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BULLETIN No. 14



HARTFORD

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1910





CATALOGUE

of the

FLOWERING PLANTS AND FERNS

of

Connecticut

Growing without Cultivation

By

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Committee of the

CONNECTICUT BOTANICAL SOCIETY





HARTFORD

Printed for the State Geological and Natural History Survey

QK.

Preface

The project of an accurate and authoritative catalogue of all the plants known to grow without cultivation in Connecticut originated among several enthusiastic botanists who understood the value of records founded upon careful study of the flora in the field as well as in the herbarium. To arouse the widest possible interest in the undertaking the Connecticut Botanical Society was organized in January, 1903, for the chief purpose of accumulating and recording this knowledge, and committees were appointed to gather and collate all available data bearing upon this particular line of research.

The labor of this never-ending investigation had barely begun when the State Geological and Natural History Survey was authorized. Upon the organization of this Survey its superintendent, Prof. William North Rice, sought the coöperation of this Society to report upon the flora. It was realized then as now that the very nature of the subject would require many years of careful study to arrive at an approximately exact knowledge of the distribution of our plants, since parts of the state were little known botanically, while even those areas most carefully worked over furnished frequent surprises.

That the present work is incomplete goes without saying. A work of this character must always be incomplete if for no other reasons than the advent or naturalization, from time to time, of unexpected species, or the hybridization or artificial segregation of some already known. But the opportunity to disseminate existing information is very acceptable at this time, inasmuch as the many evident deficiencies may thus be made apparent to those who can add to our knowledge.

The present volume, treating of the ferns, fern-allies and flowering plants, is intended to include only such species, varieties and named forms as have been critically examined by at least one of the compilers, and which are represented by authentic specimens in some herbarium. Great effort has been made to insure accuracy in the determination of all doubtful specimens. Some localities, however, rest upon the authority of collectors alone, when the species is once definitely admitted and there is no reason to doubt identity. It has been necessary to exclude a number of species found in previous lists, because of the absence of any authentic specimens. Errors of determination and changes in classification account for a large proportion of such excluded names, while there remain a few that probably really belong to our flora but are waiting to be rediscovered. A list of such excluded plants will be found at the end of the work. There also will be found other data bearing upon the flora as a whole.

In the present unsettled and perplexing state of nomenclature, it is believed that necessity exists for strict adherence to a single standard to avoid still greater confusion. In Gray's Manual, 7th edition, will be found a discriminating application of the rules and usage adopted by the International Botanical Congress, at Vienna, in 1905. This usage has been productive of the least change in plant names, thereby proving particularly well adapted to the purpose of this Catalogue. Moreover, by accepting this Manual as our guide we are enabled to eliminate all descriptive matter by referring the reader to that work. To facilitate general reference, however, important synonymy is given so that there need be little difficulty in coördinating names.*

Common or English names have been given considerable attention, yet it is probable that many others are in use, some, no doubt, by children or others of an observing nature. It is desirable to increase our knowledge of such usage. The same may be said of the folk-lore of our plants and of such traditional knowledge of their medicinal and other uses as has come down to us from earlier generations or from the aborigines.

The data relative to times of flowering and fruiting have been compiled from carefully kept records supplemented by herbarium material, and represent the normal habits of the plants in our region; yet the varying conditions of altitude, exposure, moisture, light, season, etc., have great influence in modifying

^{*} In a few instances we have used, instead of the names given in the 7th edition of the Manual, the names published by the editors of the Manual in a list of emendations in Rhodora, vol. 11, no. 123, March, 1909.

plant activities, so that for special localities or seasons the conditions require special consideration. Unless otherwise stated the dates given in the Catalogue indicate the time when the plant is usually in flower, or, for the ferns, when the spores are mature.

The sign \times preceding the name of a species indicates that it is

supposed to be of hybrid origin.

All statements indicating the comparative frequency of occurrence of the species are to be considered in relation to allied species and with direct reference to the habitat cited; in other situations the plant may not occur at all or exceptionally. A plant "common" in its habitat should be sufficiently plentiful to be within the observation of all who could recognize it, yet there is a vast difference in the comparative numbers of most really plentiful woody plants and low herbs of the same rating. quent," too, is relative in the same sense. Although, as a rule, frequent or common in the habitat and area cited, many such plants may be rare in, or even absent from, certain intervals where the conditions appear to be equally favorable. "Occasional" needs no explanation. "Rare" is intended to apply to those plants which appear to occur sparingly, usually in but few localities as named. "Local" refers especially to such plants as occur at one or more isolated or special areas, but are there more or less plentiful, as indicated by the context.

The habitats cited are those observed in Connecticut, and although often variable are expressive of local conditions.

In accordance with the spirit of the Act incorporating the Survey, due attention has been given to the economic features of the various species, when required, in notes appended to each. Although in some respects desirable, it seems, on the whole, inadvisable at this time to enter upon a discussion of the associations of native plants and the probable causes leading to such congregations. It is necessary to collect much more complete data than are now available before such discussion can be profitably taken up. Mere lists of such plant aggregates are apt to be of no value to most readers and of little utility to practical botanists.

It is a pleasure to acknowledge the assistance of all who have contributed items of information toward the completeness of this Catalogue and whose names appear throughout the work. Particular mention should be made of Dr. B. L. Robinson and Prof. M. L. Fernald, of the Gray Herbarium of Harvard Uni-

versity, for their very great assistance in determining or verifying many doubtful or critical forms, and for granting the privilege of utilizing the manuscript of the new edition of Gray's Manual. Prof. A. S. Hitchcock and Mrs. Agnes Chase, of the United States Department of Agriculture, have also given aid in certain groups of grasses.

It is hoped that the publication of this Catalogue will stimulate observers and collectors in all parts of the state to contribute every item of information tending to a full knowledge of our plants, either in relation to additional species, distribution, local names, habitat or economic value. Communications may be sent to any member of the committee, at the address given, preferably the one nearest and most convenient, and should be accompanied by specimens of sufficient diagnostic value to determine the identity of each, together with particulars of occurrence, dates, etc. Such specimens, to be of the greatest value for preservation and future reference, should be carefully selected, and may be sent in the fresh state or, preferably, after proper drying under pressure.

C. B. Graves, New London,

E. H. EAMES, Bridgeport,

C. H. BISSELL, Southington,

L. Andrews, Southington,

E. B. Harger, Oxford,

C. A. Weatherby, East Hartford,

Committee of the Connecticut Botanical Society.

Contents

				Page
Introduction,				11
History,				11
Geology and Physiography, .				14
CATALOGUE OF FLOWERING P	LANT	S AND	FERNS,	17
Pteridophyta,				17
Spermatophyta,				34
Gymnospermae,				34
Angiospermae,				39
Monocotyledoneae, .				39
DICOTYLEDONEAE, .				137
Appendix,				416
Additions and Corrections, .				416
Native Plants not found in recent	years,			422
Excluded Species,				423
Fugitive Species,				430
Statistical Summaries, .				435
Botanical Authors cited, .				442
Index,				465

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Introduction.

PART I. HISTORY.

The history of botanical exploration in Connecticut may be said to begin near the end of the second decade of the last century. Previous to this time we have no record of any botanical activity within the state, and if any of the older botanists visited Connecticut it must have been cursorily.

The first resident of Connecticut whose work is of importance seems to have been Dr. Eli Ives, who was born in 1770. and was for many years professor of botany and materia medica in Yale College. He was the author of the species Gnaphalium decurrens, which was founded on specimens from New Haven and from "the margin of the Housatonuck about 30 miles from Long Island Sound." He also described as a new species Asclepias lanceolata from Cedar Hill, New Haven, which is the plant now known as Acerates viridiflora (Raf.) Eaton, var. lanceolata (Ives) Gray. Beside this he published notes on Limosella, then recently discovered in America. These three articles appeared in 1810 in the first volume of Silliman's Journal. now known as The American Journal of Science. Twelve years later he, in collaboration with Dr. William Tully and Dr. Melines C. Leavenworth, published a "Catalogue of the Phaenogamous Plants, and of the Ferns, growing without cultivation within five miles of Yale College." This is the earliest record of the flora of this well-explored part of the state and contains the names of 1156 species. It was not, however, founded on specimens or even on accurate records, and contains a few species which are not otherwise reported from the state. The foregoing works seem to have comprised the bulk of Dr. Ives' botanical publications and no specimens of his have been seen.

About the time of the publication of Dr. Ives' earliest articles John Pierce Brace must have been making the observations about Litchfield the results of which he published in 1822 in Silliman's Journal as "A List of Plants growing spontaneously in Litchfield and Vicinity." This earliest extant catalogue of the plants of any portion of Connecticut enumerates 453 species, most or all of which are now known from the same region. Brace's specimens are said to be preserved at Williams College, but they have not been seen by any member of this Committee.

We are told that Amos Eaton "prosecuted the study of botany, chemistry and mineralogy to some extent in New Haven in 1817." Although we know nothing of the extent of his work on our flora, the record is interesting from the fact that he was the grandfather of Prof. D. C. Eaton and one of the first in America to arouse a general interest in botany.

The earliest collectors whose specimens have been preserved in any quantity belong to a period some years later. Dr. H. C. Beardslee, Dr. J. W. Robbins and Charles Wright collected many rare species during the dozen years following 1822, mostly from 1828 to 1832, some of which have only recently been rediscovered. These gentlemen, although natives of this state, made most of their later collections outside of Connecticut, and some specimens lay for a long time undistributed; so that a few species known to these collectors are here first included in a formal flora of the state

The next collector whose work is of importance is Prof. Daniel C. Eaton of Yale, who will need no eulogy either as a man or as a scientist to those who were fortunate enough to know him. Although primarily a student of the ferns and other cryptogams, his knowledge of the higher plants was extensive and accurate. He collected much in the region about New Haven and always welcomed reports or specimens of species new to or rare in Connecticut. His collecting, as shown by the dates in his herbarium, began about 1856, and his specimens have been of the greatest assistance both in botanical exploration and in the preparation of this work.

After 1831 work on the flora of Connecticut seems to have lapsed entirely until it was taken up about 1877 by a small group of students in the Sheffield Scientific School of Yale College. The results of their work were published as "A Catalogue of the Flowering Plants and Higher Cryptogams growing without cultivation within thirty miles of Yale College." This was published by the Berzelius Society and is often referred to as the "Berzelius Catalogue." The limits adopted included less than one-half of the state and a portion of the northern part of Long Island. The presence of a considerable number of species credited to Long Island makes it difficult to determine the precise number of species recorded from this state; but the species and varieties of plants higher than the Bryophyta which are credited to Connecticut number about 1230. The work was prepared with considerable care, but at least a few species were admitted without the evidence of specimens, which caused a few obvious errors as well as some conjectural ones. The idea of this work originated with Dr. George W. Hawes and Dr. T. M. Prudden, but several others assisted in its preparation, notably Prof. Eaton, who later published some additions in the Bulletin of the Torrey Botanical Club.

Not long after this Miss Leonard of Meriden prepared a list of plants growing near Meriden which was published after her death by the Meriden Scientific Association. This enumerated 749 species, while 41 were added by others the next year, making a total of 790. Owing perhaps to the posthumous character of the work it seems never to have had proper revision, and a number of species are included which are not otherwise reported from Connecticut, some of them of such southern range that it does not seem likely that they can belong in a Connecticut list. The lack of specimens prevents the inclusion here of any of these species not reported elsewhere.

In 1882 George R. Case and William A. Setchell published a list of the flora of Norwich and vicinity containing 668 species, and the next year published 100 addenda. A manuscript found among Prof. Eaton's papers gives 99 more for the year 1884, with some corrections, making the total 856.

In 1885 James N. Bishop of Plainville published "A Catalogue of all the Phaenogamous Plants at present known to grow without cultivation in the State of Connecticut." In 1895 a revision was issued which included also the ferns and fern-allies. Additions and corrections were published in 1897 and another new edition issued in 1901. This first catalogue to cover the entire state contained in its first edition 1250 species and varieties,

which number was increased to 1743 in the edition of 1901. Mr. Bishop deserves much credit for his efforts to increase the knowledge of our flora, but his catalogue is rather a compilation of all accessible reports than a critical treatment of the flora of the state, and contains many records the validity of which cannot now be ascertained.

Of late years a large mass of data has been accumulated by the various collectors whose names appear in this work. Some of this has been published in Luman Andrews' "Flora of Meriden Mountain," in Bissell & Andrews' "Flora of Southington," and in Mrs. E. E. Rogers' "Flora of Norwich," as well as in scattered notes and articles by various writers dealing with special localities or species. The bulk of this later material, however, has found its first publication in this present Catalogue.

PART II. GEOLOGY AND PHYSIOGRAPHY. *

The State of Connecticut, measuring roughly one hundred miles from east to west and fifty miles from north to south, has an area of 4990 square miles, of which 145 square miles are covered by water. The three principal rivers, the Thames, the Connecticut and the Housatonic, with their tributaries, drain the interior. As in all glaciated countries, numerous ponds or lakes and swamps are scattered over the surface, and constitute an important feature both from an economic and an æsthetic point of view. According to the Atlas of the U. S. Topographical Survey the state contains 1026 lakes or ponds, and 420 swamps.

With respect to elevation there are three well-marked divisions running parallel with one another across the state from north to south, namely an eastern and a western highland separated by a central lowland area. From sea level the land gradually rises toward the north and northwest. The eastern highland reaches its greatest altitude of 1286 ft. at Bald Hill, in Union, while Bear Mt., in Salisbury, with a height of 2355 ft. marks the highest point of the western highland as well as of the state.

The central lowland is in general a plain, gently rising toward the northern boundary of the state where it is from one to two

^{*} For a very full and admirable account with map, reference is made to Bulletins No. 6 and No. 7 of this Survey.

hundred feet above the level of the sea. It is, however, interrupted by many sharp ridges running chiefly north and south which rise abruptly much above the general level of the plain. Its upper portion as far south as Middletown is traversed by the Connecticut River. Its rock formation is sandstone belonging to the Triassic age, while the sharp ridges referred to are of trap rock and represent ancient eruptions of lava. The highest of these trap ridges is West Peak of the Hanging Hills, near Meriden, which reaches an altitude of 1007 ft. above the sea.

The eastern and western highlands are rugged and hilly, with only comparatively small level areas, and have a crystalline rock formation, being made up for the most part of various kinds of granites, gneisses, schists and limestone. The limestone formation covers a considerable irregular area in the western and northwestern parts of the state but is practically absent from other sections.

It is a well-known fact that our wild plants are not evenly distributed over the surface of the country. Some kinds are seen nearly everywhere, others may be abundant in one region but entirely absent from other sections, while still others are found only rarely, and then but very few together. Inquiry into the causes of this unequal distribution reveals a considerable number of factors entering in. One of the most important of these is the chemical constitution of the soil. Rock formations as the source of soils exercise a marked influence upon plant distribution. Many kinds of plants, it is true, are able to grow and seem to thrive equally well upon a variety of soils, but on the other hand there are many species that flourish only upon certain rock formations and the soils produced from them and are rarely if ever found away from such formations. One of our best examples is seen in the case of those species of plants which grow exclusively upon limestone rocks and in soils rich in lime. In like manner seashore plants which grow only in saline soil form a wellmarked group. This relation between plant distribution and the chemical constitution of the soil as applied to our Connecticut plants is understood only in its most general features, and there is here good opportunity for research. The problem is much complicated by the fact that Connecticut soils are practically all formed from transported material. Such material, having been brought by glacial or water agency from a greater or less distance, may be and often is entirely different in chemical composition from the underlying rock. Hence within a small area a variety of soils may be found, while on the other hand soils essentially similar to each other may overlie very different bedrock formations.

Other influences have an important bearing in this connection. Topographic features correlated with the amount of moisture in the soil and degrees of light and shade affect plant distribution in a marked degree. Thus, the sand plains, the cedar swamps, the trap rock and other precipices and the larger river valleys have their characteristic plants.

There is another small group of species chiefly confined to the southeastern part of the state which belongs to the flora of the Atlantic Coast Plain of the middle and southern states. In the case of these plants, as in that of certain northern plants found within our borders at isolated stations far outside their usual range, it is probable that they represent the shrunken remnants of far larger colonies which grew there in earlier times and under more favorable climatic conditions.

Another agency profoundly influencing the distribution of plants is the fierce unceasing struggle for existence between the various species.

Only a beginning has been made in working out these problems of ecology in their application to our Connecticut flora. They offer a fresh and inviting field for careful research, and it is to be hoped that many observers may soon be interested to undertake the task of supplying the deficiencies of our knowledge in this direction.

Catalogue of Flowering Plants and Ferns.

PTERIDOPHYTA. FERN PLANTS.

POLYPODIACEAE. FERN FAMILY.

POLYPODIUM L. Polypody.

Polypodium vulgare L. (common).

Polypody.

Shaded ledges. Occasional or frequent in northern districts, becoming common near the coast. June — Aug.

The var. CAMBRICUM (L.) Willd. has been collected at Stonington (Miss Stanton) and at Cornwall (L. M. Underwood).

The rootstock is medicinal.

PHEGOPTERIS (Presl) Fée. Beech Fern.

Phegopteris polypodioides Fée (Polypodium-like).

Phegopteris Phegopteris Underw.

Long Beech Fern.

Rich moist woods and on shaded banks. Rare or local near the coast, becoming occasional or frequent northward. July.

Phegopteris hexagonoptera (Michx.) Fée (six-angled fern). Broad Beech Fern.

Rich woods either moist or dry. Occasional near the coast, becoming frequent or common northward. Aug.

This fern is so closely related to *Phegopteris polypodioides* that it is often difficult to decide to which species a given specimen belongs.

Phegopteris Dryopteris (L.) Fée (oak-fern).

Oak Fern.

Rocky woods in rich moist soil. Rare or local over most

of the state: East Lyme (Miss A. M. Ryon), Colchester (Graves), Mansfield (Mrs. C. S. Phelps), East Haddam (Dr. E. J. Thompson), Durham and Monroe (Harger), Meriden (D. C. Eaton), Southington (Andrews), Granby (I. Holcomb), Bridgeport (I. Holden). Occasional or frequent in Litchfield County. Late June—early July.

ADIANTUM L. Maidenhair.

Adiantum pedatum L. (like a bird's foot; referring to the method of division in the fronds).

Maidenhair.

Rich woods. Rare in the immediate vicinity of the coast; occasional or frequent elsewhere. July.

Thrives well in cultivation if placed in a moist, shaded and sheltered location. The plant is medicinal.

PTERIS L. Brake. Bracken.

Pteris aquilina L. (of an eagle; referring to the wing-shaped fronds).

Pteridium aquilinum Kuhn.

the manner of Asparagus.

Common Brake. Bracken. Brake.

Common. Usually in open ground and poor soils. Aug. The young shoots are sometimes gathered and eaten in

CHEILANTHES Sw.

Cheilanthes lanosa (Michx.) Watt (woolly).

Cheilanthes vestita Sw.

Hairy Lip Fern.

Very rare. New Haven, precipitous face of West Rock about half way up the cliff (G. Van Ingen 1892). July.

This is the only known station for this species in New England, and it is supposed to be the northern limit of its growth.

PELLAEA Link. Cliff Brake.

Pellaea atropurpurea (L.) Link (dark purple).

Purple Cliff Brake.

Dry exposed ledges, preferring limestone but occurring also on trap and rarely on gneiss. Bolton, on gneiss (A. V. Osmun); Guilford, on trap (G. H. Bartlett); becoming rare

or local westward and frequent in the limestone district of northwestern Connecticut. July.

The fronds vary greatly in form even on the same plant. The rootstock is medicinal.

CRYPTOGRAMMA R. Br. Rock Brake.

Cryptogramma Stelleri (Gmel.) Prantl.

Pellaea gracilis Hook.

Pellaea Stelleri Watt.

Slender Rock Brake.

Very rare. New Haven, on trap ledges at West Rock (G. Van Ingen); Kent, moist shaded ledges of calcareous rock (Eames & E. H. Austin), and Brookfield, in similar situations (Eames); Salisbury, on limestone (Mrs. C. S. Phelps). July.

WOODWARDIA Smith. Chain Fern.

Woodwardia virginica (L.) Smith.

Virginia Chain Fern.

Wet open swamps, often in Sphagnum. Rare or local in northern districts: South Windsor (A. W. Driggs), Granby (I. Holcomb). Becoming occasional southward and frequent near the coast. July.

Woodwardia areolata (L.) Moore (marked with little areas). Woodwardia angustifolia Smith.

Net-veined Chain Fern.

Wet or swampy woods. Rare inland: East Hartford (J. F. Smith), Oxford and Middlebury (Harger). Occasional in the vicinity of the coast. Sept.

ASPLENIUM L. . Spleenwort.

Asplenium pinnatifidum Nutt. (feather-cleft).

Pinnatifid Spleenwort.

Very rare. Southington, on ledges of shale (H. C. Bigelow); Sharon, on ledges of limestone (E. I. Huntington). July.

Not known from any other New England state.

×Asplenium ebenoides R. R. Scott (like the Ebony Spleenwort).

Scott's Spleenwort.

Two plants of this rare species, or more properly hybrid,

have been found in the state. The first was discovered in Canaan by Mr. J. S. Adam in Sept., 1876. Mr. Adam states that the plant flourished there until 1891, then disappeared. A second plant was found in the same town, but at a different station, by Mr. C. K. Averill, in Aug., 1902. Both plants were growing on shaded limestone ledges and with or near the two supposed parent species, *Asplenium platyneuron* and *Camptosorus rhizophyllus*.

Asplenium Trichomanes L. (ancient name for some fern).

Maidenhair Spleenwort.

Shaded ledges. Rather rare along the coast, becoming occasional or frequent northward. July.

Asplenium platyneuron (L.) Oakes (broad-nerved).

Asplenium ebeneum Ait.

Ebony Spleenwort.

Frequent. Dry rocky ground, more often in half-shade. Aug.

The var. Serratum (E. S. Miller) BSP. (toothed) has been found at Middletown (Bissell), Milford (Eames & C. C. Godfrey), and Huntington (Eames).

Asplenium montanum Willd. (of mountains).

Mountain Spleenwort.

Rare. Crevices of dry, usually overhanging ledges: Scotland (G. Waldo), North Stonington (Fuller & W. E. Setchell, Graves), Franklin and East Haddam (Graves), Beacon Falls (A. W. Evans), Salisbury (Mrs. C. S. Phelps). July.

The last named station represents the northern limit of its range as now known.

Asplenium Ruta-muraria L. (wall-rue).

Rue Spleenwort.

Shaded ledges. Berlin (T. S. Brandegee), Southington (Andrews), Granby (I. Holcomb), Sherman and New Milford (E. H. Austin); and occasional in the limestone district of northwestern Connecticut. Not known from eastern districts or near the coast. July.

Asplenium angustifolium Michx. (narrow-leaved).

Narrow-leaved Spleenwort.

Rare. Moist rich woods: Guilford (W. W. Denslow),

Meriden (D. C. Eaton), Southington (J. N. Bishop), Berlin (H. W. Cowles), Avon (I. Holcomb), Salisbury (F. Rundle). Aug.

Asplenium acrostichoides Sw. (like Acrostichum, a genus of tropical ferns).

Asplenium thelypteroides Michx.

Silvery Spleenwort.

Woods and ravines in moist rich soil. Occasional near the coast, becoming frequent northward. Aug.

Asplenium Filix-femina (L.) Bernh. (female fern).

Lady Fern.

Common. Woods, thickets and fence-rows. Late July — early Aug.

A very variable species with many described forms, some of which seem to be caused by differences in the soil, exposure or habitat. The rootstock is medicinal, and is used as a substitute for that of the Male Fern.

CAMPTOSORUS Link. Walking Leaf.

Camptosorus rhizophyllus (L.) Link (with rooting leaves).

Walking Leaf. Walking Fern.

Shaded ledges, preferring limestone, but growing also on granite, sandstone or trap. Found throughout, but rare or local over most of the state, becoming frequent in the limestone district of northwestern Connecticut. July — Aug.

Plants having the lower auricles of the fronds elongated like the tip have been found at Southington (H. C. Bigelow), Hamden, at Mt. Carmel (D. C. Eaton), and Salisbury (Mrs. C. S. Phelps).

POLYSTICHUM Roth.

Polystichum acrostichoides (Michx.) Schott (like Acrostichum, a genus of tropical ferns).

Aspidium acrostichoides Sw.

Dryopteris acrostichoides Kuntze.

Christmas Fern.

Common. Woods and shaded banks or ledges. July.

The var. INCISUM Gray (cut or notched), var. Schweinitzii Small, Aspidium acrostichoides Sw., var. incisum Gray,

Dryopteris acrostichoides Kuntze, var. Schweinitzii Underw., occurs occasionally. It is found more often late in the season and frequently where the woods have recently been felled. A form with crested fronds occurs at East Haddam (Weatherby).

ASPIDIUM Sw. Wood Fern. Shield Fern.

Aspidium Thelypteris (L.) Sw. (female fern).

Dryopteris Thelypteris Gray.

Marsh Fern.

Common. Swamps and wet ground. Aug.

Often very plentiful and sometimes cut and dried as bedding for stock.

Aspidium simulatum Davenp. (imitating; referring to its resemblance to the Marsh Fern).

Dryopteris simulata Davenp.

Massachusetts Fern.

Wet woods and cedar swamps. Rare over most of the state: Salisbury (Mrs. C. S. Phelps), Oxford (Harger), Southington (Bissell), Cromwell (H. C. Bigelow). Local in New London County (Graves). Aug.

Aspidium noveboracense (L.) Sw. (New York).

Dryopteris noveboracensis Gray.

New York Fern.

Frequent. Woods, more often in moist ground. Aug.

Aspidium marginale (L.) Sw. (on the edge; referring to the position of the fruit dots).

Dryopteris marginalis Gray.

Marginal Shield Fern.

Frequent. Dry rocky woods. July.

The rhizome is officinal and with that of the Male Fern furnishes the drug Aspidium or Filix-mas. All species of the genus possess the same property in some degree.

Aspidium Goldianum Hook.

Dryopteris Goldiana Gray.

Goldie's Fern.

Rare. Rich moist woods: North Branford (O. Harger), Bloomfield (Miss A. Lorenz), Farmington (I. Holcomb), Southington (Andrews & Bissell), Cheshire (D. C. Eaton), New Haven (Harger). July.

Aspidium Boottii Tuckerm.

Dryopteris Boottii Underw.

Rare or occasional. Wet woods and shaded swamps, usually growing with Aspidium cristatum. July.

Intermediate in form and formerly considered a hybrid between Aspidium cristatum and Aspidium spinulosum, var. intermedium.

Aspidium cristatum (L.) Sw. (crested).

Dryopteris cristata Gray.

Crested Shield Fern.

Occasional or frequent. Wet woods and shaded swamps, more often in sandy soil. July.

A hybrid between this species and *Aspidium marginale* occurs at East Lyme (Miss A. M. Ryon & Graves), Waterford (Graves), Granby (I. Holcomb), and Salisbury (Mrs. C. S. Phelps).

Aspidium cristatum (L.) Sw., var. **Clintonianum** D. C. Eaton. *Dryopteris cristata* Gray, var. *Clintoniana* Underw.

Clinton's Shield Fern.

Rare or occasional. Wet woods and shaded swamps. July.

This variety appears to hybridize with $Aspidium\ marginale$ and also with the typical form of the species.

Aspidium spinulosum (O. F. Müller) Sw. (with small spines). *Dryopteris spinulosa* Kuntze.

Spinulose Shield Fern.

Moist or wet woods. Usually rare or local but occurring throughout the state. Late June — early July.

This species and its varieties are desirable for cultivation in shaded places and also grow well indoors in the fernery.

Aspidium spinulosum (O. F. Müller) Sw., var. intermedium (Muhl.) D. C. Eaton (intermediate).

Dryopteris spinulosa Kuntze, var. intermedia Underw.

Occasional or frequent. Moist woods and on shaded rocks. Late June — early July.

Aspidium spinulosum (O. F. Müller) Sw., var. dilatatum (Hoffm.) Grav (dilated).

Dryopteris spinulosa Kuntze, var. dilatata Underw. Broad Shield Fern.

This variety is not known in its typical state in Connecticut. The forma ANADENIUM Robinson (without glands) apparently occurs at East Hartford (Weatherby), Granby and Barkhamsted (I. Holcomb), and Southington (Andrews, Bissell). It is found growing with the species or with the var. intermedium and none of the Connecticut specimens are as characteristic as those from mountainous districts farther

> CYSTOPTERIS Bernh. Bladder Fern.

Cystopteris bulbifera (L.) Bernh. (bulb-bearing).

Filix bulbifera Underw.

Bladder Fern.

north. July.

Moist rocky woods, wet ledges, meadows and banks of streams. Not reported on the coast or from the eastern and southwestern parts of the state. Rare or local in central districts: Guilford, at North Guilford (G. H. Bartlett), Windsor (H. S. Clark), Simsbury (I Holcomb), Oxford (Harger). Becoming frequent or common in northwestern Connecticut. Tuly.

Cystopteris fragilis (L.) Bernh. (brittle).

Filix fragilis Underw.

Occasional to frequent. Rich woods, usually in leaf-mold among rocks, sometimes found in old wells. June.

One of the earliest of our ferns to appear in the spring.

WOODSIA R. Br.

Woodsia ilvensis (L.) R. Br. (pertaining to the island Elba). Rusty or Rock Woodsia.

Dry exposed ledges of various rock formations. Rare or local but found in nearly all parts of the state. July.

Woodsia obtusa (Spreng.) Torr. (blunt).

Blunt Woodsia.

Occasional. Woods or half-shade, usually in rocky, rather dry places. July.

DICKSONIA L'Hér.

Dicksonia punctilobula (Michx.) Gray (with small, dotted lobes).

Dicksonia pilosiuscula Willd.

Dennstaedtia punctilobula Moore.

Hay-scented Fern.

Common. Rich woods, fence-rows and hilly pastures, in both moist and dry ground, often forming large colonies. Aug.

The forma CRISTATA (Maxon) Clute (crested), and the forma SCHIZOPHYLLA Clute (cut-leaved) are both reported to occur rarely with the species.

Sometimes a pest to farmers in rocky pastures, as stock will not eat it and the plant is difficult to eradicate. It grows well in cultivation. Forking fronds are not unusual.

ONOCLEA L.

Onoclea sensibilis L. (sensitive).

Sensitive Fern.

Common. Low fields, swamps and along streams. Sterile $\mbox{\it June}\,;$ fertile Sept.

The var. OBTUSILOBATA (Schkuhr) Torr. (with blunt lobes) sometimes occurs. It is apparently an abnormal form caused by cutting or some injury to the earlier growth of the plant.

The sterile fronds are very susceptible to early frost, whence the name.

Onoclea Struthiopteris (L.) Hoffm. (ostrich fern).

Matteuccia Struthiopteris Todaro.

Ostrich Fern.

Rich alluvial soil. Rare in most districts, but frequent along the Connecticut and Housatonic Rivers and their larger tributaries. Sterile June; fertile Aug.— Sept.

Our largest fern, the fronds occasionally reaching six feet in height. It thrives in cultivation if given rich soil, and is often grown for ornament.

SCHIZAEACEAE. CURLY GRASS FAMILY.

LYGODIUM Sw. Climbing Fern.

Lygodium palmatum (Bernh.) Sw. (branching like the outspread fingers of a hand).

Creeping Fern. Hartford Fern. Climbing Fern.

Rich woods and thickets, in moist, usually sandy soil. Not reported from western Connecticut; rare in eastern districts: Griswold (Harger & Graves), Lyme (Dr. E. J. Thompson). Local at many stations in the central part of the state. Aug.—Sept.

The following Act was passed by the Legislature and became a law on July 8, 1869: "Any person who shall wilfully and maliciously sever or take from the land of another any of the species of plant known as Lygodium palmatum or Creeping Fern growing and being thereon, shall be punished by a fine not exceeding Seven Dollars or imprisonment in county jail not exceeding thirty days or by such fine and imprisonment both at the discretion of the court." The penalty for this offense was later increased. Prior to 1869 this fern was extensively collected and pressed for decorative purposes.

OSMUNDACEAE. FLOWERING FERN FAMILY.

OSMUNDA L. Flowering Fern.

Osmunda regalis L. (royal).

Royal Fern. Flowering Fern.

Frequent or common. Low thickets, wet meadows and pastures and along streams. June.

The rootstock is medicinal.

Osmunda Claytoniana L.

Interrupted Fern.

Frequent or common. Old pastures, along fence-rows and in open wood-lands. Fertile May; sterile June.

The var. DUBIA A. J. Grout (doubtful) occurs occasionally. It is apparently a form caused by some injury to the plant.

All our species of Osmunda thrive in cultivation.

Osmunda cinnamomea L. (cinnamon-colored).

Cinnamon Fern.

Common. Wet woods, swamps and boggy ground. Fertile May; sterile June.

Both the var. Frondosa Gray (leafy) and the var. Incisa J. W. Huntington (notched) sometimes occur.

The abundant tomentum found on this species is used in nest building by certain birds.

OPHIOGLOSSACEAE. ADDER'S TONGUE FAMILY.

OPHIOGLOSSUM L. Adder's Tongue.

Ophioglossum vulgatum L. (common).

Adder's Tongue.

Moist meadows, woods and low pastures. Rare or local though perhaps more plentiful than usually supposed as the plant is very inconspicuous. July.

BOTRYCHIUM Sw. Moonwort. Grape Fern.

Botrychium simplex E. Hitchc. (simple).

Botrychium tenebrosum A. A. Eaton.

Rare. Rich woods either dry or moist: Granby (I. Holcomb), Oxford (J. & O. Harger), Goshen (L. M. Underwood), New Milford (J. Pettibone). June.

Botanists disagree as to the proper treatment of this species and our plants need further study.

Botrychium lanceolatum (Gmel.) Ångstr. (lance-shaped), var. angutisegmentum Pease & Moore (with narrow segments).

Botrychium lanceolatum of Manuals.

Rare. Moist rich woods, usually in leaf-mold: Norwich (W. A. Setchell), East Lyme (Miss A. M. Ryon), Windsor (Weatherby), Granby (I. Holcomb), New Haven and Oxford (Harger), Orange (O. Harger), Naugatuck and Stratford (Eames), Winchester (Bissell), Goshen (L. M. Underwood), Easton (L. N. Johnson), Salisbury (Mrs. C. S. Phelps). Late June—early July.

This species seems to mature its spores two or three weeks later than *Botrychium ramosum* when the two grow together.

Botrychium ramosum (Roth) Aschers. (having many branches).

Botrychium matricariaefolium Braun.

Botrychium neglectum Wood.

Rich woods. Rare or local, but found throughout the state. June.

Small forms of this are difficult to separate from Botry-chium simplex.

Botrychium obliquum Muhl. (oblique).

Botrychium ternatum Sw., forma obliquum Milde. Grape Fern.

Occasional or frequent. Meadows, woods and old pastures in either dry or moist ground. Sept.

The var. ELONGATUM Gilbert & Haberer (elongated), and the var. DISSECTUM (Spreng.) Clute (finely cut), Botrychium dissectum Spreng., are occasional, growing with the typical form.

Botrychium ternatum (Thunb.) Sw. (three-parted), var. intermedium D. C. Eaton (intermediate).

Botrychium obliquum Muhl., var. intermedium Underw. Botrychium ternatum Sw., var. australe D. C. Eaton.

Rare. Rich woods: Union and Southington (Bissell), West Hartford (Harger), Granby (I. Holcomb), Meriden (Andrews), New Milford (C. K. Averill & E. H. Austin), North Canaan (M. B. Tobey). Sept. A small form of this approaching in appearance Botrychium obliquum, var. oncidense occurs at Granby (I. Holcomb), Plainville (Andrews), and Plymouth (Bissell).

Botrychium virginianum (L.) Sw.

Rattlesnake Fern.

Occasional or frequent. Moist rich woods. June.

The fruiting fronds are occasionally forked, and bear two, three or four fertile panicles.

MARSILEACEAE.

MARSILEA L.

Marsilea quadrifolia L. (four-leaved).

Local. Plentiful in Bantam Lake, Litchfield, its only known native habitat in North America. It has been intro-

duced and thrives in a pond at Cromwell (C. C. Hanmer), and in Lake Whitney, Hamden. Aug.

EQUISETACEAE. HORSETAIL FAMILY.

EQUISETUM L. Horsetail. Scouring Rush.

Equisetum arvense L. (of cultivated ground).

Common Horsetail.

Common. Sandy soil either dry or moist. Varies greatly according to season or habitat and several forms have been described. Fertile May; sterile June.

The plant is medicinal. It is said to be dangerously poisonous to horses when cut with hay.

Equisetum pratense Ehrh. (of meadows).

Rare. Moist sandy alluvium on the banks of the Housatonic River: Oxford (Eames & Harger), Newtown (Harger). Fertile May; sterile June—July.

This resembles the preceding species and may have been overlooked by other collectors.

Equisetum sylvaticum L. (growing in woods).

Occasional or local. Moist places and in wet ground about springs. Fertile May; sterile June —July.

Equisetum palustre L. (of marshes).

Rare. Wet meadows along the Connecticut River or on its banks: Lyme (Graves), East Windsor (Bissell). June.

Equisetum fluviatile L. (of a river).

Equisetum limosum L.

Pipes.

Shallow water and wet meadows along streams. Frequent along our rivers and larger streams but rare or local elsewhere. Fertile May; sterile June — Aug.

Equisetum hyemale L. (lasting over the winter), var. intermedium A. A. Eaton (intermediate).

Scouring Rush.

Rare. Growing on railroad embankments: Hartford (H. S. Clark), Norfolk (Bissell & H. S. Clark). May —June.

Equisetum hyemale L., var. affine (Engelm.) A. A. Eaton (allied).

Equisetum hyemale of Manuals, mainly.

Scouring Rush. Shave Grass.

Frequent. Sandy soil, usually in moist but sometimes in dry places. May.

The siliceous stems were formerly much used for scouring and polishing. The plant is medicinal.

Equisetum variegatum Schleich. (variegated), var. Jesupi A. A. Eaton.

Equisetum variegatum of Manuals in part.

Rare. Alluvial soil along the Housatonic River: Canaan (J. W. Robbins), Salisbury (A. W. Evans, Mrs. C. S. Phelps), Cornwall (H. S. Clark & Bissell). May—June.

Equisetum scirpoides Michx. (like Scirpus, the Bulrush).

Rare or local. Rich woods, usually on moist hillsides: Norfolk (J. W. Robbins), Canaan (H. S. Clark & Bissell), Sharon and Cornwall (A. V. Osmun). May—June.

LYCOPODIACEAE. CLUB MOSS FAMILY. LYCOPODIUM L. Club Moss.

Lycopodium Selago L. (classical name for this species).

Rare. In a cool shaded ravine near New Haven (J. A. Allen, 1879). Sept.

Has been found at Mt. Holyoke, Mass., and should be looked for at intermediate localities among our trap hills.

Lycopodium lucidulum Michx. (slightly shining).

Occasional. Damp mossy woods, usually in deep shade. Sept.

Lycopodium inundatum L. (subject to flooding).

Rare or local. Open bogs, usually in sandy soil. Aug.—Sept.

The var. BIGELOVII Tuckerm., Lycopodium adpressum Lloyd & Underwood in part, occurs at Voluntown (Harger), Groton (Graves), East Lyme (Miss A. M. Ryon & Graves), New Haven (D. C. Eaton), Milford (Eames).

Lycopodium annotinum L. (of a year).

Rare or local. Base of trap dyke, in moist soil, North Branford (G. H. Bartlett), and in similar situations, Durham (Harger). Wet cold woods: Cromwell (F. K. Hallock), Winchester (Andrews & Bissell), Norfolk (J. H. Barbour), Redding (L. N. Johnson), Salisbury (Mrs. C. S. Phelps). July — Aug.

Lycopodium clavatum L. (club-shaped).

Running Pine. Common Club Moss.

Occasional. Dry woods or sometimes in moist ground.

Sept.

The var. Monostachyon Grev. & Hook. (single-spiked) is rare or local: East Lyme (Miss A. M. Ryon), Franklin (R. W. Woodward), Stafford (Dr. E. J. Thompson & Weatherby), Simsbury (I. Holcomb, B. B. Bristol & Bissell), Southington (Andrews), Wolcott (Andrews & Bissell), Norfolk (J. H. Barbour), Salisbury (Mrs. C. S. Phelps).

The spores of this and other species are medicinal and are officinal. They also possess peculiar mechanical properties.

Lycopodium obscurum L. (obscure).

Tree Club Moss.

Woods and old pastures, both dry and moist. Frequent near the coast, becoming rare northward. Sept.

Lycopodium obscurum L., var. dendroideum (Michx.) D. C. Eaton (tree-like).

Tree Club Moss.

Woods and pastures. Frequent northward, becoming rare near the coast. Sept.

Lycopodium complanatum L. (flattened), var. flabelliforme Fernald (fan-form).

Lycopodium complanatum of American authors in part.

Ground Pine. Christmas Green.

Common. Woods and pastures, more often in sandy soil. Sept.

Well known and much used for Christmas decorations.

Lycopodium tristachyum Pursh (three-spiked).

Lycopodium complanatum L., var. Chamaecyparissus Milde. Occasional. Sandy woods, either dry or moist. July—Aug.

SELAGINELLACEAE.

SELAGINELLA Beauv.

Selaginella rupestris (L.) Spring (growing on rocks).

Occasional. Dry exposed ledges, or sometimes on barren soil. Aug.— Sept.

Selaginella apus (L.) Spring (footless; i. e., without a stalk).

Frequent. Moist open or half-shaded ground, usually in meadows and pastures or about springs. July—Aug.

ISOËTACEAE. QUILLWORT FAMILY.

ISOETES L. Quillwort.

Isoëtes Tuckermani A. Br.

Rare or local. Growing submerged on gravelly shores of ponds: Ledyard, North Stonington and East Lyme (Graves), Lyme (Graves & Bissell). July — Aug.

Isoëtes foveolata A. A. Eaton (minutely pitted).

Rare. Meriden, edge of small pond near West Peak (F. W. Hall, 1873). Aug.

Isoëtes saccharata Engelm. (sugary), var. Amesii A. A. Eaton.
Rare. Shallow water of ponds and rivers: Griswold (Harger), North Stonington (Graves & Bissell), Ledyard and Lyme (Graves). July — Aug.

Isoëtes echinospora Dur. (prickly-spored), var. Braunii (Dur.) Engelm.

Occasional. Shallow water or muddy borders of ponds and streams. July — Sept.

Isoëtes echinospora Dur., var. muricata (Dur.) Engelm. (beset with short, hard points).

Rare. Groton, in Great Brook (Graves). July — Sept. Forms approaching this have been found at Union (Bissell), and at Lyme (Graves & Bissell).

Isoëtes Gravesii A. A. Eaton.

Local. Muddy border of ponds and streams: Lyme (Graves), Windsor (Bissell), East Haven (W. A. Setchell), Bristol (J. N. Bishop), Plymouth (H. S. Clark & Bissell),

Oxford and Huntington (Harger), Stratford (Eames), Goshen (L. M. Underwood). Aug.— Sept.

Isoëtes Dodgei A. A. Eaton.

Isoëtes canadensis A. A. Eaton.

Isoëtes riparia Engelm., var. canadensis Engelm.

Rare or local. Windsor, muddy river bank (Bissell), Fairfield, in Mill River, and Westport, in Saugatuck River (Eames). July — Sept.

Isoëtes Engelmanni A. Br.

Occasional. Muddy border of ponds and streams, growing where it would be submerged during high water. July — Sept.

The var. GRACILIS Engelm. (slender) has been found at Groton (Graves), Southington (Bissell), Bridgeport and Westport (Eames).

SPERMATOPHYTA. SEED PLANTS. GYMNOSPERMAE.

TAXACEAE. YEW FAMILY.

TAXUS L. Yew.

Taxus canadensis Marsh.

Taxus minor Britton.

Ground Hemlock. American Yew.

Rocky woods, often under other evergreens. Rare or wanting along the coast, reaching Norwich (Mrs. E. E. Rogers), Guilford, at North Guilford (G. H. Bartlett), Orange (D. C. Eaton), Danbury (Eames); becoming occasional or frequent northward. April—May; fruit July—Aug.

The pulp of the fruit is edible, but all other parts of the plant are poisonous. Drinking a decoction of the leaves has caused death to man, and birds are said to be sometimes poisoned by eating the seeds.

PINACEAE. PINE FAMILY.

PINUS L. Pine.

Pinus Strobus L. (classical name for some pine tree).
White Pine.

Woodlands, in various soils and exposures. Occasional near the coast, becoming frequent northward and common in northeastern Connecticut. May—June.

A well known and valuable timber tree; often planted for ornament and for wind-breaks. The bark is medicinal.

Pinus rigida Mill. (stiff).

Pitch Pine. Yellow Pine.

Poor, sterile or sandy soils. Rare or local in Litchfield County, frequent elsewhere. May —June.

Usually a small tree, but sometimes growing larger, then yielding a hard resinous lumber.

Pinus sylvestris L. (of woods).

Scotch Pine. Scotch Fir.

Rare or local. Fields, roadsides and woods as an escape from cultivation: New London (Graves), Lyme (Harger & Graves), Southington (Andrews & Bissell), Bridgeport (Eames). May. Native of Europe and Asia.

One of the valuable timber trees of Europe. It thrives in our climate and was formerly often planted. It is of little value as an ornamental tree, but if grown in sufficient quantity might be valuable for timber.

Pinus resinosa Ait. (resinous).

Red Pine.

Rare or local. Rocky woods: Granby (I. Holcomb), Salisbury (Mrs. C. S. Phelps). May—June.

The most beautiful of our native pines and a valuable ornamental tree. One of the timber trees of northern New England.

LARIX Mill. Larch.

Larix laricina (DuRoi) Koch (larch-like).

Larix americana Michx.

Tamarack. Hackmatack. American or Black Larch.

Swamps and bogs. Absent near the coast. Rare in the eastern part of the state: Union (Bissell), Tolland (Graves). Becoming occasional westward and frequent in Litchfield County. May.

The wood is hard, strong, durable in contact with the soil, valuable for posts and railroad ties. The bark is medicinal.

Larix decidua Mill. (falling in season).

Larix europaea DC.

European Larch.

Rare. Escaped from cultivation to roadsides, fields and waste ground: Thompson and Union (Bissell), Griswold (Graves), Southington (Andrews & Bissell), Bridgeport (Eames). April — May. Native of northern Europe.

Hardy in almost any location and also producing a valuable timber. A good tree to plant for wind-breaks.

PICEA Link. Spruce.

Picea canadensis (Mill.) BSP.

Picea alba Link.

Cat Spruce. Skunk Spruce. White Spruce.

Rare. Waterford, a few trees in a pasture as an escape from cultivation (Graves). May. Native in northern New England and farther north.

A good tree for ornamental planting.

Picea rubra (DuRoi) Dietr. (red).

Picea nigra Link, var. rubra Engelm.

Red Spruce.

Rare. Cool woods and bogs: Litchfield (N. L. Britton), Canaan (J. H. Putnam), Salisbury (Mrs. C. S. Phelps). May.

Picea mariana (Mill.) BSP.

Picea nigra Link.

Picea brevifolia Peck.

Black Spruce. Bog Spruce.

Swamps and sphagnum bogs. Rare or local over most of the state but absent near the coast. Usually a small stunted tree 5 to 15 ft. high but growing much larger in the cool swamps of Litchfield County. In open bogs the trees often produce cones when not more than 5 ft. high, and the cones persist on the tree for many years. May.

Northward the lumber is much used in the manufacture of wood pulp. It is the principal source of spruce gum. Medicinal.

Picea Abies (L.) Karst. (like Abies, the Fir).

Picea excelsa Link.

Norway Spruce.

Rare or local. Roadsides, fields and woods as an escape from cultivation: Norwich (Mrs. E. E. Rogers), Southington (Andrews), Oxford (Harger), Bridgeport (Eames), Norwalk and Wilton (Miss A. E. Carpenter). May. Native of northern Europe.

Extensively planted for ornament and also for windbreaks.

ABIES Hill. Fir.

Abies balsamea (L.) Mill. (producing balsam).

Balsam Fir. Balm-of-Gilead Fir.

Rare. Cold swamps and woods: Middlebury (Harger), Goshen (J. H. Putnam & Bissell), Cornwall (E. E. Brewster), Salisbury (Mrs. C. S. Phelps). Also occurs as an escape from cultivation at Woodstock (Weatherby), Andover (Mrs. C. S. Phelps), and Farmington (Miss A. Lorenz). May.

The wood is soft and weak, of little value as timber. Its habit of early losing its lower branches makes it less desirable for ornamental planting than some other species of evergreens. Canada balsam is derived from the resin of its trunk.

TSUGA (Endl.) Carr. Hemlock.

Tsuga canadensis (L.) Carr.

Hemlock.

Usually frequent but rather local in its distribution. Rocky woods and on hillsides in both dry and wet situations. May.

The timber is coarse-grained and brittle, but is used for rough lumber. The bark is much used in tanning. A valuable tree in cultivation for hedges and wind-breaks, and when standing alone a desirable ornamental tree. Medicinal.

CHAMAECYPARIS Spach. Cypress. White Cedar.

Chamaecyparis thyoides (L.) BSP. (like Thya, classical name for some fragrant tree).

Chamaecybaris sphaeroidea Spach.

White Cedar.

In swamps. Rare in western and central districts: Danbury and New Fairfield (P. M. Augur et al.), Wolcott (A. M. Johnson). Becoming occasional or frequent eastward. April.

A slender tree with light and durable wood very valuable for fence posts. It usually grows in dense colonies, choking out other vegetation and forming cedar swamps.

THUJA L. Arbor Vitae.

Thuja occidentalis L. (western).

Arbor Vitae. White Cedar.

Rare. Canaan, on a limestone ridge and in a near-by swamp (C. K. Averill), Salisbury, rocky hillside and at another locality in a deep swamp (Mrs. C. S. Phelps); apparently native at these three localities. Escaped from cultivation to fields and roadsides at Norwich (Mrs. E. E. Rogers), East Hartford (A. W. Driggs), Killingly and Windsor (Bissell). April — May.

Often planted for hedges or as an ornamental tree. A valuable timber tree in northern New England. Medicinal, the fresh tops officinal.

JUNIPERUS L. Juniper.

Juniperus communis L. (growing in colonies).

Common Juniper.

Rare. Norwich, near Spaulding's Pond (Mrs. E. E. Rogers). May.

Juniperus communis L., var. depressa Pursh (sunk down, as if flattened from above).

Juniperus nana of Britton's Manual in part.

Juniperus communis L., var. canadensis Loud.

Juniperus communis L., var. alpina Gray's Manual ed. 6 in part.

Common Juniper.

Frequent. Dry rocky pastures and sterile hills. May.

The fruit often does not ripen until the second summer. The oil of juniper, distilled from the fruit, is officinal. This is medicinal, as are the tops or young branches, and is also an essential constituent of Holland gin.

Juniperus virginiana L.

Red Cedar. Savin.

Common. Dry or sterile soils. April - May.

The wood is light, very durable in contact with the soil, and much used for fencing. It is also used for boat building and cabinet work. The so called "cedar-apples" found on its branches are sometimes used medicinally, and are causative of rust on apple trees.

ANGIOSPERMAE.

MONOCOTYLEDONEAE.

TYPHACEAE. CAT-TAIL FAMILY.

TYPHA L. Cat-tail Flag.

Typha latifolia L. (broad-leaved).

Common Cat-tail.

Frequent. Wet swamps, margins of streams and ponds, often in large colonies. June—July; fruit Oct., persisting through the winter.

The heads are often used for decorative purposes and also make a fluffy stuffing for pillows, etc. The roots are sometimes used medicinally.

Typha angustifolia L. (narrow-leaved).

Cat-tail.

Occasional in fresh-water marshes near the coast, also found inland at Oxford (Harger), and Salisbury (Mrs. C. S. Phelps); common along the coast in salt or brackish marshes, June; fruit Oct., persisting through the winter.

SPARGANIACEAE. BUR-REED FAMILY.

SPARGANIUM L. Bur-reed.

Sparganium eurycarpum Engelm. (broad-fruited).

Borders of ponds and streams. Rare or local over most of the state: Groton and Lyme (Graves), East Hartford (A. W. Driggs), Oxford (Harger), Windsor and Sharon (Bissell). Becoming occasional along the coast in New Haven and Fairfield Counties (Eames). July — Aug.

Sparganium americanum Nutt.

Sparganium simplex Huds., var. Nuttallii Engelm.

Rare or occasional. Shallow water and borders of ponds and streams: Voluntown and East Lyme (Graves), Union (Bissell), Hampton (Weatherby). July—Aug.

Sparganium americanum Nutt., var. androcladum (Engelm.)
Fernald & A. J. Eames (having the staminate inflorescence branched).

Sparganium androcladum Morong.

Sparganium simplex Huds., var. androcladum Engelm.
Occasional or frequent. Marshes, about ponds and along streams. July — Aug.

Sparganium lucidum Fernald & A. J. Eames (shining).
Rare. Shallow water of pool, Hartford (H. S. Clark & Weatherby). Late Aug.— Sept.

Sparganium diversifolium Graebner (various-leaved).

Sparganium simplex Gray's Manual ed. 6 in great part.

Occasional. Borders of ponds and streams. July — Aug.

Sparganium diversifolium Graebner, var. acaule (Beeby)
Fernald & A. J. Eames (stemless).
Rare. Wet places with the typical form. July — Aug.

Sparganium angustifolium Michx. (narrow-leaved).

Sparganium simplex Huds., var. angustifolium Engelm.

Rare. Floating in deep water: Canaan (J. W. Robbins,

1828). July - Aug.

Sparganium fluctuans (Morong) Robinson (undulating).

Sparganium androcladum Morong, var. fluctuans Morong, at least in part.

Sparganium simplex Huds., var. fluitans Engelm.
Rare. Deep water of cold ponds: Norfolk (J. W. Robbins). July — Aug.

Sparganium minimum Fries (least; smallest).

Rare. Shallow water and mud of Twin Lakes, Salisbury (Mrs. C. S. Phelps, A. V. Osmun & Bissell). July — Aug.

NAJADACEAE. PONDWEED FAMILY. POTAMOGETON L. Pondweed.

Potamogeton natans L. (floating).

