIOGLOSSUM. ADDER'S TONGUE.

O. vulgatum L. ADDER'S TONGUE.— Mucky pockets in low meadows; frequent. In thin soil on a limestone outcrop in Great Barrington.

MARSILEACEAE.

MARSILEA.

M. QUADRIFOLIA L.— A small colony in the inlet to Prospect Pond, Egremont. An interesting European aquatic often cultivated and probably introduced, perhaps accidentally, at the above station.

EQUISETACEAE. HORSETAIL FAMILY.

EQUISETUM. HORSETAIL.

E. arvense L. COMMON HORSETAIL.—Wet roadsides, and banks and sandy shores; common.

E. fluviatile L. PIPES.—Marshes, shallow water and muddy shores; common.

E. hyemale L., var. **affine** (Engelm.) A. A. Eaton. SCOURING RUSH.—Sandy or gravelly banks; frequent.

forma **ramosum** A. A. Eaton.—*Vid.* Fern Bull. **11**: 112 (1903). Occasional. Florida; Great Barrington.

E. scirpoides Michx.—Wet gravelly banks; occasional. Williamstown (Andrews); North Adams; Adams (Knowlton and Bean); Stockbridge; New Marlboro.

E. sylvaticum L., var. **pauciramosum** Wilde., forma **multi-ramosum** Fernald.—(*E. sylvaticum* Man. ed. 7 in part).

Swampy woods and moist shaded banks; frequent.

Practically all the material of *E. sylvaticum* collected in Berkshire County is the freely-forking form, described by Professor Fernald (*Rhodora*, **20**: 131, 1918). A specimen from Adams, less freely forking, might be considered the typical var. *pauciramosum*.

E. variegatum Schleich.—Low ground or wet gravelly banks; occasional. Williamstown (Andrews); Stockbridge; Sheffield.

LYCOPODIACEAE. CLUB MOSS FAMILY.

LYCOPODIUM. CLUB MOSS.

Lycopodium annotinum L.—Cool woods; frequent.

var. **acrifolium** Fernald.—*Vid.* *Rhodora*, **17**: 124 (1915).

Mt. Washington (Floyd).

Leaves mostly spreading or reflexed, those of the fruiting branches 5.5–11 mm. long *L. annotinum*.

Leaves strongly ascending or appressed, those of the fruiting branches 2.5–6 mm. long. var. *acrifolium*.

L. clavatum L. COMMON CLUB MOSS.—Dry woods and clearings; common. A form with elongated sterile spikes, mostly simple, 2 to 3 dm. long and no fertile spikes, constant each season, has been collected in Hancock (A. K. Harrison).

var. **megastachyon** Fernald & Bissell.— Spikes solitary. (*Vid.* *Rhodora*, 12: 53, 1910.)

Dry thickets; frequent, especially on the upland.

L. complanatum L., var. **flabelliforme** Fernald. GROUND PINE.— (*L. complanatum* Ill. Fl. ed. 2 in part.)

Dry woods and clearings, especially under pines; common.

L. inundatum L.— Shores of ponds and wet open ground; occasional. Bank near cold stream, altitude 2000 feet, North Adams (Andrews); Basin and Spectacle Ponds, Becket; low meadow, Sheffield.

L. lucidulum Michx.— Cool woods; common.

L. obscurum L. TREE CLUB MOSS.— Woods, generally dry, occasionally swampy; frequent.

var. **dendroideum** (Michx.) D. C. Eaton.— Open woodlands; common.

L. Selago L. Bank near cold stream on the northeast face of Greylock, altitude 2000 feet, one small station (Andrews). This is the only station known in Massachusetts for this plant of high latitudes and altitudes. Specimen in Williams College Herbarium.

L. tristachyum Pursh.— Cheshire (Winslow); rather moist woods near Ward Pond, Becket, altitude 1600 feet; dry woods, Sheffield.

SELAGINELLACEAE.

SELAGINELLA.

S. apoda (L.) Fernald.— (*S. apus* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, 17: 68, 1915.)

Wet meadows and ill-drained hillsides; frequent in the valley, apparently following the limestone up the sides of the valley, reaching an altitude of 1300 feet in Tyringham.

S. rupestris (L.) Spring.— Exposed rocks; occasional. Florida, on serpentine; West Stockbridge, on schist; New Marlboro; Sheffield, on limestone, altitude 700 feet; Bash Bish Falls, Mt. Washington.

ISOËTACEAE. QUILLWORT FAMILY.

ISOËTES. QUILLWORT.

I. echinospora Dur., var. **Braunii** (Dur.) Engelm.— (*I. Braunii* Ill. Fl. ed. 2.)

Shallow water of ponds and streams; frequent, particularly on the upland. Occasionally on exposed muddy shores and at other times at a depth of several feet.

SPERMATOPHYTA. SEED PLANTS; FLOWERING PLANTS.

GYMNOSPERMAE. GYMNOSPERMS.

TAXACEAE. YEW FAMILY.

TAXUS. YEW.

T. canadensis Marsh. GROUND HEMLOCK.—Cool woods and shaded slopes; common.

PINACEAE. PINE FAMILY.

ABIES. FIR.

A. balsamea (L.) Mill. BALSAM FIR.—Swamps and moist slopes, along the plateau from Sandisfield northward; frequent in Sandisfield, common in parts of Washington and on Greylock.

JUNIPERUS. JUNIPER.

J. communis L.—A single tree, 3 m. high, in open woodland, Pittsfield.

var. **depressa** Pursh. COMMON JUNIPER.—Hillside pastures and borders of woodland; frequent in Sheffield, rare elsewhere in the valley. Frequent on a gravelly hillside, Cold Spring Road, Williamstown. Occasional on the plateau, Savoy, Washington (altitude 1800 feet).

J. virginiana L. RED CEDAR; SAVIN.—Hillside pastures; frequent in Sheffield, occasional in the Housatonic Valley as far north as Lee. A fine grove on a gravelly hillside on the Cold Spring Road, Williamstown. A few scattered trees in South Sandisfield; not noted elsewhere on the plateau.

LARIX. LARCH.

L. laricina (DuRoi) Koch. LARCH; TAMARACK.—Wet hillsides and swamps; common.

PICEA. SPRUCE.

P. mariana (Mill) BSP. BOG SPRUCE; BLACK SPRUCE.—Peat bogs; occasional. Adams (Knowlton & Bean); Ward Pond, Becket; Wolf Swamp, Sandisfield. In the last two localities the Spruce is the host for Dwarf Mistletoe (*Arceuthobium*).

P. rubra (DuRoi) Dietr. RED SPRUCE.—(*P. rubens* Ill. Fl. ed. 2.) Rocky summits on the plateau; occasional in the valley, (a few trees in a swamp in Stockbridge). Some fine timber still left on Greylock.

forma **virgata** Rehder.—Williamstown (Walker).

Differs from the type by the long and slender branches entirely destitute of branchlets (*vid.* Rhodora, 9: 110, 1907).

PINUS. PINE.

P. resinosa Ait. RED PINE; NORWAY PINE.—Rocky woods; rare. Summit of Tom Ball, Alford; Stockbridge.

P. rigida Mill. PITCH PINE.—Sandy soil; frequent in Sheffield, occasional in Stockbridge, New Marlboro, Sandisfield, Great Barrington; summit of The Dome, Mt. Washington.

P. Strobus L. WHITE PINE.—In almost every soil and situation; common. Young pines grow up in the shelter of Hardhack (*Potentilla fruticosa*) and gradually kill it out.

P. SYLVESTRIS L. SCOTCH PINE.—An occasional escape from cultivation. Lanesboro (Walters).

THUJA. ARBOR VITAE.

T. OCCIDENTALIS L. ARBOR VITAE; WHITE CEDAR.—Commonly planted and occasionally spreading. Although Arbor Vitae has been found native in Connecticut and New York, in localities close to Berkshire Co., no native trees have been discovered in the County.

TSUGA. HEMLOCK.

T. canadensis (L.) Carr. HEMLOCK.—Rocky woods; common.

TYPHACEAE. CAT-TAIL FAMILY.

TYPHA. CAT-TAIL.

T. angustifolia L.—Borders of swamps; rare. Stockbridge; Sandisfield.

T. latifolia L. CAT-TAIL.— Borders of swamps and marshes, ditches; frequent.

SPARGANIACEAE. BUR-REED FAMILY.

SPARGANIUM. BUR-REED.

S. americanum Nutt.— Muddy shores; frequent.

var. **androcladum** (Engelm.) Fernald & Eames.— (*S. androcladum* Ill. Fl. ed. 2.) Occasional with the type.

The validity of this variety is questioned by Blake (*Rhodora*, **15**: 157, 1913).

S. angustifolium Michx.— Ponds and slow streams; frequent.

S. diversifolium Graebner.— Wet, roadside ditches on the plateau, brooks, swales, and muddy shores; common.

var. **acaule** (Bechy) Fernald & Eames.— (*S. acaule* Ill. Fl. ed. 2.) Common on the plateau.

S. eurycarpum Engelm.— Borders of ponds and rivers at low altitudes; common along the Housatonic River. Not noted on the plateau.

S. fluctuans (Morong) Robinson.— Upland ponds; occasional. Basin Pond, Becket; Shaw Pond, Otis; near East Pond, New Marlboro.

S. minimum Fries.— Border of swamp, Stockbridge.

NAJADACEAE. PONDWEED FAMILY.

NAJAS.

(*Najas* Ill. Fl. ed. 2.)

Najas flexilis (Willd.) Rostk. & Schmidt.— Ponds and slow streams; common in the valley, not noted on the plateau.

POTAMOGETON. PONDWEED.

P. alpinus Balbis.— Collected in Richmond in 1861 by J. W. Robbins. Specimen in the Gray Herbarium marked "e rivulo prope viam ferream."

P. americanus C. & S. — In streams and outlets of lakes; frequent in the valley. Stockbridge; New Marlboro; Sheffield.

P. amplifolius Tuckerm. — Ponds and sluggish streams; common.

P. angustifolius Berchtold & Presl. — Marsh, Egremont.

P. bupleuroides Fernald. — (*P. perfoliatus* Ill. Fl. ed. 2.)

Frequent in lakes in the southern part of the valley. Lake Garfield, Monterey; Lake Buell, New Marlboro; Stockbridge Bowl, Stockbridge.

P. confervoides Reichenb.— In Guilder Pond on the Dome, Mt. Washington, altitude 2000 feet. The only locality in the State for this local Pondweed.

P. dimorphus Raf.— In shallow water on sandy or gravelly bottom; frequent. Pontoosuc and Onota Lakes, Pittsfield; Shaw Pond, Otis; Lake Garfield, Monterey; Upper Spectacle Pond, Sandisfield.

The form with crested fruit is the common form in the Pittsfield lakes.

P. epihydrus Raf.— Ponds and brooks; common.

var. **cayugensis** (Wiegand) Benn.— Cranberry and Crane Ponds, West Stockbridge.

P. foliosus Raf.— In quiet shallow water; frequent. Muddy Pond, Washington; Pontoosuc and Onota Lakes, Pittsfield; Lake Buell, Monterey; Symon's Pond, Sandisfield; Mill River, New Marlboro.

P. Friesii Rupr.— Occasional; Konkapot Brook, Stockbridge; Mill River, New Marlboro.

P. heterophyllus Schreb.— Ponds, on gravelly bottom; common.

forma **longipedunculatus** (Mérat) Morong.— On gravelly bottom in deep water. Richmond Lake, Richmond; Stockbridge Bowl, Stockbridge.

forma **maximus** Morong.— Housatonic River, Stockbridge.

forma **myriophyllus** (Robbins) Morong.— Harmon Pond, Sheffield.

forma **terrestris** Schlecht.— Muddy shores, Stockbridge Bowl, Stockbridge.

P. hybridus Michx.— (*P. diversifolius* Ill. Fl. ed. 2.)

Plantin Pond, Mt. Washington.

P. lucens L.— Frequent in the southern part of the valley. Onota Lake, Pittsfield; Stockbridge Bowl, Stockbridge; Prospect Pond, Egremont; Harmon Pond, Sheffield.

P. natans L.— Ponds and slow streams; common.

P. Oakerianus Robbins.— On upland ponds; occasional. South Pond, Savoy; pools in bog, Monterey; Spectacle Pond, Sandisfield; Guilder Pond, Mt. Washington.

P. obtusifolius Mertens & Koch.— In cool ponds, on muddy bot-

tom. Shaw Pond, Becket; Parish Pond, Otis; Crane and Cranberry Ponds, West Stockbridge; Three-mile Pond, Sheffield.

P. pectinatus L.— Common throughout the southern part of the County, in shallow muddy ponds and in the Housatonic River. In Laurel Lake, Lee, it grows at the exceptional depth of six feet. Altitude 1450 feet, Muddy Pond, Washington.

P. praelongus Wulf.— In deep water (six feet) in lakes. Stockbridge Bowl, Stockbridge; Lake Garfield, Monterey; Harmon Pond, New Marlboro; Three-mile Pond, Sheffield.

P. pusillus L.— Shallow water in ponds and streams; common.

var. **tenuissimus** Mertens & Koch.— Stockbridge Bowl, Stockbridge; Prospect Pond, Egremont.

P. Robbinsii Oakes.— In shallow water of ponds and lakes, throughout the southern half of the County, generally associated with *P. pectinatus*. A plant with a single perfectly developed fruit collected in Pontoosuc Lake, Pittsfield. The sterile shoots form close mats over the bottom.

P. strictifolius Benn.— In quiet water of lakes; occasional. Onota Lake, Pittsfield; Stockbridge Bowl, Stockbridge; Crane Pond, West Stockbridge.

P. Vaseyi Robbins.— In quiet water, Lake Garfield, Monterey.

P. zosterifolius Schumacher.— (*P. compressus* Ill. Fl. ed. 2.)

In lakes and in the Housatonic River throughout the southern part of the valley.

JUNCAGINACEAE. ARROW GRASS FAMILY.

SCHEUCHZERIA.

S. palustris L.— Sedgy borders of peat bogs; rare. Sheffield; Monterey.

ALISMACEAE. WATER-PLANTAIN FAMILY.

ALISMA. WATER-PLANTAIN.

A. Plantago-aquatica L.— (*A. subcordatum* Ill. Fl. ed. 2.)

Muddy shores and ditches; common.

SAGITTARIA. ARROW-HEAD.

S. arifolia Nutt.— Shallow water; occasional. Onota Lake, Pittsfield; swale near Housatonic River, New Lenox; brook, Stockbridge; river flats, Sheffield (Churchill).

S. graminea Michx.—Lake shores; occasional in the valley. Onota Lake, Pittsfield, submersed; gravelly shore of Richmond Lake, Richmond, emersed; Stockbridge Bowl, Stockbridge.

S. heterophylla Pursh, forma **fluitans** Blake.—*Vid.* Rhodora, 15: 159 (1913). (*S. rigida* Ill. Fl. ed. 2.)

Leaves all linear, or phyllodial and bladeless.

Shallow water of ponds; occasional. Stockbridge Bowl, Stockbridge; Crane Pond, West Stockbridge; Guilder Pond, Mt. Washington, altitude 2000 feet.

S. latifolia Willd.—Muddy shores and swamps; common. Five forms of this variable species occur in Berkshire County. The type form has been collected in Cheshire (Winslow) and North Adams (Fernald and Long).

forma **diversifolia** (Engelm.) Robinson.—Borders of lakes; frequent.

forma **gracilis** (Pursh) Robinson.—Shallow water, borders of lakes and streams; frequent.

forma **hastata** (Pursh) Robinson.—Shallow water; common.

forma **obtusata** (Muhl.) Robinson.—Swamps and riverbanks; frequent.

HYDROCHARITACEAE. FROG'S BIT FAMILY.

ELODEA. WATER-WEED.

(*Philotria* Ill. Fl. ed. 2.)

E. canadensis Michx. WATER-WEED.—Shallow water in ponds and streams; common in the valley.

VALLISNERIA. EEL GRASS.

V. americana Michx. EEL GRASS.—(*V. spiralis* Man. ed. 7; *vid.* Rhodora, 20: 108, 1918.)

Shallow water of ponds and in the Housatonic River; frequent. Onota Lake, Pittsfield, covering the sandy bottom densely over many acres, turning reddish in September and browning the surface of the water; Stockbridge Bowl, Stockbridge; Crane Pond, West Stockbridge; shallow lagoons of the Housatonic River from Stockbridge to Sheffield.

GRAMINEAE. GRASS FAMILY.

AGROPYRON.

A. caninum (L.) Beauv. AWNED WHEAT GRASS.—Rocky hills and ledges; occasional in the southern part of the valley. West Stockbridge Mt.; Tom Ball, Alford; Bear and Monument Mts., Great Barrington; New Marlboro; Sheffield.

forma **glaucum** Pease & Moore.—*Vid.* Rhodora, **12**: 71 (1910). Limestone ledges, New Marlboro and Sheffield.

Plants glaucous.

var. **tenerum** (Vasey) Pease & Moore.—*Vid.* Rhodora, **12**: 71 (1910). (*A. tenerum* Ill. Fl. ed. 2.)

Occasional on limestone hills, Sheffield.

Spikes generally long and slender (average length about 12–14 cm.), 3–12 mm. wide, awnless or with awns up to 6 mm. in length.

A. REPENS (L.) Beauv. COUCH OR QUICK GRASS.—Fields, roadsides, railroad embankments and cultivated ground; common.

AGROSTIS. BENT GRASS.

A. alba L. WHITE BENT GRASS.—Meadows, fields, borders of streams and woods; common.

var. **aristata** Gray.—Bank of Deerfield River, Florida; sandy roadside, Lanesboro (Churchill).

var. **maritima** (Lam.) G. F. W. Mey.—(*A. maritima* Ill. Fl. ed. 2.)

Muddy shores and ditches; frequent in the valley, forming thick mats. In full blossom on Aug. 1 at Nigger Pond, Stockbridge, probably retarded by having been submerged.

var. **vulgaris** (With.) Thurber. RED TOP.—Fields, borders of woods and streams, occasionally in damp woods and swamps; common.

A form with elongated inflorescence (*A. sylvatica* L.), occasional.

A. hyemalis (Walt.) BSP. HAIR GRASS.—Dry fields, rocky open hillsides, roadsides and wet sandy soil; common.

A. perennans (Walt.) Tuckerm. THIN GRASS.—Low shaded ground and cool woods; common.

ALOPECURUS. FOXTAIL GRASS.

A. aristulatus Michx. FLOATING FOXTAIL.—(*A. geniculatus*, var. *aristulatus* Man. ed. 7; *vid.* Rhodora, **19**: 165, 1917.)

Muddy shores and shallow water; frequent in the valley.

A. PRATENSIS L. MEADOW FOXTAIL.—Wet meadows, and fields; occasional. Hancock; Stockbridge; Sheffield.

ANDROPOGON. BEARD GRASS.

A. furcatus Muhl.—Dry fields and roadsides, gravelly shores; frequent in the southern part of the valley and on the flood-plain of the Deerfield River in Florida.

A. scoparius Michx., var. *frequens* Hubbard.—(*A. scoparius* Man. ed. 7 in part; *vid.* Rhodora, 19: 103, 1917. *Schizachyrium scoparium* Ill. Fl. ed. 2 in part.)

Dry fields and rocky summits; common in the southern part of the valley, frequent elsewhere.

ANTHOXANTHUM. SWEET VERNAL GRASS.

A. odoratum L. SWEET VERNAL GRASS.—Meadows, pastures and wood-roads; common. Summit of Greylock, 3500 feet.

ARISTIDA. TRIPLE-AWNED GRASS.

A. dichotoma Michx. POVERTY GRASS.—Dry sandy soil, roadsides; occasional in the valley. Pittsfield; New Lenox; Sheffield.

ARRHENATHERUM. OAT GRASS.

A. elatius (L.) Beauv. TALL OAT GRASS.—First observed in mowing-fields in 1917, has spread and become frequent in the valley.

ASPERELLA. BOTTLE-BRUSH GRASS.

(*Hystrix* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 14: 187, 1912.)

A. hystrix (L.) Humb. BOTTLE-BRUSH GRASS.—(*Hystrix hystrix* Ill. Fl. ed. 2; *Hystrix patula* Man. ed. 7; *vid.* Rhodora, 14: 187, 1912.) Rich woods and rocky ridges; frequent in the valley.

AVENA. OAT.

A. fatua L.—Vacant lot, Pittsfield; dump, Lee; Stockbridge; about old saw-mill, Great Barrington. Neglected garden plot, Sheffield.

First noted in 1916, apparently becoming more frequent.

A. sativa L. COMMON OAT.—Frequent in waste places and along roadsides.

BRACHYELYTRUM.

B. erectum (Schreb.) Beauv.—Moist woods and flood-plains; common.

BROMUS. BROME GRASS.

B. altissimus Pursh.—Rich moist soil; common along streams and in low ground.

B. ciliatus L.—Moist woods and low meadows; common.

B. COMMUTATUS Schrad.—(*B. racemosus* Ill. Fl. ed. 2 in part.) Moist meadow and dooryard, Stockbridge.

B. HORDEACEUS L. SOFT CHESS.—Grassland, Stockbridge.

B. INERMIS Leyss.—Railroad embankment, Stockbridge. Specimens determined by Mrs. Agnes Chase.

Flowering scales awnless or merely awn-pointed.

B. Kalmii Gray. WILD CHESS.—Dry woods and low meadows; occasional. Stockbridge; New Marlboro; Sheffield.

B. purgans L.—Rocky woods; frequent.

B. RACEMOSUS L.—Recently seeded meadow, Stockbridge.

B. SECALINUS L. CHEAT; CHESS.—Waste ground; occasional. Pittsfield; Stockbridge; Great Barrington.

B. TECTORUM L.—Waste ground; occasional. Lenox; Stockbridge; Great Barrington; locally common along the railroad below Housatonic.

CALAMAGROSTIS. REED BENT GRASS.

C. canadensis (Michx.) Beauv. REED BENT GRASS.—Low meadows, borders of streams and ponds; common.

CENCHRUS. SANDBUR.

C. carolinianus Walt. SANDBUR.—Sandy soil; locally common in the southern part of Sheffield, also on dump at woolen mill, Pittsfield.

CINNA. WOOD REED GRASS.

C. arundinacea L.—Wooded swamps; occasional in the valley. Lenox; Stockbridge; Great Barrington; Sheffield. Leaves often 1.5–1.8 cm. broad.

C. latifolia (Trev.) Griseb.—Cool woods; common.

A form from Greylock has a white stripe down the mid-rib of the leaf-blade.

CYNOSURUS. DOG'S TAIL GRASS.

C. CRISTATUS L.—Occasional in grass land. Lenox; Stockbridge.

DACTYLIS. ORCHARD GRASS.

D. GLOMERATA L. ORCHARD GRASS.—In shade about houses, along roadsides, in open woodland; common.

DANTHONIA. WILD OAT GRASS.

D. compressa Aust.—Dry open woods, rocky summits and upland pastures; frequent.

D. spicata (L.) Beauv. WHITE TOP.—Meadows, pastures and rocky hillsides, chiefly in poor soil; common, especially on the upland.

DESCHAMPSIA.

D. caespitosa (L.) Beauv.—Borders of mowing-fields, Whitney Place, Washington; Lenox.

Appears to have been introduced with grass seed.

D. flexuosa (L.) Trin. COMMON HAIR GRASS.—Rocky woods, especially on exposed ledges; common in the valley. On Greylock almost to the summit.

DIGITARIA. FINGER GRASS.

(*Syntherisma* Ill. Fl. ed. 2.)

D. filiformis (L.) Koeler.—Sandy soil; locally common in the southern part of Sheffield.

D. ISCHAEMUM Schreb. ex Muhl.—(*D. humifusa* Man. ed. 7; *vid.* Rhodora, 18: 231, 1916.)

Dry sterile soil, fields, roadsides; common.

D. SANGUINALIS (L.) Scop. CRAB GRASS.—Waste and cultivated ground; common.

ECHINOCHLOA.

E. CRUSGALLI (L.) Beauv. BARNYARD GRASS.—About barnyards and on muddy shores; common.

E. FRUMENTACEA (Roxb.) Link.—Cultivated ground, Stockbridge; roadside, Great Barrington; cultivated ground, Sheffield. First noted in 1920.

E. muricata (Michx.) Fernald.— *Vid.* Rhodora, 17: 106 (1915). Sandy shores and roadside ditches; frequent.

Differs from *E. Crusgalli* in the trichomes of the mature spikelets which are stiffer and coarser, strongly divergent and have a conspicuous papillose or pustular base, giving to the spikelets and consequently to the inflorescence a very muricate appearance.

ELYMUS. WILD RYE.

Key to Elymus.

a. Awns straight (when mature and dry); palea 5.2-8 (rarely 8.5-9.2 in *E. virginicus*) mm. long.

b. Glumes broad (0.9-2 mm. wide), strongly indurated and more or less curved at the base.

Lemmas and glumes glabrous or merely scabrous on the margins.

E. virginicus.

Lemmas and glumes villous-hirsute.

E. virginicus, var. *hirsutiglumis*.

b'. Glumes narrow, often setiform (0.4-0.8 mm. wide), indurated and terete below, essentially straight.

Rachis-joints 3-4.5 (rarely 5-8) mm. long; spikelets 2-4-flowered; leaves and sheaths glabrous.....*E. riparius.*

Rachis-joints 1.5-3 mm. long; spikelets 1- (rarely 2)-flowered; foliage villous.....*E. striatus.*

a'. Awns curved outward toward apex (when mature and dry); glumes 15-20 (rarely 8-27) mm. long, rather narrow but not setiform, flat above; spikelets 4-7-flowered; leaves 13-20 mm. wide; palea 9-11 (-15) mm. long.....*E. canadensis.*

E. canadensis L.— Riverbanks; common in the valley.

E. riparius Wiegand.— *Vid.* Rhodora, 20: 84 (1918). Riverbanks; common in the valley, also in Mt. Washington.

Differs from *E. canadensis* in the more spreading spikelets, straight awns, longer and more slender glumes, uniformly hispidulous lemmas and shorter palea. From *E. striatus*, it may be recognized by the coarser habit, glabrous foliage, larger rachis-joints, scabrous lemmas, and larger palea.

E. striatus Willd.— Alluvial riverbanks; frequent. Williamstown; Stockbridge; Great Barrington; Sheffield.

E. virginicus L.— Riverbanks and moist woods; common.

var. **hirsutiglumis** (Scribn.) Hitchc. (= *E. hirsutiglumis* Ill. Fl. ed. 2.)

Alluvial banks; Stockbridge; Great Barrington; Sheffield.

ERAGROSTIS.

E. capillaris (L.) Nees.—Sandy fields and roadsides; frequent in Great Barrington and Sheffield.

E. CILIANENSIS (All.) Link.—(*E. megastachya* Man. ed. 7; *vid.* Rhodora, 18: 235, 1916. *E. major* Ill. Fl. ed. 2.)

Waste places, Pittsfield; Stockbridge.

E. Frankii (Fisch., Mey., & Lall.) Steud.—A single plant found in Sheffield. Specimen in the herbarium of Mr. Walter Deane.

E. hypnoides (Lam.) BSP.—Shore of Pontoosuc Lake, Lanesboro (Churchill); frequent on muddy shores of Housatonic River in Sheffield (Walters).

E. MINOR Host.—Along railroad track, Washington.

E. pectinacea (Michx.) Steud. Sandy fields; common in Sheffield, frequent elsewhere in the valley.

E. PEREGRINA Wiegand.—Along railroad track, Lee. Determined by Mr. Bayard Long.

Distinguished from *E. pilosa* and *E. Purshii* by the absence of auricular hairs on the upper sheaths, by the densely-flowered panicle, bearing a great number of ovate or ovate-oblong spikelets, and by the very short pedicels of the spikelets (*vid.* Rhodora, 19: 93, 1917, and 21: 133, 1919).

E. Purshii Schrad.—(*E. pilosa* Man. ed. 7 in part.)

Along paths and in waste places; occasional. Williamstown (Churchill); Washington; Pittsfield; Lee; Stockbridge; Sheffield (Walters).

“*E. pilosa* has essentially smooth empty glumes while a scabrous keel seems to be a very excellent index of *E. Purshii*,” Bayard Long in Rhodora, 21: 137 (1919).

FESTUCA. FESCUE GRASS.

F. CAPILLATA Lam.—(*F. ovina*, var. *capillata* Man. ed. 7; *vid.* Rhodora, 18: 235, 1916.)

Roadsides; occasional. Becket; New Boston. On rocky summit of Monument Mt., Great Barrington; moist bank, Sheffield.

F. ELATIOR L. MEADOW FESCUE.—Meadows and roadsides; common.

F. nutans Spreng.—Rocky woods and moist thickets; common. Not noted on the plateau.

F. OVINA L. SHEEP'S FESCUE.—In lawns or along roadsides; occasional. Adams (Knowlton and Bean); Lenox; Stockbridge.

F. rubra L.—Roadsides in moist or dry, sterile soil; frequent, especially on the plateau.

var. **SUBVILLOSA** Mert & Koch.—Roadside, Stockbridge; covering a whole field, as if sown, West Stockbridge; locally common in Sheffield.

GINANNIA.

(*Holcus* Man. ed. 7; *Nothoholcus* Ill. Fl. ed. 2.)

G. LANATA (L.) Hubbard. VELVET GRASS.—(*Holcus lanatus* Man. ed. 7; *vid.* Rhodora, 18: 234, 1916.)

Grass land; occasional. First noted in 1911, becoming more frequent. Summit of Greylock; Stockbridge; Sandisfield; Sheffield.

GLYCERIA. MANNA GRASS.

(*Panicularia* Ill. Fl. ed. 2.)

G. acutiflora Torr.—Common in swale, Stockbridge; muddy border of pond, Great Barrington.

G. borealis (Nash) Batchelder.—Borders of swamps and muddy ponds; common.

G. canadensis (Michx.) Trin. RATTLESNAKE GRASS.—Wet spots in meadows, swales and roadside ditches; common.

G. Fernaldii (Hitchc.) St. John.—(*Glyceria pallida*, var. *Fernaldii* Man. ed. 7; *vid.* Rhodora, 19: 76, 1917. *G. pallida* Ill. Fl. ed. 2 in part.)

River swales and muddy borders of streams; occasional. Savoy; Washington; New Lenox.

G. grandis Wats. REED MEADOW GRASS.—Borders of streams, wet spots in meadows, roadside ditches; frequent.

G. laxa Scribn.—Shaded swamps and wet woods; occasional on the plateau.

G. melicaria (Michx.) Hubbard.—(*Glyceria Torreyana* Man. ed. 7; *vid.* Rhodora, 14: 186, 1912. *Panicularia Torreyana* Ill. Fl. ed. 2.)

Wet places in woods and shaded swamps; frequent.

G. nervata (Willd.) Trin. FOWL MEADOW GRASS.—Wet meadows, wet places in woods, borders of streams, roadside ditches; common.

var. **stricta** Scribn.—Swale, Williamstown, (Churchill); swamps, Sheffield (Bean and Fernald).

G. pallida (Torr.) Trin.—Shallow water, New Marlboro; Sheffield (Churchill).

G. septentrionalis Hitchc.—Shallow water in bog hole, New Marlboro.

HIEROCHLOE. HOLY GRASS.

(*Savastana* Ill. Fl. ed. 2.)

H. odorata (L.) Wahlenb., var. **fragrans** (Willd.) Richter. VANILLA GRASS; SENECA GRASS.—(*H. odorata* Man. ed. 7; *vid.* Rhodora, 19: 152, 1917.)

Wet hillsides and borders of swamps; frequent on the plateau, occasional in the valley (Sheffield).

HORDEUM. BARLEY.

H. jubatum L. SQUIRREL-TAIL GRASS.—Waste places; occasional. Not noted before 1919. Lanesboro, along trolley track; Hinsdale (Churchill); barnyard, Stockbridge; clearing, Great Barrington; New Marlboro.

H. vulgare L. COMMON BARLEY.—Along railroad tracks; occasional. Williamstown; Washington; Pittsfield.

LEERSIA. CUT-GRASS.

(*Homalocenchrus* Ill. Fl. ed. 2.)

L. oryzoides (L.) Sw. RICE CUT-GRASS.—Borders of swamps, low ground, ditches; common.

L. virginica Willd. WHITE GRASS.—Rich woods; occasional in the valley. Stockbridge; Great Barrington; Sheffield. Valley of the Deerfield River, Florida.

LOLIUM. DARNEL.

L. multiflorum Lam.—Field, Stockbridge.

L. perenne L. COMMON DARNEL.—Roadsides and sterile fields; occasional. Williamstown; Stockbridge.

MELICA. MELIC GRASS.

M. striata (Michx.) Hitchc.—(*Avena Torreyi* Ill. Fl. ed. 2.)

Wooded ledges and swamps; frequent in the valley.

MILIUM. MILLET GRASS.

M. effusum L.—Cool woods; rare. Summit of Greylock; ledges on Mt. Harvey, West Stockbridge.

MUHLENBERGIA. DROP-SEED GRASS.

M. foliosa Trin.—(*M. mexicana* Ill. Fl. ed. 2 in part.)

Moist thickets, dry banks and rocky ledges; frequent in the valley. Not noted on the plateau.

M. MEXICANA (L.) Trin.—Sandy soil, gravelly shores, riverbanks, shaded roadsides; common.

M. racemosa (Michx.) BSP.—Low meadows and marshes; common in the valley. Not noted on the plateau.

M. Schreberi J. F. Gmel. DROP-SEED.—Dry woods and shaded roadsides; occasional. Stockbridge; Alford; New Marlboro.

M. sobolifera (Muhl.) Trin.—Dry, rocky woods, New Marlboro.

M. sylvatica Torr.—(*M. umbrosa* Ill. Fl. ed. 2.)

Rocky or swampy woods; frequent. Both the awnless and the long-awned forms occur. Not noted on the plateau.

M. tenuiflora (Willd.) BSP.—Rocky woods; frequent. Not noted on the plateau.

ORYZOPSIS. MOUNTAIN RICE.

O. asperifolia Michx.—Dry wooded banks and alluvial thickets; frequent in the valley; occasional on the plateau.

O. pungens (Torr.) Hitchc.—Top of Monument Mt., Great Barrington, in disintegrated quartzite.

O. racemosa (Sm.) Ricker.—Rocky woods, in rich soil; common in the valley. Not noted on the plateau.

PANICUM. PANIC GRASS.*Key to Panicum.*

a. Annuals.

Panicle more than half the length of the entire plant.

P. capillare, var. *occidentale*.

Panicle not over one-third the length of the entire plant *P. Tuckermanni*.

a'. Perennials.

b. Basal leaves similar to culm-leaves, not forming a winter rosette.

P. agrostoides.

b'. Basal leaves usually distinctly different from the culm-leaves, forming a winter rosette.

- c. Spikelets 3 mm. or more long.
- d. Leaves linear-elongated, not over 5 mm. wide. *P. strictum*.
- d'. Leaves oblong-lanceolate to ovate-lanceolate, more than 1 dm. wide.
- e. Spikelets 3 mm. long; at least the lower sheaths papillose-hispid. *P. clandestinum*.
- e'. Spikelets 3.5 to 4 mm. long.
Panicle spreading; blades 2.5 cm. or more wide. . . . *P. latifolium*.
Panicle narrow; blades rarely over 1.8 cm. wide. *P. xanthophysum*.
- c'. Spikelets less than 3 mm. long.
- f. Spikelets glabrous. *P. dichotomum*.
- f'. Spikelets pubescent.
- g. Blades elongated, not over 5 mm. long; secondary panicles from the base only or none.
Sheaths glabrous. *P. Werneri*.
Sheaths pilose. *P. linearifolium*.
- g'. Blades usually not conspicuously elongated; secondary panicles not at the base.
- h. Sheaths, or all but the lowest glabrous.
- i. Culms crisp-puberulent. *P. umbrosum*.
- i'. Culms glabrous.
Spikelets 1.5 to 1.8 mm. long; in dry, sandy ground, in the valley. *P. sphaerocarpon*.
Spikelets 2.2 to 2.8 mm. long; in moist upland. *P. boreale*.
- h'. Sheaths pubescent.
- j. Sheaths puberulent, not pilose. *P. umbrosum*.
- j'. Sheaths spreading, or appressed pilose or velvety.
- k. Pubescence spreading.
- l. Blades stiff, glabrous above, or with a few hairs. *P. tennesseense*.
- l'. Blades pubescent above, or if glabrous lax.
- m. Upper surface of blades with erect hairs 3 to 5 mm. long, axis of panicle long pilose. *P. implicatum*.
- m'. Upper surface of blades with short or somewhat appressed pubescence.
Blades stiff; spikelets obovate; rare. *P. huachucae*.
Blades lax; spikelets elliptical; common. *P. huachucae*, var. *fasciculatum*.
- k'. Pubescence crisp-appressed.
Spikelets 1.9 mm. long; blades 5 to 6 cm. long; plants blue-green. *P. tsugetorum*.
Spikelets 1.7 mm. long; blades 3 to 5 cm. long; plants gray-green. *P. heterophyllum*.

P. agrostoides Spreng.—Sandy shore of Big Pond, Otis; low meadows, Sheffield.

P. boreale Nash.—Borders of woods and fields, roadsides; common on the plateau; occasional in the valley, Cheshire (Churchill); low ground, Stockbridge; border of marsh, Monterey; upper part of The Dome, Mt. Washington.

P. capillare L., var. **occidentale** Rydberg. OLD-WITCH GRASS.—(*P. capillare* Man. ed. 7 in part and Ill. Fl. ed. 2.)

Sandy soil, ledges and waste ground; common.

P. clandestinum L.—Thickets, chiefly in alluvial soil; frequent. Altitude 1500 feet, Hoosac Mt., Florida.

P. dichotomum L.—Dry rocky woods; frequent in the valley.

P. heterophyllum Bosc.—(*P. columbianum* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 14: 171, 1912.)

Dry rocky or sandy woods; occasional in the southern and western parts of the County. Stockbridge; West Stockbridge; Alford; Sheffield.

P. huachucae Ashe.—Meadow, West Stockbridge.

var. **fasciculatum** (Torr.) Hubbard.—(*P. huachucae*, var. *silvicola* Man. ed. 7; *P. huachucae* Ill. Fl. ed. 2 in part; *vid.* Rhodora, 14: 171, 1912.)

Dry woods and clearings; common.

P. implicatum Scribn.—Dry woods, clearings, hillside pastures, wet roadsides; common.

P. latifolium L.—Thickets and clearings in rich woodland; common in the valley. Not noted on the plateau.

P. linearifolium Scribn.—Dry open woods and sandy fields; common.

P. MILLACEUM L. EUROPEAN MILLET.—Railroad track, Washington; waste ground, Great Barrington.

P. sphaerocarpon Ell.—Borders of dry woods, Great Barrington; open glade, Sheffield.

P. strictum Pursh.—(*P. depauperatum* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 14: 169, 1912.)

Sterile fields, dry open woods and rocky ledges; frequent.

P. tennesseense Ashe.—Clearings, wood roads, dry or wet woods; river banks; frequent.

An aberrant form from West Stockbridge closely approaches *P. Lindheimeri* Nash, according to Mr. F. Tracy Hubbard.

P. tsugetorum Nash.— Dry woods; frequent in the southern part of the valley.

P. Tuckermani Fernald.— (*P. philadelphicum* Man. ed. 7 and Ill. Fl. ed. 2 in part.)

Ditches, sandy roadsides and shores; occasional. Pontoosuc Lake, Pittsfield; Becket; West Stockbridge; Egremont; Mt. Washington; moist limestone outcrop, Sheffield.

Pulvini hispid:

Spikelets all or nearly all long-pedicelled, 2 to 3 mm. long; panicle tardily exerted, its lower branches mostly included during anthesis. . . . *P. capillare*.

Spikelets subsessile or only short-pedicelled along the ultimate branchlets; panicle exerted in anthesis. . . . *P. capillare*, var. *occidentale*.

Pulvini glabrous or merely ciliate at tip.

P. Tuckermani (*vid.* *Rhodora*, **21**: 111, 1919).

P. umbrosum LeConte.— (*P. Ashei* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, **14**: 173, 1912.)

Rocky woods and open sandy soil; occasional in the southern part of the valley. Great Barrington; Sheffield.

P. Wernerii Scribn.— Dry open woods and fields, rocky summits; common in the valley.

P. xanthophysum Gray.— Dry open woods and clearings; occasional in the western and southern parts of the valley; Hancock Mt., Pittsfield; Monterey; Great Barrington; Sandisfield; Sheffield.

PASPALUM.

P. Muhlenbergii Nash.— Sterile, sandy fields; common in the southern part of the valley.

PHALARIS. CANARY GRASS.

P. arundinacea L. REED CANARY GRASS.— Marshes and borders of brooks; frequent.

forma *PICTA* (L.), comb. nov. RIBBON GRASS.— An occasional escape from gardens; Williamstown; New Ashford; Stockbridge.

PHLEUM.

P. PRATENSE L. HERD'S GRASS; TIMOTHY.— Grassland and wood roads; common.

PHRAGMITES. REED.

P. communis Trin. REED.— (*P. Phragmites* Ill. Fl. ed. 2.)

Border of boggy pond, Stockbridge; boggy meadow, Sheffield. The Stockbridge station was noted by Dewey in 1829.

POA. MEADOW GRASS.

P. alsodes Gray.— Moist woods, and borders of brooks; common.

P. ANNUA L. LOW SPEAR GRASS.— Cultivated and waste ground; common. Altitude 2000 feet, Savoy.

P. compressa L. WIRE GRASS.— Sterile soil, in fields and rocky woods, boggy meadows; common.

P. debilis Torr.— Dry wooded slopes; occasional. Egremont; Richmond; swamp, Sheffield (Churchill).

P. nemoralis L.— Low ground and rocky woods; occasional. Williamstown (Churchill); West Stockbridge; Stockbridge.

P. PRATENSIS L. SPEAR GRASS; KENTUCKY BLUE GRASS.— Fields, hillsides, open places in woods; common.

P. saltuensis Fernald & Wiegand.— (*P. debilis* Man. ed. 7 and Ill. Fl. ed. 2 in part; *vid.* Rhodora, 20: 122, 1918.)

Woods; frequent on the upland.

P. saltuensis is very similar in aspect to *P. debilis* but the latter species has usually shorter, obtuse and much firmer chartaceous lemmas; broader glume, with mostly scabrous keels; longer cauline ligules (usually 2 to 2.5 mm. long); and smaller anthers (0.6 to 0.8 mm. long).

P. palustris L. FOWL MEADOW GRASS.— (*P. triflora* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 18: 235, 1916.)

Wet meadows; common. A narrow form occurs in woods and on hillsides.

P. TRIVIALIS L. ROUGH-STALKED MEADOW GRASS.— Low ground, chiefly along brooks and borders of swamps; common in the valley. Not noted on the plateau.

SECALE. RYE.

S. CEREALE L. RYE.— Occasionally self-sown on roadsides.

SETARIA. BRISTLY FOXTAIL GRASS.

(*Chactochloa* Ill. Fl. ed. 2.)

S. lutescens (Weigel) Hubbard. FOXTAIL; PIGEON GRASS.— (*S. glauca* Man. ed. 7.)

Cultivated ground; common.

S. ITALICA (L.) Beauv. MILLET.—(subsp. *stramineofrueta* Hubbard, var. *Hostii* Hubbard, subv. *Metzgeri* (Kornicke) Hubbard; *vid.* *Rhodora*, **18**: 233, 1916.)

Occasional escape from cultivation; Becket; Stockbridge.

S. VIRIDIS (L.) Beauv.—Cultivated ground; frequent in the valley.

SORGHASTRUM.

S. nutans (L.) Nash. INDIAN GRASS; WOOD GRASS.—Dry ground; occasional in the valley. Pittsfield; Great Barrington; Sheffield.

SPHENOPHOLIS.

S. nitida (Spreng.) Scribn.—Woods; frequent in the valley.

S. pallens (Spreng.) Scribn.—Woods, both dry and moist; frequent in the valley.

SPOROBOLUS. DROP-SEED.

S. neglectus Nash.—Dry open soil; occasional in the valley. Williamstown (Churchill); North Adams; Pittsfield.

S. uniflorus (Muhl.) Scribn. & Merr.—Wet sandy fields, ditches and exsiccated margins of swamps; occasional on the plateau (Becket).

S. vaginiflorus (Torr.) Wood.—Sandy soil and dry ledges; occasional in the valley. Egremont; Sheffield.

TRISETUM.

T. spicatum (L.) Richter, var. *molle* (Michx.) Piper.—(*T. spicatum* Man. ed. 6 in part; *vid.* *Rhodora*, **18**: 195, 1916.)

Banks of the Deerfield River, Florida.

TRITICUM. WHEAT.

T. SATIVUM Lam. WHEAT.—Occasionally self-sown along railroad tracks.

CYPERACEAE. SEDGE FAMILY.

CAREX. SEDGE.

C. aenea Fernald.—Rocky woods and dry open ground; frequent.

C. aestivalis M. A. Curtis.—Rocky wooded slopes; frequent, especially on the plateau and on the mountains.

C. albicans Willd.—Rich woods, Hinsdale. The only known station in Massachusetts.

C. albolutescens Schwein., var. **cumulata** Bailey.—(*C. albolutescens* Man. ed. 7 in part.)

Exposed ledges at Bash Bish Falls, Mt. Washington, rocky shores of Guilder Pond, Mt. Washington, and the upper slopes of The Dome. Altitude 2100 feet.

C. alopecoidea Tuckerm.—Swale, Williamstown; meadows and swales near the river, North Adams (Fernald and Long).

C. annectens Bicknell.—(*C. setacea* Dewey, var. *ambigua* Man. ed. 7; *vid.* Bull. Torr. Bot. Club, 35: 492, 1908.)

Dry fields and roadsides; frequent. Often occurring as if introduced with grass seed.