In ponds and slow streams. Rare or local over most of the state: Southington (Andrews & Bissell), Oxford (Harger), Salisbury (Mrs. C. S. Phelps, A. V. Osmun & Bissell). Frequent in New London County (Graves). July—Aug.

Potamogeton Oakesianus Robbins.

Rare. In ponds: Stafford (E. L. Morris), Middlebury (Harger). Aug.

Potamogeton epihydrus Raf. (living on the water).

Potamogeton Nuttallii C. & S.

Potamogeton pennsylvanicus Willd.

Common. Ponds and slow or swift running streams. June — Aug.

Potamogeton epihydrus Raf., var. cayugensis (Wiegand) Benn.

Potamogeton Nuttallii C. & S., var. cayugensis Wiegand. Rare. Lyme, in Selden's Cove (Graves & Bissell), Hamden, in Lake Whitney (Eames). July — Aug.

Potamogeton alpinus Balbis (alpine).

Potamogeton rufescens Schrad.

Rare. Plainville, in cold spring water near Hamlin's Pond (Andrews & Bissell). July — Aug.

Potamogeton americanus C. & S.

Potamogeton lonchites Tuckerm.

Potamogeton fluitans Gray's Manual ed. 6, not Roth.

Local. In the Connecticut River and adjoining coves and creeks at Lyme (Graves); also at New Haven (D. C. Eaton), Hartford (J. W. Robbins, A. W. Driggs), Westport, in the Saugatuck River; also in the Housatonic River near its mouth and at New Milford (Eames), and at Oxford (Harger). July — Sept.

Potamogeton americanus C. & S., var. novaeboracensis (Morong) Benn.

Potamogeton lonchites Tuckerm., var. novaeboracensis Morong.

Rare. Lyme, in deep water at Selden's Cove (Graves & Bissell). July — Aug.

Potamogeton pulcher Tuckerm. (beautiful; handsome).

Rare. In ponds: East Lyme, Old Lyme and Lyme (Graves), Bridgeport (Eames). June —July.

Potamogeton amplifolius Tuckerm. (large-leaved).

Occasional. Ponds and sluggish streams. July - Aug.

Potamogeton heterophyllus Schreb. (various-leaved).

Occasional or local. Ponds and either slow or swift flow-

ing streams. July - Aug.

The forma GRAMINIFOLIUS (Fries) Morong (grassyleaved) occurs at Lake Saltonstall (O. D. Allen). The forma LONGIPEDUNCULATUS (Mérat) Morong (long-stalked) has been found at Selden's Cove, Lyme (Graves). The forma MYRIOPHYLLUS (Robbins) Morong (myriad-leaved) occurs at Lake Saltonstall (O. D. Allen), and Twin Lakes, Salisbury (Bissell). The forma MAXIMUS Morong (greatest) has been found in the Connecticut River at East Windsor (Bissell), and in Lake Whitney, Hamden (O. D. Allen). The forma TERRESTRIS Schlecht. (terrestrial) is often found along borders of ponds and streams in dry seasons.

Potamogeton angustifolius Berchtold & Presl (narrowleaved).

Rare. Oxford, in the Housatonic River (Harger). July -Aug.

The var. CONNECTICUTENSIS (Robbins) Benn., Potamogeton lucens L., var. connecticutensis Robbins, occurs rarely in ponds, lakes and rivers: Lake Saltonstall (I. W. Robbins); in the Housatonic River at New Milford (E. H. Austin & Eames) and Kent (C. K. Averill); also in Twin Lakes, Salisbury (Bissell).

Potamogeton lucens L. (shining).

Rare. Ponds and slow streams: Lyme, at Selden's Cove (Graves), Meriden (Harger), Salisbury (Bissell). July-Aug.

Potamogeton praelongus Wulf. (very long).

Local. Deep water of ponds and streams: North Branford and Wallingford (Harger), Lake Saltonstall (J. A. Allen), Westport and Kent (Eames), Litchfield (Dr. T. Morong), Canaan (J. W. Robbins). June - July.

Potamogeton Richardsonii (Benn.) Rydb.

Potamogeton perfoliatus L., var. lanceolatus Robbins. Potamogeton perfoliatus L., var. Richardsonii Benn. Common. Ponds and streams. June - July.

Potamogeton bupleuroides Fernald (like Bupleurum, the Thorough-wax).

Potamogeton perfoliatus Gray's Manual ed. 6 in part, not L. In ponds, streams and brackish waters. Occasional near the coast, extending inland as far as East Windsor (Bissell). July — Aug.

×Potamogeton nitens Weber (shining).

Rare. Old Saybrook, small pond near the Connecticut River (Harger). This is apparently a hybrid between *Potamogeton heterophyllus* and some other species, and is not known to produce fruit.

Potamogeton zosterifolius Schum. (having leaves like Zostera, the Eel Grass).

Rare or occasional. Ponds and streams. July - Aug.

Potamogeton Hillii Morong.

Rare. Salisbury, in Twin Lakes (Bissell). July - Aug.

Potamogeton obtusifolius Mert. & Koch (blunt-leaved).

Rare. Newtown, in shallow water of a mill pond (Eames).

July — Aug.

Potamogeton Friesii Ruprecht.

Potamogeton mucronatus Gray's Manual ed. 6, not Schrad. (?).

Rare. Southington, in pools (Andrews). July - Aug.

Potamogeton pusillus L. (very small).

Frequent. Ponds and slow streams. July - Sept.

Potamogeton pusillus L., var Sturrockii Benn.

Rare. In ponds: Waterford (Graves), Lake Saltonstall (O. D. Allen). July — Sept.

Potamogeton lateralis Morong (lateral).

Rare. Collected at Salisbury many years ago by Dr. J. W. Robbins; not reported by any recent collector. July — Aug.

Potamogeton Vaseyi Robbins.

Rare. Ponds and lakes: Lake Saltonstall (O. D. Allen, J. A. Allen, Eames), Milford (Eames), Plymouth (J. K. Goodrich). July — Aug.

Potamogeton gemmiparus Robbins (producing buds).

Rare. Union, shallow water of Mashapaug Pond (Bissell). July — Aug.

Potamogeton foliosus Raf. (leafy).

Potamogeton pauciflorus Pursh.

Rare or local. Ponds and slow streams: Voluntown (Harger), Southington (Andrews & Bissell), Newtown (Eames), New Milford (C. K. Averill), Sharon and Salisbury (Bissell). July—Aug.

Potamogeton hybridus Michx. (mongrel).

Potamogeton diversifolius Raf.

Occasional. In ponds. July - Aug.

The var. MULTI-DENTICULATUS (Morong) Asch. & Graebner (with many fine teeth) has been found at Groton (T. Morong), Griswold (Harger), Milford and Stratford (Eames).

Potamogeton dimorphus Raf. (of two forms).

Potamogeton Spirillus Tuckerm.

Frequent. Ponds and streams. June — Aug. Floating leaves often wanting.

Potamogeton pectinatus L. (comb-like).

Rare or local. Ponds, streams and ditches: Hartford (D. C. Eaton), East Windsor and Salisbury (Bissell), Oxford (Harger), Stratford, New Milford and Kent (Eames). July—Sept.

Potamogeton Robbinsii Oakes.

Occasional or local. Ponds, ditches and slow streams. July — Aug.

This species very rarely forms fruit.

RUPPIA L. Ditch Grass.

Ruppia maritima L. (of the sea-coast).

Ditch Grass.

Frequent in shallow water of pools, creeks and ditches about salt or brackish marshes along the coast. July — Oct.

ZANNICHELLIA L. Horned Pondweed.

Zannichellia palustris L. (of marshes).

Horned Pondweed.

Occasional in salt or brackish water along the coast, and in the Housatonic River northward as far as New Milford (C. K. Averill). July — Sept.

ZOSTERA L. Grass Wrack. Eel Grass.

Zostera marina L. (of the sea).

Eel Grass.

Common along the coast in bays, salt rivers and creeks, growing on muddy or sandy bottoms. July — Sept.

Extensively used by farmers as a fertilizer.

NAJAS L. Naiad.

Najas flexilis (Willd.) Rostk. & Schmidt (flexible). Frequent. Ponds and slow streams. July — Sept.

Najas gracillima (A. Br.) Magnus (very slender). Najas indica Cham., var. gracillima A. Br.

Rare or local. In ponds: East Lyme and Lyme (Graves), Stafford (Bissell), Milford, Bridgeport and Newtown (Eames), Danbury (Eames & C. C. Godfrey). July — Sept.

JUNCAGINACEAE. ARROW GRASS FAMILY. SCHEUCHZERIA L.

Scheuchzeria palustris L. (of marshes).

Rare. Cool sphagnum bogs: South Windsor (Weatherby), Burlington (J. N. Bishop), East Granby (M. Hitchcock), Bethany and Woodbury (Harger), Litchfield (A. L. Train), Salisbury (Mrs. C. S. Phelps & Bissell). June —July.

TRIGLOCHIN L. Arrow Grass.

Triglochin maritima L. (of the sea).

Frequent in salt marshes along the coast. June - Aug.

ALISMACEAE. WATER PLANTAIN FAMILY.

SAGITTARIA L. Arrow-head.

Sagittaria longirostra (M. Micheli) J. G. Smith (long-beaked). Rare. Groton, swampy border of pond (Harger). July — Sept.

Sagittaria latifolia Willd. (broad-leaved).

Sagittaria variabilis Engelm.

Frequent or common. Marshes and shallow water of ponds and streams. Aug.— Sept.

The forma obtusa (Muhl.) Robinson (blunt), Sagittaria obtusa Muhl., is occasional; the forma hastata (Pursh) Robinson (halberd-shaped), Sagittaria hastata Pursh, and the forma gracilis (Pursh) Robinson (slender), Sagittaria gracilis Pursh, are frequent. The forma diversifolia (Engelm.) Robinson (various-leaved), Sagittaria variabilis Engelm., var. diversifolia Engelm., is rare.

Sagittaria Engelmanniana J. G. Smith.

Sagittaria variabilis Engelm., var. gracilis Engelm.

Rare. Bogs and wet meadows: Waterford, Voluntown and East Lyme (Graves), Lyme (Dr. E. J. Thompson). Aug.— Sept.

Sagittaria arifolia Nutt. (arum-leaved).

Sagittaria cuneata Sheldon.

Rare. Wet alluvial soil on the banks of the Connecticut River: Windsor and Hartford (Bissell). June—July.

Sagittaria heterophylla Pursh (various-leaved).

Rare or local. Muddy river shores: Norwich (W. A. Setchell), Lyme (Graves), Wethersfield (C. Wright), East Windsor (Bissell), Windsor (H. S. Clark), Hartford (H. S. Clark & Bissell), Bloomfield (A. W. Driggs), Seymour and Derby (Harger). June—July.

The var RIGIDA (Pursh) Engelm. (stiff), Sagittaria rigida Pursh, and the var. Elliptica Engelm. (oval) sometimes occur with the species.

Sagittaria graminea Michx. (grass-like).

Sagittaria Eatoni J. G. Smith.

Sagittaria cristata Engelm.

Occasional or local. Muddy shores of ponds and streams. June — Aug.

Sagittaria subulata (L.) Buchenau (awl-shaped).

Sagittaria pusilla Nutt.

Sagittaria natans Michx., var. lorata Chapm.

Rare or local. Lyme, muddy shore of Selden's Cove (Dr. E. J. Thompson); mud of lower Housatonic River and smaller streams along the coast in Fairfield County (Eames). July—Sept.

Sagittaria subulata (L.) Buchenau, var. (?) gracillima (Wats.) J. G. Smith (very slender).

Sagittaria natans Michx., var. (?) gracillima Wats.

Rare. East Windsor and Windsor, rock ledges in the bed of the Connecticut River, in 3-6 ft. of water (Bissell). July.

LOPHOTOCARPUS Th. Durand.

Lophotocarpus spongiosus (Engelm.) J. G. Smith (spongy). Sagittaria calycina Engelm., var. spongiosa Engelm.

Muddy tidal shores and meadows. Rare at Old Lyme (Graves) and New Haven (D. C. Eaton, Harger); occasional, Milford and westward (Eames). June — Sept.

ALISMA L. Water Plantain.

Alisma Plantago-aquatica L. (water-plantain).

Water Plantain.

Common. Muddy places and shallow water. July - Aug.

HYDROCHARITACEAE. FROG'S BIT FAMILY.

ELODEA Michx. Water-weed.

Elodea canadensis Michx.

Philotria canadensis Britton.

Ditch Moss.

Frequent. Ponds and slow streams. July — Sept. Sometimes so plentiful as to be a nuisance in reservoirs.

VALLISNERIA L. Tape Grass. Eel Grass.

Vallisneria spiralis L. (coiled).

Eel Grass. Wild Celery.

Common in the waters of the Connecticut and Housatonic Rivers and their larger tributaries. It also grows in Hatch Pond, Kent (Eames), and in the Thames River at Norwich (W. A. Setchell, Mrs. E. E. Rogers). July — Sept.

GRAMINEAE. GRASS FAMILY.

ZEA L. Corn.

Zea Mays L. (Indian name for this species).

Corn. Indian Corn. Maize.

Rare. A fugitive in waste grounds and on dumps or banks of streams. July — Aug. Nativity unknown but supposed to be from Mexico.

One of the most important cereals of the United States.

TRIPSACUM L. Gama Grass. Sesame Grass.

Tripsacum dactyloides L. (finger-like).

Gama Grass. Sesame Grass.

Moist or dry open ground bordering salt or brackish marshes and creeks. Groton (Graves) and occasional along the coast westward. July — Aug.

A large corn-like grass, sometimes used for fodder in the South.

ANDROPOGON L. Beard Grass.

Andropogon scoparius Michx. (broom-like).

Broom Beard Grass. Wire Grass. Bunch Grass. Blue-stem.

Common. Open sterile ground, often covering large areas on the sand plains. Aug.— Sept. A glaucous form is frequent.

A dry wiry grass of little agricultural value in Connecticut, but notable for its beautiful color in autumn and winter. In the South and West it is considered of some value for pasturage.

Andropogon scoparius Michx., var. littoralis (Nash) Hitchc. (of the sea-shore).

Andropogon littoralis Nash.

Rare. Fairfield, sparingly on Fairfield Beach (Eames). Aug.— Sept.

Andropogon virginicus L.

Dry or moist open ground. Rare or local inland, becoming occasional near the coast. Late Aug.—Sept.

Andropogon furcatus Muhl. (forked).

Forked Beard Grass. Big Blue-stem. Turkey-foot.

Frequent. Open ground, generally in dry soil. Aug.—Sept.

A tall and striking grass, growing in large clumps. It is of value for hay and pasturage in some localities in the United States.

SORGHASTRUM Nash.

Sorghastrum nutans (L.) Nash (nodding).

Sorghastrum avenaceum Nash.

Chrysopogon nutans Benth.

Chrysopogon avenaceus Benth.

Indian Grass. Wood Grass.

Occasional or frequent. Open, usually dry ground. Aug. — Sept.

A tall grass, growing in clumps and with beautiful golden brown flower-panicles.

SORGHUM Pers. Broom Corn. Sorghum.

Sorghum halepense (L.) Pers.

Johnson Grass.

Rare. Waterbury, in waste ground (A. E. Blewitt). Aug.— Sept. Fugitive from the Old World. A cultivated form of this called Kaffir Corn has been found in waste ground at Hartford (H. S. Clark).

This species is supposed to be the original of the several forms of Sorghum which are cultivated for sugar-making, for use in the manufacture of brooms, for forage and for their seeds.

DIGITARIA Scop. Finger Grass.

Digitaria filiformis (L.) Koeler (thread-shaped).

Panicum filiforme L.

Syntherisma filiformis Nash.

Frequent. Dry sterile open ground. Aug.- Sept.

Digitaria humifusa Pers. (spread over the ground; prostrate).

Panicum glabrum Gaudin.

Syntherisma linearis Nash.

Small Crab Grass.

Occasional or frequent. Dry or moist fields, roadsides and waste places. Aug.—Sept. Naturalized from Europe.

Digitaria sanguinalis (L.) Scop. (blood-red).

Panicum sanguinale L.

Syntherisma sanguinalis Dulac.

Syntherisma fimbriata Nash.

Crab Grass. Large Crab Grass. Finger Grass. Crowfoot Grass.

Common. Waste places and cultivated ground. July — Oct. Naturalized from Europe.

A troublesome weed in gardens and lawns. It makes good hay if properly dried, and in the South is often harvested. In Bohemia the seeds are used by man as a food.

LEPTOLOMA Chase.

Leptoloma cognatum (Schultes) Chase (related).

Panicum autumnale Bosc.

Fall Witch Grass.

Rare. New Haven, in dry ground and in gravelly soil (R. W. Woodward). July.

PASPALUM L.

Paspalum setaceum Michx. (bristle-like).

Fields and pastures, mostly in dry ground. Rare in the northern part of the state, becoming occasional near the coast. A form with glabrous spikelets sometimes occurs. Aug.—Sept.

Paspalum Muhlenbergii Nash.

Frequent or common. Dry open ground. Aug.—Sept.

Paspalum psammophilum Nash (sand-loving).

Paspalum prostratum Nash, not Scribn. & Merr.

Rare. Dry sandy or gravelly soil: Sprague (Graves), Franklin (R. W. Woodward), Old Saybrook (Bissell & Graves). Aug.— Sept.

Paspalum plenipilum Nash (having many hairs).

Rare. Orange, in meadows (R. W. Woodward). Sept.

Paspalum circulare Nash (round).

Rare. Groton, moist grassland (Bissell & Graves), Franklin (R. W. Woodward). Sept.

PANICUM L. Panic Grass.

A large genus, made up for the most part of lowly grasses of little or no agricultural value, but of much scientific interest.

Panicum verrucosum Muhl. (warty).

Rare. New Haven, in damp shaded ground (Harger). Sept.— Oct.

Panicum capillare L. (hair-like).

Old-witch Grass. Tumble-weed. Tickle Grass.

Common. Cultivated ground and waste places. July — Sept.

Panicum philadelphicum Bernh.

Panicum minus Nash, according to description.

Panicum minimum Scribn. & Merr.

Dry woods and thickets and on sandy shores of ponds and rivers. Rare in New London County (Graves); occasional in southwestern Connecticut (Eames); extending up the Connecticut River as far as East Windsor (Bissell). Aug.—Sept.

Panicum miliaceum L. (millet).

Common, True, European or Broom Corn Millet.

Rare or occasional. Roadsides and waste places in and about towns and cities. Aug.— Sept. Fugitive or adventive from Europe.

The seeds are highly nutritious and are used in some countries as human food; also in domestic medicine. The grain is excellent for feeding poultry. In the Old World it has been cultivated from prehistoric times.

Panicum dichotomiflorum Michx. (having its flower-stalks forked in pairs).

Panicum proliferum of American authors, not Lam.

Occasional or frequent. Chiefly in moist ground, especially on borders of ponds and rivers. Aug.—Sept.

Panicum amarum Ell., var. minor Vasey & Scribn.

Sea beaches and sand dunes. Rare or local on the coast eastward: Old Lyme (Graves), Guilford (Dr. Barratt). Becoming occasional along the Sound westward. Aug.—Oct.

Panicum virgatum L. (wand-like).

Switch Grass. Tall Panic Grass.

In either moist or dry ground. Common along the coast and the larger rivers, rare or occasional elsewhere. July — Sept.

A handsome grass forming large, dense clumps and with ample flower panicles sometimes 30 inches long. If cut early it makes a fair quality of hay and it is also of some value as a forage plant.

Panicum longifolium Torr. (long-leaved).

Rare or local. Open moist ground near the coast: Groton and Montville (Graves), Fairfield (Eames). Aug.—Sept.

Panicum agrostoides Spreng. (like Agrostis, the Red Top). Common. Low meadows and wet open grounds. July—

Sept.

Panicum stipitatum Nash (stalked).

Rare. Lyme, wet meadow at Selden's Cove (Graves & Bissell). Aug.

Panicum depauperatum Muhl. (impoverished).

Frequent. Dry sterile or sandy ground. June - early July.

Panicum linearifolium Scribn. (narrow-leaved).

Panicum Enslini of Britton's Manual.

Common. Dry fields and in sandy or sterile places. June — early July.

Panicum Werneri Scribn.

Rare or local. Chiefly in open, dry, sandy or gravelly soil, sometimes in thickets or open sandy woods: Voluntown, Ledyard and Waterford (Graves), Franklin (R. W. Woodward & Graves). June —July.

Panicum Bicknellii Nash.

Panicum nemopanthum Ashe.

Panicum Bushii Nash.

Rare. Rocky woodlands: Norwich (Graves), New Haven (R. W. Woodward). June.

Panicum dichotomum L. (forked in pairs).

Frequent or common. Dry woods and thickets. June — July.

Panicum barbulatum Michx. (having a little beard).

Occasional. Rocky woods and thickets usually in dry soil. June —July.

Panicum microcarpon Muhl. in Ell. (small-fruited).

Panicum barbulatum of American authors, not Michx.

Frequent. Low moist or wet thickets and open places. June — July.

Panicum boreale Nash (northern).

Open bogs, wet meadows and moist sandy thickets. Apparently rare in southern Connecticut: Griswold and Waterford (Graves), Franklin (R. W. Woodward & Graves), Southington (Andrews, Bissell), Oxford and Monroe (Harger). Probably occasional in the northern part of the state. June—July.

Panicum spretum Schult. (despised).

Panicum nitidum of recent American authors, not Lam. Panicum Eatoni Nash.

Rare. Low meadows and sandy shores of ponds: Groton and East Lyme (Graves), Columbia (Weatherby & Mrs. C. S. Phelps). June—July.

Panicum Lindheimeri Nash.

Panicum nitidum Scribn. & Merr. in part.

Dry sterile open ground. Occasional or frequent in southeastern and southwestern Connecticut, apparently rare elsewhere: East Hartford (Weatherby), Southington (Andrews). June—July.

Panicum huachucae Ashe.

Panicum unciphyllum of recent American authors, not Trin. Panicum pubescens of Britton's Manual.

Common. Fields, woods and thickets usually in dry or sandy places. June —July.

Panicum huachucae Ashe, var. silvicola Hitchc. & Chase (living in woods).

Panicum lanuginosum of recent American authors in part.

Occasional or frequent. Woods and shaded ground in either dry or wet soil. June — July.

Panicum implicatum Scribn. (entangled).

Panicum unciphyllum Trin., var. implicatum Scribn. & Merr. Swamps and in wet sandy places. Rare in most parts of the state, but occasional in southwestern Connecticut. June — July.

Panicum meridionale Ashe (southern).

Panicum filiculme Ashe, not Hack.

Panicum unciphyllum Trin., var. meridionale Scribn. & Merr. Rare or occasional. Dry or sterile soil in woods or in open ground. June —July.

Panicum oricola Hitchc. & Chase (an inhabitant of the shore.)

Rare. Barren sands along the shore of the Sound: Groton (Bissell). Probably occuring at other points on the coast. June — Aug.

Panicum subvillosum Ashe (somewhat hairy).

Rare. Dry sandy ground: Tolland and Southington (Bissell), East Hartford (Weatherby). June—July.

Panicum tennesseense Ashe.

Occasional or frequent. Woods and shaded ground more often in moist soil. June—July.

Panicum albemarlense Ashe.

Panicum auburne Gray's Manual ed. 7 in part.

Rare. Dry sandy woods: Waterford, at Fog Plain (Graves). June — July.

Panicum scoparioides Ashe (like Panicum scoparium).

Rare. Woods or half shade in dry gravelly soil: Southington (Bissell). June—July.

Panicum pseudopubescens Nash (simulating Panicum pubescens).

Panicum ovale Gray's Manual ed. 7 in part.

Rare. Southbury, alluvial ground on banks of the Pomperaug River (Harger). June—July.

Panicum villosissimum Nash (very hairy).

Panicum atlanticum Nash.

Panicum xanthospermum Scribn. & Mohr.

Panicum haemacarpon Ashe.

Rare. Dry rocky woods and hillsides or in meadows:

Franklin (Graves, R. W. Woodward), Old Lyme (Graves), East Hartford (Weatherby), Southington (Andrews), Southbury (Harger). June —July.

Panicum Commonsianum Ashe.

Rare. Dry sandy or gravelly soil: East Lyme (Graves), South Windsor (Weatherby). June.

Panicum Addisonii Nash.

Rare, Sandy plains: East Lyme (Graves), East Hartford (Weatherby). June.

Panicum tsugetorum Nash (of hemlocks).

Occasional or frequent. Dry fields and woods. June — July.

Panicum columbianum Scribn.

Panicum psammophilum Nash.

Occasional or frequent. Dry sandy fields and thickets, June — July.

Panicum sphaerocarpon Ell. (round-fruited).

Frequent to common. Fields, pastures and roadsides in dry ground. June — Aug.

Panicum Ashei Pearson.

Panicum commutatum Scribn. & Merr., not R. & S.
Rare or occasional. Dry, often rocky woods. June —July.

Panicum Scribnerianum Nash.

Panicum scoparium Gray's Manual ed. 6, not Lam. Common. Dry open sterile ground. June —July.

Panicum xanthophysum Gray (having yellow bladders; referring to the yellowish fruit).

Rare. Dry open woods or sandy places: Stafford (Graves), South Windsor (H. J. Koehler & A. W. Driggs). July — Aug.

Panicum clandestinum L. (concealed).

Corn Grass. Deer-tongue Grass.

Common. Moist or dry soil in open or partly shaded places. June —July.

Panicum Boscii Poir.

Panicum Porterianum Nash.

Panicum latifolium of American authors, not L.

Rare or occasional. Dry rocky woodlands. June—July. Panicum Boscii Poir., var. molle (Vasey) Hitchc. & Chase (soft).

Panicum latifolium L., var. molle Vasey.

Panicum pubifolium Nash.

Dry woods and thickets, usually in rocky ground. Occasional or local near the coast, becoming rare inland. June — July.

Panicum latifolium L. (broad-leaved).

Panicum macrocarpon Le Conte.

Occasional or frequent. Woods and thickets, mostly in dry ground. June — Aug.

ECHINOCHLOA Beauv.

Echinochloa crusgalli (L.) Beauv. (cock-spur).

Panicum crusgalli L.

Barnyard Grass. Corn Grass. Cockspur or Cocksfoot Grass. Common. Cultivated ground, mostly in manured soil, waste places and banks of streams. July — Sept. Naturalized from Europe.

Sometimes troublesome as a weed in cultivated ground, but useful as a forage plant and for the silo.

Echinochloa frumentacea (Roxb.) Link (producing grain). Japanese Barnyard Millet or Grass. Billion-Dollar Grass.

Rare. Escaped from cultivation to fields and roadsides: Southington (Andrews), Salisbury (Mrs. C. S. Phelps). July — Sept. Fugitive from the Old World.

In cultivation as a forage plant. In India it is grown under the name of Sowna Millet for its grain which is there used as human food.

Echinochloa Walteri (Pursh) Nash.

Panicum crusgalli L., var. hispidum Torr.

Panicum Walteri Pursh.

Ditches, marshes and river banks. Occasional or frequent

.along the coast and the larger streams; rare elsewhere. July — Sept.

SETARIA Beauv. Bristly Foxtail Grass.

Setaria imberbis R. & S. (beardless), var. perennis (Hall) Hitchc. (perennial).

Chaetochloa versicolor Bicknell.

Perennial Foxtail Grass.

Occasional or frequent on the coast on borders of salt marshes. Aug.— Sept.

Setaria glauca (L.) Beauv. (glaucous).

Chaetochloa glauca Scribn.

Ixophorus glaucus Nash.

Foxtail. Pigeon Grass. Twitch Grass.

Common. Cultivated ground and waste places. July — Sept. Naturalized from Europe.

Often a troublesome weed in gardens.

Setaria verticillata (L.) Beauv. (whorled).

Chaetochloa verticillata Scribn.

Ixophorus verticillatus Nash.

Rough Foxtail Grass.

Rare or local. Roadsides and waste places in towns and cities. July — Sept. Naturalized from Europe.

Setaria viridis (L.) Beauv. (green).

Chaetochloa viridis Scribn.

Ixophorus viridis Nash.

Green Foxtail. Bottle Grass.

Frequent to common. Cultivated ground and waste places. June — Aug. Naturalized from Europe.

A weed in gardens and cultivated fields.

Setaria italica (L.) Beauv.

Chaetochloa italica Scribn.

Ixophorus italicus Nash.

Common, Italian or German Millet. Hungarian Grass.

Rare or occasional. Escaped from cultivation to roadsides and waste places. Aug.— Sept. Adventive from Europe.

The var. Germanica (Mill.) Richter, Golden-Wonder Millet, occurs rarely.

Often grown for fodder. In the Old World from ancient times grown for human food.

CENCHRUS L. Sandbur.

Cenchrus carolinianus Walt.

Cenchrus tribuloides of American authors, not L.

Sandbur. Hedgehog or Bur Grass.

Local, frequent or common. Dry sandy or gravelly fields and waste ground. July — Aug.; fruit Aug.— Şept.

Sometimes a troublesome weed.

ZIZANIA L. Water or Indian Rice.

Zizania palustris L. (of marshes).

Zizania aquatica of Manuals, not L.

Wild Rice. Water Oats.

Local or frequent. Shallow water of tidal rivers and large streams, especially near the coast; sometimes in ponds as at Hatch Pond, Kent (Eames). July — Aug.; fruit Sept.— Oct.

A highly ornamental grass. The seeds are very nutritious, and are said to be superior to the Oriental rice. They are greedily eaten by ducks and other birds; also extensively gathered for food by the Indians of the Northwest and sold by them in the markets.

LEERSIA Sw. White Grass. Cut Grass.

Leersia virginica Willd.

Homalocenchrus virginicus Britton.

Cut Grass. Scratch Grass.

Frequent. Wet woods, swamps and moist places. Aug.

Leersia oryzoides (L.) Sw. (like Oryza, the Rice).

Homalocenchrus oryzoides Poll.

Rice Cut Grass. Scratch Grass. False Rice.

Frequent. Swamps, along streams and in ditches. Aug.—Sept.

It makes a fair quality of hay.

PHALARIS L. Canary Grass.

Phalaris canariensis L.

Canary Grass.

Rare or occasional. Roadsides and waste places. June — Oct. Fugitive or adventive from Europe.

The seeds are used as food for cage birds, and mixed with wheat or rye are also used in some countries for bread making.

Phalaris arundinacea L. (reed-like).

Reed Canary Grass. Sword Grass. Spires Grass.

In swamps and along streams. Rare or occasional in the western part of the state; becoming frequent eastward. June—July.

The var. PICTA L. (painted), Ribbon Grass, is a horticultural form often cultivated for ornament, and it sometimes escapes to roadsides and waste places. The variety is introduced from Europe.

A striking grass adapted for planting in wet ground.

ANTHOXANTHUM L. Sweet Vernal Grass.

Anthoxanthum odoratum L. (fragrant).

Sweet Vernal Grass.

Common. Roadsides, fields, meadows, borders of woods and in waste places. May —June. Native of Europe.

Very fragrant in drying. Used in basket making.

HIEROCHLOË R. Br. Holy Grass.

Hierochloë odorata (L.) Wahlenb. (fragrant).

Hierochloë borealis R. & S.

Savastana odorata Scribn.
Savastana Nashii Bicknell.

Vanilla or Seneca Grass.

Rare or occasional inland: Franklin (R. W. Woodward), Southington (Andrews), Southbury (Eames & Harger), Sherman (Eames & E. H. Austin), Salisbury (Mrs. C. S. Phelps). Becoming frequent about the borders of salt and brackish marshes along the coast. May—June.

A very fragrant grass, used by the Indians in basket making. In northern Europe this and other sweet-scented grasses are strewn before the church doors on Saints' days.

ORYZOPSIS Michx. Mountain Rice.

Oryzopsis pungens (Torr.) Hitchc. (sharp-pointed).

Oryzopsis canadensis of Gray's Manual ed. 6.

Oryzopsis juncca BSP.

Rare. Dry woodlands: Voluntown (R. W. Woodward),

Preston (Graves), Thompson (Harger), Stafford (Weatherby & Bissell). May.

Oryzopsis asperifolia Michx. (rough-leaved).

Rocky woods. Rare near the coast and in the south-western part of the state; occasional or frequent in central and northern Connecticut. May—June.

Oryzopsis racemosa (Sm.) Ricker (racemose).

Oryzopsis melanocarpa Muhl.

Rocky woods. Rare in the southeastern part of the state, frequent in southwestern Connecticut, occasional elsewhere. July — Aug.

STIPA L. Feather Grass.

Stipa avenacea L. (oat-like).

Black Oat Grass. Needle Grass. Porcupine Grass.

Reported only near the coast, in dry and rocky woods or openings and dry, sandy soils. Occasional in the southeastern part of the state, rare or local near New Haven, becoming more frequent in southwestern Connecticut. June.

The seeds of this grass are injurious to sheep by clinging to the wool and then penetrating the flesh.

ARISTIDA L. Triple-awned Grass.

Aristida dichotoma Michx. (forked).

Poverty Grass.

Common. Open, dry, sterile or sandy soil. Aug.—Sept.

Aristida gracilis Ell. (slender).

Aristida gracilis Ell., var. depauperata Gray.

Dry, sandy soil. Occasional or local near the coast, becoming rare northward. Aug.— Sept.

Aristida tuberculosa Nutt. (pimply).

Rare or local. Sea beaches from Orange westward. Aug. — Sept.

Aristida purpurascens Poir. (purplish).

Dry, sterile fields and pastures. Occasional or frequent except in the southwestern part of the state where it is rare or local. Aug.— Sept.

MUHLENBERGIA Schreb. Drop-seed Grass.

Muhlenbergia sobolifere (Muhl.) Trin. (producing offshoots).

Dry rocky woods. Generally rare, but frequent in southwestern Connecticut. Aug.— Sept.

Muhlenbergia tenuiflora (Willd.) BSP. (slender-flowered).

Muhlenbergia Willdenowii Trin.

Occasional or frequent. Rich or rocky woods. Aug.—Sept.

Muhlenbergia sylvatica Torr. (of woods).

Rocky woods, either moist or dry. Rare or occasional over most of the state, becoming frequent in southwestern Connecticut. Aug.— Sept.

Muhlenbergia foliosa Trin. (closely clothed with leaves).

Muhlenbergia ambigua Torr.

Moist woods. Southington (Bissell), and probably elsewhere, as the species has been confused with *Muhlenbergia mexicana*. Aug.— Sept.

Muhlenbergia mexicana (L.) Trin.

Crab Grass. Knot-root Grass.

Frequent or common. Moist or rich soil in cultivated ground, along roadsides and in waste places of towns and cities; also occasional in bogs and swamps and near streams. Aug.— Sept.

Sometimes troublesome as a weed in gardens and lawns. A cultivated form with striped leaves has escaped, and is established in a yard at Southington (Bissell).

Muhlenbergia racemosa (Michx.) BSP. (racemose).

Muhlenbergia glomerata Trin.

Bogs and swamps or sometimes in dry, rocky ground. Frequent in Litchfield County, becoming occasional or rare eastward and southward; reaching Union and Willington (Bissell), Franklin (R. W. Woodward), Meriden (Andrews & Bissell), New Haven (Eaton Herb.), Monroe (Eames). Aug.— Sept.

Muhlenbergia Schreberi J. F. Gmel.

Muhlenbergia diffusa Schreb.

Drop-seed. Nimble Will.

Frequent along roadsides, in yards and waste places near dwellings; rare elsewhere. Aug.— Sept.

Muhlenbergia capillaris (Lam.) Trin. (hair-like).

Hair Grass.

Rare. Rocky cliffs: Hamden (O. Harger), New Haven (O. Harger, R. W. Woodward & Harger). Sept.

BRACHYELYTRUM Beauv.

Brachyelytrum erectum (Schreb.) Beauv. (erect).

Brachyelytrum aristatum Beauv.

Rich moist or rocky woods. Frequent except along the coast eastward where it is rare. July — Aug.

PHLEUM L. Timothy. Herd's Grass.

Phleum pratense L. (of meadows).

Timothy. Herd's Grass. Cat-tail Grass.

Common. Fields, roadsides and pastures. June — Aug. Naturalized from Europe.

Extensively grown and very valuable for hay. It is said to have been introduced into Maryland in 1720 by Timothy Hanson, bence the name "Timothy."

ALOPECURUS L. Foxtail Grass.

Alopecurus pratensis L. (of meadows).

Meadow Foxtail.

Rare. Moist fields and roadsides: New London (Graves), Middlebury (Harger), Southington, Litchfield and Cornwall (Bissell). May—June. Adventive from Europe.

A desirable grass for moist pastures.

Alopecurus geniculatus L. (abruptly bent).

Marsh, Water or Floating Foxtail.

Rare or local. Wet meadows and along brooks: Hartford (A. W. Driggs), Wethersfield (C. Wright), Southington (Andrews & Bissell). May—June.

A good grazing grass for wet grounds.

Alopecurus geniculatus L., var. **aristulatus** Torr. (with small awns or bristles).

Rare. Shallow water of ditches: Meriden (Harger & Mrs. C. S. Phelps), Salisbury (Weatherby & Mrs. C. S. Phelps). May —June.

SPOROBOLUS R. Br. Drop-seed. Rush Grass.

Sporobólus clandestinus (Spreng.) Hitchc. (concealed). Sporobólus asper of Manuals.

Rare. Open, rocky ground: New Haven (R. W. Woodward). Sept.

Sporobolus asper (Michx.) Kunth (rough).

Sporobolus longifolius Wood.

Dry, sandy soils. In northern districts rare or occasional: Salisbury (Mrs. C. S. Phelps), New Milford (Eames), Oxford (Harger), Southington (Andrews & Bissell), Hartford (C. Wright). Becoming frequent near the coast and common about New Haven. Aug.— Sept.

Sporobolus vaginiflorus (Torr.) Wood (having the flowers in sheaths).

Frequent to common. Dry, sterile fields and sandy roadsides. Aug.—Sept.

Sporobolus neglectus Nash (neglected).

Rare. Dry ground: Oxford (Weatherby). Sept.

Sporobolus cryptandrus (Torr.) Gray (with hidden stamens). Occasional in the southwestern part of the state, in sandy soil along the coast (Eames). July — Aug.

Sporobolus heterolepis Grav (various-scaled).

Rare. Dry, rocky summits: New Haven (Dr. Monson, O. D. Allen, Harger & R. W. Woodward). Sept.

Sporobolus uniflorus (Muhl.) Scribn. & Merr. (one-flowered). Sporobolus serotinus Gray.

Peat bogs and open swamps. Frequent in the eastern part of the state, becoming rare or local westward: East Haven (A. H. Young & Harger), Southington (Andrews), Wolcott

(Andrews & Bissell), Waterbury (A. E. Blewitt), Middlebury (Harger), Norfolk (Bissell). Aug.— Sept.

A very delicate grass.

AGROSTIS L. Bent Grass.

Agrostis alba L. (white).

Fiorin. White Bent Grass. Red Top. Fine Bent. Dew Grass. Local or occasional. Open, generally moist ground. July

- Aug. In part naturalized from Europe.

The var. VULGARIS (With.) Thurb. (common), Agrostis vulgaris With., cultivated under the name of Red Top, is common in fields and open ground and is a valuable grass for hay and pasturage. This variety is usually introduced from Europe but is perhaps also native.

Agrostis alba L., var. aristata Gray (awned).

Rare. Franklin, moist peaty soil in shade (R. W. Woodward). July.

Agrostis alba L., var. maritima (Lam.) G. F. W. Mey. (of the sea-coast).

Agrostis coarctata Ehrh.

Frequent along the coast in salt and brackish marshes; rare inland as at Southington (Bissell), Oxford (Harger). July — Sept.

Agrostis hyemalis (Walt.) BSP. (wintering).

Agrostis scabra Willd.

Agrostis scabra Willd., var. montana Gray's Manual ed. 6. Hair or Rough Hair Grass. Rough Bent. Fly-away or Silk Grass.

Frequent or common. Dry or moist open ground, often in sandy soil. June — Sept.

Agrostis perennans (Walt.) Tuckerm. (perennial).

Agrostis intermedia Scribn.

Thin Grass.

Frequent. Rich woodlands either dry or moist. Aug.—Sept.

Agrostis canina L. (of a dog).

Brown Bent Grass. Rhode Island Bent.

Local. Meadows, East Hartford (Weatherby); dry, ster-

ile field on bank of the Housatonic River, Milford (Eames); field, Westport (Eames & C. C. Godfrey). July. Adventive from Europe.

POLYPOGON Desf. Beard Grass.

Polypogon monspeliensis (L.) Desf.

Beard Grass.

Rare. Waste places: Manchester (A. W. Driggs). July — Sept. Fugitive from Europe.

CALAMAGROSTIS Adans. Reed Bent Grass.

Calamagrostis canadensis (Michx.) Beauv.

Blue-joint Grass. Blue-stem. Reed Bent Grass.

Frequent. Wet meadows and borders of swamps. July. A valuable grass for wet grounds, making good hay if cut early.

Calamagrostis cinnoides (Muhl.) Barton (like Cinna, the Reed Grass).

Calamagrostis Nuttalliana Steud.

Occasional. Bogs and open swamps. Aug. -- Sept.

AMMOPHILA Host.

Ammophila arenaria (L.) Link (of sand).

Ammophila arundinacea Host.

Beach Grass. Sea Sand Reed. Psamma. Marram.

Common along the coast on sand dunes and beaches. Aug. — Sept.

Most valuable as a sand binder, its long underground stems holding the sand together and preventing it from being blown by the wind.

CINNA L. Wood Reed Grass.

Cinna arundinacea L. (reed-like).

Frequent. Wet woods and shaded swamps. Aug.— Sept.

Cinna latifolia (Trev.) Griseb. (broad-leaved).

Cinna pendula Trin.

Rare. Moist shaded rocks: Barkhamsted (A. E. Blewitt), Hartland and Colebrook (Bissell), Salisbury (Mrs. C. S. Phelps). Aug.—Sept.

HOLCUS L.

Holcus lanatus L. (woolly).

Velvet Grass.

Occasional to frequent. Moist fields and roadsides. June —July. Naturalized from Europe.

SPHENOPHOLIS Scribn.

Sphenopholis obtusata (Michx.) Scribn. (blunt).

Eatonia obtusata Gray.

Rare or local. Borders of salt marshes: New Haven (R.

W. Woodward), Fairfield (Eames). June — early July.

The var. Pubescens (Scribn. & Merr.) Scribn. (downy) occurs at Stratford and Fairfield (Eames).

Sphenopholis nitida (Spreng.) Scribn. (shining).

Eatonia nitida Nash.

Eatonia Dudlevi Vasey.

Dry, usually rocky woods. Generally frequent, but reported rare in the central part of the state. May —June.

Sphenopholis pallens (Spreng.) Scribn. (pale).

Eatonia pennsylvanica Gray.

Moist or dry woods and in open, wet meadows. Occasional along the coast, becoming frequent northward. June — early July.

The var. MAJOR (Torr.) Scribn. (larger), Eatonia pennsylvanica Gray, var. major Torr., occurs at Southington and Salisbury (Bissell).

Sphenopholis palustris (Michx.) Scribn. (of marshes).

Trisetum palustre Trin.

Trisetum pennsylvanicum Britton & Brown's Ill. Flora.

Rare or occasional. Wet meadows and open swamps. June.

TRISETUM Pers.

Trisetum spicatum (L.) Richter (spiked).

Trisetum subspicatum Beauv.

Trisetum subspicatum Beauv., var. molle Gray.

Rare. Limestone ledges: Salisbury (J. R. Churchill). May—June.

DESCHAMPSIA Beauv.

Deschampsia flexuosa (L.) Trin. (zigzag).

Common Hair Grass.

Dry woods and rocky hillsides. Frequent to common along the coast and on banks of tidal rivers; occurring rarely inland, as at Salisbury (Bissell). June—July.

Deschampsia caespitosa (L.) Beauv. (tufted).

Tufted Hair Grass.

Frequent on shores of tidal rivers in the southeastern part of the state, rare or local elsewhere: New Haven (A. L. Winton), Southington, introduced and established in one field (Bissell). June—July.

AVENA L. Oat.

Avena sativa L. (sown).

Common Oat.

Occasional. Roadsides and waste places. June —July. Fugitive from Europe.

It is extensively grown as food for man and beast and is also reputed to have medicinal value.

ARRHENATHERUM Beauv. Oat Grass.

Arrhenatherum elatius (L.) Beauv. (rather tall).

Arrhenatherum avenaceum Beauv.

Tall Oat Grass.

Fields and roadsides. Occasional in most parts of the state; frequent in the southwestern portion. June. Naturalized from Europe.

DANTHONIA DC. Wild Oat Grass.

Danthonia spicata (L.) Beauv. (spiked).

Common. Dry, sterile soils. June - July.

Often covering large areas of dry meadow or pasture land, but of little value either for hay or pasturage.

Danthonia compressa Aust. (flattened).

Dry woods or sometimes on exposed, ledgy places. Occasional in southeastern and southwestern Connecticut, apparently rare in other parts of the state: Union and Windham

(Bissell), Southington (Andrews & Bissell), Cheshire (A. E. Blewitt), Naugatuck (Eames). June—July.

SPARTINA Schreb. Cord or Marsh Grass.

Spartina Michauxiana Hitchc.

Spartina cynosuroides of American authors, not Roth.

Slough, Cord, Bull or Thatch Grass. Tall Marsh Grass.

Marshes and shallow water both fresh and salt. Frequent to common along the coast and near tidal rivers; rare inland as at Glastonbury (Andrews), Oxford (Harger). July—Sept.

Spartina cynosuroides (L.) Roth (like Cynosurus, the Dog'stail Grass).

Spartina polystachya Willd.

Salt Reed Grass.

Borders of salt marshes and creeks. Rare in eastern Connecticut: Old Lyme (Graves), Old Saybrook (Bissell). Becoming occasional from New Haven westward. July — Sept.

Spartina glabra Muhl. (smooth).

Spartina stricta Roth, var. glabra Gray.

Salt Marsh Grass.

In its typical form not known in Connecticut. The var. PILOSA Merr. (hairy) is common on borders of salt marshes and tidal rivers. Aug.— Sept.

Forms an important part of the hay cut on the salt marshes. Spartina glabra Muhl., var. alterniflora (Loisel.) Merr. (alternate-flowered).

Spartina stricta Roth., var. alterniflora Gray.

Salt Marsh Grass.

Occasional. Borders of salt marshes and tidal streams. Aug.— Sept.

Spartina patens (Ait.) Muhl. (spreading) var. juncea (Michx.) Hitchc. (rush-like).

Spartina juncea Willd.

Trachynotia juncea Michx.

Salt Meadow Grass.

Common on salt meadows along the coast. July — Sept. Furnishes much of the hay cut on the salt meadows.

Spartina patens (Ait.) Muhl., var. caespitosa (A. A. Eaton) Hitchc. (growing in tufts).

Rare. Salt marshes: Groton (Graves). July - Aug.

CYNODON Richard. Bermuda or Scutch Grass.

Cynodon Dactylon (L.) Pers. (finger).

Capriola Dactylon Kuntze.

Bermuda or Scutch Grass.

Rare. Waste ground: New Haven (O. Harger). July — Aug. Fugitive from Europe where it is native, or from the South where it has been introduced and is often cultivated as a pasture grass.

BOUTELOUA Lag. Mesquite Grass.

Bouteloua curtipendula (Michx.) Torr. (short-hanging).

Bouteloua racemosa Lag.

Atheropogon curtipendulus Fourn.

Mesquite Grass.

Rare. Dry, open sandy soil: Oxford (H. C. Beardslee, Harger), Salisbury (Mrs. C. S. Phelps). Aug.—Sept.

ELEUSINE Gaertn. Goose Grass. Yard Grass.

Eleusine indica Gaertn.

Crab, Yard, or Wire Grass.

Occasional to common, chiefly near dwellings and in waste places of towns and cities, but sometimes in country districts, especially those in the valley of the Connecticut River. Aug. — Sept. Naturalized from India.

LEPTOCHLOA Beauv.

Leptochloa fascicularis (Lam.) Gray (clustered).

Diplachne fascicularis Beauv.

Rare. Borders of salt or brackish marshes: Stonington (Graves), Groton (Bissell & Graves), New Haven (W. A. Setchell, Harger), Stratford (Eames & Harger). Aug.—Sept.

PHRAGMITES Trin. Reed.

Phragmites communis Trin. (growing in colonies).

Phragmites vulgaris BSP.

Phragmites Phragmites Karst.

Wild Broom Corn.

Borders of marshes, either salt or fresh. Apparently rare inland: Salisbury (Mrs. C. S. Phelps). Occasional along the coast, becoming more frequent in the southwestern corner of the state. Late Aug.— Sept.

A tall, striking grass with broad leaves, the largest of our native grasses.

TRIDENS R. & S.

Tridens flavus (L.) Hitchc. (yellow).

Triodia cuprea Jacq.

Sieglingia seslerioides Scribn.

Tricuspis seslerioides Torr.

Tall Red Top.

Dry fields and roadsides, generally in sandy or sterile soil. Rare in the eastern part of the state: East Lyme and the valley of the Thames River (Graves). Becoming occasional westward along the coast and in the river valleys and frequent in southwestern Connecticut. In the Housatonic Valley it is found as far north as Kent (Eames). Aug.

TRIPLASIS Beauv.

Triplasis purpurea (Walt.) Chapm. (purple).

Triodia purpurea Hack.

Sieglingia purpurea Kuntze.

Sand Grass.

Dry, open sandy places. Occasional to frequent along the shore; rare inland as at Lisbon (Harger). July — Sept.

MOLINIA Schrank.

Molinia coerulea (L.) Moench (sky-blue).

Rare. Well established along roadsides: New Haven (R. W. Woodward). July — Aug. Adventive from Europe.

ERAGROSTIS Beauv.

Eragrostis hypnoides (Lam.) BSP. (like Hypnum, a kind of creeping Moss).

Eragrostis reptans Nees.

Sandy shores of rivers and sometimes ponds. Frequent in the valleys of the Connecticut and Housatonic Rivers; rare elsewhere. Aug.— Sept.

Eragrostis capillaris (L.) Nees (hair-like).

Hair Grass.

Dry fields or thin woods in sandy ground. Occasional, becoming frequent or locally common in some parts of southwestern and central Connecticut. Aug.— Sept.

Eragrostis Frankii (Fisch., Mey. & Lall.) Steud.

Rare or local. River shores and roadsides in sandy soil: Lyme (Graves & Bissell), Middletown (A. W. Driggs), East Windsor, Windsor and Hartford (Bissell), Oxford (Harger), Salisbury (Mrs. C. S. Phelps). Aug.— Sept.

Eragrostis pilosa (L.) Beauv. (hairy).

Eragrostis Purshii Schrad.

Frequent. Dry soils, along roadsides and railways, on river shores and in waste places. July — Sept.

Eragrostis megastachya (Koeler) Link (large-spiked).

Eragrostis major Host.

Stink Grass. Snake Grass.

Occasional or frequent. Waste places, roadsides, and as a weed in cultivated ground. July — Sept. Naturalized from Europe.

The fresh plant emits a strong, unpleasant odor.

Eragrostis minor Host (smaller).

Rare. Waste ground: Bridgeport (Eames). Aug. Adventive from Europe.

Eragrostis pectinacea (Michx.) Steud. (comb-like).

Purple Eragrostis.

Frequent or common. Dry, open ground. Aug.—Sept. A beautiful native grass, one of the "purple grasses" distinguished by Thoreau in his essay "Autumnal Tints."

MELICA L. Melic Grass.

Melica striata (Michx.) Hitchc. (streaked).

Avena striata Michx.

Purple Oat.

Local. Rocky woods: Oxford (Harger). Limestone ledges: Salisbury and Sharon (Bissell). May—June.

DISTICHLIS Raf. Spike Grass. Alkali Grass.

Distichlis spicata (L.) Greene (spiked).

Distichlis maritima Raf.

Alkali Grass.

Frequent or common in salt meadows along the coast. Aug.— Sept.

It is of considerable value as a sand binder.

BRIZA L. Quaking Grass.

Briza media L. (intermediate).

Rare. Fields and waste places: Mansfield (R. W. Woodward), Salisbury (Mrs. C. S. Phelps). June —July. Adventive from Europe.

Sometimes cultivated for ornament.

DACTYLIS L. Orchard Grass.

Dactylis glomerata L. (densely clustered).

Orchard Grass.

Common. Fields, roadsides and waste places. June — July. Naturalized from Europe.

In cultivation a valuable grass for shaded ground.

CYNOSURUS L.

Cynosurus cristatus L. (crested).

Dog's-tail Grass.

Rare. New London, well established in one lawn (Graves). June. Adventive from Europe.

POA L. Meadow Grass. Spear Grass.

Poa annua L. (annual).

Low Spear Grass. Goose Grass.

Common. Cultivated ground and waste places. Apr.—Nov. Naturalized from Europe.

Poa compressa L. (flattened).

Creeping Spear Grass. Wire Grass. Flat-stemmed or Canada Blue Grass.

Common. Fields, waste places and woods, mostly in dry ground. May — Aug. Naturalized from Europe.

Said to be a valuable grass for dry and poor soils.

Poa triflora Gilib. (three-flowered).

Poa serotina Ehrh.

Poa flava of American authors, not L.

False Red Top. Fowl Meadow Grass. Swamp Wire Grass. Duck Grass.

Frequent or occasional. Moist meadows. July — Aug. A desirable grass for hay in wet ground.

Poa pratensis L. (of meadows).

June Grass. Kentucky Blue Grass. Spear Grass. Smooth Meadow Grass.

Common. Meadows, fields and pastures. May —June. In Connecticut naturalized from Europe.

A valuable grass for pastures and lawns, and in some parts of the country much cultivated. The stems of this grass are used in the manufacture of the finer grades of Leghorn hats.

Poa trivialis L. (common).

Rough-stalked Meadow Grass.

Occasional. Moist meadows, borders of streams and about springs. June—July. Naturalized from Europe.

Poa debilis Torr. (weak).

Rare or local. Rocky woods or fields, either dry or moist: Union, Ashford and Stafford (Weatherby & Bissell), Oxford (Harger), New Haven (R. W. Woodward), Salisbury (C. S. Phelps & Bissell). May—July.

Poa alsodes Gray (of groves).

Rocky woods or along woodland brooks. Rare or local in the eastern part of the state and along the coast westward, becoming occasional in northwestern Connecticut. May—June.

GLYCERIA R. Br. Manna Grass.