C. aquatilis Wahlenb.—Marshes in the valley; rare. Lake Buel, Monterey (Walters); Joyner's marsh, Egremont.

var. **cuspidata** Laestad.—With the type, Lake Buel, Monterey.

var. **virescens** Anders.—With the type at Monterey and Egremont.

C. arctata Boott.—Woods and clearings; frequent in the valley, common on the plateau.

C. atlantica Bailey.—(*C. sterilis* Man. ed. 7.)

Ice Pond, Mt. Greylock (Burnham), specimen not seen by the writer; borders of peat bogs, Lost and Ward Ponds, Becket.

C. aurea Nutt.—Low ground, wet meadows, roadside ditches; common in calcareous soil.

C. Bebbii Olney.—Low ground; common.

C. bromoides Schkuhr.—Wet woods and swamps; common.

C. brunnescens Poir.—Rocky woods, dry clearings and moist thickets; common on the plateau, occasional in the valley (Cheshire, Winslow). Common on the upper portion of Greylock.

C. canescens L.—Low ground, Florida; swampy woods, Sheffield (Fernald).

var. **disjuncta** Fernald.—Swamps and bogs; common.

var. **subloliacea** Laestad.—Borders of pools in marshes, boggy shores of ponds; common.

C. cephaloidea Dewey.—Rich woods; occasional. Williamstown; North Adams; Becket; Stockbridge; West Stockbridge; New Marlboro; Sheffield; Egremont.

C. cephalophora Muhl.—Dry open woodland; frequent in the valley, occasional on the plateau (Sandisfield).

C. communis Bailey.— Open woods; common.

C. comosa Boott.— Borders of ponds and marshes; frequent in the valley.

C. conoidea Schkuhr.— Meadows and damp pastures; common.

C. Crawfordii Fernald.— Sterile fields; common in the northern part of the plateau (Florida, Savoy); occasional elsewhere, Ice Pond, summit of Greylock (Burnham); Constitution Hill, Lanesboro.

var. **vigens** Fernald.— Pastures, Florida; border of Lake Garfield, Monterey.

C. crinita Lam.— Low ground, particularly along the Housatonic River; occasional. Florida; Lenox; Pittsfield; Sheffield.

var. **gynandra** (Schwein.) Schwein. & Torr.— (*C. gynandra* Ill. Fl. ed. 2.)

Wet places, particularly in woods; common.

var. **minor** Boott.— Ice Pond, Greylock (altitude 3500 feet); South Pond, Savoy, altitude 2000 feet.

C. cristata Schwein.— (*C. cristatella* Ill. Fl. ed. 2.)

Alluvial soil, chiefly along the Housatonic and Farmington Rivers. Occasionally at higher altitudes, Stockbridge, 1050 feet; Sheffield, along mountain brook, 1600 feet.

C. Davisii Schwein. & Torr.— Alluvial thickets in the southern part of New Marlboro and Sheffield.

C. debilis Michx., var. **interjecta** Bailey.— Occasional; Lanesboro (Churchill); summit of The Dome, Mt. Washington (Cushman).

var. **Rudgei** Bailey.— (*C. flexuosa* Ill. Fl. ed. 2.)

Open woodland, brushy pastures, thickets and roadsides; common.

C. deflexa Hornem.— Frequent along the Deerfield River, Florida. Collected on Mt. Greylock by Wm. Boott.

C. Deweyana Schwein.— Dry open or rich rocky woods; common.

C. diandra Schrank.— Peat bogs; occasional. Williamstown (Dewey); North Adams; Pittsfield; Lee; Monterey; New Marlboro (Walters); Egremont (Churchill).

var. **ramosa** (Boott) Fernald.— (*C. prairea* Ill. Fl. ed. 2.)

Borders of peat bogs and marshes; occasional. Williamstown; Clarksburg; Washington (Boott); Stockbridge; West Stockbridge; Monterey; Great Barrington (Walters).

C. digitalis Willd.— Dry open woods; common.

C. eburnea Boott.— Limestone hills, either exposed or in shade;

local. New Ashford; Lee; West Stockbridge; New Marlboro; Egremont; Sheffield. Not noted in Stockbridge.

C. echinata Murr.—(*C. stellulata* Man. ed. 7; *vid.* *Rhodora*, **19**: 154, 1917. *C. Leersii* Ill. Fl. ed. 2.)

Borders of ponds and bogs; occasional, chiefly at high altitudes. Ice Pond, summit of Greylock; Florida; South Pond, Savoy (altitude 2000 feet); Cheshire (Cushman); Berry Pond, Hancock (altitude 2000 feet); Washington.

var. **angustata** Carey.—Wet meadows and marshes; common.

var. **excelsior** (Bailey) Fernald.—Marshes; frequent, especially at high altitudes.

var. **ormantha** Fernald.—Wet bank, Florida; springy meadow, Savoy; bog, Hancock (altitude 2000 feet).

C. festucacea Schkuhr, var. **brevior** (Dewey) Fernald.—Open sterile soil; common in the southern part of the valley, on hills of glacial drift. Also in Washington at the edge of the plateau.

C. filiformis L.—(*C. lasiocarpa* Ill. Fl. ed. 2.)

Open marshes; common.

C. flava L.—Wet meadows and ditches; common.

var. **elatior** Schlecht.—(*C. lepidocarpa* Ill. Fl. ed. 2 in part.)

Low ground; occasional. Williamstown; Becket; Sandisfield; Monterey; Sheffield.

var. **rectirostra** Gaudin.—(*C. lepidocarpa* Ill. Fl. ed. 2 in part.)

Borders of ponds and marshes, on shores formed by receding water; common. Occasional on wet gravelly slopes.

C. foenea Willd.—Open rocky woodland; common except on the plateau.

var. **perplexa** Bailey.—Thickets; occasional. Florida; Great Barrington; New Marlboro.

C. folliculata L.—Marshes and shaded swamps; frequent.

C. formosa Dewey.—The type station is Stockbridge. The species is now extremely local there, occurring in moist thickets at two stations about two miles apart. It has been collected at Egremont (Walters).

C. gracillima Schwein.—Thickets and clearings; common in the valley, occasional on the plateau (Florida, Savoy). On Greylock to the summit.

C. granularis Muhl.—Wet meadows and roadside ditches; common.

var. **Haleana** (Olney) Porter.— (*C. Shriveri* Ill. Fl. ed. 2.)

Occasional; Williamstown (Churchill); North Adams (Fernald and Long); Stockbridge; West Stockbridge.

C. Grayii Carey.— (*C. Asa-Grayi* Ill. Fl. ed. 2.)

Swampy woods, Lenox; shaded thicket, Sheffield (Churchill); river swale, Sheffield (Bissell).

C. grisea Wahlenb.— Alluvial thickets and shaded banks of streams; frequent in the valley.

var. **rigida** Bailey.— (*C. amphibola* Ill. Fl. ed. 2.)

Alluvium of small stream, Sheffield (Bean and Fernald).

C. Hitchcockiana Dewey.— Pockets of rich soil at the base of shaded ledges; occasional. Williamstown (Davis), type locality; Pittsfield; Sheffield (Walters).

C. hystericina Muhl.— Wet meadows and borders of swamps; common.

C. intumescens Rudge.— Wet woods; occasional in the valley. Williamstown (Burnham); Great Barrington; Sheffield.

var. **Fernaldii** Bailey.— Wet woods; common. Summit of Greylock, 3500 feet.

C. laevivaginata (Kuckenth.) Mackenzie.— (*C. stipata* Man. ed. 7 in part; *vid.* Rhodora, 17: 231, 1915.)

Low swampy ground; frequent.

C. lanuginosa Michx.— Swales along the Housatonic River; occasional in the southern part of the County. Stockbridge; Great Barrington; Sheffield. Common in Sheffield.

C. laxiculmis Schwein.— Rich woods, often under pines; frequent in the valley.

var. **copulata** (Bailey) Fernald.— Rich woods, Sandisfield.

C. laxiflora Lam.— (*C. anceps* Ill. Fl. ed. 2.)

Rich woods; occasional. Savoy; Stockbridge; West Stockbridge; New Marlboro; Egremont (Churchill and Schneider).

var. **blanda** (Dewey) Boott.— (*C. blanda* Ill. Fl. ed. 2.)

Rich woods; frequent in the valley.

var. **latifolia** Boott.— (*C. albursina* Ill. Fl. ed. 2.)

Rich woods; occasional in the valley. North Adams; Lanesboro; Pittsfield; Stockbridge; Sheffield (Walters).

var. **patulifolia** (Dewey) Carey.— (*C. anceps* Ill. Fl. ed. 2 in part.)

Rich woods; common.

var. **varians** Bailey.— (*C. blanda* Ill. Fl. ed. 2 in part.)

Rich woods; occasional. Savoy; Pittsfield; Stockbridge; Sheffield (Walters).

C. lenticularis Michx.—Gravelly borders of ponds and rivers; occasional. Savoy; Florida.

Perigynia ovate-elliptic, slightly convex both sides, longer than the narrow oblong, obtuse scales.

var. **Blakei** Dewey.—*Vid.* Wood, Class Book, p. 755 (1861).

Sandy shore of Big Pond, Otis.

Perigynia nearly elliptical, scales obtuse and always shorter than the perigynia.

C. LEPORINA L.—Pastures; occasional. Sandisfield; New Marlboro.

C. leptalea Wahlenb.—Wet shaded ground; common.

C. leptonervia Fernald.—(*C. laxiflora*, var. *leptonervia* Man. ed. 7; *C. anceps* Ill. Fl. ed. 2 in part. *Vid.* Rhodora, 16: 214, 1914.)

Cold woods and swamps; common.

C. limosa L.—Open peat bogs; local. Stockbridge; Sheffield.

C. longirostris Torr.—(*C. Sprengelii* Ill. Fl. ed. 2.)

Alluvial thickets; occasional in the valley. Lenox (Hill, Schneider and Schweinfurth); Stockbridge; Sheffield. On shaded rocks in New Marlboro.

C. lupulina Muhl.—Mudholes, borders of ponds and marshes; frequent.

var. **pedunculata** Dewey.—Mudholes and marshes; occasional in the southern part of the valley. Lenox; Great Barrington; New Marlboro.

C. lurida Wahlenb.—Low open ground; common.

var. **gracilis** (Boott) Bailey.—(*C. Baileyi* Ill. Fl. ed. 2.)

Cheshire, wet slide above Kitchen Brook (Churchill); New Marlboro, Thousand Acre Swamp.

C. mirabilis Dewey.—(*C. normalis* Ill. Fl. ed. 2.)

Roadside thickets, clearings, copses; common.

var. **perlonga** Fernald.—Borders of thickets; occasional on the plateau. Becket; Sandisfield.

C. Muhlenbergii Schkuhr.—Dry open soil; rare. Stockbridge (Dewey); Sheffield.

C. novae-angliae Schwein.—Rocky woods and banks; common on the plateau; rare in the valley. Reaches the bank of the Housatonic River in Lenox (altitude 1000 feet). Rich soil on Berry Mt., Hancock.

C. Oederi Retz, var. **pumila** (Cosson & Germain) Fernald.— Margins of ponds and roadside ditches; frequent in the valley.

C. oligocarpa Schkuhr.— Rich woods; rare. Stockbridge; New Marlboro.

C. pallescens L.— Meadows and open woods; common.

C. pauciflora Lightf.— Peat bogs; local. Ward and Lost Ponds, Becket; Wolf Swamp, Sandisfield.

C. paupercula Michx.— Sandisfield (Walters).

var. **irrigua** (Wahlenb.) Fernald.— Sphagnum swamps; local. Pittsfield; Becket.

var. **pallens** Fernald.— Shaded sphagnum swamps; local. Washington (Boott); Pittsfield; New Marlboro.

C. pedunculata Muhl.— Open woods; common, particularly in rocky woods.

C. pennsylvanica Lam.— Dry open woods and clearings; common.

var. **lucorum** (Willd.) Fernald.— Occasional. Dry woods, New Marlboro; rocky woods, West Stockbridge; dry woods, Mt. Washington (Knowlton); dry woods, Sheffield (Bean and Fernald).

C. plantaginea Lam.— Rich woods; frequent in the valley and on the lower slopes of the mountains.

Culms 6.5 cm. high, Stockbridge.

C. platyphylla Carey.— Rich woods; common in the valley.

C. polygama Schkuhr.— (*C. Buxbaumii* Ill. Fl. ed. 2.)

Joyner's Marsh, Egremont.

C. prasina Wahlenb.— Wet spots in woods; frequent in the valley and on the lower slopes of the mountains.

C. projecta Mackenzie.— (*C. tribuloides*, var. *reducta* Man. ed. 7; *vid.* Bull. Torr. Bot. Club, 35: 264, 1908.)

Borders of swamps and wet woods; frequent in the valley, common on the plateau.

C. Pseudo-Cyperus L.— Border of Spectacle Pond, Sandisfield; Sheffield (Walters).

C. pubescens Muhl.— Rich woods, in damp glades and alluvial thickets; frequent.

C. retrorsa Schwein.— Borders of ponds and streams, wet spots in meadows; common in the valley.

var. **Hartii** (Dewey) Gray.— River alluvium, Sheffield (Churchill).

var. **Robinsonii** Fernald.— Shore of Richmond Lake, Richmond.

C. riparia W. Curtis.— (*C. lacustris* Ill. Fl. ed. 2.)

Swamps, frequent in the valley.

C. rosea Schkuhr.— Rich dry woods; common in the valley.

var. **minor** Boott.— Rich rocky woods, often on rocks and ledges; common on the hills in the valley.

var. **radiata** Dewey.— Rich rocky woods; common.

C. rostrata Stokes.— Marshes and bogs; frequent. Altitude 2000 feet, Hancock.

var. **ambigens** Fernald.— Bog, Monterey.

var. **utriculata** (Boott) Bailey.— Borders of bogs; frequent. Commoner than the type.

C. scabrata Schwein.— Wet places in woods; frequent.

C. Schweinitzii Dewey.— Swamps and swales in the Hoosac Valley; Williamstown (Williams); North Adams (Churchill). This species occurs in Salisbury, Conn., and should be looked for in the southern part of Berkshire Co.

C. scirpoides Schkuhr.— (*C. interior* Ill. Fl. ed. 2.)

Swales, wet meadows, swampy woods, borders of bogs and ponds; common.

var. **capillacea** (Bailey) Fernald.— (*C. Howei* Ill. Fl. ed. 2.)

Swampy woods; occasional. Washington; Becket; Stockbridge; West Stockbridge; New Marlboro.

C. scoparia Schkuhr.— Grassland, thickets, low ground; common.

var. **condensa** Fernald.— Low ground; common at high altitudes.

var. **moniliformis** Tuckerman.— Low ground; frequent.

var. **subturbinata** Fernald & Wiegand.— *Vid.* *Rhodora*, 14: 116 (1912).

Distribution not known. Collected in a pasture in Sandisfield, and among boulders in woods in Florida (Fernald and Long).

C. seorsa E. C. Howe.— Border of peat bog, Ward Pond, Becket; in open swamps, Sheffield (Bean and Fernald).

C. setacea Dewey.— The type specimen, collected in Williamstown before 1825, is in the Gray Herbarium. The species has not since been collected in the County, which appears to be the eastern limit of its range.

C. sparganioides Muhl.— Rich or dry woodland; frequent in the valley.

C. sterilis Willd. (not of the Man. ed. 7).— Joyner's Marsh, Egremont.

For the distinction between this species, with much developed staminate spikes, and *C. atlantica* Bailey, *vid.* Ill. Fl. ed. 2.

C. stipata Muhl.—Swales and swamps, wet places in woods; common.

C. straminea Willd.—Meadows, pastures, roadsides, and open woodland; frequent.

var. **echinodes** Fernald.—Dry woods, West Stockbridge.

C. stricta Lam.—Swamps and wet meadows, borders of lakes and streams; common.

var. **angustata** (Boott) Bailey.—With the type, but less common.

var. **curtissima** Peck.—(*C. strictior* Dewey; *vid.* Bull. Torr. Bot. Club, 40: 415, 1915.)

Occasional; Williamstown (Dewey); Florida; Hancock, altitude 2000 feet; Stockbridge; Sheffield (Churchill).

var. **decora** Bailey.—(*C. Haydeni* Ill. Fl. ed. 2.)

Occasional; Williamstown (Dewey); Savoy.

C. tenella Schkuhr.—(*C. disperma* Ill. Fl. ed. 2.)

Cold shaded swamps; common.

C. tetanica Schkuhr., var. **Woodii** (Dewey) Bailey.—Two stations in Stockbridge: one a low spot in a meadow, the other a wet hillside. The species has been collected in Salisbury, Conn., and should be looked for in the southern part of the County. A sheet in the Gray Herbarium collected by Dewey in Stockbridge before 1826 and labelled by him *C. tetanica* is this variety.

C. tinctoria Fernald.—(*C. mirabilis*, var. *tinctoria* Man. ed. 7; *vid.* Rhodora, 15: 186, 1913.)

Fields and roadsides; common in the Deerfield Valley, Florida; occasional on the plateau. Altitude 2000 feet, Florida.

C. torta Boott.—Among the stones along mountain brooks, and along the borders of the Deerfield and Farmington Rivers; common.

C. tribuloides Wahlenb.—Low ground, particularly in swales in the valley; frequent. Not noted on the plateau. A form with a very crowded inflorescence is occasional with the type.

var. **turbata** Bailey.—Occasional, Otis.

C. triceps Michx., var. **hirsuta** (Willd.) Bailey.—(*C. complanata* Ill. Fl. ed. 2.)

Dry open woodland, clearings, and hillside pastures; common in the valley.

C. trichocarpa Muhl.—Marshes in the Hoosac Valley. Williamstown (Churchill).

C. trisperma Dewey.—Swampy woods; common.

var. **Billingsii** Knight.—Peat bogs; local. Savoy; Lost Pond, Becket; Wolf Swamp, Sandisfield.

C. Tuckermanni Dewey.—Swales in the Housatonic and Konkapot Valleys in the southern part of the County; frequent in Sheffield, occasional elsewhere (Stockbridge, New Marlboro).

C. typhina Schwein.—(*C. typhinoides* Man. ed. 7; *vid.* Rhodora, 11: 40, 1909.)

Shaded swale in the southern part of Sheffield, just inside the State Line.

C. umbellata Schkuhr.—Rocky summits and dry open soil; frequent.

var. **brevirostris** Boott.—(*C. abdita* Ill. Fl. ed. 2.)

Rocky or sandy soil. Williamstown; Sandisfield; Sheffield.

var. **tonsa** Fernald.—(*C. tonsa* Ill. Fl. ed. 2.)

Sand-plain, Ashley Falls, Sheffield.

C. varia Muhl.—(Man. ed. 7.)

Rocky woods; frequent in the valley. According to Mr. K. K. Mackenzie, Berkshire material corresponds to *C. Emmonsii* Dewey.

C. vesicaria L.—Shaded swamps and swales; frequent.

var. **jejuna** Fernald.—(*C. monile* Ill. Fl. ed. 2 in part.)

Swale near the Housatonic River, Lenox. A form closely approaching this variety at Ward Pond, Becket.

var. **monile** (Tuckerm.) Fernald.—Swampy ground; occasional. Richmond; Lenox.

C. virescens Muhl.—Dry, open woods, and clearings; common in the valley.

var. **Swanii** Fernald.—(*C. Swanii* Ill. Fl. ed. 2.)

Dry, open woods and hillside pastures; common.

C. vulpinoidea Michx.—Low ground; common.

C. lupulina × **lurida**.—Low ground; occasional. Stockbridge; Great Barrington.

CLADIUM. Twig Resu.

(*Mariscus* Ill. Fl. ed. 2.)

C. mariscoides (Muhl.) Torr.—Bogs and marshes; occasional in the valley. Stockbridge; Great Barrington; Egremont; Sheffield.

CYPERUS. GALINGALE.

C. aristatus Rottb.— (*C. inflexus* Ill. Fl. ed. 2.)

Sandy shores; occasional. Pontoosuc Lake, Pittsfield; Mill River, New Marlboro; Housatonic River, Sheffield. Along railroad track, Lee.

C. diandrus Torr.— Borders of lakes, and low ground; frequent.

C. esculentus L.— Sandy shores; occasional along the Housatonic River. Great Barrington; Sheffield. As a weed in cultivated ground, Lenox.

var. **leptostachyus** Boeckl.— Occasional with the type. Lenox; Great Barrington; Sheffield.

C. filiculmis Vahl, var. **macilentus** Fernald.— Dry, open soil; occasional in the valley. Lee; Great Barrington; New Marlboro. Common on the Sheffield sand-plain.

C. Houghtonii Torr.— A station on exposed rocks at Bash Bish Falls, Mt. Washington, is the only known station in the State.

C. rivularis Kunth.— Low ground; occasional in the valley. Pittsfield; Stockbridge; Sheffield.

C. strigosus L.— Low shaded ground, Mt. Washington; Sheffield. forma **capitatus** (Boeckl.) Blake.— *Id.* *Rhodora*, **15**: 200 (1913). Sandy or muddy shores of lakes and streams; frequent.

var. **compositus** Britton.— Sandy or muddy shores, and in low ground; frequent in the valley.

var. **robustior** Kunth.— Low ground; occasional. Great Barrington; Sheffield.

DULICHIMUM.

D. arundinaceum (L.) Britton.— Borders of ponds and marshes; common.

ELEOCHARIS. SPIKE-RUSH.

E. acicularis (L.) R. & S.— Shallow water and muddy shores; common.

E. intermedia (Muhl.) Schultes.— Muddy shores; occasional. Pontoosuc Lake, Pittsfield; Egremont; Mill River, New Marlboro.

E. obtusa (Willd.) Schultes.— Roadside ditches, borders of ponds and streams, open muddy spots in marshes; common.

E. olivacea Torr.— Muddy spots in marshes; occasional in the valley. Lenox; Egremont; Sheffield.

E. palustris (L.) R. & S.— Marshes, muddy shores and shallow water; common.

E. tenuis (Willd.) Schultes.— Wet places; common.

ERIOPHORUM. COTTON GRASS.

E. callitrix Cham. HARE'S TAIL.— Peat bogs; occasional on the plateau. Savoy; Becket; Washington; New Marlboro.

E. gracile Roth.— Marshes and peat bogs; occasional. Cheshire (Cushman); Becket (Walters); Monterey.

E. tenellum Nutt.— Bogs and marshes; frequent.

E. virginicum L.— Wet meadows and bogs; frequent.

var. **album** Gray.— Occasional on the plateau. Washington; Otis.

E. viridi-carinatum (Engelm.) Fernald.— Wet meadows and swamps; common.

var. **Fellowsii** Fernald.— Larch swamp, Sheffield (Fernald).

FIMBRISTYLIS.

F. Frankii Steud.— Gravelly border of Richmond Lake, Richmond; sandy border of Konkapot River, Sheffield.

RYNCHOSPORA. BEAK RUSH.

R. alba (L.) Vahl.— Bogs and marshes; frequent.

var. **macra** Clarke.— Hayes Pond, Otis (Walters).

R. capitellata (Michx.) Vahl.— (*R. glomerata* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 20: 26, 1918.)

Wet, peaty meadows, ill-drained hillsides and gravelly shores, occasional. Williamstown; Florida, flood-plain of the Deerfield River; Tyringham; Sheffield.

SCIRPUS. BEAR RUSH.

Key to Scirpus.

- a. Involucre none, bristles white, long, giving the head the aspect of *Eriophorum*. *S. hudsonianus*.
- a'. Involucre foliaceous.
- b. Involucral bract one (occasionally with a secondary, small involucre) appearing to be a continuation of the culm.
- c. Spikelets solitary; culms flaccid; plant aquatic *S. subterminalis*
- c'. Spikelets distinct, paniculate or glomerulate.
- d. Spikelets sessile or in glomerules.

e. Annual with tufted roots, plant low, not exceeding 4 dm.

S. Smithii, var. *setosus*.

e'. Perennial with running rootstocks; culms sharply trigonous.

Scales reddish-brown, ciliate, awn-tipped; achene planoconvex, broadly obovoid, short-mucronate. *S. americanus*.

Scales yellowish-brown, entire, mucronate; achene trigonous, oblong-obovoid, long-mucronate. *S. Torreyi*.

e''. Spikelets more or less loosely umbellulate, or paniculate.

Achenes 2 mm. long, nearly equalling the scales. *S. validus*.

Achenes 2.5 to 3 mm. long, much exceeded by the scales.

S. occidentalis.

b'. Involucral bracts 2 or more, leaf-like; culms leafy.

(From this point use the key in Gray's Manual, ed. 7, beginning at 1.)

S. acutus Muhl.— (*S. occidentalis* Man. ed. 7 and Ill. Fl. ed. 2; *vid. Rhodora*, 22: 56, 1920.)

Borders of lakes and marshes, in shallow water; occasional. Three Mile Pond, Sheffield; Lake Buell, New Marlboro; Marsh Pond, Egremont (Walters).

S. americanus Pers.— Sandy shores; occasional. Big Pond, Otis; Stockbridge Bowl, Stockbridge.

S. atrocinctus Fernald.— Wet meadows, borders of streams and ponds, marshes; common, especially on the upland. A form with a pale involucre from Washington.

forma **brachypodus** (Fernald) Blake.— *Vid. Rhodora*, 15: 161 (1913).

Occasional with the type on the plateau. Savoy; Washington; Becket.

S. atrovirens Muhl.— Low ground; common.

var. **georgianus** (Harper) Fernald.— (*S. georgianus* Man. ed. 7; *S. atrovirens* Ill. Fl. ed. 2 in part. *Vid. Rhodora*, 23: 134, 1921.)

Low ground; occasional. Greylock (Winslow); Lanesboro (Churchill); Sheffield. Not noted on the plateau.

forma **sychnocephalus** (Cowles) Blake.— *Vid. Rhodora*, 15: 161 (1913).

Roadside ditch, New Marlboro; Egremont.

S. cyperinus (L.) Kunth.— Wet meadows and marshes, river swales; frequent.

var. **pelius** Fernald.— Wet meadows, borders of rivers and lakes, marshes; common.

var. **pelius**, forma **condensatus** (Fernald) Blake.— *Vid. Rhodora*, 15: 162 (1913).

With the variety, Sheffield.

S. hudsonianus (Michx.) Fernald.—(*Eriophorum alpinum* Ill. Fl. ed. 2.)

Peat bogs and peaty meadows; frequent.

S. lineatus Michx.—Wet, sandy or clayey soil, roadside ditches; frequent in the valley in calcareous soil.

S. Peckii Britton.—Wet meadows; occasional. Lenox; Tyringham; Sandisfield.

S. pedicellatus Fernald.—(*S. cyperinus* Ill. Fl. ed. 2 in part.)

Wet meadows, swamps and marshes; frequent. A form from Lenox has unusually reddish-brown involucels.

var. **pullus** Fernald.—Williamstown (Churchill).

S. planifolius Muhl.—Occasional in dry woods in the southwestern part of the County. Egremont; Bash Bish Falls, Mt. Washington (Knowlton).

S. rubrotinctus Fernald.—(*S. microcarpus* Ill. Fl. ed. 2.)

Wet spots in meadows, springy hillsides, marshes; common.

var. **confertus** Fernald.—Swale, Lanesboro (Churchill).

S. Smithii Gray, var. **setosus** Fernald.—(*S. debilis* Ill. Fl. ed. 2 in part.)

Muddy shore of Rudd Pond, Becket; muddy spot in marsh, Lenox.

S. subterminalis Torr.—Pools in peat bogs; frequent.

S. sylvaticus L.—Borders of streams, and swamps; occasional in the southern part of the valley. Stockbridge; New Marlboro; Monterey (Walters).

S. Torreyi Olney.—Border of shallow pond, Great Barrington.

S. validus Vahl.—Margins of ponds and slow streams, in shallow water; common.

STENOPHYLLUS.

S. capillaris (L.) Britton.—Sandy soil; common in parts of Sheffield, occasional elsewhere in the valleys. Williamstown; Stockbridge; Great Barrington.

ARACEAE. ARUM FAMILY.

ACORUS. SWEET FLAG.

A. Calamus L. SWEET FLAG; CALAMUS.—Wet meadows and marshes; common.

ARISAEMA. INDIAN TURNIP.

A. Dracontium (L.) Schott. GREEN DRAGON.—Alluvial soil along the Housatonic River; occasional in Great Barrington and Sheffield (Walters).

A. triphyllum (L.) Schott. INDIAN TURNIP; JACK-IN-THE-PULPIT.—Rich woods and swamps; common. Altitude 2500 feet, Greylock.

var. **Stewardsonii** (Britton) G. T. Stevens.—(*A. Stewardsonii* Ill. Fl. ed. 2; *vid.* Rhodora, **23**, 136, 1921.)

Swampy woods, Richmond (Evans, Fernald and Knowlton); Sheffield. Cold swamp, Savoy, altitude 2000 feet; flood-plain of Cold River, Florida.

Distinguished from *A. triphyllum* by its strongly fluted spathe and shining leaves.

CALLA. WATER ARUM.

C. palustris L. WILD CALLA.—Cold bogs; frequent on the plateau, occasional in the valley (Sheffield, in the sand-plain, altitude 900 feet).

ORONTIUM. GOLDEN CLUB.

O. aquaticum L. GOLDEN CLUB.—Big Pond, Otis, in shallow water, on sandy bottom. The most northern known station for this plant of the coastal plain.

PELTANDRA. ARROW ARUM.

P. virginica (L.) Kunth. ARROW ARUM.—Pools in swamps, borders of ponds and slow streams; common.

forma **latifolia** S. F. Blake.—*Vid.* Rhodora, **14**: 104 (1912). Shaw Pond, Otis.

Leaves very broad, almost equilaterally triangular, 18.5 to 28 cm. across the tips of the ears, these obtuse or subacute; sinus open.

forma **hastifolia** S. F. Blake.—*Vid.* Rhodora, **14**: 105 (1912). Shaw Pond, Otis; Round Pond, Great Barrington.

Leaves comparatively narrow, 6 to 12 cm. broad; basal lobes 7 to 13 cm. long, often twice the breadth of leaf, widely divaricate.

forma **brachyota** S. F. Blake.—*Vid.* Rhodora, **14**: 105 (1912). Washington; Stockbridge; Great Barrington.

Leaves smaller and narrower (main blade 10.5 to 20 cm. long, 3 to 5.5. cm. wide near middle); basal lobes shorter (2 to 7 cm. long), the lobes only rarely divergent.

SYMPLOCARPUS. SKUNK CABBAGE.

(*Spathyema* Ill. Fl. ed. 2.)

S. foetidus (L.) Nutt. SKUNK CABBAGE.—Swamps and low ground; common in the valley, not noted on the plateau. Hinsdale, altitude 1450 feet.

LEMNACEAE. DUCKWEED FAMILY.

LEMNA. DUCKWEED.

L. minor L.—Pools and slow streams; occasional in the valley. Lenox; Stockbridge; West Stockbridge; Sheffield.

L. trisulca L.—Pools in marshes, muddy ponds and slow streams; local. Washington (altitude 1450 feet); two localities in Stockbridge; Three Mile Pond, Sheffield.

SPIRODELA.

S. polyrhiza (L.) Schleid.—Stagnant pools and ponds; occasional in the valley. Williamstown; Washington (altitude 1450 feet); Stockbridge; New Marlboro; Sheffield (Walters).

ERIOCAULACEAE. PIPEWORT FAMILY.

ERIOCAULON. PIPEWORT.

E. septangulare Withering. PIPEWORT.—(*E. articulatum* Man. ed. 7; *vid.* Rhodora, 11: 40, 1909.)

Shallow water of ponds on gravelly bottom, or on rocky shores; common.

XYRIDACEAE. YELLOW-EYED GRASS FAMILY.

XYRIS. YELLOW-EYED GRASS.

X. caroliniana Walt. YELLOW-EYED GRASS. Peaty borders of ponds; occasional. Otis; Plant in Pond, Mt. Washington; Sheffield.

COMMELINACEAE. SPIDERWORT FAMILY.

TRADESCANTIA. SPIDERWORT.

T. VIRGINIANA L. SPIDERWORT.—One clump in a meadow near the Housatonic River, Great Barrington (Walters).

PONTEDERIACEAE. PICKEREL-WEED FAMILY.

HETERANTHERA. MUD PLANTAIN.

H. dubia (Jacq.) MacM. MUD PLANTAIN.—Shallow ponds and sluggish streams; occasional in the valley. Muddy Pond, Washington (altitude 1450 feet); Pontoosuc Lake, Pittsfield; outlet of Stockbridge Bowl, Stockbridge; Crane and Cranberry Ponds, West Stockbridge; Lake Buell, Monterey (Walters); lagoons of the Housatonic River, Sheffield.

PONTEDERIA. PICKEREL-WEED.

P. cordata L. PICKEREL-WEED.—Shallow water, margins of ponds and slow streams; common.

var. **angustifolia** Torr.—Occasional with the type. Great Barrington; New Marlboro.

JUNCACEAE. RUSH FAMILY.

JUNCUS. RUSH.

Key to Juncus.

- a. Inflorescence appearing lateral; the involueral leaf erect, similar to and continuing the naked, or essentially naked scape; rootstock creeping.
 - Stamens 3. Rare.....*J. filiformis*.
 - Stamens 6. Common but extremely variable, represented in Berkshire Co. by four varieties, differing in the size and arrangement of flowers, and the thickness of the culms.....*J. effusus*, *vid.* p. 240.
- a'. Inflorescence terminal.
 - b. Leaves never septate, *i. e.*, with no transverse divisions.
 - c. Annual with soft base and fibrous roots, stems low and slender; flowers remote.....*J. bufonius*.
 - c'. Perennial, flowers mostly aggregated, leaves flat (in age becoming involute).
 - d. Base not bulbous.
 - e. Auricles at the summit of the sheaths scarious, whitish, conspicuously extended beyond the point of insertion.

J. tenuis and varieties.

- e'*. Auricles at the summit of the sheaths not conspicuously extended beyond the point of insertion.
 Bracts shorter than the cymes, flowers 2.5 to 3.5 mm. long, scattered and secund along the ascending or incurved branches, plant of dry soil, infrequent.....*J. secundus*.
- Bracts (or at least the lowermost) exceeding the cymes; flowers mostly larger, not conspicuously secund, plant chiefly of moist places, common.....*J. Dudleyi*.
- d'*. Base bulbous and stoloniferous, leaves linear.....*J. marginatus*.
- b'*. Leaves hollow, nodulose, *i. e.*, with divisions at regular intervals which show as dark transverse lines.
- f*. Seeds with definite caudate tips.
- g*. Flowers with the mature fruit about 2.5 (rarely 3.5) mm. long; sepals obtuse; seed ellipsoid, barely 1 mm. long, with very short tails.....*J. brachycephalus*.
- g'*. Flowers with mature fruit about 4 mm. long; petals attenuate, acute; seed spindle-shaped, with conspicuous tails. Inflorescence one-third longer than broad; capsule equalling or slightly exceeding the calyx.....*J. canadensis*.
 Inflorescence elongate; strict and narrow, 3 to 6 times longer than broad; capsule much exceeding the calyx.
J. brevicaulatus.
- f'*. Seeds merely pointed, or blunt, not caudate.
- h*. Stamens 3.....*J. acuminatus*.
- h'*. Stamens 6.
- i*. Upper cauline leaves bladeless (or essentially so), consisting of firm tawny or colored sheaths 2.5 to 5 cm. long; the middle leaf erect, much overtopping the inflorescence; rare.....*J. militaris*.
- i'*. Upper cauline leaves with blades, or if bladeless, very small.
- j*. Flowers solitary, or in 2's.....*J. pelocarpus*.
- j'*. Flowers more numerous, in glomerules.
- k*. Glomerules spherical; sepals subulate; capsules subulate or lance-subulate; involueral bract usually exceeding the inflorescence.....*J. nodosus*.
- k'*. Glomerules hemispherical; sepals blunt or acuminate, at most mucronate-tipped; capsules ovoid or ellipsoid; involueral bract much shorter than the inflorescence.
 Flower brown or brownish; capsule dark brown, 3 to 4 mm. long, gradually tapering to the mucronate tip.....*J. articulatus*.
 Flower greenish; capsule pale brown, 2.5 to 3 mm. long, abruptly mucronate.
J. articulatus, var. *obtusatus*.

J. acuminatus Michx.—Wet meadows and along brooks; occasional. Lenox; Otis; New Marlboro; Sheffield.

J. articulatus L.—Low ground, roadside ditches, borders of brooks and ponds; common. Altitude 1500 feet, Greylock.

var. **obtusatus** Engelm.—Wet meadows and hillside brooks; occasional in the valley. Lanesboro; Pittsfield; Great Barrington; Sheffield.

J. brachycephalus (Engelm.) Buchenau.—Bogs, wet meadows, marshy or muddy shores; frequent. Summit of Greylock, 3500 feet.

J. brevicaudatus (Engelm.) Fernald.—Wet ground; common.

J. bufonius L.—Wet roadsides and muddy shores; common, particularly on the plateau.

J. canadensis J. Gay.—Open bogs and marshes; common.

J. Dudleyi Wiegand.—Moist sandy or gravelly ground, low meadows and roadside ditches; common in calcareous soil in the valley, reaching an altitude of 1300 feet in Tyringham.

Key to Juncus effusus.

(*Vid.* Rhodora, 12: 83-84.)

- A. Flowers small, sepals 1.7 to 2.6 (rarely 2.9) mm. long, mostly somewhat spreading from the base; perianth segments not very dark but usually with two distinct brown lateral bands, rather soft in texture and therefore not rigid when dry; inflorescence small (1 to 4 cm. in diameter), or if larger with the sepals less than 2.6 mm. long.

Culms rather stout, 1.5 to 4 mm. in diameter at the top of the sheaths; sheaths pale; inflorescence small, compact.

Culms finely many-striate and usually deep green. . . var. *compactus*.

Culms coarsely 12- to 15-sulate, usually pale green.

var. *conglomeratus*.

Culms rather slender, 1 to 2 (rarely 3) mm. in diameter at the top of the sheaths; sheaths dark; inflorescence small and rather close. var. *decipiens*.

- B. Flowers medium or large, sepals 2.5 to 4.2 mm. long (rarely shorter); perianth segments with no conspicuous brown bands, frequently firmer in texture, often rigid, appressed or somewhat spreading; inflorescence commonly open, rarely somewhat dense, 1.5 to 14 cm. in diameter.

Sepals rarely exceeding either the petals or the capsule, 2.5 to 3.5 mm. long, firm, not conspicuously spreading nor strongly contrasting in color with the capsule.

Culms 2 to 4.5 mm. in diameter at the top of the sheaths, not sulcate. var. *solutus*.

Sepals exceeding both the petals and the capsule, 3 to 4.2 mm. long, firm or rigid in texture and usually somewhat spreading, commonly contrasting in color with the darker capsule.

Culms 1 to 3.5 mm. in diameter at the top of the sheaths, finely striate or deeply sulcate. var. *Pylaei*.

J. effusus L., var. **compactus** Lejeune & Courtois.—Wet meadows; rare. Williamstown; Otis.

var. **decipiens** Buchenau.—Wet meadows, hillsides, borders of brooks; common.

var. **Pylaei** (La Harpe) Fernald & Wiegand.—Springy places, swamps, and low meadows; common in cooler situations than the following.

var. **solutus** Fernald & Wiegand.—Swampy meadows; common, particularly along the Housatonic.

J. filiformis L.—Collected from only one station, a springy spot at the summit of Hoosac Mt., North Adams.

J. marginatus Rostk.—Borders of ponds, wet places in meadows, roadside ditches; frequent. Reaches an altitude of 1500 feet in Washington.

J. militaris Bigel.—Shallow water on sandy bottom, Big Pond, Otis.

J. nodosus L.—Borders of ponds, swampy meadows, roadside ditches; frequent in the valley.

J. pelocarpus Mey.—Boggy or muddy shores; frequent.

J. secundus Beauv.—Dry, open soil; occasional. Alford; Sheffield.

J. tenuis Willd.—Pastures, fields, wood-roads, roadsides; common.

var. **anthelatus** Wieg.—Low, open ground; occasional in the valley. New Ashford (Churchill); Pittsfield; Stockbridge; Great Barrington.

var. **Williamsii** Fernald.—Low open ground, Great Barrington.

LUZULA. WOOD RUSH.

(*Juncoides* Ill. Fl. ed. 2.)

L. campestris (L.) DC., var. **multiflora** (Ehrh.) Čelak.—Fields, meadows, and open woods; common.

L. parviflora (Ehrh.) Desv., var. **melanocarpa** (Michx.) Buchenau.—Upper slopes of Mt. Greylock.

L. saltuensis Fernald.— (*J. carolinae* Ill. Fl. ed. 2.)

Wooded banks, frequent. Sandy flood-plains of the Deerfield and Farmington Rivers; flood-plain of the Cold River. Altitude 1900 feet, Hancock.

LILIACEAE. LILY FAMILY.

ALLIUM. ONION.

A. canadense L. WILD ONION.— Alluvial ground; occasional in the southern part of the valley. Stockbridge; Sheffield.

A. tricoccum Ait. WILD LEEK.— Rich woods; common on well-drained hillsides. Rare on the plateau, Sandisfield, at an altitude of 1500 feet (Walters); 2000 feet, Berry Mt., Hancock; 2500 feet, Greylock.

ASPARAGUS. ASPARAGUS.

A. officinalis L. ASPARAGUS.— Thickets and hedgerows, and along fences; frequent.

CHAMAELIRIUM. DEVIL'S BIT.

C. luteum (L.) Gray. BLAZING STAR.— Dry woods; occasional in the southern part of the valley. Stockbridge; Great Barrington; New Marlboro; Egremont (Robbins); Sheffield. Stockbridge is the most northern known station.

CLINTONIA.

C. borealis (Ait.) Raf. CLINTONIA.— Cool woods, and shaded swamps; common. Summit of Greylock, 3500 feet.

CONVALLARIA. LILY OF THE VALLEY.

CONVALLARIA MAJALIS L. LILY OF THE VALLEY.— A patch, fifteen by twenty yards square, spreading in damp woods, one-eighth of a mile from any house, Williamstown.

ERYTHRONIUM. DOG'S-TOOTH VIOLET.

E. americanum Ker. ADDER'S TONGUE; DOG'S-TOOTH VIOLET.— Rich woods and low meadows; common. Abundant in moist places on the plateau, altitude 2300 feet (Florida).

HEMEROCALLIS. DAY LILY.

H. fulva L. COMMON DAY LILY.— Roadside banks; a frequent escape.

LILIUM. LILY.

L. canadense L. WILD YELLOW LILY; MEADOW LILY.— Low meadows and moist thickets; common.

L. philadelphicum L. WOOD LILY.— Dry, open woods, clearings, brushy pastures; common.

L. tigrinum Ker. TIGER LILY.— Roadsides; an occasional escape.

MAIANTHEMUM.

(*Unifolium* Ill. Fl. ed. 2.)

M. canadense Desf. WILD LILY OF THE VALLEY.— Woods and shaded swamps; common. Summit of Greylock, 3500 feet.

MEDEOLA. INDIAN CUCUMBER ROOT.

M. virginiana L. INDIAN CUCUMBER ROOT.— Woods; common. Altitude 2500 feet, Greylock.

OAKESIA.

(*Uularia* Ill. Fl. ed. 2.)

O. sessilifolia (L.) Wats. BELLWORT.— Woods; common.

POLYGONATUM. SOLOMON'S SEAL.

P. biflorum (Walt.) Ell. SMALL SOLOMON'S SEAL.— Dry or rocky woods; common.

P. commutatum (R. & S.) Dietf. GREAT SOLOMON'S SEAL.— River banks, and moist thickets; frequent in the valley.

SMILACINA. FALSE SOLOMON'S SEAL.

(*Vagnera* Ill. Fl. ed. 2.)

S. racemosa (L.) Desf. FALSE SPIKENARD.— Woods, dry ledges and thickets; common.

A form with bracted inflorescence collected in West Stockbridge (Evans, Knowlton and Fernald).

S. stellata (L.) Desf. STAR-FLOWERED SOLOMON'S SEAL.— Alluvial banks; frequent along the Hoosac, Housatonic and Deerfield Rivers. Border of swamp, Sheffield.

S. trifoliata (L.) Desf. THREE-LEAVED SOLOMON'S SEAL.— Cold swamps; frequent.

SMILAX. GREEN BRIER; CAT BRIER.

S. herbacea L. CARRION-FLOWER.—Thickets in low ground, borders of meadows; common. Altitude 2000 feet, Hancock.

S. rotundifolia L. CAT BRIER; COMMON GREEN BRIER.—Collected only in one station in Sheffield (Walters).

STREPTOPUS. TWISTED-STALK.

S. amplexifolius (L.) DC.—Rich cool woods; frequent on the plateau, occasional elsewhere.

S. roseus Michx.—Rich woods and cool swamps; frequent throughout. Common on the upper portions of The Dome, Mt. Washington.

TRILLIUM. TRILLIUM; WAKE ROBIN.

T. cernuum L. NODDING TRILLIUM.—Borders of swamps and alluvial thickets; occasional in the valley. Hinsdale (Lincoln), altitude 1450 feet; Stockbridge; Sheffield (Walters).

T. erectum L. PURPLE TRILLIUM.—Rich woods and shaded swamps; common. Altitude 2000 feet, Savoy; 2500 feet, Greylock. forma **albiflorum** f. nov.—Corollis albis. Flowers white. Type in the herbarium of the N. E. B. C., collected in rich woods, Stockbridge (R. Hoffmann).

Gates (Ann. Mo. Bot. Gard., 4: 52, 1917) points out that *T. rhomboideum*, var. *album* Michx. applies to the smaller-flowered southern species, *T. album* Small.

T. undulatum Willd. PAINTED TRILLIUM.—Cool woods; common.

UVULARIA. BELLWORT.

U. grandiflora Sm.—Rich woods; common in the valley.

U. perfoliata L.—Rich or dry woods; common.

VERATRUM. FALSE HELLEBORE.

V. viride Ait. AMERICAN WHITE HELLEBORE.—Shaded swamps, wet meadows, and borders of streams; common.

AMARYLLIDACEAE. AMARYLLIS FAMILY.

HYPOXIS. STAR GRASS.

H. hirsuta (L.) Coville. STAR GRASS.—Open woods and meadows; frequent in the valley.

NARCISSUS.

N. POETICUS L. POET'S NARCISSUS.— A single plant in a mowing field, across the road from an abandoned house, Alford (Walters).

IRIDACEAE. IRIS FAMILY.

IRIS. FLEUR-DE-LIS.

I. versicolor L. BLUE FLAG.— Wet meadows, borders of streams and ponds, wet open hillsides; common. Altitude 2000 feet, Mt. Washington.

SISYRINCHIUM. BLUE-EYED GRASS.

Key to Sisyrinchium.

- a.* Spathes sessile, terminal and solitary.
 Pedicels loosely spreading, much exceeding the inner bract; capsules 2 to 4 mm. high. Rare.....*S. mucronatum*.
 Pedicels suberect, scarcely exceeding the inner bract; capsules 4 to 6 mm. high. Common.....*S. angustifolium*.
- a'*. Spathes peduncled from the axil of the leaf-like bract.
b. Inner bract of the spathe 1.5 to 3 cm. long; stems broadly winged.
 Pedicels loosely spreading, much exceeding the inner bract.
S. gramineum.
 Pedicels strongly ascending, rarely exceeding the inner bract.
S. angustifolium.
- b'*. Inner bract of the spathe 1 to 1.5 cm. long; stems slender and narrowly margined *S. atlanticum*.

S. angustifolium Mill.— Meadows and open places in woods; common.

S. atlanticum Bicknell.— Low meadows, borders of bogs and swamps; frequent on the plateau, occasional in the valley (Pittsfield, Stockbridge).

S. gramineum Curtis.— (*S. graminoides* Ill. Fl. ed. 2.)

Meadows and fields; common.

S. mucronatum Michx.— Meadow, Cheshire Harbor (Cushman); sandy field, Sheffield (Fernald).

ORCHIDACEAE. ORCHID FAMILY.

ARETHUSA.

A. bulbosa L. ARETHUSA.— Open bogs; occasional in the southern part of the County. Ward Pond, Becket; Monterey (Walters);

Great Barrington (Walters); New Marlboro (Walters). Possibly occurs throughout the County, as it is easily overlooked unless in flower.

CALOPOGON.

(*Limodorum* Ill. Fl. ed. 2.)

C. pulchellus (Sw.) R. Br. GRASS PINK.— Borders of bogs; occasional in the valley. Williamstown; Pittsfield; Stockbridge; Great Barrington (Walters); New Marlboro; Sheffield (Walters).

CORALLORRHIZA. CORAL ROOT.

C. maculata Raf.— Rich woods; common.

C. trifida Chatelain.— (*C. Corallorrhiza* Ill. Fl. ed. 2.)

Rich woods, wet slopes and shaded peat bogs; frequent.

CYPRIPEDIUM. LADY'S SLIPPER; MOCCASIN FLOWER.

C. acaule Ait. PINK LADY'S SLIPPER.— (*Fissipes acaule* Ill. Fl. ed. 2.)

Dry woods and knolls in swamps; frequent. Altitude 1900 feet (Savoy).

C. arietinum R. Br. RAM'S HEAD LADY'S SLIPPER.— Great Barrington (Miss Helen Brown).

C. hirsutum Mill. SHOWY LADY'S SLIPPER.— (*C. reginae* Ill. Fl. ed. 2.)

Cold swamps; frequent in the valley.

forma **album** (Sweet), comb. nov.— (*Vid.* Brit. Fl. Gard. 3: 240, 1827-29.) Flowers pure white.

Williamstown (Pres. Carter); Becket (specimen in Gray Herbarium).

C. parviflorum Salisb. SMALLER YELLOW LADY'S SLIPPER.— Rich woods and borders of swamps; frequent.

var. **pubescens** (Willd.) Knight. LARGER YELLOW LADY'S SLIPPER.— (*C. parviflorum* Ill. Fl. ed. 2 in part.)

Rich woods; frequent.

Specimens intermediate between *C. parviflorum* and the var. *pubescens* have been collected at White Oaks, Williamstown (Churchill).

EPIPACTIS. RATTLESNAKE PLANTAIN.*(Peramium* Ill. Fl. ed. 2.)

E. pubescens (Willd.) A. A. Eaton.—Rich upland woods; frequent. Chiefly under conifers, but occasionally under deciduous trees (New Marlboro).

E. repens (L.) Crantz, var. **ophioides** (Fernald) Eaton.—(*Peramium ophioides* Ill. Fl. ed. 2.)

Under spruces on the upper slopes of Greylock (Churchill, Andrews); under hemlocks on serpentine, Florida.

E. tessellata (Lodd.) A. A. Eaton.—Under conifers; frequent. A specimen collected in Hancock with a raceme 11 cm. long.

HABENARIA. FRINGED ORCHIS.

× **H. Andrewsii** White (**H. lacera** × **H. psycodes**).—Becket (Walters).

H. blephariglottis (Willd.) Torr. WHITE FRINGED ORCHIS.—(*Blephariglottis blephariglottis* Ill. Fl. ed. 2.)

Borders of peat bogs; occasional. Becket; Sheffield.

H. bracteata (Willd.) R. Br.—(*Coeloglossum bracteatum* Ill. Fl. ed. 2.)

Rich woods; occasional. Williamstown; New Marlboro; Great Barrington; Sandisfield; Sheffield (Walters).

H. clavellata (Michx.) Spreng.—(*Gymnadeniopsis clavellata* Ill. Fl. ed. 2.)

Swampy woods; frequent.

H. dilatata (Pursh.) Gray.—(*Limnorchis dilatata* Ill. Fl. ed. 2.) Shaded swamps; frequent. Often associated with *Cypripedium hirsutum*.

H. fimbriata (Ait.) R. Br. LARGE PURPLE FRINGED ORCHIS.—(*Blephariglottis grandiflora* Ill. Fl. ed. 2.)

Swamps and borders of wet woods; frequent on the plateau. Florida; Washington; Becket (lowest altitude 1500 feet); Sandisfield.

H. flava (L.) Gray.—(*Perularia flava* Ill. Fl. ed. 2.)

Wet places; frequent.

H. Hookeri Torr.—(*Lysias Hookeriana* Ill. Fl. ed. 2.)

Woods; frequent.

H. hyperborea (L.) R. Br.—(*Limnorchis hyperborea* Ill. Fl. ed. 2.)

Woods; common. Very variable in height and size of flowers, perhaps including more than one species.

H. lacera (Michx.) R. Br. RAGGED FRINGED ORCHIS.— (*Blephariglottis lacera* Ill. Fl. ed. 2.)

Wet meadows; frequent. On Greylock in clearings over 3000 feet (Andrews).

H. macrophylla Goldie.— Rich woods. Savoy; Lanesboro (Churchill); Dalton (Lincoln); Sandisfield.

H. obtusata (Pursh) Richards.— (*Lysiella obtusata* Ill. Fl. ed. 2.) Bog, Hinsdale (H. L. Moody).

H. orbiculata (Pursh) Torr. LARGE ROUND-LEAVED ORCHIS.— (*Lysias orbiculata* Ill. Fl. ed. 2.)

Rich woods; frequent.

H. psycodes (L.) Sw. SMALLER PURPLE FRINGED ORCHIS.— (*Blephariglottis psycodes* Ill. Fl. ed. 2.)

Swamps and wet meadows; common. Altitude 2000 feet, Hancock. A form with pale sepals from Becket. A spike from Sheffield with 144 flowers.

forma **albiflora**, f. nov.— Corollis albis. Flowers white.

Type in N. E. B. C. herbarium, collected in Stockbridge, August 12, 1914 (R. Hoffmann).

LIPARIS. TWAYBLADE.

L. liliifolia (L.) Richard.— Rich woods in the western part of the valley; occasional. Williamstown, lower wooded slope of Greylock (Andrews); Stockbridge (Miss Helen Kobbe); West Stockbridge; Alford; Mt. Washington (Walters).

L. loeselii (L.) Richard.— Bogs and wet roadsides; frequent.

MICROSTYLIS. ADDER'S MOUTH.

(*Malaxis* Ill. Fl. ed. 2.)

M. monophyllos (L.) Lindl.— Cold bogs; occasional. Williamstown, upper wet slopes of Greylock, also in one dry grass-covered meadow (Andrews); North Adams (White); Pittsfield; Stockbridge.

M. unifolia (Michx.) BSP.— Bogs, wet woods, or dry slopes and ledges; frequent.

ORCHIS.

(Galcorchis Ill. Fl. ed. 2.)

O. spectabilis L. SHOWY ORCHIS.—Rich woods; frequent in the valley. Altitude 1000 feet, Sandisfield.

POGONIA.

P. ophioglossoides (L.) Ker. ROSE POGONIA.—Marshes and peat bogs; frequent. Altitude 2000 feet, Hancock.

P. verticillata (Willd.) Nutt. WHORLED POGONIA.—(*Isotria verticillata* Ill. Fl. ed. 2.)

Dry open woods; occasional in the valley. Great Barrington; Mt. Washington (Walters); Sheffield (Walters). For a description of specimens with anomalous flowers, collected by Walters in Mt. Washington, *vid.* *Rhodora*, 18: 252 (1916).

SERAPIAS.

S. HELLEBORINE L.—A small colony of this rare European orchid was found by Miss Caroline Wells in 1898 under Norway Spruces in Stockbridge. The station has been since destroyed.

SPIRANTHES. LADIES' TRESSES.

(Ibidium Ill. Fl. ed. 2.)

S. cernua (L.) Richard.—Wet meadows; common.

var. **ochroleuca** (Rydb.) Ames.—In drier situations than the type; frequent.

S. gracilis (Bigel.) Beck.—Dry open soil; common.

S. lucida (H. H. Eaton) Ames.—(*Ibidium plantagineum* Ill. Fl. ed. 2.)

Gravelly shores of ponds, borders of swamps and roadside ditches; frequent in the valleys.

S. Romanzoffiana Cham.—Bogs; occasional. North Adams (White); Hinsdale (Moody); Lanesboro; Pittsfield; Monterey (Walters); Great Barrington; Egremont.

SALICACEAE. WILLOW FAMILY.

POPULUS. POPLAR.

P. ALBA L. WHITE POPLAR.—Occasionally spreading from cultivation.

P. balsamifera L., var. **virginiana** Sarg. COTTONWOOD; NECK-LACE POPLAR.— (*P. deltoides* Man. ed. 7 and Ill. Fl. ed. 2.)

Along streams in the valley; frequent.

P. grandidentata Michx. LARGE-TOOTHED ASPEN.— Woods; common.

P. NIGRA L., var. **ITALICA** Du Roi. LOMBARDY POPLAR.— (*P. italica* Ill. Fl. ed. 2.)

Occasionally spreading from cultivated trees.

P. tacamahacca Mill. BALSAM POPLAR.— (*P. balsamifera* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Journ. Arnold Arb., 1: 61, 1919.)

Spreading freely from planted trees. Indigenous along Cascade Brook, Hoosac Tunnel, Florida.

var. **Michauxiana** (Dode) Henry.— River-bank, North Adams (Fernald and Long).

Differs from the type in the ovate leaves with a broad, rounded or subcordate base, and slight pubescence on the midrib and veins beneath; petioles and twigs are also slightly hairy. *Vid.* Garden Chronicle, ser. 3, 59: 230 (1916).

P. tremuloides Michx. AMERICAN ASPEN.— Dry woods and clearings; common.

SALIX. WILLOW.

S. ALBA L. WHITE WILLOW.— Along streams; occasional. Deerfield R., Florida; Williamstown; Adams (Churchill); Pittsfield; Great Barrington; Egremont.

var. **VITELLINA** (L.) Koch.— Along rivers and streams; common in the valley, occasional up to an altitude of 1500 feet on the plateau.

S. candida Flügge. HOARY WILLOW.— Cold bogs; frequent.

var. **denudata** Anders.— Occasional. Stockbridge; West Stockbridge (Evans, Fernald and Knowlton); Egremont.

■ **S. cordata** Muhl.— Low ground, along streams and on the plateau, along roadsides; common. Summit of Greylock, 3500 feet.

var. **myricoides** (Muhl.) Carey.— Occasional. October Mt., Washington; Pontoosuc Lake, Lanesboro (Churchill).

□ **S. discolor** Muhl. GLAUCOUS WILLOW; PUSSY WILLOW.— Swamps and low ground, and on the plateau, along roadsides; common.

var. **eriocephala** (Michx.) Anders.— Occasional. Pittsfield.

var. **prinoides** (Pursh) Anders.— Great Barrington.

S. FRAGILIS L. CRACK WILLOW.— Borders of streams; occasional. Adams (Knowlton and Bean); Great Barrington (Cushman); Egremont.

S. humilis Marsh.— Dry open woods and sandy soil; common. Altitude 1900 feet, Florida.

S. lucida Muhl. SHINING WILLOW.— Borders of swamps, shores of lakes and streams, wet roadsides; common.

var. **angustifolia** Anders.— Marsh on Hancock Mt. (altitude 2000 feet). The only known station for the State.

var. **intonsa** Fernald.— Williamstown.

S. nigra Marsh. BLACK WILLOW.— Borders of ponds and along streams; common in the valley.

var. **falcata** (Pursh) Torr.— Occasional with the type.

S. pedicellaris Pursh, var. **hypoglauca** Fernald.— (*S. pedicellaris* Man. ed. 7 in part; *vid.* Rhodora, 11: 161, 1909.)

Open bogs; frequent.

Leaves green above, glaucous beneath. *S. pedicellaris* has leaves green on both surfaces.

S. PENTANDRA L.— Occasionally escaped from cultivation. Stockbridge; Great Barrington.

S. petiolaris Sm.— Low ground; frequent.

S. PURPUREA L. PURPLE WILLOW.— Occasionally naturalized along brooks; Williamstown; Richmond; Stockbridge; Sheffield.

S. rostrata Richards. BEAKED WILLOW.— Borders of swamps or dry thickets; common. On the plateau forming with *S. cordata* and *S. discolor* thickets along the roadsides. A form from Great Barrington with capsules partially or completely doubled.

S. sericea Marsh. SILKY WILLOW.— Borders of swamps, along streams and in low ground; common.

S. serissima (Bailey) Fernald.— Swamps, in calcareous soil; frequent in the southern part of the valley, from Richmond and Stockbridge to Sheffield.

S. subsericea (Anders.) Schneider.— Hinsdale.

Similar to *S. petiolaris*. Leaves loosely sericeous when young, at length glabrate except the *puberulent midrib above*, rather coarsely appressed-serrate; winter buds puberulent; scales oblong, with *rounded blackish tips*; capsule lance-conic, blunt, loosely silky, 5 to 7 mm. long, its pedicel many times exceeding the gland. *Vid.* Rhodora, 11: 12 (1909).

Hybrids of Salix.

S. alba × **fragilis**.—Watercourse, Pittsfield (Schneider); Lenox (Schneider).

S. candida × **rostrata**.—Calcareous swamp, Richmond (Evans, Fernald and Knowlton).

S. candida × **petiolaris**.—Monterey; Sheffield.

S. cordata × **rostrata**.—Florida.

S. cordata × **candida**.—Stockbridge.

S. discolor × **rostrata**.—Florida.

S. petiolaris × **sericea**.—Egremont.

The five last hybrids in the above list have been determined by Mr. F. F. Forbes.

MYRICACEAE. SWEET GALE FAMILY.

MYRICA.

M. asplenifolia L. SWEET FERN.—(*Comptonia peregrina* Ill. Fl. ed. 2.)

Dry hills and borders of woods; common in the valley.

M. Gale L. SWEET GALE.—Borders of ponds and bogs, and in swamps; common.

var. **subglabra** (Chevalier) Fernald.—Altitude 2000 feet, Guilder Pond, Mt. Washington.

Leaves glabrous or glabrate throughout. In the type the leaves are more or less pubescent, at least on the veins beneath. *Vid.* Rhodora, 16: 167 (1914).

JUGLANDACEAE. WALNUT FAMILY.

CARYA. HICKORY.

(*Hicoria* Ill. Fl. ed. 2.)

C. cordiformis (Wang.) K. Koch. BITTERNUT.—Dry woods; frequent in the valley.

C. glabra (Mill.) Spach. PIGNUT.—Hillsides; frequent in the valley.

C. ovata (Mill.) K. Koch. SHELL-BARK OR SHAG-BARK HICKORY.—Rich woods, open hillsides; common in the valley.

JUGLANS.

J. cinerea L. BUTTERNUT.—Rich woods, open hillsides; common in the valley, frequent on the lower portions of the plateau (altitude 1800 feet, Becket).

BETULACEAE. BIRCH FAMILY.

ALNUS. ALDER.

A. incana (L.) Moench. SPECKLED ALDER.—Along streams, borders of swamps, and on the plateau along roadsides; common.

A. crispa (Ait.) Pursh, var. **mollis** Fernald.—DOWNY GREEN ALDER.—(*A. mollis* Man. ed. 7; *vid.* Rhodora, 15: 4, 1913. *A. Alnobetula* Ill. Fl. ed. 2.)

Hoosac Mt., Florida; along the Deerfield River, Florida.

A. rugosa (Du Roi) Spreng. SMOOTH ALDER.—Borders of lakes and streams; occasional in the southern part of the valley. Stockbridge; New Marlboro (Walters); Sheffield.

BETULA. BIRCH.

B. alba L., var. **cordifolia** (Regel) Fernald. PAPER BIRCH; CANOE BIRCH.—(*B. cordifolia* Ill. Fl. ed. 2.)

Hillsides; occasional. Pittsfield; West Stockbridge; Egremont (Walters).

var. **papyrifera** (Marsh) Spach.—(*B. papyrifera* Ill. Fl. ed. 2.)

Woods; common. A specimen from Otis, determined by Dr. Rehder, with mature leaves only 5 cm. long.

B. lenta L. BLACK BIRCH; CHERRY BIRCH.—Rich woods, banks of streams; frequent.

B. lutea Michx. f. YELLOW BIRCH.—Cool rocky woods; common.

B. populifolia Marsh. WHITE BIRCH; GRAY BIRCH.—Sandy or ill-drained soil; common in the southern part of the County, frequent elsewhere. Summits of Greylock (altitude 3400 feet) and The Dome.

B. pumila L. LOW OR SWAMP BIRCH.—Cold bogs; local. D. D. Field swamp and Nigger Pond, Stockbridge; Juniper Pond, New Marlboro.

CARPINUS. HORNBEAM; IRONWOOD.

C. caroliniana Walt. AMERICAN HORNBEAM; BLUE OR WATER BEECH.—Along streams and borders of swamps, cool rocky hillsides; frequent.

CORYLUS. HAZELNUT.

C. americana Walt. HAZELNUT.—Dry soil; common in the extreme southern part of the County; Egremont; Sheffield. Occasional as far north as Lenox Hill (Schneider and Schweinfurth).

C. rostrata Ait. BEAKED HAZELNUT.—Borders of woods and roadside thickets; common on the upland and frequent in the valley, occurring occasionally with *C. americana*.

OSTRYA. HOP HORNBEAM; IRONWOOD.

O. virginiana (Mill.) K. Koch. AMERICAN HOP HORNBEAM.—Open rocky woods and hillsides, particularly in calcareous soil; frequent in the valleys, occasional on the plateau (altitude 2000 feet, Savoy.)

FAGACEAE. BEECH FAMILY.

CASTANEA. CHESTNUT.

C. dentata (Marsh) Borkh. CHESTNUT.—Rich woods; common in the valley, frequent on the lower parts of the plateau, absent from the higher parts.

FAGUS. BEECH.

F. grandifolia Ehrh. BEECH.—Rich woods; common on the plateau, frequent in the valleys. Summit of Greylock, altitude 3500 feet.

forma **pubescens** Fernald & Rehder.—(*Vid.* *Rhodora*, 9: 111, 1907.) Williamstown (Rehder).

Differs from the type in having the under side of the leaves short-pubescent, and the veins covered with a villous pubescence, not with long silky hairs.

QUERCUS. OAK.

Q. alba L. WHITE OAK.—Dry soil; common in the southern part of the valley and on the Taconics, absent from the plateau.

Q. bicolor Willd. SWAMP WHITE OAK.—Borders of streams and swamps; occasional in the southern part of the valley. Great Barrington; Egremont; Sheffield.

Q. coccinea Muench. SCARLET OAK.—Dry soil, in the southern part of the valley; frequent. Grows to a large size only in New Marlboro and Sheffield.

Q. ilicifolia Wang. BEAR OAK; BLACK SCRUB OAK.—Sandy soil or rocky summits; common in the Sheffield sand-plain and on the summits of the southern Taconics.

Q. macrocarpa Michx. BUR OAK; MOSSY-CUP OAK.—Swamps, open bottom-land and hillsides; frequent in the valley.

Q. Muhlenbergii Engelm. YELLOW OAK; CHESTNUT OAK.—On limestone ridges in the extreme southern part of the valley. One tree in Great Barrington (Sargent); frequent in Sheffield.

Q. prinoides Willd. SCRUB CHESTNUT OAK; CHINQUAPIN OAK.—Common on the sand-plain in southern New Marlboro and Sheffield.

Q. Prinus L. CHESTNUT OAK.—Rocky hillsides; common in the southern part of the valley, particularly west of the Housatonic River, occasional to the eastward (Monterey). Absent from the plateau.

Q. rubra L. RED OAK.—Woods; common throughout. The only oak found on the plateau.

Q. velutina Lam. BLACK OAK.—Rocky woods and dry soil; frequent in the southern part of the valley.

URTICACEAE. NETTLE FAMILY.

BOEHMERIA. FALSE NETTLE.

B. cylindrica (L.) Sw. FALSE NETTLE.—Shaded swamps, river-banks and low ground; frequent.

CELTIS. HACKBERRY.

C. occidentalis L. HACKBERRY; SUGARBERRY.—Hackberries are occasional along the Housatonic River in Stockbridge, Great Barrington and Sheffield, growing either in meadows on the edge of the river or in Sheffield on ledges above the river. The trees are for the most part small, but in Stockbridge there is one with a girth of nine and a half feet. Specimens from the three towns have been submitted to Dr. Rehder, who has determined some from Stockbridge and Sheffield as typical, and writes of two specimens from Stockbridge, as follows:

“The specimen collected Aug. 26, 1920, I refer to *C. occidentalis*, var. *canina* (Raf.) Sarg. (in Bot. Gaz. 67: 217, 1919), though the under side of the leaves is as pubescent as in var. *crassifolia*, but the leaves are not scabrate above. The specimen collected on Aug. 12,

1914, I should be inclined to refer to var. *crassifolia* (Larn.) Gray, as at least one of the branchlets has the leaves distinctly scabrate above, but as it has no fruits, it may be from a young plant which like vigorous shoots has rougher and more pubescent leaves."

HUMULUS. HOP.

H. LUPULUS L. HOP.—Occasional in low ground or on rocky banks; an escape from cultivation.

LAPORTEA. WOOD NETTLE.

L. canadensis (L.) Gaud. WOOD NETTLE.—(*Urticastrum divaricatum* Ill. Fl. ed. 2.)

Rich woods; common in the valleys, frequent on the plateau. Altitude on the plateau, 1800 feet, Adams; 2500 feet, Greylock.

MORUS. MULBERRY.

M. ALBA L. WHITE MULBERRY.—An occasional escape from cultivation; New Marlboro; Sheffield.

M. rubra L. RED MULBERRY.—A single tree on a limestone ledge in New Marlboro; two trees on a limestone cobble in Ashley Falls, Sheffield. The only known stations for this western tree in the State.

PARIETARIA. PELLITORY.

P. pennsylvanica Muhl. PELLITORY.—Shaded limestone rocks, Sheffield (Walters); shaded limestone ledge, New Marlboro.

PILEA. RICHWEED; CLEARWEED.

P. pumila (L.) Gray. RICHWEED; CLEARWEED.—Damp shaded ground, shaded ledges and waste ground; common.

ULMUS. ELM.

U. americana L. AMERICAN OR WHITE ELM.—Along streams and in rich woods; common, except on the plateau, where rare.

U. campestris L. ENGLISH ELM.—Seedlings growing under shade trees in Lebox.

[**U. fulva** Michx. SLIPPERY ELM.—Rocky woods and along streams; frequent in the valley. Not noted on the plateau.

URTICA. NETTLE.

U. gracilis Ait. COMMON NETTLE.—Moist ground and waste places; common. 

U. Lyallii Wats.—(*U. gracilis* Ill. Fl. ed. 2 in part.)

Alluvial ground; occasional in the valley. Williamstown, Hancock and Lanesboro (Churchill); Lee; New Marlboro; Sheffield.

SANTALACEAE. SANDALWOOD FAMILY.

COMANDRA. BASTARD TOAD-FLAX.

C. umbellata (L.) Nutt. BASTARD TOAD-FLAX.—Sandy soil in the southern part of the valley; common on the Sheffield sand-plain and on the summit of The Dome, Mt. Washington. Occurs on rocky ledges on Monument Mt., Great Barrington.

LORANTHACEAE. MISTLETOE FAMILY.

ARCEUTHOBIUM.

(*Razoumofskya* Ill. Fl. ed. 2.)

A. pusillum Peek. DWARF MISTLETOE.—On Black Spruce (*Picea mariana*) in peat bogs; local. Ward Pond, Becket; Wolf Swamp, Sandisfield.

ARISTOLOCHACEAE. BIRTHWORT FAMILY.

ASARUM. WILD GINGER.

A. canadense L. WILD GINGER.—Rich woods; common in the valley, less common on the plateau. Altitude 1500 feet (Windsor).

var. **acuminatum** Ashe.—(*A. acuminatum* Ill. Fl. ed. 2.)

Dry rocky upland woods, North Adams (Fernald and Long); rich woods, Adams.

POLYGONACEAE. BUCKWHEAT FAMILY.

FAGOPYRUM. BUCKWHEAT.

F. esculentum Moench. BUCKWHEAT.—(*Fagopyrum Fagopyrum* Ill. Fl. ed. 2.)

Occasionally persisting in old fields or escaping along roadsides.

F. TATARICUM (L.) Gaertn. INDIA-WHEAT.—In grainfields and waste ground, Sheffield (Churchill).

POLYGONUM. KNOTWEED.

(*Persicaria* Ill. Fl. ed. 7 in part.)

P. acre HBK., var. **leptostachyum** Meisn. WATER SMARTWEED.—Low ground; common.

P. amphibium L.—(*Persicaria amphibia* Ill. Fl. ed. 2.)

In shallow water or on muddy shores; common.

var. **Hartwrightii** (Gray) Bissell. Borders of swamps and in marshes; frequent.

forma **terrestre** (Leers) Blake.—(var. *terrestre* Man. ed. 7; *vid.* Rhodora, 15: 164, 1913.)

Muddy shores; occasional. Pittsfield; Stockbridge. Specimens collected at Lake Averic, Stockbridge, show the above variety and the form growing from the same rootstock.

P. arifolium L. HALBERD-LEAVED TEAR-THUMB.—(*Tracaulon arifolium* Ill. Fl. ed. 2.)

Swamps and low ground; frequent.

P. aviculare L. KNOTGRASS; DOORWEED.—Dooryards, roadsides and cultivated ground; common.

var. **angustissimum** Meisn.—On ledges bordering Guilder Pond, Mt. Washington. Altitude 2000 feet.

var. **vegetum** Ledeb.—Yards, roadsides and cultivated ground; common.

P. Careyi Olney.—(*Persicaria Careyi* Ill. Fl. ed. 2.)

Border of Rudd Pond, Becket.

P. cilinode Michx. BINDWEED.—(*Tinaria cilinodis* Ill. Fl. ed. 2.)

Rocky woods and on ledges; common.

P. CONVULVULUS. BLACK BINDWEED.—(*Tinaria convolvulus* Ill. Fl. ed. 2.)

Cultivated ground and clearings; common.

P. erectum L.—Yards and roadsides; occasional. Williamstown (Churchill); Lenox; New Marlboro (Walters).

P. Hydropiper L. COMMON SMARTWEED; WATER PEPPER.—(*Persicaria Hydropiper* Ill. Fl. ed. 2.)

Moist shaded ground; common.

P. hydropiperoides Michx. MILD WATER PEPPER.—(*Persicaria hydropiperoides* Ill. Fl. ed. 2.)

Borders of swamps and muddy shores; frequent in the valley.

P. lapathifolium L. DOCK-LEAVED PERSICARIA.—(*Persicaria lapathifolia* Ill. Fl. ed. 2.)

Wet places; common.

var. **salicifolium** Gibthorp.—(*P. tomentosum* Schrank, var. *incanum* Man. ed. 7.)

Sandy shore of Pontoosuc Lake, Pittsfield.

P. Muhlenbergii (Meisn.) Wats.—(*Persicaria Muhlenbergii* Ill. Fl. ed. 2.)

Muddy shores of ponds, and marshes; frequent in the valley.

P. ORIENTALE L. PRINCE'S FEATHER.—(*Persicaria orientalis* Ill. Fl. ed. 2.)

Occasionally persistent in waste ground, Stockbridge.

P. pennsylvanicum L., var. **laevigatum** Fernald. PINK KNOT-WEED.—(*P. pennsylvanicum* Man. ed. 7 in part, *vid.* *Rhodora* 19: 73, 1917; *Persicaria pennsylvanica* Ill. Fl. ed. 2.)

Low ground; common.

Leaves glabrous or at most sparsely strigose on the midrib beneath.

P. PERSICARIA L. LADY'S THUMB.—(*Persicaria persicaria* Ill. Fl. ed. 2.)

Waste places and low ground; common.

P. sagittatum L. ARROW-LEAVED TEAR-THUMB.—(*Tracaulon sagittatum* Ill. Fl. ed. 2.)

Low ground; common.

P. scandens L. CLIMBING FALSE BUCKWHEAT.—(*Tinaria scandens* Ill. Fl. ed. 2.)

Alluvial thickets; frequent in the valley.

P. tenue Michx.—Open sterile soil; occasional in the southern part of the valley. Alford; Sheffield.

P. virginianum L.—(*Torara virginiana* Ill. Fl. ed. 2.)

Alluvial thickets; frequent in the southern part of the valley and along the Deerfield River, Florida.

RUMEX. DOCK.

R. ACETOSA L. GARDEN SORREL.—Fields; occasional. Lee; Lenox; Stockbridge.

R. ACETOSELLA L. SHEEP SORREL.—Cultivated ground, old fields, rocky ledges; common.

R. britannica L. GREAT WATER DOCK.—Swamps; common.

R. CRISPUS L. YELLOW DOCK.—Waste places and low ground; common.

R. MEXICANUS Meisn.—Waste ground; occasional. First noted in a freight-yard in 1916. Riverbanks, Williamstown; Pittsfield; Lenox; Stockbridge; Mt. Washington.

R. OBTUSIFOLIUS L. BITTER DOCK.—Fields, roadside ditches and waste ground; common. Well established along mountain brooks.

R. PATIENTIA L. PATIENCE DOCK.—Marshes and wet meadows; occasional. Becket; Otis; Sheffield; Lanesboro (Churchill).

CHENOPODIACEAE. GOOSEFOOT FAMILY.

ATRIPLEX.

A. PATULA L., var. HASTATA (L.) Gray.—(*Atriplex hastata* Ill. Fl. ed. 2.)

Waste ground about woolen mill, Pittsfield; barnyard, Stockbridge.

CHENOPODIUM. PIGWEED; GOOSEFOOT.

C. ALBUM L. LAMB'S QUARTERS; PIGWEED.—Cultivated and waste ground; common.

var. VIRIDE (L.) Moq.—Waste ground; occasional. Stockbridge; Great Barrington.

C. **Boscianum** Moq.—Flood-plain of Bash Bish Brook, Mt. Washington.

C. BOTRYS L. JERUSALEM OAK.—Cultivated ground, Cheshire Harbor.

C. CAPITATUM (L.) Asch. STRAWBERRY BLITE.—(*Blitum capitatum* Ill. Fl. ed. 2.)

Newly broken ground, on the Mohawk Trail, Florida; clearing, Mt. Washington (Anson Williams).

C. FARINOSUM (Wats.) Standl.—On dump at woolen mill, Pittsfield.

C. FICIFOLIUM Sm.—On dump at woolen mill, Pittsfield.

C. GLAUCUM L. OAK-LEAVED GOOSEFOOT.—Along railroad tracks, Pittsfield; Lee.

C. **hybridum** L.—Rocky woods and in waste ground; frequent.

KOCHIA.

K. SCOPARIA (L.) Schrad.—Established in dooryard, Gt. Barrington.

SALSOLA.

S. KALI L., var. *TENUIFOLIA* G. F. W. Mey. RUSSIAN THISTLE.—
(*S. kali* III. Fl. ed. 2 in part.)

Along railroad tracks, Pittsfield; waste ground, West Stockbridge.

AMARANTHACEAE. AMARANTH FAMILY.

AMARANTHUS. AMARANTH.

A. DEFLEXUS L.— On dump at woolen mill, Pittsfield.

A. GRAECIZANS L. TUMBLEWEED.— Along railroad tracks and in waste ground; occasional. Pittsfield; Lee; Great Barrington; Sheffield.

A. HYBRIDUS L. PIGWEED.— Waste ground; common.

A. PALMERI Wats.— On dump at woolen mill, Pittsfield.

A. POWELLI Wats.— On dump at woolen mill, Pittsfield.

A. RETROFLEXUS L. PIGWEED.— Waste and cultivated ground; common.

A. SPINOSUS L.— On dump, Gt. Barrington.

A. UNDULATUS R. Br.— On dump at woolen mill, Pittsfield.

PHYTOLACCACEAE. POKEWEED FAMILY.

PHYTOLACCA. POKEWEED.

P. americana L. POKEWEED.— (*P. decandra* Man. ed. 7; *vid.* *Rhodora*, 17: 180, 1915.)

Clearings and open hillsides; frequent.

NYCTAGINACEAE. FOUR-O'CLOCK FAMILY.

OXYBAPHUS.

(*Allionia* III. Fl. ed. 2.)

O. NYCTAGINEUS (Michx.) Sweet.— Along railway, Cheshire (Winslow).

ILECEBRACEAE. KNOTWORT FAMILY.

ANYCHIA. FORKED CHICKWEED.

A. canadensis (L.) BSP. FORKED CHICKWEED.— Dry woods, Egremont; dry bank, edge of woods, Mt. Washington (Walters).

SCLERANTHUS. KNAWEL.

S. ANNUUS L. KNAWEL.—Rocky flood-plain of Green River, Egremont; locally common along sandy roadsides in the southern part of Sheffield.

AIZOACEAE.

MOLLUGO. INDIAN CHICKWEED.

M. VERTICILLATA L. CARPET WEED.—Cultivated ground, roadsides, sandy shores; common.

CARYOPHYLLACEAE. PINK FAMILY.

AGROSTEMMA. CORN COCKLE.

A. GITHAGO L. CORN COCKLE.—Rarely adventive in waste land and grain fields. Lanesboro (Churchill); Stockbridge.

ARENARIA. SANDWORT.

(*Mochringia* Ill. Fl. ed. 2 in part.)

A. lateriflora L., var. **typica** (Regel) St. John.—(*A. lateriflora* Man. ed. 7 in part, *vid.* *Rhodora*, 19: 260, 1917; *Mochringia lateriflora* Ill. Fl. ed. 2.)

Occasional in the southern part of the valley. Dry bank near the Housatonic River, Stockbridge; moist soil near the Housatonic River, Sheffield (Walters); moist place on old road, Mt. Washington (Weatherby).

Leaves puberulent on the margins and on the midribs beneath, or occasionally puberulent throughout.

A. macrophylla Hook.—(*Mochringia macrophylla* Ill. Fl. ed. 2.)
On serpentine ledges in dry hypnum, Florida (Fernald).

A. SERPYLLIFOLIA L.—Dry soil on hillsides, sand-plains and along railroad tracks; locally common in the southern part of the valley.

A. stricta Michx.—Exposed limestone rocks, Sheffield (Walters); limestone outcrops, New Marlboro.

CERASTIUM. MOUSE-EAR CHICKWEED.

C. ARVENSE L. FIELD MOUSE-EAR CHICKWEED.—On lawns; occasional. Pittsfield (Lincoln); dry field, West Stockbridge (Evans, Fernald and Knowlton); Great Barrington (Walters).

Indigenous on serpentine ledges in Florida (Fernald and Long).

C. nutans Raf.—(*C. longipedunculatum* Ill. Fl. ed. 2.)

Shaded ledges, Harvey Mt., West Stockbridge; East Mt., Great Barrington (Schweinfurth); Bash Bish Falls, Mt. Washington (Burnham).

C. VULGATUM L. COMMON MOUSE-EAR CHICKWEED.—Cultivated ground, fields, roadsides and ledges; common.

DIANTHUS. PINK.

D. ARMERIA L. DEPTFORD PINK.—Roadsides and dry fields; frequent in the southern part of the valley and about Pontoosuc Lake, Pittsfield.

D. BARBATUS L. SWEET WILLIAM.—Occasionally escaping to roadsides, especially on the upland.

D. DELTOIDES L. MAIDEN PINK.—Established along roadsides and in fields; frequent.

LYCHNIS. CAMPION.

L. ALBA Mill. WHITE CAMPION.—Occasional along roadsides. Lanesboro (Churchill); Cheshire; New Marlboro; Sheffield.

L. CHALCEDONICA L. SCARLET LYCHNIS.—An occasional roadside escape. Stockbridge; Egremont; Sheffield (Walters).

L. DIOICA L. RED CAMPION.—Occasional. Waste ground, North Adams (Fernald and Long); along railway, Cheshire (Knowlton).

L. FLOS-CUCULI L. RAGGED ROBIN.—Locally established in fields and meadows. North Adams; Adams; Cheshire; Pittsfield (Lincoln); Great Barrington and Sheffield (Walters).

SAGINA. PEARLWORT.

S. procumbens L. PEARLWORT.—Springy places and roadside ditches; frequent on the plateau, occasional elsewhere.

SAPONARIA. SOAPWORT.

S. OFFICINALIS L. BOUNCING BET.—Roadsides, railroad embankments and borders of streams; common. A double-flowered form is occasional.

S. VACCARIA L.—(*Vaccaria vaccaria* Ill. Fl. ed. 2.)

Occasionally adventive. Railroad track, North Adams; cultivated ground, Stockbridge.

SILENE. CATCHFLY; CAMPION.

S. antirrhina L. SLEEPY CATCHFLY.—Sandy plains, dry hillsides and along railroad tracks; locally common in the southern part of the valley.

var. **divaricata** Robinson.—Limestone outcrops, Stockbridge and Sheffield.

S. ARMERIA L. SWEET WILLIAM CATCHFLY.—Occasionally escaping from gardens, Sheffield.

S. DICHOTOMA Ehrh.—Occasionally escaping from gardens, Lanesboro.

S. LATIFOLIA (Mill.) Britten & Rendle. RATTLE-BOX; BLADDER CAMPION.—Fields and roadsides; common in the valley.

S. NOCTIFLORA L. NIGHT-FLOWERING CATCHFLY.—Waste ground and fence rows; occasional.

S. pennsylvanica Michx. WILD PINK; FIRE PINK.—Dry banks and ledges near Bash Bish Falls, Mt. Washington.

SPERGULA. SPURREY.

S. ARVENSIS L. CORN SPURREY.—Roadsides and cultivated ground; frequent on the plateau. Occasional in the valley, Lanesboro (Churchill).

SPERGULARIA. SAND SPURREY.

(*Tissa* III. Fl. ed. 2.)

S. RUBRA (L.) J. & C. Presl. SAND SPURREY.—Occasional and apparently introduced. Drive around Whitcomb's Tower, Florida; driveway, Pittsfield; path, Great Barrington.

STELLARIA. CHICKWEED; STARWORT.

(*Alsine* III. Fl. ed. 2.)

S. AQUATICA (L.) Scop.—Well established along the Hoosac River, Williamstown.

S. borealis Bigel., var. **floribunda** Fernald.—(*S. borealis* Man. ed. 7 in part; *vid.* *Rhodora*, 16: 151, 1914.)

Among boulders of sericite schist, Jencks Brook, Florida (Fernald and Long); swampy woods, Hancock (altitude 2000 feet).

Upper leaves much reduced to short scarious margined bracts; flowers numerous in terminal cymes.

var. **isophylla** Fernald.—(*S. borealis* Man. ed. 7 in part; *vid.* *Rhodora*, 16: 150, 1914.)

Wet places; frequent, especially on the plateau.

Upper leaves long and but slightly reduced, herbaceous throughout; flowers few, axillary and terminal.

S. GRAMINEA L.—Grassy roadsides and thickets; frequent, especially on the plateau.

S. longifolia Muhl.—Meadows and swampy woods; occasional. Florida; Sheffield (Walters).

S. MEDIA (L.) Cyrill. COMMON CHICKWEED.—Cultivated ground; common.

PORTULACACEAE. PURSLANE FAMILY.

CLAYTONIA. SPRING BEAUTY.

C. caroliniana Michx. SPRING BEAUTY.—Rich or swampy woods; frequent. Abundant on the upper slopes of Greylock, and on the plateau. Altitude 2300 feet, Florida.

C. virginiana L. SPRING BEAUTY.—One station in Sheffield (Walters).

PORTULACA. PURSLANE; PUSLEY.

P. OLERACEA L. COMMON PURSLANE; PUSLEY.—Cultivated and waste ground; common.

CERATOPHYLLACEAE. HORNWORT FAMILY.

CERATOPHYLLUM. HORNWORT.

C. demersum L. HORNWORT.—Ponds and slow streams; common.

NYMPHAEACEAE. WATER LILY FAMILY.

BRASENIA. WATER SHIELD.

B. Schreberi Gmel. WATER SHIELD.—Ponds; frequent.

CASTALIA. WATER LILY.

C. odorata (Ait.) Woodville & Wood. WHITE WATER LILY; WHITE POND LILY.—Ponds and slow streams; common.

NYMPHOZANTHUS. YELLOW POND LILY.*(Nymphaea* Man. ed. 7 and Ill. Fl. ed. 2.)

N. variegatus (Engelm.) Fernald. COW LILY; YELLOW POND LILY.— (*Nymphaea advena*, var. *variegata* Man. ed. 7, *vid.* *Rhodora*, 21: 187, 1919.)

Ponds and slow streams; common. In Cranberry Pond, West Stockbridge a leaf blade of this variety measured 4 dm. long, 2.6 dm. broad and the sinus was closed by an overlap of 2.5 cm.

N. microphyllus (Pers.) Fernald.—Spectacle Pond, Sandisfield; Housatonic River, Stockbridge; Sheffield (Churchill).

×? **N. rubrodiscus** (Morong) Fernald.—Probably a hybrid between *N. variegatus* and *N. microphyllus*. Spectacle Pond, Sandisfield, both parents growing near by.

RANUNCULACEAE. CROWFOOT FAMILY.

ACTAEA. BANE BERRY.

A. alba (L.) Mill. WHITE BANE BERRY.—Rich woods; common.

A. rubra (Ait.) Willd. RED BANE BERRY.—Rich woods; common. forma **neglecta** (Gillman) Robinson.—Lenox.

Specimens collected in Lanesboro (Churchill) and in Lenox are apparently hybrids between *A. alba* and *A. rubra*.

ANEMONE. ANEMONE.

A. canadensis L.—Alluvial ground; occasional. Richmond; Great Barrington; Sheffield.

A. cylindrica Gray.—Dry hillsides and open woods; common in the valley.

A. quinquefolia L. WOOD ANEMONE.—Woods; common. Altitude 1400 feet, Florida.

A. riparia Fernald.— (*A. virginiana* Ill. Fl. ed. 2 in part.)

Shaded banks; occasional in the valley.

Specimens from Berkshire County have been determined by Professor Fernald. The distribution of the species in the County is still imperfectly understood.

A. virginiana L.—Roadside thickets and shaded banks; common.

Sepals leathery, greenish or greenish yellow, very pubescent on the back, narrowly oblong, acuminate, 0.7 to 1.3 cm. long.

forma **leucosepala** Fernald.—(*Vid.* *Rhodora*, 19: 140, 1917.)
Sheffield.

Sepals thinnish and petaloid, white, the larger ones scarcely pubescent on the back, obovate-rounded above, 1.2 to 1.7 cm. long.

ANEMONELLA.

(*Sydesmon* Ill. Fl. ed. 2.)

A. thalictroides (L.) Spach. RUE ANEMONE.—Dry woods; frequent in the southern part of the valley. Stockbridge; Great Barrington; New Marlboro; Egremont; Sheffield.

AQUILEGIA. COLUMBINE; HONEYSUCKLE.

A. canadensis L. COLUMBINE.—Open rocky woods and ledges; common.

forma **flaviflora** (Tenney) Britton.—A form with pale yellow flowers. Sheffield.

forma **Phippenii**, (J. Robinson), n. comb.—Rocky pasture, Egremont.

A. vulgaris L.—Occasionally escaping from gardens to roadsides. Hancock; Lenox; Mt. Washington.

CALTHA. MARSH MARIGOLD.

C. palustris L. COWSLIP.—In swamps and along brooks; common.

CIMICIFUGA. BUGBANE.

C. racemosa (L.) Nutt. BLACK COHOSH; BLACK SNAKEROOT.—Native on rich and partly shaded banks, Sheffield (Walters). Also occasionally escaping from cultivation to hedge-rows. New Marlboro; Great Barrington. Frequent in the western part of Sheffield where it probably reaches its most northern station.

Given by Dewey as only cultivated by the Shakers. May it not be that this striking plant, which he could hardly have overlooked, has worked its way northward in the last hundred years as the woods have been cleared and the soil has become drier?

CLEMATIS. CLEMATIS; VIRGIN'S BOWER.

C. verticillaris DC. PURPLE CLEMATIS.—(*Atragene americana* Ill. Fl. ed. 2.)

On rocks; occasional in the valley. Williamstown; West Stockbridge; Great Barrington; New Marlboro (Walters); Sheffield; Mt. Washington. Chiefly on limestone, but also on schist at Bash Bish Falls, Mt. Washington.