Glyceria Torreyana (Spreng.) Hitchc.

Glyceria elongata Trin.

Panicularia elongata Kuntze.

Wet woods and along wooded brooks and borders of swamps. Rare in southeastern Connecticut and along the coast, becoming occasional or frequent northward. June — July.

Glyceria obtusa (Muhl.) Trin. (blunt).

Panicularia obtusa Kuntze.

Swamps and boggy meadows. Frequent or occasional in the southeastern part of the state and westward along the coast; rare inland. Mid July—Sept.

Glyceria canadensis (Michx.) Trin.

Panicularia canadensis Kuntze.

Pearl Grass. Rattlesnake Grass. Tall Quaking Grass. Tuscarora Rice,

Frequent. Bogs, open swamps and ditches. June -July.

Glyceria nervata (Willd.) Trin. (nerved).

Panicularia nervata Kuntze.

Fowl Meadow Grass. Manna Grass. Meadow Spear Grass. Common. Open swamps, boggy meadows, along streams and about ponds. June —July.

A good forage grass for wet grounds. The seeds furnish much food for water-fowl.

Glyceria grandis Wats. (large).

Panicularia americana MacMill.

Tall Manna Grass. Reed Meadow Grass.

Moist or wet open ground. Rare in the eastern part of the state and on the coast: Lyme (Graves), New Haven (Harger), Norwalk (Bissell). Elsewhere occasional. June —July.

Glyceria pallida (Torr.) Trin. (pale).

Panicularia pallida Kuntze.

Pale Manna Grass.

Occasional. Shallow water, wet bogs and swamps. June—July.

Glyceria septentrionalis Hitchc. (northern).

Glyceria fluitans of American authors, not R. Br.

Panicularia fluitans of Britton's Manual.

Floating Manna Grass.

Rare. Wet meadows: Stonington (Graves), Thompson and Woodstock (Harger), Cheshire (D. C. Eaton), Bridgeport and Westport (Eames), Salisbury (Bissell). June—July.

Glyceria borealis (Nash) Batchelder (northern).

Panicularia borealis Nash.

Rare. Swampy ground along brooks and in ditches: Woodstock (Weatherby), Farmington (Andrews & Bissell), Norfolk (Bissell). June—July.

Glyceria acutiflora Torr. (with pointed flowers).

Panicularia acutiflora Kuntze.

Open swamps and wet meadows. Occasional in the southeastern part of the state, becoming frequent or common elsewhere. June.

PUCCINELLIA Parl.

Puccinellia angustata (R. Br.) Rand & Redfield (narrow). Puccinellia maritima Parl., var. (?) minor Gray's Manual ed. 6. Goose Grass. Sea Spear Grass.

Rare. Old Lyme, shore of Blackhall River (Graves). June.

Puccinellia distans (L.) Parl. (standing apart).

Goose Grass.

Wet tidal sands and borders of salt marshes. Rare in southeastern Connecticut, becoming occasional or frequent westward. June—July.

Puccinellia Borreri (Bab.) Hitchc.

Rare. Bridgeport, sandy shore of Cedar Creek (Eames). June — July.

Introduced from Europe.

FESTUCA L. Fescue Grass.

Festuca octoflora Walt. (eight-flowered).

Festuca tenella Willd.

Slender Fescue.

Dry sandy soil or thin soil on ledges. Occasional over the greater part of the state, becoming frequent in the southwestern portion. June—July.

Festuca rubra L. (red).

Swamps and marshes or sometimes in fields or on ledges. Frequent or common along and near the coast; occasional inland. June—July.

Festuca ovina L. (of sheep).

Sheep's Fescue.

Rare or occasional. Dry fields or in sterile soils. June — July.

The var. CAPILLATA (Lam.) Hack. (hair-like), Festuca capillata Lam., is occasional in similar situations. The species is native northward, but in Connecticut both that and the variety are naturalized from Europe.

Valuable as a forage grass, especially for sheep; also a good grass for lawns.

Festuca elatior L. (taller).

Festuca elatior L., var. pratensis Gray.

Taller or Meadow Fescue.

Common. Meadows, fields and waste places. June —July. Naturalized from Europe.

A grass of much value both for pasturage and hay.

Festuca nutans Spreng. (nodding).

Occasional or frequent. Rocky woodlands. June - July.

BROMUS L. Brome Grass.

Bromus secalinus L. (rye-like).

Cheat. Chess.

Occasional or frequent. Grassland, roadsides and often in grain fields. June — Aug. Adventive from Europe.

A pernicious weed in grain fields. In some countries the seeds are mixed with rye or wheat for use as food.

Bromus hordeaceus L. (like Hordeum, the Barley).

Bromus mollis L.

Soft Chess.

Rare. Waste places: New London (Graves), Hartford (Bissell), Southington (Andrews). June. Adventive from Europe.

Bromus squarrosus L. (with spreading scales).

Rare. Naugatuck, in waste ground (A. E. Blewitt). June. Fugitive from Europe.

Bromus racemosus L. (racemed).

Waste places and roadsides. Occasional in southwestern Connecticut (Eames). Rare elsewhere: New London (Graves), Norwich (Miss Hakes), New Haven (O. D. Allen). June. Adventive from Europe.

Bromus commutatus Schrad. (variable).

Rare. Roadsides and waste ground: Cromwell (Andrews & Bissell), Middletown and Southington (Bissell). June — July. Adventive from Europe.

Bromus brizaeformis Fisch. & Mey. (like Briza, the Quaking Grass).

Rare. Waste ground: New Haven (R. W. Woodward). July — Aug. Adventive, probably from Europe.

Bromus tectorum L. (of dwellings).

Sandy or sterile waste places. Frequent or common in or near cities and along railroads, rare elsewhere. May —July. Naturalized from Europe.

Bromus ciliatus L. (fringed).

Wood Chess. Hairy Brome Grass.

Dry soil of rocky woods or railroad banks. Rare near the coast, becoming occasional northward. July — Aug.

Bromus purgans L. (purging).

Bromus ciliatus L., var. purgans Gray.

Frequent. Rocky woods and copses. July - Aug.

Bromus altissimus Pursh (tallest).

Rocky woods and shaded alluvial ground. Occasional or local throughout the northern part of the state, extending

southward to Lyme (Bissell), and Derby (Harger), its exact distribution unknown. July - Aug.

Bromus Kalmii Grav.

Wild Chess.

Dry hillsides and rocky woods, or sometimes in moist meadows. Absent or rare near the coast, becoming occasional or frequent northward. June - July.

Bromus erectus Huds. (erect).

Rare. Introduced in one field, Southington (Bissell). May - June. Adventive from Europe.

Bromus inermis Leyss. (unarmed; referring to the absence of awns).

Hungarian Brome Grass.

Rare. Fields and roadsides: East Windsor (G. S. Phelps), Naugatuck (A. E. Blewitt), Salisbury (Mrs. C. S. Phelps). July. Adventive from Europe.

In Europe considered one of the best forage plants for dry soils. Introduced and cultivated for hay in many parts of the United States.

LOLIUM L. Darnel.

Lolium perenne L. (perennial).

Perennial Ray Grass or Rye Grass. Nonesuch. Common Darnel.

Rare or occasional. Fields, waste places or cultivated ground. July - Aug. Adventive from Europe.

Lolium multiflorum Lam. (many-flowered).

Lolium italicum R. Br.

Italian Rve or Ray Grass.

Rare. Waste grounds and roadsides: Bridgeport (Eames). July - Sept.

Adventive from Europe, where it is regarded as one of the best grasses for hay.

Lolium temulentum L. (drunken; referring to the narcotic properties of the seeds).

Bearded Darnel.

Rare or local. Waste grounds: Bridgeport, in several places and usually associated with Phalaris canariensis, with

which it appears to have been introduced (Eames). July. Adventive from Europe.

AGROPYRON Gaertn.

Agropyron repens (L.) Beauv. (creeping).

Couch, Quack, Quitch, Durfee, Scutch, Shear, Dog, or Knot Grass.

Common. Fields, cultivated ground and waste places. June — Aug. Naturalized from Europe.

A bad weed, very troublesome in cultivated ground. The rootstocks are of medicinal value and are officinal,

Agropyron tenerum Vasey (delicate).

Rare. Naugatuck, in waste ground (A. E. Blewitt). July
— Aug. Fugitive from the western United States.

Agropyron caninum (L.) Beauv. (of a dog).

Awned Wheat Grass. Dog's Wheat or Couch Grass.

Occasional or local. Dry or moist thickets, fields and woods: Killingly (Weatherby & Bissell), Union, East Haddam, Southington, Norfolk and Salisbury (Bissell), Oxford (Harger). July — Aug. In part naturalized from Europe.

SECALE L. Rye.

Secale cereale L. (cereal).

Rye.

Occasional. Roadsides and waste places as an escape from cultivation. June. Fugitive from Europe.

The grain furnishes a valuable cereal and is largely used in the manufacture of distilled liquors.

TRITICUM L. Wheat.

Triticum sativum Lam. (sown).

Triticum vulgare Vill.

Wheat.

Local. Old fields and waste places as an escape from cultivation. June. Fugitive from Europe.

Easily leads all other food plants in value and importance.

HORDEUM L. Barley.

Hordeum jubatum L. (maned).

Squirrel-tail Grass.

Rare or local. Salt marshes where it is apparently native: Branford (Andrews & Bissell), New Haven and Milford (Harger), Fairfield (Eames). Introduced in waste grounds: Norwich (Mrs. E. E. Rogers), Berlin (J. N. Bishop), Hartford (Bissell), Bridgeport (Eames), Waterbury and Naugatuck (A. E. Blewitt), Salisbury (Mrs. C. S. Phelps). June — Sept.

This grass is very injurious in hay, the beards of the heads sticking in the nose and mouth of stock, even penetrating the flesh and causing death.

Hordeum vulgare L. (common).

Common Barley.

Frequent as a weed in oat fields, rarely escaping to roadsides and waste places, as at Southington (Andrews), Oxford (Harger). July. Fugitive from Europe.

The grain is one of the important cereals, especially in northern countries. Malt is made very largely from barley.

ELYMUS L. Lyme Grass. Wild Rye.

Elymus virginicus L.

Wild Rye. Terrell Grass.

Frequent along the coast, and in low grounds, mostly near streams, inland; rare elsewhere. July — Aug.

The var. HIRSUTIGLUMIS (Scribn.) Hitchc. (with hairy scales), *Elymus hirsutiglumis* Scribn., occurs at East Haven (Harger), New Haven (Bissell), Stratford (Eames), Bridgeport (C. K. Averill), and is occasional in the valleys of the larger rivers.

Elymus australis Scribn. & Ball (southern).

Rare. Dry rocky hills near New Haven (O. D. Allen). Aug.

Elymus canadensis L.

Lyme Grass. Wild Rye. Nodding Wild Rye.

Occasional, local or frequent. Moist thickets and banks of streams. July — Sept,

The var. GLAUCIFOLIUS (Muhl.) Gray (glaucous-leaved) is rare or occasional, mostly near streams and rivers: Sprague (Graves), East Windsor and New Hartford (Bissell), Waterbury (A. E. Blewitt). Oxford (Harger), Sherman and New Milford (Eames), Salisbury (Mrs. C. S. Phelps).

Elymus striatus Willd. (grooved).

Slender Wild Rye.

Rare or occasional. Woods, thickets and near streams, mostly in dry ground. July — Aug.

HYSTRIX Moench. Bottle-brush Grass.

Hystrix patula Moench (spreading).

Hystrix Hystrix Millsp.

Asprella Hystrix Willd.

Bottle-brush Grass.

Occasional to frequent. Dry, rocky woods. June - July.

CYPERACEAE. SEDGE FAMILY.

A large family, composed mostly of grass-like plants that are found in various situations, but are specially abundant in low grounds and often form nearly the entire vegetation in wet meadows and open bogs. While they are often cut for coarse hay and bedding for stock, they are of little economic value, and should be rooted out and replaced where possible by species of true grasses that will thrive in such locations. The dates given in this family are for the time of fruiting, not of flowering, as specimens should be collected when in fruit, it being impossible otherwise in some groups to determine the exact species.

CYPERUS L. Galingale.

Cyperus diandrus Torr. (two-stamened).

Frequent. Moist, grassy places and about swamps. Aug. — Sept.

Cyperus rivularis Kunth (of streams).

Cyperus diandrus Torr., var. castaneus Torr.

Frequent. Wet, sandy shores, along streams and about ponds. Aug.— Sept.

Cyperus Nuttallii Eddy.

Frequent along the coast on wet, sandy shores and edges of salt marshes. Aug.—Sept.

Cyperus aristatus Rottb. (awned).

Cyperus inflexus Muhl.

Occasional. Moist, sandy soil on river banks, beside ponds and along roadsides. Aug.—Oct.

The dried plants are pleasantly sweet-scented.

Cyperus fuscus L. (dusky).

Rarc. Sandy shore of the Connecticut River near Hadlyme Ferry, Lyme (Graves). Aug.—Sept. Fugitive from Europe.

Cyperus dentatus Torr. (toothed).

Occasional or local. Sandy shores of ponds and streams. Aug.— Oct.

Cyperus esculentus L. (eatable).

Frequent. Moist fields, waste ground and along rivers. Aug.— Sept.

The var. LEPTOSTACHYUS Boeckl. (thin-spiked), var. angustispicatus Britton, is sometimes seen.

A weed, often a pest in cultivated ground and difficult to exterminate.

Cyperus erythrorhizos Muhl. (red-rooted).

Local. Plentiful along the banks of the Connecticut River at East Windsor and Glastonbury (Bissell), Hartford (C. Wright), Lyme (Graves). Also found along the Pequonnock River, Bridgeport (Eames). Aug.—Sept.

The var. PUMILUS Engelm. (low) occurs with the species at Hartford (H. S. Clark & Weatherby).

Cyperus ferax Richard (fruitful).

Cyperus speciosus Vahl.

Sandy beaches and about brackish marshes near the coast. Rare at Old Lyme (Graves); becoming occasional or frequent westward. Sept.—Oct.

Cyperus strigosus L. (bristly).

Common. Meadows, fields and along streams, usually in moist, but sometimes in dry soil.

The var. Capitatus Boeckl. (densely clustered) is reported to occur. Aug.— Sept.

Often a troublesome weed in cultivated ground.

Cyperus strigosus L., var. robustior Kunth (stouter).

Rare or occasional. Fields and meadows, growing with the typical form. Aug.— Sept.

Cyperus Grayii Torr.

Occasional along the coast on the higher portions of the beaches and among sand dunes. Aug.— Oct.

Cyperus filiculmis Vahl (thread-stemmed).

Rare or occasional. Dry or sandy fields. July - Aug.

Cyperus filiculmis Vahl, var. macilentus Fernald (lean).

Common. Dry, sandy or sterile soil. July — Aug.

DULICHIUM Pers.

Dulichium arundinaceum (L.) Britton (reed-like).

Dulichium spathaceum Pers.

Common. Wet places about ponds and in shallow water. July — Sept.

ELEOCHARIS R. Br. Spike Rush.

Eleocharis quadrangulata (Michx.) R. & S. (four-cornered). Eleocharis mutata Britton, not R. & S.

Rare. Shallow water of pond: Guilford (G. H. Bartlett). Aug.— Sept.

Eleocharis Robbinsii Oakes.

Rare. In ponds: Voluntown, Groton, Ledyard and East Lyme (Graves), Griswold (Harger), Monroe (Eames), Salisbury (Bissell). Sept.

Eleocharis olivacea Torr. (olive-colored).

Open bogs and muddy borders of ponds. Rare inland: Salisbury (Mrs. C. S. Phelps), Windsor (Bissell). Occasional southwestward and along the coast. Aug.— Sept.

Eleocharis diandra C. Wright (two-stamened).

Rare. Banks and high sand bars of the Connecticut River: Lyme (Graves), Wethersfield (C. Wright), East Windsor (Bissell). Sept.— Oct.

Eleocharis ovata (Roth) R. & S. (egg-shaped).

Rare. Sand flats, bed of the Connecticut River, East Windsor (Bissell). Sept.—Oct.

Eleocharis obtusa (Willd.) Schultes (blunt).

· Eleocharis ovata of recent Manuals.

Common. Banks of streams, about ponds and in muddy places. Aug.— Sept.

Eleocharis Engelmanni Steud.

Rare. Gravelly or sandy border of ponds or streams: Wethersfield (C. Wright), West Hartford (Bissell). Aug.—Sept.

Many reports of this species should be referred to Eleocharis obtusa.

Eleocharis palustris (L.) R. & S. (of marshes).

Sphagnum bogs, marshy ground or shallow water on borders of ponds. The typical form is rare over most of the state: East Lyme (Graves), East Hartford (A. W. Driggs), Kent (Eames). Frequent in Fairfield County (Eames).

The var. GLAUCESCENS (Willd.) Gray (somewhat glaucous) is frequent throughout.

The var. MAJOR Sonder (greater), var. vigens Bailey, is rare: East Lyme (Graves). July — Aug.

Eleocharis acicularis (L.) R. & S. (needle-shaped).

Common. Borders of ponds and in shallow water. July — Sept.

Eleocharis tuberculosa (Michx.) R. & S. (pimply).

Swamps, boggy meadows and wet margins of ponds and streams. Frequent near the coast in New London County, becoming rare or local northward and westward, reaching Franklin (R. W. Woodward), Thompson (Weatherby & Bissell), New Haven and East Haven (Harger), Orange (Andrews), Milford (Eames). July — Sept.

Eleocharis Torreyana Boeckl.

Eleocharis microcarpa of authors, not Torr.

Rare. Moist sandy soil: Voluntown, at Beach Pond (R. W. Woodward & Graves). Aug.

Eleocharis tenuis (Willd.) Schultes (slender).

Common. Swamps and wet places. June - Aug.

Eleocharis intermedia (Muhl.) Schultes (intermediate).

Rare. Muddy borders of ponds and on river banks: East Windsor and Salisbury (Bissell). Sept.—Oct.

Eleocharis rostellata Torr. (small-beaked).

Marshes and wet meadows along the coast. Rare or local in New Haven County: Milford (Eames), Orange (Andrews), New Haven (Harger). Becoming occasional eastward. Aug.

STENOPHYLLUS Raf.

Stenophyllus capillaris (L.) Britton (hair-like).

Fimbristylis capillaris Gray.

Common. Dry or moist sterile soil. Aug.—Sept.

FIMBRISTYLIS Vahl.

Fimbristylis Frankii Steud.

Fimbristylis autumnalis of American authors in part, not R. & S.

Frequent. Wet places on banks of ponds and streams, or in low meadows. Aug.— Sept.

SCIRPUS L. Bulrush. Club Rush.

Scirpus nanus Spreng. (dwarf).

Eleocharis pygmaca Torr.

Salt marshes and tidal banks along the coast. Rare eastward: Groton and Montville (Graves). Becoming frequent west of New Haven (Eames). July — Sept.

Scirpus planifolius Muhl. (flat-leaved).

Dry woodlands. Rare in New London County: Montville, Ledyard and East Lyme (Graves). Occasional or frequent elsewhere. June.

Scirpus hudsonianus (Michx.) Fernald.

Eriophorum alpinum L., not Scirpus alpinus Schleich.

Rare or local. Open bogs and wet meadows: Union, Ashford and Stafford (Weatherby & Bissell), Willington (H. C. Beardslee), Mansfield (A. F. Blakeslee), Goshen (Mr. Hoppin). May—early June.

Scirpus subterminalis Torr. (a little below the end).

Rare or local. Shallow water of ponds: Ledyard (W. A. Setchell), Voluntown, Groton, East Lyme and Lyme (Graves), Guilford (G. H. Bartlett), Salisbury (Bissell). Aug.

Scirpus debilis Pursh (weak).

Frequent. Muddy borders of ponds and streams. Aug.—Sept.

Scirpus Smithii Gray.

Rare or local. Muddy shores: Lyme (Graves), Monroe (H. C. Beardslee), Newtown (Eames). Aug.—Sept.

Scirpus americanus Pers.

Scirpus pungens Vahl.

Three-square or Chair-maker's Rush.

Marshes and wet places. Occasional or local over most of the state, but common along and near the coast. July — Aug.

Scirpus Torreyi Olney.

Local. Lyme, marshy banks and shallow water of the Connecticut River (Graves). Aug.

Scirpus Olneyi Gray.

Salt or brackish marshes. Occasional or local along the coast, also extending up the rivers as far as salt water influences. July — Aug.

The var. CONTORTUS Eames (twisted or bent) is plentiful in a brackish marsh at Milford (Eames).

Scirpus validus Vahl (stout).

Scirpus lacustris mostly of American authors, not L. Great Bulrush.

Frequent. Shallow water and in swamps. July - Aug.

Scirpus fluviatilis Torr. & Gray (of a river).

River Bulrush.

Rare or local. Lyme and Old Lyme, in fresh and salt creeks and marshes (Graves); East Windsor and Glastonbury, banks of the Connecticut River (Bissell). July — Sept.

Scirpus robustus Pursh (stout).

Scirpus maritimus of American authors in part.

Occasional in salt or brackish marshes on or near the coast. July — Aug .

Scirpus campestris Britton (of fields).

Scirpus maritimus in part, of authors.

In its typical form not known in Connecticut.

The var. PALUDOSUS (A. Nelson) Fernald (of marshes), Scirpus paludosus A. Nelson, is frequent in marshes along the coast.

The var. NOVAE-ANGLIAE (Britton) Fernald, Scirpus novae-angliae Britton, is rare or local in fresh and brackish marshes on the coast from Milford westward (Eames). July — Aug.

Scirpus rubrotinctus Fernald (red-dyed).

Scirpus sylvaticus L., var. digynus Gray's Manual ed. 6, not Boeckl.

Rare or local. Swamps and marshy meadows: Lyme (Graves), Southington (Andrews & Bissell), Waterbury (Harger), Union, Glastonbury, East Windsor, Somers, Litchfield and Norfolk (Bissell). Late June—early July.

Scirpus sylvaticus L. (of woods).

Occasional or frequent. Swamps, along streams and about ponds. Late July — Aug.

Scirpus sylvaticus L., var. Bissellii Fernald.

Rare. Open swamps: Southington (Andrews, Bissell), Ansonia (Harger). July.

Scirpus atrovirens Muhl. (dark green).

Rare. Moist ground: Orange, Huntington and Southbury (Harger), Milford (Eames). Aug.

Scirpus georgianus Harper.

Scirpus atrovirens of Manuals in part.

Frequent. Moist meadows and wet open ground. July — early Aug.

Scirpus polyphyllus Vahl (many-leaved).

Wet meadows and shaded swamps. Rare through most of the state: Lyme (Graves), Southington and Berlin (Andrews & Bissell), Cheshire, Derby and Oxford (Harger), New Haven and Milford (Eames), Colebrook (Bissell). Becoming frequent in Fairfield County (Eames). July.

The var. MACROSTACHYS Boeckl. (long-spiked) has been

found at Berlin (Andrews & Bissell).

Scirpus lineatus Michx. (marked with lines).

Eriophorum lineatum Benth. & Hook.

Rare or local. Wet meadows: New Haven (D. C. Eaton), New Milford and Sharon (Bissell), Salisbury (Mrs. C. S. Phelps). July.

Scirpus cyperinus (L.) Kunth (rush-like).

Eriophorum cyperinum L.

Wool Grass.

Common. Swamps and wet places. Aug.—Sept.

The var. Andrewsh Fernald has been found at Killingly (Weatherby & Bissell), East Hartford (Bissell), Southington (Andrews).

Scirpus cyperinus (L.) Kunth, var. pelius Fernald (black or livid).

Rare. Swamps: Lyme (Graves & Bissell), Hartford and Granby (Bissell), Oxford (Harger). Aug.

The var. CONDENSATUS Fernald (pressed together) occurs occasionally.

Scirpus Eriophorum Michx. (wool-bearing).

Scirpus cyperinus Kunth, var. Eriophorum Britton.

Rare. Swamps: Southington (Andrews), Trumbull (Eames). Aug.—Sept.

Scirpus pedicellatus Fernald (borne on stalks).

Swamps and wet meadows. Occasional to common along the Connecticut River from the northern boundary of the

state to the coast; occasional westward in southern districts. July — Aug .

The var. PULLUS Fernald (dusky) is rare: Southington and Winchester (Bissell).

Scirpus atrocinctus Fernald (dark-girded).

Eriophorum cyperinum L., var. laxum Gray.

Low meadows and bogs. Rare or absent near the coast: New London and Lyme (Graves). Becoming occasional or frequent in the northern part of the state. Late June—July.

The var. BRACHYPODUS Fernald (short-stalked) occurs at Union, Somers, East Windsor and Norfolk (Bissell).

ERIOPHORUM L. Cotton Grass.

Eriophorum callitrix Cham. (having beautiful hair).

Eriophorum vaginatum of American authors, not L.

Hare's Tail.

Rare or local. Sphagnum bogs: Willington (Weatherby & Bissell), Southington (Andrews), Burlington (J. N. Bishop), Litchfield (J. P. Brace), Middlebury (Harger), Norfolk and Salisbury (Bissell). May—early June.

Eriophorum gracile Roth (slender).

Rare or local. Boggy meadows or in sphagnum: Griswold (Graves), Union (Weatherby & Bissell), Franklin (R. W. Woodward & Graves), Coventry, Cheshire, Southington and Burlington (Bissell), Meriden and Bethany (Harger), Easton (Eames), New Milford (E. H. Austin), Salisbury (Bissell). Late May—carly June.

Eriophorum tenellum Nutt. (small; delicate).

Eriophorum paucinervium A. A. Eaton.

Bogs and wet meadows. Rare or local through most of the state: South Windsor (Weatherby), Monroe and Stratford (Eames), Oxford and Meriden (Harger), Orange (R. W. Woodward), Salisbury, Southington, East Haddam and Union (Bissell). Becoming occasional in New London County (Graves). July — Aug.

Eriophorum viridi-carinatum (Engelm.) Fernald (green-, keeled).

Eriophorum polystachion of most American authors in part, not L.

Eriophorum polystachion L., var. latifolium Gray.

Bogs and wet meadows. Rare in New London County: Groton and Griswold (Graves). Occasional elsewhere. June.

Eriophorum virginicum L.

Frequent. Wet meadows, bogs and sphagnum swamps. Aug.— Sept.

The var. ALBUM Gray (white) is occasionally seen.

HEMICARPHA Nees & Arn.

Hemicarpha micrantha (Vahl) Pax (small-flowered). Hemicarpha subsquarrosa Nees.

Rare. Wet alluvium along the banks of streams: Enfield (Andrews & Bissell), East Windsor, Hartford and Southington (Bissell), Bloomfield (N. Coleman), Oxford (H. C. Beardslee). Aug.—Sept.

RYNCHOSPORA Vahl. Beak Rush.

Rynchospora macrostachya Torr. (long-spiked).

Rynchospora corniculata Gray, var. macrostachya Britton. Horned Rush.

Rare or local. Sphagnum bogs and shallow water of ponds: Groton and East Lyme (Graves), Guilford (G. H. Bartlett), Monroe (Eames), Woodbury (Harger). Aug.—Sept.

Rynchospora fusca (L.) Ait. f. (dusky).

Rare. Sphagnum bogs or swampy meadows: Thompson (Weatherby), Groton, Waterford and East Lyme (Graves), Griswold and Woodbury (Harger), Monroe (Eames). July — Sept.

Rynchospora alba (L.) Vahl (white).

Occasional or frequent. Peat swamps and open springy bogs. Aug.— Sept.

Rynchospora glomerata (L.) Vahl (densely clustered).

Common. Moist fields, meadows and in wet open places. July — Sept.

CLADIUM P. Br. Twig Rush.

Cladium mariscoides (Muhl.) Torr. (like Mariscus).

Borders of ponds and marshes, either salt or fresh. Rare or local inland: Stafford (Dr. E. J. Thompson & Weatherby), Woodbury (Harger), Monroe (Eames), Salisbury (Mrs. C. S. Phelps). Becoming occasional or frequent on the coast or in its vicinity. Aug.— Sept.

SCLERIA Bergius. Nut Rush.

Scleria triglomerata Michx. (three-headed).

Sandy soil either dry or moist. Rare or local in most districts: Griswold, Stonington and Waterford (Graves), South Windsor (J. F. Smith), Hartford (A. W. Driggs), Southington (Andrews & Bissell), Cheshire (Bissell). Becoming occasional along the coast in Fairfield County (Eames). July—Aug.

Scleria pauciflora Muhl. (few-flowered), var. caroliniana (Willd.) Wood.

Scleria pauciflora of recent Manuals in part.

Rare or local. Low meadows: Columbia (Mrs. C. S. Phelps), Hartford (H. J. Koehler). July — Sept.

Scleria verticillata Muhl. (whorled).

Local. Salisbury, plentiful in an open grassy swamp in sandy soil (H. S. Clark & Bissell). Aug.— Sept.

CAREX L. Sedge.

Carex scoparia Schk. (broom-like).

Common. Wet open ground, or sometimes in drier places. June —July.

The var. MONILIFORMIS Tuckerm. (necklace-shaped), and the var. CONDENSA Fernald (compact), both occur occasionally with the species.

Carex tribuloides Wahlenb. (like Tribulus, the Caltrop).

Frequent. Low meadows and swampy places. July — Aug.

The var. TURBATA Bailey (confused) is occasional.

Carex tribuloides Wahlenb., var. reducta Bailey (reduced).

Carex tribuloides Wahlenb., var. moniliformis Britton.

Rare. Cool swales: Woodstock (Weatherby), Franklin (R. W. Woodward), Winchester and Litchfield (Weatherby & Bissell), Salisbury (Weatherby). July.

Carex siccata Dewey (dry).

Occasional or local. Dry sandy or barren ground, usually growing in colonies. Late May — June.

Carex Crawfordii Fernald.

Local. Salisbury, in dry fields (M. L. Fernald). June.

Carex cristata Schwein. (crested).

Carex tribuloides Wahlenb., var. cristata Bailey.

Carex cristatella Britton.

Rare or local. Low meadows and thickets and along river banks: Ledyard (Graves), Southington (Andrews & Bissell), Oxford (Harger), Huntington and Kent (Eames), Salisbury (Bissell). June—July.

Carex albolutescens Schwein. (yellowish-white).

Carex straminea Willd., var. foenea Torr.

Carex straminea Willd., var. cumulata Bailey.

Locally plentiful near the coast in bogs and moist sandy ground in New London County; has been found also on the top of Bald Hill at 1200 ft. elevation, Union (Graves). July.

Carex mirabilis Dewey (wonderful).

Carex straminea Willd., var. mirabilis Tuckerm.

Occasional or frequent. Fields and copses, in either dry or moist ground. June.

The var. Perlonga Fernald (very long) is occasional, usually in dry ground.

Carex mirabilis Dewey, var. tincta Fernald (dyed).

Rare. Dry open woods: East Hartford (Weatherby). June.

Carex straminea Willd. (straw-colored).

Carex tenera Dewey.

Rare. Woods and fields in wet sandy soil: Griswold (Graves), Thompson, West Hartford and Salisbury (Bissell), Ellington and East Hartford (Weatherby), Norfolk (Weatherby & Bissell). June.

Carex hormathodes Fernald (necklace-like).

Carex tenera of Britton's Manual, not Dewey.

Carex straminea Willd., var. aperta W. Boott.

In and about marshes, Rare inland: Killingly (Bissell). Frequent along the coast. June.

The var. INVISA (W. Boott) Fernald (unseen), Carex straminea Willd., var. invisa W. Boott, occurs on the coast and is frequent in Fairfield County (Eames).

Carex hormathodes Fernald, var. Richii Fernald.

Rare or occasional. Wet ground throughout. June.

Carex Bicknellii Britton.

Rare or local. In meadows or on shaded ledges, in either dry or moist ground: Sprague and Colchester (Graves), Thompson and Franklin (R. W. Woodward), East Hartford (Weatherby), Glastonbury and Southington (Bissell), Orange (Harger). June—July.

Carex silicea Olney (flinty).

Frequent on dunes and sandy beaches along the coast. July.

Carex alata Torr. (winged).

Carex straminea Willd., var. alata Bailey.

Rare. In wet ground: Hartford (A. W. Driggs), Southington (Bissell). June.

Carex festucacea Schk. (fescue-like), var. brevior (Dewey) Fernald (shorter).

Carex festucacea Britton in part.

Carex straminea Willd., var. brevior Dewey.

Frequent or common. Dry sandy fields. June.

Carex Bebbii Olney.

Rare. Salisbury, marshy border of ponds and sloughs (Mrs. C. S. Phelps & A. E. Blewitt). June.

Carex foenea Willd. (hav-like).

Occasional. Dry rocky woods. June - July.

The var. Perplexa Bailey (confused) occurs at East Lyme (Graves), and at Southington (Andrews).

Carex aenea Fernald (brassy).

Rare. Salisbury, dry exposed ledges on Mt. Riga (Weatherby & Bissell). June.

Carex stellulata Good. (star-shaped).

Carex echinata Murr., var. microstachys Boeckl.

Carex sterilis of American authors, not Willd.

Frequent. Wet meadows and swamps. Late May —June.

Carex stellulata Good., var. ormantha Fernald (having a necklace-shaped inflorescence).

Rare. Wet places, growing with the typical form. June.

Carex stellulata Good., var. excelsior (Bailey) Fernald (taller).

Carex sterilis Willd., var. excelsior Bailey.

Occasional. Bogs and wet meadows. June.

Carex stellulata Good., var. cephalantha (Bailey) Fernald (having its flowers in a head).

Carex sterilis Willd., var. cephalantha Bailey.

Carex echinata Murr., var. cephalantha Bailey.

Occasional. Borders of swamps. June.

Carex stellulata Good., var. angustata Carey (narrow).

Carex echinata Murr., var. angustata Bailey.

Rare or local. Bogs and swamps: Ledyard and Waterford (Graves), East Hartford (A. W. Driggs & Bissell), Oxford (Harger), Huntington (Eames). June.

Carex sterilis Willd. (sterile).

Carex echinata Murr., var. conferta Bailey.

Carex atlantica Bailey.

Swampy places. Rare over most of the state: New London (Graves), Woodstock (R. W. Woodward & Weatherby), East Windsor and Southington (Bissell). Frequent near the coast in the vicinity of Bridgeport (Eames). June.

Carex scirpoides Schk. (like Scirpus, the Bulrush).

Carex interior Bailey.

Open swamps and peat bogs. Rare in eastern and central districts: Thompson (R. W. Woodward & Weatherby),

Waterford (Graves), Lyme (Dr. E. J. Thompson), Bolton (Weatherby), South Windsor (A. W. Driggs & Bissell), Southington (Andrews & Bissell), New Haven (Harger). Becoming occasional in the western part of the state. Late May—June.

Carex scirpoides Schk., var. capillacea (Bailey) Fernald (hair-like).

Carex interior Bailey, var. capillacea Bailey.

Shaded bogs. Rare in most parts of the state: Huntington (Eames), Thompson, Southington and East Haven (Bissell). Occasional in New London County (Graves). June.

Carex seorsa E. C. Howe (separate).

Wet shaded ground. Rare or local in most parts of the state: Bolton (A. W. Driggs), East Hartford (Weatherby), New Haven (R. W. Woodward), Southington (Andrews), Stratford (Eames), Oxford (Harger), Litchfield (Bissell). Occasional in New London County (Graves). June.

Carex canescens L. (somewhat hoary).

Rare. Wet woods and sphagnum bogs: Thompson, Southington and Norfolk (Bissell). June.

Carex canescens L., var. subloliacea Laestad. (somewhat like Lolium, the Tare).

Rare. Wet woods: Southington (Bissell). June.

Carex canescens L., var. disjuncta Fernald (disjoined).

Carex canescens in part and of most authors.

Frequent. Shaded swamps, wet bogs and beside brooks, often in shallow water. June.

Carex brunnescens Poir. (brownish).

Carex canescens L., var. vulgaris Bailey.

Carex canescens L., var. alpicola Wahlenb.

Rare. Cool mossy woods and shaded peat bogs: Wallingford (Harger), Winchester and Salisbury (Bissell). June.

Carex bromoides Schk. (like the Brome Grass).

Wet woods, shaded swamps and in springy places. Rare in eastern districts: Union (Bissell), East Haddam (Graves). Becoming occasional or frequent westward. June.

Rare. Woodland hillsides in rich, rather dry soil: Watertown (Harger), Colebrook (J. W. Robbins), Winchester (Weatherby & Bissell), Southington, Torrington, Canaan and Salisbury (Bissell), Danbury and Ridgefield (Eames), Cornwall (E. E. Brewster). June.

Carex trisperma Dewey (three-seeded).

Occasional. Cool bogs and sphagnum swamps. June — July.

Carex tenella Schk. (delicate).

Rare. Cool mossy woods: Waterford (Graves), Stafford (Weatherby & Bissell), Manchester (Weatherby), Norfolk (J. W. Robbins, 1828; Bissell), Barkhamsted and Cornwall (Bissell). June—July.

Carex rosea Schk. (rose-like).

Frequent. Rich woods and thickets or sometimes in open ground. June.

Carex rosea Schk., var. radiata Dewey (radiate).

Frequent. Woods, copses and meadows in either dry or moist ground. June.

Carex rosea Schk., var. minor Boott (smaller).

Rare. Woods or in open ground, more often in dry soil: Norwich (W. A. Setchell), East Hartford (A. W. Driggs), Farmington (Andrews), Southington (Andrews, Bissell), Plainville and Wolcott (Bissell). June.

Carex retroflexa Muhl. (bent backward).

Carex rosea Schk., var. retroflexa Torr.

Woods, copses and open ground, mostly in dry soil. Rare in northern and eastern districts: Ledyard (Graves), Norwich (W. A. Setchell), Scotland and Middlefield (Weatherby), Windsor (Bissell, A. W. Driggs), Southington (Andrews & Bissell), Oxford (Harger). Becoming frequent in the southwestern part of the state (Eames). June.

Carex Muhlenbergii Schk.

Frequent. Dry sterile soil. June - July.

The var. Energy Boott (nerveless), var. xalapensis Britton, is rare inland: Franklin (R. W. Woodward), Killingly and Plainville (Bissell), Southington (Andrews), Oxford (Harger). Becoming occasional or frequent near the coast.

Carex cephalophora Muhl. (head-bearing).

Frequent. Dry soils, often in woods. July.

Carex sparganioides Muhl. (like Sparganium, the Bur-reed).

Rich woods, more often in rocky places. Rare in eastern districts: Norwich and Franklin (Graves), Bolton (A. W. Driggs. Becoming occasional or local westward. June.

Carex cephaloidea Dewey (head-like).

Rare or occasional. Rich shaded ground, more often in moist alluvium. June.

Carex vulpinoidea Michx. (like Carex vulpina, the Fox Sedge).

Common. Open ground, usually in moist but sometimes in dry places. June—July.

Carex setacea Dewey (bristle-like), var. ambigua (Barratt) Fernald (doubtful).

Carex xanthocarpa Bicknell.

Carex xanthocarpa Bicknell, var. annectens Bicknell.

Occasional or frequent. Fields and meadows, either dry or moist. June —July.

Carex diandra Schrank (two-stamened).

Carex teretiuscula Good.

Local. In bogs: New Haven (O. D. Allen), Salisbury (Bissell). June.

Carex diandra Schrank, var. ramosa (Boott) Fernald (branching).

Carex teretiuscula Good., var. ramosa Boott.

Carex teretiuscula Good., var. prairea Britton.

Rare. Bogs and swamps: Salisbury (M. L. Fernald). June.

Carex stipata Muhl. (crowded).

Common. Swamps and wet meadows. June.

Carex crinita Lam. (long-haired).

Swamps and wet places. Rare in New London County: Stonington and East Lyme (Graves). Frequent or common elsewhere. June.

Carex crinita Lam., var. gynandra (Schwein.) Schwein. & Torr. (gynandrous).

Carex gynandra Schwein.

Occasional or frequent. Swamps and wet places. June.

Carex aquatilis Wahlenb. (aquatic).

Rare. Wet meadows or cold bogs: Lyme and Oxford (Harger), Salisbury (M. L. Fernald). June.

Carex torta Boott (twisted).

Banks of rivers and swift flowing streams. Rare near the coast: Lyme (Graves), Darien (Harger & Eames). Becoming frequent northward and common in the northwestern part of the state. May.

Roots very long and tough, the plant forming dense tufts or beds. The fruit ripens early and falls very quickly.

Carex stricta Lam. (straight).

Sword Grass. Nigger-heads.

Very common. Swales, wet meadows and about ponds, often forming large tussocks. June.

One of the best known and most plentiful of our sedges. Largely cut as bedding for stock.

Carex stricta Lam., var. curtissima Peck (very short).

Rare. In swamps: Waterford (Graves), Lyme (Weatherby). June.

Carex stricta Lam., var. angustata (Boott) Bailey (narrow).

Carex stricta Lam., var. xerocarpa Britton.

Wet meadows and in marshes. Rare in most districts: Voluntown (Graves), Southington (Andrews), Windsor and Salisbury (Bissell). Locally plentiful in marshes along the lower Housatonic River (Eames). June.

Carex stricta Lam., var. decora Bailey (elegant).

Carex Haydeni Dewey.

Rare. Low meadows: Franklin and Waterford (Graves), East Hartford (Weatherby), Glastonbury and Southington (Bissell). June.

Carex aurea Nutt. (golden).

Rare or local. Bloomfield, low field on outcrops of sandstone (Weatherby), Kent, moist calcareous rocks on the banks of the Housatonic River (Eames & J. Pettibone), Kent, wet upland pasture (Eames), Salisbury, moist meadows (Miss E. L. Shaw). June—July. Carex pauciflora Lightf. (few-flowered).

Rare. Norfolk, sphagnum swamp (J. W. Robbins, 1827; Bissell). June.

Carex leptalea Wahlenb. (delicate).

Carex polytrichoides Muhl.

Frequent. Wet mossy woods and grassy swamps. May—June.

Carex polygama Schk. (polygamous).

Carex fusca Gray's Manual ed. 6, not All.

Local. Wet meadows and open swamps: New London and Franklin (Graves), Bolton, East Hartford and Bloomfield (Weatherby), East Windsor and Southington (Bissell), Plainville (J. N. Bishop), Hamden (A. L. Winton), Milford (Eames). May.

Carex triceps Michx. (three-headed), var. hirsuta (Willd.) Bailey (hairy).

Carex tricets Britton in part, not Michx.

Fields and roadsides in sandy soil, either dry or moist: Old Lyme (Graves), Salisbury (Bissell). Frequent in central and southwestern Connecticut. June.

Carex virescens Muhl. (greenish).

Carex virescens Muhl., var. costata Dewey.

Carex costellata Britton.

Frequent. Dry woods and clearings, often in leaf-mold. July.

Carex virescens Muhl., var. Swanii Fernald.

Carex virescens of American authors.

Common. Dry woods and open grassy places. July.

Carex formosa Dewey (handsome).

Rare. Meadows and wooded hillsides in rich moist soil: Salisbury (J. R. Churchill). Late May—June.

Carex Davisii Schwein. & Torr.

Rare. Alluvial soil, along river banks or borders of low thickets: Windsor (A. W. Driggs), East Hartford (Weatherby), Lyme and Chester (R. W. Woodward & Graves). June.

Carex gracillima Schwein. (very delicate).

Frequent. Moist woods, thickets and meadows. June.

Carex aestivalis M. A. Curtis (of summer).

Rare. Salisbury, rocky woodland hillside (A. E. Blewitt). June —July.

Carex Willdenowii Schk.

Rare. Dry woods: East Haven (Harger), Hamden (J. A. Allen). Late May — early June.

Carex umbellata Schk. (bearing umbels).

Open ground, in dry sandy or rocky places. Occasional or frequent near the coast, becoming rare or local northward, reaching Woodstock (R. W. Woodward & Harger), Bolton (A. W. Driggs) and Barkhamsted (Harger). May.

The var. TONSA Fernald (clipped) occurs at North Stonington, rocky slope of Lantern Hill (Graves).

Carex nigro-marginata Schwein. (black-margined).

Rare. North Stonington, dry rocky slope of Lantern Hill (Graves). May.

Carex communis Bailey (growing in colonies).

Carex pedicellata Britton.

Carex pedicellata Britton, var. Wheeleri Britton.

Carex communis Bailey, var. Wheeleri Bailey.

Occasional or frequent. Rocky woods and on shaded banks. May —June.

Carex varia Muhl. (variable).

Occasional or frequent. Rocky or sandy woods and clearings. May—June.

The var. Colorata Bailey (colored) occurs with the typical form.

Carex pennsylvanica Lam.

Common. Dry sandy or sterile soil, in woods and in open ground. May.

One of the most abundant species of the genus.

Carex pennsylvanica Lam., var. lucorum (Willd.) Fernald (of groves).

Rare or local. Dry or moist woods: West Hartford (Dr. E. J. Thompson), Meriden (Andrews), Southington (Bissell, Andrews), Fairfield (Eames). Late May—June.

Carex pubescens Muhl. (downy).

Woods, thickets and half-shade, usually in moist rich soil. Rare in New London County: North Stonington (Graves). Becoming occasional along the coast westward and frequent in northern districts. Late May—June.

Carex livida (Wahlenb.) Willd. (pale lead-color).

Rare. In bogs: New Haven (C. N. Shepard, 1830; O. D. Allen). May —June.

Carex panicea L. (like the Panic Grass).

Rare or local. Fields and meadows: New Haven (O. D. Allen), Orange (Eames & C. C. Godfrey). May —June. Native or possibly naturalized from Europe.

Carex tetanica Schk. (rigid).

Rare or local. Meadows and rocky woods: Waterford (Graves), Sherman (E. H. Austin & Eames), Salisbury (M. L. Fernald). Late May—June.

The var. Woodil (Dewey) Bailey occurs at Salisbury, in a cool shaded bog (M. L. Fernald).

Carex polymorpha Muhl. (of many forms).

Rare. East Lyme, low woods (Graves), New Haven, marshes (J. A. Allen, Andrews). June.

Carex pallescens L. (rather pale).

Common. Woods, fields and meadows, either wet or dry. May—June.

Carex paupercula Michx. (stunted), var. pallens Fernald (pale).

Carex Magellanica of Gray's Manual ed. 6 in part, not Lam. Local. Norfolk, plentiful in a sphagnum bog (Bissell). June.

Carex limosa L. (growing in mud).

Rare. Sphagnum bogs: Burlington and Salisbury (Bissell), Norfolk (J. W. Robbins, 1828; Weatherby). June.

Carex littoralis Schwein. (of the sea-shore).

Rare or local. Swampy woods in sandy soil: East Windsor and South Windsor (Bissell), East Hartford (Weatherby), Windsor (A. W. Driggs), Stratford (Harger). Late May—early June.

Carex prasina Wahlenb. (leek-green).

Occasional. Along woodland brooks and in shaded swampy places. June.

Carex eburnea Boott (ivory-like).

Carex setifolia Britton.

Dry shaded ledges. Frequent in the limestone district of northwestern Connecticut, extending southward as far as New Milford (Eames). Rare or local among the trap hills of the Connecticut Valley: Plainville (Bissell), Southington (Andrews & Bissell), Durham (Harger). May—June.

Carex pedunculata Muhl. (stalked).

Rare, local or occasional. Wooded banks, in rich soil either moist or dry: Franklin (Graves), Stafford (Weatherby & Bissell), Manchester (A. W. Driggs), Windsor, Barkhamsted and Salisbury (Bissell), Meriden (D. C. Eaton), Oxford and Southbury (Harger), Monroe (H. C. Beardslee), Weston (Eames & C. C. Godfrey), Cornwall (E. E. Brewster). Late April—early May.

The fruit falls very quickly on ripening.

Carex plantaginea Lam. (like Plantago, the Plantain).

Rare or local. Moist rich woods: North Branford (O. Harger), Colebrook (J. W. Robbins, 1828), Norfolk (Weatherby & Bissell), Torrington and Salisbury (Bissell), Sherman (C. K. Averill). May.

Carex platyphylla Carey (broad-leaved).

Rocky hillsides in rich woods, usually in dry soil. Rare or absent near the coast: Wilton (Miss A. E. Carpenter), Huntington (Eames). Becoming occasional or frequent northward and common in the limestone district of northwestern Connecticut. May.

Carex laxiculmis Schwein. (loose-stalked).

Frequent. Woods and half-shade, usually in rich soil. June.

Carex digitalis Willd. (of a finger).

Common. Rich woods and glades, more often in rather dry soil. June.

Carex ptychocarpa Steud. (having folds on the fruit).

Rare. Waterford, in rocky woods (Graves). June.

Carex laxiflora Lam. (loose-flowered).

Rich woods. Rare in northern and eastern Connecticut, becoming occasional or frequent in Fairfield County. Late May—June.

Carex laxiflora Lam., var. gracillima Boott (very slender).

Rare. Borders of moist thickets: Oxford (Harger), Litchfield (Bissell). Late May.

Carex laxiflora Lam., var. patulifolia (Dewey) Carey (with spreading leaves).

Occasional or frequent. Rich woods or thickets. Late May — early June.

Carex laxiflora Lam., var. styloflexa (Buckley) Boott (having bent styles).

Carex styloflexa Buckley.

Rare. Rocky or moist woods or in sphagnum swamps: Lyme (Graves), East Haddam (Weatherby), New Haven (J. A. Allen), Southington (Bissell), Oxford (Harger), Fairfield (Eames). June.

Carex laxiflora Lam., var. varians Bailey (varying).

Occasional. Rich woods and thickets. Late May -June.

Carex laxiflora Lam., var. blanda (Dewey) Boott (agreeable).

Carex laxiflora Lam., var. striatula Carey.

Frequent or common. Rich open woods or in half-shade, in either dry or moist ground. Late May—June.

Carex laxiflora Lam., var. latifolia Boott (broad-leaved).
Carex albursina Sheldon.

Rare or local. Moist rich woods: Groton and Waterford (Graves), East Haven and Salisbury (Bissell), Southington (Andrews & Bissell), Seymour (Harger), Oxford (R. W. Woodward & Eames), Winchester (Weatherby & Bissell). May — early June.

Carex laxiflora Lam., var. leptonervia Fernald (delicately nerved).

Rare. Wet woods or sphagnum bogs: Franklin (R. W. Woodward), West Hartford and Winchester (Bissell). May—June.

Carex Hitchcockiana Dewey.

Rare or local. Rocky hillsides in rich woods: Middlefield (R. W. Woodward), Southington (Andrews & Bissell), Plainville and Farmington (Bissell). June.

Carex oligocarpa Schk. (few-fruited).

Rare. Shaded ledges in rich woods: Colebrook (J. W. Robbins, 1828), Salisbury (M. L. Fernald). June.

Carex conoidea Schk. (cone-shaped).

Common. Moist meadows and wet places. June.

Carex grisea Wahlenb. (gray).

Occasional. Woods and meadows in rich soil. June.

The var. RIGIDA Bailey (rigid), var. angustifolia Gray's Manual ed. 6, not Boott, is rare over most of the state: Southington, Torrington and North Canaan (Bissell). Occasional in Fairfield County (Eames).

Carex glaucodea Tuckerm. (gray-green).

Rare. Rich or rocky woods and fields or in moist meadows: Ledyard and Groton (Graves), Franklin (R. W. Woodward), Hartford and West Hartford (A. W. Driggs), Meriden (Andrews), Woodbridge (O. D. Allen). June.

Carex granularis Muhl. (granular).

Rare or local. Moist meadows: East Haven, Meriden and Oxford (Harger), New Haven (D. C. Eaton), Southington (Andrews & Bissell), Bloomfield and North Canaan (Bissell), Ridgefield and Kent (Eames & C. C. Godfrey). June.

Carex granularis Muhl., var. Haleana (Olney) Porter.

Carex granularis Muhl., var. Shriveri Britton.

Carex Shriveri Britton.

Rare. Wet meadows and pastures: Ridgefield (Eames & C. C. Godfrey), Salisbury (M. L. Fernald & Bissell). June.

Carex Crawei Dewey.

Rare. Moist fields and meadows: Salisbury (Mrs. C. S. Phelps & Weatherby). June — July.

Carex flava L. (yellow).

Low fields and meadows. Rare or absent in most districts: Berlin (N. Coleman), Ridgefield (Eames & C. C. Godfrey). Frequent or common in Litchfield County. June.

Carex flava L., var. rectirostra Gaudin (straight-beaked).

Carex flava L., var. graminis Bailey.

Local. Swamps and wet meadows: Woodstock (Harger), Ashford and Stafford (Weatherby & Bissell), Union and Colchester (Graves). June —July.

Carex flava L., var. elatior Schlecht. (taller).

Rare. Low ground: Ridgefield and Kent (Eames & C. C. Godfrey). June.

Carex Oederi Retz., var. pumila (Cosson & Germain) Fernald (dwarf).

Carex flava L., var. viridula Bailey.

Carex viridula Michx.

Rare. East Haven, in moist meadows (Harger); New Haven, in salt marsh (D. C. Eaton); Kent, in sand on shore of pond (Eames); Salisbury, in wet ground (Mrs. C. S. Phelps). June—July.

Carex longirostris Torr. (long-beaked).

Rich rocky woods in either moist or dry places, or on river banks. Local from the Connecticut River westward except near the coast in the southwestern part of the state where it is not reported. Late May—June.

Carex castanea Wahlenb. (chestnut-colored).

Rare. Alluvial soil: Salisbury (J. Young, 1828). Apparently has not been collected since that date. June.

Carex arctata Boott (contracted).

Rare. Hillsides in rich woods: Bridgeport (Eames), Barkhamsted, Norfolk and Canaan (Bissell), Cornwall (Harger). May.

Carex debilis Michx. (weak), var. Rudgei Bailey.

Carex tenuis Rudge.

Frequent. Dry or moist woods and in meadows. June — July.

Carex debilis Michx., var. interjecta Bailey (thrown between).

Rare. Rocky woods: Southington (Andrews & Bissell).

June—July.

Carex scabrata Schwein. (rough).

Local or occasional. Wet woods, about springs and along streams. July.

Carex filiformis L. (thread-like).

Open swamps and bogs. Local in the northern part of the state: Woodstock (Weatherby), Union and East Granby (Weatherby & Bissell), Burlington and Salisbury (Bissell). Becoming frequent southward. June.

Carex lanuginosa Michx. (woolly).

Carex filiformis L., var. latifolia Boeckl.