C. virginiana L. CLEMATIS.—Thickets; common.

COPTIS. GOLD THREAD.

C. trifolia (L.) Salisb. GOLD THREAD.—Rich moist woods and knolls in swamps; common.

HEPATICA. HEPATICA; LIVERLEAF.

H. acutiloba DC. HEPATICA; LIVERLEAF.—Rich woods; frequent in the valley. Occasionally growing with *H. triloba*.

forma **albiflora**, f. nov.—Sepalis albis. Flowers white. Type in N. E. B. C. collection from Williamstown, Mass. Collected May 17, 1920 (R. Hoffmann.)

The white form is commoner than the blue.

forma **rosea**, f. nov.—Sepalis roseis. Flowers light pink. Type in N. E. B. C. collection from Williamstown, Mass. Collected May 19, 1920 (R. Hoffmann.)

H. americana (DC.) Ker. HEPATICA; LIVERLEAF.—(*H. triloba* Man. ed. 7; *H. Hepatica* Ill. Fl. ed. 2. *Vid.* *Rhodora*, 19: 45, 1917.)

Woods; common.

forma **candida** Fernald.—The white-flowered form, frequent, but not so common as the type.

forma **rhodantha** Fernald.—The pink-flowered form. Frequent with the type.

A form with five-lobed leaves, and one that has lobes nearly as acute as *H. acutiloba*, Sandisfield.

RANUNCULUS. CROWFOOT; BUTTERCUP.

R. abortivus L.—Clearings, ledges and rich woods; common.

var. **eucyclus** Fernald.—Rich woods; frequent. Altitude 1500 feet, Florida.

R. acris L. BUTTERCUP.—Fields and roadsides; common.

R. allegheniensis Britton.—Rich woods, clearings and shaded banks; frequent in the southern part of the valley.

R. aquatilis L., var. **capillaceus** DC. WHITE WATER CROW-FOOT.—(*Batrachium trichophyllum* Ill. Fl. ed. 2.)

Ponds and slow streams; frequent.

R. bulbosus L. BUTTERCUP.—Dry hillsides; frequent in the valleys. Locally common in the southern tier of towns, from West Stockbridge, Egremont and Sheffield to Sandisfield.

R. circinatus Sibth.—(*Batrachium circinatum* Ill. Fl. ed. 2.)

Ponds and slow streams; occasional. Lake Bucl, Monterey (Churchill); lagoons in the Housatonic River, Sheffield (Churchill).

R. delphinifolius Torr. YELLOW WATER CROWFOOT.—Locally common along the Housatonic River in Lenox; swamp, Stockbridge; Prospect Pond, Egremont; along the Housatonic River, Sheffield (Churchill).

forma **terrestris** (Gray) Blake.—(var. *terrestris* Man. ed. 7; *vid.* *Rhodora*, 15: 164, 1913.)

Muddy shores, Lenox; mud-hole near Prospect Pond, Egremont.

R. hispidus Michx., var. **falsus** Fernald.—(*R. hispidus* Man. ed. 7 in part.)

Borders of woods; occasional in the valley. Stockbridge; New Marlboro; Great Barrington; Sheffield.

Differs from the type in having the pubescence appressed, or the petioles and stems subglabrous (*vid.* *Rhodora*, 22: 30, 1920).

R. pennsylvanicus L. f. BRISTLY CROWFOOT.—Wet shaded ground; frequent.

R. recurvatus Poir.—Moist woods; common. Altitude 1900 feet, Savoy.

R. repens L. CREEPING BUTTERCUP.—In lawns; occasional. Pittsfield; Stockbridge; Great Barrington. In a swamp, West Stockbridge (Evans, Fernald and Knowlton).

var. **pleniflorus** Fernald.—*Vid.* *Rhodora*, 19: 138 (1917). Roadside ditches; occasional. Williamstown; Stockbridge; Alford.

The leaflets rounded or sub-cordate (not cuneate), at the base; margin crenate with broad obtuse teeth; flowers double.

R. sceleratus L.—Swamp, Sheffield (Fernald).

R. septentrionalis Poir. SWAMP BUTTERCUP.—Swampy woods; common.

THALICTRUM. MEADOW RUE.

T. dioicum L. EARLY MEADOW RUE.— Rocky woods and clearings; common.

T. polygamum Muhl. MEADOW RUE.— Wet meadows, swamps, borders of streams, ill-drained hillsides; common. Grows nearly to the summit of Greylock, 3400 feet.

var. **hebecarpum** Fernald.— Low grounds; occasional. Becket; Stockbridge.

T. revolutum DC.— Roadside in low ground, Monterey; Sheffield (Churchill).

A single plant in each locality, the Monterey plant staminate, the Sheffield plant pistillate.

MAGNOLIACEAE. MAGNOLIA FAMILY.

LIRIODENDRON. TULIP TREE.

L. Tulipifera L. TULIP TREE; WHITEWOOD.— Along streams and in swampy woods; locally frequent in the southern part of the valley. Tall trees border the Housatonic River between Glendale and Housatonic. A tree at Chesterwood, Glendale, 100 feet tall. The most northern station noted is a swamp in Lenox.

MENISPERMACEAE. MOONSEED FAMILY.

MENISPERMUM. MOONSEED.

M. canadense L. MOONSEED.— Alluvial thickets and rich upland woods; frequent in Sheffield, occasional as far north as Stockbridge.

BERBERIDACEAE. BARBERRY FAMILY.

BERBERIS. BARBERRY.

B. THUNBERGH DC.— Becoming established in the southern part of the valley, occurring in pastures and swamps far from habitations. Undoubtedly carried by birds.

B. VULGARIS L. COMMON BARBERRY.— Well established in one or two towns in the southern part of the valley. Stockbridge; Egremont; Sheffield. Nowhere so common as in eastern Massachusetts.

The purple-leaved form occurs spontaneously in Stockbridge.

CAULOPHYLLUM. BLUE COHOSH.

C. thalictroides (L.) Michx. BLUE COHOSH.—Rich woods; common in the valleys. Altitude 2500 feet, Greylock.

PODOPHYLLUM. MAY APPLE; MANDRAKE.

P. peltatum L. MAY APPLE; MANDRAKE.—Fence corners and rich woods; occasional and undoubtedly native in the southern and western parts of the County. Cheshire (Winslow); Hancock; meadow, West Pittsfield (Churchill); Stockbridge; West Stockbridge; Tyringham; New Marlboro (Walters); Becket (Fernald and Knowlton), probably introduced.

LAURACEAE. LAUREL FAMILY.

BENZOIN. WILD ALLSPICE; FEVER BUSH.

B. aestivale (L.) Nees. SPICE BUSH.—Swampy woods; occasional in the valley. Williamstown; Cheshire (Winslow); Lenox; Stockbridge; Sandisfield; New Marlboro; Sheffield.

SASSAFRAS. SASSAFRAS.

S. officinale Nees & Eberm. SASSAFRAS.—(*S. Sassafras* Ill. Fl. ed. 2 in part; *S. variifolium* Man. ed. 7. *Vid.* *Rhodora*, 20: 99, 1918.)

Dry woods; occasional in the southern part of the valley and in Williamstown (Churchill).

var. **albidum** (Nutt.) Blake.—(var. *albidum* Man. ed. 7; *vid.* *Rhodora* 15: 16, 1913, and 20: 99, 1918.)

Dry woods, especially on rocky slopes; frequent in the southern part of the valley.

Leaves nearly or quite glabrous from the first; the bark of the new shoots glabrous and often glaucous.

PAPAVERACEAE. POPPY FAMILY.

CHELIDONIUM. CELANDINE.

C. MAJUS L. CELANDINE.—In damp soil, about buildings, on river alluvium and in shaded limestone talus (Williamstown); frequent.

PAPAVER. POPPY.

P. RHOEAS L. FIELD OR CORN POPPY.—Occasionally persisting about gardens or adventive on dumps.

P. SOMNIFERUM L. COMMON POPPY.—Occasionally persisting about gardens or adventive on dumps.

SANGUINARIA. BLOODROOT.

S. canadensis L. BLOODROOT.—Rich open woods and thickets, often at the foot of ledges; common in the valley. Not noted on the plateau above 1000 feet. Altitude 1200 feet, West Stockbridge.

FUMARIACEAE. FUMITORY FAMILY.

ADLUMIA. CLIMBING FUMITORY.

A. fungosa (Ait.) Greene. CLIMBING FUMITORY.—On rocks in rich open woods; occasional in the valley. Williamstown (Churchill); Stockbridge; West Stockbridge; New Marlboro; Mt. Washington.

CORYDALIS. CORYDALIS.

(*Capnoides* Ill. Fl. ed. 2.)

C. sempervirens (L.) Pers. CORYDALIS.—Ledges, rocky summits and clearings; common. Not noted on the plateau.

DICENTRA.

(*Bicuculla* Ill. Fl. ed. 2.)

D. canadensis (Goldie) Walp. SQUIRREL CORN.—Rich woods; frequent.

D. Cucullaria (L.) Bernh. DUTCHMAN'S BREECHES.—Rich wooded hillsides; frequent in the valley. Altitude 2700 feet, Greylock.

FUMARIA. FUMITORY.

F. OFFICINALIS L. FUMITORY.—Occasionally persisting in gardens and on rubbish heaps. Pittsfield; Stockbridge; Sandisfield.

CRUCIFERAE. MUSTARD FAMILY.

ARABIS. ROCK CRESS.

A. canadensis L. SICKLE-POD.—Dry wooded hills and banks; occasional in the valley. North Adams (Fernald and Long); Stock-

bridge; Great Barrington (Walters); West Stockbridge (Cushman); New Marlboro; Sheffield; Mt. Washington (Cushman). Frequent in Sheffield.

A. Drummondii Gray.—Wooded bank, Florida.

A. glabra (L.) Bernh.—Banks and wooded slopes; occasional in the valleys. Florida; North Adams (Churchill); New Marlboro; Great Barrington (Schweinfurth).

A. hirsuta (L.) Scop.—Dry shaded banks and ledges; occasional in the valley. North Adams (Fernald and Long); Adams (Knowlton and Bean); Stockbridge; Great Barrington (Walters); New Marlboro; Sheffield.

A. laevigata (Muhl.) Poir.—Dry wooded hillsides and shaded banks; frequent in the valley.

A. lyrata L.—On rocks; occasional. Locally common on West Stockbridge Mt., West Stockbridge; Sandisfield; Mt. Washington; Sheffield.

BARBAREA. WINTER CRESS.

B. vulgaris R. Br.—(*B. Barbarea* Ill. Fl. ed. 2.)

Low ground, roadside ditches, rich shaded banks and along streams; common.

Siliques on more or less divergent or slender, spreading ascending pedicels.

var. **BRACHYCARPA** Rony & Foucaud.—Cultivated ground, Lanesboro (Churchill).

var. **longisiliqua** Carion.—(*B. stricta* Man. ed. 7 and Ill. Fl. ed. 2; *rid.* Rhodora, 11: 139, 1909.)

With the same habitat as the type; common in the valleys.

Siliques closely appressed to the rachis.

BERTEROA.

B. INCANA (L.) DC.—Dry roadside, Cheshire (Churchill); Pittsfield (Lincoln); roadside, West Stockbridge; railroad track, Lee; edge of grain-field, Great Barrington.

BRASSICA. MUSTARD; TURNIP.

B. ARVENSIS (L.) Ktze. CHARLOCK.—(*Sinapis arvensis* Ill. Fl. ed. 2.)
Fields; common.

B. *CAMPESTRIS* L. *RUTABAGA*.— An occasional escape. Dump, Lee; Sheffield (Walters).

B. *JAPONICA* Siebold.— Rarely adventive.

B. *JUNCEA* (L.) Cosson.— Roadsides and waste ground; frequent.

B. *NIGRA* (L.) Koch. *BLACK MUSTARD*.— Roadsides and waste ground; occasional. Lanesboro; New Marlboro; Sheffield.

B. *NAPUS* L. *RAPE*.— Fallow field, Williamstown.

B. *OLERACEA* L. *CABBAGE*.— Dump, Lee.

B. *RAPA* L. *TURNIP*.— Cultivated ground, Lanesboro (Churchill).

CAMELINA.

C. *MICROCARPA* Andrz.— Rarely adventive. In field of buckwheat, Lenox.

CAPSELLA. SHEPHERD'S PURSE.

(*Bursa* Ill. Fl. ed. 2.)

C. *BURSA-PASTORIS* (L.) Medic. *SHEPHERD'S PURSE*.— Dry fields and cultivated ground; common.

CARDAMINE. BITTER CRESS.

C. *bulbosa* (Schreb.) BSP.— Wet shaded ground; frequent in the southern part of the valley. Stockbridge; Great Barrington (Walters); Sheffield (Fernald).

C. *Douglassii* (Torr.) Britton.— Partly shaded bank, Sheffield (Walters).

C. *parviflora* L.— Shaded rocks, Harvey Mt., West Stockbridge.

C. *pennsylvanica* Muhl.— Moist ground; common.

C. *PRATENSIS* L. *CUCKOO FLOWER*.— In lawns. Williamstown; Dalton; Stockbridge.

var. *palustris* Wimm. & Grab.— (*Vid.* *Rhodora*, 22: 14, 1920.)

Occasional and indigenous in cold bogs and wet meadows in the valley. Stockbridge; West Stockbridge (Evans, Fernald and Knowlton); Egremont and Sheffield (Walters).

Differs from the type in the white petals and in having the terminal leaflet of the basal leaves entire or obscurely toothed; lateral leaflets of the middle and upper cauline leaves usually with a distinct petiole.

DENTARIA. PEPPER-ROOT.

D. diphylla Michx.—Rich woods; common. Altitude 2500 feet, Greylock.

D. laciniata Muhl.—Rich soil in low woods, Sheffield (Walters).

ERYSIMUM. TREACLE MUSTARD.

(*Cheirinia* Ill. Fl. ed. 2.)

E. cheiranthoides L.—Waste ground; frequent. Also occasional and apparently indigenous on ledges in the valley.

HESPERIS. ROCKET.

H. MATRONALIS L. ROCKET.—Roadside escape. Cheshire and Lanesboro (Churchill); Pittsfield (Lincoln).

LEPIDIUM. PEPPERWORT; PEPPERGRASS.

L. APETALUM Willd.—(*L. densiflorum* Ill. Fl. ed. 2.)

Williamstown (Churchill); dry roadside, Great Barrington (Walters).

L. CAMPESTRE (L.) R. Br.—Occasional on roadsides. Pittsfield; Stockbridge; moist field, West Stockbridge (Evans, Feinold and Knowlton); Great Barrington.

L. virginicum L. WILD PEPPERGRASS.—Dry fields, roadsides and waste ground; common.

RADICULA. WATER CRESS.

R. ARMORACIA (L.) Robinson. HORSE RADISH.—(*Armoracia Armoracia* Ill. Fl. ed. 2.)

Frequently escaping from cultivation to waste or low ground.

R. NASTURTIUM-AQUATICUM (L.) Britten & Rendle. WATER CRESS.—(*Sisymbrium Nasturtium-aquaticum* Ill. Fl. ed. 2.)

Brooks; frequent.

R. palustris (L.) Moench. MARSH CRESS.—Roadside ditches, wet meadows and muddy shores; common in the valley.

var. **hispida** (Desv.) Robinson. (*R. hispida* Ill. Fl. ed. 2.)

Wet places, swales and low meadows; frequent in the valley.

R. SYLVESTRIS (L.) Druce. YELLOW CRESS.—Established in wet meadows along the Housatonic River. Stockbridge; Sheffield. Also occasional as a weed in gardens.

RAPHANUS. RADISH.

R. **RAPHANISTRUM** L. WILD RADISH.— Occasional in waste and cultivated ground; Lanesboro (Churchill); Great Barrington; Egremont; Sheffield.

R. **SATIVUS** L. RADISH.— Occasional in waste ground.

SISYMBRIUM. HEDGE MUSTARD.

S. **ALTISSIMUM** L.— (*Norta altissima* Ill. Fl. ed. 2.)

Roadsides and waste ground; frequent.

S. **OFFICINALE** (L.) DC.— (*Erysimum officinale* Ill. Fl. ed. 2.)

Roadsides and waste ground; occasional with the var. *leiocarpum*.
var. **LEIOCARPUM** DC.— Roadsides and waste ground; common.

THLASPI. PENNY CRESS.

T. **ARVENSE** L. PENNY CRESS.— Occasionally adventive. Great Barrington (Walters).

RESEDACEAE. MIGNONETTE FAMILY.

RESEDA. MIGNONETTE.

R. **LUTEA** L.— Occasionally adventive. Meadow, Lanesboro (Churchill); roadside, Great Barrington.

R. **ODORATA** L. MIGNONETTE.— Vacant lot, Pittsfield.

SARRACENIACEAE. PITCHER PLANT FAMILY.

SARRACENIA.

S. purpurea L. SIDE-SADDLE FLOWER; PITCHER PLANT.— Peat bogs and marshes; common.

DROSERACEAE. SUNDEW FAMILY.

DROSERA. SUNDEW.

D. longifolia L. LONG-LEAVED SUNDEW.— Peat bogs and margins of ponds; occasional. Monterey; Sandisfield; Sheffield; Mt. Washington.

D. rotundifolia L. ROUND-LEAVED SUNDEW.— Peat bogs, wet slopes and on the upland in roadside ditches; common.

CRASSULACEAE. ORPINE FAMILY.

PENTHORUM. DITCH STONECROP.

P. sedoides L. DITCH STONECROP.— Borders of ponds and ditches; common.

SEDUM. STONECROP.

S. ACRE L. MOSSY STONECROP.— Exposed rocks on roadsides; occasional in the valley, generally on limestone. Lenox; Egremont; Sheffield.

S. ternatum Michx.— Apparently indigenous on moist ledges, South Mountain, Pittsfield. Occasional and probably escaped elsewhere. Stockbridge; Sheffield.

S. TRIPHYLLUM (Haw.) S. F. Gray. LIVE-FOR-EVER.— (*S. purpureum* Man. ed. 7; *vid.* Rhodora, 11: 46, 1909.)

Roadsides and dry banks; frequent. Rarely flowers.

SAXIFRAGACEAE. SAXIFRAGE FAMILY.

CHRYSOSPLENIUM. GOLDEN SAXIFRAGE.

C. americanum Schwein. GOLDEN SAXIFRAGE.— Swamps and wet woods; common.

MITELLA. MITERWORT.

M. diphylla L. MITERWORT.— Rich woods; common.

M. nuda L.— Cold swamps, on mossy knolls; frequent in the valley. Not noted outside the calcareous regions. In pine woods, Egremont (Churchill).

PARNASSIA. GRASS OF PARNASSUS.

P. caroliniana Michx. GRASS OF PARNASSUS.— Wet meadows and roadside ditches; common in the valley. Apparently confined to calcareous soil. On a moist hillside shaded by pines, New Marlboro.

PHILADELPHUS. MOCK ORANGE; SYRINGA.

P. INODORUS L.— Occasionally escaping from cultivation to roadside banks. Stockbridge; Monterey.

RIBES. CURRANT; GOOSEBERRY.

R. americanum Mill. WILD BLACK CURRANT.—(*R. floridum* Man. ed. 7; *vid.* *Rhodora*, 11: 46, 1909.)

Swamps and alluvial thickets; frequent in the valley.

R. Cynosbati L. PRICKLY GOOSEBERRY.—(*Grossularia Cynosbati* Ill. Fl. ed. 2.)

Rocky woods and pastures; common.

R. hirtellum Michx. SMOOTH GOOSEBERRY.—(*R. oxyacanthoides* Man. ed. 7; N. A. Fl. 22: pt. 3, 223, 225, 1908. *Grossularia oxyacanthoides* Ill. Fl. ed. 2.)

Swamps and low meadows, occasionally in dry woods and clearings; frequent.

R. lacustre (Pers.) Poir. SWAMP BLACK CURRANT.—Moist woods and swamps; frequent on the upland.

R. ODORATUM Wendland.—(*R. aureum* Man. ed. 7; *vid.* *Rhodora*, 11: 47, 1909.)

Established on a dry hillside, New Marlboro.

R. prostratum L'Her. SKUNK CURRANT.—Moist woods; common on the upland.

R. triste Pall., var. **albinervium** (Michx.) Fernald.—Cold moist woods and swamps; frequent in the valley. Not noted on the plateau.

R. VULGARE Lam. RED CURRANT.—Frequently escaping to fence-rows and thickets. The form with white fruit in woods in Lenox and Stockbridge.

SAXIFRAGA. SAXIFRAGE.

(*Micranthes* Ill. Fl. ed. 2.)

S. pennsylvanica L. SWAMP SAXIFRAGE.—Swamps, wet meadows and margins of brooks; common.

S. virginiensis Michx. EARLY SAXIFRAGE.—Exposed rocks and dry hillsides; common in the valley.

TIARELLA. FALSE MITERWORT.

T. cordifolia L. FALSE MITERWORT.—Woods; common. forma **parviflora** Fernald.—*Id.* *Rhodora*, 19: 132 (1917). A large colony on a wooded bank in Becket (Fernald).

Differs from the typical form in having very narrow short petals (2 to 3 mm. long).

A hybrid between *T. cordifolia* and *Mitella diphylla* has been collected in Williamstown by Sanborn Tenney (*rid. Rhodora*, 8: 91, 1906).

HAMAMELIDACEAE. WITCH-HAZEL FAMILY.

HAMAMELIS. WITCH-HAZEL.

H. virginiana L. WITCH-HAZEL.—Woods; common in the valley, becoming rare on the plateau. Reaches an altitude of 2000 feet in Savoy.

PLATANACEAE. PLANE TREE FAMILY.

PLATANUS. SYCAMORE; BUTTONWOOD; PLANE TREE.

P. occidentalis L. SYCAMORE; BUTTONWOOD.—Flood-plains; common in the valley.

ROSACEAE. ROSE FAMILY.

AGRIMONIA. AGRIMONY.

A. gryposepala Wallr.—Open woods, clearings and roadside thickets; common.

A. striata Michx.—Low ground and moist open woods; common.

AMELANCHIER. SHADBUSH; JUNE BERRY; SERVICE BERRY.

Key to Amelanchier.

- a. Flowers racemose.
 - b. Teeth of the leaves coarse (on average leaves 3 to 5 (6) per cm.); veins conspicuous, usually straight, parallel and close together; leaves oval to oval-oblong, rarely orbicular; scrawny, slender, often arching shrub of a few rocky mountain-tops *A. sanguinea*.
 - b'. Teeth of the leaves fine (5 to 12 per cm. on average leaves); veins irregular, unequally distant, usually with frequent intermediate shorter ones.
 - c. Leaves densely white-tomentose when young, becoming green; lower pedicels 7 to 18 mm. long, in fruit 10 to 25 mm. long.
 - d. Leaves rounded at the apex; petals short, 7 to 9 mm. long; 3 to 12 dm. high; stilly upright shrubs forming patches. Shrub of rocky mountain-tops or sandy plains in the southern part of the valley *A. stolonifera*.
 - d'. Leaves short acuminate, petals usually elongated, 10 to 11 mm. long. Flowers appearing very early, usually before the leaves. Shrub or tree, generally solitary, or few together, widely distributed. *A. canadensis*.

- c.* Leaves nearly or quite glabrous from the first, ovate, oval or elliptical, subcordate, rounded or more rarely acute at base; apex short, acuminate margin, usually sharply serrate nearly to the base, at flowering time one-half to three-fourths grown and lurid-glaucous-purple, rarely bright green; flowers large and showy, petals elongated (10 to 18 mm. long); lower pedicels 15 to 33 mm. long, in fruit 30 to 50 mm. long. Tree or tall shrub. *A. laevis*.
- a'.* Flowers commonly solitary (1 to 3 together). A shrub found only on Greylock and on the Hoosac Plateau at its highest and most northern point.
A. Bartramiana.

A. Bartramiana (Tausch.) Roem.— (*A. oligocarpa* Man. ed. 7; *vid.* Rhodora, 14: 158, 1912.)

Summit of Greylock and of Hoosac Mt., Florida. The only known stations in Massachusetts.

A. canadensis (L.) Medic.— (*A. canadensis*, var. *Botryapium* Man. ed. 7; *vid.* Rhodora, 14: 150, 1912. *A. intermedia* Ill. Fl. ed. 2.)

Dry woods; common.

A. intermedia Spach. (?) — An Amelanchier collected in 1920 in an open bog at Ward Pond, Becket, was sent to Professor Wiegand, who writes, "This specimen resembles *A. intermedia* Spach but is not quite like our Ithaca plants. I have seen *A. intermedia* in New England only from the bog at Rutland, Vt."

A. intermedia is a tall shrub, rarely a small tree, widely branching near the ground or at first growing in clumps: leaves elliptic-oblong or elliptic-obovate on the shoots; base rounded; apex acute; margin finely but somewhat distantly serrate; veins irregular; surface moderately tomentose when young, slightly so at maturity on the veins beneath and on the petiole; young leaves often reddish; racemes short (2 to 4 cm. long) 5- to 8-flowered, sparingly hairy; lower pedicels 8 to 14 mm. long; sepals short (2 to 3 mm. long), hairy on the inner face; petals short (7 to 8 mm. long), oblong-cuneate; fruit dark purple, juicy; fruiting racemes short, subcorymbose. The species grows in boggy soil, and should be looked for in bogs in Berkshire. *Vid.* Rhodora, 22: 146 (1920).

A. laevis Wiegand.— (*A. canadensis* Man. ed. 7; *vid.* Rhodora, 14: 154, 1912.)

Open woods, roadside thickets and banks of streams; common.

A. sanguinea (Pursh) DC.— (*A. spicata* Man. ed. 7; *vid.* Rhodora, 14: 138, 1912.)

Rocky summits of some of the Taconics. Williamstown (Burnham);

West Stockbridge Mt. and Harvey Mt., West Stockbridge; Tom Ball, Alford. Also on a wooded bank at a low altitude in Sheffield. Although this species is commonly considered a calcicole, all the above stations except that in Sheffield were found to be in acid soil.

A. stolonifera Wiegand.—(*A. oblongifolia* Man. ed. 7 in part; *rid.* Rhodora, 14: 144, 1912. *A. spicata* Ill. Fl. ed. 2.)

Rocky summits and sand-plains. Frequent in the southern part of the valley and on the Taconics.

Hybrids of Amelanchier.

Several aberrant specimens of *Amelanchier* from Berkshire submitted to Professor Wiegand were determined by him as hybrids of *A. laevis*, in one case probably with *A. canadensis* and in other cases with an undetermined parent.

Hybrids of *A. canadensis* and *A. stolonifera* from the rocky summit of West Stockbridge Mountain and the sand-plain, Sheffield, have been determined by Professor Wiegand.

CRATAEGUS. HAWTHORN; RED HAW.

C. anomala Sarg.—North Adams.

C. Brainerdi Sarg., var. **asperifolia** (Sarg.) Eggleston.—North Adams; Alford.

var. **scabrida** (Sarg.) Eggleston.—Williamstown.

C. Crus-galli L.—Becket.

C. foetida Ashe.—(*C. Baxteri* Sarg.)

Great Barrington.

C. Holmesiana Ashe.—Lanesboro; Lenox; Stockbridge.

C. macrantha Lodd.—(*C. ferentaria* Sarg.)

Common.

var. **rhombifolia** (Sarg.) Eggleston.—Great Barrington.

C. macrosperma Ashe.—Common.

var. **demissa** (Sarg.) Eggleston.—Lenox.

var. **matura** (Sarg.) Eggleston.—(*C. serena* Sarg.)

Lenox.

var. **pastorum** (Sarg.) Eggleston.—(*C. glaucophylla* Sarg.; *C. genialis* Sarg.)

Williamstown; Lenox.

C. MONOGYNA Jacq. ENGLISH HAWTHORN.—(*C. oxycantha* Man. ed. 7; *rid.* Rhodora, 11: 17, 1909.)

Well established on an open hillside, Stockbridge.

C. pedicellata Sarg.— North Adams (Fernald and Long).

C. polita Sarg.— (*C. albicans* Ashe.)

Great Barrington.

C. Pringlei Sarg.— Savoy; Cheshire; Great Barrington.

var. **lobulata** (Sarg.) Eggleston.— Williamstown; Great Barrington.

C. pruinosa (Wendl.) C. Koch.— Williamstown; North Adams; Sheffield.

var. **latisepala** (Ashe) Eggleston. (*C. cognata* Sarg.)

Great Barrington.

forma **demissa** (Sarg.) Eggleston.— Great Barrington.

C. punctata Jacq.— Common.

C. rotundifolia Moench.— (*C. Dodgei* Ashe).

Williamstown; Becket; Great Barrington; open woods, Mt. Washington (Knowlton and Schweinfurth).

C. silvicola Beadle, var. **Beckwithiae** (Sarg.) Eggleston.— “ One tree in a dooryard in Lenox. Not known whether native ” (Eggleston, MS.).

DALIBARDA.

D. repens L.— Cool woods and borders of swamps; frequent on the plateau.

FILIPENDULA.

F. RUBRA (Hill) Robinson. QUEEN OF THE PRAIRIE.— Occasionally established in thickets, meadows and roadsides. Lanesboro (Churchill); Lenox; Stockbridge; Sheffield.

F. ULMARIA (L.) Maxim. QUEEN OF THE MEADOW.— Roadside banks and low meadows; frequent in the valley.

FRAGARIA. STRAWBERRY.

× **F. GRANDIFLORA** Ehrh. GARDEN STRAWBERRY.— Occasional along roadsides or near gardens. An escape from cultivation.

F. VESCA L. EUROPEAN WOOD STRAWBERRY.— Kitchen Brook, Cheshire (Churchill); persisting and spreading about old house sites, Hancock.

forma **ALBICARPA** Britton.— (var. *alba* Man. ed. 7.)

Occasionally escaping from cultivation. Hancock, with *F. vesca*; Stockbridge.

var. **americana** Porter. WOOD STRAWBERRY.— (*F. americana* Ill. Fl. ed. 2.)

Rich open woods and shaded ledges; common in the valley.

F. virginiana Duchesne. FIELD STRAWBERRY.— Fields, meadows and roadsides; common.

Dewey in the Report on Herbaceous Plants of Massachusetts, p. 59, says that “on the hills of Washington, a white fruited strawberry is abundant in the fields. The leaves are somewhat villose.”

var. **terrae-novae** (Rydb.) Fernald & Wiegand.— *Vid.* Rhodora, 13: 106 (1911).

Frequent in the same situations as the type, occurring on cold flood-plains of mountain streams (Savoy), dry sandy fields (Pittsfield), or swampy woods (Sheffield).

Differs from the type in having the pubescence of all the petioles and the scapes closely appressed.

GEUM. AVENS.

G. canadense Jacq. WHITE AVENS.— Borders of moist woods; common.

G. rivale L. WATER OR PURPLE AVENS.— Wet meadows and swamps; common.

G. strictum Ait. YELLOW AVENS.— Borders of woods and roadside thickets; common.

G. virginianum L.— Low ground; occasional. Lenox; Stockbridge; Sandisfield; Egremont; Sheffield; Mt. Washington (Knowlton); swamp, West Stockbridge (Evans, Fernald and Knowlton).

POTENTILLA. CINQUEFOIL; FIVE-FINGER.

P. argentea L. SILVERY CINQUEFOIL.— Dry fields and pastures; common.

P. arguta Pursh.— (*Drymocallis agrimonioides* Ill. Fl. ed. 2.)

Dry soil; occasional. Pittsfield; West Stockbridge; Sheffield.

P. canadensis L. CINQUEFOIL; FIVE-FINGER.— Fields and open woods; common.

var. **simplex** (Michx.) T. & G. = (*P. simplex* Ill. Fl. ed. 2.)

Dry fields, roadsides and open woods; commoner than the type. Summit of Greylock, 3500 feet.

P. fruticosa L. SHRUBBY CINQUEFOIL; HARD-HACK.— (*Dasi-phora fruticosa* Ill. Fl. ed. 2.)

Ill-drained fields and borders of swamps; common. Occasionally on dry calcareous hills. Less common on the plateau.

P. monspeliensis L.—Damp places and cultivated ground; common.

P. palustris (L.) Scop. MARSII CINQUEFOIL.—(*Comarum palustre* Ill. Fl. ed. 2.)

Borders of ponds, slow streams and pools in swamps; frequent. forma **subsericea** (Becker) Wolf.—(*Vid.* *Rhodora*, 15: 165, 1913.)

Occasional. Shaw Pond, Otis; Lake Buel, Monterey.

Leaves silky.

P. pumila Poir.—Dry, barren fields; frequent in the valley, becoming common in the southern part.

P. RECTA L.—Fields and roadsides; occasional. Pittsfield; Stockbridge (Mrs. B. Hoffmann); Great Barrington (Walters); Sheffield. First noted in 1915.

P. tridentata Ait.—(*Sibbaldiopsis tridentata* Ill. Fl. ed. 2.)

Rocky summits; occasional. Florida; Tom Ball, Alford; The Dome, Mt. Washington. In Sheffield a patch occurs in a low meadow at the foot of The Dome, at an altitude of 700 feet.

PRUNUS. PLUM; CHERRY.

P. americana Marsh. WILD PLUM.—Roadsides in New Marlboro (Walters).

P. AVIUM L. SWEET CHERRY.—Frequently escaping to open woods and hedgerows.

P. CERASUS L. SOUR CHERRY.—Rarely spreading from cultivation. Sandisfield.

P. cuneata Raf. SAND CHERRY.—Sand-plains; rare. Pittsfield (Lincoln); Sheffield. Also on Alum Hill, Sheffield.

P. DOMESTICA L. GARDEN PLUM.—Occasionally spreading from cultivation.

P. nigra Ait. WILD OR CANADA PLUM.—Riverbanks and roadside thickets; frequent.

P. pennsylvanica L. f. WILD RED CHERRY; BIRD CHERRY.—Light soil in woods, recent clearings, burnt tracts and rocky summits; common, particularly on the upland. Occasional in swampy woods, Stockbridge.

P. PERSICA (L.) Stokes. PEACH.—(*Amygdalus persica* Ill. Fl. ed. 2.)

Occasional on dumps; Williamstown; North Adams.

P. serotina Ehrh. BLACK CHERRY; RUM CHERRY.—(*Padus virginiana* Ill. Fl. ed. 2.)

Rich woods and roadsides; common. Altitude 1800 feet, Savoy; 2600 feet, Greylock.

P. virginiana L. CHOKE CHERRY.—(*Padus nana* Ill. Fl. ed. 2.)

Roadside thickets, fence-rows, borders of woods and mountain-tops; common. Summit of Greylock, 3400 feet.

PYRUS. APPLE; PEAR.

P. americana (Marsh) DC. AMERICAN MOUNTAIN ASH.—(*Sorbus americana* Ill. Fl. ed. 2.)

Open woods; common on the upland. Borders of cool swamps in the valley.

P. arbutifolia (L.) L. f., var. **atropurpurea** (Britton) Robinson. RED CHOKEBERRY.—(*Aronia atropurpurea* Ill. Fl. ed. 2.)

Swamps and borders of bogs; frequent in the southern part of the valley. Rocky hillside, Monterey. Specimens with 12- to 14-fruited cymes from Sheffield (Churchill).

P. COMMUNIS L. PEAR.—Occasionally self-sown in pastures and woodland.

P. MALUS L. APPLE.—(*Malus malus* Ill. Fl. ed. 2.)

Roadsides and woods; common.

P. melanocarpa (Michx.) Willd. BLACK CHOKEBERRY.—(*Aronia melanocarpa* Ill. Fl. ed. 2.)

Dry rocky or sandy soil, hillside pastures on the plateau, and in swamps and bogs; common.

× **P. PRUNIFOLIA** Willd. CRAB APPLE.—Roadside escape, Sheffield.

P. sitchensis (Roem.) Piper.—(*Sorbus scopulina* Ill. Fl. ed. 2.)

Occasional on Greylock; Hancock (Bean).

According to Dr. Rehder (*in lit.*) *P. sitchensis* (Roem.) Piper is a species of the Pacific Coast, and the New England species is *Sorbus decora* Schneid.

ROSA. ROSE.

R. blanda Ait.—Dry open woods, roadside thickets and borders of streams; occasional. Greylock, altitude 2500 feet; Stockbridge; West Stockbridge; Sandisfield; New Marlboro; Sheffield.

R. carolina L.— (*R. humilis* Man. ed. 7; *vid.* *Rhodora*, 20: 91, 1918. *R. virginiana* Ill. Fl. ed. 2 in part.)

Open rocky woods, pastures and roadsides; common in the valley.

R. CINNAMOMEA L. CINNAMON ROSE.— Persistent about old sites and established along roadsides, particularly on the upland.

R. GALLICA L.— An occasional roadside escape; Great Barrington; Sheffield (Churchill).

R. palustris Marsh. SWAMP ROSE.— (*R. carolina* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, 20: 91, 1918.)

Borders of ponds and streams, and in swamps; common.

R. RUBIGINOSA L. SWEETBRIER; EGLANTINE.— Open hillsides and rocky pastures; frequent.

R. SETIGERA Michx. CLIMBING OR PRAIRIE ROSE.— Two plants in a thicket above the Housatonic River, Stockbridge.

R. SPINOSISSIMA L. SCOTCH ROSE.— Roadside escape, New Marlboro.

Forms have been collected in Lanesboro, Stockbridge and Sheffield which appear to be hybrids between *R. carolina* (*R. humilis* Man. ed. 7) and *R. rubiginosa*.

In Sheffield and Egremont forms are frequent which must pass as hybrids between *R. carolina* (*R. humilis* Man. ed. 7) and *R. palustris*. Other forms appear to be hybrids between *R. blanda* and *R. palustris*. There is a great deal of variety among these forms, and the whole material needs careful study.

RUBUS. BLACKBERRY; RASPBERRY.

R. allegheniensis Porter. HIGH-BUSH BLACKBERRY. — Open woods, roadside thickets and clearings; common.

R. Andrewsianus Blanchard.— Dry hillsides; occasional in the valley, becoming frequent in the southern part. Williamstown; Stockbridge; New Marlboro; Sandisfield; Sheffield.

R. canadensis L.— Swampy woods; common on the upland, frequent in the valley. Summit of Greylock, 3500 feet.

R. elegantulus Blanchard.— Low ground and upland woods; frequent.

R. hispidus L.— Low meadows and swamps; common, especially on the plateau.

R. idaeus L., var. **strigosus** (Michx.) Maxim. RED RASPBERRY.

— (*R. idaeus* L., var. *aculeatissimus* Man. ed. 7 in part. *R. strigosus* Ill. Fl. ed. 2. *Vid.* Rhodora, **21**: 96, 1919.)

Rocky pastures and clearings; common.

×? **R. neglectus** Peck.— Open hillsides and pastures; frequent in the valley. Probably a self-perpetuating hybrid between *R. occidentalis* and *R. idaeus*, var. *strigosus*.

R. nigricans Rydb.— Borders of swamps and wet roadsides on the plateau; occasional. Florida; Washington.

R. occidentalis L. BLACK RASPBERRY; THIMBLEBERRY.— Open rocky woods, pastures, clearings and roadside thickets; common in the valley. Not noted on the plateau proper.

R. odoratus L. PURPLE FLOWERING RASPBERRY.— Openings and clearings in rich woods, banks of streams and shaded ledges; common on the upland and in the lower parts of the plateau. Not noted on the summit of the plateau.

R. pergratus Blanchard.— Rocky pastures, dry open hillsides and moist woodland; common.

R. plicatifolius Blanchard.— *Vid.* Rhodora, **8**: 119 (1906).

Roadsides; occasional. Sandisfield; Sheffield.

A prostrate species related to *R. villosus* Ait., distinguished by the straight prickles, the plaited or ruffled margins of the leaves and the fact that its inflorescence is a broad raceme.

R. pubescens Raf. DWARF RASPBERRY.— (*R. triflorus* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, **11**: 236, 1909.)

Rich rocky woods, swamps and wet woods; common.

R. recurvans Blanchard.— Open woods, clearings and low ground; frequent.

R. setosus Bigel.— Swampy meadows and low ground; frequent on the plateau.

R. villosus Ait. DEWBERRY.— (*R. procumbens* Ill. Fl. ed. 2.)

Dry fields and rocky summits; common.

var. **humifusus** T. & G.— Dry open fields; occasional. Floodplain of the Deerfield R., Florida; Stockbridge; Monterey; Egremont.

As is well known, the division *Eubatus* of the genus *Rubus* presents a problem of extreme difficulty. Much of the *Rubus* collected in Berkshire is not easily determined in accordance with the treatment so far published. Forms are common, particularly on the upland, which might be referred to *R. juveus* Blanchard or to *R. nigricans* Rydb. They appear to be hybrids between *R. canadensis* and *R. hispidus*.

Peculiar forms collected on the flood-plain of the Deerfield River in Florida appear to be hybrids between *R. allegheniensis* and *R. villosus*, and between *R. canadensis* and *R. villosus*.

SANGUISORBA. BURNET.

S. canadensis L. CANADIAN BURNET.—Flood-plain of the Deerfield River, Florida (Walters).

SORBARIA.

(*Schizonotus* Ill. Fl. ed. 2.)

S. SORBIFOLIA (L.) A. Br.—Roadside escape, Lanesboro (Churchill); Richmond; Egremont.

SPIRAEA.

S. latifolia Borkh. MEADOW-SWEET.—Thickets and overgrown pastures; common.

S. tomentosa L. STEEPLE BUSH; HARDHACK.—Dry and poorly drained fields and pastures; common.

forma **albiflora** Macbride.—*Vid.* *Rhodora*, 17: 143 (1915).

Frequent with the type in the northern and western parts of the County. Flowers white.

WALDSTEINIA.

W. fragarioides (Michx.) Trattinick. BARREN STRAWBERRY.—Low wet ground, Pittsfield (Oakes); open woods on limestone outcrops, Great Barrington. The only localities known for the County, though Dewey (Report on Herbaceous Plants, p. 59) gives it as "common in Berkshire Co."

LEGUMINOSAE. PULSE FAMILY.

AMORPHA.

A. FRUTICOSA L. FALSE INDIGO.—Persisting on made ground, Stockbridge.

AMPHICARPA. HOG PEANUT.

(*Falcata* Ill. Fl. ed. 2.)

A. monoica (L.) Ell. HOG PEANUT.—(*F. comosa* Ill. Fl. ed. 2.) Rich woods, riverbanks and clearings; common.

APIOS. GROUND-NUT.

(*Glycine* III. Fl. ed. 2.)

A. tuberosa Moench. GROUND-NUT.—(*G. Apios* III. Fl. ed. 2.)
Alluvial thickets and rich damp upland; frequent in the valley.

BAPTISIA. FALSE INDIGO.

B. tinctoria (L.) R. Br. WILD INDIGO.—Sandy soil in open woods; common in the southern part of the valley.

CASSIA. SENNA.

C. marilandica L. WILD SENNA.—Roadsides in low ground; occasional in the southern part of the valley. West Stockbridge; Egremont; Sheffield.

CORONILLA.

C. VARIA L.—Occasionally established along roadside banks in the valley.

CROTALARIA. RATTLE-BOX.

C. sagittalis L. RATTLE-BOX.—Sand-plain, Sheffield.

DESMODIUM. TICK TREFOIL.

(*Mcibomia* III. Fl. ed. 2.)

Key to Desmodium.

1. Plant prostrate. *D. rotundifolium.*
2. Plant erect.
 - a. Pod raised on a stalk many times longer than the slightly toothed calyx.
 - Leaves all crowded at the summit of sterile stems *D. uel florum.*
 - Leaves all crowded at the summit of the stem from which arises the elongated panicle *D. grandiflorum.*
 - a'. Pod raised on a stalk little if at all surpassing the deeply cleft calyx.
 - b. Stipules conspicuous and persistent; flowers rather large; stem smooth. *D. bracteosum.*
 - b'. Stipules mostly deciduous, small and inconspicuous
 - c. Flowers middle-sized, not very showy; stem pubescent; leaflets softly and finely pubescent. *D. Dillenii*
 - Stem smooth; leaflets smooth *D. paniculatum.*
 - c'. Flowers 8 to 12 mm. long, showy; stem hairy *D. canadense.*

D. bracteosum (Michx.) DC.— Dry thickets; occasional in the southern part of the valley. Great Barrington; Sheffield; Mt. Washington (Burnham).

D. canadense (L.) DC.— Dry open woods, roadsides and banks; common in the southern part of the valley. Occasional elsewhere (Williamstown). Altitude 1600 feet, Mt. Washington.

D. Dillenii Darl.— Borders of dry woods, clearings and thickets; frequent in the southern part of the valley.

D. grandiflorum (Walt.) DC.— Dry woods; common in the valley.

D. nudiflorum (L.) DC.— Dry woods; common in the valley. A form with one or two leaves on the scape, occasional.

D. paniculatum (L.) DC.— Borders of dry woods, thickets and clearings; frequent in the southern part of the valley.

D. rotundifolium (Michx.) DC.— (*M. Michauxii* Ill. Fl. ed. 2.) Rocky woods with southern exposure; occasional in the southern part of the valley. West Stockbridge; Great Barrington; New Marlboro; Sheffield.

GLEDITSIA. HONEY LOCUST.

G. TRIACANTHOS L. HONEY LOCUST.— Rarely spreading from cultivation, Egremont.

LESPEDEZA. BUSH CLOVER.

Key to Lespedeza.