Wet meadows, bogs and about ponds. Rare in New London County: Norwich (W. A. Setchell), Waterford and Franklin (Graves). Frequent elsewhere. June.

Carex vestita Willd. (clothed).

Frequent or common. Sandy soils, either dry or moist. June.

Carex oligosperma Michx. (few-seeded).

Rare. Groton, in peat bogs (Graves), South Windsor (A. E. Blewitt). June —July.

Carex trichocarpa Muhl. (with hairy fruit).

Local. Thomaston, in wet ground (A. E. Blewitt). June — July.

Carex riparia W. Curtis (of river banks).

Occasional or local. Wet meadows and swamps. June.

Carex squarrosa L. (with spreading scales).

Rare or local. Wet meadows and pastures: Guilford (G. H. Bartlett), Chester (R. W. Woodward & Harger), North Branford and East Haven (Harger), New Haven (G. G. Merrell), Middletown (J. Barratt), Southington (Andrews & Bissell). June—July.

Carex typhina Michx. (like Typha, the Cat-tail).

Carex typhinoides Schwein.

Rare. Wet alluvium and in meadows: Guilford (G. H. Bartlett), East Haven (Eames), East Hartford (A. W. Driggs), Hartford (Harger, H. S. Clark & Bissell). June—July.

Carex Pseudo-Cyperus L. (false Cyperus).

Rare. Salisbury, muddy border of Twin Lakes (Mrs. C. S. Phelps & Bissell). June—July.

Carex comosa Boott (having tufts of hair).

Carex Pseudo-Cyperus L., var. americana Hochst.

Occasional. Swamps and wet places along streams. June—July.

Carex hystericina Muhl. (porcupine-like).

Rare or local. Wet springy pastures and meadows and in swales: Lyme (H. S. Clark), Manchester (Weatherby), Southington (Andrews & Bissell), Prospect, Oxford and Southbury (Harger), Stafford, Sharon and Salisbury (Bissell). June—July.

The var. Cooleyi Dewey, var. Dudleyi Bailey, occurs at Wethersfield (C. Wright), Southington and Sharon (Bissell).

Many reports of this species should be referred to Carex lurida.

Carex lurida Wahlenb. (dingy brown or yellow).

Carex lurida Wahlenb., var. flaccida Bailey.

Carex lurida Wahlenb., var. parvula Bailev.

Carex lurida Wahlenb., var. exundans Bailey.

Common. Swamps and wet places. July — Aug. A hybrid of this with *Carex lupulina* has been found at Groton and Lyme (Graves).

Very variable with several intergrading forms.

Carex lurida Wahlenb., var. gracilis (Boott) Bailey (slender). Carex Baileyi Britton.

Rare. East Lyme, in bogs (Graves). July - Aug.

Carex Schweinitzii Dewey.

Rare. Salisbury, in open swamps and wet meadows: (M. L. Fernald). June.

Carex retrorsa Schwein. (turned backward).

Rare or local. Wet meadows or in moist alluvial soil: Lyme (Graves), Huntington (Harger), Salisbury (Bissell). June—July. A supposed hybrid of this with *Carcx rostrata* was found in Connecticut many years ago by Charles Wright. Carex lupuliformis Sartwell (hop-shaped; referring to the head of fruit).

Carex lupulina Muhl., var. polystachya Schwein. & Torr.

Rare. Bogs or shaded swamps: Southington (Andrews & Bissell), Huntington and Monroe (Eames). Aug.—Sept.

Carex lupulina Muhl. (like Lupulus, the Hop).

Frequent or common. Swamps and wet ground. July — Aug.

Carex lupulina Muhl., var. pedunculata Dewey (stalked).

Local or occasional. Swamps, growing with the typical form. July — Aug.

Carex Grayii Carey.

Carex Asa-Gravi Bailey.

Alluvial soil along streams or in moist rich ground. Local along the Connecticut River: Lyme (Graves), Haddam (H. S. Clark & Bissell), East Hartford (Weatherby). Rare elsewhere: Middletown, at Westfield, and Southington (Andrews & Bissell), Salisbury (G. H. Bartlett). June.

Carex Grayii Carey, var. hispidula Bailey (minutely hispid).

Local. Hartford, alluvial soil on bank of the Connecticut River (H. S. Clark & Bissell). June.

Carex intumescens Rudge (swollen).

Frequent. Swamps and wet places. June -July.

Carex intumescens Rudge, var. Fernaldii Bailey.

Rare. Salisbury, in rocky woods (A. E. Blewitt).

Carex folliculata L. (like a small bag).

Frequent. Wet boggy meadows and swampy woods. June — $\operatorname{Aug}\nolimits$

Carex vesicaria L. (bladdery).

Carex monile of Gray's Manual ed. 6, not Tuckerm.

Occasional. Low meadows, borders of ponds and near river banks. June.

The var. Monile (Tuckerm.) Fernald (necklace), Carex monile Tuckerm., is occasional. The var. Jejuna Fernald (insignificant) occurs rarely with the species. The var. DISTENTA Fries (swollen) is rare: East Hartford (Weatherby), Windsor (H. S. Clark & Bissell).

Carex rostrata Stokes (beaked).

Carex utriculata Boott, var. minor Boott.

Swamps and wet meadows or in shallow water. Rare over most of the state: Waterford (Graves), Plainville, Woodbridge and Oxford (Harger), Monroe (Eames). Occasional in Litchfield County (Bissell). June—July.

Carex rostrata Stokes, var. utriculata (Boott) Bailey (bottle-like).

Carex utriculata Boott.

Peat bogs and wet meadows. Rare in most districts: Stratford (Eames), New Haven and Monroe (Harger), East Granby and Putnam (Weatherby), Glastonbury and Thompson (Bissell). Occasional in New London County (Graves). June —July.

Carex bullata Schk. (having bubbles or blisters).

Carex bullata Schk., var. Olneyi Bailey.

Carex bullata Schk., var. Greenii (Boeckl.) Fernald.

Carex bullata of Manuals.

Local. In swamps: Voluntown, Stonington and Colchester (Graves), Columbia (Weatherby), Ellington (F. N. Pease). June — July.

Carex Tuckermani Dewey.

Rare or local. Moist alluvial soil on banks of rivers and coves: Windsor (A. W. Driggs), Hartford (C. Wright), Southington (Andrews, Bissell), Southbury (Harger), Torrington and Salisbury (Bissell), Canaan (J. W. Robbins, 1828). June—July.

ARACEAE. ARUM FAMILY.

ARISAEMA Martius. Dragon Arum. Indian Turnip.

Arisaema triphyllum (L.) Schott (three-leaved).

Arisaema triphyllum Schott, var. pusillum Peck.

Arisaema pusillum Nash.

Jack-in-the-Pulpit. Indian or Wild Turnip.

Common. Rich or moist woods. Late April — May; fruit late Aug.— Nov.

The corm or tuber is intensely acrid, but this property is lost upon being heated, leaving 10 to 18% of starch. The corm is medicinal.

Arisaema Dracontium (L.) Schott (classical name for some species of Arum).

Green Dragon. Dragon Root.

Low grounds near streams and rivers. Rare in the eastern part of the state, becoming occasional westward. May—June; fruit Aug.— Sept.

PELTANDRA Raf. Arrow Arum.

Peltandra virginica (L.) Kunth.

Peltandra undulata Raf.

Arrow Arum.

Occasional or frequent. Shallow water of ponds and streams and sometimes in bogs. June—July; fruit Sept.—Oct.

CALLA L. Water Arum.

Calla palustris L. (of marshes).

Wild or Marsh Calla.

Occasional or local. Cold bogs and shaded swamps, sometimes forming extensive colonies. May —June; fruit July — Sept.

The rootstocks are edible after an acrid principle they contain has been dissipated by cooking, and they are said to be sometimes used for food in parts of Europe. The Calla Lily of cultivation is not a true *Calla*, but is a species of the genus *Richardia*.

SYMPLOCARPUS Salisb. Skunk Cabbage.

Symplocarpus foetidus (L.) Nutt. (ill-smelling).

Spathyema foetida Raf.

Skunk Cabbage.

Common. Wet ground. March — April; fruit July — Sept., persisting into the winter.

The rootstocks are reputed to have medicinal value.

ORONTIUM L. Golden Club.

Orontium aquaticum L. (aquatic).

Golden Club.

Occasional or local. Mostly in shallow waters of the larger rivers and their tributaries where extensive colonies are often formed; sometimes in swamps and along small streams. May — early June; fruit June —July.

The seeds and rootstocks are said to have been used for food by the Indians after destroying, by cooking, the acrid principle which they contain.

ACORUS L. Sweet Flag. Calamus.

Acorus Calamus L. (classical name for some Reed).

Sweet Flag. Calamus,

Frequent. Wet meadows, swamps and borders of ponds and streams, often forming large colonies. May —June.

The aromatic rootstock is often candied, is of some medicinal value and is officinal.

LEMNACEAE. DUCKWEED FAMILY.

SPIRODELA Schleid.

Spirodela polyrhiza (L.) Schleid. (many-rooted).

Greater Duckweed.

On still water of ponds and pools. Occasional in the southeastern part of the state; frequent or locally common elsewhere. July — Aug.

Rarely seen in flower.

LEMNA L. Duckweed. Duck's-meat.

Lemna trisulca L. (three-furrowed).

Duck's-meat.

Still or running water. Rare in the south central, occasional in the southwestern, frequent to common in the northern and western parts of the state; not reported from the eastern portion. July.

Lemna valdiviana Philippi.

Lemna cyclostasa of authors.

Shallow water of ponds and rapid waters of brooks and rivers. Occasional in the southeastern, locally common in the

southwestern part of the state; apparently rare elsewhere. June —July, but neither flowers or fruit seen here.

Often occurs in large tangled strings, balls and irregular masses, either floating free or clinging to twigs and stones.

Lemna minor L. (smaller).

Lesser Duckweed.

Ponds and stagnant water of pools and ditches. Rare in southeastern Connecticut; frequent in Hartford and Litchfield Counties; common in the southwestern part of the state. June —July.

WOLFFIA Horkel.

Wolffia columbiana Karst.

Wolffia.

Local. Surface of ponds, plentiful where it occurs: Woodbury and Ridgefield (Eames & C. C. Godfrey), Kent (Eames), New Milford (J. W. Robbins, 1829), Salisbury (J. W. Robbins, Mrs. C. S. Phelps). June—July.

The plants of this species are the smallest of our flowering plants, being little globules about 1-25th of an inch in diameter.

ERIOCAULACEAE. PIPEWORT FAMILY.

ERIOCAULON L. Pipewort.

Eriocaulon septangulare Withering (seven-angled).

Pipewort.

Borders of ponds and rivers, in either shallow or deep water. Frequent in the southeastern part of the state; occasional elsewhere. July — Sept.

XYRIDACEAE. YELLOW-EYED GRASS FAMILY.

XYRIS L. Yellow-eyed Grass.

Xyris caroliniana Walt.

Occasional or local. Bogs or sphagnum swamps. July — Sept.

Xyris flexuosa Muhl. (flexuous).

Yellow-eyed Grass.

Sandy bogs. Occasional to frequent in most sections but not reported from the southwestern part of the state. July — Sept.

Xyris Smalliana Nash.

Xyris Congdoni Small.

Rare or local. Borders of ponds or in sandy bogs: Salem (Graves), East Lyme (Miss A. M. Ryon & Graves), Guilford (G. H. Bartlett). Aug.— Sept.

COMMELINACEAE. SPIDERWORT FAMILY.

TRADESCANTIA L. Spiderwort.

Tradescantia virginiana L.

Trinity. Spiderwort. Spider Lily. Job's Tears.

Rare or occasional. Roadsides and waste places, or sometimes in river meadows. In most cases adventive or naturalized from the southeastern United States as an escape from gardens; possibly native at Southbury (Harger) and Fairfield (L. N. Johnson). May — July.

COMMELINA L. Day-flower.

Commelina communis L. (growing in colonies).

Commelina nudiflora of authors, not L.

Day-flower.

Occasional to frequent. Waste places and cultivated ground as an escape from cultivation; usually in or near cities. July — Nov. Naturalized from the South or from Asia.

PONTEDERIACEAE. PICKEREL-WEED FAMILY.

PONTEDERIA L. Pickerel-weed.

Pontederia cordata L. (heart-shaped).

Pickerel-weed.

Common. Shallow water of ponds and streams. July — Aug.

The var. ANGUSTIFOLIA Torr. (narrow-leaved) occurs at Old Lyme (H. S. Clark).

HETERANTHERA R. & P. Mud Plantain.

Heteranthera reniformis R. & P. (kidney-shaped).

Rare. Muddy shores of the Housatonic River at Derby (G. W. Hawes & Harger), and along the river southward to salt water (Eames). Late Aug.—Sept.; fruit Sept.—Oct.

Heteranthera dubia (Jacq.) MacM. (doubtful).

Heteranthera graminea Vahl.

Water Star Grass.

Rare or local. Shallow water of larger rivers, such as the Connecticut and Housatonic, or sometimes in ponds. July—Sept.

EICHHORNIA Kunth.

Eichhornia crassipes (Martius) Solms (thick-stemmed). Water Hyacinth.

Rare, A few plants were found in the Pequonnock River, Bridgeport (C. K. Averill, 1893). June—Aug. Fugitive from Brazil.

The plant is not hardy in this climate, but in Florida it has multiplied in the St. John's river system to such an extent as seriously to obstruct navigation.

JUNCACEAE. RUSH FAMILY.

JUNCUS L. Rush. Bog Rush.

Juncus bufonius L. (of toads).

Toad Rush. Toad Grass. Frog Grass.

Frequent to common. Open, moist, sandy places. Fruit mid-June — Aug.

Juncus Gerardi Loisel.

Black Grass.

Common on salt marshes and meadows along the coast. Fruit June — Aug .

Is valued for fodder and constitutes much of the salt hay cut by farmers.

Juncus tenuis Willd. (slender).

Yard Rush. Slender Rush.

Common. Fields, pastures, open woods, roadsides and paths, in either dry or moist ground. Fruit mid-June — Sept.

This species is said to be readily eaten by stock, and when made into hay to contain 7% crude protein.

Juncus tenuis Willd., var. anthelatus Wiegand (having a cyme with lateral branches overtopping the central ones).

Rare. Low sandy or grassy places: Southington (Andrews

& Bissell), Lyme (Graves & Bissell), Granby (Weatherby). Fruit July — Sept.

Juncus tenuis Willd., var. Williamsii Fernald.

Rare. Open moist or dry ground: Groton (Graves), Putnam (Weatherby & Bissell), Salisbury (Bissell). Fruit July — Aug.

Tuncus secundus Beauv. (one-sided).

Juncus tenuis Willd., var. secundus Engelm.

Sandy places and ledgy hillsides, mostly in dry ground. Occasional in most districts but apparently rare in the southwestern part of the state. Fruit July — Sept.

Juncus Dudleyi Wiegand.

Rare. Sandy or sterile ground: Windsor (A. W. Driggs), Meriden (Andrews), South Windsor, Sharon and Salisbury (Bissell). Fruit June—July.

Juncus dichotomus Ell. (forking by pairs).

Rare on borders of salt marshes and in dry open fields near the coast: Groton (Graves), Milford (Harger). Fruit July—Aug.

Juncus dichotomus Ell., var. platyphyllus Wiegand (broadleaved).

Rare. Fields: Groton (Graves). Fruit July - Aug.

Juncus Greenei Oakes & Tuckerm.

Dry, open, generally sandy but sometimes ledgy places. Frequent along the coast; becoming occasional or rare inland, reaching Waterbury (A. E. Blewitt), Southington, on Wolcott Mt. at 900 ft. elevation (Andrews), and Union, on Bald Hill at 1250 ft. elevation (Bissell). Fruit July—Sept.

Juncus effusus L. (loosely spreading).

Bulrush. Common, Soft, Bog, or Candle Rush.

Common. Marshes, low fields and open swamps. Fruit July — Aug .

The var. COMPACTUS Lejeune & Courtois (pressed together) has been collected at Franklin (R. W. Woodward). Sometimes used for weaving into mats.

Juncus brachycephalus (Engelm.) Buchenau (short-headed).
Juncus canadensis J. Gay, var. brachycephalus Engelm.

Rare. Swamps and bogs: Salisbury and Sharon (Bissell). Fruit Aug.— Sept.

Juncus brevicaudatus (Engelm.) Fernald (short-tailed).

Juncus canadensis J. Gay, var. brevicaudatus Engelm.

Juncus canadensis J. Gay, var. coarctatus Engelm.

Occasional. Bogs and moist sandy places. Fruit Aug.—Sept.

Juncus canadensis J. Gay.

Juncus canadensis J. Gay, var. longicaudatus Engelm.

Frequent. Open swamps and wet meadows. Fruit Aug.—Sept.

Juncus canadensis J. Gay, var. subcaudatus Engelm. (somewhat tailed).

Rare or occasional. Low moist ground, often in shade: Sprague and Stafford (Graves), Lyme, East Windsor, Farmington and Southington (Bissell). Fruit Aug.—Sept.

Juncus pelocarpus Mey. (dark-fruited).

Sandy or muddy shores of ponds and streams. Occasional in the southeastern part of the state; apparently rare or local elsewhere. Fruit Aug.— Sept.

Often proliferous.

Juncus militaris Bigel. (soldierly).

Rare or local. Shallow water of ponds: Groton and East Lyme (Graves), Guilford (G. H. Bartlett & Bissell). Fruit July — Sept.

Juneus nodosus L. (knotty).

Knotted Rush.

River banks and moist sandy soil bordering swamps, ponds or small streams. Rare in most districts: Oxford (Harger), Cornwall (R. W. Woodward), Norfolk, Litchfield and Salisbury (Bissell). Occasional along the Connecticut River from East Windsor (Bissell) to Lyme (Graves). Fruit July—Aug.

Juncus brachycarpus Engelm. (short-fruited).

Rare. New London, low ground near Ocean Beach (Graves). Fruit July. A fugitive, probably from the West or South.

Juncus acuminatus Michx. (taper-pointed).

Frequent. Open swamps and wet meadows. Fruit July — Sept.

Often proliferous.

Juncus debilis Gray (weak).

Juncus acuminatus Michx., var. debilis Engelm.

Rare. Pond shores and borders of swamps: Waterford and Ledyard (Graves). Fruit Aug.

Juncus articulatus L. (jointed).

Low and moist, mostly sandy places. Occasional to frequent in New London County; rare or occasional in Middlesex, Hartford and Litchfield Counties; not reported elsewhere. Fruit July — Sept.

Juncus articulatus L., var. obtusatus Engelm. (blunt).

Rare. Low moist ground: Stafford and Glastonbury (Bissell). Fruit July — Sept.

Juneus marginatus Rostk. (with a distinct border).

Frequent. Grassy places, mostly in moist ground. Fruit July — Sept.

LUZULA DC. Wood Rush.

Luzula saltuensis Fernald (of forests).

Luzula vernalis Gray's Manual ed. 6, not DC.

Juncoides pilosum Coville, not Kuntze.

Hairy Wood Rush.

Rocky or moist open woods. Occasional in the north-western part of the state (Bissell). Rare elsewhere: Guilford (G. H. Bartlett), North Branford and Watertown (Harger). April — May; fruit May.

Luzula campestris (L.) DC. (of fields), var. multiflora (Ehrh.) Celak. (many-flowered).

Luzula campestris of American authors, not DC.

Juncoides campestre of American authors, not Kuntze.

Common. Woods and fields, in either dry or moist ground. April — May; fruit June — July.

LILY FAMILY. LILIACEAE.

CHAMAELIRIUM Willd. Devil's Bit

Chamaelirium luteum (L.) Gray (yellow).

Chamaelirium carolinianum Willd.

Blazing Star. True Unicorn-root.

Meadows and low woods. Occasional in the southwestern part of the state, becoming rare or local northward and eastward, reaching Salisbury (Bissell), East Haddam (W. E. Selden, Dr. E. J. Thompson). May -June.

The rootstock is medicinal.

MELANTHIUM I.

Melanthium latifolium Desr. (broad-leaved).

Melanthium racemosum Michx.

Crisped Bunch-flower.

Rare. Dry woods: Greenwich, at North Greenwich (P. Alcott, 1869). July — Aug.

VERATRUM L. False Hellebore.

Veratrum viride Ait. (green).

American White Hellebore, Indian Poke, Green Hellebore, Poor Annie.

Frequent to common. Wet woods, open swamps and wet meadows. May - June.

The rootstock is medicinal, is an active poison and is officinal. The early colonists used the plant as an insecticide.

UVULARIA L. Bellwort.

Uvularia perfoliata L. (through a leaf; i. e., with leaves clasping the stem).

Bellwort.

Frequent. Dry or moist ground, usually in woods but sometimes occurring in fence-rows or even in fields. May -Tune.

The root is medicinal and has acquired some local reputation as a remedy against snake bites.

OAKESIA Wats.

Oakesia sessilifolia (L.) Wats. (having leaves without leafstalks).

Uvularia sessilifolia L.

Bellwort.

Frequent to common. Woods, thickets and meadows, in either dry or moist ground. May—June.

ALLIUM L. Onion. Garlic.

Allium tricoccum Ait. (having three grains; referring to the three-lobed fruit).

Wild Leek.

Occasional or frequent. Woods, usually in rich but sometimes in sandy soil. Late June—July.

If eaten by cows in the spring, the milk and butter are tainted.

Allium canadense L.

Wild or Meadow Garlic.

Frequent. Meadows bordering streams and rivers, sometimes also in sandy ground and on dry hillsides. June.

Rarely used as a substitute for common garlic.

Allium vineale L. (of vineyards).

Field or Wild Garlic. Wild Onion.

Waste places, grain fields and meadows. Rare in southeastern Connecticut, occasional to frequent elsewhere. Mid-June—July. Naturalized from Europe.

A bad weed, both in pastures, where it taints the milk of animals feeding upon it, and in grain fields, where the bulblets mixing with grain injure it for milling.

HOSTA Tratt. Day Lily. Plantain Lily.

Hosta caerulea (Andr.) Tratt. (sky-blue).

Funkia ovata Spreng.

Blue Day Lily.

Rare. Roadsides near dwellings as an escape from gardens: Montville (Graves), Bridgeport and Fairfield (Eames). July. Native of Japan.

Hosta japonica (Thunb.) Aschers.

Funkia lancifolia Spreng.

Rare. Escaped from gardens to roadsides: Montville (Graves), Stafford (Bissell). July — Aug. Native of Japan.

HEMEROCALLIS L. Day Lily.

Hemerocallis flava L. (yellow).

Yellow Day Lily. Lemon Lily.

Rare. Escaped from cultivation to fields and roadsides: Groton, near Poquonnock Lake (Graves, Harger, Bissell et al.), Meriden (Bissell), Westport (Eames), Wilton (Miss A. E. Carpenter). June. Adventive from Europe.

Hemerocallis fulva L. (reddish-yellow).

Common Day Lily.

Frequent. Escaped from cultivation to fields, roadsides and waste places. Mid-June — Aug . Naturalized from Europe.

Troublesome and difficult to eradicate in moist rich ground.

LILIUM L. Lily.

Lilium philadelphicum L.

Wild Orange-red Lily. Red or Wood Lily.

Frequent. Dry or moist thickets, pastures and open woods. Late June—July.

Lilium superbum L. (superb).

Turk's-cap Lily. Wild Tiger Lily.

Marshes and low fields. Frequent near the coast in the southeastern part of the state, becoming occasional or local westward, reaching Stamford (W. H. Hoyt); not reported far inland. July — Aug.

Lilium canadense L.

Wild Yellow Lily. Canada Lily.

Frequent. Moist meadows, bogs and open swamps. July.

Lilium tigrinum Ker (of tigers).

Tiger Lily.

Rare or occasional. Escaped from gardens to fence-rows, roadsides and waste places. Aug. Adventive from Asia.

In Japan and China the bulbs are eaten.

ERYTHRONIUM L. Dog's-tooth Violet.

Erythronium americanum Ker.

Yellow Adder's Tongue. Yellow Dog's-tooth Lily or Violet. Snake-leaf. Trout Lily.

Meadows and rich woods. Local in southeastern Connecticut, common elsewhere. April — May.

Sometimes used as a pot-herb. The dried bulbs, if not kept too long, are said to be nutritious. The leaves and root are medicinal.

ORNITHOGALUM L. Star of Bethlehem.

Ornithogalum umbellatum L. (umbellate).

Star of Bethlehem, Go-to-Bed-Noon,

Rare or occasional. Escaped from gardens to fields and waste places, mostly near dwellings and in shaded moist ground. May—June. Naturalized from Europe.

MUSCARI Mill. Grape Hyacinth.

Muscari botryoides (L.) Mill. (like a cluster of grapes). Grape Hyacinth. Babies' Breath.

Rare. Roadsides and grassland near dwellings, as an escape from cultivation: Norwich (Mrs. E. E. Rogers), East Lyme (Graves), Seymour and Southbury (Harger), New Haven (Eaton Herb.), Milford (Eames & C. C. Godfrey). May. Adventive from Europe.

Muscari racemosum (L.) Mill. (racemose).

Starch Grape Hyacinth. Feather Hyacinth.

Rare or local. Grassland near dwellings: New London and Lyme (Graves), Guilford (G. H. Bartlett), Fairfield (Eames), Stamford (W. H. Hoyt). May. Naturalized from Europe.

Reproduces quite rapidly by forming new bulbs, is very persistent and may give much trouble in lawns.

YUCCA L. Bear Grass. Spanish Bayonet.

Yucca filamentosa L. (bearing slender threads).

Adam's Needle. Thread-and-Needle.

Rare. Escaped from cultivation to waste ground: Groton

(Harger, Bissell, Graves et al.), Bridgeport and Fairfield (Eames). May—July. Adventive from the South.

The plant yields a strong fiber. The roots form a lather with water and were formerly used in the region where it is plentiful in place of soap.

ASPARAGUS L. Asparagus.

Asparagus officinalis L. (of the shops).

Garden Asparagus.

Frequent along the coast on shores and borders of salt marshes; occasional in fields, waste places and along roadsides inland. June; fruit Aug.— Sept. Naturalized from Europe. Widely cultivated for its young shoots.

CLINTONIA Raf.

Clintonia borealis (Ait.) Raf. (northern).

Clintonia. Yellow Clintonia.

Rich often swampy woods. Frequent or common in the extreme northwestern part of the state; becoming occasional or rare southward and eastward, reaching Kent (C. K. Averill, E. H. Austin, Eames), Bristol (W. A. Terry), East Hartford and Manchester (A. W. Driggs), Cromwell (F. K. Hallock), Mansfield (Mrs. C. S. Phelps), Hampton (Weatherby), Union (Bissell), Voluntown (Graves). May—early June.

SMILACINA Desf. False Solomon's Seal.

Smilacina racemosa (L.) Desf. (racemose).

Vagnera racemosa Morong.

Wild Spikenard. False Spikenard.

Frequent to common. Rich usually rocky woods, thickets and borders of fields. Mid-May —June; fruit Sept.— Oct.

The root is medicinal.

Smilacina stellata (L.) Desf. (star-shaped).

Vagnera stellata Morong.

Star-flowered Solomon's Seal.

Occasional near the coast in dry or moist, usually sandy ground; rare or local inland on river banks, in swamps or even in dry rocky ground. Mid-May —June.

Smilacina trifolia (L.) Desf. (three-leaved).

Vagnera trifolia Morong.

Three-leaved Solomon's Seal.

Rare or local. Cool sphagnum bogs: Cromwell (Andrews & Bissell), East Hartford (H. S. Clark), Bristol (J. N. Bishop), Colebrook (J. W. Robbins), Norfolk (Miss M. C. Seymour), Salisbury (Bissell). May—June.

MAIANTHEMUM Wiggers.

Maianthemum canadense Desf.

Unifolium canadense Greene.

Wild Lily of the Valley. Two-leaved Solomon's Seal.

Common. Moist or dry woods and thickets. Mid-May — June.

STREPTOPUS Michx. Twisted-stalk.

 $\begin{tabular}{ll} \textbf{Streptopus amplexifolius} & (L.) DC. (having leaves which clasp the stem). \end{tabular}$

Liver Berry.

Rare or local. Rich moist woods: Salisbury (Bissell, Mrs. C. S. Phelps). May.

Streptopus roseus Michx. (rose-colored).

Liver Berry.

Rich woods, often among rocks. Occasional in the north-western part of the state, becoming local or rare eastward and southward, reaching Somers (Bissell), East Haddam (Dr. E. J. Thompson, Graves), Hamden (D. C. Eaton, Harger), Monroe (Harger). May.

POLYGONATUM Hill. Solomon's Seal.

Polygonatum biflorum (Walt.) Ell. (two-flowered).

Salomonia biflora Farwell.

Small or Hairy Solomon's Seal.

Frequent. Woods and thickets. May -June.

The rootstock is medicinal.

Polygonatum commutatum (R. & S.) Dietrich (variable).

Polygonatum giganteum Dietrich (?).

Salomonia commutata Farwell.

Great, Giant or Smooth Solomon's Seal.

Occasional to frequent. Usually in meadows and alluvial soil near the larger streams; sometimes in rich or dry woods and thickets or on sandy banks. May—June.

The rootstock is medicinal.

CONVALLARIA L. Lily of the Valley.

Convallaria majalis L. (blooming in May).

Lily of the Valley.

Rare. Escaped from cultivation to roadsides, thickets and waste places: New Haven, at East Rock (H. M. Denslow et al.), Southington (Andrews), Oxford (Harger), Stratford (Eames). May. In Connecticut adventive from Europe.

The rootstock and roots are medicinal and are officinal.

MEDEOLA L. Indian Cucumber-root.

Medeola virginiana L.

Indian Cucumber-root.

Rich woods. Occasional in most parts of the state, becoming common in southwestern Connecticut. May — June.

The rootstock is edible, somewhat resembling cucumber in flavor.

TRILLIUM L. Wake Robin. Birthroot.

Trillium erectum L. (erect).

Purple or Red Trillium. Birthroot. Red Benjamin.

Rich and often rocky woods. Rare or occasional in southeastern Connecticut, becoming frequent northward and westward, and common in the southwestern part of the state. Mid-April — May.

Both white-flowered and yellow-flowered forms are occasionally found. The flowers exhale a very disagreeable odor.

Trillium grandiflorum (Michx.) Salisb. (large-flowered).

Large-flowered White Trillium.

 $\bar{\text{R}}$ are. Weston, in rocky rich woods (Mrs. Mabel Osgood Wright). May.

Trillium cernuum L. (nodding).

Nodding Trillium. White Trillium.

Rich moist woods. Occasional in southeastern and southwestern Connecticut, apparently rare elsewhere. May.

Trillium undulatum Willd. (wavy).

Trillium erythrocarpum Michx.

Painted Trillium.

Rich woods and shaded swamps. Occasional in the northwestern part of the state, becoming local or rare eastward and southward, extending to Union (Bissell, Graves), Middletown (M. Hitchcock), New Haven (E. P. Prudden), Oxford (Harger). May.

ALETRIS L. Colic-root. Star Grass.

Aletris farinosa L. (mealy).

Colic-root. Star Grass. False Unicorn-root.

Occasional or local. Fields and meadows, or moist sandy places. Late June —July.

The rootstock is medicinal.

SMILAX L. Green Brier. Cat Brier.

Smilax herbacea L. (herbaceous).

Carrion-flower. Jacob's Ladder.

Frequent. Low thickets, borders of meadows and sometimes in drier fields. Late May —June.

The flowers exhale a most offensive odor. The herb is somewhat medicinal. The young shoots are sometimes used as a pot-herb and are called Wild Asparagus.

Smilax rotundifolia L. (round-leaved).

Common Green Brier. Horse, Cat, Bull or Squirrel Brier.

Common. Moist or dry woods, thickets and pastures. Late May—June; fruit Sept., persisting over the winter.

Smilax glauca Walt. (glaucous).

Saw, Cat or Squirrel Brier.

Common. Dry or moist open woods and thickets, often in sandy ground. June; fruit Sept., persisting over the winter.

The roots have been substituted for those of the Brazilian Sarsaparilla.

Smilax hispida Muhl. (rough-hairy).

Rare. Fairfield, in moist thickets (Eames). June.

HAEMODORACEAE. BLOODWORT FAMILY.

LACHNANTHES Ell. Red-root.

Lachnanthes tinctoria (Walt.) Ell. (used for dyeing).

Gyrotheca capitata Morong.

Gyrotheca tinctoria Salisb.

Red-root.

Rare. Open boggy meadows and sandy shores of ponds: East Lyme, several localities (Miss A. M. Ryon & Graves), Madison (W. R. Dudley). Aug.— Sept.

DIOSCOREACEAE. YAM FAMILY.

DIOSCOREA L. Yam.

Dioscorea villosa L. (hairy).

Wild Yam or Yam-root. Colic-root. Rheumatism-root.

Moist thickets. Frequent along and near the coast and in the valley of the Connecticut River; occasional or rare elsewhere. June —July; fruit Sept.— Oct.

The rootstock is medicinal.

AMARYLLIDACEAE. AMARYLLIS FAMILY.

NARCISSUS L.

Narcissus Pseudo-Narcissus L. (false Narcissus).

Daffodil.

Rare. Escaped from cultivation to fields and roadsides at East Windsor (Bissell), and at several localities in the southwestern part of the state (Eames). May. Native of Europe.

Narcissus poeticus L. (of poets).

Poet's Narcissus.

Rare. Waste grounds and near old dwellings as an escape from gardens, persistent but not inclined to spread: Oxford (Harger), Fairfield (Eames). May. Native of Europe.

Sometimes occurs in the double-flowered form.

LEUCOJUM L.

Leucojum aestivum L. (of summer).

Summer Snowflake.

Rare. Fairfield, escaped from cultivation to waste grounds in rich moist soil (Eames). Mid-May — mid-June. Adventive from Europe.

HYPOXIS L. Star Grass.

Hypoxis hirsuta (L.) Coville (hairy).

Hypoxis erecta L.

Yellow-eyed Grass. Star Grass.

Common. Dry or moist, open or shaded ground. May — Oct.

IRIDACEAE. IRIS FAMILY.

IRIS L. Fleur-de-lis.

Iris versicolor L. (of various colors).

Larger Blue or Poison Flag. Fleur-de-lis. Iris. Vegetable Mercury.

Common. Swamps and wet meadows. Mid-May —July. The rhizome and roots are poisonous and medicinal and are officinal. There have been cases of serious poisoning due to mistaking the roots for those of Sweet Flag.

Iris prismatica Pursh (prism-shaped).

Slender Blue Flag.

Frequent on and near the coast in swamps, meadows and borders of salt marshes; rarely seen farther inland. June — mid-July.

Iris pseudacorus L. (false Acorus).

Yellow Iris.

Rare. Escaped from gardens to marshes and low grounds: Norwich (Mrs. E. E. Rogers), Madison (Miss Roberts), East Haddam (Dr. E. J. Thompson), Stratford (Mrs. R. H. Russell), Fairfield (Eames). Mid-May—June. Adventive from Europe.

Iris orientalis Mill. (of the Orient).

Rare. Escaped from cultivation to marshes: Stratford, many plants growing with *Iris pseudacorus* (Mrs. R. H. Russell). Late May—June. Adventive from Asia.

Iris germanica L.

Fleur-de-lis.

Rare. Escaped from gardens to roadsides and fence-rows: Oxford (Harger), Fairfield (Eames). May—June. Adventive from Europe.

BELAMCANDA Adans. Blackberry Lily.

Belamcanda chinensis (L.) DC.

Gemmingia chinensis Kuntze.

Blackberry Lily. Leopard Flower.

Escaped from cultivation to roadsides and waste places, more often in rocky ground. Frequent in the southwestern part of the state, becoming occasional or rare northward and eastward, reaching Danbury (Miss G. L. Northrop), Sharon and Portland (Dr. E. J. Thompson), Berlin (Andrews & Bissell), East Lyme (F. H. Dart), Norwich (Mrs. E. E. Rogers). July — Aug.; fruit Sept.— Nov. Adventive from Asia.

SISYRINCHIUM L. Blue-eyed Grass.

Sisyrinchium albidum Raf. (whitish).

Rare. New London, one plant in a dry field (Miss E. Coit, 1889). May. Fugitive from the western United States.

Sisyrinchium mucronatum Michx. (having an abrupt, short point).

Meadows and woods, usually in rather dry ground. Occasional in the northwestern part of the state, becoming rare southward and eastward, reaching Newtown (Eames), Oxford (Harger), Plainville and Glastonbury (Bissell). Mid-May — June.

Sisyrinchium angustifolium Mill. (narrow-leaved).

Dry or moist fields. Occasional in the southwestern part of the state; frequent or common elsewhere. Mid-May — June.

Forms intermediate between Sisyrinchium angustifolium and Sisyrinchium gramineum occur at New London, Groton and Ledyard (Graves), and have been called Sisyrinchium intermedium Bicknell.

Sisyrinchium gramineum Curtis (grass-like).

Sisyrinchium anceps of Gray's Manual ed. 6.

Sisyrinchium graminoides Bicknell.

Frequent or common. Fields, meadows, thickets and woods, generally in moist ground. June.

Sisyrinchium atlanticum Bicknell.

Fields, meadows and borders of salt marshes. Common on and near the coast; occasional or local inland. June.

Rarely occurs with white flowers.

ORCHIDACEAE. ORCHIS FAMILY.

CYPRIPEDIUM L. Lady's Slipper. Moccasin Flower.

Cypripedium parviflorum Salisb. (small-flowered).

Smaller Yellow Lady's Slipper.

Rare or occasional. Dry sandy or rocky woods. May — June.

The rootstock and roots are medicinal and are officinal. As in the following variety, contact with this plant poisons the skin of some people, the glandular hairs containing an irritant oil.

Cypripedium parviflorum Salisb., var. pubescens (Willd.) Knight (downy).

Cypripedium pubescens Willd.

Cypripedium hirsutum of authors, not Mill.

Large Yellow Lady's Slipper. Yellow Moccasin Flower.

American Valerian.

Rocky woods and cold swamps. Rare in the eastern part of the state and near the coast, becoming occasional or frequent northward and westward. May—June.

The rootstock and roots are medicinal and are officinal.

Cypripedium hirsutum Mill. (hairy).

Cypripedium spectabile Salisb.

Cypripedium reginae Walt.

Showy Lady's Slipper.

Rare or local. Swamps or wet meadows: Willington (Mrs. C. S. Phelps), Milford (Eames), Norfolk (Miss M. C. Seymour), Danbury (H. C. Ryder), Cornwall (E. E. Brewster), Salisbury (Mrs. C. S. Phelps). June.

Cypripedium acaule Ait. (stemless).

Stemless, Pink or Wild Lady's Slipper. Whip-poor-will's Shoe. Wild Valerian.

Frequent. Dry open sandy or rocky woods, often under evergreen trees. May—June.

ORCHIS L.

Orchis spectabilis L. (showy).

Galeorchis spectabilis Rydb.

Showy Orchis.

Rich woods, generally in leaf-mold. Rare near the coast; occasional or local inland. May — early June.

HABENARIA Willd. Rein Orchis. Fringed Orchis.

Habenaria bracteata (Willd.) R. Br. (having bracts).

Coeloglossum bracteatum Parl.

Long-bracted Orchis.

Rare or local. Dry or rocky woods: Killingly (C. H. Knowlton), Somers (Bissell), Middletown (M. Hitchcock), Berlin (Andrews), Meriden (Harger, Andrews), Southington (Andrews, Bissell), New Haven and Hamden (Eaton Herb.), Granby and Simsbury (I. Holcomb), New Milford (E. H. Austin), Kent (C. K. Averill), Salisbury (Mrs. C. S. Phelps). Late May—June.

Habenaria flava (L.) Gray (yellow).

Habenaria virescens Spreng.

Perularia flava Farwell.

Small Pale Green Orchis.

Occasional or frequent. Low meadows and open swamps. June —July.

Habenaria hyperborea (L.) R. Br. (northern).

Limnorchis hyperborea Rydb.

Limnorchis huronensis Rydb.

Tall Leafy Green Orchis.

Rich woods and wooded swamps. Rare in most districts: Bolton (Weatherby), New Britain (Bissell), Plainville (J. N. Bishop), Southington (Bissell, Andrews). Becoming occasional or local in Litchfield County. Late June—early Aug.

Habenaria dilatata (Pursh) Gray (expanded).

Limnorchis dilatata Rydb.

Tall White Bog Orchis.

Rare. Wet meadows or sphagnum bogs: Plainville (Andrews), Norfolk (J. H. Barbour, Miss M. C. Seymour). June—July.

Habenaria clavellata (Michx.) Spreng. (shaped like a little club).

Habenaria tridentata Hook.

Gymnadeniopsis clavellata Rydb.

Small Green Wood Orchis.

Occasional or frequent. Bogs and wet woods. July - Aug.

Habenaria Hookeri Torr.

Habenaria Hookeri Torr., var. oblongifolia Paine.

Lysias Hookeriana Rydb.

Rich woods. Rare near the coast, becoming occasional or local northward. June.

Habenaria orbiculata (Pursh) Torr. (disk-shaped).

Lysias orbiculata Rydb.

Large Round-leaved Orchis.

Rare. In woods: South Windsor (S. P. Elmore), Windsor (H. S. Clark), Norfolk (Miss M. C. Seymour), Salisbury (Mrs. C. S. Phelps & Weatherby). June.

Habenaria macrophylla Goldie (large-leaved).

Rare. Norfolk, in pine woods (J. H. Barbour). June — July.

Habenaria ciliaris (L.) R. Br. (fringed).

, Blephariglottis ciliaris Rydb.

Yellow Fringed Orchis.

Meadows, swamps, dry fields, thickets and open woods along the coast. Occasional or frequent eastward, becoming rare or local westward. Not certainly known farther inland than Monroe (H. C. Beardslee). Mid-July — Aug.

Habenaria blephariglottis (Willd.) Torr. (eyelid-tongued:

i. e., having a fringed lip).

Blephariglottis blephariglottis Rydb.

White Fringed Orchis.

Rare. Sphagnum bogs: Cromwell (Dr. E. J. Thompson), Bethany and Middlebury (Harger), Colebrook (J. W. Robbins), Norfolk (Miss M. C. Seymour). Aug.

Habenaria lacera (Michx.) R. Br. (torn).

Blephariglottis lacera Rydb.

Ragged or Ragged Fringed Orchis.

Occasional. Fields, meadows and open or wooded swamps. July — mid-Aug.

Habenaria psycodes (L.) Sw. (butterfly-like).

Blephariglottis psycodes Rydb.

Smaller Purple Fringed Orchis.

Occasional. Bogs, wet meadows and open swamps. Late June — Aug.

Habenaria fimbriata (Ait.) R. Br. (fringed).

Habenaria grandiflora Torr.

Blephariglottis grandiflora Rydb.

Large Purple Fringed Orchis.

Rare or occasional. Swamps and wet woods. Mid-Tune -July.

This species usually blooms several weeks earlier than Habenaria psycodes.

POGONIA Juss.

Pogonia ophioglossoides (L.) Ker (like Ophioglossum, the Adder's Tongue).

Rose Pogonia. Snake or Adder's Mouth,

Occasional or frequent. Bogs and wet meadows. June -Tulv.

Rarely occurs with white flowers. The flowers are fragrant.

Pogonia trianthophora (Sw.) BSP. (bearing three flowers).

Pogonia pendula Lindl.

Triphora trianthophora Rydb.

Nodding Pogonia.

Rare or local. Rich woods, usually in leaf-mold: Norwich (Miss M. P. Gilman, W. A. Setchell), Franklin (W. A. Setchell), Granby (I. Holcomb), Southington (Miss F. S. Walkley), Salisbury (Mrs. C. G. Beardslee & Mrs. C. S. Phelps). Aug.

Pogonia verticillata (Willd.) Nutt. (whorled).

Isotria verticillata Raf.

Whorled Pogonia.

Rare or occasional. Rich woods. Mid-May - early June.

Pogonia affinis Austin (allied).

Isotria affinis Rydb.

Smaller Whorled Pogonia.

Rare. Rich woods: New Haven (E. S. Dana), Stratford (C. K. Averill, Eames). Mid-May — mid-June.

CALOPOGON R. Br.

Calopogon pulchellus (Sw.) R. Br. (pretty).

Limodorum tuberosum of American authors, not L.

Grass Pink. Calopogon.

Occasional or frequent. Bogs and low meadows. June — July.

The flowers are rarely pure white.

ARETHUSA L.

Arethusa bulbosa L. (bulbous).

Arethusa,

Rare or local. Sphagnum bogs and wet meadows. Late May—June.

SPIRANTHES Richard. Ladies' Tresses.

Spiranthes Beckii Lindl.

Spiranthes simplex Gray.

Gyrostachys simplex Kuntze.

Rare or local. Dry, sandy fields and sterile pastures. Aug. — Sept.

Spiranthes gracilis (Bigel.) Beck (slender).

Gyrostachys gracilis Kuntze.

Frequent. Fields, meadows and open woods, in both moist and dry ground. Aug.— Sept.

Spiranthes vernalis Engelm. & Gray (vernal).

Spiranthes praecox Gray's Manual ed. 6 in part.

Gyrostachys praecox Kuntze.

Gyrostachys linearis Rydb.

Fields and meadows, usually in dry soil. Occasional to frequent near the coast, becoming rare inland. Aug.—Sept.

Spiranthes lucida (H. H. Eaton) Ames (shining).

Spiranthes latifolia Torr.

Gyrostachys plantaginea Britton.

Rare or local. Moist river banks: Lyme (Mrs. E. E. Rogers), Cromwell (F. K. Hallock), Windsor (H. S. Clark), and along the Housatonic River from Oxford (Harger), northward to the state line. Late May—June.

Spiranthes cernua (L.) Richard (nodding).

Gyrostachys cernua Kuntze.

Frequent. Bogs, meadows and open swamps, or sometimes in drier places. Sept.— Oct.

The var. OCHROLEUCA (Rydb.) Ames (buff-colored), Gyrostachys ochroleuca Rydb., occurs at Norfolk (Bissell), Salisbury (Mrs. C. S. Phelps).

Sometimes very fragrant.

Spiranthes Romanzoffiana Cham.

Gyrostachys stricta Rydb.

Rare. Sphagnum bog: Norfolk (J. H. Barbour). July.

EPIPACTIS Boehm. Rattlesnake Plantain.

Epipactis repens (L.) Crantz (creeping), var. **ophioides** (Fernald) A. A. Eaton (snake-like).

Peramium ophioides Rydb.

Goodyera repens Gray's Manual ed. 6 in part.

Peramium repens Britton & Brown's Ill, Flora in part.

Lesser Rattlesnake Plantain. Squirrel-ear.

Rare. Rocky woods under evergreens: Southington (J. Shepard), Norfolk (Miss M. C. Seymour). Aug.

Epipactis tesselata (Lodd.) A. A. Eaton (checkered).

Goodyera tesselata Lodd.

Peramium tesselatum Rydb.

Rattlesnake Plantain.

Rare or local. Rich woods in the northern part of the state, mostly under evergreens: Union and Granby (Bissell), Enfield (Andrews & Bissell), Manchester and South Windsor

(A. W. Driggs), East Hartford (Weatherby), Bristol (J. N. Bishop), Norfolk (Miss M. C. Seymour), Salisbury (Mrs. C. S. Phelps). Aug.—Sept.

Epipactis pubescens (Willd.) A. A. Eaton (downy).

Goodyera pubescens R. Br.

Peramium pubescens MacMill.

Net-leaf or Downy Rattlesnake Plantain. Scrofula-weed.

Frequent. Rich woods in either dry or moist ground. Aug. All our species of this genus are considered medicinal, the whole plant being used.

CORALLORRHIZA Chatelain. Coral Root.

Corallorrhiza trifida Chatelain (three-cleft).

Corallorrhiza innata R. Br.

Corallorrhiza Corallorrhiza Karst.

Early Coral Root.

Rare. Cold swamps or wet pine woods: Waterford (Graves), Norwich (Mrs. E. E. Rogers), Manchester (A. W. Driggs), Cromwell (F. K. Hallock), Windsor (Weatherby), Plainville (J. N. Bishop), Oxford (Harger), Winchester (Andrews & Harger), Barkhamsted (C. S. Phelps), Cornwall (E. E. Brewster), Salisbury (Mrs. C. S. Phelps). May —June.

All the species of this genus are parasitic upon other plants and are destitute of green parts.

Corallorrhiza maculata Raf. (spotted).

Corallorrhiza multiflora Nutt.

Corallorrhiza multiflora Nutt., var. flavida Peck.

Large Coral Root.

Occasional to frequent. Rich woods, usually in leaf-mold. July — Sept. The form with yellow flowers occurs at Plain-ville (H. S. Clark), and Salisbury (Mrs. C. S. Phelps).

Corallorrhiza odontorhiza Nutt. (having a toothed root).

Coral Root. Crawley Root. Dragon's Claw. Chicken-toes. Rich woods either moist or dry. Occasional in southern Connecticut, becoming rare in northern districts. Mid-Aug.—Oct.

The rootstock is medicinal.

MICROSTYLIS Eaton. Adder's Mouth.

Microstylis monophyllos (L.) Lindl. (single-leaved).

Achroanthes monophylla Greene.

White Adder's Mouth.

Rare. Wet mossy woods: Salisbury (Mrs. C. S. Phelps, H. S. Clark & Bissell). June.

Microstylis unifolia (Michx.) BSP. (single-leaved).

Microstylis ophioglossoides Eaton.

Achroanthes unifolia Raf.

Green Adder's Mouth.

Rare. Rich woods either moist or dry: Norwich (W. A. Setchell, Mrs. E. E. Rogers), Franklin (Graves), East Lyme (Miss A. M. Ryon), Union and Salisbury (Bissell), Bolton (A. W. Driggs & Weatherby), Enfield and Meriden (Andrews & Bissell), Berlin (T. S. Brandegee), Granby (I. Holcomb), New Haven (O. Harger), Oxford (Harger), Easton (Eames). July—Aug.

LIPARIS Richard. Twayblade.

Liparis liliifolia (L.) Richard (lily-leaved).

 $Leptorchis\ liliifolia\ {\bf Kuntze.}$

Large Twayblade.

Rare or occasional. Rich and moist or sometimes dry and rocky woods. June.

Liparis Loeselii (L.) Richard.

Leptorchis Loeselii MacM.

Fen Orchis.

Rare or occasional. Bogs, moist woods and wet shaded banks. June — July.

APLECTRUM (Nutt.) Torr. Putty-root. Adam-and-Eve.

Aplectrum hyemale (Muhl.) Torr. (lasting over the winter).

Aplectrum spicatum BSP.

Putty-root. Adam-and-Eve.

Rare. Rich woods: Norwich (J. Trumbull), West Hartford (H. S. Clark, Miss A. Lorenz), Farmington (C. H. Pember), Granby (I. Holcomb), New Haven and Hamden

(Harger), Danbury (H. C. Ryder), Salisbury (Mrs. C. S. Phelps). June.

The root is medicinal.

DICOTYLEDONEAE.

PIPERACEAE. PEPPER FAMILY.

SAURURUS L. Lizard's Tail.

Saururus cernuus L. (nodding).

Lizard's Tail.

Shallow water of rivers, ponds and marshes. Preston, in the Shetucket River (W. A. Setchell, Graves), Franklin and Sprague (Graves), along the Housatonic River from the Sound northward as far as Oxford and Newtown (Harger, Eames), and occasional in the southwestern part of the state (Eames). July—Aug.

SALICACEAE. WILLOW FAMILY.

SALIX L. Willow. Osier.

Shrubs and trees with light soft wood used to some extent for cabinet work and for fuel. Willow charcoal is considered one of the best for medicinal and pharmaceutical use and for making crayons and gunpowder.

Willows are propagated with the greatest ease from cuttings, and are extensively planted as ornamental and shade trees. They often serve also to drain wet grounds, which they do by transpiring great quantities of water.

In some parts of the country certain species are extensively grown for osiers to be used in basket making and wickerwork. The bark of most species of willow contains more or less of a very bitter principle called salicin, used in medicine.

Salix nigra Marsh. (black).

Black Willow.

Rare or occasional. Low grounds and borders of ponds and streams. May. $\,$

The var. FALCATA (Pursh) Torr. (scythe-shaped) is occasional to frequent in similar situations, being more plentiful than the typical form.

This species spreads rapidly along rivers by the rooting of broken twigs and branches. The bark and aments are medicinal.

Salix pentandra L. (having five stamens).

Bay-leaved or Laurel-leaved Willow.

Rare. Escaped from cultivation to roadsides: Lyme, near Hadlyme Ferry (Graves), Norfolk (Bissell). May. Adventive from Europe.

Salix lucida Muhl. (shining).

Shining Willow. Glossy Willow.

Occasional. Swamps and borders of ponds and streams. May.

Salix serissima (Bailey) Fernald (very late; referring to the time of flowering and fruiting).

Autumn Willow.

Open swamps and wet pastures. Rare or local and apparently confined to the northwestern part of the state: Norfolk (Bissell), Salisbury (M. L. Fernald, Bissell). May — early June; fruit Aug.— Sept.

Salix fragilis L. (brittle).

Crack Willow. Brittle Willow.

Rare or local. Waste grounds, moist roadsides and banks of streams as an escape from cultivation: East Windsor and West Hartford (Bissell), New Haven (W. H. Patton, Harger), Bridgeport (Eames). May. Naturalized from Europe.

Introduced into this country about 1850, when a company of promoters induced many farmers to plant this willow for hedges. Many of these old hedges now occur throughout the state.

Salix alba L. (white).

White Willow.

The typical form of this species has not been reported from Connecticut.

The var. VITELLINA (L.) Koch (egg-yellow) is occasional in moist ground, especially near ponds and streams. May. Naturalized from Europe.

A hybrid of this variety with $Salix\ fragilis$ occurs rarely in the valley of the Connecticut River (Bissell).

Often planted for ornament.

Salix babylonica L.

Weeping Willow. Ring Willow.

Rare. River banks and roadsides, as an escape from cultivation: Lyme (Graves & Bissell), Southington (Andrews & Bissell), New Haven (Bissell), Stratford, Bridgeport and Fairfield (Eames). May. Adventive from Europe.

Formerly much planted for ornament, especially in cemeteries.

Salix longifolia Muhl. (long-leaved).

Salix fluviatilis of authors, not Nutt.

Sand Bar or River Bank Willow.