- a. Flowers violet-purple, not in close spikes or heads.
 - Peduncles slender, mostly exceeding the leaves; stems spreading. Occasional in New Marlboro and Sheffield. *L. violacea.*
 - Peduncles mostly very short, shorter than the leaves; stems erect. Frequent in the southern part of the valley. *L. frutescens.*
- a'. Flowers whitish or cream color, with a purple spot on the standard; in close spikes or heads.
 - Peduncles shorter than the dense subglobose heads. *L. capitata.*
 - Peduncles elongate, chiefly equalling the cylindric or subcylindric spikes. *L. hirta.*

L. capitata Michx.— Dry fields and open sandy soil; common in the southern part of the valley.

L. frutescens (L.) Britton.— Dry open woods; frequent in the southern part of the valley.

L. hirta (L.) Hornem.—Open sandy soil and dry open woods; frequent in the southern part of the valley.

L. violacea (L.) Pers.—Occasional on dry hills, Sheffield and New Marlboro.

LUPINUS. LUPINE.

L. perennis L. WILD LUPINE.—Locally common on the sandplain in the southern part of Sheffield. Also on Alum Hill, Sheffield.

MEDICAGO. MEDICK.

M. ARABICA Huds.—On dump at woolen mill, Pittsfield.

M. HISPIDA Gaertn.—On dump at woolen mill, Pittsfield.

M. LUPULINA L. BLACK MEDICK.—Fields and roadsides; common.

M. MINIMA L.—On dump at woolen mill, Pittsfield.

M. SATIVA L. LUCERNE; ALFALEFA.—Becoming frequent along roadsides and borders of fields.

M. sp.—On dump at woolen mill, Pittsfield.

MELILOTUS. SWEET CLOVER.

M. ALBA (Desf.). WHITE SWEET CLOVER.—Waste places and along roadsides; frequent in the valley. This species was rare in 1900 and has since spread rapidly along the sides of roads where the road scrapings offer it a congenial soil.

M. OFFICINALIS (L.) LAM. YELLOW SWEET CLOVER.—Waste places and roadsides; occasional in the valley. Lee; Stockbridge; Great Barrington; Egremont. Becoming frequent.

ROBINIA. LOCUST.

R. PSEUDO-ACACIA L. COMMON LOCUST.—Frequently naturalized, forming small groves about old house-sites and along roadsides.

R. VISCOSA Vent. CLAMMY LOCUST.—Occasionally established on roadside banks. Stockbridge; Monterey; Egremont; Sheffield.

TRIFOLIUM. CLOVER.

T. AGRARIUM L. YELLOW OR HOP CLOVER.—Dry open soil, roadsides, fields and wood roads; common.

T. ARVENSE L. RABBIT-FOOT CLOVER.—Thin, generally sandy soil; frequent, especially in the southern part of the valley.

T. HYBRIDUM L. ALSIKE CLOVER.— Fields and roadsides; common.

T. PRATENSE L. RED CLOVER.— Fields, meadows and wood roads; common.

A form with white flowers is occasional.

T. PROCUMBENS L.— Pasture in the lower part of the Hopper, Williamstown.

T. REPENS L. WHITE CLOVER.— Fields, roadsides and lawns; common.

VICIA. VETCH.

V. ANGUSTIFOLIA Reichard.— Roadside, Sheffield (Churchill).

var. **SEGETALIS** (Thuillier) Koch.— Roadsides and banks; occasional. Deerfield River, Florida; Stockbridge; Sheffield.

V. Cracca L. BLUE VETCH.— Meadows and roadsides; frequent in the valley.

V. VILLOSA Roth.— Sheffield (Walters).

LINACEAE. FLAX FAMILY.

LINUM. FLAX.

(*Cathartolinum* Ill. Fl. ed. 2 in part.)

L. sulcatum Riddell.— (*C. sulcatum* Ill. Fl. ed. 2.)

Dry gravelly field, Sheffield (Walters).

L. USITATISSIMUM L. COMMON FLAX.— Occasionally adventive in waste ground and along railroad tracks. Washington; Pittsfield; Stockbridge; West Stockbridge; Sheffield.

L. virginianum L.— (*C. virginianum* Ill. Fl. ed. 2.)

Edge of dry wood, Sheffield.

OXALIDACEAE. WOOD SORREL FAMILY.

OXALIS. WOOD SORREL.

(*Xanthoxalis* Ill. Fl. ed. 2 in part.)

O. americana Bigelow. WOOD SORREL.— (*O. Aetosella* Man. ed. 7; *vid.* *Rhodora*, 20: 78, 1918.)

Damp woods; common on the plateau. Occasional in moist woods or cool ravines in the valley. Descends the sides of the plateau to the bank of the Deerfield River at Florida and to the Housatonic River at

Lenox (altitude 1000 feet). Occurs in rich woods on Hancock Mt. and toward the summit of The Dome, Mt. Washington.

O. corniculata L. LADY'S SORREL.— (*X. cymosa* Ill. Fl. ed. 2.)

Fields and cultivated ground; common. Occasionally under pines in moist ground.

O. filipes Small.— (*X. filipes* Ill. Fl. ed. 2.)

Dry hills, generally calcareous; occasional. Williamstown; West Stockbridge; Sheffield.

O. REPENS Thurb.— (*X. corniculata* Ill. Fl. ed. 2.)

A weed in gardens and greenhouses. Lenox (Jenkins); Stockbridge. Probably in all large greenhouses.

O. stricta L.— (*X. stricta* Ill. Fl. ed. 2.)

Dry fields and barren hillsides; occasional. Stockbridge; Great Barrington (Walters); New Marlboro; Egremont.

ERODIUM.

E. CICUTARIUM (L.) L'Hér. STORKSBILL.— On dump at woolen mill, Pittsfield; a garden weed, Stockbridge.

GERANIACEAE. GERANIUM FAMILY.

GERANIUM. GERANIUM.

G. Bicknellii Britton.— Ledges and rocky ridges; occasional. North Adams (Fernald and Long); West Stockbridge; Mt. Washington (Walters); Sheffield.

G. maculatum L. WILD CRANESBILL.— Open woods, copses and fields; common.

G. MOLLE L.— Adventive in lawn, Stockbridge.

G. PUSILLUM Burm. f.— Adventive in chicken-yard, Stockbridge.

G. Robertianum L. HERR ROBERT.— (*Robertiella Robertiana* Ill. Fl. ed. 2.)

Moist rich or rocky woods, and on open ledges; common in the valley. Altitude 1300 feet, Tyringham.

RUTACEAE. RUE FAMILY

PTELEA. HOP TREE.

P. TRIFOLIATA L. HOP TREE. Escaping from cultivation, Stockbridge.

ZANTHOXYLUM. PRICKLY ASH.

Z. americanum Mill. PRICKLY ASH.—River banks and open rocky woods in the extreme southern part of the County; frequent in Sheffield, and along the Konkapot River in southern New Marlboro, occasional as far north as Stockbridge.

POLYGALACEAE. MILKWORT FAMILY.

POLYGALA. MILKWORT.

P. paucifolia Willd. FRINGED POLYGALA.—Light soil in dry woods; locally common in the southern towns, particularly in Sheffield, Egremont, and Mt. Washington, frequent as far north as Stockbridge.

P. sanguinea L. PURPLE MILKWORT.—(*P. viridescens* Ill. Fl. ed. 2.)

Along roadsides and in poor soil in fields; occasional. Pittsfield; Becket; Sheffield (Churchill); Sandisfield.

P. Senega L. SENECA SNAKEROOT.—Margin of Joyner's Marsh, Egremont (Churchill and Schneider).

P. verticillata L.—Sandy soil; occasional. Stockbridge; Sheffield (Walters).

var. **ambigua** (Nutt.) Wood.—(*P. ambigua* Ill. Fl. ed. 2.)

Sandy soil and sterile fields; frequent in the valley.

EUPHORBIACEAE. SPURGE FAMILY.

ACALYPHA. THREE-SEEDED MERCURY.

A. gracilens Gray.—Clearing in dry woods, with *A. virginica* Monterey.

A. virginica L. THREE-SEEDED MERCURY.—Cultivated and waste ground, dry fields and muddy shores; common.

EUPHORBIA. SPURGE.

(*Tithymalus* and *Chamaesyce* Ill. Fl. ed. 2.)

E. CYPARISSIAS L. CYPRESS SPURGE.—(*T. Cyparissias* Ill. Fl. ed. 2.)

Roadsides, cemeteries and about old houses; frequent.

E. hirsuta (Torr.) Wiegand.—(*C. Rafinesquii* Ill. Fl. ed. 2.)

Dry open ground, roadsides, railroad tracks and cultivated ground;

frequent. Common on limestone hills in Sheffield and New Marlboro.

E. maculata L.—(*C. maculata* Ill. Fl. ed. 2.)

Dry open ground, roadsides, railroad tracks and cultivated ground; frequent.

E. Preslii Guss.—(*C. Preslii* Ill. Fl. ed. 2.)

Waste ground, Pittsfield.

CALLITRICHACEAE.

CALLITRICHE. WATER STARWORT.

C. palustris L.—Pools and borders of brooks, muddy shores; frequent.

ANACARDIACEAE.

RHUS. SUMACH.

(*Toxicodendron* Ill. Fl. ed. 2 in part.)

R. copallina L. DWARF SUMACH.—Dry sandy soil and rocky hills; frequent in the southern part of the valley.

R. glabra L. SMOOTH SUMACH.—Dry sandy soil, open rocky woods and pastures; common in the southern part of the valley.

R. Toxicodendron L. POISON IVY; POISON OAK.—(*T. Toxicodendron* Ill. Fl. ed. 2.)

Wet woods, roadsides, railroad embankments and rocky summits; frequent. Altitude 1800 feet (Washington).

var. **radicans** (L.) Torr.—(*T. radicans* Ill. Fl. ed. 2.)

Damp woods and borders of streams; occasional in the valley, Williamstown; Richmond; Stockbridge; Lee; Sandisfield; New Marlboro.

R. typhina L. STAGHORN SUMACH.—(*R. hirta* Ill. Fl. ed. 2.)

Borders of woods, rocky hills, roadsides and pastures; common.

R. Vernix L. POISON SUMACH; POISON DOGWOOD.—(*T. Vernix* Ill. Fl. ed. 2.)

Swamps and low ground; occasional in the southern part of the valley.

AQUIFOLIACEAE. HOLLY FAMILY.

ILEX. HOLLY.

I. monticola Gray, var. **mollis** (Gray) Britton. = (*I. montana* Ill. Fl. ed. 2.)

Locally common on the summit of The Dome and about Plantin Pond, Mt. Washington. The most northern known station for this species of the Alleghany Mts.

I. verticillata (L.) Gray. BLACK ALDER.— Common on the plateau on open ill-drained hillsides and along roadsides; frequent in the valley on the borders of ponds and swamps.

var. **tenuifolia** (Torr.) Wats.— (*I. bronxensis* Ill. Fl. ed. 2.)

Shaded swamps; frequent.

var. **padifolia** (Willd.) T. & G.— Sheffield (Churchill).

NEMOPANTHUS. MOUNTAIN HOLLY.

(*Ilicioides* Ill. Fl. ed. 2.)

N. mucronata (L.) Trel. MOUNTAIN HOLLY.— Borders of ponds, boggy woods and rocky hill-tops; common.

CELASTRACEAE. STAFF TREE FAMILY.

CELASTRUS. STAFF TREE.

C. scandens L. CLIMBING BITTER-SWEET; WAXWORK.— Open rocky woods, roadside thickets and borders of streams; common in the valley.

EVONYMUS.

(*Euonymus* Ill. Fl. ed. 2.)

E. ATROPURPUREUS Jacq. BURNING BUSH.— Escaping from cultivation, Stockbridge.

STAPHYLEACEAE. BLADDER NUT FAMILY.

STAPHYLEA. BLADDER NUT.

S. trifolia L. BLADDER NUT.— Rich soil at the base of limestone ledges, and moist thickets along the Housatonic River; occasional. Pittsfield; Stockbridge; Great Barrington; Sheffield.

ACERACEAE. MAPLE FAMILY.

ACER. MAPLE.

A. Negundo L. BOX ELDER.— Apparently indigenous along the Housatonic River; also frequently escaping from cultivation.

A. pennsylvanicum L. STRIPED MAPLE; MOOSEWOOD.— Rich woods; common on the upland.

A. rubrum L. RED MAPLE; SWAMP MAPLE.— Swamps, borders of ponds and rocky summits; common.

var. **tridens** Wood.— (*A. carolinianum* Ill. Fl. ed. 2.)

Low ground; occasional. Cheshire (Winslow); Pittsfield; Lenox; Stockbridge; New Marlboro; Sheffield.

A. saccharinum L. WHITE MAPLE; RIVER MAPLE.— Banks of streams; common.

A. saccharum Marsh. SUGAR MAPLE; ROCK MAPLE.— Rich woods; common, particularly on mountain slopes.

var. **nigrum** (Michx. f.) Britton. BLACK SUGAR MAPLE.— (*A. nigrum* Ill. Fl. ed. 2.)

Common as a shade tree in the southern part of the valley. Indigenous on a limestone ridge in Williamstown, in alluvial woods in North Adams (Fernald), and on a cobble over the Housatonic River in Sheffield.

A. spicatum Lam. MOUNTAIN MAPLE.— Cool woods; common on the upland, frequent in the valleys.

SAPINDACEAE. SOAPBERRY FAMILY.

AESCULUS.

A. hippocastanum L. COMMON HORSE-CHESTNUT.— Occasionally self-sown.

BALSAMINACEAE. TOUCH-ME-NOT FAMILY.

IMPATIENS. JEWELWEED.

I. biflora Walt. JEWELWEED; SPOTTED TOUCH-ME-NOT.— Rich moist soil in shade; common.

forma **Peasei** A. H. Moore.— Perianth cream color, with pink spots (*vid.* *Rhodora*, 21: 98, 1919, and 19: 116, 1917).

Low ground, Stockbridge.

I. pallida Nutt. PALE TOUCH-ME-NOT.— Borders of streams and moist slopes; frequent in the valley, on the lower slopes of Greylock and of the Dome. A form with whitish flowers, Lanesboro (Churchill).

RHAMNACEAE. BUCKTHORN FAMILY.

CEANOTHUS. RED-ROOT.

C. americanus L. NEW JERSEY TEA.—Sandy soil, borders of dry woods and roadsides; frequent in the southern part of the valley.

RHAMNUS. BUCKTHORN.

R. alnifolia L'Hér.—Cool swamps; frequent in the valley.

R. CATHARTICA L. COMMON BUCKTHORN.—Roadside thickets; frequently naturalized. Generally only a single tree is found, but the species is common for nearly a mile along the roadside opposite Round Pond, Great Barrington.

VITACEAE. VINE FAMILY.

PSEDERA. WOODBINE; VIRGINIA CREEPER.

(*Parthenocissus* Ill. Fl. ed. 2.)

P. quinquefolia (L.) Greene.—(*P. quinquefolia* Ill. Fl. ed. 2 in part.)

Rocky or swampy woods, thickets and borders of streams; common. Altitude 1800 feet, Washington.

var. **hirsuta** (Donn) Rehder.—Rocky woods; banks of streams; common.

P. vitacea (Kner) Greene.—(*P. quinquefolia* Ill. Fl. ed. 2 in part.) Alluvial thickets; frequent.

VITIS. GRAPE.

V. aestivalis Michx. SUMMER GRAPE.—Thickets and hillsides; occasional in the valleys. Deerfield River, Florida; Adams (Knowlton and Bean); Great Barrington; Sheffield.

V. bicolor Le Conte. SUMMER GRAPE.—Rocky open woods and river-banks; frequent in the southern part of the valley.

V. labrusca L. NORTHERN FOX GRAPE.—Occasional and indigenous along the Deerfield River, Florida, and the Farmington River, Sandisfield. Here and there escaping to roadsides elsewhere.

V. vulpina L. RIVER-BANK OR FROST GRAPE.—Banks of streams and thickets; common.

TILIACEAE. LINDEN FAMILY.

TILIA. LINDEN.

T. americana L. BASSWOOD.—Rich woods and banks of streams; common.

MALVACEAE. MALLOW FAMILY.

ABUTILON. INDIAN MALLOW.

A. THEOPHRASTI Medic. VELVET LEAF.—(*A. Abutilon* III. Fl. ed. 2.)

Roadsides and waste ground; occasional. Great Barrington (Walters); Sheffield.

ALTHAEA. MARSH MALLOW.

A. ROSEA Cav. HOLLYHOCK.—Occasionally self-sown or persisting, Pittsfield; Stockbridge; Sheffield.

HIBISCUS. ROSE MALLOW.

H. TRIONUM L. FLOWER-OF-AN-HOUR.—Cultivated ground; occasional. Stockbridge; Sheffield.

MALVA. MALLOW.

M. ALCEA L.—Open field, Lee; roadside, Great Barrington (Walters).

M. MOSCHATA L. MUSK MALLOW.—Roadsides; occasional in the valley. Lanesboro; Lee; Stockbridge; West Stockbridge; Alford; Egremont (Walters).

M. ROTUNDIFOLIA L. CHEESES.—Cultivated and waste ground; common.

HYPERICACEAE. ST. JOHN'S WORT FAMILY.

HYPERICUM. ST. JOHN'S WORT.

H. Ascyron L. GREAT ST. JOHN'S WORT.—Borders of streams in the southern part of the valley; frequent.

H. boreale (Britton) Bicknell. Borders of ponds and marshes; frequent.

H. canadense L. Roadside ditches and low ground; frequent.

H. ellipticum Hook. Wet ground; common.

H. gentianoides (L.) BSP. ORANGE GRASS; PINEWEEED.—
(*Sarothra gentianoides* Ill. Fl. ed. 2.)

Dry soil; common in Sheffield, occasional elsewhere in the valley. New Marlboro; Union Church, Mt. Washington (altitude 1670 feet).

H. majus (Gray) Britton.—Wet ground, damp clearings and sandy shores; frequent in the valley.

H. mutilum L.—Roadside ditches and low ground; common.

H. perforatum L. COMMON ST. JOHN'S WORT.—Fields and roadsides; common.

H. punctatum Lam.—Moist thickets and damp places; common.

H. virginicum L. MARSH ST. JOHN'S WORT.—(*Triadenum virginicum* Ill. Fl. ed. 2.)

Borders of ponds and marshes; common. Altitude 2000 feet, Hancock.

ELATINACEAE. WATERWORT FAMILY.

ELATINE. WATERWORT.

E. minima (Nutt.) Fisch. & Meyer.—(*E. americana* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, 19: 13, 1917.)

Submersed in shallow water on sandy bottom, Onota Lake, Pittsfield; emersed on muddy border of Goose Pond, Tyringham.

CISTACEAE. ROCKROSE FAMILY.

HELIANTHEMUM. ROCKROSE.

(*Crocianthemum* Ill. Fl. ed. 2.)

H. Bicknellii Fernald.—(*H. majus* Man. ed. 7; *vid.* *Rhodora*, 21: 36, 1919. *C. majus* Ill. Fl. ed. 2.)

Dry soil and ledges; occasional in the southern part of the valley. On limestone, Monterey; New Marlboro; locally common on the sand-plain, Sheffield.

H. canadense (L.) Michx. FROSTWEED.—(*C. canadense* Ill. Fl. ed. 2.)

Open sandy soil and rocky ledges; occasional in the southern part of the valley. On limestone, Monterey; on quartzite, Great Barrington; locally common on the sand-plain, Sheffield.

LECHEA. PINWEED.

L. intermedia Leggett.— Dry soil; common.

L. maritima Leggett, var. **interior** Robinson.— Williamstown (Churchill).

L. villosa Ell.— Dry hills, Sheffield.

VIOLACEAE. VIOLET FAMILY.

VIOLA. VIOLET.

V. affinis Le Conte.— Frequent in wet grassy places, moist lawns, swampy meadows and alder thickets in the valley.

V. arvensis Murr. WILD PANSY.— Seeding itself along garden paths, Stockbridge; abundant in a fallow field, Sheffield (Bean and Fernald); fallow field, New Marlboro.

V. blanda Willd. SWEET WHITE VIOLET.— Rich woods; common.

V. canadensis L. CANADA VIOLET.— Rich woods; frequent. Altitude 1500 feet, Hoosac Mt., Florida.

V. conspersa Reichenb.— Woods, pastures, roadsides, borders of swamps; common. Altitude 1850 feet (Windsor).

V. cucullata Ait. MARSH BLUE VIOLET.— Wet open places; common. A dwarf form in moist soil under old apple trees (altitude 1500 feet), Cheshire (Brainerd).

forma **albiflora** Britton.— Frequent.

V. eriocarpa Schwein. SMOOTH YELLOW VIOLET.— (*V. scabriuscula* Man. ed. 7; *vid.* Bull. Torr. Bot. Club, 38: 191, 1911.)

Moist rich woods; common. Altitude 1500 feet on the plateau, 2000 feet, Berry Mt., Hancock.

V. fimbriatula Sm. — Dry hillsides, open woods and sandy fields; common. A form with coarsely toothed basal lobes from Lenox, Stockbridge, and West Stockbridge.

V. incognita Brainerd. SWEET WHITE VIOLET.— Rich woods; common. Occasional under pines.

var. **Forbesii** Brainerd. Swampy woods; frequent.

Differs from the type in being nearly or quite glabrous except for scattered hairs on the upper surfaces of the leaves (*vid.* Bull. Torr. Bot. Club, 38: 8, 1911).

V. lanceolata L. Borders of bogs and ponds; frequent. In moist pasture, Savoy.

V. latiuscula Greene. Dry soil; frequent in the valleys. Occa-

sionally in moist ground; low ground under pines, Stockbridge; alder thicket, Mt. Washington (Brainerd).

V. nephrophylla Greene.—Swampy woods and margins of mountain brooks and streams, chiefly in shade; common on the plateau, frequent in the valleys. Flowers late and about June 1 makes with *V. pallens* ribbons of blue and white along the roadsides on the plateau.

V. odorata L. ENGLISH OR SWEET VIOLET.—Plants sent by Miss Mitford from England to Miss Catherine Sedgwick in the first half of the 19th century, and set out on a shaded bank in Stockbridge, have spread and perpetuated themselves to the present time.

V. pallens (Banks) Brainerd. SWEET WHITE VIOLET.—Wet places; common. Ice Pond, Greylock (altitude 3000 feet).

Blossoming late and forming with *V. nephrophylla* ribbons of blue and white along upland roads, in early June.

V. palmata L.—Dry woods; frequent in the southern and western part of the valley. Altitude 1700 feet, West Stockbridge Mt.

V. papilionacea Pursh.—Moist shaded places; common. Often in door-yards and in rich ground. A white-flowered form is frequent.

V. pubescens Ait. DOWNY YELLOW VIOLET.—Rich woods; common. Less common than *V. eriocarpa* and generally in drier woods.

V. renifolia Gray.—Cold swamp, Stockbridge; damp woods, Great Barrington.

var. **Brainerdii** (Greene) Fernald.—*Ibid.* Rhodora, 14: 88 (1912). Cold swamps and cool woods.

Upper leaf-surfaces quite glabrous from the first or in anthesis (flowering time) with only a very few scattered and quickly deciduous hairs.

V. rostrata Pursh. LONG-SPURRED VIOLET.—Rich woods; frequent. Altitude 1200 feet, New Boston.

forma **Phelpsiae** Fernald.—*Ibid.* Rhodora, 17: 180 (1915).

Rich rocky woods, West Stockbridge (Walters). Flowers white.

V. rotundifolia Michx. EARLY YELLOW VIOLET.—Woods; common. Generally under deciduous trees but occasionally under pines (Stockbridge).

V. Selkirkii Pursh. GREAT-SPURRED VIOLET.—Rich woods, generally on or near rocks, but often in leaf mould; frequent in the northern tier of towns, Williamstown, Florida, Adams and Savoy,

becoming less common farther south, and confined to cool glens in the southern part of the valley. Ice Glen, Stockbridge; Ice Gorge, Great Barrington; rich woods, Sandisfield.

V. septentrionalis Greene.—Open woods, dry clearings, grassy hillsides and rocky summits; frequent. Common along the Deerfield and Farmington Rivers on dry banks.

V. sororia Willd.—Rich woods; common, particularly in dry woods in the southern part of the valley. A white-flowered form is frequent.

V. triloba Schwein.—Frequent in dry woods in the southern part of Sheffield and New Marlboro. Mt. Washington (Walters).

Hybrids of Viola.

V. cucullata × **fimbriatula**.—Frequent.

V. cucullata × **septentrionalis**.—Williamstown; Sheffield.

V. cucullata × **sororia**.—Cheshire (Brainerd).

V. fimbriatula × **septentrionalis**.—Frequent.

V. fimbriatula × **sororia**.—Williamstown; Stockbridge.

V. palmata × **affinis**.—Great Barrington.

V. palmata × **cucullata**.—Sheffield.

V. palmata × **sororia**.—Sheffield.

V. septentrionalis × **sororia**.—Stockbridge.

The above determinations have been verified by Mr. F. F. Forbes.

THYMELAEACEAE. MEZEREUM FAMILY.

DAPHNE.

D. MEZEREUM L.—Established along roadside thickets in Lenox and Richmond (Lincoln).

DIRCA. LEATHERWOOD; MOOSEWOOD.

D. palustris L. WICOPY; LEATHERWOOD; MOOSEWOOD.—Damp rich woods; frequent. On limestone ridges, Williamstown and Sheffield.

LYTHRACEAE. LOOSESTRIFE FAMILY.

DECODON. SWAMP LOOSESTRIFE.

D. verticillaris (L.) Ell., var. **laevigatus** T. & G.—(*D. verticillaris* Man. ed. 7 in part; *vid.* *Rhodora* 19: 154, 1917.)

Borders of ponds and streams; frequent.

The var. *lacvigatus* is glabrous with bright green leaves as contrasted with var. *pubescens* which has the stem and lower surface of the leaves more or less tomentose-pubescent.

LYTHRUM. LOOSESTRIFE.

L. alatum Pursh.—Swampy meadows (calcareous), Stockbridge; Sheffield.

L. SALICARIA L. SPIKED LOOSESTRIFE.—Borders of streams and wet meadows; now frequent along the Hoosac and Housatonic Rivers and their tributaries.

ONAGRACEAE. EVENING PRIMROSE FAMILY.

CIRCAEA. ENCHANTER'S NIGHTSHADE.

C. alpina L.—Cool woods; frequent.

C. canadensis Hill.—(*C. intermedia* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 19: 87, 1917.)

Moist gravelly soil; occasional. Wet slide above brook, Cheshire (Churchill); border of Lake Averic, Stockbridge; flood-plain of Bash Bish Brook, Mt. Washington; moist clearing, Sheffield.

Generally only a few plants in a station, suspiciously intermediate between *C. alpina* and *C. latifolia*.

C. latifolia Hill.—(*C. lutetiana* Man. ed. 7; *vid.* Rhodora, 17: 223, 1915.)

Woods and clearings; common.

EPILOBIUM. WILLOW-HERB.

E. angustifolium L. FIRE-WEED.—Clearings and borders of woods; common.

forma **albiflorum** (Dumort.) Haussk.—Harvey Mt., West Stockbridge.

E. coloratum Muhl.—Ditches, wet roadsides and swamps; common.

E. densum Raf.—(*E. lineare* Ill. Fl. ed. 2.)

Swamps; common.

E. glandulosum Lehm., var. **adenocaulon** (Haussk.) Fernald.—(*E. adenocaulon* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 20: 35, 1918.)

Roadside ditches, swamps, moist clearings and borders of streams; common.

E. hirsutum L.—Established in a roadside ditch in low ground, Lenox.

E. molle Torr.—(*E. strictum* Ill. Fl. ed. 2.)

Bogs; common.

E. palustre L.—Low ground, Stockbridge.

var. **monticola** Haussk.—Bogs and wet meadows; frequent.

GAURA.

G. biennis L.—Rarely adventive in grassland or waste ground, North Adams; Lee.

LUDVIGIA. FALSE LOOSESTRIPE.

(*Isnarlia* Ill. Fl. ed. 2.)

L. palustris (L.) Ell. WATER PURSLANE.—Muddy borders of ponds and marshes, and in ditches; common.

OENOTHERA. EVENING PRIMROSE.

O. biennis L. COMMON EVENING PRIMROSE.—Fields, roadsides and clearings; common.

O. muricata L.—Dry hillsides, roadsides and waste ground; common.

O. pumila L.—(*Kuciffia pumila* Ill. Fl. ed. 2.)

Fields and roadsides; common.

HALORAGIDACEAE. WATER MILFOIL FAMILY.

MYRIOPHYLLUM. WATER MILFOIL.

M. exalbescens Fernald.—*Vid.* *Rhodora*, 21: 122 (1919).

Shallow water in ponds; occasional. Stockbridge Bowl, Stockbridge; Cranberry Pond, West Stockbridge; Three-mile Pond, Sheffield.

Differs from *M. spicatum* as follows: the principal leaves of the primary stems have 14 to 21 pairs of rigid slenderly linear divisions; the bracts are rhombic obovate; the bractlets are suborbicular or reniform, broader than long, and distinctly shorter than in most of *M. exalbescens*, 0.5 to 0.8 mm. long.

In *M. exalbescens* the dried stems very strongly tend to become white (though not always); in *M. spicatum* the old herbarium specimens still retain a fulvous or olivaceous tone in the stems.

M. verticillatum L., var. **pectinatum** Wallr.—Locally common in the inlet on the west end of Pontoosuc Lake, Pittsfield.

PROSERPINACA. MERMAID WEED.

P. palustris L. MERMAID WEED.—Borders of ponds or shallow water in slow streams; occasional. Cheshire; Lenox; Big Pond, Otis; Egremont (Walters); Sheffield.

ARALIACEAE. GINSENG FAMILY.

ARALIA.

A. hispida Vent. BRISTLY SARSAPARILLA.—Rocky summits and hillside clearings; frequent.

A. nudicaulis L. WILD SARSAPARILLA.—Woods; common.

A. racemosa L. SPIKENARD.—Rich woods; common.

PANAX. GINSENG.

P. quinquefolium L. GINSENG; SANG.—Rich woods; formerly frequent, now occasional. Williamstown; Florida; Cheshire (Winslow); Dalton (Lincoln); Pittsfield; Becket (Walters); Stockbridge; Sandisfield (Walters).

P. trifolium L. DWARF GINSENG; GROUND-NUT.—Rich woods and borders of swamps; common. Altitude 2000 feet, Savoy.

UMBELLIFERAE. PARSLEY FAMILY.

AEGOPODIUM.

A. PODAGRARIA L., f. **VARIEGATA** Hort. GOUTWEED.—The form with variegated leaves occasionally spreads from abandoned yards. Stockbridge.

ANGELICA. ANGELICA.

A. atropurpurea L. PURPLE ANGELICA.—Low ground and borders of streams; common. Altitude, 1500 feet (Windsor).

A. villosa (Walt.) BSP.—Dry woods; occasional in the southern

part of the valley. Great Barrington; New Marlboro; Mt. Washington.

CARUM. CARAWAY.

C. CARVI L. CARAWAY.— Along roadsides and about farm buildings; frequent.

CICUTA. WATER HEMLOCK.

C. bulbifera L.— Wet places; common.

C. maculata L. SPOTTED COWBANE.— Wet meadows, borders of brooks and ponds, and swamps; common.

CONIOSELINUM. HEMLOCK PARSLEY.

C. chinense (L.) BSP.— Cool swamps; occasional in the valley. Williamstown (Churchill); Lenox; West Stockbridge (Evans, Fernald, Knowlton); Stockbridge; Sheffield.

CONIUM. POISON HEMLOCK.

C. MACULATUM L. POISON HEMLOCK.— Waste ground, often about abandoned house sites; occasional. New Ashford; Hancock; West Stockbridge; New Marlboro.

CRYPTOTAENIA. HONEWORT.

(*Deringa* Hb. Fl. ed. 2.)

C. canadensis (L.) DC. HONEWORT.— Dry woods and thickets; common.

DAUCUS. CARROT.

D. CAROTA L. WILD CARROT.— Fields and roadsides; common.

HERACLEUM. COW PARSNIP.

H. lanatum Michx. COW PARSNIP.— Borders of streams, and roadsides in low ground; frequent.

HYDROCOTYLE. WATER PENNYWORT.

H. americana L.— Wet meadows, ill-drained pastures and damp open woods; common.

LEVISTICUM. LOVAGE.

L. OFFICINALE (L.) Koch. LOVAGE.—(*Hipposelinum Levisticum* Ill. Fl. ed. 2.)

Occasionally established about old house sites. Monterey; Mt. Washington (Knowlton).

OSMORHIZA. SWEET CICELY.

(*Washingtonia* Ill. Fl. ed. 2.)

O. Claytoni (Michx.) Clarke. SWEET CICELY.—Rich woods; common in the valleys. Altitude 1800 feet, Adams.

O. longistylis (Torr.) DC.—Rich woods and thickets; occasional in the valley. North Adams (Burnham); Stockbridge; West Stockbridge; Monterey; Great Barrington (Walters).

PASTINACA. PARSNIP.

P. SATIVA L.—WILD PARSNIP.—Waste places, roadsides and fields; common. The juice is poisonous to the touch.

SANICULA. BLACK SNAKEROOT.

S. gregaria Bicknell.—Damp rich woods; frequent in the valley.

S. marilandica L.—Woods and thickets; common.

S. trifoliata Bicknell.—Rich woods; frequent in the valley.

SIUM. WATER PARSNIP.

S. suave Walt.—(*S. cicutacfolium* Man. ed. 7; *vid.* Rhodora, 17: 131, 1915.)

Muddy shores; common.

ZIZIA.

Z. aurea (L.) Koch. GOLDEN ALEXANDERS.—Meadows, borders of woods and roadsides; common.

CORNACEAE. DOGWOOD FAMILY.

CORNUS. CORNEL; DOGWOOD.

C. alternifolia L. f.—Open woods, clearings and fence rows; common in the valley, occasional on the plateau.

C. Amomum Mill. KINNIKINNIK; SILKY CORNEL.— Borders of streams and swamps; common.

C. canadensis L. BUNCHBERRY; DWARF CORNEL.— (*Chamaepericlymenum canadense* Ill. Fl. ed. 2.)

Damp woods and knolls in swamps; common. Very common on The Dome, Mt. Washington, in rather dry woods.

C. circinata L'Hér. ROUND-LEAVED CORNEL.— (*C. rugosa* Ill. Fl. ed. 2.)

Rocky woods and limestone ledges; frequent in the valley.

C. florida L. FLOWERING DOGWOOD.— (*Cynoxylon floridum* Ill. Fl. ed. 2.)

Dry woods; frequent in the southern part of the valley, occasional elsewhere. North Adams (Lincoln).

C. paniculata L'Hér.— (*C. femina* Ill. Fl. ed. 2.)

Copses in dry soil; common in the valley, particularly in the southern part.

C. stolonifera Michx. RED-OSIER DOGWOOD.— Borders of streams and swamps, and low thickets; common in the valley, frequent on the plateau.

NYSSA. TUPELO; SOUR GUM.

N. sylvatica Marsh. BLACK GUM; TUPELO.— Borders of ponds in the southern part of the valley, as far north as the northern part of Great Barrington; occasional. A group of small trees grew on the dry rocky summit of Monument Mt., Great Barrington (altitude 1600 feet), until destroyed by fire.

ERICACEAE. HEATH FAMILY.

ANDROMEDA.

A. glaucophylla Link. BOG ROSEMARY.— (*A. Polifolium* Ill. Fl. ed. 2 in part.)

Bogs; frequent.

ARCTOSTAPHYLOS. BEARBERRY.

(*Uva-ursi* Ill. Fl. ed. 2.)

A. Uva-ursi (L.) Spreng., var. **coactilis** Fernald & McBride. BEARBERRY.— (*A. Uva-ursi* Man. ed. 7 in part; *vid.* *Rhodora*, 16: 212, 1911.)

Rocky ridge of West Stockbridge Mt.; a few plants in dry open woods, Egremont; frequent on exposed summits, Mt. Washington. The West Stockbridge locality was known to Dewey in 1829.

Branches invested with a dense canescent almost felt-like tomentum which is persistent, at least for several years.

CHAMAEDAPHNE. LEATHER LEAF.

C. calyculata (L.) Moench. LEATHER LEAF.—Bogs and marshy borders of ponds; frequent.

CHIMAPHILA. PIPSISSEWA.

C. maculata (L.) Pursh. SPOTTED WINTERGREEN.—Dry woods. Lenox (Lincoln); Sandisfield.

C. umbellata (L.) Nutt., var. **cisatlantica** Blake. PRINCE'S PINE; PIPSISSEWA.—(*C. umbellata* Man. ed. 7 in part; *vid.* *Rhodora*, 19: 241, 1917.)

Dry woods; common.

Differs from true *C. umbellata* in having the flowers more or less racemose.

CHIOGENES. CREEPING SNOWBERRY.

C. hispidula (L.) T. & G.—Cold swamps and cold springy banks; occasional. Savoy; Becket; Washington; Pittsfield; Stockbridge; New Marlboro.

CLETHRA. WHITE ALDER.

C. alnifolia L. SWEET PEPPERBUSH.—Shore of Symon's Pond, Sandisfield (Walters).

EPIGAEA.

E. repens L. TRAILING ARBUTUS; MAYFLOWER.—Dry woods and open hillsides; frequent on schist and quartzite, practically absent from limestone. A small patch in Great Barrington on a limestone hillside with *Kalmia latifolia*.

GAULTHERIA. WINTERGREEN.

G. procumbens L. CHECKERBERRY; WINTERGREEN.—Woods and clearings; common. On limestone, under pines, Sheffield.

GAYLUSSACIA. HUCKLEBERRY.

G. baccata (Wang.) C. Koch. BLACK HUCKLEBERRY.—Dry hillsides, clearings and rocky summits; frequent in the southern part of the valley. Occasional in swampy woods, Stockbridge.

forma **glaucocarpa** (Robinson) Mackenzie.—Rocky summits and dry slopes; frequent in the southern part of the valley.

KALMIA. LAUREL.

K. angustifolia L. SHEEP LAUREL; LAMBKILL.—Pastures, open swamps, rocky summits and rocky borders of ponds; common, especially on the upland.

K. latifolia L. MOUNTAIN LAUREL; MOUNTAIN IVY.—Hillside pastures, woods and borders of swamps; common, except in calcareous soil. One bush on a limestone ledge, Sheffield. Growing in Great Barrington on a limestone hill. Altitude 2000 feet, Savoy.

K. polifolia Wang. PALE LAUREL.—Bogs; occasional on the plateau. Savoy; Washington; Becket; New Marlboro.

LEDUM. LABRADOR TEA.

L. groenlandicum Oeder.—Borders of bogs; frequent on the plateau, rare in the valley. Pittsfield; Stockbridge; Sheffield (Mrs. W. T. Day).

LYONIA.

(*Nolisma* Ill. Fl. ed. 2.)

L. ligustrina (L.) DC. MALE BERRY.—Wet woods, upland pastures and swamps; common.

MONESES. ONE-FLOWERED PYROLA.

M. uniflora (L.) Gray. ONE-FLOWERED PYROLA.—Under pines; frequent.

MONOTROPA. INDIAN PIPE; PINESAP.

M. Hypopitys L. PINESAP. (*Hypopitys americana* Ill. Fl. ed. 2.) Dry woods; frequent. Under hemlocks at Gilder Pond, Otis (altitude 1400 feet).

M. uniflora L. INDIAN PIPE; CORPSE PLANT; GHOST FLOWER.—Rich woods; common.

PYROLA. WINTERGREEN; SHIN LEAF.

P. asarifolia Michx., var. **incarnata** (Fisch.) Fernald.— Cold shaded bog, Stockbridge.

P. chlorantha Sw.— Leaves rounded to base and apex, rather numerous (4 to 11) in a rosette (*vid.* Rhodora, **22**: 51, 1920).

Woods, often near swamps; common.

var. **paucifolia** Fernald.— (*P. chlorantha* Man. ed. 7 in part.)

Leaves mostly cuneate at base and truncate or sub-truncate at summit; somewhat flabelliform-obovate, few (1 to 7 or even wanting) in a rosette (*vid.* Rhodora, **22**: 51, 1920).

Great Barrington.

P. elliptica Nutt. Woods; common.

P. rotundifolia L., var. **americana** (Sweet) Fernald. ROUND-LEAVED SHIN LEAF.— (*P. americana* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, **22**: 122, 1920.)

Dry open woods; common in the valley, occasional on the plateau. Altitude 2000 feet, Florida.

P. secunda L.— Woods; common.

var. **obtusata** Turcz.— Cold bogs, in sphagnum; rare. Stockbridge; Sandisfield.

RHODODENDRON.

(*Azalea* Ill. Fl. ed. 2 in part.)

R. canescens (Michx.) G. Don. PINK AZALEA.— (*A. canescens* Ill. Fl. ed. 2.)

Woods, upland pastures and swamps; common.

R. maximum L. GREAT LAUREL; ROSE BAY.— Swamps. Williamstown (Oakes); Washington (altitude 1750 feet); Richmond.

The Richmond station has been destroyed by gardeners from the Lenox estates who have dug up the plants. Nothing is known of the Williamstown station excepting a sheet in the herbarium of the Boston Soc. Nat. Hist. labelled "Williamstown, Oakes."

R. nudiflorum (L.) Torr. PINK AZALEA.— (*A. nudiflora* Ill. Fl. ed. 2.)

Swamp, Sheffield; Mt. Washington (Churchill).

VACCINIUM. BLUEBERRY; CRANBERRY.

V. atrococcum (Gray) Heller. BLACK HIGH BLUEBERRY.— Swamps and upland pastures; frequent, especially on the plateau.

On gravelly hills near the Housatonic River in Pittsfield, where glacial drift overlies the limestone.

V. canadense Kalm.—Swamps and upland woods; common on Greylock and on the plateau as far south as Washington and Becket. Occurs also on The Dome, Sheffield, and on the adjoining mountain mass. A specimen collected by Churchill in a bog in Lanesboro has practically glabrous leaves. Lowest altitude 1150 feet, swamp on the divide between Pittsfield and Cheshire.

V. corymbosum L. HIGH-BUSH BLUEBERRY.—Common in hillside pastures on the plateau; frequent in the valley in swamps and on the borders of ponds, absent from calcareous soil, except where glacial drift overlies thickly the limestone.

var. **amoenum** (Ait.) Gray.—Savoy (altitude 2000 feet); woods, Mt. Washington (Churchill).

var. **pallidum** (Ait.) Gray.—With the type; occasional. Lenox; Stockbridge; New Marlboro; Great Barrington; West Stockbridge (Evans, Fernald and Knowlton).

V. macrocarpon Ait. CRANBERRY.—(*Oxycoccus macrocarpus* Ill. Fl. ed. 2.)

Bogs; frequent. Occasional on wet roadsides on the plateau.

V. Oxycoccus L. SMALL CRANBERRY.—(*Oxycoccus Oxycoccus* Ill. Fl. ed. 2.)

Bogs; occasional on the plateau. Savoy; Becket; New Marlboro (Walters); Sandisfield.

var. **ovalifolium** Michx.—(var. *intermedium* Man. ed. 7; *vid.* Rhodora, 11: 54, 1909.)

Peat bog, Sheffield.

V. pennsylvanicum Lam. LOW BLUEBERRY.—(*V. angustifolium* Ill. Fl. ed. 2.)

Open woods and pastures, rocky summits; common except in calcareous soil. Occasional on limestone cobbles and in calcareous meadows.

var. **myrtilloides** (Michx.) Fernald. — Leaves and young twigs pilose; leaves with bristle-tipped teeth. Distinguished from *V. canadense* by the bristle-tipped teeth of the leaves and their lustrous appearance (*vid.* Rhodora, 10: 148, 1908).

Hillside pasture, Florida.

var. **nigrum** Wood.—(*V. nigrum* Ill. Fl. ed. 2.)

With the type; frequent.

V. stamineum L. DEERBERRY.— (*Polycodium stamineum* Ill. Fl. ed. 2.)

Dry woods; occasional. Mt. Greylock; Stockbridge; Great Barrington; Egremont; Sheffield¹

V. vacillans Kalm.— Dry woods, rocky hillsides and open summits; frequent in the southern part of the valley.

PRIMULACEAE. PRIMROSE FAMILY.

LYSIMACHIA. LOOSESTRIFE.

L. NUMMULARIA L. MONEYWORT.— Wet meadows, roadside banks and ditches; frequent.

× **L. producta** (Gray) Fernald.— A hybrid between *L. quadrifolia* and *L. terrestris*. Edge of wet woods, Sandisfield.

L. quadrifolia L.— Woods; common.

L. terrestris (L.) BSP.— Wet woods and swamps; common.

L. thyrsoiflora L.— (*Naumburgia thyrsoiflora* Ill. Fl. ed. 2.)
Cold swamps; common.

L. VULGARIS L.— Escaped from cultivation in a thicket on the banks of the Housatonic River, Great Barrington (Walters).

STEIRONEMA.

S. ciliatum (L.) Raf.— Borders of woods, low ground and roadside thickets; common. A form with crowded flowers on short pedicels from Sandisfield.

TRIENTALIS. CHICKWEED WINTERGREEN.

T. borealis Raf. CHICKWEED WINTERGREEN.— (*T. americana* Man. ed. 7; *vid.* *Rhodora*, 11: 236, 1909.)

Woods; common.

OLEACEAE. OLIVE FAMILY.

FRAXINUS. ASH.

F. americana L. WHITE ASH.— Rich woods; common. Summit of Greylock.

forma **iodocarpa** Fernald.— Occasional with the type, from which it differs in having reddish-purple keys (*vid.* *Rhodora*, 14: 192, 1912).

F. nigra Marsh. BLACK ASH.—Swamps and borders of streams; common.

F. pennsylvanica Marsh. RED ASH.—Occasional along the Housatonic River in Sheffield.

var. **lanceolata** (Borkh.) Sarg. GREEN ASH—Williamstown (Churchill).

LIGUSTRUM. PRIVET.

L. VULGARE L. PRIVET.—On a limestone ridge, Williamstown.

SYRINGA. LILAC.

S. VULGARIS L. COMMON LILAC.—Persisting and spreading about old house sites; occasional.

GENTIANACEAE. GENTIAN FAMILY.

BARTONIA.

B. virginica (L.) BSP.—Mossy knolls in upland pasture, Great Barrington.

GENTIANA. GENTIAN.