Local. Banks of the Connecticut River from Hartford southward: Hartford and Glastonbury (Bissell), Middletown (Dr. Barratt, Harger, Bissell), Lyme (Graves, Bissell & Andrews), Old Saybrook (Harger). May.

Salix cordata Muhl. (heart-shaped).

Salix cordata Muhl., var. angustata Anders.

Heart-leaved Willow.

Frequent or common. Wet ground. Late April — May ; fruit Aug .

The var. MYRICOIDES (Muhl.) Carey (like Myrica, the Sweet Gale), Salix acutidens Rydb., occurs at Stratford (Eames).

Salix pedicellaris Pursh (borne on a stalk).

Salix myrtilloides of Gray's Manual ed. 6, not L. Bog Willow.

Rare. In bogs: Stafford (Graves), East Granby (Weatherby), New Haven (D. C. Eaton, Harger), Norfolk (Bissell), Cornwall (E. E. Brewster). May.

Salix discolor Muhl. (parti-colored; referring to the leaves). Glaucous Willow. Pussy Willow.

Common. Swamps and low places, or sometimes in rather dry ground. April.

The var. eriocephala (Michx.) Anders. (woolly-headed), Salix criocephala Michx., is occasional in the southwestern part of the state (Eames).

The var. PRINOIDES (Pursh) Anders. (like the Black Alder), Salix prinoides Pursh, is rare: Stratford, Trumbull and Bridgeport (Eames).

Hybrids of this species with *Salix rostrata* occur at Stafford (Graves & Bissell). Hybrids with *Salix humilis* are apparently occasional throughout.

Salix humilis Marsh. (low).

Prairie Willow.

Occasional to frequent. Sandy thickets either dry or moist. April — early May; fruit May.

A hybrid of this with Salix sericea occurs at Stafford (Graves & Bissell).

Salix tristis Ait. (dull-colored).

Dwarf Gray Willow.

Sand plains and dry open ground. Occasional to frequent in the eastern and north central parts of the state; rare elsewhere, as at New Haven (D. C. Eaton), Bridgeport (Eames), Oxford and Southbury (Harger). Mid-April — mid-May; fruit May.

Salix sericea Marsh. (silky).

Silky Willow.

Frequent. Near streams and ponds and in swamps. Mid-April — mid-May; fruit May —June.

Salix rostrata Richards. (beaked).

Salix Bebbiana Sarg.

Beaked Willow.

Frequent. Woods and thickets, in either moist or dry ground. Late April — May; fruit May — June.

Salix candida Flügge (shining white).

Hoary Willow. Sage Willow.

Local. Swamps in the northwestern part of the state: Norfolk and Cornwall (Bissell), Salisbury (M. L. Fernald). April; fruit May.

The var. DENUDATA Anders. (bared) occurs at Salisbury, near Twin Lakes (J. R. Churchill & Bissell).

Salix purpurea L. (purple).

Purple, Bitter, Rose or Whip-cord Willow.

Rare or local. Dry or wet open ground: Voluntown (Harger & Graves), New London (Graves), Hartford, many plants over a wide area (H. S. Clark & Bissell), Southington and Berlin (Andrews & Bissell), New Haven (Eaton Herb.), Seymour (Harger), Stafford and Winchester (Bissell), Salisbury (Mrs. C. S. Phelps & Bissell), Waterbury (A. E. Blewitt). April — May. Adventive from Europe.

Grown for basket rods.

Salix incana Schrank (hoary).

Gray or Lavender Willow.

Rare. Escaped from cultivation to a river bank at Hartford, a few plants only (H. S. Clark). April — May. Fugitive from Europe.

POPULUS L. Poplar. Aspen.

Rapidly growing trees with soft, light wood, of little value for timber, but an important source of wood-pulp and useful for fuel in parts of the country where other wood is scarce. The poplar of the lumberman is *Liriodendron Tulipifera*, the Tulip Tree.

Populus alba L. (white).

White or Silver-leaved Poplar. Abele. White-bark.

Occasional. Escaped from cultivation to roadsides and waste places. April — May. Naturalized from Europe.

Often planted as an ornamental or shade tree, and sometimes to stop sand-blows. The bark is medicinal.

Populus tremuloides Michx. (like Populus tremula, the European Aspen).

American or Quaking Aspen. Poplar. Popple. Quiver-leaf. Trembling or White Poplar. Aspen.

Frequent. Woods, thickets and roadsides, more often in dry ground. April — May.

One of the first trees to take possession of clearings. The bark is medicinal.

Populus grandidentata Michx. (large-toothed).

Large-toothed Aspen. Poplar. Popple.

Frequent. Moist or dry woods and clearings, more often in rocky ground. April — May.

Populus heterophylla L. (various-leaved).

Swamp or Downy Poplar.

Rare or local. Wooded swamps and borders of ponds: Salem and Montville (W. A. Setchell, H. C. Beardslee, Graves), Middletown (Graves, Bissell, Andrews), Branford and Southington (Bissell & Andrews), Guilford (G. H. Bartlett), East Haven and Southbury (Harger). May.

Populus balsamifera L. (balsam-bearing).

Balsam Poplar. Tacamahac.

Local. River banks, wet woods and roadsides, usually as an escape from cultivation: Southington (H. Whitney), Milford (Eames & C. C. Godfrey), Wilton (Eames & G. P. Ells), Sherman, New Milford and Kent (E. H. Austin, C. K. Averill). Apparently native at Norfolk (H. S. Clark & Bissell). April — May.

Populus candicans Ait. (white and shining).

Populus balsamifera L., var. candicans Gray.

Balm of Gilead.

Rare or occasional. Roadside thickets and fence-rows as an escape from cultivation. April — May. In Connecticut naturalized, probably from Asia.

Occasionally planted as a shade tree. The leaf-buds and bark are medicinal, the first named having been much used in former times as a household remedy.

Populus deltoides Marsh. (triangular; referring to the shape of the leaves).

Populus monilifera Ait.

Cottonwood. Necklace Poplar.

Borders of streams and in wet ground. Frequent in the valleys of the Connecticut, Farmington and Housatonic Rivers; rare or occasional elsewhere. April — May.

A strong, rapidly growing tree, often planted as a shade tree, and on the western prairies for wind-breaks.

Populus nigra L. (black).

Black Poplar.

Rare. Roadsides and river banks as an escape from cultivation: Preston and East Lyme (Graves). April — May. Adventive from Europe.

Has been more or less planted in this country as an ornamental tree for more than a hundred years. It grows more slowly than the Cottonwood.

The var. ITALICA Du Roi, *Populus dilatata* L., Lombardy Poplar, was formerly much planted for ornament and has rarely escaped to roadsides and river banks: Lyme (Graves & Bissell), East Windsor (Bissell), Southington (Andrews & Bissell), Berlin and Cheshire (Andrews), Newtown (Harger), Sherman (Eames).

The variety is a quick-growing tree of striking habit, but in this climate it is short-lived.

MYRICACEAE. SWEET GALE FAMILY.

MYRICA L.

Myrica Gale L. (classical name).

Sweet Gale. Dutch or Bog Myrtle. Golden Osier.

Swamps and borders of ponds and streams. Occasional or local in the northern part of the state, becoming rare southward; not reported from the vicinity of the coast. April.

The leaves and buds are aromatic and medicinal.

Myrica carolinensis Mill.

Myrica cerifera of Gray's Manual ed. 6, in great part. Bayberry. Candlewood. Waxberry. Wax Myrtle.

Frequent or common. Dry fields and pastures, sand plains and sea shores. Late May—June; fruit Sept., persisting through the winter.

The berries yield a wax or tallow, somewhat used for making candles which burn with a faintly aromatic odor. One bushel of berries is said to yield four lbs. of wax. The leaves and the bark of the roots are somewhat medicinal.

Myrica asplenifolia L. (having leaves like Asplenium, the Spleenwort).

Comptonia peregrina Coulter.

Sweet Fern.

Common. Dry or sterile ground. May; fruit July — Aug. The leaves and the tops have some reputation for medicinal properties.

JUGLANDACEAE. WALNUT FAMILY.

JUGLANS L. Walnut.

Juglans cinerea L. (ashy).

Butternut. White Walnut. Oil Nut.

Frequent. Roadsides and rocky woods, generally in dry ground. May; fruit Oct.

The nuts are edible and are much gathered. The husks were formerly used in dyeing cloth yellow. The bark is sometimes used in tanning, and sugar can be obtained from the sap. The wood is employed in the interior finish of houses and for furniture. The bark of the root is medicinal and is officinal.

Juglans nigra L. (black).

Black Walnut.

Rare. Roadsides and rocky hillsides, in most localities derived from planted trees: Norwich (Mrs. E. E. Rogers), East Hartford (H. S. Clark), Newington (Bissell), Southington (Andrews & Bissell), Seymour and Southbury (Harger), Trumbull and Easton (Eames). Probably native at North Canaan (Bissell). May; fruit Oct. For the most part adventive from the West.

The nuts are edible. The wood is valued for cabinet work, for the interior finish of houses, for gunstocks and in ship-building.

CARYA Nutt. Hickory.

A very important group of trees on account of the value of their timber and nuts. Hickory wood has great strength combined with elasticity and is extensively used in the manufacture of carriages, wagons and farming implements; also for axe, pick and other tool handles. When exposed to the weather, however, it should be painted, as otherwise it is liable to quick decay.

Carya ovata (Mill.) K. Koch (egg-shaped).

Carya alba Nutt.

Hicoria ovata Britton.

Shag-bark or Shell-bark Hickory. Walnut.

Frequent or common. Woods and fields, in either moist or dry ground. Late May — early June; fruit Oct.

The most valuable of our native nut trees both for its timber and its fruit. The nut is the common Hickory Nut of the markets.

Carya alba (L.) K. Koch (white).

Carya tomentosa Nutt.

Hicoria alba Britton.

Mocker Nut. White-heart Hickory.

Occasional or frequent. Rocky woods and pastures, mostly in dry ground. Early June; fruit Oct.

The timber is nearly equal to that of the Shag-bark Hickory, the nuts not as good.

Carya microcarpa Nutt. (small-fruited).

Hicoria microcarpa Britton.

Small-fruited Hickory. Little Pignut Hickory.

Rocky woods and hillsides in either dry or moist ground. Occasional or frequent along or near the coast, apparently not extending far inland. Late May — early June; fruit Oct.

The nuts are usually bitter. The open or half-open husks often hang on the tree through the following summer.

Carya glabra (Mill.) Spach (smooth).

Carya porcina Nutt.

Hicoria glabra Britton.

Pignut or Broom Hickory. Pignut.

Occasional or frequent. Rocky woods and hillside pastures. Late May — early June; fruit Oct.

The nuts, usually bitter though sometimes sweet, are of little value. The timber is equal in value to that of the Shagbark Hickory.

Carya cordiformis (Wang.) K. Koch (heart-shaped).

Carya amara Nutt.

Hicoria minima Britton.

Bitter Nut or Swamp Hickory.

Occasional. Wet woods and banks of streams. Late May —June; fruit Oct.

Nuts very bitter, inedible.

BETULACEAE. BIRCH FAMILY.

CORYLUS L. Hazelnut. Filbert.

Corylus americana Walt.

Hazelnut or Wild Hazelnut. Hazel.

Frequent or common. Woods, thickets, pastures and roadsides, mostly in dry ground. March — April; fruit Sept.

The nuts of this and the following species are well flavored and edible and are gathered to some extent.

Corylus rostrata Ait. (beaked).

Beaked Hazelnut. Filbert.

Woods, thickets and hillside pastures in dry ground. Rare on or near the coast, occasional elsewhere. April; fruit Sept.

OSTRYA Scop. Hop Hornbeam. Ironwood.

Ostrya virginiana (Mill.) K. Koch.

Ostrva virginica Willd.

American Hop Hornbeam. Leverwood. Ironwood. Deerwood.

Frequent. Rocky woods and thickets. May; fruit July — Aug.

The wood is hard and exceedingly tough, used for handles of tools, mallets and other small articles. The bark is medicinal.

CARPINUS L. Hornbeam. Ironwood.

Carpinus caroliniana Walt.

American Hornbeam. Blue or Water Beech.

Frequent or common. Woods, thickets and banks of streams. May; fruit July — Aug.

The wood is close-grained and hard, of value for tool handles, etc.

BETULA L. Birch.

The birches, while not as a rule good timber trees, are yet of great use to man. The wood is generally light in color and weight, but tough and well suited for the making of many small articles. It is also good fuel and makes excellent charcoal.

Betula lenta L. (tough).

Cherry, Sweet or Black Birch.

Frequent or common. Woods, in either dry rocky or rich moist ground. May; fruit Oct.

The wood is extensively used in cabinet work. It also yields an oil which is practically identical with the oil of wintergreen, is of much medicinal value and is officinal. A beer is made from the fermented sap.

Betula lutea Michx. f. (yellow).

Yellow or Gray Birch.

Occasional or frequent. Rich or rocky woods and in swamps. May; fruit Oct.

A handsome tree furnishing timber of considerable value, used in cabinet work, for boxes, etc.

Betula populifolia Marsh. (poplar-leaved).

White, Gray or Old Field Birch.

Common. Woods, clearings, pastures and roadsides, mostly in dry sterile ground. May; fruit Sept.— Oct.

Usually the first tree to take possession of abandoned fields. The wood is largely used in making spools.

Betula alba L. (white), var. papyrifera (Marsh.) Spach (paperbearing).

Betula papyrifera Marsh.

Paper, Canoe or White Birch.

Rich woods and rocky hillsides. Rare near the coast: Lyme (Graves), Huntington (Eames). Becoming occasional northward and frequent in Litchfield County. May; fruit Sept.

In northern countries the wood and bark of this species are put to the greatest variety of uses. The wood is made into furniture, dishes, spoons, bowls and other wooden ware, ox yokes, shoes, casks and hoops; the brushwood makes wicker fences, thatch and brooms; the bark is used for tanning; the North American Indians manufactured their canoes of it and employed it in many other ways; the sap of this and other species is sometimes made into a kind of wine; the leaves afford a yellow dye.

Betula alba L., var. cordifolia (Regel) Fernald (having heart-shaped leaves).

Paper, Canoe or White Birch.

Rare. Rocky hillsides: Union, at Bald Hill (Bissell, Graves), Goshen (Bissell). May; fruit Sept.

Betula pumila L. (dwarf).

Low or Swamp Birch.

Swamps and wet ground. Local and apparently confined to the northwestern part of the state: Cornwall (E. E. Brewster), Salisbury (Bissell). May; fruit Sept.

ALNUS Hill. Alder.

Alnus incana (L.) Moench (hoary).

Alder. Speckled or Hoary Alder.

Swamps and borders of streams. Local or occasional except in the southeastern part of the state where it is rare. April; fruit Sept.

The wood of this and the following species is a source of gunpowder charcoal, and is said to be valuable also because of its durability in water. The bark has medicinal properties.

Alnus rugosa (Du Roi) Spreng. (wrinkled).

Alnus serrulata Willd.

Alder. Smooth or Tag Alder.

Frequent or common, Swamps and borders of ponds and streams. March — April; fruit Sept.— Oct.

Intermediate forms occur that are apparently hybrids between this and the preceding species.

FAGACEAE. BEECH FAMILY.

FAGUS L. Beech.

Fagus grandifolia Ehrh. (large-leaved).

Fagus ferruginea Ait.

Fagus americana Sweet.

Beech. American Beech.

Occasional or frequent. Woods and banks in either dry or moist ground. May; fruit Sept.—Oct.

Rarely matures perfect fruit here. The timber, hard and close-grained but rather brittle, is used sparingly for tool

handles. The wood is not durable in contact with the soil, but is remarkably lasting when immersed in water, hence is largely used in making dams, sluices, etc. The purest creosote for medicinal use is obtained from beech wood. A beautiful tree at all seasons of the year.

CASTANEA Hill. Chestnut.

Castanea dentata (Marsh.) Borkh. (toothed).

Castanea sativa Mill., var. americana Sarg. Chestnut.

Common. Rich woods or often in drier ground. Late June — mid-July; fruit late Sept.— Oct.

The nuts are sweet and edible and are extensively gathered for market. The timber is of much value, very durable in contact with the soil, and used especially for poles, piling and railroad ties. One of our most abundant and valuable forest trees. The burs furnish a lampblack used in painting, and contain a dark brown dye. The bark and leaves are somewhat medicinal.

QUERCUS L. Oak.

A large genus of very valuable trees, whose timber and bark are among the most important products of the forest. Oak wood possesses in a high degree strength, solidity, durability and resistance to water, and is largely used in ship building and mill and bridge construction. In the making of furniture also and the interior finish of houses it is very extensively employed. The bark of many species is much used in tanning. Oak trees are famous for their picturesque beauty and dignity, and it is a pity that so few large old specimens are preserved. They are among the most valued trees on estates and country places; in fact any farm is enhanced in value by the possession of a few old oaks.

Quercus alba L. (white).

White Oak.

Common. Moist or dry ground and in various soils. Mid-May—June; fruit Sept.— Oct.

The most valuable of the oaks both for timber and for

tanning. The bark is rich in tannin, is of medicinal value and is officinal. The acorns are sometimes roasted and used as a substitute for coffee.

Quercus stellata Wang. (star-shaped).

Quercus minor Sarg.

Post Oak. Iron Oak.

Local. Usually in rocky ground on and near the coast: East Lyme and Old Lyme (Graves), Branford (Andrews), New Haven (C. K. Averill, Eames, Harger), Orange and Milford (C. K. Averill, Andrews, Bissell), and westward (Eames). Extending inland as far as Hamden, on Mt. Carmel (A. E. Blewitt), and Huntington, at 350 ft. elevation (Eames). May; fruit Oct.

The wood is very hard, heavy and strong. In Connecticut only a small tree.

Quercus macrocarpa Michx. (large-fruited).

Bur Oak. Over-cup or Mossy-cup Oak.

Rich soil in bottom lands or swampy places. Rare or local and confined to the northwestern part of the state: Canaan (J. H. Putnam & Bissell), Salisbury (Mrs. C. S. Phelps). May; fruit Sept.— Oct.

The wood is heavy and hard, similar to and often sold as that of the White Oak.

Quercus bicolor Willd. (two-colored).

Quercus platanoides Sudworth.

Swamp White Oak.

Frequent. Swamps and wet woods. May; fruit Sept.—Oct.

The wood is heavy and strong, furnishing a good quality of timber.

Quercus Muhlenbergii Engelm.

Quercus acuminata Houba.

Yellow Oak. Chestnut Oak.

Rare. Calcareous ridges in the northwestern part of the state: Canaan (C. K. Averill), Salisbury (Mrs. C. S. Phelps). Also along the Housatonic River in Kent (E. H. Austin & Eames), New Milford (C. K. Averill & E. H. Austin), and

bordering tide water in Milford (Eames). May; fruit Sept. — Oct.

The wood is very heavy, hard and durable.

Quercus prinoides Willd.(like Quercus Prinus, the Chestnut Oak).

Scrub Chestnut Oak. Chinquapin Oak.

Occasional or frequent. Dry woods, thickets and hillside pastures, and sometimes in open sandy ground. May; fruit Sept.—Oct.

Quercus Prinus L. (classical name for an evergreen oak). Chestnut or Rock Chestnut Oak.

Rocky ridges and hillsides. Occasional near the coast; frequent or common elsewhere. May; fruit Sept.— Oct.

The wood is durable in contact with the soil, ranking among the oaks next to that of the White Oak for railroad ties. The bark is rich in tannin and is much used in tanning leather.

Quercus rubra L. (red).

Red or Champion Oak.

Frequent. Woods in all soils and various situations.

May; fruit Sept.— Oct.

The timber of this species as well as that of *Quercus coccinea* and *Quercus velutina* is relatively poor, but is more used than formerly on account of the scarcity of better. The bark of all three species is used in tanning and also contains a dye.

Quercus palustris Muench. (of swamps).

Pin Oak. Swamp Spanish Oak.

Swamps and borders of ponds and streams. Common in the Connecticut River valley and near the coast in southwestern Connecticut; occasional or local elsewhere. May; fruit Sept.— Oct.

The timber is relatively of a poor quality. Grows more rapidly than most other species of oak and is often planted as a shade or ornamental tree.

Quercus coccinea Muench. (scarlet).

Scarlet Oak.

Frequent. Moist or dry woodlands. May; fruit Sept.—Oct.

The foliage takes a very brilliant color in autumn.

Quercus velutina Lam. (velvety).

Quercus coccinea Muench., var. tinctoria A. DC.

Quercitron, Yellow-barked or Black Oak.

Occasional or frequent. Dry or gravelly uplands. May; fruit Sept.— Oct.

Quercus ilicifolia Wang. (holly-leaved).

Quercus nana Sarg.

Bear or Black Scrub Oak.

Dry sandy or rocky sterile ground. Rare in the north-western part of the state; local, frequent or common elsewhere. May; fruit Sept.—Oct.

URTICACEAE. NETTLE FAMILY.

ULMUS L. Elm.

Ulmus fulva Michx. (tawny).

Slippery, Red, Rock, Sweet, Moose, Indian or Tawny Elm.

Rare to frequent. Dry or moist rocky woods and near streams. April, rarely earlier.

The wood is hard, strong, durable in contact with the soil; of value for wheel-stock, fence posts, etc., and sometimes preferred for ox-yokes. The inner bark is extensively used in medicine.

Ulmus campestris L. (of fields).

English or European Elm.

Rare. Escaped from cultivation to roadsides in Hamden, at Mt. Carmel (A. H. Graves), Oxford (Harger), and Salisbury (Mrs. C. S. Phelps), in horticultural forms. April — May. Adventive from Europe.

Sometimes planted as an ornamental tree.

Ulmus americana L.

American, White, Common, Water, Swamp, Shade, Weeping or Feathered Elm.

Common. Woods, fields, roadsides and along streams. April, rarely earlier.

The wood is hard, strong and tough; valued for wheelstock, boats and ship building. One of our most beautiful trees and extensively planted for shade or ornament. Ulmus alata Michx. (winged).

Wahoo, Winged or Witch Elm.

Rare. Spread from cultivation to roadsides and fencerows: Old Lyme (H. S. Clark), Plainville (J. N. Bishop). May. Adventive from the South.

Often planted as a shade tree in the South.

CELTIS L. Hackberry. Nettle Tree.

Celtis occidentalis L. (western).

Hackberry. Sugarberry. American Nettle Tree. False Elm. Hoop Ash.

Occasional to frequent. Dry or poor soils, especially in river valleys and along the coast. May; fruit Sept., and often persisting through the winter.

The var. PUMILA Muhl. (dwarf) is rare or occasional in the Housatonic River Valley in Kent, New Milford and Newtown (Eames), and Oxford (Harger, Eames).

A small tree of natural beauty, but the leaves and small branches are usually much galled by insects. The wood is soft, weak, elastic, and easily splits, and is of little value. The bark is medicinal. The fruit is edible.

CANNABIS L. Hemp.

Cannabis sativa L. (sown).

Common Hemp.

Rare or occasional. Waste places throughout. July—Sept. Adventive or naturalized from Asia.

Grown in India, it is officinal as *Cannabis indica*, has very marked medicinal properties, and is the source of the intoxicant "hashish." Its fibre is one of the important textile products, valuable for coarse cloth, cordage, etc., and its seeds yield an oil used in paints, soap and culinary preparations.

HUMULUS L. Hop.

Humulus Lupulus L. (from Lupus, its classical name). Common Hop.

Occasional. River banks, woods and waste places, often as an escape from cultivation. July — Aug.; fruit Sept.

The strobiles are used in the manufacture of beer, ale and yeast; also in medicine and are officinal. A good arbor-plant.

Humulus japonicus Sieb. & Zucc.

Japanese Hop.

Rare. Escaped from cultivation into waste ground: New London (Graves), Hartford (H. S. Clark & Bissell), Bridgeport and Fairfield (Eames). Aug.—Sept. Adventive from Japan.

Recently introduced into cultivation and becoming popular as an arbor-plant.

MACLURA Nutt. Osage Orange. Bois d'Arc.

Maclura pomifera (Raf.) Schneider (pome-bearing).

Maclura aurantiaca Nutt.

Toxylon pomiferum Sarg.

Osage or Mock Orange or Apple. Bow-wood.

Rare. Escaped from cultivation into roadsides and neglected places: Waterford (Graves), East Haven (D. C. Eaton), Waterbury (A. E. Blewitt), Kent (C. K. Averill). June. Native of the Southwest.

The wood is durable in contact with the soil and is valued for fence posts. Formerly planted for hedges.

BROUSSONETIA L'Hér.

Broussonetia papyrifera (L.) Vent. (paper-bearing).

Paper Mulberry.

Rare. Norwalk, spontaneous in waste land (Miss A. E. Carpenter). May —June. Native of Asia.

MORUS L. Mulberry.

Morus rubra L. (red).

Red Mulberry.

Rare or occasional. Dry rocky woods, fields and fencerows. May —June; fruit July.

The wood is rather soft, coarse-grained and tough, and is very durable in contact with the soil. The fresh fruit is mawkish to some palates, agreeable to others. Medicinal.

Morus alba L. (white).

White or Silkworm Mulberry.

Occasional. Escaped from cultivation to roadsides, fence-

rows and waste places. May —June; fruit late June —July. Naturalized from the Old World.

Early in the last century extensively planted to furnish food for silkworms, and many large old trees remain about farmhouses. Birds and poultry are so fond of the fruit that one or more of these trees, when properly situated, would tend to prevent the destruction of cultivated berries maturing during the same period.

URTICA L. Nettle.

Urtica gracilis Ait. (slender).

Slender or Tall Wild Nettle.

Frequent or common. Roadsides, fence-rows and waste places. June — Aug.

A troublesome weed, best exterminated by digging.

Urtica Lyallii Wats.

Waste places, roadsides and low ground along streams. Stafford (Graves & Bissell), Southington (Andrews), Newtown (Eames); and probably occurring throughout the state, as the species has been confused with *Urtica gracilis*. July—Aug.

Urtica dioica L. (dioecious).

Stinging or Great Nettle.

Rare. Waste places in rich soil: Guilford (G. H. Bartlett), Seymour (Harger), North Canaan (M. B. Tobey). June — Aug. Adventive from Europe.

The plant is medicinal.

Urtica urens L. (burning).

Small or Dwarf Nettle.

Rare. Waste places, cultivated ground and about farmyards: Groton and Lebanon (Graves), New London (D. C. Eaton), Southington (Andrews), Woodbridge (A. W. Evans). June — Aug. Adventive from Europe.

The plant is medicinal.

LAPORTEA Gaud. Wood Nettle.

Laportea canadensis (L.) Gaud.

Urticastrum divaricatum Kuntze.

Wood or Canada Nettle. Albany Hemp.

Occasional or frequent. Moist rich woods and partial shade. July — Aug .

PILEA Lindl. Richweed. Clearweed.

Pilea pumila (L.) Gray (dwarf).

Adicea pumila Raf.

Clearweed. Coolweed. Stingless Nettle.

Frequent. Moist rich woods and shaded places. Aug.—Sept.

An objectionable weed in lawns and about dwellings. The bruised plant is sometimes applied for the relief of inflammation and poisoning by species of *Rhus*.

BOEHMERIA Jacq. False Nettle.

Boehmeria cylindrica (L.) Sw. (cylindrical).

False Nettle.

Frequent. Moist rich woods and along streams. July — .ug.

Boehmeria cylindrica (L.) Sw., var. scabra Porter (rough).

Rare. Rich woods: Southington (Bissell), Bridgeport (I. Holden & Baker), Fairfield (Eames). July — Aug.

PARIETARIA L. Pellitory.

Parietaria pennsylvanica Muhl.

Pellitory.

Rare or local. Rich damp shaded soil about rocks and ledges. Seldom seen, though known to occur at wide intervals throughout the state. May — Sept.

SANTALACEAE. SANDALWOOD FAMILY.

COMANDRA Nutt. Bastard Toad-flax.

Comandra umbellata (L.) Nutt. (umbellate).

Bastard Toad-flax.

Frequent. Dry woods, thickets and more open places. May —June.

LORANTHACEAE. MISTLETOE FAMILY.

ARCEUTHOBIUM Bieb.

Arceuthobium pusillum Peck (very small).

Razoumofskya pusilla Kuntze.

Dwarf Mistletoe.

Rare or local. Parasitic on Black Spruce: Norfolk, at 1400 ft. elevation, and Salisbury, about Bingham Pond at an altitude of 1800 ft. (H. S. Clark & Bissell), Kent, about Spectacle Ponds, where at an altitude of 1,200 ft. it also occurs on Tamaracks (Eames & E. H. Austin). April — May; fruit Sept.

ARISTOLOCHIACEAE. BIRTHWORT FAMILY.

ASARUM L. Asarabacca. Wild Ginger.

Asarum canadense L.

Wild Ginger or Ginger-root. Sweet, False or Canada Coltsfoot. Heart Snakeroot.

Rich rocky woods. Rare in the southeastern part of the state and near the coast, occasional to locally common elsewhere. Mid-April — May.

The var. Reflexum (Bicknell) Robinson (bent backward), Asarum reflexum Bicknell, and the var. ACUMINATUM Ashe (taper-pointed), Asarum acuminatum Bicknell, occur with the species or alone, the former in its most distinct condition in the southwestern part of the state.

Readily cultivated, and makes a pleasing ground covering in rich shaded places. The rhizome is used medicinally and an oil from it is used in perfumery.

ARISTOLOCHIA L. Birthwort.

Aristolochia Serpentaria L. (pertaining to a serpent). Snakeroot. Virginia or Fine Snakeroot.

Dry rocky woods. Rare or local over most of its range: East Lyme (Miss A. M. Ryon), East Haddam (Dr. E. J. Thompson, Graves), Haddam (D. C. Eaton), Meriden (W. A. Russell), Southington (C. D. Bishop), Naugatuck (J. Nichols), Oxford and Southbury (Harger), Newtown (Eames). Occasional toward the coast westward. Mid-June—July.

The aromatic roots are medicinal and are officinal.

POLYGONACEAE. BUCKWHEAT FAMILY.

RUMEX L. Dock. Sorrel.

Rumex Patientia L. (patience).

Patience or Spring Dock. Garden or Herb Patience.

Rare. Alluvial or waste ground: Lyme (Graves), Seymour (Harger). May—June. Adventive from Europe. Sometimes cultivated for spring greens.

Rumex Britannica L.

Great Water Dock. Horse Dock.

Occasional. Swamps, fresh and brackish marshes and shallow water along streams. July — Aug.

Rumex crispus L. (curled).

Curled, Curly, Yellow or Narrow Dock.

Common. Waste places, fields and meadows, especially in moist situations. June —July. Naturalized from Europe.

A troublesome weed in grasslands and grain fields. The leaves are often used as a pot-herb. The root is of value in medicine, and is in popular use as a blood purifier.

Rumex elongatus Guss. (lengthened).

Fields and waste ground. Southington (Andrews), and probably elsewhere, as the species has been confused with *Rumex crispus* and is presumed to occur occasionally with it. June —July. Adventive from Europe.

Rumex mexicanus Meisn.

Rumex salicifolius of Gray's Manual ed. 6, in part, not Weinm.

Rare. Waterbury, in waste ground (B. B. Bristol, A. E. Blewitt). July. Adventive or fugitive from the North or West.

Rumex altissimus Wood (tallest).

Tall, Pale or Peach-leaved Dock.

Rare. Waste ground: Plainfield (J. L. Sheldon), New London (Graves), Guilford (G. H. Bartlett), Farmington (A. W. Driggs), Waterbury (J. M. Richardson), Naugatuck (B. B. Bristol), Stratford (Mrs. R. H. Russell). July. In Connecticut probably adventive from the West.

Rumex verticillatus L. (whorled).

Swamp Dock.

Rare. Open low or swampy ground along the Connecticut River: Lyme (Graves), Haddam and East Hartford (Weath-

erby), Glastonbury (Bissell), Hartford (Harger, Bissell). June — July.

Rumex obtusifolius L. (blunt-leaved).

Bitter, Broad or Blunt-leaved Dock.

Common. Fields, waste places and about habitations. June — Aug. Naturalized from Europe.

The root is medicinal.

Rumex Acetosa L. (sour).

Sorrel or Belleville Dock. Cock, Garden or Meadow Sorrel.
Rare. In grassland: Norwich (Mrs. E. E. Rogers),
Southington (Bissell, Andrews), Litchfield (W. Buell). May
—June. Adventive from Europe.

Sometimes cultivated for spring greens.

Rumex Acetosella L. (diminutive of Acetosa).

Sheep, Red, Field, Common, House or Cow Sorrel. Sour Grass.

Common. Fields, waste places and cultivated ground, usually in poor neglected soil. April —June. Naturalized from Europe.

Often a troublesome weed, especially in lawns where it persists even when frequently cut. The leaves are eaten by children, but are poisonous when eaten freely. Sometimes used for spring greens. Medicinal.

POLYGONUM L. Knotweed.

Polygonum exsertum Small (protruding).

Rare. Salt and brackish marshes: East Haven (Harger, A. L. Winton), Orange (Bissell), Westport and Stamford (Eames & C. C. Godfrey). Fruit Sept.— Oct.

Polygonum prolificum (Small) Robinson (producing offspring; fruitful).

Polygonum ramosissimum Michx., var. prolificum Small.

Occasional eastward and frequent or locally common westward in marshes and on shores along the coast; also occurs along a moist roadside in Litchfield (Bissell). Fruit Aug.—Oct.

Polygonum aviculare L. (pertaining to birds).

Doorweed. Knotweed. Wire, Goose, Way, Knot or Crab Grass. Bird's-tongue,

Common. Yards, waste places, roadsides and cultivated grounds. June — Oct.

A pernicious weed in lawns, often taking complete possession. The seeds are eaten by certain birds; the Chinese also extract a blue dye from the plant.

Polygonum aviculare L., var. littorale (Link) Koch (of the sea-shore).

Polygonum littorale Link.

Shore Knotweed.

Occasional on edges of salt marshes and on gravelly shores near the coast. July — Sept.

Polygonum aviculare L., var. vegetum Ledeb. (vigorous).

This variety has been collected at a few localities and doubtless occurs occasionally with the typical form. Its distribution is not known. July — Sept.

Polygonum erectum L. (erect).

Erect Knotweed or Goose Grass.

Frequent. Roadsides and waste places. July - Sept.

Polygonum ramosissimum Michx. (much-branched).

Bushy Knotweed.

Rare. Roadside in Ansonia, probably introduced from the West (Harger). Aug.—Oct. Native in the West.

The forma ATLANTICUM Robinson, our native representative of this species, is frequent about the borders of salt meadows and on tidal shores along the coast.

Polygonum tenue Michx. (slender).

Slender Knotweed.

Frequent. Dry sterile fields and open sandy or rocky places. July — Sept.

Polygonum lapathifolium L. (dock-leaved).

Polygonum lapathifolium L., var. incarnatum Wats.

Polygonum incarnatum of authors and (?) Ell.

Dock-leaved, Pale or Willow Persicaria.

Rare, local or occasional. Waste places and banks of

rivers and ponds throughout. July — Aug. Perhaps in part naturalized from Europe.

Polygonum amphibium L. (growing on land or in water equally well).

Water Persicaria.

Rare or local. Ponds and lakes: Preston (Graves), East Haven (D. C. Eaton, Eames), Milford (Harger), Southington (Andrews, Bissell), Norfolk (J. H. Barbour), Ridgefield and Kent (Eames), Salisbury (Mrs. C. S. Phelps & Bissell). Aug.— Sept.

The var. TERRESTRE Leers (terrestial) occurs rarely on horders of ponds.

The var. Hartwrightii (Gray) Bissell, *Polygonum Hartwrightii* Gray, is rare or local on borders of ponds: Preston and Griswold (Graves), Southington (Andrews & Bissell), Norfolk (J. H. Barbour), Salisbury (Bissell).

This species is remarkably variable according to the conditions under which it grows. Intergrading forms connect the typical form with the varieties and apparently with the following species also.

Polygonum Muhlenbergii (Meisn.) Wats.

Polygonum emersum Britton.

Banks and shallow water about marshes, ponds and streams. Frequent along the Connecticut River; rare or local elsewhere. Aug.— Sept.

Polygonum pennsylvanicum L.

Common or Pink Persicaria. Pink Knotweed.

Frequent. Moist rich soil in open situations. July — Oct. Often a troublesome weed.

Polygonum Careyi Olney.

Rare. Moist or wet sandy soil about ponds and in open swamps: Ellington (F. M. Pease), East Hartford (Weatherby), East Windsor, Windsor and Simsbury (Bissell), Southington (Andrews, Bissell), Waterbury (Andrews), Oxford and Beacon Falls (Harger), Milford and Stratford (Eames). July — Sept.

Polygonum Hydropiper L. (its classical name).

Common Smartweed or Water Pepper. Bite-tongue.

Frequent. Open wet rich soil. July - Oct.

In popular use medicinally, and in veterinary practice as a counter-irritant.

Polygonum acre HBK. (acrid; biting).

Polygonum punctatum Ell.

Smartweed. Water Smartweed.

About ponds, pools, swamps and wet places, especially in woods and shaded situations. Southington, rare (Bissell, Andrews); frequent in the southern part of the state. July — Sept.

Medicinal like Polygonum Hydropiper.

Polygonum acre HBK., var. leptostachyum Meisn. (slenderspiked).

Polygonum punctatum Ell., var. leptostachyum Small.

Rare or local. Shallow water about ponds, swamps and banks of streams: Waterford (Graves), Lyme (Bissell), East Hartford and Simsbury (Weatherby), Southington (Andrews, Bissell), Stratford (Eames), Waterbury (Andrews). July—Sept.

Polygonum orientale L. (eastern).

Ragged Sailor. Kiss-me-over-the-Fence. Prince's Feather. Rare or occasional. Waste places as an escape from old gardens. July — Sept. Adventive from India.

An old-fashioned plant still frequent in cultivation.

Polygonum Persicaria L. (like a Peach-tree; referring to the shape of the leaves).

Lady's Thumb. Heartweed. Heart's-ease. Pinkweed. Redshank.

Common. Cultivated grounds, fields, roadsides and waste places. June — Oct. Naturalized from Europe.

Sometimes a troublesome weed. Medicinal.

Polygonum hydropiperoides Michx. (like Polygonum Hydropiper, the Water Pepper).

Smartweed. Water Smartweed. Mild Water Pepper.

Frequent. Shallow water of swamps, margins of ponds and streams. July — Sept.

Polygonum virginianum L.

Frequent. Woods and thickets in rich soil. July - Sept.

Polygonum arifolium L. (arum-leaved).

Halberd-leaved Tear-thumb. Scratch or Sickle Grass.

Occasional. Swamps, wet woods and thickets. July -- Oct.

Sometimes used medicinally.

Polygonum sagittatum L. (arrow-head shaped).

Arrow-leaved Tear-thumb. Scratch Grass.

Frequent. Swamps and wet places. June - Oct.

Polygonum Convolvulus L. (like Convolvulus, the Bindweed).

Wild Buckwheat. Black, Corn, Sow or Blackbird Bindweed. Frequent or common. Cultivated or waste grounds. June

— Oct. Naturalized from Europe.

Polygonum cilinode Michx. (having fringed nodes).

Fringed Black Bindweed.

Rocky woods and more open places. Rare over most of its range: North Stonington (Graves), Norwich (Mrs. E. E. Rogers), Farmington (Weatherby), New Haven, Seymour and Naugatuck (Harger), Waterbury (A. E. Blewitt), Hamden and Monroe (Eames). Occasional throughout northern Litchfield County. June — Sept.

The var. ERECTUM Peck (upright), var. breve Peck, occurs with the species in Litchfield County.

Sometimes used as a cover-plant for rocks.

Polygonum scandens L. (climbing).

Polygonum dumetorum L., var. scandens Gray.

Climbing False or Wild Buckwheat. Hedge, Bush or Thicket Bindweed.

Common. Thickets and waste places. Aug. - Oct.

Polygonum dumetorum L. (of thickets).

Bush or Thicket Buckwheat or Bindweed.

Rare. On ledges or rocky banks, in open woods or partial shade: Stratford, Trumbull and Huntington (Eames), Wood-

bury (Eames & C. C. Godfrey), New Milford (Eames & E. H. Austin), Salisbury (Mrs. C. S. Phelps). Also in waste ground at Hartford (H. S. Clark). Aug.—Oct. Except in the last locality it appears to be native. Specimens from Milford (Eames) show a transitional form approaching the forma cristatum (Engelm. & Gray) Robinson, Polygonum cristatum Engelm. & Gray.

Polygonum cuspidatum Sieb. & Zucc. (sharp-pointed).

Polygonum Zuccarinii Small.

Japanese Knotweed.

Rare. Escaped from cultivation to waste places: Stonington and New London (Graves), New Haven (J. N. Bishop), Simsbury (Bissell), Bridgeport (Eames). Sept. Adventive from Japan.

An effective plant in masses, producing abundant bloom.

Polygonum sachalinense Schmidt.

Sacaline.

Rare. Tolland, well established in a field and along a roadside (Weatherby & Bissell). Aug.—Sept. Native of eastern Asia.

A coarse forage and ornamental plant recently introduced into this country; perfectly hardy, but of little value where other crops can be grown.

FAGOPYRUM Hill. Buckwheat.

Fagopyrum esculentum Moench (eatable).

Fagopyrum Fagopyrum Karst.

Buckwheat. Beech-wheat.

Occasional. Fields and roadsides, escaping from cultivation but not persisting. June — Oct.; fruit Aug.— Oct. Fugitive from Europe.

Cultivated for its seeds which are ground for food or fed to poultry. The flowers are much frequented by honey-bees.

POLYGONELLA Michx. Jointweed.

Polygonella articulata (L.) Meisn. (jointed).

Sand, Coast or Seaside Jointweed or Knot Grass.

Frequent on barren sands in the Connecticut Valley and

the southeastern part of the state, as well as the coastal dunes and beaches throughout; occasional or rare elsewhere in similar situations. Mid-July — Oct.

CHENOPODIACEAE. GOOSEFOOT FAMILY.

CYCLOLOMA Moq. Winged Pigweed.

Cycloloma atriplicifolium (Spreng.) Coulter (having leaves like Atriplex).

Cycloloma platyphyllum Mog.

Cycloloma. Winged Pigweed.

Rare. Hamden, in dry ground (Miss Edwards, J. N. Bishop). July — Aug. Fugitive from the West.

KOCHIA Roth.

Kochia Scoparia (L.) Schrad. (broom-like).

Mexican Fire Plant. Mock Cypress.

Rare. Hartford, escaped from cultivation to waste ground (H. S. Clark & Weatherby). Sept. Fugitive or adventive from Europe.

Cultivated for its brilliant autumnal foliage.

CHENOPODIUM L. Goosefoot. Pigweed.

Chenopodium ambrosioides L. (like Ambrosia, the Ragweed). Wormseed. Mexican Tea. Sweet Pigweed.

Waste places and roadsides. Rare or local, or in populous districts even frequent or common. Aug.— Oct. Naturalized from tropical America.

The seeds are sometimes used medicinally and were formerly officinal.

Chenopodium ambrosioides L., var. anthelminticum (L.) Gray (opposed to worms).

Chenopodium anthelminticum L.

Wormseed.

Rare. Bridgeport, in waste ground (Eames). Aug.—Oct. Adventive from tropical America.

Chenopodium Botrys L. (a cluster of grapes; referring to the shape of the inflorescence).

Feather Geranium. Wormseed. Jerusalem Oak. Ambrosia. Ambrose.

Waste places and roadsides. Rare in most districts: Norwich (Mrs. E. E. Rogers), New Haven (D. C. Eaton), Hartford (H. S. Clark), Plainville (Bissell), Southington (Andrews), Oxford (Harger), New Milford (C. K. Averill). Occasional at New London (Graves), and throughout the southwestern part of the state (Eames). July—Sept. Naturalized from Europe.

The seeds are sometimes used medicinally.

Chenopodium capitatum (L.) Aschers. (having heads: referring to the clusters of fruit).

Blitum capitatum L.

Strawberry Blite or Spinach.

Rare. Waterbury, in waste ground (J. M. Richardson), Huntington, a few plants in dry soil near the Housatonic River (Miss A. Wakely). June—July.

Fugitive from the West or from Europe.

Sometimes cultivated as a pot-herb.

Chenopodium rubrum L. (red).

Red or Coast Goosefoot or Blite.

Rare on salt marshes: Guilford (G. H. Bartlett), Fairfield (Eames). Aug.— Oct.

Chenopodium glaucum L. (glaucous).

Oak-leaved Goosefoot.

Local. Bridgeport, plentiful along a sandy roadside (Eames). Aug.— Oct. Adventive from Europe.

Chenopodium hybridum L. (mongrel).

Maple-leaved Goosefoot. Sowbane.

Occasional. Roadsides, waste places and river banks. July — Oct. Native, or in part naturalized from Europe.

Chenopodium album L. (white).

Pigweed. White Goosefoot. Lamb's Quarters. Wild Spinach. Common. Waste places, on sandy shores and as a weed in cultivated ground. June — Sept. Naturalized from Europe.

The var. VIRIDE Moq. (green) is frequent with the typical form.

Sometimes troublesome as a weed. Occasionally used as a pot-herb.

Chenopodium murale L. (of walls).

Nettle-leaved Goosefoot. Sowbane.

Rare. Waste places: New London, as a gutter-weed (Graves), New Haven (W. A. Setchell), Fairfield (Eames). June — Sept. Adventive from Europe.

Chenopodium urbicum L. (of the city).

City or Upright Goosefoot.

Rare. Waste places in rich soil: Ledyard (Graves), Oxford (Harger), Naugatuck (A. E. Blewitt & Harger). Mid-May — Aug. Adventive from Europe.

Chenopodium Boscianum Moq.

Rare. Rocky woods: Southington and Meriden (Andrews, Bissell). Aug.—Sept.

Chenopodium leptophyllum Nutt. (slender-leaved).

Rare. Coastal beaches, sand dunes and sandy borders of salt marshes: Groton (Graves), New Haven (F. W. Hall), Milford (Harger, Eames), Stratford (Miss A. E. Carpenter, Eames), Bridgeport, Westport and Norwalk (Eames). Aug. — Sept.

BETA L. Beet.

Beta vulgaris L. (common).

Common Beet.

Rare and fugitive. Waste grounds: Bridgeport (Eames). July. Native of southern Europe.

ATRIPLEX L. Orach.

Atriplex tatarica L.

Atriplex laciniata Koch and many authors, not L.

Rare. Naugatuck, in waste ground (A. E. Blewitt). Aug. Fugitive from Europe.

Atriplex patula L. (spreading).

Spreading Orach.

Rare or occasional on the shores of the Sound.

The var. HASTATA (L.) Gray (halberd-shaped), Atriplex hastata L., is the usual form of this variable species, and is common on the shores of the Sound and edges of salt marshes.

[Bull.

extending inland along the Connecticut River as far as Hartford (H. S. Clark); also occurs in waste ground at Bristol (C. D. Bishop), Naugatuck (A. E. Blewitt), and Litchfield (Miss E. H. Thompson). Aug.—Sept.

The leaves are sometimes eaten as a pot-herb.

Atriplex arenaria Nutt. (of sand).

Beach Orach.

Rare or local. Sandy or gravelly shores of the Sound and adjacent waters: Groton and Stonington (Graves), East Haven (Harger), Milford (Eames, Harger), Stratford and westward (Eames). Aug.—Oct.

SALICORNIA L. Samphire. Glasswort.

Salicornia mucronata Bigel. (having a short, abrupt and small tip).

Salicornia Bigelovii Torr.

Samphire. Glasswort. Pickle Plant.

Frequent on salt marshes along the coast. Aug.— Sept. Sometimes gathered for pickling.

Salicornia europaea L.

Salicornia herbacea L.

Samphire. Glasswort. Pickle Plant. Chicken-toes. Crab or Frog Grass.

Frequent or common on salt marshes and shores. Aug.—Sept.

Often gathered for pickling.

Salicornia ambigua Michx. (doubtful).

Woody Samphire or Glasswort.

Frequent on stony shores and edges of salt marshes along the coast. Aug.— Sept.

SUAEDA Forskål. Sea Blite.

Suaeda maritima (L.) Dumort. (of the sea-coast).

Dondia maritima Druce.

Low Sea Blite.

Occasional on stony shores along the coast and about salt marshes and tidal rivers. July — Sept.

Suaeda linearis (Ell.) Moq. (very narrow).

Dondia americana Britton, not Salsola salsa, var. americana Pers.

Tall Sea Blite. Seaside Goosefoot.

Frequent on stony shores along the coast, about salt marshes and near tidal rivers. Aug.— Sept.

SALSOLA L. Saltwort.

Salsola Kali L. (Arabic name).

Common or Prickly Saltwort.

Frequent on sandy shores of the Sound. July - Sept.

In Europe this species was formerly gathered and burned for soda to be used in the manufacture of glass.

Salsola Kali L., var. tenuifolia G. F. W. Mey. (fine-leaved).

Salsola Tragus of authors, but scarcely of L.

Russian Thistle.

Rare. Waste ground and along railroads: Hartford (H. S. Clark & Bissell), Southington (Andrews, Bissell), Naugatuck (B. B. Bristol), Ansonia (Harger), Bridgeport (Eames). July — Sept. Adventive from the West or from Asia.

The plant is a native of Asia, but is now a very troublesome weed in some parts of the West. It should always be eradicated on its first appearance.

AMARANTHACEAE. AMARANTH FAMILY.

AMARANTHUS L. Amaranth.

Amaranthus retroflexus L. (bent backward).

Pigweed. Amaranth. Beet-root. Green Amaranth. Rough or Common Pigweed.

Common. Waste places and cultivated ground. July — Oct. Naturalized from tropical America.

A bad weed in cultivated ground.

Amaranthus hybridus L. (mongrel).

Pigweed. Slender Pigweed. Green Amaranth. Careless.

Frequent or common. Cultivated ground and waste places. July — Oct. Naturalized from tropical America.

The forma HYPOCHONDRIACUS (L.) Robinson (curing melancholy), Amaranthus hypochondriacus L., Prince's

Feather, is cultivated in gardens, and escapes to waste places at Southington and Meriden (Andrews), and Bridgeport (Eames).

The species is often a bad weed in cultivated ground.

Amaranthus paniculatus L. (panicled).

Amaranthus hybridus L., var. paniculatus U. & B.

Amaranth. Purple Amaranth.

Occasional. Roadsides, waste places and about old gardens, especially in the more populous districts. July — Oct. Adventive from tropical America.

Amaranthus graecizans L.

Amaranthus albus L.

Tumble Weed. White Amaranth or Pigweed. Bushy Pigweed.

Frequent. Cultivated fields and waste ground. July — Oct.

A weed, but not usually troublesome in this state.

Amaranthus blitoides Wats. (like Blitum, the Blite).

Prostrate Amaranth.

Rare. Roadsides and waste places: Norwich (Mrs. E. E. Rogers), New London (Graves), Hartford (H. S. Clark, Bissell), Naugatuck (A. E. Blewitt & Harger), Waterbury (A. E. Blewitt), Southbury (Harger), Milford, Bridgeport and Norwalk (Eames). July—Sept. Adventive from the West.

Amaranthus spinosus L. (spiny).

Spiny or Thorny Amaranth.

Rare. Waste places: New London (Graves), Norwich (Mrs. E. E. Rogers). July — Sept. Adventive from tropical America.

Amaranthus caudatus L. (tailed).

Prince's Feather. Love-lies-bleeding.

Rare. Escaped from cultivation into waste ground in Bridgeport and Norwalk (Eames). Aug. Native of India.

ACNIDA L. Water Hemp.

Acnida cannabina L. (like Cannabis, the Hemp).

Salt Marsh Water Hemp.

Common about salt marshes and the borders of tidal creeks and rivers. Aug.— Sept.

Acnida tuberculata Moq. (pimply).

Acnida tamariscina Wood, var. tuberculata U. & B.

Rare. Waste ground on bank of the Connecticut River at Hartford (Bissell), New Milford (E. H. Austin). Aug.—Sept. Fugitive from the West.

Acnida tuberculata Moq., var. prostrata (U. & B.) Robinson (prostrate).

Acnida tamariscina Wood, var. prostrata U. & B.

Rare. Cultivated ground at Oxford (Harger). Aug.—Sept. Fugitive from the West.

PHYTOLACCACEAE. POKEWEED FAMILY.

PHYTOLACCA L. Pokeweed.

Phytolacca decandra L. (ten-stamened).

Common Pokeweed, Poke or Scoke. Garget. Pigeon Berry. American Nightshade. Ink Berry. Red Ink Plant. Poke Root.

Frequent. Woods, fields and waste places, especially on burnt lands. July — Oct.

The young leaves and shoots make an excellent pot-herb, but care must be taken to exclude any part of the root. The berries and root have medicinal virtues and are officinal. The root is externally applied to caked udders of cows, and the berries are sometimes employed to color vinegar. The roots have been mistaken for Horseradish, with fatal results, and the plant has proved fatal to cattle eating it.

NYCTAGINACEAE. FOUR-O'CLOCK FAMILY.

MIRABILIS L. Four-o'clock.

Mirabilis Jalapa L. (producing jalap).

Four-o'clock. Marvel of Peru.

Rare. Escaped from cultivation at Bridgeport (Eames). Aug.— Oct. Fugitive from tropical America.

A desirable garden plant often cultivated for ornament.

OXYBAPHUS L'Hér.

Oxybaphus nyctagineus (Michx.) Sweet (like Nyctaginia, a genus of this family).

Allionia nyctaginea Michx.

Umbrellawort.

Rare. Granby, in fields (I. Holcomb). June — Aug. Introduced from the West.

Oxybaphus hirsutus (Pursh) Sweet (hairy).

Allionia hirsuta Pursh.

Umbrellawort.

Rare. Southington, field in dry gravelly soil (Andrews). July — Aug. Introduced from the West.

Oxybaphus linearis (Pursh) Robinson (very narrow).

Oxybaphus angustifolius Sweet.

Allionia linearis Pursh.

Umbrellawort.

Rare. North Haven, in sandy waste ground (A. W. Evans). June — Aug. Introduced from the West.

ILLECEBRACEAE. KNOTWORT FAMILY.

SCLERANTHUS L. Knawel.

Scleranthus annuus L. (annual).

Knotweed. German Knot Grass. Gravel Chickweed.

Frequent. Dry, sandy or sterile fields and roadsides. May — Nov. Naturalized from Europe.

ANYCHIA Michx. Forked Chickweed.

Anychia polygonoides Raf. (like Polygonum, the Knotweed). *Anychia dichotoma* of American authors, not Michx.

Rare. Norwalk, railroad track at Wilson's Point (C. K. Averill). June — Sept. Fugitive from the West.

Anychia canadensis (L.) BSP.

Anychia dichotoma Michx., but not of late American authors.
Anychia capillacea DC.

Forked Chickweed.

Occasional or frequent. Dry, often rocky woods. June — Sept.

AIZOACEAE. CARPET WEED FAMILY.

MOLLUGO L. Indian Chickweed.

Mollugo verticillata L. (whorled).

Carpet Weed. Indian Chickweed.

Common. Waste places, roadsides, cultivated ground and on coastal beaches. June — Oct. Naturalized from the warmer parts of America.

Sometimes a troublesome weed.

TETRAGONIA L.

Tetragonia expansa Murr. (spread out).

New Zealand Spinach.

Local. Waste ground: Hartford, where hundreds of plants were growing in one locality (H. S. Clark), Fairfield (Eames). Sept. Fugitive from Eastern Asia or New Zealand.

CARYOPHYLLACEAE. PINK FAMILY.

SPERGULARIA J. & C. Presl. Sand Spurrey.

Spergularia rubra (L.) J. & C. Presl (red).

Buda rubra Dumort.

Tissa rubra Britton.

Sand Spurrey. Sandwort.

Frequent, especially near the coast. Dry, sandy or gravelly roadsides, paths and waste places. June — Sept.

Spergularia marina (L.) Griseb. (of the sea).

Buda marina Gray's Manual ed. 6.

Tissa marina Britton.

Salt Marsh Sand Spurrey. Seaside Sandwort or Spurrey.

Common on coastal shores and borders of salt marshes. June — Aug. Medicinal.

SPERGULA L. Spurrey.

Spergula arvensis L. (of cultivated ground).

Corn, Sand or Common Spurrey. Tares. Cow-quake. Sandweed. Beggar-weed.

Rare or local. Roadsides, waste places and cultivated ground throughout. June — Nov. Naturalized from Europe.

It is said to be a nutritious and quick crop for fodder or hay, adapted to and a renovator of dry sandy soils. Apt to become a nuisance in some situations.

Spergula sativa Boenn. (sown).

Field Spurrey.

Rare. New London, in a cultivated field (Graves), Norwalk, sandy waste (Eames). July — Aug. Adventive from Europe.

SAGINA L. Pearlwort.

Sagina decumbens (Ell.) Torr. & Gray (reclining).

Sagina apetala of American authors, not Ard.

Small-flowered, Annual or Spurrey Pearlwort.

Rare or local. Dry soil of roadsides, walks and waste places: Ledyard (Graves), Woodbury (Harger). Throughout the coast region of the southwestern part of the state, where it also occurs in low or moist woods (Eames). Mid-May — Aug.

Sagina procumbens L. (trailing).

Pearlwort. Break-stone. Bird's-eye.

Occasional or frequent. Dripping rocks and wet, springy places in woods or partial shade, also dry banks, crevices of walls and walks and in stony or sandy wastes or sometimes on sea-beaches. May—July.

ARENARIA L. Sandwort.

Arenaria lateriflora L. (flowering at the side).

Mochringia lateriflora Fenzl.

Blunt-leaved or Showy Sandwort.

Occasional or frequent. Moist or dry, rocky, or low woods, meadows and even sometimes on sea-beaches. Mid-May—June.

Arenaria macrophylla Hook. (large-leaved).

Moehringia macrophylla Torr.

Larged-leaved Sandwort.

Rare. In rather dry leaf-mold covering trap talus, in shade: Guilford (G. H. Bartlett), and in the adjoining town of Durham (Harger). May.

Arenaria peploides L. (like Euphorbia Peplus).

Ammodenia peploides Rupr.

Sea Beach Sandwort. Sea Chickweed or Purslane.

Sandy and stony shores of the Sound. Rare in Bridge-port (Eames), and Stratford (Miss A. E. Carpenter); frequent in New London County (Graves); not reported elsewhere. May—June.

Arenaria serpyllifolia L. (thyme-leaved).

Common or Thyme-leaved Sandwort.

Frequent or common. Dry, sandy or rocky open ground. May — July. Naturalized from Europe.

Arenaria stricta Michx. (upright).

Arenaria Michauxii Hook. f.

Rock Sandwort.

Local. Limestone ledges and banks throughout western Litchfield County and south to Brookfield (Eames). June — July.

Arenaria groenlandica (Retz.) Spreng.

Mountain Sandwort or Starwort.

Rare. Rock ledges: White Rocks, Middletown, where it was first collected by H. L. Osborn in 1877, and Durham (G. H. Bartlett). Mid-April — May.

STELLARIA L. Starwort. Chickweed.

Stellaria borealis Bigel. (northern).

Alsine borealis Britton.

Northern Stitchwort or Starwort.

Rare. Bogs, wet meadows and banks of woodland brooks: Groton and Ledyard (Graves), Durham, Oxford and Monroe (Harger), Southington (Andrews), New Britain and Norfolk (Bissell), Barkhamsted (Harger), Winchester (Andrews, Bissell & Harger), Salisbury (Mrs. C. S. Phelps). May—Aug.

Stellaria longifolia Muhl. (long-leaved).

Alsine longifolia Britton.

Long-leaved Stitchwort or Starwort.

Swamps, low meadows and wet places. Rare in the south-

eastern part of the state: Franklin and Colchester (Graves). Frequent elsewhere. Mid-May — June.

Stellaria graminea L. (grass-like).

Alsine graminea Britton.

Stellaria graminea L., var. lanceolata Fenzl.

Lesser Stitchwort or Starwort.

Wet or dry grassland, roadsides and waste places. Occasional northward; frequent near the coast. June—July. Naturalized from Europe.

Stellaria Holostea L. (classical name).

Alsine Holostea Britton.

All-bone. Easter Bell. Greater Stitchwort or Starwort.

Rare. Woodbury, rich open woods (Eames & C. C. Godfrey); Norwalk, dry open wastes in Union Cemetery (Miss A. E. Carpenter). May — June. Naturalized from Europe.

Stellaria media (L.) Cyrill (intermediate).

Alsine media L.

Common or Winter Chickweed. Tongue Grass. White Bird's-eve.

Common. Waste places about dwellings, cultivated ground and lawns. Feb.— Dec. Naturalized from Europe.

Sometimes a troublesome weed, especially in damp soil. Medicinal.

CERASTIUM L. Mouse-ear Chickweed.

Cerastium arvense L. (of cultivated ground).

Field or Meadow Chickweed.

Rare. Lawns, fields, rocky banks and on ledges, usually in dry, sandy or sterile soil: New London (Graves), Norwich (Mrs. E. E. Rogers), East Lyme (Mrs. F. H. Dart), Middletown (M. Hitchcock), East Windsor (Bissell), Southington (Andrews & Bissell), New Haven, on West Rock (Harger, Eames et al.), Waterbury (A. E. Blewitt), Seymour and Oxford (Harger). May — mid-June.

Cerastium vulgatum L. (common).

Common or Larger Mouse-ear Chickweed.

Common. Woods, fields, cultivated ground and waste places. Mid-April — Oct. Naturalized from Europe.

A persistent and bad weed in lawns.

Cerastium semidecandrum L. (five-stamened).

Spring Mouse-ear. Small Mouse-ear Chickweed.

Local. East Lyme, plentiful in dry fields and pastures near the Niantic River (Graves). May — June. Naturalized from Europe.

Cerastium nutans Raf. (nodding).

Cerastium longipedunculatum of Britton's Manual.

Nodding Chickweed. Powder-horn.

Rare or local. Moist hillside woods and drier more or less open places: Norwich (Mrs. E. E. Rogers), East Lyme (Miss A. M. Ryon), West Hartford (H. S. Clark), Farmington and Newington (Bissell), Hamden (O. D. Allen), Orange and Oxford (Harger), Huntington, Trumbull, Milford and Stratford (Eames), Wilton (Miss A. E. Carpenter). Also at East Hartford, as a weed in greenhouse soil (A. W. Driggs). May—June.

The form with apetalous flowers often occurs.

AGROSTEMMA L. Corn Cockle.

Agrostemma Githago L. (like Gith, the Fennel-flower).

Lychnis Githago Scop.

Cockle. Corn Cockle. Rose Pink or Campion.

Rare or local. Grain fields, cultivated ground and waste places. June—July. Adventive from Europe.

In the West, where it is often abundant, its seeds injure the appearance and quality of grain. Its seeds are poisonous to poultry and stock, and flour containing a considerable proportion of them has been made into bread and eaten with fatal results. Thorough baking, however, destroys the poison. Chronic poisoning due to the regular consumption of small quantities, and finally resulting fatally, has been observed in animals. The presence of Corn Cockle seeds in flour is easily detected, unless it has been well bolted, by the black, roughened scales of the seed coat.

LYCHNIS L. Campion.

Lychnis Coronaria (L.) Desr. (pertaining to a crown).

Mullein Pink or Lychnis. Rose Campion. Dusty Miller.

Rare. Roadsides and waste places as an escape from cul-

tivation: Southington (Andrews, Bissell), Cheshire (Harger), Bridgeport and Fairfield (Eames). Mid-June - Aug. Native of Europe.

Lychnis Flos-cuculi L. (cuckoo-flower).

Ragged Robin, Jack or Lychnis. Meadow Pink or Campion. Rare or local. Fields and meadows, probably introduced with grass seed: Waterford (Graves), Norwich, plentiful in a meadow (Mrs. E. E. Rogers, J. Trumbull), Middletown (J. H. Barbour), Hartford, plentiful in several fields (H. S. Clark & Bissell), Canton (Weatherby), Salisbury (Mrs. C. S. Phelps). Mid-May — June. Naturalized from Europe.

Lychnis chalcedonica L.

Maltese or Jerusalem Cross. Nonesuch.

Rare. Roadsides and about old houses: Oxford and Southbury (Harger), Bridgeport (Eames). July. Adventive from Japan.

Lychnis dioica L. (dioecious).

Lychnis diurna Sibth.

Red, Morning or Day-blooming Lychnis or Campion. or Poor Robin.

Rare. Moist or dry roadsides and waste places: Norwich (Mrs. E. E. Rogers), Groton (Bissell), New London (Graves), Guilford (G. H. Bartlett), East Haven (Eames), New Haven (D. C. Eaton, Harger), Meriden (Andrews), Southington (Bissell, Andrews), Darien (Mrs. W. D. Barclay). June - Sept. Adventive from Europe.

Frequent in old-fashioned gardens.

Lychnis alba Mill. (white).

Lychnis vespertina Sibth.

Evening or Ever-blooming Lychnis. White Campion or Robin. Bull-rattle.

Roadsides, fields and waste places, in either dry or moist ground. Common in New London County (Graves); frequent or locally common in Kent and New Milford (C. K. Averill, E. H. Austin); occasional, local or rare elsewhere. June — Sept. Naturalized from Europe.

SILENE L. Catchfly. Campion.

Silene antirrhina L. (like Antirrhinum, the Snapdragon). Sleepy or Snapdragon Catchfly.

Frequent or common. Dry fields, roadsides, sandy places and on rocks and ledges. Mid-May — July.

Silene antirrhina L., var. divaricata Robinson (widely divergent).

Rare. Dry, sandy banks or sterile soil of ledges: Southington (Andrews), Milford and Stratford (Eames), Seymour and Oxford (Harger), Warren (in Herb. C. W. Swan). May—June.

Silene Armeria L. (like Armeria, the Thrift).

None-so-pretty. Sweet William, Garden or Lobel's Catchfly. Sweet Susan. Pretty Nancy.

Rare. Escaped from gardens to roadsides and waste places. June — Sept. Native of Europe.

Silene dichotoma Ehrh. (forked).

Forked Catchfly.

Rare. Waste places, fields and grasslands: New London (Graves), Southington (Andrews, Bissell), Bristol (J. N. Bishop), East Windsor and Norfolk (Bissell), Seymour (Harger), Bridgeport (Eames), Wilton (Miss A. E. Carpenter), New Milford (Eames & E. H. Austin), Salisbury (Mrs. C. S. Phelps). June — Aug. Adventive from Europe.

Silene noctiflora L. (night-flowering).

Catchfly. Night-flowering Catchfly.

Rare. Roadsides and waste places about dwellings: Norwich (W. A. Setchell), Southington (Andrews, Bissell), Guilford (G. H. Bartlett and Bissell), North Branford and Oxford (Harger), Bridgeport and Fairfield (Eames). MidJune — Oct. Adventive from Europe.

Silene pennsylvanica Michx.

Silene caroliniana of recent authors, perhaps of Walt. Wild Pink. Fire Pink.

Dry, sandy soil, especially on banks. Rare or local in most districts: along the Thames River from Norwich southward (Graves), Colchester (Dr. E. J. Thompson), Scotland and

Windham (G. Waldo), North Haven (Harger), Woodbury (Eames & C. C. Godfrey), Newtown (J. P. Blackman), Brookfield (Eames). Becoming occasional in the southwestern part of the state. May - mid-June.

A handsome plant in cultivation.

Silene stellata (L.) Ait.f. (starry).

Starry Campion. Four-leaved Campion.

Rocky woods and thickets. Rare in its most northerly and easterly reported localities: New Milford (Eames), Beacon Falls (Harger), Plainville (Bissell), Simsbury (A. W. Driggs), Newington (H. S. Clark), Middletown (Harger), Old Lyme (Graves), East Lyme (Miss A. M. Ryon). Frequent near the coast westward. Mid-July - Sept.

A handsome plant and worthy of cultivation.

Silene latifolia (Mill.) Britten & Rendle (broad-leaved).

Silene Cucubalus Wibel.

Silene vulgaris Garcke.

Bladder Campion. Behen. Rattle Bags. Cow Bells.

Occasional or frequent, Grassland, roadsides and waste places. June - Sept. Naturalized from Europe.

SAPONARIA L.

Saponaria officinalis L. (of the shops).

Bouncing Bet. Soapwort. Old-maid's or Hedge Pink.

Common. Fields, roadsides and waste places. July -Oct. Naturalized from Europe.

The plant has active medicinal properties, but is now seldom used. Often occurs with double flowers.

Saponaria Vaccaria L. (cow-herb).

L'accaria Vaccaria Britton.

Cow-herb. Field Soapwort. Cow-rattle. Cockle.

Rare. Cultivated ground and waste places: Norwich (Mrs. E. E. Rogers), East Lyme (Miss A. M. Ryon), New Haven (D. C. Eaton), Mansfield and Salisbury (Mrs. C. S. Phelps). Hartford (Bissell), Southington (Andrews, Bissell), Waterbury (Mrs. C. H. Lyman, Jr.), Bridgeport and Fairfield (Eames), New Milford (E. H. Austin). June -July. Introduced from Europe.

GYPSOPHILA L.

Gypsophila muralis L. (of walls).

Gypsophyll. Mist.

Rare. Roadside in Granby, escaped from cultivation (I. Holcomb). June — Sept. Fugitive from Europe.

Gypsophila elegans Bieb. (elegant).

Rare. Southington, escaped from cultivation to field (Andrews). June—July. Fugitive from Asia.

DIANTHUS L. Pink. Carnation.

Dianthus deltoides L. (triangular).

Maiden Pink. Meadow Pink.

Rare. Roadsides and waste ground: South Windsor (C. C. Hanmer), Plainville (J. N. Bishop), Bristol (W. A. Terry), Litchfield (Miss E. H. Thompson, Bissell). June—July. Adventive from Europe.

Dianthus barbatus L. (bearded).

Sweet William. Bunch or French Pink. Bloomy-down.

Rare. Roadsides and waste places as an escape from cultivation: Lebanon (Mrs. C. B. Graves), Guilford (G. H. Bartlett), Southington (Bissell, Andrews), Southbury (Harger), Fairfield (Eames), Redding (Eames & C. C. Godfrey), Salisbury (Mrs. C. S. Phelps). June—July. Introduced from Europe.

Dianthus Armeria L. (like Armeria, the Thrift).

Deptford Pink.

Dry fields and roadsides and in woods. Occasional northward and frequent or locally common throughout the southern part of the state. July — Sept. Naturalized from Europe.

Dianthus plumarius L. (feathery).

Grass, Garden, Scotch or Pheasant's-eye Pink.

Rare. Escaped from cultivation: Thompson, in an old cemetery near Wilsonville where it is spontaneous in the grass (Graves). May—June. Introduced from Europe.

PORTULACACEAE. PURSLANE FAMILY.

CLAYTONIA L. Spring Beauty.

Claytonia virginica L.

Spring Beauty. Mayflower.

Rich moist woods and more open places. Occasional or frequent in the southwestern part of the state; rare or local elsewhere. April — May.

Easily cultivated in suitable situations.

Claytonia caroliniana Michx.

Spring Beauty. Broad-leaved Spring Beauty.

Rare or local. Rich moist woods: Middletown (M. Hitchcock), Bristol (W. A. Terry), Barkhamsted (A. E. Blewitt), Torrington (Miss B. A. Parker), New Milford (E. H. Austin), Cornwall (Miss J. T. Gregory), Salisbury (Mrs. C. S. Phelps). Late March — April.

PORTULACA L. Purslane.

Portulaca oleracea L. (suitable for a pot-herb).

Purslane. Pusley.

Common. Cultivated and waste ground. June—Sept. Naturalized from the South or from Europe; now cosmopolitan.

A bad weed in any cultivated ground, especially in onion fields. Difficult to eradicate because of its tenacity of life, rapid growth and prolific seeding. Excellent as a pot-herb, and some strains are cultivated for this use.

Portulaca grandiflora Hook. (large-flowered).

Portulaca. Garden or Showy Portulaca. Wax Pinks. Garden or French Purslane. Rose Moss. Sun-plant.

Rarely escaped from gardens into waste places: Bridge-port and Norwalk (Eames), Ansonia (Harger). July — Oct. Fugitive from South America.

CERATOPHYLLACEAE. HORNWORT FAMILY.

CERATOPHYLLUM L. Hornwort.

Ceratophyllum demersum L. (submerged).

Frequent. Ponds, pools and slow streams. June —July. The var. ECHINATUM Gray (prickly) is frequent in the

southwestern part of the state (Eames), reaching eastward to New Haven (D. C. Eaton) and northward to Middlebury and Woodbury (Harger). The fruit, July — Aug., is often present in the variety, not seen otherwise.

NYMPHAEACEAE. WATER LILY FAMILY.

NYMPHAEA L. Yellow Pond Lily. Spatter-dock.

Nymphaea advena Ait. (a stranger).

Nuphar advena Ait. f.

Yellow Pond Lily. Spatter-dock. Frog, Cow, Hog, Bullhead or Horse Lily. Brandy Bottle.

Common. Ponds, pools and slow streams. Mid-May — Sept.

The var. Variegata (Engelm.) Fernald (variegated) has been found in Salisbury (C. C. Godfrey), Goshen (L. M. Underwood), Kent (Eames).

The rhizome is medicinal.

X (?) Nymphaea rubrodisca (Morong) Greene (red-disked). Nuphar advena Ait. f., var. minus Morong.

Rare. In ponds: Norfolk (J. H. Barbour), Trumbull, Eames). June — Aug.

Nymphaea microphylla Pers. (small-leaved).

Nymphaea Kalmiana Sims.

Nuphar Kalmianum Ait. f.

Small Yellow Pond Lily.

Rare or local. Ponds and still water: Lyme (Graves, Bissell), Windham (J. W. Robbins), North Haven (Bissell), Milford (Eames), Derby (H. C. Beardslee), Watertown (Harger), Norfolk (J. H. Barbour). June — Aug.

CASTALIA Salisb. Water Lily. Water Nymph.

Castalia odorata (Ait.) Woodv. & Wood (fragrant).

Nymphaea odorata Ait.

Nymphaea odorata Ait., var. minor Sims.

White or Sweet-scented White Water Lily. Pond Lily.

Frequent or common. Ponds and still waters. June — Sept.

Introduced in many ponds for its showy and fragrant

flowers, which are often gathered and sold in market. The rhizome is medicinal.

Castalia tuberosa (Paine) Greene (bearing tubers).

Nymphaea reniformis of authors, not Walt.

White Pond or White Water Lily.

Rare. In deep water at Selden's Cove, Lyme (Graves & Bissell), and at Round Pond, Ridgefield (Eames). June — Aug.

NELUMBO Adans. Sacred Bean.

Nelumbo lutea (Willd.) Pers. (yellow).

Lotus. American or Yellow Nelumbo or Lotus. Great Water Lily. Duck Acorn. Water Chinquapin.

Very rare. In Selden's Cove, Lyme (D. C. Eaton in 1856, Graves, et al.). July — Aug.

BRASENIA Schreb. Water Shield.

Brasenia Schreberi Gmel.

Brasenia peltata Pursh.

Brasenia purpurea Casp.

Water Shield or Target. Little Water Lily. Waterleaf.

Ponds, slow streams and ditches. Frequent near the coast in New London County, occasional or rare elsewhere. Late June — Aug.

RANUNCULACEAE. CROWFOOT FAMILY.

RANUNCULUS L. Crowfoot. Buttercup.

Ranunculus circinatus Sibth. (coiled).

Batrachium divaricatum of authors, not Ranunculus divaricatus Schrank.

Batrachium longirostre of Britton's Manual.

Stiff or White Water Crowfoot.

Local. Salisbury, plentiful at Lakeville in a pond and in a stream flowing from it (M. L. Fernald, J. R. Churchill & Bissell). May — Aug.

Ranunculus aquatilis L. (aquatic), var. capillaceus DC. (hairlike).

Ranunculus aquatilis L., var. trichophyllus Gray. Batrachium trichophyllum Bosch.

Batrachium flaccidum Rupr.

Batrachium Drouetii Nym.

Batrachium confervoides of authors, not Fries.

Common White Water Crowfoot. Water Milfoil. Green Eel Grass.

Occasional or frequent. Ponds and slow streams. Mid-May — Aug.

Ranunculus Cymbalaria Pursh (like Cymbalaria, a genus of the Figwort family).

Oxygraphis Cymbalaria Prantl.

Seaside Crowfoot.

Rare. Muddy shores: coves of the Thames River in Waterford and Montville (Graves), Bridgeport (H. C. Beardslee), Partridge Island (G. W. Hawes). July — Aug.

Ranunculus delphinifolius Torr. (having leaves like the Larkspur).

Ranunculus multifidus Pursh, not Forskål.

Yellow Water Crowfoot.

Rare or local. Ponds and pools. May -June.

The var. TERRESTRIS (Gray) Farwell (terrestrial) is sometimes found, especially in dry seasons. It seems to be the form taken by the species when rooting out of water, or when left in the mud of drying ponds.

Ranunculus laxicaulis (Torr. & Gray) Darby (loose-stemmed).

Ranunculus ambigens Wats.

Ranunculus obtusiusculus Raf.

Spearwort. Water Plantain Spearwort.

Occasional. Ditches, wet places and shallow water. June — Aug.

Ranunculus Flammula L. (a little flame), var. reptans (L.) Meyer (creeping).

Ranunculus reptans L.

Creeping or Crawling Spearwort.

Rare. Wet sandy or rocky shores: Waterford and Sprague (Graves), Preston (W. A. Setchell), Wethersfield (C. Wright), Windsor (Bissell). June—Aug.

Ranunculus sceleratus L. (cursed).

Cursed, Marsh, Ditch, or Biting Crowfoot. Water Celery. Blisterwort.

Swamps, ditches and wet places. Along the Connecticut River in East Hartford, rare (Weatherby, A. W. Driggs), and Middletown, occasional (A. W. Driggs); along the coast in Guilford (Bissell), and East Haven, rare (Harger); occasional westward, especially about the junction of salt marshes and upland. Mid-May — June.

One of our most acrid species and known to be poisonous to stock.

Ranunculus micranthus Nutt. (small-flowered).

Ranunculus abortivus L., var. micranthus Gray. Rock Crowfoot.

Dry rocky woods. Occasional in the southeastern part of the state and along the tops of the trap hills in the Connecticut Valley; rare elsewhere: Oxford and Seymour (Harger), Darien (Harger, Eames & Weatherby). May.

Ranunculus abortivus L. (abortive).

Small-flowered, Kidney-leaved or Smooth Crowfoot.

Common. Rich, usually moist woods, thickets and more open places. Mid-April —July.

Ranunculus abortivus L., var. eucyclus Fernald (well-rounded).

Rare. Moist rich woods: Sprague (Graves), Southington (Andrews), Oxford (Harger), Brookfield (Eames), Cornwall and Salisbury (Bissell). May —June.

Ranunculus allegheniensis Britton.

Mountain Crowfoot.

Rare. Rich woods: Monroe and Cornwall (Harger), Salisbury (M. L. Fernald & Bissell). May—June.

Ranunculus recurvatus Poir. (bent backward).

Hooked, Rough or Sanicle-leaved Crowfoot.

Frequent or common. Moist rich woods and more open places. May —June.

Ranunculus fascicularis Muhl. (clustered).

Early or Tufted Buttercup or Crowfoot.

Rare. Dry woods and more open places: Franklin (R. W. Woodward), New Haven (D. C. Eaton, G. W. Hawes), Granby (I. Holcomb), Southbury (Harger), Woodbury (Eames & C. C. Godfrey), Brookfield (Eames), Salisbury (Mrs. C. S. Phelps). April — May.

Generally confused with Ranunculus hispidus.

Ranunculus septentrionalis Poir. (northern).

Swamp or Marsh Buttercup or Crowfoot.

Wet meadows, swamps, ditches and along streams. Locally plentiful in Franklin and Lyme (Graves), but not otherwise reported from the southeastern part of the state; elsewhere well distributed and frequent or common. Mid-May—June.

Ranunculus hispidus Michx. (rought-hairy).

Wood or Early Buttercup or Crowfoot.

Dry or moist often rocky woods. Occasional in the northern part of the state, extending southward as far as Franklin (R. W. Woodward), Middletown (M. Hitchcock), Berlin (Andrews), Oxford (Harger), Darien (Miss A. E. Carpenter). Late April — mid-June.

Ranunculus repens L. (creeping).

Creeping or Spotted-leaf Buttercup or Crowfoot.

Lawns and waste places in New London County, occasional (Graves); Hartford, rare, and Stamford, roadside (A. W. Driggs); New Hartford, bank of Farmington River, and Norfolk, wet woods (Bissell); Fairfield, moist grassy roadsides and wastes (Eames); Salisbury, along a woodland brook (Mrs. C. S. Phelps & Bissell). May—July. In part naturalized from Europe.

The double-flowered form of the gardens has escaped to wet fields in Salisbury (Mrs. C. S. Phelps & Bissell).

Ranunculus pennsylvanicus L.f.

Bristly Buttercup or Crowfoot.

Rare or local. Open wet or swampy places and muddy or sandy shores: Lyme, at Selden's Cove (Graves), East Hartford (Weatherby), Enfield and Granby (A. W. Driggs), Hamden (Bissell, Andrews), Oxford (Harger), Canaan (J.

H. Barbour), Sharon (Bissell), Salisbury (Mrs. C. S. Phelps). June — Aug.

Ranunculus bulbosus L. (bulbous).

Bulbous Buttercup or Crowfoot. Butter or Blister Flowers. Gold-cups. King-cups.

Common. Fields, pastures and roadsides, usually in dry ground. Mid-May—July. Naturalized from Europe.

A weed of the same character as *Ranunculus acris*, and, like that and some other species of this genus, an acrid poison. The irritant properties are said to be dissipated in drying. Medicinal.

Ranunculus acris L. (acrid).

Buttercups. Tall or Meadow Buttercup or Crowfoot. Butter or Blister Flowers.

Frequent or common. Fields, meadows and roadsides, usually in moist soil. Mid-May — Nov. Naturalized from Europe.

The var. Steveni (Andrz.) Lange, occurs occasionally.

A pernicious weed, especially in pastures, and avoided by grazing animals.

THALICTRUM L. Meadow Rue.

Thalictrum dioicum L. (dioecious).

Early Meadow Rue. Feathered Columbine. Quicksilver Weed.

Rocky hillsides in rich soil. Occasional or local near the coast; local, frequent or common elsewhere. Late April — May.

Thalictrum revolutum DC. (rolled back from the edge).

Thalictrum purpurascens of Gray's Manual ed. 6 in part. Purple or Wax-leaved Meadow Rue.

Occasional northward in dry fields and on hillsides; frequent southward, especially near the coast, in copses, dry or moist fields and in meadows. June —July.

Thalictrum polygamum Muhl. (polygamous).

Common or Tall Meadow Rue.

Frequent or common. Low meadows, thickets and beside streams. Late June — Aug.

ANEMONELLA Spach.

Anemonella thalictroides (L.) Spach (like Thalictrum, the Meadow Rue).

Syndesmon thalictroides Hoffing.

Rue Anemone. Wind-flower.

Dry to moist woods, banks and more open places. Rare near the coast in New London County; frequent or common elsewhere. April — May.

Easily cultivated and then often double-flowered.

HEPATICA Hill. Liverleaf. Hepatica.

Hepatica triloba Chaix (three-lobed).

Hepatica Hepatica Karst.

Hepatica. Liverleaf. Liverwort. Mayflower. Mouse-ears. Trefoil.

Rich, usually rocky woods. Rare near the coast, becoming occasional or frequent northward. March, rarely — mid-May.

Placed in a warm situation at any time during the winter, potted plants will bloom. Of native plants the Liverleaf is usually considered to be the earliest flower of spring, although in their range Claytonia caroliniana and Cardamine purpurea habitually precede it. The leaves are medicinal and are still occasionally used in domestic practice.

Hepatica acutiloba DC. (with pointed lobes).

Hepatica acuta Britton.

Hepatica. Liverleaf. Liverwort.

Rare. Rocky woods in rich soil: Torrington and Salisbury (Bissell), Cornwall (E. E. Brewster), Canaan (A. W. Driggs). Late March — mid-May.

Medicinal properties the same as those of Hepatica triloba.

ANEMONE L. Anemone.

Anemone cylindrica Gray (cylindrical).

Long-fruited Anemone.

Dry roadsides, banks and borders of woods. Rare on and near the coast: Groton (Graves), Norwich (Mrs. E. E. Rogers, Graves), Guilford (G. H. Bartlett), Bridgeport and Easton (Eames). Becoming occasional northward and frequent in the northwestern part of the state. Mid-June—July. An acrid poison with medicinal properties.

Anemone riparia Fernald (of river banks).

Rocky woods and on river banks. Oxford, along the Housatonic River (Harger), and occasional or local from Litchfield northward and westward (Bissell). June — July.

Anemone virginiana L.

Tall or Summer Anemone. Thimbleweed.

Frequent. Dry woods, partial shade and in fields. Mid-Iune — Aug.

Anemone canadensis L.

Anemone pennsylvanica L.

Round-leaved or Round-headed Anemone.

Moist thickets and banks. Rare over most of its range: East Haven (A. W. Evans), Southington, apparently introduced (Andrews), North Canaan and Cornwall (Bissell), Newtown (J. P. Cowles). Locally plentiful along the Housatonic River in Oxford, Monroe and Derby (H. C. Beardslee, Harger). Mid-May — June.

Anemone quinquefolia L. (five-leaved).

Anemone nemorosa of Gray's Manual ed. 6, not L.

Wind-flower. Wood or Spring Anemone. Mayflower. Snow-drop.

Common. Rich, usually moist, woods, thickets and more open places. April — May.

An acrid poison with medicinal properties.

CLEMATIS L. Virgin's Bower.

Clematis virginiana L.

Wild Clematis. Devil's Hair. Traveler's Joy. Love Vine.
Common. Moist thickets, hedge-rows and roadsides. July

— Aug.; fruit Sept.— Nov.

An acrid poison, and when bruised actively irritant to the skin or eyes. The leaves and flowers are medicinal.

Clematis verticillaris DC. (whorled).

Atragene americana Sims.

Purple or Mountain Clematis or Virgin's Bower.

Dry rocky woods. Rare or local over most of its range: North Stonington and East Haddam (Graves), Guilford (G. H. Bartlett), Bolton (Weatherby), New Haven (D. C. Eaton, et al.), Oxford (Harger), Salisbury (Mrs. C. S. Phelps). Occasional about the trap hills of central Connecticut. May.

CALTHA L. Marsh Marigold.

Caltha palustris L. (of marshes).

Marsh Marigold. Cowslips. Meadow Gowan. May-blobs. Water-blobs.

Common or local. Swamps, wet places and along brooks. Mid-April — May.

The young plants are much used as a pot-herb. It is handsome in cultivation, flourishing in rich moist soil.

TROLLIUS L. Globeflower.

Trollius laxus Salisb. (loose).

American, Spreading, Wild or Swamp Globeflower.

Rare. Swampy woods and meadows: Cornwall (E. E. Brewster, 1879, and at the same locality, Bissell, 1903). April — May.

COPTIS Salisb. Goldthread.

Coptis trifolia (L.) Salisb. (three-leaved).

Goldthread. Canker-root. Yellow-root. Mouth-root.

Swamps and wet woods, especially in sphagnum. Not reported near the coast west of New Haven; rare near the coast eastward, mostly in sphagnous cedar swamps or cold, swampy woods; occasional northward, becoming frequent in the northern part of the state. May — mid-June.

The roots have been much used as a bitter tonic and in the form of an infusion as an astringent wash.

NIGELLA L. Fennel Flower.

Nigella sativa L. (sown).

Nutmeg Flower.

Rare. Bridgeport, in waste ground (Eames). July. Fugitive from Europe.

Sometimes cultivated for its seeds which, under the name of Black Cumin, are used for seasoning.

AQUILEGIA L. Columbine.

Aquilegia canadensis L.

Wild or Red Columbine. Honeysuckle. Meeting-houses. Rock Lily. Bells.

Occasional, frequent or common. Open or shaded places, usually in rocky ground. Late April —June.

The var. Flaviflora (Tenney) Britton (yellow-flowered) sometimes occurs.

Aquilegia vulgaris L. (common).

Garden or European Columbine. Blue Bells. Cock's-foot.

Rare. Escaped from gardens to roadsides and waste places: Lebanon (Graves), West Hartford (H. S. Clark & Bissell), Oxford (Harger), Milford, Westport and Woodbury (Eames & C. C. Godfrey), Norfolk (Weatherby). Mid-May—June. Adventive from Europe.

The herb is medicinal.

DELPHINIUM L. Larkspur.

Delphinium Consolida L. (classical name).

Garden or Field Larkspur. Dolphin Flower. Lark-heel. Knight's Spur.

Rare. Waste grounds: Windham (Bissell), Bridgeport and Fairfield (Eames), Middlebury (Harger). July — Sept. Fugitive or adventive from Europe.

The herb and seeds are medicinal. The leaves are believed to be poisonous to stock.

Delphinium Ajacis L. (from Ajax, Greek legendary hero). Larkspur. Rocket Larkspur.

Rare. Escaped from gardens into waste land and fields: New London (Graves), Bridgeport and Fairfield (Eames), Weston (Eames & C. C. Godfrey). Mid-June — Aug. Adventive from Europe.

CIMICIFUGA L. Bugbane.

Cimicifuga racemosa (L.) Nutt. (having racemes).

Black or Rattle Cohosh or Snakeroot. Rattle-top. Squaw-root.

Rich, often rocky woods. Norfolk, plentiful at one locality.

but probably introduced (Miss M. C. Seymour), Southington, rare or local (Andrews, Bissell), Oxford, common (Harger); and frequent throughout the southwestern part of the state (Eames). Late June—July.

The var. DISSECTA Gray (finely cut) occurs with the species at Stratford (Eames).

The rootstock is valued in medicine and is officinal. In cultivation forms a fine background for lower plants in somewhat shaded situations.

ACTAEA L. Baneberry. Cohosh.

Actaea rubra (Ait.) Willd. (red).

Actaea spicata L., var. rubra Ait.

Red Baneberry, Cohosh or Snakeroot. Red-beads. Coralberry. Snake-berry.

Rich, often rocky woods. Rather rare near the coast; occasional elsewhere. May — mid-June; fruit July — Aug.

Worthy of cultivation in a wild garden or rockery. The rootstock and roots are medicinal.

Actaea alba (L.) Mill. (white).

White Baneberry, Cohosh or Snakeroot. White-beads. Necklace-weed.

Rich, often rocky woods. Occasional northward; frequent southward. Mid-May — mid-June; fruit Aug.— Sept.

The rootstock and roots are medicinal. Both this and the preceding species contain irritant principles and are poisonous to stock. The berries of both species are poisonous to mankind.

HYDRASTIS Ellis. Orange-root. Yellow Puccoon.

Hydrastis canadensis L.

Golden Seal. Yellow-root. Turmeric-root. Indian Turmeric or Paint.

Rare. Rocky woods in rich soil: Plainville (J. N. Bishop), Southington (Mrs. E. R. Newell). May.

The rhizome and roots possess valued medicinal properties and are officinal.

MAGNOLIACEAE. MAGNOLIA FAMILY.

LIRIODENDRON L. Tulip Tree.

Liriodendron Tulipifera L. (tulip-bearing).

Tulip Tree. Tulip, Hickory or Yellow Poplar. Canoe-wood. Saddle Tree. Whitewood.

Occasional, local or frequent. Rich woods and openings. June.

One of our largest trees and remarkable for its tall columnar trunk. A beautiful tree for roadside and park planting, rarely attacked by insects. The wood is soft, brittle, easily worked, largely used for interior finish, cabinet work, wooden ware, etc. The inner bark is medicinal.

MENISPERMACEAE. MOONSEED FAMILY.

MENISPERMUM L. Moonseed.

Menispermum canadense. L.

Moonseed. Yellow Parilla or Sarsaparilla.

River banks and dry rocky hillsides, in woods or partial shade. Reported only from the western half of the state; occasional near the coast and on trap hills; rare elsewhere. June — early July; fruit Sept.— Oct., or persisting through the winter.

The roots are medicinal and were formerly officinal. Sometimes cultivated.

BERBERIDACEAE. BARBERRY FAMILY.

PODOPHYLLUM L. May Apple. Mandrake.

Podophyllum peltatum L. (peltate).

Mandrake. May, Indian, Hog or Devil's Apple. Duck's-foot. Wild Lemon. Raccoon-berry.

Rare. Roadsides and rich woods, nearly throughout, usually as an escape from cultivation. Mid-May — early June; fruit July —Aug.

The fruit is edible and harmless but disagreeable to many persons. The underground portion is medicinal and officinal and is the source of podophyllin. It is a desirable plant to grow in colonies for spring effects in the wild garden.

CAULOPHYLLUM Michx. Blue Cohosh.

Caulophyllum thalictroides (L.) Michx. (like Thalictrum, the Meadow Rue).

Pappoose Root. Squaw-root. Blue Cohosh. Blueberry Root. Blueberry.

Rich rocky woods, especially in moist situations; sometimes in low wooded swamps and openings along the coast. Rare near the coast castward; occasional or local elsewhere. May; fruit Aug.— Oct., and sparingly persistent through the winter.

The rhizome and roots are of some value medicinally and were formerly officinal.

BERBERIS L. Barberry.

Berberis vulgaris L. (common).

Common Barberry. European Barberry. Pepperidge Bush. Roadsides, fence-rows and pastures. Frequent or locally common southward, especially near the coast; occasional elsewhere. May—June; fruit Sept.—Oct., partly persistent through the winter. Naturalized from Europe.

The acid fruit is used to make a refreshing drink and for preserving. The bark has medicinal properties and has acquired local reputation as a spring medicine. Its beauty and other desirable qualities make it worthy of cultivation, especially as a hedge-plant.

LAURACEAE. LAUREL FAMILY.

SASSAFRAS Nees.

Sassafras variifolium (Salisb.) Kuntze (various-leaved).

Sassafras officinale Nees & Eberm.

Sassafras Sassafras Karst.

Sassafras. Saxifrax. Cinnamon-wood. Ague Tree.

Frequent. Dry or moist woods, thickets and fence-rows, and on rocky hillsides. May — mid-June; fruit Sept.

The wood is aromatic, rather soft and brittle, but durable in contact with the soil. The root-bark is medicinal and is used as an ingredient of root beer. It furnishes a volatile oil of agreeable odor and taste, used for flavoring candy, soap,

etc., and as an ingredient of liniments. The bark of the root, the pith and the volatile oil are officinal. The leaves are sometimes chewed to allay thirst.

BENZOIN Fabric. Wild Allspice. Fever Bush.

Benzoin aestivale (L.) Nees (of summer).

Lindera Benzoin Blume.

Benzoin Benzoin Coulter.

Spice, Benjamin or Fever Bush. Wild Allspice. Spice-wood. Snapwood.

Common. Wet woods and thickets. Mid-April — mid-May; fruit Sept.— Oct.

The fragrant bark and the berries are occasionally used medicinally.

PAPAVERACEAE. POPPY FAMILY.

ESCHSCHOLTZIA Cham.

Eschscholtzia californica Cham.

California Poppy.

Rare. Fairfield, a waif in waste ground (Eames). July. Fugitive from the Pacific Coast.

SANGUINARIA L. Bloodroot.

Sanguinaria canadensis L.

Bloodroot, Red or White Puccoon, Red Indian Paint, Red-root,

Rich woods and shaded places, especially in rocky situations. Rare or local near the coast; local, frequent or common elsewhere. April — mid-May.

Flowers sometimes pink. The rootstock is employed in medicine and is officinal.

CHELIDONIUM L. Celandine.

Chelidonium majus L. (greater).

Celandine. Swallow-wort. Tetter-wort. Kill-wart.

Occasional or frequent. Fence-rows, roadsides, crevices of walls and rocky places and waste ground about dwellings, especially in shade. May — June. Naturalized from Europe.

The plant is actively poisonous to stock; is also medicinal, until recently officinal.

PAPAVER L. Poppy.

Papaver somniferum L. (sleep-bringing).

Garden or Opium Poppy. Common Poppy.

Rare. Waste ground as an escape from cultivation: Bridgeport (Eames). July. Adventive from the Old World. Medicinal and extensively cultivated in the East as the source of opium.

Papaver Rhoeas L. (classical name for this species).

Red, Field or Corn Poppy. Corn, Canker or African Rose. Headache.

Rare. Grassland, grain fields and roadsides: Southington (Andrews, Bissell), Stratford (Miss A. E. Carpenter, Eames), Fairfield (Eames). June — mid-July. Fugitive from Europe. The "Shirley," one of the handsomest of poppies in cultivation, is a form of this species. Known to be poisonous to

Papaver dubium L. (doubtful).

stock.

Field or Smooth-fruited Poppy.

Rare. Waste ground: Fairfield (Eames), Westport (R. Thaxter, Miss A. E. Carpenter). May. Adventive from Europe.

ARGEMONE L. Prickly Poppy.

Argemone alba Lestib. (white).

White Prickly Poppy.

Rare. East Lyme, one plant in newly seeded grassland (Miss A. M. Ryon). June—July. Fugitive from the southwest.

Argemone mexicana L.

Mexican or Prickly Poppy. Flowering or Yellow Thistle. Devil's Fig. Bird-in-the-Bush.

Rare. Roadside in New Haven (D. C. Eaton). July — Aug. Fugitive from tropical America.

FUMARIACEAE. FUMITORY FAMILY.

ADLUMIA Raf. Climbing Fumitory.

Adlumia fungosa (Ait.) Greene (spongy).

Adlumia cirrhosa Raf.

Mountain or Wood Fringe. Alleghany or Canary Vine. Fairy Creeper.

Rocky hillsides, especially in shaded places or in woods. Rare in the eastern half of the state and near the coast westward: Waterford (Graves), Guilford (G. H. Bartlett), New Haven (J. A. Allen), Weston (Miss E. L. Smith). Local or occasional northward in the western half of our area. July—Sept.

A highly ornamental plant and occasionally cultivated.

DICENTRA Bernh.

Dicentra Cucullaria (L.) Bernh. (hood-like).

Bicuculla Cucullaria Millsp.

Dutchman's, Kitten or Little-boy's Breeches. White Eardrops or Hearts. Soldier's Cap. Boys-and-Girls.

Rocky woods in rich soil. Rare in the southeastern part of the state: Franklin (Graves). Local, occasional or frequent elsewhere. April — mid-May.

Dicentra canadensis (Goldie) Walp.

Bicuculla canadensis Millsp.

Squirrel or Turkey Corn. Girls-and-Boys.

Rare or local. Moist rich soil of woodland hillsides among rocks: Bozrah (Mrs. E. E. Rogers), Plainville (J. N. Bishop), Torrington (Bissell). April — mid-May.

The tubers are medicinal.

CORYDALIS Medic.

Corydalis sempervirens (L.) Pers. (evergreen).

Corydalis glauca Pursh.

Capnoides sempervirens Borkh.

Pale or Pink Corydalis.

Occasional. Thin soil and crevices of dry exposed ledges, and in recent clearings. Mid-May — Oct.

FUMARIA L. Fumitory.

Fumaria officinalis L. (of the shops).

Common or Hedge Fumitory. Modesty.

Rare. Escaped from cultivation to waste places, roadsides and about old gardens: New Haven (D. C. Eaton), Southington (Andrews), Waterbury (A. E. Blewitt), Oxford (Harger), Fairfield and Newtown (Eames), Stamford (W. H. Hoyt), Mid-May — Sept. Adventive from Europe. Formerly, and rarely even now, cultivated for its reputed medicinal properties.

CRUCIFERAE. MUSTARD FAMILY.

DRABA L.

Draba verna L. (of spring; vernal).

Whitlow or Vernal Whitlow Grass. Shad-flower.

Dry roadsides, fields and cultivated ground. Rare in northern districts: East Hartford (J. O. Goodwin), Hartford (A. W. Driggs). Occasional throughout the southern part of the state. April — May. Naturalized from Europe.

Formerly possessed some reputation for the cure of whitlow.

Draba caroliniana Walt.

Whitlow Grass.

Rare. Dry sterile soil: Montville and Norwich (W. A. Setchell), Waterford (Graves), East Haven (E. B. Wilson), Oxford (Harger), Kent (H. Mosher). Mid-April — May.

BERTEROA DC.

Berteroa incana (L.) DC. (hoary).

Hoary Alyssum.

Rare or local. Waste places and fields: Norwich (Mrs. E. E. Rogers), Putnam (Harger), Guilford (G. H. Bartlett), East Windsor (Bissell), Plainville (J. N. Bishop). Southington (Andrews, Bissell), Naugatuck (A. E. Blewitt). Bridgeport and Westport (Eames), Wilton (Miss A. E. Carpenter). June — Aug. Adventive from Europe.

LOBULARIA Desv. Sweet Alyssum.

Lobularia maritima (L.) Desv. (of the seaside).

Alyssum maritimum Lam.

Koniga maritima R. Br.

Sweet Alyssum. Sweet Allison. Madwort. Snowdrift.

Rare. Escaped from cultivation to roadsides and waste places: East Hartford (Weatherby), Southington (Andrews), Bridgeport (Eames). July — Nov. Fugitive from Europe.

ALYSSUM L.

Alyssum alyssoides L. (like Alyssum).

Alyssum calycinum L.

Small Alyssum.

Rare. Roadsides and wastes in dry ground: Branford (T. M. Prudden), East Haven (Eames), New Haven (Harger), Southington (Andrews, Bissell). May—June. Fugitive or adventive from Europe.

Alyssum saxatile L. (growing among rocks).

Golden-tuft.

Rare. Griswold, escaped from a garden to field (E. F. Burleson). June—July. Native of Europe.

THLASPI L. Penny Cress.

Thlaspi arvense L. (of cultivated land).

Field Penny or Bastard Cress. Dish, Treacle or Mithridate Mustard.

Rare. Waste places: Norwich (Mrs. E. E. Rogers), East Hartford (Weatherby), Southington and Plainville (Bissell), Waterbury (J. M. Richardson, A. E. Blewitt), Naugatuck (A. E. Blewitt), Bridgeport (J. Otis), New Milford (E. H. Austin). May—June. Fugitive or adventive from Europe.

LEPIDIUM L. Peppergrass. Pepperwort.

Lepidium virginicum L.

Wild Peppergrass. Bird's Pepper. Tongue Grass.

Common. Dry roadsides, fields and waste grounds. June — Sept.

Lepidium apetalum Willd. (without petals).

Lepidium intermedium of Gray's Manual, ed. 6.

Bird's Pepper. Tongue Grass. Wild Peppergrass.

Frequent or common. Fields and roadsides. June — Aug. Naturalized from Europe or the West.

Lepidium ruderale L. (growing among rubbish).

Roadside Peppergrass.

Rare. Bridgeport, in waste ground (Eames). June. Fugitive from Europe.

Lepidium sativum L. (sown).

Garden Cress. Garden or Golden Peppergrass. Poor Man's Pepper.

Rare. Southington, about an old garden (Andrews); Salisbury, in a poultry yard and probably introduced with grain (A. V. Osmun). June—July. Fugitive from Europe. Sometimes cultivated as a salad plant.

Lepidium campestre (L.) R. Br. (of fields).

Field, Bastard or Cow Cress. Mithridate Mustard. Poor Man's Pepper.

Rare or occasional. Cultivated fields, sandy roadsides and waste places. June. Adventive from Europe.

IBERIS L.

Iberis amara L. (bitter).

Candytuft. Bitter or Annual Candytuft. Clown's Mustard.

Rare. Escaped from cultivation to waste places: Southington (Andrews), Bridgeport (Eames). July — Aug. Fugitive from Europe.

CAPSELLA Medic. Shepherd's Purse.

Capsella Bursa-pastoris (L.) Medic. (shepherd's pouch).

Bursa Bursa-pastoris Britton.

Shepherd's Purse or Sprouts. Mother's Heart. Witches' Pouches.

Common. Cultivated ground, fields, roadsides and waste places. April — Oct. Naturalized from Europe.

Valued as a pot-herb because of its earliness. A bad weed in cultivated ground. Medicinal.

CAMELINA Crantz. False Flax.

Camelina sativa (L.) Crantz (sown).

False or Dutch Flax. Gold-of-Pleasure. Cheat. Myagrum. Rare. Oxford, in grain fields (Harger). June—July. Fugitive from Europe.

This, like the following species, was formerly frequent among flax, of which it was believed to be a transmuted or degenerate form.

Camelina microcarpa Andrz. (small-fruited).

Camelina silvestris Wallr.

False or Dutch Flax. Gold-of-Pleasure. Cheat. Myagrum. Rare. Roadsides, grassland and grain fields: New London (Graves). Southington (Andrews), Waterbury and Naugatuck (A. E. Blewitt), Oxford (Harger), Fairfield (Eames), Litchfield (Miss E. H. Thompson, Bissell). May — July. Fugitive from Europe.

NESLIA Desv. Ball Mustard.

Neslia paniculata (L.) Desv. (panicled).

Ball Mustard.

Rare. Waste ground: Bridgeport (Eames), Litchfield (Miss E. H. Thompson). June — July. Fugitive from Europe.

CAKILE Ludwig. Sea Rocket.

Cakile edentula (Bigel.) Hook. (toothless).

Cakile americana Nutt.

American Sea Rocket. Sea Cole or Rocket.

Frequent or common on the shores of the Sound and of tidal rivers and creeks. Mid-June — Oct.

RAPHANUS L. Radish.

Raphanus Raphanistrum L.

Wild Radish, Jointed or White Charlock or Chadlock. Charlock. Chadlock.

Occasional, frequent or common. Cultivated ground and waste places. June — Oct. Naturalized from Europe. Sometimes very troublesome as a weed.

Raphanus sativus L. (sown).

Radish. Garden Radish.

Rare. Cultivated or waste ground: Southington (Bissell, Andrews), Bridgeport and Fairfield (Eames). June — Oct. Fugitive from Europe.

BRASSICA L. Mustard. Turnip.

Brassica alba (L.) Boiss. (white).

Sinapis alba L.

White Mustard.

Rare or local. Waste places: Waterbury (A. E. Blewitt), Bridgeport, in several places and plentiful in one field (I. F. Moore, Eames). June — mid-Aug. Adventive from Europe.

The seeds are well known as a condiment and rubefacient, and are sometimes used to preserve cider in a sweet condition. Has been cultivated for at least 2000 years.

Brassica arvensis (L.) Kuntze (of cultivated ground).

Brassica Sinapistrum Boiss.

Charlock. Chadlock. Cadlock. Kedlock. Kerlock. Wild, Corn or Bastard Mustard. Field or Corn Kale.

Occasional or frequent. Waste or cultivated ground. June—July. Naturalized from Europe.

Sometimes a bad weed.

Brassica juncea (L.) Cosson (like Juncus, the Rush).

Cultivated fields and waste places. Frequent in the vicinity of the coast; occasional, local or rare elsewhere. June — Oct. Naturalized from Asia.

The seeds are used like those of White and Black Mustard, and the young leaves for greens. A bad weed in grain fields where it occurs.

Brassica japonica Siebold.

Curled or Pot-herb Mustard. California Peppergrass.,

Rare. Escaped from cultivation in garden soil at Southington (Andrews). June — Sept. Fugitive from Asia.

The soft, thin leaves make excellent "greens."

Brassica nigra (L.) Koch (black).

Black Mustard. Cadlock. Kedlock. Kerlock.

Occasional or frequent. Waste ground and roadsides. June — Sept. Naturalized from Europe.

The young plants are sometimes used as a pot-herb. The seeds are well known as a condiment and rubefacient and are officinal.

Brassica campestris L. (of fields).

Rutabaga.

Occasional. Cultivated ground and waste places. Mid-May—July. Adventive from Europe.

Sometimes a bad weed. Extensively cultivated for its roots.

Brassica Napus L. (classical name).

Rape.

Rare. Fields and waste ground. June —July. Fugitive from Europe.

Sometimes sown for forage.

Brassica Rapa L. (classical name).

Turnip.

Occasional. Waste places and cultivated ground. June — July. Fugitive from Europe.

Extensively cultivated as a vegetable.

Brassica oleracea L. (suitable for a pot-herb).

Cabbage.

Rare. Cultivated or waste ground as an escape from cultivation. June. Fugitive from Europe.

Well known as a vegetable.

DIPLOTAXIS DC.

Diplotaxis muralis (L.) DC. (of walls).

Sand Rocket or Mustard.

Rare. Cultivated or waste ground: Southington (Andrews & Bissell), Oxford (Harger), Stamford (W. H. Hoyt). June — Sept. Fugitive from Europe.