G. Andrewsii Griseb. CLOSED GENTIAN.—(*Dasystephana Andrewsii* Ill. Fl. ed. 2.)

Moist woods and low ground; occasional in the valley. North Adams (Churchill); Alford; Sheffield (Churchill).

Corolla with nearly truncate summit; the firm true lobes nearly obsolete, narrowed at the summit; the broader intervening thin prolongations of the membranous bands forming a fimbriate-dentate border.

forma **albiflora** Britton — Low shaded ground, Sheffield.

G. clausa Raf. CLOSED GENTIAN. —(*G. Andrewsii* Man. ed. 7 and Ill. Fl. ed. 2 in part; *vid.* *Rhodora*, 19: 118, 1917.)

Moist woods and low ground, common.

Corolla with the broad rounded lobes 2 to 8 mm. long; as broad or broader than the intervening 2- to 3-cleft appendages.

G. crinita Froel. FRINGED GENTIAN. Wet meadows, hillside pastures and borders of swamps, common in the valley.

G. quinquefolia L. Upland pastures, open hillsides and shaded banks; frequent in the valley. A specimen from Sheffield 7.5 dm. tall.

HYDROPHYLLACEAE. WATERLEAF FAMILY.

HYDROPHYLLUM. WATERLEAF.

H. canadense L.— Borders of mountain brooks at the base of Mt. Greylock, Williamstown; Cheshire (Winslow).

H. virginianum L.— Rich woods; common. Valley of the Deerfield River, Florida; altitude 2000 feet, Berry Mt., Hancock.

BORAGINACEAE. BORAGE FAMILY.

CYNOGLOSSUM. HOUND'S TONGUE.

C. boreale Fernald.— Clearings and open woods; occasional. Stockbridge; Great Barrington.

C. OFFICINALE L. COMMON HOUND'S TONGUE.— Pastures; occasional.

ECHIUM. VIPER'S BUGLOSS.

E. VULGARE L. BLUE-WEED.— Dry gravelly soil, open hillsides, along railroad tracks and stony flood-plains; locally common in the western part of the valley and in southern New Marlboro. Occasional on the flood-plain of the Deerfield River, Florida. According to Bascom (Berkshire Hist. and Sci. Soc., 3: 307, 1899) *Echium vulgare* first appeared in the County in 1849.

forma **ALBIFLORUM**, f. nov.— Corollis albis. Flowers white.

With the type, Egremont. Type specimen in the herbarium of the N. E. B. C. collected on the stony flood-plain of Green River, Egremont, July 15, 1920 (Hoffmann).

LAPPULA. STICKSEED.

L. ECHINATA Gilibert.— (*L. Lappula* Ill. Fl. ed. 2.)

Railroad track, Pittsfield (Churchill); adventive in chicken-yard, Stockbridge.

L. virginiana (L.) Greene. STICKSEED; BEGGAR'S LICE.— Open woods, thickets and rich soil along streams; frequent in the valley.

LITHOSPERMUM. GROMWELL.

L. ARVENSE L.— Adventive in waste ground, Great Barrington.

L. OFFICINALE L.— Open hillsides and roadside thickets; occasional

in the valley. Williamstown; New Ashford (Walters); Stockbridge; West Stockbridge; Egremont; Great Barrington (Schweinfurth); Sheffield.

MYOSOTIS. FORGET-ME-NOT.

M. laxa Lehm. WILD FORGET-ME-NOT.— Borders of ponds and low ground; occasional in the southern part of the valley. Monterey; New Marlboro; Egremont (Walters); Great Barrington (Walters).

M. scorpioides L. GARDEN FORGET-ME-NOT.— Naturalized in brooks, swampy woods, and in the back-waters of rivers; frequent.

SYMPHYTUM. COMFREY.

S. ASPERUM Lepechin.— (*S. asperinum* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, 18: 23, 1916.)

Established about old house, Stockbridge; roadside, Sheffield (Walters).

S. OFFICINALE L. COMMON COMFREY.— Moist soil, West Stockbridge (Evans, Fernald and Knowlton).

VERBENACEAE. VERVAIN FAMILY.

VERBENA. VERVAIN.

V. angustifolia Michx.— Sandy soil on limestone hills; occasional in Egremont and Sheffield.

V. bracteosa Michx.— Adventive in waste ground near railroad station, Pittsfield.

V. hastata L. BLUE VERVAIN.— Low ground, and dry fields; common.

V. urticaefolia L. WHITE VERVAIN.— Roadsides and waste ground, in dry or moist soil; frequent.

LABIATAE. MINT FAMILY.

AGASTACHE. GIANT HYSSOP.

(*Lophanthus* Ill. Fl. ed. 2.)

A. nepetoides (L.) Ktze.— Railroad embankment, Williamstown (Churchill).

A. scrophulariaefolia (Willd.) Ktze.— Borders of woods and

NEPETA. CATNIP.

N. CATARIA L. CATNIP.—Waste places about farm buildings, roadsides and clearings; common.

N. HEDERACEA (L.) Trevisan. GILL-OVER-THE-GROUND.—(*Glechoma hederacea* Ill. Fl. ed. 2.)

Moist ground along roadsides and about buildings; frequent. Occasionally in moist woods.

ORIGANUM. WILD MARJORAM.

O. VULGARE L. WILD MARJORAM.—Locally established on limestone hillsides in the valley. Williamstown; North Adams; Stockbridge; West Stockbridge; New Marlboro; Egremont.

PHYSOSTEGIA. FALSE DRAGON HEAD.

(*Dracocephalum* Ill. Fl. ed. 2.)

P. VIRGINIANA (L.) Benth. FALSE DRAGON HEAD.—Occasionally established along roadsides; Pittsfield (Lincoln); West Stockbridge.

PRUNELLA. SELF HEAL.

P. VULGARIS L. SELF HEAL; HEAL ALL.—Lawn, Pittsfield.
var. **lanceolata** (Barton) Fernald.—(*P. vulgaris* Man. ed. 7 in part; *vid.* *Rhodora*, **15**: 182, 1913.)

Fields, meadows, open places in woods, lawns and roadsides; common. Summit of Greylock.

forma **candida** Fernald.—(*Vid.* *Rhodora*, **15**: 184, 1913.)

Savoy; Stockbridge; Sheffield (Walters).

forma **iodocalyx** Fernald.—Riverbank, North Adams (Fernald and Long).

Professor Fernald has shown (*Rhodora*, **15**: 182, 1913) that the common *Prunella* in New England differs from the European *P. vulgaris* in the character of the principal cauline leaves (the median ones). In the European plant these leaves are ovate or ovate-oblong, rounded at the base, averaging one-half as broad as long. This plant is found occasionally in lawns. In the common *Prunella* of the fields and roadsides the principal cauline leaves are lanceolate to oblong, gradually narrowed or cuneate at base, averaging one-third as broad as long.

PYCNANTHEMUM. MOUNTAIN MINT.*(Koellia* III. Fl. ed. 2.)

P. flexuosum (Walt.) BSP.— Dry fields and low meadows; occasional in the southern part of the valley. Stockbridge; Sandisfield (Walters); Sheffield.

P. muticum (Michx.) Pers.— Lanesboro (Churchill); Great Barrington; Sandisfield (Walters).

P. virginianum (L.) Durand & Jackson.— Dry fields; frequent in the valley, and in Mt. Washington. Specimens from Lanesboro (Churchill) and Sheffield have pubescent stems.

SALVIA. SAGE.

^{*} **S. sylvestris** L.— Adventive on a dry hillside, Sheffield. This is the third station recorded for the United States (*vid.* *Rhodora*, **19**: 39, 1917).

SATUREJA. SAVORY.*(Clinopodium* III. Fl. ed. 2.)

S. acinos (L.) Scheele.— Dry bank, Williamstown (Churchill); field, Sheffield (Mrs. O. P. Phelps).

S. vulgaris (L.) Fritsch. **BASIL.**— Dry open woods and thickets; frequent in the valley, rare on the plateau (Sandisfield).

SCUTELLARIA. SKULLCAP.

S. galericulata L.— Wet meadows and swamps; common.

S. lateriflora L. **MAD-DOG SKULLCAP.**— Wet meadows, swamps and borders of streams; common.

STACHYS. HEDGE NETTLE.

S. palustris L. **WOUNDWORT.**— Roadsides in poor wet soil; occasional. Williamstown (Churchill); Stockbridge; West Stockbridge; Sheffield.

var. **homotricha** Fernald. Dry field, West Stockbridge.

TEUCRIUM. GERMANDER.

T. botrys L.— Dry soil in pastures; occasional in the southern part of the valley. Great Barrington (Walters); Sheffield (Walters).

CHELONE. TURTLEHEAD; SNAKEHEAD.

C. glabra L. TURTLEHEAD; SNAKEHEAD.—Swamps and wet meadows; common. Summit of Greylock, 3500 feet.

C. LYONI Pursh.—Established for several rods along a brook, Stockbridge.

GRATIOLA. HEDGE HYSSOP.

G. virginiana L.—Roadside ditches and muddy shores; occasional in the valley. Becket (Walters); Stockbridge; Great Barrington; Sheffield.

ILYSANTHES. FALSE PIMPERNEL.

I. dubia (L.) Barnhart.—Wet places in woods and muddy shores; frequent.

LINARIA. TOADFLAX.

L. canadensis (L.) Dumont. BLUE TOADFLAX.—Sandy roadsides and fields; frequent in the southern part of the valley.

L. MINOR (L.) Desf.—(*Chaenorhinum minus* Ill. Fl. ed. 2.)

Along railroad, West Pittsfield (Churchill).

L. VULGARIS Hill. BUTTER AND EGGS.—(*L. Linaria* Ill. Fl. ed. 2.)
Fields and roadsides; common.

MELAMPYRUM. COW WHEAT.

M. lineare Lam. COW WHEAT.—Dry woods; common in the southern part of the valley.

MIMULUS. MONKEY FLOWER.

M. ringens L. MONKEY FLOWER.—Wet places; common.

PEDICULARIS. LOUSEWORT.

P. canadensis L. LOUSEWORT; WOOD BETONY.—Open woods and grassy banks; common.

forma **praeclara** A. H. Moore.—*Vid.* *Rhodora*, 16: 128 (1914).
Common.

PENTSTEMON. BEARD-TONGUE.

P. hirsutus (L.) Willd.—Dry fields and rocky hills; frequent in the southern part of the valley.

P. LAEVIGATUS Ait.— (*P. Penstemon* Ill. Fl. ed. 2.)

Fields; occasional in the southern part of the valley. Lee; New Marlboro; Sheffield. Probably introduced with grass seed.

var. *DIGITALIS* (Sweet) Gray.— (*P. Digitalis* Ill. Fl. ed. 2.)

Fields; occasional in the southern part of the valley. Stockbridge; Great Barrington; Egremont; Sheffield.

SCROPHULARIA. FIGWORT.

S. leporella Bicknell.— Fields and roadsides; frequent.

S. marilandica L.— Rich shaded soil; frequent.

VERBASCUM. MULLEIN.

V. BLATTARIA L. MOTH MULLEIN.— Old fields; rare. New Ashford; Pittsfield; Great Barrington.

V. THAPSUS L. MULLEIN.— Hillsides, clearings and old fields; common.

VERONICA. SPEEDWELL.

V. americana Schwein. AMERICAN BROOKLIME.— Brooks, ditches and swampy places; common.

V. Anagallis-aquatica L. WATER SPEEDWELL.— Brooks; rare. Stockbridge Bowl, Stockbridge; Sheffield.

The material of *V. Anagallis-aquatica* from Berkshire has been determined by Dr. F. W. Pennell as *V. catenata* Pennell, var. *glandulosa* Farwell.

V. ARVENSIS L. CORN SPEEDWELL.— Dry hillsides; frequent in the valley.

V. officinalis L. COMMON SPEEDWELL.— Hillsides and open woods; common.

V. peregrina L. PURSLANE SPEEDWELL.— Cultivated ground; occasional. Pittsfield; Stockbridge; West Stockbridge; Great Barrington (Walters); Sandisfield.

V. scutellata L. MARSH SPEEDWELL.— Swamps and wet places; common.

V. SERPYLLIFOLIA L.— Damp grassy ground; common.

V. TEUCRIUM L.— Roadside escape; occasional. Williamstown; New Marlboro; Egremont; Mt. Washington (Churchill).

V. TOURNEFORTH L.— Waste ground; occasional. Lanesboro; Pittsfield.

G. MOLLUGO L.—Roadsides and fields; common from West Pittsfield to Richmond, occasional elsewhere in the valley. Williamstown; Adams; Cheshire; Stockbridge; Tyringham.

G. palustre L.—Wet meadows and shores of ponds; common.

G. pilosum Ait.—Dry woods; rare. Sheffield.

G. tinctorium L.—Alluvial banks. Sheffield; Great Barrington (Walters).

G. trifidum L.—Swamps and wet shores; common.

G. triflorum Michx. SWEET-SCENTED BEDSTRAW.—Rich woods; common.

G. VERUM L. YELLOW BEDSTRAW.—Roadsides and meadows; occasional. New Ashford; Lenox (Lincoln); Stockbridge; Great Barrington; Sheffield.

HOUSTONIA.

H. caerulea L. BLUETS; INNOCENCE.—Pastures, meadows, roadsides and along woodroads; common. Occasionally in open moist pine woods, Stockbridge.

H. longifolia Gaertn.—Dry hills and rocky ridges in the western part of the valley; local. West Stockbridge; Great Barrington; Sheffield (Bailey).

MITCHELLA. PARTRIDGE BERRY.

M. repens L. PARTRIDGE BERRY.—Woods; common. Occasionally on limestone but under pines.

CAPRIFOLIACEAE. HONEYSUCKLE FAMILY.

DIERVILLA. BUSH HONEYSUCKLE.

D. Lonicera Mill. BUSH HONEYSUCKLE.—(*D. Diervilla* Ill. Fl. ed. 2.)

Rocky woods and dry banks; common. Not noted on calcareous soil.

LINNAEA. TWIN-FLOWER.

L. borealis L., var. **americana** (Forbes) Rehder. TWIN-FLOWER.—(*L. americana* Ill. Fl. ed. 2.)

Moist mossy woods; occasional on the plateau. Savoy; Washington; Harmon Pond, New Marlboro; Mt. Washington (Mrs. W. T. Day).

LONICERA. HONEYSUCKLE.

L. caerulea L., var. **calvescens** Fernald & Wiegand. MOUNTAIN FLY HONEYSUCKLE.— (*L. caerulea*, var. *villosa* Man. ed. 7 in part.) Swamps; occasional. Lanesboro; Pittsfield (Knowlton); Stockbridge.

Leaves only sparingly pilose or glabrate; the new twigs glabrous or merely puberulent or sparingly pilose, becoming glabrate (*vid.* Rhodora, 12: 210, 1910).

var. **villosa** (Michx.) T. & G.— Bogs and wet hillsides; common, especially on the plateau.

L. canadensis Marsh. AMERICAN FLY HONEYSUCKLE.— Woods; frequent.

L. dioica L.— Rocky woods and swamps; frequent. Common in thickets in the sand-plain, Sheffield.

L. hirsuta Eat.— Bullock's Ledge, Williamstown.

This species was discovered "on a rocky hill, two miles west of the college" in Williamstown in 1817 by a pupil of Amos Eaton and described in the second edition of Eaton's Manual of Botany in 1818. The species was later found in Vermont, Pennsylvania and as far northwest as Manitoba, but no additional stations were found in Massachusetts, nor were botanists able to rediscover Eaton's station. In 1920 the writer had the good fortune to find the plant growing in some abundance at the above locality, probably the type station.

L. SEMPERVIRENS L. TRUMPET HONEYSUCKLE.— Escaped on rocky hillside, Great Barrington.

L. TATARICA L. TARTARIAN HONEYSUCKLE.— Occasional as an escape in thickets, Stockbridge.

L. XYLOSTEMUM L. EUROPEAN FLY HONEYSUCKLE.— Locally frequent as an escape in thickets about Stockbridge Bowl, Stockbridge.

SAMBUCUS. ELDER.

S. canadensis L. COMMON ELDER; ELDERBERRY.— Low ground; common.

S. racemosa L. RED-BERRIED ELDER.— Rocky woods, banks and clearings; common.

SYMPHORICARPUS. SNOWBERRY.

S. albus (L.) Blake. (*S. racemosus* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* Rhodora, 16: 118, 1911.)

Dry calcareous hill, Sheffield. The most eastern known station.
var. *LAEVIGATUS* (Fernald) Blake.— (*S. racemosus* Ill. Fl. ed. 2 in part; *vid.* *Rhodora*, 16: 119, 1914.)

Roadside banks; occasionally escaping from cultivation.

TRIOSTEUM. HORSE GENTIAN.

T. aurantiacum Bicknell.— Rocky woods and dry thickets; frequent in the southern part of the valley.

VIBURNUM. VIBURNUM.

V. acerifolium L. MAPLE-LEAVED VIBURNUM.— Woods; common.

V. affine Bush.— (*V. pubescens* Man. ed. 7 and Ill. Fl. ed. 2; *vid.* *Rhodora*, 20: 14, 1918.)

Rocky woods, on schist, West Stockbridge Mt., West Stockbridge. The only station known in Massachusetts.

V. alnifolium Marsh. HOBBLE-BUSH.— Cool woods and swamps; common. Occasionally growing as a small tree.

V. cassinoides L.— Swamps and low thickets; common.

V. dentatum L. ARROW-WOOD.— Borders of streams and marshes, wet hillsides; common, especially on the plateau.

V. LANTANA L. WAYFARING TREE.— Occasionally escaping from cultivation to open woods, Stockbridge.

V. Lentago L. SWEET VIBURNUM; SHEEPBERRY; NANNYBERRY.— Thickets, moist woods and banks of streams; frequent.

var. **sphaerocarpum** Gray.— Occasional with the type, Pittsfield.

V. opulus L., var. **americanum** (Mill.) Ait. HIGH-BUSH CRANBERRY.— Swamps and cold woods; frequent.

VALERIANACEAE. VALERIAN FAMILY.

VALERIANA. VALERIAN.

V. officinalis L. GARDEN VALERIAN.— Grassy roadside, Lanesboro (Churchill).

DIPSACACEAE. TEASEL FAMILY.

DIPSACUS. TEASEL.

D. sylvestris Huds. WILD TEASEL.— Established in a few small stations in Sheffield.

SCABIOSA.

S. ochroleuca L.— Adventive in gravel pit, Pittsfield (Lincoln).

SUCCISA. DEVIL'S BIT.

S. australis (Wulp.) Reichenb.— Established in low ground in Pittsfield. First reported in 1892. A small station in low ground in Lenox.

CUCURBITACEAE. GOURD FAMILY.

CUCUMIS. GOURD; SQUASH; PUMPKIN.

C. melo L. MUSKMELON.— Occasional on dump heaps.

C. sativus L. CUCUMBER.— Occasional on dump heaps.

CUCURBITA.

C. maxima Duchesne. SQUASH.— Occasional on dump heaps.

C. moschata Duchesne. CROOKNECK SQUASH.— Occasional in waste ground.

ECHINOCYSTIS. WILD BALSAM-APPLE.

(*Micrampelis* Ill. Fl. ed. 2.)

E. lobata (Michx.) T. & G. WILD CUCUMBER.— Riverbanks and waste places; common.

SICYOS. ONE-SEEDED BUR CUCUMBER.

S. angulatus L. ONE-SEEDED BUR CUCUMBER.— Riverbanks and waste places; frequent.

CAMPANULACEAE. BLUEBELL FAMILY.

CAMPANULA. BELFLOWER.

C. aparinoides Pursh. MARSH BELFLOWER.— Marshes, wet meadows and borders of brooks and ponds; common.

C. rapunculoides L. BELFLOWER.— Roadsides and banks; frequent.

var. *ucranica* (Bess.) C. Koch.— Occasional. Lanesboro (Churchill).

C. rotundifolia L. HAREBELL; BLUEBELL.— Rocky ledges and

meadows; frequent on and about The Dome, Mt. Washington, on West Stockbridge Mt., along the flood-plain of the Deerfield River, Florida. Occasional elsewhere. Stockbridge; New Marlboro. There seems to be no explanation for the extremely local distribution of this species. In the southwestern part of Sheffield and the southern part of New Marlboro it grows freely on outcrops of limestone and of schist, and in meadows, but in no other township is it even frequent.

forma **alba** Rand & Redfield.—Limestone outcrop with the type, Sheffield. Flowers white. (*Id.* Flora of Mt. Desert, p. 124.)

C. uliginosa Rydb.—Marshes and banks of streams; occasional. Washington (Johnson); Lenox; Stockbridge; Egremont; Sheffield.

SPECULARIA. VENUS'S LOOKING-GLASS.

S. perfoliata (L.) DC. VENUS'S LOOKING-GLASS.—Dry hillsides and rocky woods; frequent in the southern part of the valley.

LOBELIACEAE. LOBELIA FAMILY.

LOBELIA.

L. cardinalis L. CARDINAL-FLOWER.—Borders of streams and ponds; frequent in the valley.

L. Dortmannia L. WATER LOBELIA.—Shallow water, borders of ponds; frequent on the plateau.

L. inflata L. INDIAN TOBACCO.—Clearings, hillsides, dry roadsides and fields, borders of ponds and streams; common.

L. Kalmii L.—Wet meadows, ditches, and shores of lakes; frequent in the valley, always in calcareous soil.

L. siphilitica L. GREAT BLUE LOBELIA.—Low ground; rare. In three localities in Sheffield, near the Connecticut Line (Walters).

L. spicata Lam.—Grassy fields; common.

forma **albiflora**, f. nov.—Corollis albis. Flowers white. Occasional with the type, Stockbridge.

The type in Coll. N. E. B. C. collected in a field in Stockbridge, Mass., July 16, 1916 (R. Hoffmann).

COMPOSITAE. COMPOSITE FAMILY.

ACHILLEA. YARROW.

A. Millefolium L. COMMON YARROW.—Roadsides and dry fields; common. The form with red flowers occasionally occurs about houses, appearing as if an escape.

AMBROSIA. RAGWEED.

A. artemisiifolia L. RAGWEED; ROMAN WORMWOOD.— (*A. clatior* Ill. Fl. ed. 2.)

Roadsides, waste places and cultivated ground; common.

A. TRIFIDA L.— Occasionally adventive. Flood-plain of the Hoosac River, Williamstown; chicken-yard, Stockbridge.

ANAPHALIS. EVERLASTING.

A. margaritacea (L.) B. & H. PEARLY EVERLASTING.— Dry open woods, upland pastures and clearings; common.

ANTENNARIA. EVERLASTING; LADIES' TOBACCO.

A. Brainerdii Fernald.— Bank of Deerfield River, Florida.

A. canadensis Greene.— Wooded banks; frequent.

A form with purplish stem, with petaloid bracts, from Savoy.

A. fallax Greene.— Rich open woods; frequent in the valley.

A. neglecta Greene.— Fields and open woods; common, especially on the plateau. Altitude 2300 ft., Florida. Plants collected from Great Barrington approach var. *simplex* Peck.

A. neodioica Greene.— Open woods, often on thin soil over rocks; common.

var. **grandis** Fernald.— Open woods; frequent.

A. occidentalis Greene.— Rich open woods and grassy banks; frequent.

A. Parlinii Fernald.— Rich open woods and grassy banks; frequent in the valley.

A. petaloidea Fernald.— Rocky woods; frequent in the valley.

A. plantaginifolia (L.) Richards.— Dry woods; frequent in the southern part of the valley. Occasional as far north as Cheshire (Cushman).

ANTHEMIS. CHAMOMILE.

A. COTULA L. MAY-WEED.— Roadsides and waste places; common.

ARCTIUM. BUIDOCK.

Key to Arctium.

a. Heads corymbose, long-peduncled; leaf-blades round-ovate, obtuse; petioles strongly angular, deeply furrowed.

Petioles solid; heads very large and broad, 3 to 4.5 cm. in diameter; involucre glabrous, green *A. Lappa.*

- Petioles hollow; heads smaller, 2 to 2.7 cm. broad; involucre more or less arachnoid.....*A. tomentosum*.
- a'. Heads racemose or sub-racemose, rarely long-peduncled; leaf-blades ovate-oblong, usually less obtuse; petioles slightly angular.
- Heads medium, 2.5 to 3.5 cm. broad; the middle and inner bracts of the involucre equalling or exceeding the corollas; achenes dark brown.
A. nemorosum.
- Heads small, 1.5 to 2.5 cm. broad; the middle and inner bracts of the involucre conspicuously shorter than the corollas; achenes gray or ashy-brown.....*A. minus*.

A. LAPPA L. GREAT BURDOCK.—Roadsides and waste places; rare. Williamstown; Sheffield (Walters).

A. MINUS (Hill) Bernh. COMMON BURDOCK.—(*A. minus* Man. ed. 7; *vid.* Rhodora, 12: 47, 1910.)

Waste ground and roadsides; common.

A. NEMOROSUM Lejeune.—Waste ground, Stockbridge. This species is very variable. The specimen from Stockbridge is treated as form **c** by Fernald & Wiegand (Rhodora, 12: 45, 1910).

A. TOMENTOSUM Mill.—Frequent in waste ground, Lee. (*Vid.* Rhodora, 12: 45, 1910.)

ARTEMISIA. WORMWOOD.

A. ABSINTHIUM L. WORMWOOD.—Roadside near Greenwater Pond, Lee; waste ground, Sheffield.

A. BIENNIS Willd.—Waste ground, Pittsfield; Lee.

A. LUDOVICIANA Nutt.—Railroad track, Lee.

A. VULGARIS L. COMMON MUGWORT.—Roadsides and waste ground; occasional. Cheshire; West Stockbridge; Great Barrington; Lanesboro (Walters); Lenox.

ASTER. ASTER.

A. acuminatus Michx.—Cool rich woods; common. Summit of Greylock. The monstrous form with chaffy paleae instead of flowers has been found at Otis and Sandisfield (Walters).

A. cordifolius L.—Borders of woods and thickets, roadsides and shaded yards; common, especially in the valley. A form from Egremont with flowers almost pure white when fresh, drying bluish-white. Many specimens which have been referred to this species have the upper surface of the leaves smooth, almost greasy to the touch.

var. **Furbishiae** Fernald.— Shaded bank of brook, Lee.

var. **polycephalus** Porter.— With the type; frequent.

A. divaricatus L.— Open woods; common. Almost to the summit of Greylock, 3400 feet.

A. dumosus L.— Sheffield (Walters). Specimen examined but since lost.

A. ericoides L.— Dry open soil; common in the southern part of the valley, frequent elsewhere in the valley.

Specimens from Stockbridge approach var. *Priuglei* Gray.

var. **villosus** T. & G.— With the type; occasional.

A. foliaceus Lindl.— Wet roadside bank, Sandisfield.

“The chief characters separating [this species] from *A. novi-belgii* and *A. longifolius* are its very few large heads (involucre, excluding the enlarged outer bracts, 7–9 mm. high) chiefly solitary on elongate pedicels which are naked or have 1 or 2 large dilated foliaceous bracts, and the essentially equal herbaceous or foliaceous involueral bracts” (*vid.* *Rhodora*, 17: 13, 1915).

A. laevis L.— Dry soil, borders of woods and roadside thickets; common in the valley.

var. **amplifolius** Porter.— With the type, Stockbridge.

A. lateriflorus (L.) Britton.— Thickets in low ground; common in the valley.

var. **bifrons** (Gray) Fernald.— Low ground, Sheffield.

var. **hirsuticaulis** (Lindl.) Porter.— (*A. hirsuticaulis* M. Fl. ed. 2.) Swampy woods; frequent in the valley. Occasionally in dry thickets, Sheffield.

var. **thyrsoides** (Gray) Sheldon.— Thickets in low ground; frequent.

A. linariifolius L.— (*Ionactis linariifolius* M. Fl. ed. 2.)

Dry open soil; frequent in the southern part of the valley.

A. longifolius Lam.— Low shaded ground, borders of swamps; frequent in the valley. Flood-plain of the Deerfield River, Florida.

var. **villicaulis** Gray.— Low ground; frequent in the valley. Often associated with the type.

A. Lowrieanus Porter, var. **lanceolatus** Porter.— Sheffield (Walters). Determined by Professor Fernald.

A. macrophyllus L.— Clearings and open woods, roadside thickets; common.

var. **excelsior** Burgess.— Clearings; occasional. Great Barrington.

var. **ianthinus** (Burgess) Fernald.— (*A. ianthinus* Ill. Fl. ed. 2.)
Open woods; occasional. Florida; Stockbridge; West Stockbridge; New Marlboro; Alford; Mt. Washington.

A. multiflorus Ait.— Dry soil; occasional. Williamstown; Lanesboro (Walters); New Marlboro (Walters); Egremont; Sheffield.

var. **exiguus** Fernald.— Dry hillside, West Stockbridge.

A. novae-angliae L. NEW ENGLAND ASTER.— Thickets in low ground and ill-drained hillsides; common in the valley, rare on the plateau. October Mt., Washington (altitude 1850 feet).

forma **roseus** (Desf.), comb. nov.— With the type; occasional. Stockbridge; West Stockbridge.

A. novi-belgii L.— Common along the flood-plain of the Deerfield River, Florida.

A. paniculatus Lam.— Roadside thickets in low ground and wet meadows; common in the valley, infrequent on the plateau (Washington, altitude 1850 feet).

var. **acutidens** Burgess.— Low ground; occasional. Lenox; Stockbridge; Alford.

var. **bellidiflorus** (Willd.) Burgess.— With the type; frequent.

var. **simplex** (Willd.) Burgess.— With the type; frequent.

var. **cinerascens** Fernald.— Open woods, New Marlboro (Walters). Specimen in F. Walters' herbarium.

A. polyphyllus Willd.— (*A. Faxonii* Ill. Fl. ed. 2.)

Dry banks and low meadows in calcareous soil; occasional. Stockbridge; West Stockbridge.

A. prenanthoides Muhl.— Banks of streams and low ground; locally common along the Green River, Williamstown, the Green River, Egremont, and in wet fields in the northern part of Lenox. Frequent elsewhere in the valley.

A. puniceus L.— Swamps, wet meadows, borders of marshes and roadside ditches; common. Summit of Greylock, 3400 feet.

var. **compactus** Fernald.— A form closely approaching this variety but not the typical eastern Massachusetts form is occasional in the valley. Pittsfield; Stockbridge; West Stockbridge; Sheffield.

var. **demissus** Lindl.— Low ground; frequent in the valley. Altitude 1450 feet, Washington.

var. **firmus** (Nees) T. & G.— Low ground; frequent.

var. **lucidulus** Gray.— Wet meadows; frequent in the valley.

The most clearly marked of the varieties of *A. panicus* and apparently distinct enough to deserve specific rank.

var. **lucidulus** Gray, forma **albiflorus**, f. nov.—Corollis albis. Flowers white. The type collected in a low meadow in Lee, Sept., 1919, now in the N. E. B. C. collection.

A. Schreberi Nees.—Dry woods and thickets; common.

A. tardifolius L.—Shady roadsides; frequent in the valley.

var. **vestitus** Fernald.—Occasional. Lee; Sandisfield (Walters); Sheffield. Two forms occur: one lax and soft-pubescent, the other stiff and harsh-pubescent.

A. Tradescanti L.—Low ground; occasional. Stockbridge; Great Barrington; Sheffield (Walters). Never in the field a very well-marked species; too near *A. paniculatus*.

A. umbellatus Mill.—(*Doellingeria umbellata* Hl. Fl. ed. 2.)

Low ground, borders of swamps and mountain streams, roadside thickets; common on the plateau and in Clarksburg, elsewhere in the valley occasional in swamps. Begins to be common at an altitude of about 1500 feet. Not noted on Greylock, rare on The Dome.

A. undulatus L.—Dry open woods and clearings; common.

A. vimineus Lam.—Thickets and roadsides in low ground; common in the valley, infrequent on the plateau.

var. **foliolosus** (Ait.) Gray.—Wet woods and low thickets; frequent in the valley.

BELLIS. DAISY.

B. PERENNIS L.—Occasionally established in lawns. Dalton; Stockbridge.

BIDENS. BUR MARIGOLD.

B. Beckii Torr. WATER MARIGOLD.—(*Megalodonta Beckii* Hl. Flora ed. 2.)

Ponds; frequent, especially in the valley.

B. cernua L. STICK-TIGHT.—Wet places; common.

var. **minima** (Huds.) DC.—Peat bog, Sandisfield.

Tiny, spatulate or oblanceolate leaves and usually solitary campanulate heads.

B. comosa (Gray) Wiegand.—(*Id.* Rhodora, 17: 25, 1919.)

River bog, Sheffield (Churchill).

B. connata Muhl. SWAMP BEGGAR-TICKS.—Swamps and low ground; common.

B. frondosa L. COMMON BEGGAR-TICKS.—Waste places, roadsides and low ground; common.

B. vulgata Greene. BEGGAR-TICKS.—Along roadsides and in damp soil; frequent.

CENTAUREA. STAR THISTLE.

C. JACEA L.—Occasionally adventive. Williamstown (Churchill); Sandisfield (Walters).

C. MACULOSA Lam.—Well established in dry fields in Sheffield. Vacant lot, Pittsfield.

C. NIGRA L., var. **RADIATA** DC. KNAPWEED.—Waste ground, Pittsfield; dry fields, Sandisfield and Sheffield (Walters).

CHRYSANTHEMUM. OX-EYE DAISY.

C. LEUCANTHEMUM L., var. **PINNATIFIDUM** Lecoq. & Lamotte. DAISY; WHITE-WEED.—Fields, meadows and wood-roads; common.

CICHORIUM. CHICORY.

C. INTYBUS L. CHICORY.—Roadsides and waste places; frequent in the valley but nowhere common.

CIRSIUM. THISTLE.

C. ARVENSE (L.) Scop. CANADA THISTLE.—Old fields, pastures, roadsides and clearings; common.

forma **ALBIFLORUM** (Rand & Redfield), n. comb.—*Vid.* Flora of Mount Desert, p. 120. Frequent.

var. **INTEGRIFOLIUM** Wimm. & Grab.—Low field, Stockbridge.

C. discolor (Muhl.) Spreng. FIELD THISTLE.—Dry banks and low open ground; frequent in the valley.

C. Hillii (Canby) Fernald.—Edge of field, Egremont (Walters).

C. LANCEOLATUM (L.) Hill. COMMON OR BULL THISTLE.—Pastures and clearings; common in the valley.

C. muticum Michx. SWAMP THISTLE.—Swamps and wet woods; common.

C. pumilum (Nutt.) Spreng. PASTURE OR BULL THISTLE.—(*C. odoratum* Ill. Fl. ed. 2.)

Pastures and open hillsides; common.

COREOPSIS.

C. TINCTORIA Nutt.—Occasionally persistent about gardens or on dumps. Pittsfield; Stockbridge.

CREPIS. HAWK'S BEARD.

C. CAPILLARIS (L.) Wallr.—Established in a meadow, Stockbridge. Probably introduced with grass seed.

ERECTITES. FIREWEED.

E. hieracifolia (L.) Raf., var. **praealta** (Raf.) Fernald.—(*E. hieracifolia* Man. ed. 7 in part; *vid.* Rhodora, 19: 27, 1917.)

Recent clearings, particularly after fires, and shaded ledges; common.

Upper leaves attenuated to base or petioled. In the type the leaves scarcely decrease in size into the inflorescence.

ERIGERON. FLEABANE.

E. annuus (L.) Pers. DAISY FLEABANE.—Old fields and waste places; common.

E. canadensis L. HORSE-WEED.—(*Lepilon canadense* Ill. Fl. ed. 2.)

Waste places, cultivated ground, old fields and dry hillsides; common.

E. philadelphicus L.—Borders of swamps and moist woods; common.

E. pulchellus Michx. ROBIN'S PLANTAIN.—Borders of woods and grassy banks; common.

E. ramosus (Walt.) BSP. DAISY FLEABANE.—Fields and roadsides; common.

var. **discoideus** (Robbins) BSP.—With the type; frequent.

var. **septentrionalis** Fernald & Wiegand.—Fields; frequent.

Stem and leaves sparingly hispidulous or nearly glabrous instead of cinereous-strigose (*vid.* Rhodora, 15: 60, 1913).

EUPATORIUM. THOROW-GATEWORT.

Key to Eupatorium purpureum, E. maculatum, and E. falcatum.

- a. Florets 9 to 15 (rarely 8 to 20); inflorescence or its divisions flat-topped; stem speckled, if not obscured by too deep purple, not glaucous
E. maculatum.

a'. Florets 5 to 7 (rarely 3 to 8); inflorescence convex; stems rarely speckled, more or less glaucous.

Stems fistulose, purple, plainly glaucous; leaves in 4's to 6's, bluntly toothed, scabrous-puberulent beneath or glabrate; florets scarcely exerted; corolla 3.5 to 4.8 mm. long, very rarely longer. *E. purpureum*.

Stems solid, green with purple nodes, faintly glaucous; leaves in 3's or 4's, very rarely in 2's or 5's, sharply toothed, villous-pubescent beneath, or glabrate; florets much exerted; corollas 5.5 to 7.5 mm. long; heads paler than in the other species. *E. falcatum*.

E. falcatum Michx.— (*E. purpureum* Man. ed. 7 in part; *vid.* *Rhodora*, 22: 68, 1920.)

Dry woods, Stockbridge, New Marlboro.

E. maculatum L. JOE-PYE WEED.— (*E. purpureum*, var. *maculatum* Man. ed. 7; *vid.* *Rhodora*, 22: 64, 1920.)

Wet meadows and borders of swamps; common.

A plant from swampy woods, Lenox, with the upper leaves 26 cm. long and about 4 cm. broad has been determined by Professor Wiegand as a shade form of this species.

E. perfoliatum L. BONESSET; THOROUGHWORT.— Low ground; common.

A form with the leaves in 3's from Sheffield (Walters).

var. **truncatum** Gray.— Damp woods, Mt. Washington; Sheffield (Walters).

E. purpureum L. JOE-PYE WEED.— Rich open woods and roadside thickets; common in the valley.

E. sessilifolium L.— Dry open woods on limestone knoll, New Marlboro.

E. urticaefolium Reichard. WHITE SNAKEROOT.— Rich woods; common. Altitude 2500 feet, Greylock.

GALINSOGA.

G. PARVIFLORA Cav.— Railroad, Cheshire (Churchill); cultivated ground, Lenox; garden weed, Sheffield. First noted in 1918.

G. ARISTULATA Bicknell.— (*G. parviflora*, var. *hispida* Man. ed. 7; *vid.* *Rhodora*, 22: 98, 1920.)

First noted in 1899 and now thoroughly established as a garden weed and in waste places in the valley. Introduced from South America.

GNAPHALIUM. CUDWEED.

G. decurrens Ives. EVERLASTING.—Dry hillsides and dry open woods; frequent in the valley.

G. polycephalum Michx. COMMON EVERLASTING.—(*G. obtusifolium* Ill. Fl. ed. 2.)

Dry open hillsides; common.

G. uliginosum L. LOW CUDWEED.—Roadsides in low ground and old fields; common.

HELENIUM. SNEEZEWEED.

H. autumnale L. SNEEZEWEED.—Banks of streams; frequent in the valley.

H. nudiflorum Nutt.—Dry bushy pasture, Great Barrington.

HELIANTHUS. SUNFLOWER.

H. annuus L. COMMON SUNFLOWER.—In waste ground; occasional.

H. decapetalus L. WILD SUNFLOWER.—Open woods, thickets and clearings; common in the valley.

H. divaricatus L. WILD SUNFLOWER.—Rocky woods, clearings and dry open soil; frequent in the valleys and on the southern Taconics.

H. giganteus L.—A small clump at the edge of a swamp, Stockbridge. Perhaps introduced.

H. strumosus L. WILD SUNFLOWER.—Dry roadside thickets, clearings and open woods; frequent in the valley.

H. tuberosus L. JERUSALEM ARTICHOKE.—Roadsides in low ground, waste ground; frequent.

HELIOPSIS. OX-EYE.

H. helianthoides (L.) Sweet.—Dry woods, Lenox.

H. scabra Dunal.—Roadside, Lenox; adventive beside trolley track, Stockbridge.

HIERACIUM. HAWKWEED.

H. atrantiacum L. ORANGE HAWKWEED; DIAHL'S PAINT-BRUSH.—Fields; common, especially on the plateau, where the plant has become a pest in mowing-fields.

H. canadense Michx.— Borders of woods and rocky shores; common.

H. FLORENTINUM All. KING DEVIL.— Adventive, Egremont (Walters).

H. paniculatum L.— Dry open woods; common in the southern part of the valley.

var. **glandulosum** Hoffmann.— (*Vid.* *Rhodora*, 19: 37, 1917.) Dry woods; occasional. Sandisfield; Stockbridge; Great Barrington. A variety based on the presence of stipitate glands on the branches of the inflorescence.

H. PILOSELLA L. MOUSE-EAR.— Established in lawn, Williamstown.

H. PRAEALTUM Gochnat, var. **DECIPIENS** Koch.— Sandy ground, Sheffield (Churchill).

H. PRATENSE Tausch. KING DEVIL.— Occasionally adventive in fields, but not yet well established anywhere. West Stockbridge; New Marlboro; Great Barrington (Walters); Sheffield. Frequent in Sheffield (Churchill, 1919).

H. scabrum Michx.— Dry woods; common.

H. venosum L. RATTLESNAKE-WEED.— Dry woods; common in the southern part of the valley.

HYPOCHAERIS. CAT'S-EAR.

H. RADICATA L.— Adventive in newly seeded grassland, Sandisfield (Walters).

INULA. ELECAMPANE.

I. HELENIUM L. ELECAMPANE.— Roadsides and pastures in low ground, borders of swamps; frequent.

KRIGIA. DWARF DANDELION.

K. virginica (L.) Willd.— Dry open soil, in sterile fields or on outcrops; frequent in the southern part of the valley.

LACTUCA. LETTUCE.

Key to Lactuca canadensis and varieties.

Vid. *Rhodora*, 22: 9, 1920.

- a. Leaves with linear-falcate, usually entire lobes; upper unlobed leaves (if any) linear or linear-lanceolate.
- b. Leaf-base sagittate or auriculate. var. *typica*.

- b'*. Leaf-base tapering, not sagittate.....f. *angustipes*.
- a'*. Leaves with broadly falcate, or obovate and obliquely truncate, entire or toothed lobes; upper leaves similar or unlobed and lanceolate or ovate-lanceolate, rarely oblanceolate or obovate, entire or rarely toothed.
 - c*. Leaf-base sagittate, clasping.....var. *latifolia*.
 - c'*. Leaf-base tapering, not sagittate.....f. *exauriculata*.
- a''*. Leaves all unlobed, lanceolate, oblong, oblanceolate or obovate, entire or denticulate, the lowest sometimes shallowly lobed.
 - d*. Cauline leaves lanceolate to ovate lanceolate, entire or rarely toothed.
 - e*. Leaf-base sagittate, clasping.....var. *integrifolia*.
 - e'*. Leaf-base not sagittate.....f. *angustata*.
 - d'*. Cauline leaves oblanceolate or obovate, usually toothed.
 - f*. Leaf-base sagittately clasping.....var. *obovata*.
 - f'*. Leaf-base tapering, not sagittate.....f. *stenopoda*.

L. canadensis L., var. **typica** Wiegand. WILD LETTUCE; HORSE-WEED.—Roadsides, thickets and low ground; frequent.

var. **typica** Wiegand, forma **angustipes** Wiegand.—Roadsides, dry woods and low ground; frequent. Often hirsute on the lower part of the stem.

var. **latifolia** O. Kuntze.—Roadsides, thickets and low ground; common.

var. **latifolia** O. Kuntze, f. **exauriculata** Wiegand.—With the type; occasional.

var. **integrifolia** (Bigel.) Gray.—Occasional, Mt. Washington.

var. **integrifolia** (Bigel.) Gray, f. **angustata** Wiegand.—Occasional; dry thicket, Stockbridge.

var. **obovata** Wiegand.—(*L. integrifolia* Mam. ed. 7.)

Cheshire (E. J. Winslow).

var. **obovata** Wiegand, f. **stenopoda** Wiegand.—A specimen transitional to var. *integrifolia*, f. *angustata* from a dry roadside thicket, New Marlboro.

The above forms have been determined by Professor Wiegand.

L. SCARIOLA L. PRICKLY LETTUCE. —Waste ground; rare. Williamstown (Churchill); Pittsfield.

var. **INTEGRATA** Gren. & Godf. —Waste ground; occasional. Florida; Cheshire; Great Barrington.

L. spicata (Lam.) Hitchc. WILD BLUE LETTUCE. —Shaded banks; common.

LAPSANA. NIPPLE-WORT.

L. COMMUNIS L.— Roadside, Lenox. A few plants only, noted in 1920; a single plant in cultivated ground, Lee (1920), the plant from Lee strigose-pubescent.

LEONTODON. HAWKBIT.

L. AUTUMNALIS L. FALL DANDELION.— Grassland; occasional. Williamstown; Lenox; Hinsdale; Washington.

Locally common in Williamstown, and the eastern part of Hinsdale.

LEPACHYS.

(*Ratibida* Ill. Fl. ed. 2.)

L. PINNATA (Vent.) T. & G. CONE-FLOWER.— Long established for many rods along a dry roadside bank in Lenox.

MATRICARIA. WILD CHAMOMILE.

M. CHAMOMILLA L.— Adventive, Cheshire (Winslow).

M. SUAVEOLENS (Pursh) Buchenau. PINEAPPLE-WEED.—(*M. matricarioides* Ill. Fl. ed. 2.)

First noted in 1895 when rare. Now frequent in waste ground and along roadsides. Summit of Greylock, 3500 feet.

ONOPORDUM. COTTON THISTLE.

O. ACANTHIUM L. COTTON THISTLE.— Hillside pasture, Lanesboro (Winslow). Noted by Dewey in Pittsfield in 1829.

PETASITES. SWEET COLTSFOOT.