Diplotaxis tenuifolia (L.) DC. (slender-leaved).

Wall Rocket or Mustard.

Local. Plentiful in a sandy waste in Bridgeport (Eames), and about chalk piles in Stamford (W. H. Hoyt). July — Sept. Naturalized from Europe.

CONRINGIA Adans. Hare's-ear Mustard.

Conringia orientalis (L.) Dumort. (of the Orient).

Hare's-ear.

Rare. Waste places: Fairfield (Eames), New Milford (E. H. Austin). June. Fugitive from the Northwest or from Europe.

ALLIARIA Adans. Garlic Mustard.

Alliaria officinalis Andrz. (of the shops).

Alliaria Alliaria Britton.

Sisymbrium Alliaria Scop.

Hedge Garlic.

Rare. Waste ground: Chester (Mrs. S. I. Smith), Naugatuck (A. E. Blewitt), Westport (Harger). May —June. Fugitive from Europe.

SISYMBRIUM L. Hedge Mustard.

Sisymbrium officinale (L.) Scop. (of the shops).

Bank Cress.

Local. Fairfield, where it is plentiful in one locality in waste ground (Eames). Mid-May — Oct. Adventive from Europe.

Sisymbrium officinale (L.) Scop., var. leiocarpum DC. (smooth-fruited).

Sisymbrium officinale of Manuals.

Bank Cress.

Common. Fields, roadsides and waste places. Mid-May — Oct. Naturalized from Europe.

Sisymbrium Loeselii L.

Rare. In mill waste at Naugatuck (B. B. Bristol), New Milford (Harger & Blewitt). July. Adventive from Europe.

Sisymbrium altissimum L. (tallest).

Tumble Mustard.

Rare or occasional. Waste places about roadsides and along railroads. June — Aug. Adventive from Europe or the West.

Sisymbrium canescens Nutt. (growing hoary).

Sophia pinnata Howell.

Tansy Mustard. Hoary Hedge Mustard.

Rare. Waste ground: Clinton (J. H. Sperry, 1884). May. Fugitive from the South.

Sisymbrium Sophia L.

Sophia Sophia Britton.

Flixweed. Herb Sophia.

Rare. Naugatuck, in waste ground (A. E. Blewitt). June —Aug. Fugitive from Europe.

Sisymbrium Thalianum (L.) J. Gay.

Stenophragma Thaliana Čelak.

Thale, Mouse-ear or Wall Cress.

Rocky banks, ledges and dry or sandy fields. Rare at Norwich (Mrs. E. E. Rogers), and at East Haven (Harger); frequent along the Housatonic River at Oxford (Harger), and occasional near the coast throughout the southwestern part of the state. Mid-April—June. Naturalized from Europe.

HESPERIS L. Rocket.

Hesperis matronalis L. (suitable to a matron).

Dame's or Sweet Rocket. Damask or Dame's Violet. Summer Lilac.

Rare. Escaped from gardens to roadsides and waste places. Mid-May —July. Adventive from Europe.

ERYSIMUM L. Treacle Mustard.

Erysimum cheiranthoides L. (like Cheiranthus, the Wallflower).

Wormseed or Treacle Mustard.

Rare or local. Cultivated and waste ground or rocky woods: Southington (Andrews), East Hartford (C. C. Hanmer), Waterbury (Mrs. C. H. Lyman, Jr.), Salisbury (Mrs. C. S. Phelps). June—July. Fugitive from Europe or farther west, except at Salisbury where it seems native.

RADICULA Hill. Water Cress.

Radicula Nasturtium-aquaticum (L.) Britten & Rendle (classical name).

Nasturtium officinale R.Br.

Roripa Nasturtium Rusby.

Water Cress. True Water Cress. Crashes. Brooklime.

In springs, ditches and along streams. Local and in all degrees of abundance but in general rare eastward and frequent westward. Late May — Oct. Naturalized from Europe.

Introduced as a salad plant and worthy of propagation for family use. Flowers rarely purple.

Radicula sylvestris (L.) Druce (of woods).

Nasturtium sylvestre R.Br.

Roripa sylvestris Bess.

Yellow Cress. Yellow Water Cress. Creeping Yellow Cress. Local and rare to frequent or locally common. Moist ground along rivers, and in fields, roadsides and waste places; especially common in the upper Connecticut Valley. May—July, even Oct. Naturalized from Europe.

Radicula palustris (L.) Moench (of marshes).

Nasturtium palustre DC.

Roripa palustris Bess.

Yellow Cress. Marsh Cress.

Occasional, rare or local. Wet meadows, cultivated or waste ground, ditches and banks of streams. June — Sept.

Radicula palustris (L.) Moench, var. hispida (Desv.) Robinson (rough-hairy).

Nasturtium palustre DC., var. hispidum Gray.

Roripa hispida Britton.

Hairy Yellow Cress.

Occasional or frequent. Borders of streams and ponds, in ditches and wet places. June — Aug.

Radicula Armoracia (L.) Robinson (classical name for this species).

Nasturtium Armoracia Fries.

Roripa Armoracia Hitchc.

Horseradish.

Occasional throughout as an escape from gardens. Wet fields, waste places, roadsides and ditches. Mid-May —June. Naturalized from Europe.

Roots the source of a valued condiment.

BARBAREA R. Br. Winter Cress.

Barbarea vulgaris R. Br. (common).

Barbarea Barbarea MacM.

Common Winter, Bitter, Yellow, or Rocket Cress. Yellow Rocket. Meadows, waste places and along streams, usually in moist soil. Frequent or common except in the southeastern part of the state where it is rare. May —June. Naturalized from Europe.

Sometimes used as a salad plant.

Barbarea stricta Andrz. (straight and upright).

Barbarea vulgaris R.Br., var. stricta Gray.

Winter Cress.

Occasional or frequent. Roadsides, waste places, fields and along streams. May —June.

Barbarea verna (Mill.) Asch. (of spring).

Barbarea praecox Sm.

Early Winter or Belle Isle Cress. Scurvy Grass.

Rare. Cultivated fields, waste places and roadsides: Waterford (Graves), New Haven and Oxford (Harger), Milford, Stratford, Bridgeport and Fairfield (Eames). May — mid-June. Adventive from Europe.

IODANTHUS Torr. & Gray.

Iodanthus pinnatifidus (Michx.) Steud. (feather-cleft).

Thelypodium pinnatifidum Wats.

Purple Rocket.

Rare. Middletown, border of pond (M. Hitchcock, 1879). June. Fugitive from the West.

LUNARIA L. Moonwort.

Lunaria annua L. (annual).

Honesty. Satin-flower. Moonwort. Money-plant.

Rare. Westport, at Green's Farms, in a dooryard but apparently self-sown (C. L. Pollard). Aug. Fugitive from Europe.

Sometimes cultivated for winter bouquets.

DENTARIA L. Toothwort. Pepper-root.

Dentaria diphylla Michx. (two-leaved).

Pepper-root. Crinkle-root. Tooth-root. Toothwort.

Rich, moist, wet or springy woods, banks and more open

places. Occasional or local except near the coast in the south-eastern part of the state where it has not been reported. Late April — late May.

The fresh rootstocks are sometimes eaten as a relish.

Dentaria maxima Nutt. (greatest).

Large Pepper-root or Toothwort.

Rare. Windsor, plentiful in rich soil on banks and alluvial bottoms beside a woodland stream (Eames). Late April — mid-May.

Dentaria incisifolia Eames (cut-leaved).

Dentaria incisa Eames, not Small.

Rare. Rich, damp, hillside woods near the Housatonic River in Sherman (E. H. Austin & Eames). Late April—mid-May.

Dentaria laciniata Muhl. (slashed).

Cut-leaved Pepper-root or Toothwort.

Rare or local. Moist to rather dry soil of rich woods and more or less shaded banks, throughout, but especially rare in the southeastern part of the state: Norwich (Mrs. E. E. Rogers), Old Lyme (Bissell). Mid-April—early May.

Dentaria anomala Eames (anomalous).

Rare. Moist, rich woods and banks: Plainville (Bissell), Orange (Harger). Late April — early May.

This species occurs at stations where *Dentaria diphylla* and *Dentaria laciniata* grow together, and is possibly a hybrid.

CARDAMINE L. Bitter Cress.

Cardamine bulbosa (Schreb.) BSP. (bulbous).

Cardamine rhomboidea DC.

Spring or Bitter Cress.

Wet woods and meadows. Rare near the coast in the southeastern part of the state; occasional elsewhere. Mid-May — mid-June.

Cardamine Douglassii (Torr.) Britton.

Cardamine rhomboidea DC., var. purpurea Torr.

Cardamine purpurea Britton.

Cardamine bulbosa BSP., var. purpurea BSP.

Spring or Purple Cress.

Springy places and swamps in woods or shaded situations. Rare at Newtown (I. P. Blackman, J. Pettibone); locally plentiful in New Milford, Sherman and Kent (E. H. Austin & Eames); many plants at one locality in North Canaan (Bissell). Late March—early May.

Cardamine pratensis L. (of meadows).

Cuckoo Flower. Ladies' Smock.

Rare. Bristol, about a garden but formerly plentiful in a meadow (W. A. Terry), Litchfield, in a lawn (Miss E. H. Thompson), Norfolk (Miss M. C. Seymour), Salisbury, margin of a lake and small stream (Mrs. C. S. Phelps). May. At least in part adventive from farther north.

Cardamine parviflora L. (small-flowered).

Cardamine hirsuta L., var. sylvatica of some American authors.

Cardamine arenicola Britton.

Small Bitter Cress.

Occasional or local. Ledges, woods or open situations in barren or sterile ground. Mid-April —June.

Cardamine pennsylvanica Muhl.

Cardamine hirsuta of Gray's Manual ed. 6 in great part.

Bitter Cress. Brook, Land or Lamb's Cress.

Frequent. About springs, along brooks and in wet shaded places. May—June.

Sometimes used as a salad plant and to some extent gathered for market.

ARABIS L. Rock Cress.

Arabis lyrata L. (lyre-shaped).

Low Rock Cress. Wall Cress.

Rocks, ledges, banks and sandy places, in dry ground. Occasional in most districts but not reported from the southeastern part of the state. May—June.

Arabis glabra (L.) Bernh. (smooth).

Arabis perfoliata Lam.

Tower Mustard or Cress.

Rare. Fields and meadows: Norwich (W. A. Setchell), Windsor (A. W. Driggs), Farmington (Andrews & Bissell, Weatherby), Southbury and New Milford (Harger), Bridgeport (Eames). June.

Arabis Drummondi Gray.

Arabis confinis Wats., in great part.

Rare. Dry wooded hillsides: Montville, Franklin, Ledyard and Old Lyme (Graves), Lisbon (Harger), Branford (A. L. Winton), West Hartford and Bloomfield (A. W. Driggs), Canaan (C. K. Averill). May—July.

Arabis hirsuta (L.) Scop. (hairy).

Hairy Rock Cress. Wall Cress.

Rare. Rocky open woods and sandy ground: Old Lyme (Graves), Bolton (A. W. Driggs), Oxford (Harger), Canaan (C. K. Averill), Salisbury (Mrs. C. S. Phelps). Mid-May—early June.

Arabis laevigata (Muhl.) Poir. (smoothed).

Smooth Rock Cress. Wall Cress.

Rocky woods and more open places. Rare in the southeastern part of the state: Norwich (Mrs. E. E. Rogers), Franklin (Graves). Occasional or frequent elsewhere. Mid-April — May.

Arabis canadensis L.

Sickle-pod. Turkey-pod.

Occasional. Dry, rich, rocky and rather open woods. June — Aug.

CAPPARIDACEAE. CAPER FAMILY.

POLANISIA Raf.

Polanisia graveolens Raf. (strong-smelling).

False Mustard. Clammy-weed.

Rare. Gravelly and sandy shores of the Hockanum River at East Hartford (Weatherby), and of the Connecticut River at Hartford (A. W. Driggs). July — Aug.

Polanisia trachysperma Torr. & Gray (rough-seeded).

Rare, Alluvial soil, Glastonbury (Mrs. F. W. Starmer),

gravelly and sandy margin of brook, Salisbury (Mrs. C. S. Phelps & Weatherby), Sharon (H. S. Clark). Aug.—Sept. Probably introduced from the West.

CLEOME L.

Cleome spinosa L. (prickly).

Spider-flower. Prickly Cleome.

Rare. Escaped from cultivation to waste grounds: Bridgeport and Fairfield (Eames), Norwalk (G. P. Ells). July—Sept. Fugitive from tropical America.

RESEDACEAE. MIGNONETTE FAMILY.

RESEDA L. Mignonette. Dyer's Rocket.

Reseda Luteola L. (yellowish).

Dyer's Weed, Weld, or Rocket. Yellow-weed.

Rare. Roadsides and waste places: Guilford (W. R. Dudley), New Haven (O. Harger), Monroe (H. C. Beardslee). June —July. Fugitive from Europe.

Reseda lutea L. (yellow).

Crambling Rocket.

Rare. Roadsides, fields and waste places: Preston (E. F. Burleson), East Windsor (Bissell), Bridgeport (Eames), North Canaan (M. B. Toby, Bissell), Salisbury (Mrs. C. S. Phelps, A. V. Osmun). May—June. Adventive from Europe.

Reseda odorata L. (fragrant).

Common or Garden Mignonette.

Rare. Waste ground in Southington (Andrews), and Fairfield (Eames). July—Aug. Fugitive from North Africa.

Reseda alba L. (white).

White or Upright Mignonette.

Rare. Escaped from cultivation to waste ground in Waterbury (A. E. Blewitt), and Bridgeport (Eames). July — Sept. Fugitive from Europe.

SARRACENIACEAE. PITCHER-PLANT FAMILY. SARRACENIA L.

Sarracenia purpurea L. (purple).

Side-saddle Flower. Pitcher-plant. Huntsman's, Adam's, Indian or Water Cup. Indian Pitcher. Dumb Watches. Occasional, local or frequent. Sphagnum bogs or sometimes in wet meadows. Late May—June.

The root and leaves are medicinal.

DROSERACEAE. SUNDEW FAMILY.

DROSERA L. Sundew.

Drosera rotundifolia L. (round-leaved).

Round-leaved Sundew. Dew-plant.

Occasional or frequent. Bogs, wet meadows and sandy swamps, especially in sphagnum. July — mid-Aug.

The plant is medicinal.

Drosera longifolia L. (long-leaved).

Drosera intermedia Havne.

Drosera intermedia Havne, var. americana DC.

Long-leaved Sundew. Dew-plant.

Rare, local or occasional. Sphagnum bogs and swamps. Late $\operatorname{June} \operatorname{---Aug}$

PODOSTEMACEAE. RIVER WEED FAMILY.

PODOSTEMUM Michx. River Weed.

Podostemum ceratophyllum Michx. (horny-leaved).

River Weed. Thread-foot.

On rocks, stones and gravel in shallow running water. Rare in most districts: Shetucket River in Sprague and Franklin (Graves), Killingworth (F. W. Hall), Hartford (D. C. Eaton), Windsor (Harger). Occasional in Oxford (Harger), Newtown (Eames), and throughout the southwestern part of the state. Mid-June—Aug.; fruit July—Sept.

CRASSULACEAE. ORPINE FAMILY.

PENTHORUM L. Ditch Stonecrop.

Penthorum sedoides L. (like Sedum, the Stonecrop).

Ditch or Virginia Stonecrop.

Frequent. Ditches, wet places and on muddy shores. July — Aug.

The plant is medicinal.

TILLAEA L.

Tillaea aquatica L. (aquatic).

Tillaea simplex Nutt.

Pygmy Weed.

Rare or local. On tidal mud of rivers and creeks: New Haven, plentiful about the upper reaches of tidewater in Mill River, and Milford, sparingly along Beaver Creek (Eames). Mid-June —July.

SEDUM L. Stonecrop. Orpine.

Sedum acre L. (acrid or biting).

Mossy or Biting Stonecrop. Golden Moss or Chain.

Local. Escaped from cultivation to roadsides, banks, rocky places and walls in all quarters of the state and plentiful at some stations. Mid-June—July. Naturalized from Europe.

Sedum ternatum Michx. (in threes; referring to the arrangement of the leaves).

Wild Stonecrop.

Rare. Escaped from gardens to roadsides and waste places: Guilford (W. H. Rowland), East Haddam (Weatherby), Windsor (Bissell), Cheshire and Oxford (Harger), Norfolk (Miss M. C. Seymour), Kent and New Milford (Eames & E. H. Austin), Milford (Eames), Stamford (W. H. Hoyt). May. At least in part adventive from the South.

Sedum triphyllum (Haw.) S. F. Gray (three-leaved).

Sedum purpureum Gray's Manual ed. 7.

Sedum Telephium Gray's Manual ed. 6, not L.

Orpine. Garden Orpine. Live-forever. Live-long. Aaron's Rod. Bag-leaves. Witches' Money-bags. Life-of-Man.

Frequent. Dry or moist roadsides, fields, thickets and about old dwellings. Aug.—Sept. Naturalized from Europe. Rarely seen in flower.

SEMPERVIVUM L. Houseleek.

Sempervivum tectorum L. (of dwellings).

Houseleek. Hen-and-chickens.

Rare. Milford, long persistent and spreading from former cultivation (Eames). July—Aug. Introduced from Europe.

SAXIFRAGACEAE. SAXIFRAGE FAMILY.

SAXIFRAGA L. Saxifrage.

Saxifraga pennsylvanica L.

Swamp Saxifrage.

Swamps and wet meadows. Rare near the coast, occasional or frequent elsewhere. May—June.

The form with crimson petals has been collected at New Milford by Miss S. R. Armington.

Saxifraga virginiensis Michx.

Saxifrage. Early or Spring Saxifrage. Mayflower.

Frequent or common. Ledges, banks and in rocky woods. April — early June.

A form with double flowers occurs at Kent (H. Mosher).

TIARELLA L. False Miterwort.

Tiarella cordifolia L. (having heart-shaped leaves).

Foam-flower. False Miterwort. Coolwort.

Rich, wet and often rocky woods. Rare or local in most districts: North Branford (F. W. Hall), New Haven (D. C. Eaton), Bridgeport (Eames), Torrington (Mrs. C. S. Phelps), Kent (C. K. Averill). Frequent in Granby and northern Litchfield County. May — mid-June.

A beautiful plant well worthy of cultivation. Herb medicinal.

HEUCHERA L. Alum Root.

Heuchera americana L.

Common Alum Root. American Sanicle.

Woods, banks and fence-rows. Occasional in the Housatonic Valley in Litchfield County, and frequent or locally common in the southwestern part of the state, extending eastward as far as New Haven (D. C. Eaton), Hamden (J. S. Smith), Plainville (J. N. Bishop). Late May—early July.

The roots are very astringent and are of value medicinally.

MITELLA L. Miterwort. Bishop's Cap.

Mitella diphylla L. (two-leaved).

Miterwort. Bishop's Cap. Fringe or Fairy Cup.

Moist woods and shaded banks. Frequent or locally common northward in the western part of the state; rare in northeastern Connecticut and near the coast westward; not reported from New London County. Late April — May.

A good plant for cultivation in rocky shaded places.

Mitella prostrata Michx. (prostrate).

Rare. Moist rich woods: New Milford, one plant only (C. K. Averill & E. H. Austin). Late April — May.

Very little is known of Mitella prostrata. As this plant was found growing where Mitella diphylla is plentiful, it is probable that the specimen represents an aberrant form of that species, even though it is a good match for the type specimen of Mitella prostrata.

Mitella nuda L. (naked).

Rare. Wet mossy woods: Litchfield (W. Buell), Winchester and Salisbury, several localities (Mrs. C. S. Phelps). May—June.

CHRYSOSPLENIUM L. Golden Saxifrage.

Chrysosplenium americanum Schwein.

Water Carpet. Golden Saxifrage.

Frequent or common. Wet or swampy woods, springs and rills. Mid-March —June.

PARNASSIA L. Grass of Parnassus.

Parnassia caroliniana Michx.

Grass of Parnassus.

Bogs and wet meadows. Frequent or locally common ex-

cept in the southwestern part of the state, but not reported near the coast west of New Haven. Aug.— Sept.

Worthy of cultivation and may be grown in any sunny or partly shaded moist or wet situation. The plant is medicinal.

PHILADELPHUS L. Mock Orange. Syringa.

Philadelphus inodorus L. (without fragrance).

Large-flowered Syringa.

Rare. Escaped about an old nursery at Wethersfield (H. S. Clark & Bissell). June. Fugitive from the South.

Philadelphus coronarius L. (pertaining to a crown).

Syringa. Mock Orange. Orange-flower Tree.

Rare. Escaped from cultivation to roadsides and waste places: Bridgeport and Westport (Eames). June. Native of Europe.

Philadelphus pubescens Loisel. (downy).

Syringa.

Rare. Escaped from cultivation to pasture at Wethersfield (H. S. Clark & Bissell). Junc. Adventive from the South.

DEUTZIA Thunb.

Deutzia scabra Thunb. (rough).

Deutzia.

Rare. Wethersfield, escaped about an old nursery (H. S. Clark & Bissell), New London, brush lot near cemetery (Graves). June. Fugitive from Asia.

RIBES L. Currant. Gooseberry.

Ribes Cynosbati L. (classical name).

Prickly Gooseberry. Dogberry.

Rocky woods and thickets. Occasional in northern Litchfield County, extending southward as far as New Milford (Eames & E. H. Austin) and eastward to New Hartford (Bissell). It occurs also in Stafford and Tolland (A. W. Driggs). May; fruit July.

Ribes gracile Michx. (slender).

Ribes missouriense Nutt.

Missouri Gooseberry.

Rare. Roadside fence-row, Norwalk (Eames & C. C. Godfrey). May. Probably introduced from the West.

Ribes rotundifolium Michx. (round-leaved).

Wild Gooseberry.

Rare. Rocky woods: Meriden (W. H. Patton), Southington and Salisbury (Bissell). May—July.

Ribes oxyacanthoides L. (Hawthorn-like).

Northern, Smooth or Wild Gooseberry.

Occasional. Rocky woods and thickets, roadsides and swamps. May.

Parent of some forms well known in cultivation.

Ribes Grossularia L. (grossulus, a small unripe fig).

Ribes Uva-crispa L.

Garden, Common or European Gooseberry. Teaberry.

Rare. Escaped from cultivation to roadsides, fence-rows and waste places: Stonington and Groton (Graves), Old Lyme (Bissell), Southington (Andrews & Bissell), Orange, Stratford and Fairfield (Eames), New Milford (Eames & E. H. Austin). Late April — May; fruit July. Native of Europe.

Cultivated in many kitchen gardens for its fruit, which is used for tarts and jam, or in its choicer varieties for its fine flavor uncooked

Ribes americanum Mill.

Ribes floridum L'Hér.

Wild Black, Black or Flowering Currant. Quinsy-berry.

Occasional or frequent. Native in moist woods or thickets except in the southern part of the state, where it occurs as an escape from cultivation in fence-rows, roadsides and waste places. May — mid-June; fruit mid-July — Aug.

The fruit is edible but rather insipid.

Ribes nigrum L. (black).

Garden or European Black Currant.

Rare. Bethany, escaped from cultivation to waste ground (Eames). May—June. Fugitive from Europe.

Ribes lacustre (Pers.) Poir. (of lakes or ponds).

Swamp Black Currant. Swamp Gooseberry.

Rare. Meriden, at Lamentation Mt. (G. H. Cornwall,

1842), Salisbury, wet cold woods about Bingham Pond (Bissell). May—June.

Ribes prostratum L'Hér. (prostrate).

Skunk, Fetid or Mountain Currant.

Rare. Swampy woods: Colebrook (Weatherby), Norfolk (J. H. Barbour), Salisbury (Mrs. C. S. Phelps). May—June.

Ribes vulgare Lam. (common).

Ribes rubrum of Britton's Manual in part.

Garden Red or Red Currant. Wine Currant.

Occasional. Escaped from cultivation to fence-rows, road-sides and waste places throughout; also occurs in rocky woods and on borders of swamps in wild and remote places in the northern part of the state, appearing as if native in such situations, although the species is regarded as introduced in America. Late April — May; fruit mid-June — July. Naturalized from Europe.

A well known small fruit in cultivation. It is an interesting fact that in Southington the same plant is growing in the same rock crevice where it was fifty-five years ago (Andrews).

Ribes odoratum Wendland (fragrant).

Ribes aureum of authors, not Pursh.

Missouri, Buffalo, Flowering, Clove, Sweet or Golden Currant.

Rare. Escaped from cultivation to roadsides and about old houses: Montville (Graves), Scotland (G. Waldo), Oxford (Harger), Easton and Danbury (Eames), New Milford (Eames & E. H. Austin), Mid-April — May; fruit late July — Aug. Adventive from the West.

The fruit is edible. Often cultivated as an ornamental shrub.

HAMAMELIDACEAE. WITCH-HAZEL FAMILY.

HAMAMELIS L. Witch-hazel.

Hamamelis virginiana L.

Witch-hazel. Spotted, Witch or Snapping Alder.

Common. Moist or wet often rocky places. Sept.—Oct. In some situations it is a valuable shrub for late-flowering

and foliage effects. The twigs were once popular as "Divining Rods" with which crafty operators were wont to impose upon the credulous. A distilled extract of the bark is extensively used as a toilet and medicinal article and is prepared in large quantities in some parts of the state. The bark, the twigs and the leaves are medicinal and are officinal.

LIQUIDAMBAR L. Sweet Gum Tree.

Liquidambar Styraciflua L. (flowing with storax).

Sweet, Star-leaved or Red Gum. Bilsted.

Wet woods, fields and drier open places. South Norwalk (G. P. Ells, Bissell), and occasional or frequent westward near the shores of the of the Sound. May.

The wood is hard and close-grained but not strong; is inclined to warp and shrink badly. A beautiful tree in all stages of growth, free from injury by insects and much planted. Medicinal. The resinous exudation (liquidambar) is used in the preparation of chewing gum.

PLATANACEAE. PLANE TREE FAMILY.

PLATANUS L. Buttonwood. Sycamore.

Platanus occidentalis L. (western).

Buttonball. Buttonwood. Plane Tree. American or False Sycamore.

Frequent. Low grounds along streams or sometimes in drier places. May.

The wood is hard, compact and difficult to split or work: used for butcher's blocks, ox-yokes, small wares and interior finish of houses. When well grown one of our largest trees. Sometimes planted as an ornamental tree.

ROSACEAE. ROSE FAMILY.

PHYSOCARPUS Maxim. Nine-bark.

Physocarpus opulifolius (L.) Maxim. (maple-leaved).

Opulaster opulifolius Kuntze.

Nine-bark.

Rare. River shores: Norwich (Graves), Preston (W. A. Setchell, Graves). June.

SPIRAEA L.

Spiraea japonica L.f.

Local. Escaped from gardens to fields and roadsides: Norwich and Preston (Mrs. E. E. Rogers), Groton (Graves & Bissell), East Haddam (Bissell), Fairfield (Eames), Stamford (W. H. Hoyt). July. Native of eastern Asia.

Spiraea prunifolia Sieb. & Zucc. (plum-leaved).

Bridal Wreath.

Local. Roadsides as an escape from gardens: Groton, Waterford and Montville (Graves), Southington (Bissell), Milford (Eames). June—July. Native of Asia.

Spiraea chamaedryfolia L. (germander-leaved), var. ulmifolia (Scop.) Maxim. (elm-leaved).

Roadsides and waste places as an escape from cultivation. Monroe (Eames & C. C. Godfrey), Wilton (Eames & G. P. Ells), and occasional in the southeastern part of the state (Graves). Late May—June. Native of the Old World.

Spiraea latifolia (Ait.) Borkh. (broad-leaved).

Spiraea salicifolia of Manuals in part.

Meadow-sweet. Queen of the Meadow. Bridewort, Aaron's Beard.

Frequent or common. Low wet grounds, thickets and bushy hillside pastures, or sometimes in dry ground. July—Aug.

Spiraea tomentosa L. (woolly).

Hardhack. Steeple Bush. Purple Hardhack.

Frequent or common. Moist fields and thickets, old pastures, or sometimes in drier places. July — Aug.

The leaves and root are medicinal.

SORBARIA A. Br.

Sorbaria sorbifolia (L.) A. Br. (having leaves like Sorbus, the Mountain Ash).

Spiraea sorbifolia L.

Ash-leaved Spiraea.

Roadsides and waste places as an escape from cultivation. Rare in most districts: Granby and Plainville (Bissell), Oxford and Seymour (Harger). Occasional through the southern part of the state. Mid-June — mid-Aug. Native of northern Asia.

PYRUS L.

Pyrus communis L. (common).

Pear. Choke or Wild Pear.

Occasional. Roadsides, fields and pastures as an escape from cultivation. May. Native of the Old World.

Valued in cultivation for its fruit; also its wood is used for drawing implements, for tools, in imitation of ebony, and by the wood engraver.

Pyrus baccata L. (berry-bearing).

Crab Apple. Siberian Crab. Small Crab Apple.

Rare. Roadsides and river banks as an escape from cultivation: Windsor (H. S. Clark), Hampton and Hartford (Bissell), Berlin (Andrews). May. Native of the Old World.

×Pyrus prunifolia Willd. (plum-leaved).

Crab Apple. Large Crab Apple.

Rare. Roadsides and fields: Ledyard (Graves), Old Saybrook (Harger), Hartford (Bissell). May. Native of the Old World.

This species is supposed to be of hydrid origin, derived from a cross between *Pyrus baccata* and *Pyrus Malus*, and it is the parent of most of the forms in cultivation.

Pyrus Malus L. (classical name for the Apple Tree).

Malus Malus Britton.

Apple. Wild Apple.

Common. Fields, roadsides, pastures and borders of woods as an escape from cultivation. May. Native of the Old World.

Our most valued cultivated fruit. The wood is close-grained, hard and tough, and is used for tool handles, shoe-makers' lasts and by the cabinet-maker.

Pyrus arbutifolia (L.) L.f. (bearing leaves like the Arbute Tree).

Aronia arbutifolia Ell.

Chokeberry. Red Chokeberry. Dogberry.

Bogs and swamps or sometimes in dry situations. Rare or occasional in the southwestern part of the state from Huntington westward (Eames). May—early June; fruit Sept., often persisting through the winter.

Pyrus arbutifolia (L.) L.f., var. atropurpurea (Britton) Robinson (dark-purple).

Aronia atropurpurea Britton.

Chokeberry. Purple Chokeberry.

Shrubby swamps and low woods and thickets. Apparently rare in northern districts, becoming occasional or frequent near the coast. May — mid-June; fruit Sept., long persistent.

Most reports of $Pyrus \ arbutifolia$ should be referred to this variety.

Pyrus melanocarpa (Michx.) Willd. (black-fruited).

Pyrus arbutifolia L. f., var. melanocarpa Hook.

Aronia nigra Britton.

Chokeberry. Black Chokeberry.

Occasional to common. Bogs, swamps and thickets, sometimes in dry or sterile soil, even on exposed ledges at all elevations. May — early June; Fruit Aug.— Sept.

Pyrus americana (Marsh.) DC.

Sorbus americana Marsh.

American Mountain Ash. Rowan or Service Tree. Mountain Sumac. Dogberry.

Rare or local. Swamps and about ponds or sometimes on dry ledges or in rocky woods: Stafford (A. W. Driggs, Graves), Durham and Meriden (Harger), Granby (I. Holcomb), Winchester (W. M. Shepardson), Norfolk (Miss M. C. Seymour), Canaan (Bissell), Salisbury (A. W. Driggs), Kent (E. H. Austin & Eames). May—June.

The very astringent bark and berries are employed medicinally.

Pyrus Aucuparia (L.) Ehrh. (used in bird-catching).

Sorbus Aucuparia L.

European Mountain Ash. Rowan Tree.

Rare. Escaped from cultivation to open woodland in Killingly (Bissell), June. Native of Europe.

The bark and berries are employed medicinally.

CYDONIA Pers. Quince.

Cydonia vulgaris Pers. (common).

Pyrus Cydonia L.

Common Quince.

Rare. Escaped from cultivation to waste and wet places in the southwestern part of the state. May; fruit Oct. Native of Europe.

The fruit is valued for preserving. The raw fruit and mucilaginous seeds are used in domestic medicinal practice.

Cydonia japonica (Thunb.) Pers.

Japan Quince.

Rare. Escaped from cultivation to a roadside in Stratford (Eames). April. Introduced from eastern Asia.

AMELANCHIER Medic. Juneberry.

Amelanchier canadensis (L.) Medic.

Shad Bush. Service Berry. Sugar, Indian or May Pear.

Frequent. Dry or wet thickets, woods and banks. Mid-April — May; fruit June — early July.

The berries are edible but seldom found in good condition. The wood is heavy, very hard, close-grained and strong, and is sometimes used for tool handles and small implements.

Amelanchier canadensis (L.) Medic., var. tomentula Sarg. (woolly).

Amelanchier canadensis Medic., var. Botryapium Gray's Manual ed. 7.

Shad Bush.

Rare. Open or deep woods: Southington (Bissell), Colebrook (M. L. Fernald), New Milford and Keut (Eames), New Fairfield (Eames & C. C. Godfrey). Mid-April — May.

Amelanchier oblongifolia (Torr. & Gray) Roem. (oblong-leaved).

Amelanchier canadensis Medic., var. (?) oblongifolia Torr. & Gray.

Amelanchier Botryapium of Britton's Manual.

Amelanchier spicata of many authors, not K. Koch.

Shad Bush. Service Berry.

Common. Swamps, wet or dry woods, fields, sand plains

and in dry, rocky or sterile places. Late April — May; fruit June — early July.

The fruit is edible, often better than that of the previous species.

Amelanchier oblongifolia (Torr. & Gray) Roem., var. micropetala Robinson (small-petaled).

Rare. Dry plains and in sterile places: Waterford (Graves), Southington (Bissell), Oxford and Seymour (Harger). May.

CRATAEGUS L. Hawthorn. White Thorn.

This genus has received much attention from botanists in recent years and many new species have been proposed. More careful study of these may show that a part of them would more properly be regarded as varieties or hybrids than as true species.

Because of this uncertainty as to the proper treatment of some forms, in the following list the recognized species are given first in the group to which they belong. Following them will be found the names of any proposed species of uncertain status that may belong there, the names being printed in italics, instead of full-faced type.

Oxyacanthae Loud.

Crataegus monogyna Jacq. (having one pistil).

Crataegus Oxyacantha of American authors, not L.

Hawthorn. English Hawthorn. Hedge Thorn. Haw or May Tree or Bush.

Rare or local. Roadsides and old pastures. Waterford (Graves), East Hartford and West Hartford (A. W. Driggs), New Haven (Harger), Bridgeport, Fairfield and Norwalk (Eames), Stamford (W. H. Hoyt), Sharon, a great many trees over a wide area (Mrs. C. S. Phelps & Bissell). Mid-May—early June. Adventive from Europe.

Often cultivated for ornament. The berries are medicinal.

Crus-galli Loud.

Crataegus Crus-galli L. (cockspur).

Cockspur or Newcastle Thorn. Red Haw.

Pastures, roadsides and fence-rows. Occasional or fre-

quent near the coast and in the valley of the Connecticut River; rare elsewhere. Early June; fruit Oct.

The var. EXIGUA (Sarg.) Eggleston (small), *Crataegus exigua* Sarg., occurs in Stonington, Waterford, Lyme and East Haven (Graves) and in Southington (Andrews).

Punctatae Loud.

Crataegus punctata Jacq. (dotted).

Rare or local. Fence-rows and borders of woods: Canaan, North Canaan and Salisbury (Bissell). Early June; fruit late Sept.

Forms of uncertain status.

Crataegus umbratilis Sarg. (living in the shade).

Rare. Border of thickets: Litchfield (Bissell). Late May — early June; fruit late Oct.

Intricatae Sarg.

Crataegus foetida Ashe (fetid).

Crataegus Baxteri Sarg.

Local. Old pastures in moist, heavy soil: Windsor (Bissell). Late May; fruit early Oct.

Crataegus apposita Sarg. (apposite).

Crataegus intricata Sarg., not J. Lange.

Crataegus coccinea Britton, not L.

Crataegus coccinea L., var. viridis Torr. & Gray in part.

Occasional. Roadsides and pastures. Mid-May — early June; fruit late Sept.— early Oct.

Crataegus apposita Sarg., var. Bissellii (Sarg.) Eggleston.

Crataegus Bissellii Sarg.

Rare. Old pastures: Colchester (Graves), Southington (Andrews & Bissell), Trumbull (Eames). Late May; fruit late Sept.

Crataegus coccinea L. (scarlet).

Crataegus coccinea L., var. viridis Torr. & Gray in part.

Crataegus modesta Sarg.

Crataegus premora Ashe.

Crataegus intricata J. Lange.

Old pastures, fields and thickets. Rare in most districts:

Preston (Graves), Trumbull (Eames), Oxford (Harger), Southington (Andrews & Bissell). Occasional in the northern Connecticut Valley and in the northeastern part of the state. Late May—early June; fruit Oct.

Crataegus Stonei Sarg.

Rare. Old pasture at Southington (Andrews). Late May — early June; fruit Oct.

Forms of uncertain status.

Crataegus Hargeri Sarg.

Local. Fields and roadsides: Guilford (G. H. Bartlett), Southington (Andrews & Bissell), Trumbull (Eames), and frequent in Southbury, Oxford and Ansonia (Harger). Late May—early June; fruit early Oct.

Probably a form of Crataegus apposita.

Rotundifoliae Eggleston.

Crataegus rotundifolia Moench (round-leaved).

Crataegus coccinea L., var. rotundifolia Sarg.

Crataegus Gravesii Sarg.

Crataegus Dodgei Ashe.

Occasional or frequent. Roadsides, pastures and hedgerows. Late May; fruit late Sept.—early Oct.

Tenuifoliae Sarg.

Crataegus macrosperma Ashe (large-seeded).

Crataegus tenella Ashe.

Local. Moist pastures and thickets: Griswold, Franklin, Waterford and East Lyme (Graves), Stratford (Eames), Oxford (Harger). Last half of May; fruit Sept.

The var. PENTANDRA (Sarg.) Eggleston (having five stamens), Crataegus pentandra Sarg., occurs at Waterford (Graves).

The var. DEMISSA (Sarg.) Eggleston (hanging down), Crataegus demissa Sarg., is occasional throughout.

The var. MATURA (Sarg.) Eggleston (full-grown), Crataegus matura Sarg., occurs at Groton (Graves).

Crataegus Grayana Eggleston.

Crataegus flabellata Sarg., not Mespilus flabellata Bosc.

Rare. East Lyme (Graves). Late May; fruit Sept.

Forms of uncertain status.

Cratacgus dissimilis Sarg. (dissimilar).

Rare. East Lyme (Graves). Last half of May; fruit late Sept.

Crataegus Forbesae Sarg.

Occasional in the towns of New London, Lebanon and East Lyme (Graves). Late May; fruit early Oct.

Crataegus genialis Sarg. (pleasant).

Rare. Thickets: Litchfield (Bissell). Late May: fruit Sept.

Crataegus glaucophylla Sarg, (glaucous-leaved).

Rare. Fields: Griswold (Graves), North Canaan and Cornwall (Bissell). Last half of May: fruit Sept.

Crataegus monstrata Sarg. (remarkable).

Locally plentiful in moist thickets in Oxford, Middlebury, Southbury and Woodbury (Harger). Late May: fruit Sept. Crataegus Napaca Sarg. (of a wooded dell).

Rare. Thickets in Litchfield and Cornwall (Bissell). Late May; fruit late Sept.

Crataegus viridimontana Sarg. (of the Green Mountains).

Rare. Thickets: Litchfield (Bissell). Last half of May; fruit early Sept.

Pruinosae Sarg.

Crataegus pruinosa (Wendl.) K. Koch (frosted).

Rare. Oxford, moist thicket (Harger). Late May; fruit early October.

The forma DISSONA (Sarg.) Eggleston (confused), Crataegus dissona Sarg., occurs at New London, Waterford and East Lyme (Graves), East Windsor (Bissell), Oxford (Harger), Trumbull (Eames).

Crataegus pruinosa (Wendl.) K. Koch, var. latisepala (Ashe) Eggleston (broad-sepaled).

Crataegus latiscpala Ashe.

Crataegus cognata Sarg.

Frequent in the shore towns of New London County (Graves); occurs also at Windsor and Stratford (Bissell). Late May - early June; fruit Oct.

Crataegus pruinosa (Wendl.) K. Koch, var. conjuncta (Sarg.) Eggleston (connected).

Crataegus conjuncta Sarg.

Rare. Pastures: Stratford (Eames), Oxford and Ansonia (Harger). Late May; fruit Oct.

Crataegus pruinosa (Wendl.) K. Koch, var. Porteri (Britton) Eggleston.

Crataegus Porteri Britton.

Crataegus levis Sarg.

Rare or local. Old pastures: Torrington and Litchfield (Bissell). Late May; fruit early Oct.

Crataegus Jesupi Sarg.

Rare. Fence-rows and pastures: East Windsor (Bissell). Last half of May; fruit late Sept.—early Oct.

Forms of uncertain status.

Crataegus festiva Sarg. (pretty).

Rare. East Lyme (Graves). Last of May; fruit Oct.

Crataegus incisa Sarg. (cut or notched).

Rare. Stratford, in rocky pastures (Eames). Late May — early June; fruit Oct.

Crataegus littoralis Sarg. (of the sea-shore).

Rare. New London, Waterford and East Lyme (Graves).

Last half of May; fruit Oct.

Crataegus Pequotorum Sarg. (pertaining to the Pequot Indians).

Rare. Groton (Graves). Last half of May; fruit Oct. Crataegus quinchaugensis Sarg.

Rare. Griswold, at Hopeville (Graves). Late May: fruit Oct.

Coccineae Loud.

Crataegus Holmesiana Ashe.

Rare. Fields and roadsides: Milford (Eames), Litchfield (Bissell). Last half of May; fruit Sept.

Crataegus Pringlei Sarg.

Rare. Cornwall, in fields (Bissell). Mid-May; fruit Sept.

The var. LOBULATA (Sarg.) Eggleston (with small lobes), Crataegus lobulata Sarg., Crataegus cristata Ashe, occurs at Lyme (Graves & Bissell).

Crataegus pedicellata Sarg. (borne on a pedicel).

Cratacgus fretalis Sarg.

Crataegus sejuncta Sarg.

Rare or local. Fields and roadsides: Groton (Graves), Beacon Falls, Oxford and Middlebury (Harger), Litchfield and Cornwall (Bissell). Last half of May; fruit early Sept.

Crataegus polita Sarg. (polished).

Rare. East Lyme (Graves). Last half of May; fruit late Aug.—early Sept.

This and the three preceding species are well shaped trees with handsome foliage, beautiful both in flower and fruit, and are well worthy of cultivation for ornament.

Forms of uncertain status.

Crataegus Eamesii Sarg.

Rare. Dry banks: Stratford (Eames), Ansonia (Harger). Last half of May; fruit late Aug.— early Sept.

Crataegus neo-londinensis Sarg.

Occasional near the coast in Groton and East Lyme (Graves). Late May; fruit early Sept.

Molles Sarg.

Crataegus Arnoldiana Sarg.

Rare. East Lyme (Graves). Mid-May; fruit early Sept.

Anomalae Sarg.

Crataegus Brainerdi Sarg.

In its typical form not known in Connecticut. The var. SCABRIDA (Sarg.) Eggleston (rough), *Crataegus scabrida* Sarg., occurs in thickets at Litchfield (Bissell). Late May; fruit late Sept.

Macracanthae Loud.

Crataegus macracantha Lodd. (long-thorned).

Crataegus coccinea L., var. macracantha Dudley.

Rare or local. Fields and pastures: East Windsor, Litchfield and Cornwall (Bissell). Late May — early June; fruit Sept.

The var. Rhombifolia (Sarg.) Eggleston (having lozenge-shaped leaves), Crataegus rhombifolia Sarg., occurs

at Norwich and Griswold (Graves), and at Southington (Bissell, Andrews).

Forms of uncertain status.

Crataegus ferentaria Sarg. (armed).

Rare. Franklin (Graves). Last half of May; fruit early Sept.

Crataegus fulgens Sarg. (shining).

Rare. Stratford, ledges on bank of Housatonic River (Eames). Early June; fruit late Sept.—early Oct.

Crataegus pellucida Sarg. (transparent).

Rare. Litchfield, in pastures (Bissell). Late May; fruit late Sept.

Crataegus spatiosa Sarg. (spacious; ample).

Rare. Groton (Graves). Last half of May; fruit Sept. Crataegus stratfordensis Sarg.

Rare. Stratford, dry bank on the coast (Eames). Early June; fruit Sept.

FRAGARIA L. Strawberry.

Fragaria virginiana Duchesne.

Fragaria canadensis Michx. in part.

Fragaria terrae-novae Rydb.

Wild or Field Strawberry.

Common. Fields, pastures and roadsides. Late $\ensuremath{\mathsf{April}} - \ensuremath{\mathsf{May}}.$

Berries delicious. Hybrids and derivatives are common and valuable in cultivation. The leaves are medicinal.

Fragaria virginiana Duchesne, var. illinoensis (Prince) Gray. Fragaria virginiana Duchesne, var. Grayana Rydb.

Rare. Waste ground: Southington (Bissell), Oxford (Harger), Bridgeport (Eames). Apparently an escape from cultivation. Late April — May. Introduced from the West.

Fragaria vesca L. (small or weak).

European Wood Strawberry.

Rare or local. Grassy places: New London and Griswold (Graves), Hartford (Bissell), Salisbury (M. L. Fernald). May — June. In Connecticut apparently naturalized from Europe.

The var. ALBA (Ehrh.) Rydb. (white) occurs at Southington (Bissell).

Fragaria vesca L., var. americana Porter.

Fragaria americana Britton.

Wild or American Wood Strawberry.

Rocky woods. Rare near the coast: Franklin and Preston (Graves), New Haven (D. C. Eaton). Frequent northward. May —June.

DUCHESNEA Smith. Indian Strawberry.

Duchesnea indica (Andr.) Focke.

Fragaria indica Andr.

Yellow, Indian or Mock Strawberry.

Rare. Escaped from cultivation to lawns: New London (Graves), Stratford (Mrs. R. H. Russell), Fairfield (Eames). April — Sept. Adventive from India.

Often grown in hanging-baskets for its yellow flowers and handsome but insipid berries.

WALDSTEINIA Willd.

Waldsteinia fragarioides (Michx.) Tratt. (strawberry-like).

Barren, Dry or Yellow-flowered Strawberrry.

Rare. Rocky woods or thickets: Norfolk and Colebrook (H. C. Beardslee), Torrington (Miss B. A. Parker). Late April — May.

POTENTILLA L. Cinquefoil. Five-finger.

Potentilla arguta Pursh (sharp).

Drymocallis arguta Rydb.

Tall Cinquefoil.

Rare or local. Open sterile soil and on dry rocky hills. June — Aug.

Potentilla monspeliensis L.

Potentilla norvegica Gray's Manual ed. 6, not L.

Rough Cinquefoil.

Frequent. Fields, roadsides and waste places. June — Sept.

Potentilla monspeliensis L., var. norvegica (L.) Rydb.

Potentilla norvegica L.

Rare. East Granby, rocky slopes of Peak Mt. (A. W. Driggs). June —July.

Potentilla argentea L. (silvery).

Silvery or Hoary Cinquefoil.

Frequent to common. Dry, sterile or sandy open places. Mid-May — Sept.

Potentilla intermedia L. (intermediate).

Downy Cinquefoil.

Rare. Roadsides and waste ground in Glastonbury (Bissell), East Haven (Harger), Naugatuck (A. E. Blewitt). June—July. Native of Europe.

Potentilla recta L. (upright).

Potentilla sulphurea Lam.

Rare. Dry fields and wastes: Norwich (Mrs. E. E. Rogers), Southington (Andrews, Bissell), Bristol (W. A. Terry), Naugatuck (A. E. Blewitt), Newtown (J. M. Otis), Kent (Eames & C. C. Godfrey). June—July. Adventive from Europe.

Potentilla palustris (L.) Scop. (of marshes).

Comarum palustre L.

Marsh or Purple Cinquefoil or Five-finger. Bog Strawberry. Purple-wort.

Rare or local. Boggy swamps and borders of lakes: New Haven (D. C. Eaton), East Granby (Weatherby), Hamden, Litchfield and Danbury (Harger), Salisbury, plentiful about Twin Lakes (Bissell, Mrs. C. S. Phelps et al.), June — July.

Potentilla fruticosa L. (shrubby).

Dasiphora fruticosa Rydb.

Hardhack. Goshen Hardhack. Shrubby Cinquefoil.

Low fields, wet pastures and boggy swamps. Rare near the coast: East Lyme (Miss A. M. Ryon), Guilford (G. H. Bartlett), New Haven (G. W. Hawes). Occasional elsewhere, except in Litchfield County, where it is common and often a serious pest in low pastures. June — Sept.

Potentilla tridentata Ait. (three-toothed).

Sibbaldiopsis tridentata Rydb.

Three-toothed or Mountain Cinquefoil or Five-finger.

Rare or local. Exposed ledges and bleak mountain tops: Norfolk (Miss M. C. Seymour, Weatherby & Bissell), Cornwall (E. E. Brewster), Salisbury (Bissell et al.). May—July.

Potentilla pacifica Howell.

Potentilla Anserina of American authors in part, not L. Argentina Anserina Rydb., var. grandis Rydb.

Silver Weed. Argentina. Wild Tansy.

Inner edges of salt marshes along the coast. Milford, locally plentiful (Eames), New Haven (Bissell), East Haven (Harger), Guilford (G. H. Bartlett); and common eastward. Mid-May —July.

Potentilla pumila Poir. (dwarf).

Frequent. Roadsides and fields. April - May.

The comparative distribution of this and the species next following has not been worked out.

Potentilla canadensis L.

Yellow Strawberry, Cinquefoil, Five-finger, Running Buttercup.

Common. Dry, open places, especially on hillsides. April — Aug.

Potentilla canadensis L., var. simplex (Michx.) Torr. & Gray (simple).

Potentilla simplex Michx.

Cinquefoil. Five-finger.

Frequent or common. Woods, fields and roadsides. May — Aug.

FILIPENDULA Hill.

Filipendula rubra (Hill) Robinson (red).

Ulmaria rubra Hill.

Spiraea lobata Gronov.

Queen of the Prairie.

Rare or local. Roadsides as an escape from cultivation: Groton and Sprague (Graves), Monroe, Trumbull and Fairfield (Eames). June—July. Naturalized from the West.

Filipendula Ulmaria (L.) Maxim. (Ulmus, the Elm). Ulmaria palustris Moench.

Ulmaria Ulmaria Barnh.

Spiraea Ulmaria L.

Meadow-sweet. Honey-sweet. Mead-sweet. Queen of the Meadow. Meadow Queen. Bridewort. English Meadowsweet.

Rare or local. Escaped from cultivation to roadsides and waste places: East Windsor and Southington (Bissell), Oxford (Harger), Trumbull, Norwalk and Ridgefield (Eames). July—mid-Aug. Native of Europe.

Filipendula hexapetala Gilib. (six-petaled).

Spiraea Filipendula L.

Pride of the Meadow. Dropwort.

Rare. Southington, escaped from cultivation to a roadside (Andrews). May—June. Fugitive from Europe.

GEUM L. Avens.

Geum canadense Jacq.

Geum album J. F. Gmel.

White Avens. Herb Bennet.

Frequent or common. Woods, thickets and shaded places. Mid-June — Aug .

Geum flavum (Porter) Bicknell (yellow).

Cream-colored Avens.

Occasional. Rocky woods, thickets and partially shaded places. Mid-June — Aug.

Geum virginianum L.

Rough or White Avens. Herb Bennet. Chocolate-root.

Frequent. Wet meadows, low thickets and along streams. Mid-June — July.

Geum strictum Ait. (strict or straight).

Yellow or Field Avens. Herb Bennet.

Rare or local. Open swamps, wet pastures or sometimes in dry ground. Late June - mid-Aug.

Geum rivale L. (of brook-sides).

Purple, Water or Drooping Avens. Chocolate-root. Indian Chocolate-root.

Wet or boggy meadows. Rare near the coast: Griswold

(E. F. Burleson, Graves), Sprague (Miss Smith), Guilford (G. H. Bartlett), New Haven and Orange (D. C. Eaton). Occasional or local northward and usually plentiful where it occurs. May—June.

The root is used medicinally.

KERRIA DC.

Kerria japonica (Thunb.) DC.

Japanese Rose. Globeflower.

Rare. Ledyard, roadside as an escape from garden (Graves). Late May —June. Introduced from eastern Asia.

RUBUS L. Bramble.

Rubus idaeus L. (of Mt. Ida.)

European Red Raspberry.

Rare. Roadsides and fence-rows: Southington, escaped from an old garden (W. H. Blanchard), Oxford (Harger), Bridgeport, plentiful in one locality (Eames). Mid-May—June; fruit July. Adventive from the Old World.

Formerly much cultivated and represented by the Antwerp, Fontenay, etc.

Rubus idaeus L., var. aculeatissimus Regel & Tiling (very prickly).

Rubus idaeus L., var. strigosus Maxim.

Rubus strigosus Michx.

Red or Wild Red Raspberry.

Fence-rows, pastures and thickets. Rare in the coast region of the southwestern part of the state; occasional or frequent elsewhere. Mid-May —June; fruit late June —July.

Valued for its fruit in cultivation. The Cuthbert and other light red berries of gardens are of this type.

X ? Rubus neglectus Peck (neglected).

Purple Wild Raspberry.

Rare. Moist thicket: Oxford (Harger). Mid-May — June.

Thought to be a hybrid between Rubus idaeus var. aculeatissimus and Rubus occidentalis. The Shaffer, Gladstone and Philadelphia are cultivated forms of this species.

Rubus phoenicolasius Maxim. (having purple-red hairs).

Wineberry.

Rare. Escaped from cultivation to fields and roadsides: Southington (Andrews), Fairfield (Eames), Norwalk (E. H. Baldwin). June — Aug. Adventive from Japan.

Cultivated as an ornamental plant and for its fruit.

Rubus occidentalis L. (western).

Black Raspberry. Thimbleberry. Black-cap.

Common. Thickets, fence-rows, roadsides and pastures. Mid-May —June; fruit late June —July.

The Ohio, Gregg, etc., are cultivated forms of this species. Both wild and cultivated its fruit is valued for dessert and preserving.