P. palmatus (Ait.) Gray.— Wooded borders of cold swamps; rare. Williamstown (Churchill); Pittsfield.

PRENANTHES. RATTLESNAKE-ROOT.

(*Nabalus* Ill. Fl. ed. 2.)

P. alba L. WHITE LETTUCE; RATTLESNAKE-ROOT.— Rich woods; common in the valley, infrequent on the plateau.

P. altissima L.— Rich woods; frequent.

var. **hispidula** Fernald.— Rich woods; occasional. Lenox; Otis; Stockbridge; Sheffield (Walters).

P. serpentaria Pursh. LION'S-FOOT; GALL-OF-THE-EARTH.— Dry thicket, Sheffield.

P. trifoliata (Cass.) Fernald. GALL-OF-THE-EARTH.— Woods; common. Summit of Greylock, 3400 feet.

RUDBECKIA. CONE-FLOWER.

R. HIRTA L. BLACK-EYED SUSAN; YELLOW DAISY.— Fields; common. Not mentioned by Dewey. Introduced from the West after 1850.

The following forms have been noted:—

- a. Rays greenish or streaked with green.
- b. Rays purple at base.
- c. Heads with green chaff replacing the flowers.

R. laciniata L. TALL CONE-FLOWER.— Borders of streams, moist banks and upland meadows; frequent. The double form, cultivated under the name "Golden Glow" occasional as an escape.

SENECIO. GROUNDSEL; RAGWORT.

S. aureus L. GOLDEN RAGWORT.— Low woods, wet meadows and swamps; common.

S. obovatus Muhl.— Rocky woods, moist banks and ledges; common in calcareous soil, and frequent elsewhere.

S. VULGARIS L.— Waste ground, Williamstown.

SERICOCARPUS. WHITE-TOPPED ASTER

S. asteroides (L.) BSP.— Dry open woods; frequent in the southern part of the valley.

SOLIDAGO. GOLDEN-ROD.

Key to Solidago.

- a. Heads clustered along the axils of the leaves or in spikes or panicles, not in flat-topped corymbs.
- b. Bracts of rigid involucre with abruptly spreading herbaceous tips; heads in clusters or compactly clustered racemes, disposed in a dense somewhat leafy and interrupted wand-like compound spike; local *S. sparrrosa*.
- b'. Bracts of the involucre without green tips and appressed.
- c. Heads clustered along the axils of the leaves, or in wand-like, or pyramidal compact panicles, not in spreading open panicles.

- d. Heads mostly large, the involucre 6 (rarely 5) to 12 mm. high, forming an erect terminal thyrse; species confined in Berkshire County to Mt. Greylock and The Dome.
 - Heads very large, 8 to 12 mm. high, leaves thin; upper slopes of Mt. Greylock. *S. macrophylla*.
 - Heads medium, 5 to 6 mm. high; leaves thick and firm; dry ledges on The Dome. *S. Randii*.
- d'. Heads small, involucre 2 to 5 (rarely 6) mm. high; species of general distribution.
- e. Heads clustered in the axils, or in short spikes from the upper axils, but not forming a dense, wand-like panicle, or a compact pyramidal panicle.
 - f. Leaves and stems smooth or nearly so, not hoary or grayish.
 - Stem terete (round), leaves all sessile. *S. caesia*.
 - Stem angled, the lower leaves abruptly narrowed to margined petioles. *S. latifolia*.
 - f'. Leaves and stems hoary or grayish.
 - Rays of the flowers cream-color or nearly white. *S. bicolor*.
 - Rays of the flowers orange-yellow. *S. hispida*.
- e'. Heads forming a dense wand-like or a compact pyramidal panicle.
 - g. Stem minutely hoary; plant of dry or sandy soil on rocky hill-tops and along the Deerfield R. *S. puberula*.
 - g'. Stem glabrous up to the inflorescence; plants of bogs and wet meadows, or if in dry thickets only in the southern part of the country. (N. B.— *S. neglecta*, before its racemes spread, might be looked for here. It may be distinguished in this stage from *S. uliginosa* by its broader lower leaves.)
 - Plant of bogs and wet meadows. *S. uliginosa*.
 - Plant of dry open woods and thickets, so far noted only in Sheffield. *S. speciosa*.
- c'. Heads in spreading open panicles, the form of inflorescence commonly associated with golden-rods.
 - h. Leaves commonly veiny, not 3-ribbed (but sometimes obscurely triple-nerved). (N. B.— *S. ulmifolia* might be looked for here. It may be distinguished by its thin leaves, usually beset with soft hairs beneath.)
 - i. Basal leaves long-petioled, conspicuously larger than the 10 to 30 (to 40) remote or sub-remote cauline ones.
 - j. Stems strongly angled; leaves very rough on the upper surface; plant of bogs and swamps.
 - S. patula*.
 - j'. Stems rounded or nearly so; leaves smooth or smoothish.
 - k. Leaves mostly serrate, the lower and middle cauline (as well as the basal) rather abruptly narrowed to the base; racemes pubescent. *S. arguta*.

k'. The uppermost leaves chiefly entire, all tapering gradually to the base; racemes smooth.

Panicle usually as broad as high; rays 8 to 12.

S. juncea.

Panicle usually longer than broad; rays 2 to 8.

S. neglecta.

i'. Basal leaves similar to the 30 to 100 (to 200) ordinarily almost uniform or gradually reduced cauline ones.

l. Leaves all entire, with prominent mid-rib but obscure veins; leaves when crushed yield an odor as of anise. *S. odora.*

l'. Leaves all or nearly all toothed, the veins prominent.

Stems glabrous; plant of dry woods and copses in the southern part of the valley. . . . *S. ulmifolia.*

Stems pubescent; common plant of damp thickets and borders of woods and fields. *S. rugosa.*

h'. Leaves more or less plainly 3-ribbed, 2 of the lower veins becoming prominent and elongated, parallel with the midrib.

m. The lower leaves elongated and many times exceeding the reduced upper ones; plant very common in dry open soil. . . . *S. nemoralis.*

m'. Leaves thinner, essentially uniform from base to summit of the stem.

n. Involucre 2 to 2.8 mm. long, making tiny heads, crowded in dense broad panicles. . . . *S. canadensis* and var. *Hargerii.*

n'. Involucre 3.2 to 5 mm. long.

Stem closely and minutely pubescent throughout; leaves short-hairy below. . . . *S. altissima.*

Stem glabrous up to the inflorescence, leaves smooth below or slightly pubescent on the nerves. *S. scrotina.*

a'. Heads in flat-topped corymbs.

Heads large, leaves thick and broad; plant noted in only one locality in Sheffield. *S. rigida.*

Heads small, leaves long and narrow, plant common in moist soil, roadsides, etc. *S. graminifolia*, var. *Nuttallii.*

S. altissima L.— Moist roadside thickets and banks; frequent in the valley.

S. arguta Ait.— Dry woods, clearings and roadside thickets; common in the valley.

S. bicolor L.— Dry ground; common.

S. caesia L.— Dry woods and clearings; common.

var. **axillaris** (Pursh) Gray.— Rich woods; frequent in the valley.

var. **paniculata** Gray.— Rich woods; occasional. Pittsfield; Sheffield.

Neither of the above varieties is very well marked in the field.

S. canadensis L.— Low ground; occasional. Lenox; Stockbridge; Sheffield.

Generally replaced by the var. *Hargerii*.

var. **Hargerii** Fernald.— Low ground; frequent in the valley and along the Deerfield River, Florida.

Stems villous; leaves closely cinereous-puberulent beneath, thus resembling *S. altissimus* L., from which it differs in having the tiny heads of *S. canadensis*. The villous stems suggest *S. rugosa* from which the triple-nerved leaves distinguish it (*vid.* *Rhodora*, **17**: 11, 1915).

S. graminifolia (L.) Salisb., var. **Nuttallii** (Greene) Fernald.— (*Euthamia graminifolia* Ill. Fl. ed. 2 in part.)

Low open ground, moist roadsides; common. Summit of Greylock, 3500 feet.

S. hispida Muhl.— Open rocky woods and dry soil; frequent in the southern part of the valley.

S. juncea Ait.— Dry thickets, roadsides and open fields; common.

S. latifolia L.— (*S. flexicaulis* Ill. Fl. ed. 2.)

Shaded banks, rocky woods and moist thickets; common in the valleys. Occasionally in swamps, Sheffield. Altitude 2500 feet, Greylock.

S. macrophylla Pursh.— Common on the upper slopes of Greylock, above 2500 feet. The only known station in Massachusetts.

S. neglecta T. & G.— Swampy meadows, bogs and ill-drained hill-sides; frequent.

S. nemoralis Ait.— Dry fields; common.

S. suaveolens Schoepf.— (*S. odora* Man. ed. 7; *vid.* *Rhodora*, **21**: 70, 1919.)

Dry thickets; occasional in Great Barrington and Sheffield.

S. patula Muhl.— Swamps, in calcareous soil; common.

S. puberula Nutt.— Rocky hill-tops, in disintegrated quartzite and schist; Monument Mt., Great Barrington; Tom Ball, Alford; The Dome, Mt. Washington; clearing in dry woods, Sheffield. Also

frequent on dry banks and sandy shores along the Deerfield River, Florida.

S. Randii (Porter) Britton.—Ledges on the borders of Guilder Pond (altitude 2000 feet) and Plantin Pond, Mt. Washington. The only known stations in Massachusetts.

S. rigida L.—Dry limestone hillside, Sheffield. A large colony, scattered over several acres. The only known station in the County and the second in the State.

S. rugosa Mill.—Borders of fields and thickets; common. Summit of Greylock, 3500 feet, with the variety.

var. **villosa** (Pursh) Fernald.—Summit of Greylock, some typical material but often running into the type.

S. serotina Ait.—Banks of streams and low ground; common in the valley.

var. **gigantea** (Ait.) Gray.—Low ground; frequent.

S. speciosa Nutt.—Frequent in Sheffield in meadows and on open hillsides (Walters).

S. squarrosa Muhl.—Rocky banks of streams and dry wooded banks; occasional. Frequent along the Deerfield River, Florida; along a wood road, Great Barrington; clearing in dry woods, Sheffield; near Bash Bish Falls, Mt. Washington.

S. uliginosa Nutt.—Bogs; frequent in the valley.

S. ulmifolia Mubl.—Occasional on dry hills, Sheffield.

SONCHUS. SOW THISTLE.

S. ARVENSIS L.—Garden weed, Lenox.

var. **GLABRESCENS** Wimmer & Grabowski.—(*S. arvensis* Man. ed. 7 in part.)

Adventive along railroad track, Lenox.

A variety in which the involucre and pedicels are entirely glabrous (*vid. Rhodora*, 12: 145, 1910).

S. ASPER (L.) Hill.—Waste places; frequent.

S. OLERACEUS L. COMMON SOW THISTLE.—Waste places; frequent, but less so than *S. asper*.

TANACETUM. TANSY.

T. VULGARE L. COMMON TANSY.—Roadsides and about farm buildings; common.

var. **CRISPUM** DC.—Occasional with the type. Williamstown; Alford; New Marlboro.

TARAXACUM. DANDELION.

(*Leontodon* Ill. Fl. ed. 2.)

T. LAEVIGATUM (Willd.) DC. RED-SEEDED DANDELION.—(*T. erythrospermum* Man. ed. 7; *L. erythrospermum* Ill. Fl. ed. 2.)

Fields and hillsides in thin soil; frequent.

T. OFFICINALE Weber. COMMON DANDELION.—(*L. Taraxacum.*)

Fields and roadsides; common.

var. **PALUSTRE** (Sm.) Blytt.—Swamps; occasional. Stockbridge; New Marlboro (Walters); Sheffield (Walters).

TRAGOPOGON. GOAT'S BEARD.

T. PRATENSIS L.—Fields and roadsides; frequent.

TUSSILAGO. COLTSFOOT.

T. FARFARA L. COLTSFOOT.—Brooks, ditches and wet slopes; common.

XANTHIUM. COCKLEBUR.

X. echinatum Murr.—Clear dry sand, Sheffield (Walters).

X. pungens Wallr.—(*X. canadense* Man. ed. 7; *X. pennsylvanicum* Ill. Fl. ed. 2.)

Alluvial ground; frequent in the valley.

X. SPINOSUM L.—Dump at woolen mill, Pittsfield.

APPENDIX.

FUGITIVE SPECIES.

The following species though found growing spontaneously are not to be regarded as a constituent part of the flora of the County. They occur either on dump heaps where ripe fruit or roots have been thrown, or they spring up for a season in grass or grain-fields or along railroad tracks. Some are shrubs or herbaceous plants grown for ornament and occasionally escaping but not spreading. One group occurs only where screenings from wool are thrown out near a mill.

These species have been entered in the Flora under the families to which they belong, but have not been included in the table of statistics.

<i>Panicum miliaceum</i> L.	<i>Papaver Rhoeas</i> L.
<i>Echinochloa frumentacea</i> (Roxb.) Link	<i>Papaver somniferum</i> L.
<i>Setaria italica</i> L. (Beauv.)	<i>Brassica japonica</i> Siebold.
<i>Secale cereale</i> L.	<i>Brassica Napus</i> L.
<i>Triticum sativum</i> L.	<i>Brassica oleracea</i> L.
<i>Hordeum vulgare</i> L.	<i>Brassica Rapa</i> L.
<i>Tradescantia virginiana</i> L.	<i>Camelina microcarpa</i> Andrz.
<i>Narcissus poeticus</i> L.	<i>Hesperis matronalis</i> L.
<i>Serapias Helleborine</i> L.	<i>Raphanus sativus</i> L.
<i>Ulmus campestris</i> L.	<i>Thlaspi arvense</i> L.
<i>Polygonum orientale</i> L.	<i>Reseda odorata</i> L.
<i>Fagopyrum tataricum</i> (L.) Gaertn.	<i>Philadelphus inodorus</i> L.
<i>Kochia scoparia</i> (L.) Schrad.	<i>Prunus Persicaria</i> (L.) Stokes.
<i>Chenopodium Botrys</i> L.	× <i>Pyrus prunifolia</i> Willd.
<i>Chenopodium capitatum</i> (L.) Asch.	<i>Rosa setigera</i> Michx.
<i>Chenopodium farinosum</i> (Wats.) Standl.	<i>Rosa spinosissima</i> L.
<i>Chenopodium ficifolium</i> Sm.	<i>Amorpha fruticosa</i> L.
<i>Atriplex patula</i> L., var. <i>hastata</i> (L.) Gray.	<i>Gleditsia triacanthos</i> L.
<i>Amaranthus deflexus</i> L.	<i>Medicago arabica</i> Huds.
<i>Amaranthus Palmeri</i> Wats.	<i>Medicago hispida</i> Gaertn.
<i>Amaranthus Powellii</i> Wats.	<i>Medicago minima</i> L.
<i>Amaranthus spinosus</i> L.	<i>Geranium molle</i> L.
<i>Amaranthus undulatus</i> R. Br.	<i>Geranium pusillum</i> Burm. f.
<i>Agrostemma Githago</i> L.	<i>Erodium cicutarium</i> L. = L'Her
<i>Lycinus chalcidonica</i> L.	<i>Ptelea trifoliata</i> L.
<i>Saponaria Vaccaria</i> L.	<i>Evonymus atropurpureus</i> Jacq.
<i>Silene Armeria</i> L.	<i>Aesculus Hippocastanum</i> L.
<i>Silene dichotoma</i> Ehrh.	<i>Athaea rosea</i> Cav.
<i>Aquilegia vulgaris</i> L.	<i>Malva Aleca</i> L.
	<i>Daphne Mezereum</i> L.
	<i>Epilobium hirsutum</i> L.
	<i>Aegopodium Podagraria</i> L.

<i>Levisticum officinale</i> (L.) Koch.	<i>Viburnum Lantana</i> L.
<i>Lysimachia vulgaris</i> L.	<i>Scabiosa ochroleuca</i> L.
<i>Ipomoea purpurea</i> (L.) Roth.	<i>Cucumis Melo</i> L.
<i>Phlox maculata</i> L.	<i>Cucumis sativus</i> L.
<i>Phlox subulata</i> L.	<i>Cucurbita maxima</i> Duchesne.
<i>Marrubium vulgare</i> L.	<i>Cucurbita moschata</i> Duchesne.
<i>Monarda fistulosa</i> L., var. <i>rubra</i> Gray.	<i>Valeriana officinalis</i> L.
<i>Physostegia virginiana</i> (L.) Benth.	<i>Artemisia ludoviciana</i> Nutt.
<i>Salvia sylvestris</i> L.	<i>Bellis perennis</i> L.
<i>Datura Tatula</i> L.	<i>Coreopsis tinctoria</i> Nutt.
<i>Lycopersicum esculentum</i> Mill.	<i>Crepis capillaris</i> (L.) Wallr.
<i>Nicotiana affinis</i> L. & O.	<i>Helianthus annuus</i> L.
<i>Petunia nyctaginiflora</i> Juss.	<i>Heliopsis helianthoides</i> (L.) Sweet.
<i>Nicandra physalodes</i> (L.) Pers.	<i>Hypochaeris radicata</i> L.
<i>Chelone Lyoni</i> Pursh.	<i>Lapsana communis</i> L.
<i>Linaria minor</i> (L.) Desf.	<i>Matricaria Chamomilla</i> L.
<i>Plantago media</i> L.	<i>Xanthium spinosum</i> L.
<i>Lonicera sempervirens</i> L.	

EXCLUDED SPECIES.

GROUP I.

The following species were reported from Berkshire County by Dewey in the list published in 1829 (see Introduction, page 178), but they have not since been found in the County. In many cases, Dewey has included species whose range excludes the probability of their occurrence in the County. Occasionally the species listed by him probably represents a species known to occur in the County and not given by him. In a few cases, marked below by an asterisk, it is probable that Dewey actually found the species listed and that it has not been collected since.

The names are those given by Dewey. If they differ from those of the seventh edition of Gray's Manual, the latter are given after the original names. Where a locality is given, it is quoted from Dewey's list.

* <i>Lygodium palmatum</i>	"Becket."
<i>Picea alba</i> (<i>P. canadensis</i> (Mill.) <i>P. rubra</i> not listed).	
<i>Abies Fraseri</i>	"Saddle Mt."
<i>Potamogeton perfoliatum</i> (<i>P. perfoliatus</i> L.)	<i>P. bupleuroides</i> Fernald?
<i>Agrostis sericea</i> (<i>Muhlenbergia capillaris</i> (Lam.) Trin.)	
<i>Aira truncata</i> (<i>Sphenopholis obtusata</i> (Michx.) Scribn.)	
<i>Poa quinquefida</i> (<i>Tridens flavus</i> (L.) Hitchc.)	
<i>Festuca fluitans</i> (<i>Glyceria fluitans</i> (L.) R. Br.)	
<i>Festuca tenella</i> (<i>F. octoflora</i> Walt.)	
<i>Elymus glaucifolius</i> (<i>E. canadensis</i> L., var. <i>glaucifolius</i> (Muhl.) Gray)	

Cyperus flavescens
Cyperus poaeformis
Eleocharis capitata
Carex retroflexa
Carex muricata
Carex cespitosa (C. Goodenowii J. Gay)
Carex xanthophylla (C. Michauxiana Boeckl.)
Carex bullata

Afterwards determined
 by Dewey himself as *C.*
Tuckermanni Dewey.

Juncus setaceus
Juncus polyccephalus
Convallaria umbellata (Clintonia umbellulata (Michx.) Morong.)

Probably *C. borealis*
 (Art.) Raf. which is
 omitted from Dewey's
 list.

Cymbidium odontorrhizum (Corallorhiza odontorrhiza Nutt.)

There is a strong probability on other grounds than Dewey's statement that this species has been collected in the County. An old negro, janitor of the G.A.R. Post at Pittsfield, told the writer that he had collected the root, known to him as "Crawley Root" for a drug company in about 1870 in chestnut woods, Pittsfield.

- * *Cymbidium hyemale* (*Aplectrum hyemale* (Muhl.) Torr.)
Salix tristis (no *S. humilis* listed.)
Myrica cerifera "Sheffield alluvium."
Betula rubra (*B. nigra* L.)
- * *Cannabis sativa*
 * *Urtica dioica*
Draba arabisans
Sisymbrium amphibium (*Radicula aquatica* (Eat.)
 Robinson) "Great Barrington."
- * *Arabis thaliana* (*Sisymbrium thalianum* (L.) J. Gay)
Ribes triflorum (*Ribes rotundifolium* Michx.)
Rubus trivialis (*R. villosus* Ait.?)
Desmodium viridiflorum
Desmodium ciliare (*D. obtusum* (Muhl.) DC.)
Vicia sativa "now common in all parts
 of Berkshire."
 "Saddle Mt."
- * *Oxalis violacea*
Polygala rubella (*P. polygama* Walt.)
Callitriche intermedia (*C. heterophylla* Pursh)
Rhus aromaticum (*R. canadensis* Marsh.) Perhaps from the station
 in Pownal, Vt.
- Malva crispa*
Malva sylvestris
Cistus corymbosus (*Helianthemum corymbosum* Michx.)

Lechea minor	
Viola villosa (V. hirsutula Brainerd)	
Viola striata	
Azalea viscosa (Rhododendron viscosum (L.) Torr.)	
* Rhodora canadensis (Rhododendron canadense (L.) B.S.P.)	“ Pittsfield.”
Vaccinium frondosum (Gaylussacia frondosa (L.) T. & G.)	
Vaccinium virgatum	(V. vacillans not listed)
Gentiana saponaria	(G. Andrewsii and G. elausa not listed)
Myosotis arvensis	
Monarda clinopodia	
Pycnanthemum verticillatum	
Pycnanthemum incanum	
Veronica Beccabunga	(V. americana not listed)
Viburnum nudum	
Aster salicifolius	
Aster phlogifolius (A. patens Ait., var. phlogifolius Nees)	
Cnicus altissimus (Cirsium altissimum (L.) Spreng.)	
Conyza marilandica (Pluchea camphorata (L.) D.C.)	
Helianthus trachelifolius	(H. divaricatus not listed)
Prenanthes virgata	
Hieracium marianum	

In addition to the above, Dewey, in Report on Herbaceous Plants of Massachusetts, states that *Cuphea petiolata* (L.) Koehne, has been found in Pittsfield.

GROUP II.

The following species have been reported from Berkshire County by correspondents of the writer, but either no specimens exist or the writer has been unable to see them.

Populus candicans Ait.	Adams (Burnham).
Polygonum dumetorum L.	Sheffield (Walters).
Alliaria officinalis Andrz.	Pittsfield (Lineoln).
Cuscuta Coryli Engelm.	Mt. Washington (Stetson).
Pycnanthemum incanum (L.) Michx.	Mt. Washington (Burnham).
Solidago erecta Pursh.	Mt. Washington (Stetson).

DOUBTFUL SPECIES.

Panicum lucidum Ashe. A specimen from rocky woods of Great Barrington, which Mrs. Chase thinks may be *P. lucidum*, but a vernal form which is not entirely characteristic.

P. meridionale Ashe.—A doubtful specimen from edge of low meadow in poor soil, Sheffield.

Asclepias purpurascens L.—Material collected in fruit in sandy ground near the Housatonic River in Stockbridge in 1920, probably belongs to this species. There has been no opportunity to verify by material in flower.

TABULAR LIST OF FAMILIES.

<i>Families</i>	<i>Genera</i>		<i>Species</i>		<i>Varieties</i>		<i>Forms</i>	
	Native	Introd.	Native	Introd.	Native	Introd.	Native	Introd.
PTERIDOPHYTA								
Polypodiaceae	15		33		5		7	
Osmundaceae	1		3		2		2	
Ophioglossaceae	2		7		2		2	
Marsileaceae		1		1				
Equisetaceae	1		6		1		1	
Lycopodiaceae	1		8		3			
Selaginellaceae	1		2					
Isoëtaceae	1		1					
SPERMATOPHYTA								
GYMNOSPERMAE								
Taxaceae	1		1					
Pinaceae	6	1	10	2	1		1	
ANGIOSPERMAE								
MONOCOTYLEDONEAE								
Typhaceae	1		2					
Sparganiaceae	1		6		2			
Najadaceae	2		24		2		4	
Juncaginaceae	1		1					
Alismaceae	2		5				4	
Hydrocharitaceae	2		2					
Gramineae	34	10	94	34	6	2	1	1
Cyperaceae	10		112	1	56		4	
Araceae	6		8				3	
Lemnaceae	2		3					
Eriocaulaceae	1		1					
Xyridaceae	1		1					
Pontederiaceae	2		2		1			
Juncaceae	2		18		6			
Liliaceae	15	2	28	3	1			
Amaryllidaceae	1		1					
Iridaceae	2		5					
Orchidaceae	11		36		2		2	
DICOTYLEDONEAE								
Salicaceae	2		16	6	8	1		
Myricaceae	1		2		1			
Juglandaceae	2		4					
Betulaceae	5		12		1			
Fagaceae	3		12		1		1	
Urticaceae	8	1	10	2	1			
Santalaceae	1		1					
Loranthaceae	1		1					

358 PROCEEDINGS: BOSTON SOCIETY NATURAL HISTORY.

<i>Families</i>	<i>Genera</i>		<i>Species</i>		<i>Varieties</i>		<i>Forms</i>	
	Native	Introd.	Native	Introd.	Native	Introd.	Native	Introd.
Aristolochiaceae	1		1		1			
Polygonaceae	2	1	17	9	3		2	
Chenopodiaceae	1	1	2	3		1		
Amaranthaceae		1		3				
Phytolaccaceae	1		1					
Nyctaginaceae		1		1				
Illecebraceae	1	1	1	1				
Aizoaceae		1		1				
Caryophyllaceae	5	6	9	17	3			
Portulacaceae	1	1	2	1				
Ceratophyllaceae	1		1					
Nymphaeaceae	3	5						
Ranunculaceae	11		29	3	2	1	8	
Magnoliaceae	1		1					
Menispermaceae	1		1					
Berberidaceae	2	1	2	2				
Lauraceae	2		2					
Papaveraceae	1	1	1	1				
Fumariaceae	3	1	4	1				
Cruciferae	7	5	6	14	3	2		
Resedaceae		1		1				
Sarraceniaceae	1		1					
Droseraceae	1		2					
Crassulaceae	2		2	2				
Saxifragaceae	6		12	2			1	
Hamamelidaceae	1		1					
Platanaceae	1		1					
Rosaceae	14	2	74	14	8	2	3	1
Leguminosae	9	5	18	15				1
Linaceae	1		2	1				
Oxalidaceae	1		4	2				
Geraniaceae	1		3					
Rutaceae	1		1					
Polygalaceae	1		4		1			
Euphorbiaceae	2		5	1				
Callitrichaceae	1		1					
Anacardiaceae	1		5		1			
Aquifoliaceae	2		3		2			
Celastraceae	1		1					
Staphyleaceae	1		1					
Aceraceae	1		6		2			
Balsaminaceae	1		2				1	
Rhamnaceae	2		2	1				
Vitaceae	2		6		1			
Tiliaceae	1		1					
Malvaceae		3		4				

<i>Families</i>	<i>Genera</i>		<i>Species</i>		<i>Varieties</i>		<i>Forms</i>	
	Native	Introd.	Native	Introd.	Native	Introd.	Native	Introd.
Hypericaceae	1		9	1				
Elatinaceae	1		1					
Cistaceae	2		5					
Violaceae	1		22	2	2		1	
Thymelaeaceae	1		1					
Lythraceae	2		2	1				
Onagraceae	4	1	13	2	1		1	
Haloragidaceae	2		3					
Araliaceae	2		5					
Umbelliferae	10	4	15	4				
Cornaceae	2		8					
Ericaceae	17		34		7		1	
Primulaceae	3		6	1				
Oleaceae	1	2	3	2	2		1	
Gentianaceae	4		7				1	
Apocynaceae	1	1	3	1				
Asclepiadaceae	1		6		2			
Convolvulaceae	2		4	1				
Polemoniaceae		1		1				
Hydrophyllaceae	1		2					
Boraginaceae	3	3	3	8				
Verbenaceae	1		3	1				
Labiatae	15	7	21	16	4	1	2	
Solanaceae	2	1	2	4	1			
Scrophulariaceae	12	1	20	8	1	1	1	
Lentibulariaceae	1		6					
Orobanchaceae	3		3					
Phrymaceae	1		1					
Plantaginaceae	1		2	2				
Rubiaceae	4		16	3				
Caprifoliaceae	7		17	3	2	1		
Dipsacaceae		2		2				
Cucurbitaceae	2		2					
Campanulaceae	2		4	1		1	1	
Lobeliaceae	1		6				1	
Compositae	25	18	110	12	40	5	1	1

SUMMARY BY DIVISIONS AND CLASSES

	<i>Genera</i>		<i>Species</i>		<i>Varieties</i>		<i>Forms</i>	
	Native	Introd.	Native	Introd.	Native	Introd.	Native	Introd.
Pteridophyta	22	1	50	1	13		11	
Spermatophyta	363	88	1073	252	179	17	51	5
Gymnospermae	7	1	11	2	1		1	
Angiospermae	356	87	1062	250	176	17	53	5
Monocotyledoneae	93	12	376	38	78	2	18	1
Dicotyledoneae	263	75	686	213	102	15	35	4

SUMMARY BY MINOR GROUPS.

Families		118
Genera		
native	385	
introduced	89	
Total		474
Species		
native	1123	
introduced	254	
Total		1377
Varieties		
native	192	
introduced	17	
Total		209
Forms		
native	65	
introduced	5	
Total		70

Whole number of plants, (species, varieties and forms) not including 96 listed as fugitives, 1,656.

OBSERVATIONS ON SOIL RELATIONS.

Observations made during one season with the field set devised by Mr. E. T. Wherry for testing the alkalinity and acidity of the soil are given below.

<i>Plants Growing in Leaf Mould</i>	<i>Reaction</i>
<i>Caulophyllum thalictroides</i> in mucky pocket	10 + alk.
“ “ from slopes of Greylock, alt. 2600 ft.	3 + ac.
<i>Athyrium angustifolium</i>	10 + alk.
“ “	3 + alk.
<i>Dentaria laciniata</i>	7 + alk.
<i>Thelypteris Goldiana</i>	3 + alk.
<i>Viola canadensis</i>	} neutral
<i>Hepatica acutiloba</i>	
<i>Viola renifolia</i> , var. <i>Brainerdii</i>	
<i>Mitchella repens</i>	
<i>Cypripedium pubescens</i> (alt. 1700 ft.)	3 + acid

Plants Growing in Low Meadows and the Edges of Bogs

<i>Juncus Dudleyi</i>	10 + alk.
<i>Viola affinis</i>	10 + alk.
<i>Selaginella apoda</i> (S. <i>apus</i> Man. ed. 7)	7 + alk.
“ “	neutral
<i>Solidago patula</i> (four localities)	neutral
<i>Lobelia Kalmii</i>	neutral
<i>Cypripedium hirsutum</i>	neutral
<i>Parnassia caroliniana</i> (two localities)	10 + alk.
“ “ “ “	3 + alk.
<i>Sarracenia purpurea</i>	3 + alk.
“ “	3 + ac.
<i>Menyanthes trifoliata</i>	3 + alk.
<i>Vaccinium macrocarpon</i>	3 + alk.
<i>Vaccinium pennsylvanicum</i> (on mossy log in calcareous marsh)	3 + acid
<i>Juncus marginatus</i>	neutral
<i>Carex aurea</i>	3 + alk.
<i>Ledum groenlandicum</i>	7 + acid
<i>Potentilla fruticosa</i>	10 + acid
<i>Drosera rotundifolia</i>	10 + acid
“ “	3 + acid
<i>Mitella nuda</i>	neutral

<i>Plants of Dry Woods</i>		<i>Reaction</i>
<i>Viola palmata</i>		3 + alk.
“ “		3 + acid
<i>Panicum dichotomum</i>		neutral
<i>Panicum latifolium</i>		neutral
<i>Cypripedium acaule</i> in subsoil		3 + acid
<i>Pogonia verticillata</i> in oak-leaf mould		10 + acid
<i>Gerardia quercifolia</i>		3 acid
<i>Lysimachia quadrifolia</i> under pines		7 acid

Plants of Exposed Rocks

<i>Woodsia ilvensis</i>	on schist	7 acid
<i>Amelanchier sanguinea</i>	“ “	3 acid
<i>Camptosorus rhizophyllus</i>	on limestone	10 + alk.
<i>Selaginella rupestris</i>	“ “	“ “ “
<i>Arenaria stricta</i>	“ “	“ “ “
<i>Liparis Loeselii</i>		“ “ “

Plants of Open Fields

<i>Thymus Scryphillum</i>		3 + alk.
“ “		neutral
“ “		3 + acid
<i>Pycnanthemum flexuosum</i>		3 + alk.

Plants of Ill-drained Woods

<i>Solidago macrophylla</i>	(alt. 2700 ft.)	100 + acid
<i>Trillium erectum</i>	(alt. 2500 ft.)	100 + acid
<i>Epigaea repens</i>		3 + acid
<i>Potentilla tridentata</i>	(alt. 2300 ft.)	3 + acid

Plants of Sandy Fields

<i>Lechea intermedia</i>		3 + acid
<i>Carex festucacea</i> , var. <i>minor</i>		neutral

LIST OF NEW FORMS AND COMBINATIONS.

	Page
Aquilegia canadensis L., forma Phippenii (J. Robinson) comb. nov.	267
Asplenium platyneuron (L.) Oakes, forma serratum (E. S. Miller) comb. nov.	193
Aster novae-angliae L., forma roseus (Desf.) comb. nov.	338
Aster puniceus L., var. lucidulus Gray, forma albiflorus f. nov.	339
Botrychium dissectum Spreng., forma elongatum (Gilbert & Haberer) comb. nov.	199
Camptosorus rhizophyllus (L.) Link, forma auriculatus f. nov.	195
Cirsium arvense (L.) Scop., forma albiflorum (Rand & Redfield) comb. nov.	340
Cypripedium hirsutum Mill., forma album (Sweet) comb. nov.	246
Echium vulgare L., forma albiflorum f. nov.	318
Habenaria psycodes (L.) Sw., forma albiflora f. nov.	248
Hepatica acutiloba DC., forma albiflora f. nov.	268
Hepatica acutiloba DC., forma rosea f. nov.	268
Lobelia spicata Lam., forma albiflora f. nov.	334
Phalaris arundinacea L., forma picta (L.) comb. nov.	220
Polypodium vulgare L., forma auritum (Willd.) comb. nov.	196
Thelypteris marginalis (L.) Nieuwl., forma elegans (Robinson) Weatherby comb. nov.	197
Trillium erectum L., forma albiflorum f. nov.	244

INDEX.

Numbers in heavy-face type refer to the annotated list.

Synonyms are in italics.

- Abies, **203**, 354
 Abutilon, **299**
 Acalypha, **294**
 Acer, 187, 188, **296**
 ACERACEAE, **296**, 358
 Achillea, **334**
 Acorus, **235**
 Actaea, 187, **266**
 Adder's Mouth, **248**
 Adder's Tongue, **200**, **242**
 Adder's Tongue Family, **199**
 Adiantum, 187, **193**
 Adlumia, **272**
 Aegopodium, **306**, 353
 Aesculus, **297**, 353
 Agalinis, **325**
 Agastache, 191, **319**
 Agrimonia, **279**
 Agrimony, **279**
 Agropyron, 188, **209**
 Agrostemma, 180, **262**, 353
 Agrostis, **209**, 354
Aira, 354
 AIZOACEAE, **262**, 358
 Ajuga, 320
 Alder, **253**
 Black, **296**
 Downy Green, **253**
 Smooth, **253**
 Speckled, **253**
 White, **310**
 Alexanders, Golden, **308**
 Alfalfa, **291**
 Alisma, **207**
 ALISMACEAE, **207**, 357
 Alliaria, 356
Allionia, **261**
 Allium, 187, **242**
 Allspice, Wild, **271**
 Alnus, 191, **253**
 Alopcurus, **209**
 Alsike Clover, **292**
Alsina, **264**
 Althaea, **299**, 353
 Amaranth, **261**
 Amaranth Family, **261**
 AMARANTHACEAE, **261**, 358
 Amaranthus, **261**, 353
 AMARYLLIDACEAE, **244**, 357
 Amaryllis Family, **244**
 Ambrosia, **335**
 Amelanchier, 191, **279**, 362
 Amorpha, **288**, 353
 Amphicarpa, **288**
Amgdalus, **284**
 ANACARDIACEAE, **295**, 358
 Anaphalis, 180, **335**
 Andromeda, 188, **309**
 Andropogon, 188, **210**
 Anemone, **266**
 Rue, **267**
 Wood, **266**
 Anemonella, 187, **267**
 Angelica, 192, **306**
 Purple, **306**
 Antennaria, 187, **335**
 Anthemis, **335**
 Anthoxanthum, **210**
 Anyelia, **261**
 Apios, 187, **289**
 APOCYNACEAE, **316**, 359
 Apocynum, 186, **316**
 Apple, **285**
 Crab, **285**
 Apple of Peru, **324**
 AQUIFOLIACEAE, **295**, 358
 Aquilegia, 188, **267**, 353, 363
 Arabis, 182, 191, **272**, 355
 ARACEAE, **235**, 357
 Aralia, 187, 188, **306**
 ARALIACEAE, **306**, 359
 Arbor Vitae, **204**
 Arbutus, Trailing, **310**
 Arcuthobium, 201, **257**
 Aretium, 180, **335**
 Aretostaphylos, 178, **309**
 Arenaria, 182, 191, **262**, 362
 Arethusa, **245**
 Arisaema, 179, 187, **236**
 Aristida, **210**
 ARISTOLOCHIACEAE, **257**, 358
Armoracia, **275**
Aronia, **285**
 Arreratherium, **210**
 Arrow Arum, **236**
 Grass Family, **207**
 Arrow-head, **207**
 Arrow-wood, **332**
 Artemisia, **336**, 354
 Artichoke, Jerusalem, **343**

- Arum, Arrow, **236**
 Water, **236**
 Arum Family, **235**
 Asarum, 187, **257**
 ASCLEPIADACEAE, **316**, 359
 Asclepias, **316**, 356
 Ash, **314**
 American Mountain, **285**
 Black, **315**
 Green, **315**
 Prickly, **294**
 Red, **315**
 White, **314**
 Asparagus, **242**
 Aspen, **250**
 American, **250**
 Large-toothed, **250**
 Asperella, **210**
Aspidium, **197**
 Asplenium, 191, **193**, 363
 Aster, 187, 188, 191, 192, 328, **336**,
 356, 363
 New England, **338**
 White-topped, **347**
 Athyrium, 187, **193**, 194, 197, 361
Atragene, **267**
 Atriplex, **260**, 353
 Aureolaria, 187, **325**
 Avena, **210**, 216
 Avens, **283**
 Purple, **283**
 Water, **283**
 White, **283**
 Yellow, **283**
 Azalea, **312**, 355
 Pink, **312**

 Balm, Bee, **321**
 Horse, **320**
 Balsam Fir, **203**
 Poplar, **250**
 Balsam-apple, Wild, **333**
 BALSAMINACEAE, **297**, 358
 Baneberry, **266**
 Red, **266**
 White, **266**
 Baptisia, **187**, 289
 Barbarea, **273**
 Barberry, **270**
 Common, **270**
 Barberry Family, **270**
 Barley, **216**
 Common, **216**
 Bartonnia, **315**
 Basil, **323**
 Basswood, **299**
Batrachium, **269**
 Bay, Rose, **312**
 Beak Rush, **233**

 Bearberry, **309**
 Beard-tongue, **326**
 Bedstraw, **329**
 Northern, **329**
 Rough, **329**
 Sweet-scented, **330**
 Yellow, **330**
 Bee Balm, **321**
 Beech, **254**
 Blue, **253**
 Water, **253**
 Beech Family, **254**
 Beech-drops, **328**
 Beggar-ticks, **340**
 Common, **340**
 Swamp, **339**
 Beggar's Lice, **318**
 Bellflower, **333**
 Marsh, **333**
 Bellis, **339**, 354
 Bellwort, **243**, **244**
 Benzoin, 188, **271**
 BERBERIDACEAE, **270**, 358
 Berberis, **270**
 Bergamot, Wild, **321**
 Berteroa, **273**
 Betony, Wood, **326**
 Betula, **253**, 355
 BETULACEAE, **253**, 357
Bicucula, **272**
 Bidens, 186, 188, **339**
 Birch, 190, **253**
 Black, **253**
 Canoe, **253**
 Cherry, **253**
 Gray, **253**
 Low, **253**
 Paper, **253**
 Swamp, **253**
 White, **253**
 Yellow, **253**
 Birch Family, **253**
 Bindweed, **258**, 317
 Black, **258**
 Hedge, **317**
 Birthwort Family, **257**
 Bitternut, **252**
 Bitter Sweet, **325**
 Climbing, **296**
 Blackberry, **286**
 High-bush, **286**
 Black-eyed Susan, **347**
 Bladder Nut, **296**
 Bladder Nut Family, **296**
 Bladderwort, **328**
 Bladderwort Family, **328**
 Blazing Star, **242**
Blephariglottis, **247**
 Blephilia, 191, **320**

- Blite, Strawberry, 260
Blitum, 260
 Bloodroot, 272
 Blue Curls, 324
 Bluebell, 333
 Bluebell Family, 333
 Blueberry, 312
 Black High, 312
 High-bush, 313
 Low, 313
 Blue-eyed Grass, 245
 Bluets, 330
 Blue-weed, 318
 Boehmeria, 255
 Bog Rosemary, 309
 Boneset, 342
 Borage Family, 318
 BORAGINACEAE, 318, 359
 Botrychium, 187, 199, 363
 Bouncing Bet, 263
 Box Elder, 296
 Brachyelytrum, 211
 Bracken, 197
 Brake, 197
 Cliff, 196
 Common, 197
 Purple Cliff, 196
 Rock, 195
 Slender Rock, 195
 Brasenia, 186, 265
 Brassica, 273, 353
 Brier, Cat, 244
 Common Green, 244
 Green, 244
 Bromus, 186, 211
 Brooklime, American, 327
 Broom-rape, 328
 Broom-rape Family, 328
 Buckbean, 316
 Buckthorn, 298
 Common, 298
 Buckthorn Family, 298
 Buckwheat, 257
 Climbing False, 259
 Buckwheat Family, 257
 Bugbane, 267
 Bugle Weed, 320, 321
 Bugloss, Viper's, 318
 Bulrush, 233
 Bunchberry, 309
 Bur Marigold, 339
 Burdock, 335
 Common, 336
 Great, 336
 Burnet, 288
 Canadian, 288
 Burning Bush, 296
 Bur-reed, 205
 Bur-reed Family, 205
Bursa, 274
 Bush Clover, 290
 Butter and Eggs, 326
 Buttercup, 190, 268, 269
 Creeping, 269
 Swamp, 269
 Butterfly-weed, 317
 Butternut, 253
 Buttonbush, 329
 Buttonwood, 279

 Cabbage, 274
 Skunk, 237
 Calamagrostis, 211
 Calamus, 235
 Calla, 236
 Wild, 236
 CALLITRICHACEAE, 295, 358
 Callitriche, 295, 355
 Calopogon, 246
 Caltha, 267
 Cameline, 274, 353
 Campanula, 333
 CAMPANULACEAE, 333, 359
 Campion, 264
 Bladder, 264
 Red, 263
 White, 263
 Camptosorus, 193, 195, 362, 363
 Cancer-root, 328
 One-flowered, 328
 Cannabis, 355
Capnoides, 272
 CAPRIFOLIACEAE, 330, 359
 Capsella, 274
 Caraway, 307
 Cardamine, 187, 192, 274
 Cardinal-flower, 334
 Carex, 179, 181, 186, 187, 188, 191,
 222, 351, 361, 362
 Carpet Weed, 262
 Carpinus, 253
 Carrion-flower, 244
 Carrot, 307
 Wild, 307
 Carum, 307
 Carya, 252
 CARYOPHYLLACEAE, 262, 358
 Cassia, 289
 Castalia, 186
 Castanea, 187, 254
 Cat Brier, 244
 Catchfly, 264
 Night-flowering, 264
 Sleepy, 264
 Sweet William, 264
Cathartobium, 292
 Catnip, 322
 Cat-scar, 344

- Cat-tail, 204, 205
 Cat-tail Family, 204
 Caulophyllum, 187, 271, 361
 Ceanothus, 187, 298
 Cedar, Red, 203
 White, 204
 Celandine, 271
 CELASTRACEAE, 296, 358
 Celastrus, 296
 Celtis, 255
 Cenchrus, 211
 Centaurea, 340
 Cephalanthus, 329
 Cerastium, 180, 182, 191, 262
 CERATOPHYLLACEAE, 265, 358
 Ceratophyllum, 186, 265
Chacorrhinum, 326
 Chamaedaphne, 188, 310
 Chamaelirium, 191, 242
Chamaepericlymenum, 309
Chamaesyce, 294
 Chamomile, 335
 Wild, 346
 Charlock, 273
 Cheat, 211
 Checkerberry, 310
 Cheeses, 299
Cheirinia, 275
 Chelidonium, 271
 Chelone, 326, 353
 CHENOPODIACEAE, 260, 358
 Chenopodium, 191, 260, 353
 Cherry, 284
 Bird, 284
 Black, 285
 Choke, 285
 Ground, 325
 Rum, 285
 Sand, 284
 Sour, 284
 Sweet, 284
 Wild Red, 284
 Chess, 211
 Soft, 211
 Wild, 211
 Chestnut, 254
 Chickweed, 264
 Common, 265
 Common Mouse-ear, 263
 Field Mouse-ear, 262
 Forked, 261
 Indian, 262
 Mouse-ear, 262
 Chickweed Wintergreen, 314
 Chicory, 340
 Chimaphila, 187, 310
 Chiogenes, 310
 Chokeberry, Black, 285
 Red, 285
 Chrysanthemum, 190, 340
 Chryso-splenium, 277
 Cicely, Sweet, 308
 Cichorium, 340
 Cicutia, 307
 Cimicifuga, 179, 192, 267
 Cinna, 188, 211
 Cinquefoil, 283
 Marsh, 284
 Shrubby, 179, 283
 Silvery, 283
 Circaea, 187, 188, 191, 304
 Cirsium, 180, 188, 191, 340, 356, 363
 CISTACEAE, 300, 359
Cistus, 355
 Cladium, 231
 Claytonia, 187, 265
 Clearweed, 256
 Cleavers, 329
 Clematis, 267, 268
 Purple, 267
 Clethra, 192, 310
 Cliff Brake, 195
Clinopodium, 323
 Clintonia, 178, 188, 242, 355
 Clover, Alsike, 292
 Bush, 290
 Hop, 291
 Rabbit-foot, 291
 Red, 292
 Sweet, 291
 White, 292
 White Sweet, 291
 Yellow, 291
 Yellow Sweet, 291
 Club Moss, 201
 Common, 201
 Tree, 202
 Club Moss Family, 201
 Cnicus, 356
 Cockle, Corn, 262
 Cocklebur, 352
Coeloglossum, 247
 Cohosh, Black, 267
 Blue, 271
 Collinsonia, 187, 320
 Coltsfoot, 352
 Sweet, 346
 Columbine, 267
 Comandra, 257
Comarum, 284
 Comfrey, 319
 Common, 319
 COMMELINACEAE, 238
 COMPOSITÆ, 334, 359
 Composite Family, 334
 Cone-flower, 346, 347
 Tall, 347
 Conioselinum, 307

- Conium, 307
 Conopholis, 328
 Convallaria, 242, 355
 CONVULVACEAE, 317, 359
 Convolvulus, 317
 Family, 317
Conyza, 356
 Coptis, 268
 Coral Root, 246
 Corallorrhiza, 246, 355
 Coreopsis, 341, 354
 CORNACEAE, 308, 359
 Cornel, 308
 Dwarf, 309
 Round-leaved, 309
 Silky, 309
 Cornus, 188, 308
 Coronilla, 289
 Corydalis, 188, 272
 Corylus, 254
 Cotton Grass, 233
 Cottonwood, 250
 Cow Lily, 266
 Wheat, 326
 Cowbane, Spotted, 307
 Cowslip, 267
 Crab Apple, 285
 Cranberry, 312, 313
 High-bush, 313, 332
 Small, 313
 Cranesbill, 293
 CRASSULACEAE, 277, 358
 Crataegus, 182, 281
 Crepis, 341, 354
 Cress, Bitter, 274
 Marsh, 275
 Penny, 276
 Rock, 272
 Water, 275
 Winter, 273
 Yellow, 275
Crocanthemum, 300
 Crotalaria, 289
 Crowfoot, 268
 Bristly, 269
 White Water, 269
 Yellow Water, 269
 Crowfoot Family, 266
 CUCULIACEAE, 272
 Cryptogramma, 195
 Cryptotaenia, 307
 Cuckoo Flower, 274
 Cucumber, 333
 One-seeded Bur, 333
 Wild, 333
 Cucumber-root, Indian, 243
 Cucumis, 333, 353
 Cucurbita, 333, 354
 CUCURBITACEAE, 333, 359
 Cudweed, 343
 Low, 343
 Culver's-root, 328
 Cuphea, 356
 Currant, 278
 Red, 278
 Skunk, 278
 Swamp Black, 278
 Wild Black, 278
 Cuscuta, 192, 317, 356
 Cut-grass, 216
 Rice, 216
Cymbidium, 355
 Cynoglossum, 318
 Cynosurus, 212
Cynoxylon, 309
 CYPERACEAE, 222, 357
 Cyperus, 188, 191, 232, 354
 Cypress Spurge, 294
 Cypripedium, 187, 191, 246, 361, 362,
 363
 Cystopteris, 195

 Dactylis, 212
 Daisy, 190, 339
 Ox-eye, 340
 Yellow, 347
 Dalibarda, 282
 Dandelion, 352
 Common, 352
 Dwarf, 344
 Fall, 346
 Red-seeded, 352
 Danthonia, 212
 Daphne, 303, 353
 Darnel, 216
Dasiphora, 283
Dasystephana, 315
Dasystoma, 325
 Datura, 324, 353
 Daucus, 307
 Day Lily, 242
 Decodon, 303
 Deerberry, 314
 Dennstaedtia, 195
 Dentaria, 179, 187, 275, 361
Deringa, 307
 Deschampsia, 188, 212
 Desmodium, 178, 187, 289, 355
 Devil's Bit, 242, 333
 Paint-brush, 343
 Dewberry, 287
 Dianthus, 189, 263
 Dicentra, 187, 272
Dicksomia, 195
 Diervilla, 330
 Digitaria, 191, 212
 DIPSACACEAE, 332, 359
 Dipsacus, 332

- Dirca, 303
 Dock, 259
 Bitter, 260
 Great Water, 259
 Patience, 260
 Yellow, 260
 Dodder, 317
Doellingeria, 339
 Dogbane, 316
 Spreading, 316
 Dogbane Family, 316
 Dogwood, 308
 Flowering, 309
 Poison, 295
 Red-osier, 309
 Dogwood Family, 308
 Doorweed, 258
 Draba, 355
Dracocephalum, 322
 Dragon, Green, 236
 Dragon Head, False, 322
 Drop-seed, 217, 222
 Drosera, 188, 276, 361
 DROSERACEAE, 276, 358
Dryocallis, 283
Dryopteris, 197
 Duckweed, 237
 Duckweed Family, 237
 Dulichium, 232
 Dutchman's Breeches, 272

 Echinochloa, 212, 353
 Echinocystis, 333
 Echium, 318, 363
 Eel Grass, 208
 Eglantine, 286
 ELATINACEAE, 300, 359
 Elatine, 192, 300
 Elder, 331
 Box, 296
 Common, 331
 Red-berried, 331
 Elderberry, 331
 Elcecampane, 344
 Eleocharis, 232, 354
 Elm, 256
 American, 256
 English, 256
 Slippery, 256
 White, 256
 Elodea, 186, 208
 Elymus, 186, 213
 Enchanter's Nightshade, 304
 Epifagus, 328
 Epigaea, 310, 362
 Epilobium, 188, 304, 353
 Epipactis, 247
 EQUISETACEAE, 201, 357
 Equisetum, 191, 201

 Eragrostis, 186, 188, 191, 214
 Erechtites, 341
 ERICACEAE, 309, 359
 Erigeron, 341
 ERIOCAULACEAE, 237, 357
 Eriocaulon, 186, 237
 Eriophorum, 188, 233
 Erodium, 293, 353
 Erysimum, 275, 276
 Erythronium, 242
Euonymus, 296
 Eupatorium, 180, 187, 341
 Euphorbia, 294
 EUPHORBIACEAE, 294, 358
Euthamia, 350
 Evening Primrose, 305
 Common, 305
 Evening Primrose Family, 304
 Everlasting, 335, 343
 Common, 343
 Pearly, 335
 Evonymus, 296, 353

 FAGACEAE, 254, 357
 Fagopyrum, 257, 353
 Fagus, 188, 254
Falcatia, 288
 Fern, Beech, 198
 Bladder, 195
 Boott's Shield, 197
 Bulb-bearing, 195
 Christmas, 196
 Cinnamon, 199
 Clinton's Shield, 197
 Crested Shield, 197
 Flowering, 199
 Fragile Bladder, 195
 Goldie's Shield, 197
 Grape, 199
 Hay-scented, 195
 Interrupted, 199
 Lady, 194
 Marginal Shield, 197
 Marsh, 198
 New York Shield, 198
 Oak, 197
 Ostrich, 196
 Rattlesnake, 200
 Royal, 199
 Sensitive, 195
 Spinulose Shield, 198
 Sweet, 252
 Walking, 195
 Fern Family, 193
 Fescue, Meadow, 214
 Sheep's, 215
 Festuca, 214, 354
 Fever Bush, 271
 Figwort, 327

- Figwort Family, 325
 Filipendula, 282
Filix, 195
 Fimbristylis, 233
 Fir, 203
 Balsam, 203
 Five-finger, 283
 Fireweed, 304, 341
 Flag, Blue, 245
 Sweet, 235
 Flax, 292
 Common, 292
 Flax Family, 292
 Fleabane, 341
 Daisy, 341
 Fleur-de-lis, 245
 Floating Foxtail, 209
 Heart, 316
 Flowering Fern, 199
 Flowering Fern Family, 199
 Flower-of-an-Hour, 299
 Forget-me-not, 319
 Garden, 319
 Wild, 319
 Four-o'clock Family, 261
 Foxglove, Downy False, 325
 Smooth False, 325
 Foxtail, 221
 Floating, 209
 Meadow, 210
 Fragaria, 282
 Fraxinus, 314
 Frog's Bit Family, 208
 Frostweed, 300
 Fumaria, 272
 FUMARIACEAE, 272, 358
 Fumitory, 272
 Climbing, 272
 Fumitory Family, 272

 Galeopsis, 180, 320
Galeorchis, 249
 Galingale, 232
 Galinsoga, 342
 Galium, 188, 329
 Gall-of-the-Earth, 347
 Gaultheria, 310
 Gaura, 305
 Gaylussacia, 188, 311, 355
 Gentian, 315
 Closed, 315
 Fringed, 315
 Horse, 332
 Gentian Family, 315
 Gentiana, 192, 315, 355
 GENTIANACEAE, 315, 359
 GERANIACEAE, 293, 358
 Geranium, 293, 353
 Geranium Family, 293
 Gerardia, 187, 325, 362
 Slender, 325
 Germander, 323
 Geum, 187, 283
 Ghost-flower, 311
 Gill-over-the-Ground, 322
 Ginannia, 215
 Ginger, Wild, 257
 Ginseng, 306
 Dwarf, 306
 Ginseng Family, 306
Glecoma, 322
 Gleditsia, 290, 353
 Glyceria, 215, 354
Glycine, 289
 Gnaphalium, 180, 188, 343
 Goat's Beard, 352
 Gold Thread, 268
 Golden Alexanders, 308
 Club, 236
 Glow, 347
 Ragwort, 347
 Golden-rod, 347
 Gooseberry, 278
 Prickly, 278
 Smooth, 278
 Goosefoot, 260
 Oak-leaved, 260
 Goosefoot Family, 260
 Gourd, 333
 Gourd Family, 333
 Goutweed, 306
 GRAMINEAE, 209, 357
 Grape, 298
 Frost, 298
 Northern Fox, 298
 River-bank, 298
 Summer, 298
 Grape Fern, 199
 Grass, Awned Wheat, 209
 Barnyard, 212
 Beard, 210
 Bent, 209
 Blue-eyed, 245
 Bottle-brush, 210
 Bristly Foxtail, 221
 Brome, 211
 Canary, 220
 Common Hair, 212
 Cotton, 233
 Couch, 209
 Crab, 212
 Dog's-tail, 212
 Drop-seed, 217
 Fescue, 213
 Finger, 212
 Fowl Meadow, 215, 221
 Foxtail, 209
 Hair, 209

- Grass, Herd's, 220
 Holy, 216
 Indian, 222
 Kentucky Blue, 221
 Low Spear, 221
 Manna, 215
 Meadow, 221
 Melic, 216
 Millet, 217
 Oat, 210
 Old-witch, 219
 Orchard, 211
 Panic, 217
 Pigeon, 221
 Poverty, 210
 Quick, 209
 Rattlesnake, 215
 Reed Bent, 211
 Reed Canary, 220
 Reed Meadow, 215
 Rib, 329
 Ribbon, 220
 Rough-stalked Meadow, 221
 Seneca, 216
 Spear, 221
 Squirrel-tail, 216
 Star, 244
 Sweet Vernal, 210
 Tall Oat, 210
 Thin, 209
 Triple-awned, 210
 Vanilla, 216
 Velvet, 215
 White, 216
 White Bent, 209
 Wild Oat, 212
 Wire, 221
 Wood, 222
 Wood Reed, 211
 Yellow-eyed, 237
 Grass Family, 209
 Grass of Parnassus, 277
 Gratiola, 326
 Gromwell, 318
Grossularia, 278
 Ground Cherry, 325
 Hemlock, 203
 Pine, 202
 Ground-nut, 289, 306
 Groundsel, 347
 Gum, Black, 309
 Sour, 309
Gymnocarpus, 247

 Habenaria, 188, 191, 247, 363
 Hackberry, 355
 HALORAGIDACEAE, 305, 359
 HAMAMELIDACEAE, 279, 358

 Hamamelis, 279
 Hardhack, 283, 288
 Harebell, 333
 Hare's Tail, 233
 Haw, Red, 281
 Hawkbit, 346
 Hawk's Beard, 341
 Hawkweed, 343
 Orange, 343
 Hawthorn, 281
 English, 281
 Hazelnut, 254
 Beaked, 254
 Heal-all, 180, 322
 Heath Family, 309
 Hedcoma, 320
 Hedge Hyssop, 326
 Mustard, 276
 Helenium, 187, 191, 343
 Helianthemum, 188, 300, 355
 Helianthus, 187, 343, 354, 356
 Heliopsis, 343, 354
 Hellebore, 244
 American White, 244
 False, 244
 Hemerocallis, 242
 Hemlock, 190, 204
 Ground, 203
 Poison, 307
 Water, 307
 Hemp, Indian, 316
 Hemp Nettle, 320
 Hepatica, 187, 268, 361, 363
 Heracleum, 307
 Herb Robert, 293
 Hesperis, 275, 353
 Heteranthera, 238
 Hibiscus, 299
 Hickory, 252
 Shag-bark, 252
 Shell-bark, 252
Hicoria, 252
 Hieracium, 187, 343, 356
 Hierochloë, 216
Hippoclitium, 308
 Hobble-bush, 332
 Hog Peanut, 288
Holcus, 215
 Holly, 295
 Mountain, 296
 Holly Family, 295
 Hollyhock, 299
Homalocochrus, 216
 Honewort, 307
 Honeysuckle, 267, 331
 American Fly, 333
 Bush, 330
 European Fly, 331

- Honeysuckle, Mountain Fly, **331**
 Tartarian, **331**
 Trumpet, **331**
 Honeysuckle Family, **330**
 Hop, **256**
 Hop Tree, **293**
 Hordeum, **216, 353**
 Horehound, **321**
 Common, **321**
 Water, **321**
 Hornbeam, **253**
 American, **253**
 American Hop, **254**
 Hop, **254**
 Hornwort, **265**
 Hornwort Family, **265**
 Horse-chestnut, Common, **297**
 Horsetail, **201**
 Horsetail Family, **201**
 Horse-weed, **341, 345**
 Hound's Tongue, **318**
 Common, **318**
 Houstonia, **330**
 Huckleberry, **311**
 Black, **311**
 Humulus, **256**
 HYDROCHARITACEAE, **208, 357**
 Hydrocotyle, **307**
 HYDROPHYLLACEAE, **318, 359**
 Hydrophyllum, **187, 191, 318**
 HYPERICACEAE, **299, 359**
 Hypericum, **186, 187, 188, 191, 299**
 Hypochaeris, **344, 354**
Hypopitys, **311**
 Hypoxis, **187, 191, 244**
 Hyssop, Giant, **319**
 Hedge, **326**
Hystrix, **210**

Ibidium, **249**
 Ilex, **188, 191, 295**
 ILLECEBRACEAE, **261, 358**
Ilicoides, **296**
 Ilysanthes, **326**
 Impatiens, **187, 191, 297**
 India-wheat, **258**
 Indian Chickweed, **262**
 Cucumber-root, **243**
 Hemp, **316**
 Pipe, **311**
 Tobacco, **334**
 Indigo, False, **288, 289**
 Wild, **289**
 Innocence, **330**
 Inula, **180, 344**
 Ipomoea, **317, 353**
 IRIDACEAE, **245, 357**
 Iris, **245**
 Iris Family, **245**

 Ironwood, **253, 254**
 Isanthus, **191, 320**
Isordia, **305**
 ISOETACEAE, **202, 357**
 Isoetes, **186, 202**
 Ivy, Mountain, **311**
 Poison, **295**

 Jack-in-the-Pulpit, **236**
 Jamestown Weed, **324**
 Jerusalem Artichoke, **343**
 Oak, **260**
 Jewelweed, **297**
 Jimson Weed, **324**
 Joe-Pye Weed, **180, 342**
 JUGLANDACEAE, **252, 357**
 Juglans, **253**
 JUNCACEAE, **238, 357**
 JUNCAGINACEAE, **207, 357**
Juncoides, **241**
 Juncus, **186, 187, 191, 238, 355, 361**
 Juneberry, **279**
 Juniper, **203**
 Juniperus, **188, 191, 203**

 Kalmia, **310, 311**
 King Devil, **344**
 Kinnikinnik, **309**
 Knapweed, **340**
 Knawel, **262**
Kueflia, **305**
 Knotgrass, **258**
 Knotweed, **258**
 Pink, **259**
 Knotwort Family, **261**
 Kochia, **260, 353**
Koellia, **323**
 Krigia, **188, 344**

 LABIATAE, **319, 359**
 Labrador Tea, **311**
 Laetuca, **344**
 Ladies' Tobacco, **335**
 Tresses, **249**
 Lady's Slipper, **246**
 Larger Yellow, **246**
 Pink, **246**
 Ram's Head, **246**
 Showy, **246**
 Smaller Yellow, **246**
 Lady's Sorrel, **293**
 Thumb, **259**
 Lambkill, **311**
 Lamb's Quarters, **260**
 Lammum, **321**
 Laportea, **187, 256**
 Lappula, **318**
 Lapsana, **346, 351**
 Larch, **203**

- Larix, 203
 LAURACEAE, 271, 358
 Laurel, 311
 Great, 312
 Mountain, 311
 Pale, 311
 Sheep, 311
 Laurel Family, 271
 Leather Leaf, 310
 Leatherwood, 303
 Lechea, 188, 301, 355, 362
 Ledum, 188, 311, 361
 Leek, Wild, 242
 Lecteria, 216
 LEGUMINOSAE, 288, 358
 Lemna, 237
 LEMNACEAE, 237, 357
 LENTIBULARIACEAE, 328, 359
 Leontodon, 180, 346, 352
 Leonurus, 321
 Lepachys, 346
 Lepidium, 275
Leptammium, 328
Leptandra, 328
Leptilon, 341
 Lespedeza, 188, 290
 Lettuce, 344
 Prickly, 345
 White, 346
 Wild, 345
 Wild Blue, 345
 Levisticum, 308, 353
 Ligustrum, 315
 Lilac, 315
 Common, 315
 LILIACEAE, 242, 357
 Lilium, 187, 243
 Lily, 243
 Common Day, 242
 Cow, 266
 Day, 242
 Meadow, 243
 Tiger, 243
 Water, 265
 White Pond, 265
 Wild Yellow, 243
 Wood, 243
 Yellow Pond, 266
 Lily Family, 242
 Lily of the Valley, 242
 Wild, 243
Limnanthemum, 316
Limnorchis, 247
Limodorum, 246
 LINACEAE, 292, 358
 Linaria, 326, 353
 Linden, 299
 Linden Family, 299
 Linnaea, 330
 Linum, 192, 292
 Lion's Foot, 347
 Liparis, 188, 248, 362
 Liquorice, Wild, 329
 Liriodendron, 270
 Lithospermum, 318
 Live-for-ever, 277
 Liverleaf, 268
 Lobelia, 187, 191, 334, 361, 363
 Great Blue, 334
 Water, 334
 Lobelia Family, 334
 LOBELIACEAE, 334, 359
 Locust, 291
 Clammy, 291
 Common, 291
 Honey, 290
 Lolium, 216
 Lonicera, 181, 188, 191, 331, 353
 Loosestrife, 304, 314
 False, 305
 Spiked, 304
 Swamp, 303
 Loosestrife Family, 303
Lophanthus, 319
 Lopsseed, 329
 Lopsseed Family, 329
 LORANTHACEAE, 257, 357
 Lousewort, 326
 Lovage, 308
 Lucerne, 291
 Ludvigia, 305
 Lupine, Wild, 291
Lupinus, 291
 Luzula, 191, 241
 Lychmis, 263, 353
 Scarlet, 263
 Lycium, 324
 Lycopersicum, 324, 353
 LYCOPODIACEAE, 201, 357
 Lycopodium, 178, 187, 188, 201
 Lycopus, 188, 192, 321
Lygodium, 354
 Lyonia, 311
Lysias, 249
Lysiclla, 248
 Lysimachia, 187, 188, 314, 353, 362
 LYTHRACEAE, 303, 359
 Lythrum, 187, 304
 Madder Family, 329
 Magnolia Family, 270
 MAGNOLIACEAE, 270, 358
 Maianthemum, 243
 Maidenhair, 193
Malaxis, 248
 Male Berry, 311

- Mallow, 299
 Indian, 299
 Marsh, 299
 Musk, 299
 Rose, 299
 Mallow Family, 299
Malus, 285
 Malva, 299, 353, 355
 MALVACEAE, 299, 358
 Mandrake, 271
 Maple, 296
 Black Sugar, 297
 Mountain, 297
 Red, 297
 River, 297
 Rock, 297
 Striped, 297
 Sugar, 297
 Swamp, 297
 White, 297
 Maple Family, 296
 Marigold, Bur, 339
 Water, 339
Mariscus, 231
 Marjoram, Wild, 322
 Marrubium, 321, 353
 Marsh Marigold, 267
 Marsilea, 200
 MARSILEACEAE, 200, 357
 Matricaria, 346, 354
 Matrimony Vine, 324
 Common, 324
Matteuccia, 196
 May Apple, 271
 Mayflower, 310
 Meadow-sweet, 288
 Medeola, 243
 Medicago, 291, 353
 Medick, 291
 Black, 291
Megalodonta, 339
Meibomia, 289
 Melampyrum, 187, 326
Melica, 216
 Melilotus, 180, 291
 MENISPERMACEAE, 270, 358
 Menispermum, 270
 Mentha, 321
 Menyanthes, 188, 316, 361
 Mercury, Three-seeded, 294
 Mermaid Weed, 306
 Mezereum Family, 303
Micranthelis, 333
Micranthes, 278
Microstylis, 248
 Mignonette, 276
 Mignonette Family, 276
 Milium, 217
 Milkweed, 316
 Common, 317
 Poke, 316
 Swamp, 316
 Milkweed Family, 316
 Milkwort, 294
 Purple, 294
 Milkwort Family, 294
 Millet, European, 219
 Mimulus, 326
 Mint, 321
 Horse, 321
 Mountain, 323
 Wood, 320
 Mint Family, 319
 Mistletoe, Dwarf, 204, 257
 Mistletoe Family, 257
 Mitchella, 330, 361
 Mitella, 188, 277, 279, 361
 Miterwort, 277
 False, 278
 Moccasin Flower, 246
Moehringia, 262
 Mollugo, 262
 Monarda, 321, 353, 356
 Moneses, 180, 311
 Moneywort, 314
 Monkey Flower, 326
 Monotropa, 311
 Moonseed, 270
 Moonseed Family, 270
 Moonwort, 199
 Moosewood, 297, 303
 Morning Glory, 317
 Common, 317
 Wild, 317
 Morus, 191, 256
 Moss, Club, 201
 Tree Club, 202
 Moss Pink, 317
 Moth Mullein, 327
 Motherwort, 321
 Mountain Mint, 323
 Mouse-ear, 344
 Mugwort, Common, 336
 Muhlenbergia, 217, 351
 Mulberry, 256
 Red, 256
 White, 256
 Mullen, 327
 Moth, 327
 Musk-melon, 333
 Mustard, 273
 Black, 274
 Hedge, 276
 Trench, 275
 Mustard Family, 272
 Myosotis, 319, 356

Myrica, 252, 355
 MYRICACEAE, 252, 357
 Myriophyllum, 186, 305
 Myrtle, Blue, 316

Nabalus, 346
Naias, 205
 NAJADACEAE, 205, 357
Najas, 205
 Nannyberry, 332
 Narcissus, 245, 353
 Poet's, 245
Naumburgia, 314
 Nemopanthus, 188, 296
Nepeta, 322
 Nettle, 257
 Common, 257
 Common Hemp, 320
 Dead, 321
 False, 255
 Hedge, 323
 Hemp, 320
 Wood, 256
 Nettle Family, 255
 New Jersey Tea, 298
Nicandra, 324, 353
 Nicotiana, 324, 353
 Nightshade, 325
 Common, 325
 Enchanter's, 304
 Nightshade Family, 324
 Nipplewort, 346
Noria, 276
Nothoholcus, 215
Nuphar, 186
 NYCTAGINACEAE, 261, 358
Nymphaea, 266
 NYMPHAEACEAE, 265, 358
Nymphoides, 316
Nymphozanthus, 186, 266
Nyssa, 309

 Oak, 254
 Bear, 255
 Black, 255
 Black Scrub, 255
 Bur, 255
 Chestnut, 255
 Chinquapin, 255
 Jerusalem, 260
 Mossy-cup, 255
 Poison, 295
 Red, 255
 Scarlet, 254
 Scrub Chestnut, 255
 Swamp White, 254
 White, 254
 Yellow, 255
 Oakesia, 243

Oat, 210
 Oenothera, 305
 OLEACEAE, 314, 359
 Olive Family, 314
 ONAGRACEAE, 304, 359
 Onion, 242
 Wild, 242
 Onoclea, 186, 195, 196
 Onopordum, 346
 OPHIOGLOSSACEAE, 199, 357
 Ophioglossum, 200
 Orange, Mock, 277
 Orange Grass, 300
 Orchid, 187, 249
 Fringed, 247
 Large Purple Fringed, 247
 Large Round-leaved, 248
 Ragged Fringed, 248
 Showy, 249
 Smaller Purple Fringed, 248
 White Fringed, 247
 Orchid Family, 245
 ORCHIDACEAE, 245, 357
 Origanum, 322
 OROBANCHACEAE, 328, 359
 Orobanche, 328
 Orontium, 191, 236
 Orpine Family, 277
Oryzopsis, 217
Osmorhiza, 187, 308
Osmunda, 188, 199
 OSMUNDACEAE, 199, 357
Ostrya, 254
 Oswego Tea, 321
 OXALIDACEAE, 292, 358
Oxalis, 188, 292, 355
 Ox-eye, 343
 Ox-eye Daisy, 340
Oxybaphus, 261
Orycoccus, 313

Padus, 285
Panax, 187, 306
Panicularia, 215
Panicum, 186, 187, 188, 191, 217, 353,
 356, 362
 Pansy, Wild, 301
 Papaver, 272, 353
 PAPAVERACEAE, 271, 358
Parietaria, 256
Parnassia, 187, 277, 361
 Parsley, Hemlock, 307
 Parsley Family, 306
 Parsnip, 308
 Cow, 307
 Water, 308
 Wild, 308
Parthenocissus, 298
 Partridge Berry, 330

- Paspalum, 220
 Pastinaca, 308
 Peach, 284
 Peanut, Hog, 288
 Pear, 285
 Pearlwort, 263
 Pedicularis, 326
Pellaea, 191, 195
 Pellitory, 256
 Peltandra, 236
 Penny Cress, 276
 Pennyroyal, American, 320
 False, 320
 Mock, 320
 Pennywort, Water, 307
 Penthorum, 277
 Pentstemon, 326
 Pepper, Mild Water, 258
 Water, 258
 Pepperbush, Sweet, 310
 Peppergrass, 275
 Wild, 275
 Peppermint, 321
 Pepper-root, 275
 Peppermint, 275
Peranium, 247
 Periwinkle, 316
 Persicaria, 258, 259
 Dock-leaved, 174, 259
Perularia, 247
 Petasites, 346
 Petunia, 325, 353
 Phalaris, 220, 363
Phegopteris, 197
 Philadelphia, 277, 353
Philotria, 208
 Phleum, 220
 Phlox, 317, 353
 Garden, 317
 Phragmites, 178, 221
 Phryma, 329
 PIRYMACEAE, 329, 359
 Physalis, 191, 325
Physalodes, 324
 Physostegia, 322, 353
 Phytolacca, 261
 PHYTOLACCACEAE, 261, 358
 Picea, 204, 257, 354
 Pickerel-weed, 238
 Pickerel-weed Family, 238
 Pignut, 252
 Pigweed, 260, 261
 Pilea, 256
 Pimpernel, False, 326
 PINACEAE, 203, 357
 Pine, 190, 204
 Ground, 202
 Norway, 204
 Pitch, 204
 Pine, Prince's, 310
 Red, 204
 Scotch, 204
 White, 190, 204
 Pine Family, 203
 Pineapple-weed, 346
 Pinesap, 311
 Pinweed, 300
 Pink, 263
 Deptford, 263
 Fire, 264
 Grass, 246
 Maiden, 263
 Moss, 317
 Wild, 264, 317
 Pink Family, 262
 Pinus, 204
 Pinweed, 301
 Pipes, 201
 Pipewort, 237
 Pipewort Family, 237
 Pipsissewa, 310
 Pitcher-plant, 276
 Pitcher-plant Family, 276
 Plane Tree, 279
 Plane Tree Family, 279
 PLANTAGINACEAE, 329, 359
 Plantago, 180, 329, 353
 Plantain, 329
 Common, 329
 Mud, 238
 Rattlesnake, 247
 Robin's, 341
 Plantain Family, 329
 PLATANACEAE, 279, 358
 Platanus, 279
 Pluchea, 356
 Plum, 284
 Canada, 284
 Garden, 284
 Wild, 284
 Poa, 191, 221, 354
 Podophyllum, 191, 271
 Pogonia, 188, 249, 362
 Rose, 249
 Whorled, 249
 Pokeweed, 261
 Pokeweed Family, 261
 POLEMONIACEAE, 317, 359
 Polemonium Family, 317
Polygonum, 314
 Polygala, 187, 188, 191, 294, 355
 Fringed, 294
 POLYGALACEAE, 294, 358
 POLYGONACEAE, 257, 358
 Polygonatum, 187, 243
 Polygonum, 171, 187, 191, 258, 353,
 356
 POLYPODIACEAE, 193, 357

- Polypodium, 196, 363
 Polypody, 196
 Polystichum, 191, 196
 Pond Lily, White, 265
 Yellow, 266
 Pondweed, 205
 Pondweed Family, 205
 Pontederia, 238
 PONTEDERIACEAE, 238, 357
 Poplar, 249
 Balsam, 250
 Lombardy, 250
 Necklace, 250
 White, 249
 Poppy, 272
 Common, 272
 Corn, 272
 Field, 272
 Poppy Family, 271
 Populus, 187, 191, 249, 356
 Portulaca, 265
 PORTULACACEAE, 265, 358
 Potamogeton, 178, 181, 182, 191, 205, 354
 Potentilla, 179, 188, 192, 283, 361, 362
 Prenanthes, 192, 346, 356
 Prickly Ash, 294
 Primrose, Evening, 305
 Primrose Family, 314
 PRIMULACEAE, 314, 359
 Prince's Feather, 259
 Pine, 310
 Privet, 315
 Proserpinaca, 306
 Prunella, 180, 322
 Prunus, 192, 284, 353
 Psedera, 187, 188, 298
 Ptelea, 293, 353
 Pteretis, 186, 196
 Pteridium, 197
Pteris, 197
 Pulse Family, 288
 Pumpkin, 333
 Purslane, 265
 Common, 265
 Water, 305
 Purslane Family, 265
 Pusley, 265
 Pycnanthemum, 323, 356, 362
 Pyrola, 180, 187, 191, 312
 One-flowered, 311
 Pyrus, 188, 191, 285, 353

 Queen-of-the-Meadow, 282
 Queen-of-the-Prairie, 282
 Quercus, 182, 187, 188, 191, 254
 Quillwort, 202
 Quillwort Family, 202

 Radicula, 186, 275, 355
 Radish, 276
 Horse, 275
 Wild, 276
 Ragged Robin, 263
 Ragweed, 335
 Ragwort, 347
 Golden, 347
 RANUNCULACEAE, 266, 358
 Ranunculus, 187, 190, 191, 268
 Rape, 274
 Raphanus, 276
 Raspberry, 190, 286
 Black, 287
 Dwarf, 287
 Purple Flowering, 287
 Red, 286
Ratibida, 346
 Rattle-box, 264, 289
 Rattlesnake Fern, 200
 Rattlesnake-root, 346
 Rattlesnake-weed, 344
Razoumofskya, 257
 Red Top, 209
 Red-root, 298
 Reed, 221
 Reseda, 276, 353
 RESEDACEAE, 276, 358
 RIIAMNACEAE, 298, 358
 Rhamnus, 188, 298
 Rhaphanus, 353
 Rhododendron, 192, 312, 355
Rhodora, 355
 Rhus, 188, 295, 355
 Rhynchospora, 188, 233
 Rib Grass, 329
 Ribes, 187, 188, 191, 278, 355
 Rice, Mountain, 217
 Richweed, 256, 320
Robertiella, 293
 Robinia, 291
 Robin's Plantain, 341
 Rock Cress, 272
 Rocket, 275
 Rockrose, 300
 Rockrose Family, 300
 Rosa, 179, 285, 353
 ROSACEAE, 279, 358
 Rose, 285
 Cinnamon, 286
 Climbing, 286
 Prairie, 286
 Scotch, 286
 Swamp, 286
 Rose Family, 279
 Rosemary, Bog, 309
 RUBIACEAE, 329, 359
 Rubus, 188, 190, 192, 286, 355

- Rudbeckia, 179, 180, **347**
 Rue, Early Meadow, **270**
 Meadow, **270**
 Rue Anemone, **267**
 Rue Family, **293**
 Rumex, 180, **259**
 Rush, **238**
 Beak, **233**
 Scouring, **201**
 Twig, **231**
 Wood, **241**
 Rush Family, **238**
 Rutabaga, **274**
 RUTACEAE, **293, 358**
 Rye, **221**
 Wild, **213**

 Sage, **323**
 Sagina, **263**
 Sagittaria, 191, **207**
 St. John's Wort, **299**
 Common, **300**
 Great, **299**
 Marsh, **300**
 St. John's Wort Family, **299**
 SALICACEAE, **249, 357**
 Salix, 187, 190, 191, **250, 355**
 Salsola, **261**
 Salvia, **323, 353**
 Sambucus, 188, **331**
 Sandalwood Family, **267**
 Sandbur, **211**
 Sandwort, **262**
 Sang, **306**
 Sanguinaria, 187, **272**
 Sanguisorba, **288**
 Sannicula, 187, 191, **308**
 SANTALACEAE, **267, 357**
 SAPINDACEAE, **297**
 Saponaria, 180, **263, 353**
Sarothra, **300**
 Sarracenia, 188, **276, 361**
 SARRACENIACEAE, **276, 358**
 Sarsaparilla, Bristly, **306**
 Wild, **306**
 Sassaparilla, 187, **271**
 Satureja, **323**
Sarastana, **216**
 Savin, **203**
 Savory, **323**
 Saxifraga, **278**
 SAXIFRAGACEAE, **277, 358**
 Saxifrage, **278**
 Early, **278**
 Golden, **277**
 Swamp, **278**
 Saxifrage Family, **277**
 Scabiosa, **333, 353**
 Scheuchzeria, **207**

Schizomotus, **288**
 Scirpus, 187, 188, 191, **233**
 Scleranthus, **262**
 Scouring Rush, **201**
 Scrophularia, **327**
 SCROPHULARIACEAE, **325, 359**
 Scutellaria, **323**
 Secaly, **221, 353**
 Sedge, **222**
 Sedge Family, **222**
 Sedum, 192, **277**
 Selaginella, 178, 187, **202, 361, 362**
 SELAGINELLACEAE, **202, 357**
 Self-heal, **322**
 Senecio, 188, **347**
 Senma, **289**
 Wild, **289**
 Serapias, **249, 353**
 Sericocarpus, 187, **347**
 Service Berry, **279**
 Setaria, **221, 353**
 Shadbush, **279**
 Sheepberry, **332**
 Shepherd's Purse, **274**
 Shin Leaf, **312**
 Round-leaved, **312**
Sibbaldtopsis, **284**
 Sickle-pod, **272**
 Sicyos, **333**
 Side-saddle Flower, **276**
 Silene, 192, **264, 353**
Sinapis, **273**
 Sisymbrium, 275, **276**
 Sistrinchium, 191, **245**
 Sium, **308**
 Skulleap, **323**
 Mad-dog, **323**
 Skunk Cabbage, **237**
 Smartweed, Common, **258**
 Water, **258**
 Smilacina, 187, 188, **243**
 Smilax, 178, 191, **244**
 Snakehead, **326**
 Snakeroot, Black, **267, 308**
 Seneca, **294**
 White, **342**
 Sneeze-weed, **343**
 Snowberry, **331**
 Creeping, **310**
 Soapberry Family, **297**
 Soapwort, **263**
 SOLANACEAE, **321, 359**
 Solanum, **325**
 Solidago, 187, 191, 192, **328, 347, 356**
 351, 362
 Solomon's Seal, **243**
 False, **243**
 Great, **243**
 Small, **243**

- Solomon's Seal, Star-flowered, 243
 Three-leaved, 243
- Sonchus, 351
- Sorbaria, 288
- Sorbus*, 285
- Sorghastrum, 222
- Sorrel, Garden, 259
 Lady's, 293
 Sheep, 259
 Wood, 292
- SPARGANIACEAE, 205, 357
- Sparganium, 186, 191, 205
- Spathyema*, 237
- Spearmint, 321
- Specularia, 334
- Speedwell, 327
 Common, 327
 Corn, 327
 Marsh, 327
 Purslane, 327
 Water, 327
- Spergula, 264
- Spergularia, 264
- Sphenopholis, 222, 354
- Spice Bush, 271
- Spiderwort, 238
- Spiderwort Family, 238
- Spikenard, 306
 False, 243
- Spike-rush, 232
- Spiraea, 190, 288
- Spiranthes, 188, 249
- Spirodela, 237
- Spleenwort, 193
 Ebony, 193
 Maidenhair, 193
 Narrow-leaved, 194
 Rue, 193
 Silvery, 193
- Sporobolus, 222
- Spring Beauty, 265
- Spruce, 190, 204
 Black, 204, 257
 Bog, 204
 Red, 204
- Spurge, Cypress, 294
- Spurge Family, 294
- Spurrey, 264
 Corn, 264
 Sand, 264
- Squash, 333
 Crookneck, 333
- Squaw-root, 328
- Squirrel Corn, 272
- Stachys, 191, 323
- Staff Tree, 296
- Staff Tree Family, 296
- Staphyles, 296
- STAPHYLEACEAE, 296, 358
- Star Grass, 244
 Thistle, 340
- Starwort, 264
 Water, 295
- Steeple Bush, 190, 288
- Steironema, 314
- Stellaria, 264
- Stenophyllus, 235
- Stickseed, 318
- Stick-tight, 339
- Stomoisia*, 328
- Stonecrop, 277
 Ditch, 277
 Mossy, 277
- Storksbill, 293
- Strawberry, 282
 Barren, 288
 European Wood, 282
 Field, 283
 Garden, 282
 Wood, 283
- Streptopus, 188, 244
- Succisa, 333
- Sugarberry, 255
- Sumach, Dwarf, 295
 Poison, 295
 Smooth, 295
 Staghorn, 295
- Sundew, 276
 Long-leaved, 276
 Round-leaved, 276
- Sundew Family, 276
- Sunflower, 343
 Common, 343
 Wild, 343
- Sweet Fern, 252
 Gale, 252
 Gale Family, 252
 Pepperbush, 310
 William, 263, 317
- Sweetbrier, 179, 286
- Sycamore, 279
- Symphoricarpus, 191, 331
- Symphylum*, 319
- Symplocarpus, 188, 237
- Syndesmon*, 267
- Syntherisma*, 212
- Syringa, 277, 315
- Sysimbrium*, 355
- Tamarack, 203
- Tanacetum, 180, 351
- Tansy, 351
 Common, 351
- Taraxacum, 180, 352
- TAXACEAE, 203, 357
- Taxus, 188, 203

- Tea, Labrador, 311
New Jersey, 298
Oswego, 321
- Tear-thumb, Arrow-leaved, 259
Halberd-leaved, 258
- Teasel, 332
Wild, 332
- Teasel Family, 332
- Teucrium, 323
- Thalesia*, 328
- Thalictrum, 270
- Thelypteris, 181, 188, 191, 194, 197,
198, 361, 363
- Thimbleberry, 286
- Thistle, 340
Bull, 340
Canada, 180, 340
Common, 340
Sow, 351
Cotton, 346
Field, 340
Pasture, 340
Russian, 261
Sow, 351
Star, 340
Swamp, 340
- Thlaspi, 276, 353
- Thorn Apple, Purple, 324
- Thoroughwort, 341, 342
- Thuja, 204
- Thyme, 324
Creeping, 324
- THYMELAEACEAE, 303, 359
- Thymus, 180, 324, 362
- Tiarella, 278
- Tilia, 299
- TILIACEAE, 299, 358
- Timothy, 220
- Tinaria*, 258, 259
- Tissa*, 264
- Tithymalus*, 294
- Toad-flax, 326
Bastard, 257
Blue, 326
- Tobacco, 324
Ladies', 335
- Tomato, 324
- Tonactis*, 337
- Touch-me-not, Pale, 297
Spotted, 297
- Touch-me-not Family, 297
- Torara*, 259
- Toricodendron*, 295
- Traculou*, 258
- Tradescantia, 238, 353
- Tragopogon, 352
- Trefoil, Tick, 289
- Triadenum*, 300
- Trichostema, 188, 324
- Trilens*, 354
- Tridentalis, 314
- Trifolium, 180, 291
- Trillium, 187, 188, 244, 362, 363
Nodding, 244
Painted, 244
Purple, 244
- Triosteum, 332
- Trisetum, 222
- Triticum, 222, 353
- Tsuga, 204
- Tulip Tree, 270
- Tumbleweed, 261
- Tupelo, 309
- Turnip, 273, 274
Indian, 236
- Turtlehead, 326
- Tussilago, 180, 352
- Twayblade, 248
- Twig Rush, 231
- Twin Flower, 330
- Twisted-stalk, 244
- Typha, 204
- TYPHACEAE, 204, 357
- Ulmus, 256, 353
- UMBELLIFERAE, 306, 359
- Unifolium*, 243
- Urtica, 187, 257, 355
- URTICACEAE, 255, 357
- Urticostrum*, 256
- Utricularia, 192, 328
- Uva-ursi, 309
- Uvularia, 191, 213, 244
- Vaccaria*, 263
- Vaccinium, 187, 188, 192, 312, 321,
355, 361
- Vaquera*, 243
- Valerian, 332
Garden, 332
- Valerian Family, 332
- Valeriana, 332, 351
- VALERIANACEAE, 332
- Vallisneria, 186, 208
- Velvet Leaf, 299
- Venus's Looking-glass, 334
- Veratrum, 244
- Verbascum, 327
- Verbena, 319
- VERBENACEAE, 319, 359
- Veronica, 180, 187, 191, 327, 356
- Vervain, 319
Blue, 319
White, 319
- Vervain Family, 319
- Vetch, 292
Blue, 292

- Viburnum, 188, 191, **332**, 353, 356
 Maple-leaved, **332**
 Sweet, **332**
 Vicia, 179, **292**, 355
 Vinca, **316**
 Vine Family, **298**
 Viola, 178, 186, 187, 188, 191, 192,
 301, 355, 361, 362
 VIOLACEAE, **301**, 359
 Violet, **301**
 Canada, **301**
 Dog's Tooth, **242**
 Downy Yellow, **302**
 Early Yellow, **302**
 English, **302**
 Great-spurred, **302**
 Long-spurred, **302**
 Marsh Blue, **301**
 Smooth Yellow, **301**
 Sweet, **302**
 Sweet White, **301**, **302**
 Violet Family, **301**
 Viper's Bugloss, **318**
 Virginia Creeper, **298**
 Virgin's Bower, **267**
 VITACEAE, **298**, 358
 Vitis, 187, 192, **298**

 Wake Robin, **244**
 Waldsteinia, 191, **288**
 Walking Fern, **195**
 Leaf, **195**
 Walnut Family, **252**
Washingtonia, **308**
 Water Cress, **275**
 Hemlock, **307**
 Lily, **265**
 White, **265**
 Family, **265**
 Marigold, **339**
 Milfoil, **305**
 Family, **305**
 Shield, **265**
 Waterleaf, **318**
 Waterleaf Family, **318**
 Water-plantain, **207**
 Water-plantain Family, **207**
 Water-weed, **208**
 Waterwort, **300**
 Waterwort Family, **300**

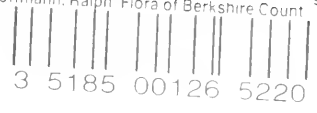
 Waxwork, **296**
 Wayfaring Tree, **332**
 Wheat, **222**
 Cow, **326**
 Whitewood, **270**
 Wicopy, **303**
 Willow, **250**
 Beaked, **251**
 Black, **251**
 Crack, **251**
 Glaucous, **250**
 Hoary, **250**
 Purple, **251**
 Pussy, **250**
 Shining, **251**
 Silky, **251**
 White, 190, **250**
 Willow Family, **249**
 Willow-herb, **304**
 Wintergreen, **310**, **311**
 Chickweed, **314**
 Spotted, **310**
 Witeh-hazel, **279**
 Witch-hazel Family, **279**
 Wood Sorrel, **292**
 Wood Sorrel Family, **292**
 Woodbine, **298**
 Woodsia, 188, **199**, 362
 Blunt-lobed, **199**
 Rusty, **199**
 Wormwood, **336**
 Roman, **335**
 Woundwort, **323**

 Xanthium, 187, **352**, 354
Xanthoxalis, **292**
Xolisma, **311**
 XYRIDACEAE, **237**, 357
 Xyris, **237**

 Yarrow, **334**
 Common, **334**
 Yellow-eyed Grass, **237**
 Yellow-eyed Grass Family, **237**
 Yew, **203**
 Yew Family, **203**

 Zanthoxylum, **294**
 Zizia, **308**

OK 125 .H6
Hoffmann, Ralph Flora of Berkshire County gen



3 5185 00126 5220