The forma PALLIDUS (Bailey) Robinson (pale) has been found in Bridgeport (Eames) and Oxford (Harger). The Golden Queen of the gardens is a derivative of this form.

Rubus odoratus L. (fragrant).

Purple Flowering Raspberry.

Rocky woods. Rare near the coast; becoming occasional or frequent northward. June — Aug.; fruit Aug.— Sept.

Rubus triflorus Richards. (three-flowered).

Rubus americanus Britton.

Dwarf or Running Raspberry.

Wet, often rocky woods, and in wooded swamps. Rare near the coast; becoming occasional or frequent northward. May; fruit June.

Sometimes occurs with pink flowers.

Rubus allegheniensis Porter.

Rubus villosus Gray's Manual ed. 6 in large part, not Ait. Rubus nigrobaccus Bailey.

High-bush or Mulberry Blackberry.

Common in woods, thickets and pastures in the hilly and mountainous parts of the state; occasional or local at low elevations and in sandy soil elsewhere. Mid-May —June; fruit late July — Sept.

One of our most valued wild berries and often cultivated, the Taylor being a representative. The fruit-juice and root-

bark of this and other species are valued in domestic medical practice for their astringent properties and are also officinal.

Rubus allegheniensis Porter, var. Gravesii Fernald.

Rare. Moist or dry thickets: Groton (Graves), Southington (Andrews), New Milford (Eames). June; fruit early Aug.

Rubus frondosus Bigel. (leafy).

Rubus villosus Ait., var. frondosus Torr.

Rubus philadelphicus Blanchard.

Rare or occasional. Open pastures and dry hillsides. Mid-May—June.

Rubus pergratus Blanchard (very pleasant).

Rubus orarius Blanchard

Rubus amnicolus Blanchard.

Rare. Roadsides and thickets: Southington (Bissell), Winchester and Colebrook (M. L. Fernald). Late May—early June; fruit July.

Rubus recurvans Blanchard (recurving).

Rubus arundelanus Blanchard.

Fields and open woods. Occasional in the northwestern part of the state; frequent elsewhere. Mid-May — June; fruit July.

Rubus Randii (Bailey) Rydb.

Rubus argutus Link, var. Randii Bailey.

Rubus recurvicaulis Blanchard.

Woods and shaded places in moist or wet ground. Rare or occasional in central and northern Connecticut; its exact range unknown. June.

Rubus laciniatus Willd. (slashed).

Cut-leaved or Evergreen Blackberry.

Rare. Bridgeport, spontaneous along a sandy roadside and in an adjoining field (E. H. Baldwin). June—July. Probably native of Europe.

Cultivated for ornament.

Rubus cuneifolius Pursh (wedge-leaved).

Sand or Knee-high Blackberry. Ankle Brier.

Dry open sandy or sterile places. Occasional or frequent

in the southwestern part of the state, sometimes covering large areas; becoming rare northward and eastward, reaching Newtown (Eames), Southbury (Harger), Farmington (W. H. Blanchard), Glastonbury (Mrs. F. W. Starmer), Colchester (Graves). June—early July; fruit mid-July—Sept.

The fruit is delicious. The bark of the rootstock is medi-

Rubus Andrewsianus Blanchard.

High-bush Blackberry.

Dry or moist open or shaded situations. Occasional or frequent over most of the state, but apparently absent from the mountainous areas. June; fruit mid-July — Sept.

The fruit of this species is commonly of good size and quality and is the High-bush Blackberry usually gathered in some parts of the state.

Rubus floricomus Blanchard (covered with flowers).

Local. Woods and pastures in heavy soils: Southington and Meriden (W. H. Blanchard). June; fruit Aug.

Rubus setosus Bigel. (bristly).

Rubus nigricans Rydb. in part.

Occasional or frequent. Usually in swamps and wet ground, but sometimes in drier places. June —July.

Rubus nigricans Rydb. (blackish).

Rubus hispidus L., var. subcrectus Peck.

Rubus setosus of authors in part, not Bigel.

Rubus vermontanus Blanchard.

Rubus semisetosus Blanchard (?).

Dry hills and plains. Apparently rare or occasional, but its distribution is not known. June—July.

Rubus hispidus L. (rough-hairy).

Running Swamp Blackberry.

Common. Swamps, bogs, wet woods and fields, or sometimes in drier places. Mid-June —July.

Rubus villosus Ait. (hairy).

Rubus canadensis of authors, not L.

Rubus procumbens Muhl.

Dewberry. Running Brier. Running or Low Blackberry.

Dry, especially open situations. Frequent or common at low elevations, but rare or absent in mountainous districts. Late May —June; fruit July — Aug.

Its berries are the best of the low vines and are not excelled by those of any blackberry. The Lucretia Dewberry is a cultivated form derived from a variety of this species. Several recently proposed species not included in this list are obviously closely related to *Rubus villosus* and await further study.

Rubus villosus Ait., var. humifusus Torr. & Gray (spreading over the ground).

Rubus Enslenii Trattinick.

Rubus Baileyanus Britton.

Rubus subuniflorus Rydb.

Frequent or common. Dry soil in open situations, nearly throughout, but especially plentiful at low elevations and near the coast. Late May—June; fruit July—Aug.

The fruit is inferior in quality to that of the typical form of the species.

DALIBARDA Kalm.

Dalibarda repens L. (creeping).

Dalibarda.

Rare. Moist rich woods: Winchester (Andrews, Bissell), Colebrook (J. W. Robbins), Norfolk (Miss M. C. Seymour). Mid-June — mid-Aug.

AGRIMONIA L. Agrimony.

Agrimonia gryposepala Wallr. (having bent or hooked sepals).

Agrimonia Eupatoria Gray's Manual ed. 6 in part, not L.

Agrimonia hirsuta Bicknell.

Stickseed. Cocklebur. Beggar-ticks. Hairy Agrimony.

Frequent. Roadsides, thickets and borders of woods. Late June - Aug.

The plant is medicinal.

Agrimonia striata Michx. (grooved).

Agrimonia Eupatoria Gray's Manual ed. 6 in part, not L. Agrimonia Brittoniana Bicknell.

Stickseed. Beggar-ticks.

Rocky woods, thickets and more open places. Rare near the coast and in the southwestern part of the state; frequent elsewhere. Late June — Sept.

Agrimonia mollis (Torr. & Gray) Britton (soft).

Agrimonia pubescens Wallr. (?)

Soft Agrimony.

Occasional or frequent. Dry woods, thickets and more open places. July — Aug.

Agrimonia parviflora Ait. (small-flowered).

Small or Many-flowered Agrimony.

Rare. Fairfield, edge of wet meadow (Eames), Southbury, roadside (Harger, Bissell), Salisbury (Mrs. C. S. Phelps). Aug.

Agrimonia rostellata Wallr. (having a little beak).

Agrimonia striata Bicknell, not Michx.

Woodland Agrimony.

Dry rich or rocky woods. Occasional in the southern part of the state, extending northward as far as Middletown and Southington (Bissell). July — Aug.

SANGUISORBA L. Burnet.

Sanguisorba canadensis L.

Poterium canadense Gray.

Canadian, Wild or Great American Burnet.

Locally plentiful along the borders of tidal marshes and about fresh-water swamps and streams near the coast; also occurs in low grounds along the Farmington River in Windsor (H. S. Clark), Farmington (Bissell), and Simsbury (A. W. Driggs); and has been collected at Berlin (J. N. Bishop). Mid-July — mid-Oct.

Sanguisorba minor Scop. (smaller).

Poterium Sanguisorba L.

Sanguisorba Sanguisorba Britton.

Garden or Salad Burnet. Bloodwort. Bibernel. Pimpernel. Toper's-plant.

Rare. Monroe, in dry rocky ground (H. C. Beardslee). July — Sept. Fugitive from Europe or Asia.

Formerly cultivated as a salad plant.

ROSA L.

Rosa setigera Michx. (bristle-bearing).

Climbing or Prairie Rose.

Rare. Escaped from cultivation to roadsides, waste places and thickets: Voluntown (Graves), Farmington (H. S. Clark), Stratford and Bridgeport (Eames). June - July. Adventive from the West

Rosa blanda Ait. (smooth).

Meadow, Thornless or Early Wild Rose.

Sandy soil. Rare in most districts: Hartford (H. J. Koehler), Milford (Andrews). Occasional along the Housatonic River from Oxford (Harger) northward. Late May - June.

Rosa spinosissima L. (very spiny).

Scotch or Burnet Rose.

Rare. Escaped from cultivation to roadsides in Preston and Franklin (Graves). June-July. Adventive from Europe.

Rosa cinnamomea L. (cinnamon-scented).

Cinnamon or Kitchen Rose.

Rare or occasional. Escaped from cultivation to roadsides and waste places near old houses; in the hills of Salisbury sometimes forming dense thickets (Bissell). June -July. Naturalized from Europe.

Rosa rugosa Thunb. (wrinkled).

Japanese Rose.

Rare. Milford, escaped from cultivation about old housesites (Eames & C. C. Godfrey); occurs also at Bridgeport and Greenwich (Eames). June - Aug. Adventive from Asia.

Rosa canina L. (of a dog).

Dog, Canker, Hip or Brier Rose.

Rare. Pastures and roadsides: Bolton (C. C. Hanmer), Southington (Andrews). June - July. Adventive from Europe.

Rosa rubiginosa L. (rusty).

Sweetbrier. Eglantine. Hip or Kitchen Rose.

Occasional or frequent. Thickets, pastures and roadsides. June — July. Naturalized from Europe.

Rosa rubiginosa L., var. micrantha (Sm.) Lindl. (small-flow-ered.)

Small-flowered Sweetbrier.

Rare. Granby, along a roadside (H. S. Clark, Weatherby & Bissell), New Haven (A. L. Winton). June—July. Adventive from England.

Rosa gallica L.

French, Provence or Red Rose.

Rare. Escaped from cultivation to roadsides and about old house-sites: Ledyard and Franklin (Graves), Thompson (Bissell), Southington (Andrews, Bissell, Weatherby), Westport (Eames), Wilton (Miss A. E. Carpenter). June. Adventive from Europe.

An old-fashioned garden rose. The dried petals are medicinal and are officinal.

Rosa nitida Willd. (shining).

Shining or Northeastern Rose.

Rare. In swamps: Thompson (R. W. Woodward & Weatherby), Stafford (Graves). June—July.

Rosa carolina L.

Swamp Wild Rose.

Frequent or common. Swamps and in low ground. June —July.

Rosa virginiana Mill.

Rosa lucida Ehrh.

Wild or Large Wild Rose.

Occasional or frequent. Low grounds, banks of streams, fields and thickets. June —July.

Rosa humilis Marsh. (low).

Wild Rose. Dwarf, Low or Pasture Wild Rose.

Frequent or common. Pastures, thickets and open woods, often in dry ground. June—July. An apparent hybrid of this with *Rosa nitida* occurs at Stafford (Weatherby & Bissell).

PRUNUS L. Plum. Cherry.

Prunus serotina Ehrh. (late).

Wild, Rum, Whiskey or Cabinet Cherry. Wild Black Cherry.

Common. Woods, pastures, fence-rows and roadsides. Mid-May — June; fruit Aug. — Sept.

The bark is officinal under the name "Prunus virginiana," and is valued for its tonic as well as sedative properties, the latter due to its hydrocyanic acid, a constituent also of all other parts of the plant. The foliage of this and probably that of related species is believed to be poisonous to cattle when wilted, although harmless when fresh. The kernels of the seeds, inadvertently swallowed by children, have been fatally poisonous. The wood is light, strong, hard and close-grained, valued for cabinet work and interior finish. The tree is ornamental and worthy of planting in some situations.

Prunus virginiana L.

Choke Cherry.

Thickets, woods, fence-rows and roadsides. Rare near the coast in the southeastern part of the state but frequent or common elsewhere. Mid-May — June; fruit mid-July — Aug.

Prunus pennsylvanica L. f.

Wild Red Cherry. Bird, Pin or Fire Cherry.

Occasional. Found in various soils and situations, but especially in rocky woods and clearings. May; fruit July.

The wood is light, soft and close-grained.

Prunus alleghaniensis Porter..

Alleghany or Mountain Plum. Sloe.

Rare. Lisbon, sandy bottoms along the Quinnebaug River, and Lyme, bank of the Connecticut River (Graves); Bridgeport, wet thicket bordering a small stream, and Monroe, hill-side pasture (Eames); Southbury, roadside in sandy soil (Harger). May; fruit Aug.

Prunus instititia L. (grafted).

Prunus spinosa L., var. instititia Gray's Manual ed. 6.

Damson. Bullace Plum.

Rare. Old Lyme, escaped from a hedge (Graves), Fairfield, rocky hillside (Eames). May; fruit Aug.—Sept. Adventive from Europe.

Prunus maritima Wang. (of the sea-coast).

Beach Plum.

In sandy soil. Frequent or common on the shores of the Sound and about tidal streams and marshes, also occasional in dry places a few miles inland. Mid-May — mid-June; fruit late Aug.— Sept.

The fruit is sometimes gathered for preserves.

Prunus Mahaleb L. (Arabic name).

Mahaleb, St. Lucie or Perfumed Cherry.

Rare or local. Fields, pastures and roadsides: New London and Groton (Graves), Norwalk (E. H. Baldwin). May—June. Naturalized from Europe.

Is largely imported and used for cherry-tree stocks.

Prunus Gravesii Small.

Beach Plum.

Rare. Groton, gravelly ridge near the Sound (Graves). Last week in May; fruit first week in Sept.

Prunus cuneata Raf. (wedge-shaped).

Prunus pumila Gray's Manual ed. 6 in part.

Sand or Dwarf Cherry.

Sand plains and tops of rocky hills. Norwich (W. A. Setchell, Mrs. E. E. Rogers), and rare, local or occasional in the northern two-thirds of the state. May; fruit Aug.

Prunus avium L. (of birds).

Cherry. Sweet, Black, Bird or Mazzard Cherry.

Frequent. Roadsides, fence-rows, woods and thickets. Late April — May; fruit mid-June—July. Naturalized from Europe.

In its cultivated forms valuable for its fruit, that of the wild plants being also sometimes used. The wood is valued for cabinet work.

Prunus Cerasus L. (classical name for the Cherry-tree).

Sour, Pie, Red, Morello or Old-fashioned Cherry. Griottes. Rare. Escaped from cultivation to roadsides: Ledyard, New London and Waterford (Graves), Thompson and Bristol (Bissell), Southington (Andrews, Bissell), Stratford (Eames). May; fruit July. Native of Europe.

Cultivated for its fruit.

Prunus nigra Ait. (black).

Wild, Canada or Horse Plum,

Rare. Norfolk, a few trees about an abandoned garden (A. W. Driggs), Oxford (Harger), May; fruit Aug.—Sept. Has given rise to some choice fruit-bearing varieties in cultivation.

Prunus americana Marsh.

Wild Plum. Wild Yellow, Red or Goose Plum.

Wet or dry soils in various situations, especially along streams. Rare in southern districts, becoming occasional northward. May; fruit mid-Aug. Apparently, in part, introduced near the coast.

It is the most prolific source of cultivated native Plums suited to the cold North.

Prunus domestica L. (domestic).

Garden Plum.

Rare. Escaped from cultivation to roadsides and waste places: New London (Graves), Hartford (H. S. Clark & Bissell), Southington (Andrews & Bissell), Oxford (Harger), Fairfield (Eames & C. K. Averill). May; fruit Aug.—Sept. Native of the Old World.

Frequently cultivated.

Prunus Persica (L.) Stokes.

Amygdalus Persica L.

Péach.

Rare. Escaped from cultivation to roadsides, fence-rows and waste places in the southern part of the state. Late April - May: fruit Aug. - Sept. Native of Asia.

A valued fruit in cultivation. Some forms are occasionally cultivated for ornament. Medicinal.

LEGUMINOSAE. PULSE FAMILY.

GLEDITSIA L. Honey Locust.

Gleditsia triacanthos L. (three-thorned).

Honey Locust.

Rare, occasional or local. Pastures, roadsides and fence-

rows as an escape from cultivation. May —June. Naturalized from the West or South.

The wood is coarse-grained but strong and durable. The name Honey Locust is supposed to refer to the sweetness of the pulp surrounding the seeds in the pod. Often planted for hedges or as an ornamental tree.

CASSIA L. Senna.

Cassia marilandica L.

Wild or American Senna.

Roadsides or alluvial soil, usually in moist ground. Rare or occasional in most sections, but frequent along the Housatonic River. July — Aug.

The leaves have medicinal properties like those of officinal Senna and are sometimes used as a substitute.

Cassia Chamaecrista L. (ground cock's-comb).

Partridge Pea.

Sandy fields and railroad banks. Common on and near the coast, extending inland as far as Glastonbury (H. S. Clark), and Seymour (Harger). July — Sept.

Cassia nictitans L. (winking).

Wild Sensitive Plant. Sensitive Pea.

Common. Sandy fields and dry sterile ground. July — Sept.

CERCIS L. Redbud. Judas Tree.

Cercis canadensis L.

Redbud.

Rare. Sparingly escaped about an old nursery at Wethersfield (H. S. Clark & Bissell). April. Fugitive from the South.

BAPTISIA Vent. False Indigo.

Baptisia tinctoria (L.) R. Br. (used for dyeing).

Wild Indigo. Horsefly-weed.

Common. Dry wastes, pastures, thickets and open woods in sandy or poor soils. July — Aug.

The leaves have been used as a substitute for Indigo and the young shoots are sometimes eaten like Asparagus. The roots and leaves have medicinal value

CROTALARIA L. Rattle-box.

Crotalaria sagittalis L. (shaped like an arrow-head).

Rattle-box.

Frequent to common. Dry sandy or sterile ground. July - Sept.

This plant when present in hay is known to cause serious and fatal poisoning of horses and sometimes of cattle, its mode of action being similar to that of the western Loco-weeds.

CYTISUS L. Broom.

Cytisus scoparius (L.) Link (broom-like).

Scotch Broom.

Rare. Meriden, one colony by a roadside (Miss E. J. Leonard). July — Aug. Fugitive from Europe.

The dried tops are medicinal and are officinal.

LUPINUS L. Lupine.

Lupinus perennis L. (perennial).

Wild Lupine. Blue Bean. Sundial.

Dry or sandy soil. Found nearly throughout, though very local and uneven in its distribution, but, in general, rare westward and occasional or frequent eastward. May—June.

TRIFOLIUM L. Clover. Trefoil.

Trifolium arvense L. (of cultivated ground).

Rabbit-foot or Stone Clover.

Common, Dry fields and roadsides. June — Sept. Naturalized from Europe.

Trifolium incarnatum L. (flesh-colored).

Crimson or Italian Clover.

Rare. Fields and cultivated ground as an escape from cultivation. June—July. Fugitive from Europe.

Often grown as a cover-crop. Very brilliant when in full bloom. All the clovers, through the agency of bacterial nodules on their roots, are exceedingly valuable as storers of nitrogen in the soil.

Trifolium pratense L. (of meadows).

Red, Common Red, Meadow or Pea-vine Clover.

Common. Meadows, fields and roadsides. May-June. Naturalized from Europe.

Extensively cultivated for fodder and for fertilizer. The blossoms are used medicinally.

Trifolium repens L. (creeping).

White or Honeysuckle Clover.

Common. Fields, meadows, roadsides and lawns. May—June. Probably, at least for the most part, introduced from Europe.

Valuable for pasturage, for lawns and as a honey plant. Some authorities regard this species as the true Irish Shamrock.

Trifolium hybridum L. (mongrel).

Alsike or Swedish Clover.

Frequent. Cultivated fields, roadsides and waste ground, usually in moist places. June — Aug. Naturalized from Europe.

Valuable for hay and as a honey plant, thriving best on heavy soils.

Trifolium agrarium L. (of fields).

Trifolium aureum at least of American authors.

Yellow or Hop Clover.

Common. Fields and roadsides. June — Aug. Naturalized from Europe. Of little value as a forage plant.

Trifolium procumbens L. (trailing).

Low Hop Clover.

Dry fields. Occasional to frequent near the coast; rare elsewhere. June —July. Naturalized from Europe.

MELILOTUS Hill. Sweet Clover.

Melilotus officinalis (L.) Lam. (of the shops).

Yellow Melilot or Sweet Clover.

Occasional or local. Waste places. June — Aug. Naturalized from Europe.

The leaves and flowering tops are medicinal.

Melilotus alba Desr. (white).

White Melilot or Sweet Clover. Bokhara Clover.

Local or frequent. Roadsides and waste places. June — Aug. Naturalized from Europe.

Sometimes grown for forage or as a honey plant. The leaves and flowering tops are sometimes used medicinally.

MEDICAGO L Medick

Medicago sativa L. (sown).

Lucerne. Alfalfa.

Rare or occasional. Fields and roadsides as an escape from cultivation. June - Aug. Introduced from Europe.

In some parts of the United States of great value as a forage plant and important as a source of honey, but not often successfully grown in Connecticut.

Medicago lupulina L. (hop-like).

Hop or Black Medick. Nonesuch.

Frequent. Waste places and roadsides. June - July. Naturalized from Europe.

The seed is a common adulteration in clover seed.

Medicago arabica (L.) Huds.

Medicago maculata Sibth.

Spotted Medick.

Rare. New London, in cultivated ground (Graves). June - Aug, Fugitive from Europe.

Medicago hispida Gaertn. (rough-hairy).

Medicago denticulata Willd.

Toothed Medick, Bur Clover.

Rare. Hartford, in waste ground (H. S. Clark). Sept.-Oct. Fugitive from Europe.

HOSACKIA Dougl.

Hosackia americana (Nutt.) Piper.

Hosackia Purshiana Benth.

Lotus americanus Bischoff.

Rare. Bridgeport, a waif in waste ground (Eames). June — Aug. Fugitive from the western United States.

LOTUS L. Bird's-foot Trefoil.

Lotus corniculatus L. (horned).

Bloom-fell. Bird's-foot Trefoil. Ground Honeysuckle.

Rare. Fields and waste ground: Naugatuck (Mrs. C. H. Lyman & B. B. Bristol), Bridgeport (Eames). June — Sept. Adventive from Europe.

AMORPHA L.

Amorpha fruticosa L. (shrubby).

False or Bastard Indigo.

Rare. Roadsides as an escape from cultivation: Middletown (Harger), Southington (Andrews), New Haven (D. C. Eaton), Hartford and Wethersfield (Bissell). May—July. Adventive from the West.

TEPHROSIA Pers. Hoary Pea.

Tephrosia virginiana (L.) Pers.

Cracca virginiana L.

Goat's Rue. Catgut.

Rare or local. Dry sandy or rocky soils. June. The roots are sometimes used medicinally.

ROBINIA L. Locust.

Robinia Pseudo-Acacia L. (false Acacia).

Common or Black Locust. False Acacia.

Frequent. Fields and roadsides as an escape from cultivation. June. Naturalized from the South.

Cultivated for ornament and sometimes planted to cover sand-blows. The wood is hard and very durable, used for fence-posts and railroad ties. The bark of the root is medicinal.

Robinia viscosa Vent. (sticky).

Clammy Locust.

Occasional. Roadsides, fields and woods, usually in sandy ground. June—July. Naturalized from the South.

Robinia hispida L. (rough-hairy).

Rose Acacia. Flowering or Bristly Locust.

Rare. Dry or sandy roadsides as an escape from cultivation: Groton (Graves), Guilford (G. H. Bartlett), South Windsor (Weatherby), North Haven (Harger), Berlin and Southington (Andrews & Bissell), Seymour and South Norwalk (Eames), Salisbury (Mrs. C. S. Phelps). May —June. Adventive from the Southwest.

Cultivated as as ornamental shrub.

GLYCYRRHIZA L. Liquorice.

Glycyrrhiza lepidota (Nutt.) Pursh (scaly).

Wild Liquorice.

Rare. New Haven, formerly well established on a road-side (D. C. Eaton); now apparently exterminated. May—Aug. Fugitive from the West.

CORONILLA L.

Coronilla varia L. (variable).

Crown Vetch. Russian Clover. Axwort.

Occasional. Roadsides, waste places and in open fields as an escape from cultivation. June — Sept. Naturalized from Europe.

Very persistent and difficult to eradicate.

DESMODIUM Desv. Tick Trefoil.

Desmodium nudiflorum (L.) DC. (naked-flowered).

Meibomia nudiflora Kuntze.

Occasional or frequent. Dry woods. July - Aug.

Desmodium grandiflorum (Walt.) DC. (large-flowered). .

Desmodium acuminatum DC.

Meibomia grandiflora Kuntze.

Occasional or frequent. Dry rocky woods, usually in rich soil. July — Aug.

Desmodium rotundifolium (Michx.) DC. (round-leaved).

Meibomia Michauxii Vail.

Occasional or local. Dry woods and hillside thickets. July — Aug.

Desmodium glabellum (Michx.) DC.

Desmodium humifusum Beck.

Meibomia glabella Kuntze.

Rare. Waterford, in dry woods (Graves). Aug.

Desmodium canescens (L.) DC.

Meibomia canescens Kuntze.

Dry woods and sandy fields. Occasional or frequent in the southern half of the state and in the Connecticut Valley; rare or local elsewhere. July—Aug.

Desmodium bracteosum (Michx.) DC. (having conspicuous bracts).

Desmodium cuspidatum Hook.

Meibomia bracteosa Kuntze.

Dry wooded banks and in thickets. Occasional or frequent in the Connecticut Valley and in the southwestern part of the state; rare or absent elsewhere. July — Aug.

Desmodium Dillenii Darl.

Meibomia Dillenii Kuntze.

Occasional. Dry woods and thickets in either sandy or rich ground. July — Aug.

Desmodium paniculatum (L.) DC. (panicled).

Meibomia paniculata Kuntze.

Occasional or frequent. Dry woods and copses. July — Aug.

Desmodium canadense (L.) DC.

Meibomia canadensis Kuntze.

Showy Tick Trefoil.

Common. Sandy fields, roadsides and open waste places. July — Aug.

Flowers rarely pure white.

Desmodium sessilifolium (Torr.) Torr. & Gray (sessile-leaved).

Meibomia sessilifolia Kuntze.

Dry open or thinly wooded banks and sandy railroad fillings. Local or occasional in the valleys of the Thames River system: Montville, Norwich, Preston and Windham (Graves), Franklin and Bozrah (R. W. Woodward). July — Aug.

Desmodium rigidum (Ell.) DC. (stiff or rigid).

Meibomia rigida Kuntze.

Occasional or frequent. Dry banks and sandy roadsides. July — Aug.

Desmodium obtusum (Muhl.) DC. (blunt).

Desmodium ciliare DC.

Mcibomia obtusa Vail.

Dry open ground and waste places. Occasional in the southern part of the state, becoming rare northward, reaching Glastonbury (Mrs. F. W. Starmer), and Manchester (Weatherby). July — Aug.

Desmodium marilandicum (L.) DC.

Meibomia marilandica Kuntze.

Occasional or frequent. Dry hillsides and sandy plains. Aug.— Sept.

LESPEDEZA Michx. Bush Clover.

Lespedeza procumbens Michx. (trailing).

Occasional. Dry woods or thickets in sandy or sterile soil. Aug.— Sept.

Lespedeza repens (L.) Bart. (creeping).

Rare. Dry woods: New Haven (R. W. Woodward). Aug.— Sept.

Lespedeza violacea (L.) Pers. (violet-colored).

Bush Clover.

Dry open woods. Occasional in most districts but not reported from New London County. Aug.— Sept.

Lespedeza Nuttallii Darl.

Rare. Dry wooded banks or in open ground, mostly in sandy soil: Lyme and Windham (Graves), Southington (Bissell), Seymour and Oxford (Harger). Aug.

Lespedeza Stuvei Nutt.

Dry woods and rocky banks. Occasional in the south-western part of the state, becoming rare northward and eastward, reaching Southington (Andrews), Windsor (Bissell), and Waterford (Graves). Aug.

Lespedeza virginica (L.) Britton.

Lespedeza reticulata Pers.

Rare or local. Dry sandy or rocky soil. Aug.— Sept.

Lespedeza frutescens (L.) Britton (shrubby).

Lespedeza Stuvei Nutt., var. intermedia Wats.

Frequent. Dry woods and sandy banks. Aug. - Sept.

Lespedeza simulata Mackenzie & Bush (imitating).

Rare. Dry sandy ground: Groton (Graves), Southington (Bissell). Aug.

Lespedeza hirta (L.) Hornem. (hairy).

Lespedeza polystachya Michx.

Occasional or frequent. Dry sandy soil. Aug. - Sept.

Lespedeza capitata Michx. (having a head, referring to the compact flower clusters).

Common. Dry fields and sandy places. Aug.

Lespedeza capitata Michx., var. velutina (Bicknell) Fernald (velvety).

Lespedeza velutina Bicknell.

Lespedeza Bicknellii House.

Dry sandy or sterile places. Rare or perhaps occasional growing with the typical form. Aug.

CICER L. Chick Pea.

Cicer arietinum L. (ram's-head, referring to the shape of the flowers).

Rare. One plant in waste ground: Waterbury (A. E. Blewitt). July. Fugitive from Europe.

VICIA L. Vetch. Tare.

Vicia sativa L. (sown).

Spring Vetch.

Rare. Waste ground as an escape from cultivation. June

- Aug. Adventive from Europe.

Sometimes cultivated as a forage plant or for a cover-crop.

Vicia angustifolia Reichard (narrow-leaved).

Common Vetch or Tare.

Roadsides and waste ground. Rare in its typical form.

The var. SEGETALIS (Thuillier) Koch (of corn fields), Vicia sativa of Gray's Manual ed. 6, not L., is occasional or frequent near the coast, becoming rare northward. June—Aug. Naturalized from Europe.

Vicia Faba L. (classical name for this species).

European Garden Bean.

Rare. Waste or ballast ground: Southington (Bissell), Waterbury (A. E. Blewitt), Bridgeport (Eames). July—Sept. Fugitive from the Old World.

From prehistoric times has been cultivated for food. In the maritime provinces of Canada it is grown for fodder, but in most parts of the United States, where the summers are hot and dry, it does not thrive.

Vicia tetrasperma (L.) Moench (four-seeded). Slender Vetch.

Dry grassland. Rare or local in most districts: Norwich (W. A. Setchell), Southington (Andrews), Hamden (Harger). Becoming occasional from Milford (Eames, C. K. Averill) westward along the coast. Late May—June. Naturalized from Europe.

Vicia hirsuta (L.) S. F. Gray (hairy). Hairy Vetch or Tare.

Rare. Stamford, in waste ground (W. H. Hoyt). May — Sept. Fugitive from Europe.

Vicia Cracca L. (classical name for some leguminous plant). Cow, Tufted or Blue Vetch.

Fields, meadows and roadsides. Frequent along the Connecticut River; rare, local or occasional elsewhere. June — Aug. For the most part introduced from the West or North or from Europe.

Inclined to be troublesome in grassland wherever established.

Vicia villosa Roth (hairy).

Hairy or Winter Vetch.

Rare. Borders of fields as an escape from cultivation: Southington (Andrews), Salisbury (M. L. Fernald). June — Sept. Adventive from the Old World.

Grown to a considerable extent as a cover-crop.

LENS Hill. Lentil.

Lens esculenta Moench (fit for eating).

Ervum Lens L.

Lentil.

Rare. Waste places: Bridgeport (Eames), Stamford (W. H. Hoyt). July — Aug. Fugitive from the Old World.

This is one of the oldest, and is still one of the important food-plants for man, especially in the warmer parts of the Old World and the Orient, although but little cultivated in this country.

LATHYRUS L. Vetchling. Everlasting Pea.

Lathyrus maritimus (L.) Bigel. (of the sea).

Beach Pea.

Common on beaches and sand dunes along the coast. June — $\operatorname{Aug}\nolimits.$

Is found rarely with pure white flowers. The young spring shoots make an excellent pot-herb.

Lathyrus palustris L. (of marshes), var. linearifolius Ser. (very narrow-leaved).

Marsh Pea.

Local. Borders of salt marshes in Groton, Waterford and Old Lyme (Graves), Old Saybrook (Harger). June—July.

Lathyrus latifolius L. (broad-leaved).

Perennial or Everlasting Pea.

Rare. Escaped from cultivation to roadsides: Groton, Norwich and Preston (Graves), Guilford (G. H. Bartlett), Southington (Bissell), Bridgeport (Eames). June — Aug. Adventive from Europe.

An old-fashioned garden flower, hardy under almost all conditions of soil and light.

Lathyrus pratensis L. (of meadows).

Yellow Vetchling.

Rare. In grassland: Hartford, well established in and near an old cemetery (H. S. Clark). July. Adventive from Europe.

PISUM L. Pea.

Pisum sativum L. (sown).

Garden Pea.

Rare. Waste places as an escape from cultivation. June —July. Fugitive from Europe.

[Bull.

Pisum sativum L., var. arvense (L.) Poir. (of fields).

Field Pea.

Rare. Waste places: Bridgeport (Eames). July. Fugitive from Europe.

Sometimes grown for forage.

APIOS Ludwig. Groundnut. Wild Bean.

Apios tuberosa Moench (bearing tubers).

Apios Apios MacM.

Groundnut. Wild Bean.

Occasional to frequent. Moist thickets and near streams. July — Sept.

The tubers are said to be edible.

PHASEOLUS L. Kidney Bean.

Phaseolus polystachyus (L.) BSP. (many-spiked).

Phaseolus perennis Walt.

Wild Bean.

Rare. Rocky woods and dry banks: Franklin (R. W. Woodward), New Haven (D. C. Eaton, R. W. Woodward), Huntington (Harger), Norwalk (Miss M. D. Lockwood, G. P. Ells, Bissell). Aug.

Phaseolus vulgaris L. (common).

Common or Kidney Pole Bean.

Rare. Sometimes occurs as an escape in waste ground. July — Aug. Native of Central and South America. A fugitive, not persistent here.

The var. NANUS (L.) Taubert (dwarf), Field or Bush Bean, rarely occurs in similar situations.

STROPHOSTYLES Ell.

Strophostyles helvola (L.) Britton (yellowish).

Strophostyles angulosa Ell.

Trailing Wild Bean.

Open ground in sandy soil. Common along the coast, becoming rare or local northward. Aug.—Sept.

AMPHICARPA Ell. Hog Peanut.

Amphicarpa monoica (L.) Ell. (monoecious).

Falcata comosa of American authors.

Wild or Hog Peanut.

Common. Woods and thickets, more often in rich moist soil. July — Sept.

Amphicarpa Pitcheri Torr. & Gray.

Falcata Pitcheri Kuntze.

Hog Peanut.

Low woods and thickets. Southington (Andrews), Fair-field (Eames), Norwalk (Harger, Bissell), and probably occasional or local near the coast eastward. July — Sept.

LINACEAE. FLAX FAMILY.

LINUM L. Flax.

Linum usitatissimum L. (most useful).

Common Flax. Linseed.

Rare. Roadsides, fields and waste places. June — Sept. Introduced from Europe, its nativity unknown.

Well known as a cultivated plant from time immemorial; invaluable for its fibre and oil. The fibre of the inner bark is very strong and tough, is valuable for spinning, and is used in the manufacture of fine linen threads and cloths, also a great variety of coarser cords and fabrics. The seeds are the source of linseed oil, and the residue, under the name of "oil cake," is considered a valuable food for stock. Linseed meal has important medicinal uses.

Linum sulcatum Riddell (furrowed).

Rare. Dry ground: Granby (Bissell), New Haven, Ansonia, Oxford, Southbury and Woodbury (Harger), Milford (Eames), Kent (Weatherby), Salisbury (Mrs. C. S. Phelps). July — Aug.

Linum striatum Walt. (grooved).

Occasional to frequent. Moist open or shaded places. July — Aug.

Linum virginianum L.

Wild Yellow Flax.

Frequent. Dry woods and more open places, usually in sandy soil. July — Aug.

Linum medium (Planch.) Britton (intermediate).

Rare. Dry sandy fields: Waterford and Old Lyme (Graves), Ledyard (Harger), Milford (Eames). July—Sept.

OXALIDACEAE. WOOD SORREL FAMILY.

OXALIS L. Wood Sorrel.

Oxalis Acetosella L. (somewhat sour).

Common or White Wood Sorrel.

Rare or local. Rich moist woods: Granby (I. Holcomb), Barkhamsted and Colebrook (Bissell), Winchester (Andrews), Norfolk (J. H. Barbour), Salisbury (Mrs. C. S. Phelps). June—July.

This and other species of the genus contain a compound of oxalic acid, and if eaten in excess may give rise to poisoning. They are somewhat medicinal.

Oxalis violacea L. (violet-colored).

Violet Wood Sorrel.

Woods and moist or dry shaded places. Rare or local, but apparently well distributed throughout the state. May — June.

Oxalis stricta L. (straight).

Oxalis corniculata L., var. stricta of Gray's Manual ed. 6 in part.

Yellow Wood Sorrel.

Fields, roadsides and sandy places. Rare or local in northern districts, becoming frequent near the coast. May—Sept.

Oxalis filipes Small (with thread-like stems).

Oxalis Brittoniae Small.

Slender Yellow Wood Sorrel.

Rare or local. Dry fields and roadsides: Farmington (H. S. Clark & Bissell), Newington, Litchfield and Cornwall (Bis-

sell), Orange (Eames), Southbury (Harger), Salisbury (M. L. Fernald). May — Sept.

Oxalis corniculata L. (horned).

Oxalis corniculata L., var. stricta of Gray's Manual ed. 6 in part.

Oxalis stricta of many authors, not L.

Oxalis Bushii Small.

Oxalis rufa Small.

Oxalis cymosa Small.

Lady's Sorrel. Tall Yellow Wood Sorrel.

Common. Woods and fields in various soils and situations. May — Sept.

Oxalis repens Thunb. (creeping).

Oxalis corniculata L. in part, and of many later authors.

Rare or local. Florist's grounds, greenhouses and street gutters: New London (Graves). May—June. A cosmopolitan species, in Connecticut probably adventive from Europe.

GERANIACEAE. GERANIUM FAMILY.

GERANIUM L. Cranesbill.

Geranium maculatum L. (spotted).

Wild Cranesbill.

Common. Fields, roadsides and woods. May —June. The very astringent root is medicinal and is officinal.

Geranium pratense L. (of meadows).

Meadow Geranium or Cranesbill.

Rare. Naugatuck, in waste ground (B. B. Bristol). July. Fugitive from Europe.

Geranium Robertianum L.

Herb Robert. Red Robin.

Rocky ledges, usually in shade. Rare in eastern districts, becoming occasional or frequent westward. May — Sept.

Geranium carolinianum L.

Occasional. Rocky woods, dry fields and waste ground. May—July.

Geranium pusillum Burm. f. (very small).

Small-flowered Geranium or Cranesbill.

Rare. In lawns and grasslands: New Haven (Harger), Bridgeport (Eames), Monroe (H. C. Beardslee), Litchfield (Miss E. H. Thompson). June—July. Adventive from Europe.

Geranium dissectum L. (finely cut).

Cut-leaved Geranium or Cranesbill.

Rare. Oxford, in newly seeded ground (Harger). June. Fugitive from Europe.

Geranium molle L. (soft).

Dove's-foot Geranium or Cranesbill.

Rare. Lawns and cultivated ground: Southington (Andrews), Stratford (Mrs. R. H. Russell), Bridgeport (Eames), Litchfield (Miss E. H. Thompson). May—June. Fugitive from Europe.

ERODIUM L'Hér. Storksbill.

Erodium cicutarium (L.) L'Hér. (like Cicuta, the Poison Hemlock).

Storksbill. Heron's-bill.

Rare. Waste ground: New London (Graves), Norwich (Mrs. E. E. Rogers), Glastonbury (Mrs. F. W. Starmer), Bridgeport (Miss A. E. Carpenter), Norwalk (G. P. Ells). May—June. Fugitive from Europe.

Erodium moschatum (L.) L'Hér. (smelling of musk).

Musk Erodium or Storksbill.

Rare. Hartford, in waste grounds (H. S. Clark). Sept. Fugitive from Europe.

RUTACEAE. RUE FAMILY.

ZANTHOXYLUM L. Prickly Ash.

Zanthoxylum americanum Mill.

Northern Prickly Ash. Prickly Ash. Toothache Tree.

Thickets, fence-rows or open fields, often in rocky ground. Rare in the southeastern part of the state, becoming occasional northward and westward and frequent in Litchfield County. April — May. Probably southward largely an escape from cultivation.

The bark is medicinal and is officinal; the berries are also sometimes used medicinally.

PTELEA L. Shrubby Trefoil. Hop Tree.

Ptelea trifoliata L. (three-leaved).

Shrubby Trefoil. Hop Tree.

Rare. Roadsides and waste places as an escape from cultivation: Southington (Andrews), Seymour (Harger), Ansonia (C. K. Averill), Woodbury (Eames), Huntington (Eames & C. C. Godfrey), Litchfield (Miss E. H. Thompson). June. Adventive from the West.

The bark of the root, the leaves and the fruit are medicinal.

SIMARUBACEAE. OUASSIA FAMILY.

AILANTHUS Desf. Tree of Heaven.

Ailanthus glandulosa Desf. (glandular).

Ailanthus. Tree of Heaven.

Occasional. Waste places, fence-rows and along roadsides. June; fruit Oct. Naturalized from China.

A tree of rapid growth, well adapted to cultivation. It propagates freely from seed and from root suckers and readily accommodates itself to any soil. It was formerly supposed to counteract malarial influences arising from the soil in which it grew. The staminate tree, however, on account of its disagreeable odor when in flower, is not desirable. The bark is medicinal.

POLYGALACEAE. MILKWORT FAMILY.

POLYGALA L. Milkwort.

Polygala paucifolia Willd. (few-leaved).

Fringed Polygala. Flowering Wintergreen.

In woods, usually in light soil. Rare in New London County, frequent elsewhere. May—June.

A form with white flowers has been found at New Milford (C. K. Averill).

Polygala polygama Walt. (polygamous).

Milkwort.

Local or occasional. Dry sandy ground, often on sand plains. July - Aug.

A form with white flowers occurs at Milford (Eames).

Polygala Senega L. (from Seneca Indians).

Seneca or Senega Snakeroot.

Rare. Kent, a small colony in thinly shaded, dry and poor soil on the bank of the Housatonic River (C. K. Averill & E. H. Austin); occurs also at New Milford (C. D. Bishop). May—June.

The plant is valued medicinally and is officinal.

Polygala sanguinea L. (blood-red).

Polygala viridescens L.

Purple Milkwort.

Common. Moist or sometimes dry fields, pastures and thin woods. July — Sept.

Occurs occasionally with white flowers.

Polygala Nuttallii Torr. & Gray.

Rare or local. Open ground in sandy soil: Groton (Graves), Cheshire and Southington (Andrews), Plainville (Bissell). July—Aug.

Polygala cruciata L. (cross-shaped).

Open swamps and wet meadows. Occasional or frequent near the coast, but rare or wanting inland. July — Sept.

Polygala verticillata L. (whorled).

Whorled Polygala.

Common. Dry or sterile fields. July - Aug.

Polygala verticillata L., var. ambigua (Nutt.) Wood (doubtful).

Polygala ambigua Nutt.

Apparently rare. Dry places, growing with the typical form. The distinctions between this variety and the species have been little recognized, and its distribution is not known. July — Aug.

EUPHORBIACEAE. SPURGE FAMILY.

CROTONOPSIS Michx.

Crotonopsis linearis Michx. (very narrow; referring to the leaves).

Local. Sandy fields and wastes: Milford, plentiful in one locality (Eames). July — Sept.

ACALYPHA L. Three-seeded Mercury.

Acalypha virginica L.

Frequent or common. Open woods, fields and meadows. July — Sept.

Sometimes a weed in lawns and cultivated ground.

Acalypha gracilens Gray (slender).

Acalypha virginica L., var. gracilens Muell. Arg. Frequent. Dry fields and roadsides. July — Sept.

RICINUS L. Castor-oil Plant.

Ricinus communis L. (growing in colonies).

Castor-oil Plant.

Rare. A fugitive in waste grounds in Bridgeport and Fairfield (Eames). Sept.—Oct. Native of India or Africa. Cultivated for ornament. The oil expressed from the seeds is medicinal and is officinal.

EUPHORBIA L. Spurge.

Euphorbia polygonifolia L. (having leaves like Polygonum, the Knotweed).

Seaside Spurge.

Frequent along the coast on sea beaches and sand dunes. July — Sept.

Euphorbia Preslii Guss.

Euphorbia nutans of Britton's Manual.

Occasional or frequent. Fields and roadsides, especially in sandy soil. July — Sept.

The plant has medicinal properties and is locally known as Fluxweed. All species of the genus are more or less medicinal and some are strong irritants.

Euphorbia hirsuta (Torr.) Wiegand (hairy).

Frequent or common. Sandy soil along roadsides and in waste places. July — Sept.

Euphorbia maculata L. (spotted).

Milk Purslane.

Frequent. Sandy fields, roadsides and waste places. July — Sept.

Euphorbia marginata Pursh (having a distinct border).

Snow-on-the-Mountain.

Rare. Waste ground: Bridgeport (Eames). Aug. — Sept. Adventive from the West.

Often cultivated for ornament.

Euphorbia corollata L. (having a corolla).

Flowering Spurge.

Rare. Fields and waste ground: Norwich (Mrs. E. E. Rogers), Milford (Eames), Oxford (Harger). May — Aug. Adventive from the South or West.

The root is medicinal.

Euphorbia Ipecacuanhae L. (Brazilian Indian name).

Wild Ipecac. Ipecac Spurge.

Rare. There is in the Herbarium of the Boston Natural History Society a specimen of this plant collected at East Windsor by Dr. M. M. Reed. It has no date, but from what is known of Dr. Reed it must have been collected between 1825 and 1830; not otherwise reported from the state. May — Oct.

The root is medicinal. All species of spurge yield a very acrid, milky juice which is irritant to the skin. Domestic animals are sometimes poisoned by eating these plants, and the milk of such animals is also rendered poisonous.

Euphorbia Esula L. (Pre-Linnean name for certain species of spurge).

Faitour's Grass. Leafy Spurge.

Rare. Fields and waste ground: New London (Graves), Manchester (A. W. Driggs), Norwalk (G. P. Ells). May—June. Adventive from Europe.

Euphorbia Cyparissias L. (classical name for some species of spurge).

Cypress Spurge. Spurge.

Occasional. Roadsides and fields as an escape from cultivation, usually near dwellings or old cemeteries. June. Naturalized from Europe.

The plant yields a yellow dye.

Euphorbia Peplus L. (classical name for this species).

Petty Spurge.

Rare. New London, well established in one yard for at least twelve years (Graves). June — Oct. Adventive from Europe.

Euphorbia Lathyrus L. (classical name for some spurge).

Caper or Myrtle Spurge. Mole Plant.

Rare. Waste ground: well established in Trumbull and Bridgeport (Eames). July — Aug. Adventive from Europe.

CALLITRICHACEAE.

WATER STARWORT FAMILY.

CALLITRICHE L. Water Starwort.

Callitriche deflexa A. Br. (bent downward), var. Austini (Engelm.) Hegelm.

Callitriche Austini Engelm.

Moist shaded ground, usually in cart paths and little used roads. Local or occasional except near the coast eastward, where it is not reported. June — Aug.

Callitriche palustris L. (of marshes).

Callitriche verna L. in part.

Pools and slow running streams. Guilford (G. H. Bartlett), Windsor (Bisseli), and occasional or frequent westward. June — Sept.

Callitriche heterophylla Pursh (various-leaved).

Ponds and slow running streams: Woodstock (Weatherby & Harger), East Hartford (A. W. Driggs), Southington (Andrews, Bissell), and occasional or frequent in the vicinity of the coast. June — Sept.

LIMNANTHACEAE. FALSE MERMAID FAMILY.

FLOERKEA Willd. False Mermaid.

Floerkea proserpinacoides Willd. (like Proserpinaca, the Mermaid-weed).

Rare. Damp shaded ground: North Haven (A. H. Graves), Orange (Eames & C. C. Gadfrey), Oxford (G. H. Bartlett), Southbury (Harger). May.

ANACARDIACEAE. CASHEW FAMILY.

RHUS L. Sumach.

Rhus typhina L. (like Typha, the Cat-tail).

Rhus hirta Sudworth.

Staghorn Sumach.

Occasional. Open fields, thickets and fence-rows. June. The bark and berries have properties similar to those of Rhus glabra.

Rhus glabra L. (smooth).

Smooth Sumach.

Frequent or common. Pastures and roadsides, usually in dry ground. June.

Sometimes forms troublesome colonies by its running rootstocks. The leaves and bark are sometimes used in tanning. Galls found on its leaves are very astringent and are used as a substitute for the imported galls. All species of the genus are handsome, especially in their autumnal foliage, and the innocuous species are particularly ornamental when grown in suitable places.

Rhus copallina L. (producing copal).

Dwarf, Black or Shining Sumach.

Occasional, frequent or common. Pastures and rocky woods. July - Aug.

The bark and leaves have properties similar to those of Rhus glabra.

Rhus Vernix L. (varnish).

Rhus venenata DC.

Poison Sumach, Dogwood or Elder.

Swamps and wet ground or sometimes in drier places. Occasional in most districts, becoming frequent near the coast. June — July.

All parts of the plant are poisonous to the touch, etc., as in the following species, only more actively so.

Rhus Toxicodendron L. (poison tree).

Poison Ivy, Oak or Vine. Mercury. Marcury.

Frequent or common. Fence-rows, fields, woods and meadows, in either moist or dry ground, often climbing trees and posts. May—June.

The var. RADICANS (L.) Torr. (rooting), Rhus radicans L., is often more plentiful than the typical form.

A pernicious shrub or vine that is far too plentiful. To most persons all parts of the plant at all seasons are poisonous to the touch; and its exhalations, even at some distance, are equally poisonous to some, especially in a humid atmosphere or during free perspiration. The poisonous principle is believed to be a peculiar oil which is present in all parts of the plant and which in the minutest quantity is intensely irritant. Cattle and horses are not affected by it. The leaves are valued medicinally and were formerly officinal.

Rhus canadensis Marsh.

Rhus aromatica Ait.

Sweet-scented Sumach.

Rare. Guilford, on a small outcrop of rock in a salt marsh (G. H. Bartlett). May.

The bark of the root is an active medicinal agent.

AQUIFOLIACEAE. HOLLY FAMILY.

ILEX L. Holly.

Ilex opaca Ait. (opaque).

American Holly.

Rare. Roadsides and thickets: Waterford (Miss A. H. Morgan), Milford (J. D. Dana), Wolcott (H. J. Bassett). May—June; fruit Oct., lasting into the winter. Escaped from cultivation or possibly native.

Plentiful in parts of the South, where it is extensively

gathered for use in Christmas decorations. The leaves and bark are medicinal.

Ilex verticillata (L.) Gray (whorled).

Black Alder. Winterberry.

Common. Moist woods and swamps, or sometimes in drier places. June —July.

The berries turn brilliant red in autumn and continue on the bushes far into the winter. The bark and berries are used medicinally.

Ilex verticillata (L.) Gray, var. tenuifolia (Torr.) Wats. (thin-leaved).

Ilex bronxensis Britton.

Winterberry.

Low grounds, growing with the species. Frequent in southwestern Connecticut (Eames); occasional about New London (Graves). Rare elsewhere: Southington (Andrews), Litchfield (Bissell). June—July.

Ilex verticillata (L.) Gray, var. padifolia (Willd.) Torr. & Gray (having leaves like Padus, the Cherry).

Winterberry.

Occasional. Low woods and swamps, growing with the species. June —July.

Ilex laevigata (Pursh) Gray (smoothed).

Smooth Winterberry.

Swamps and wet woods. Rare in the northern and western parts of the state: South Windsor and Litchfield (Bissell), Monroe and Middlebury (Harger), Salisbury (Mrs. C. S. Phelps). Occasional in southeastern Connecticut, chiefly in White Cedar swamps (Graves). June; fruit Sept.

Ilex glabra (L.) Gray (smooth).

Inkberry.

Local. In and about swamps: Voluntown (Harger), Groton, New London and Waterford (Graves), Guilford (W. R. Dudley). June.

NEMOPANTHUS Raf. Mountain Holly.

Nemopanthus mucronata (L.) Trel. (having a short abrupt point).

Nemopanthes fascicularis Raf.

Ilicioides mucronata Britton.

Mountain Holly.

Low woods and shaded swamps. Rare near the coast, becoming occasional or frequent northward. May.

CELASTRACEAE. STAFF TREE FAMILY.

EVONYMUS L. Spindle Tree.

Evonymus atropurpureus Jacq. (dark purple).

Burning Bush. Waahoo. Indian Arrow-wood.

Rare. Escaped from cultivation to roadsides and fencerows: Southington (Weatherby & Bissell), Milford (Eames & C. C. Godfrey), Stratford, Bridgeport and Easton (Eames). June—July; fruit Sept.—Oct. Adventive or fugitive from the West

Planted for ornament. The bark of the root is medicinal and is officinal.

Evonymus alatus (Thunb.) Rupr. & Maxim. (winged).

Rare. Escaped from cultivation to roadsides: Plainfield (Weatherby & Bissell), Milford (Eames), Oxford, Huntington and Monroe (Harger). June—July. Adventive from eastern Asia.

Planted for ornament.

Evonymus europaeus L.

European Spindle Tree.

Rare. Escaped from cultivation to roadside in Stratford (Eames), and Bridgeport (Miss A. E. Carpenter). June — July. Adventive from Europe.

Planted for ornament.

CELASTRUS L. Staff Tree. Shrubby Bitter-sweet.

Celastrus scandens L. (climbing).

Waxwork. Climbing Bitter-sweet.

Frequent. Thickets, fence-rows and along streams. May —June; fruit Sept.— Oct., persisting into the winter.

The dried pods are often gathered for home decorations. A highly ornamental plant and worthy of cultivation. The bark of the plant and root are medicinal.

STAPHYLEACEAE. BLADDER NUT FAMILY.

STAPHYLEA L. Bladder Nut.

Staphylea trifolia L. (three-leaved).

American Bladder Nut.

Rocky woods and thickets. Rare in New London County, occasional elsewhere. Late May; fruit Aug.— Sept. Desirable to plant as an ornamental shrub.

ACERACEAE. MAPLE FAMILY.

ACER L. Maple.

Acer pennsylvanicum L.

Striped Maple. Moosewood.

Rocky woods in rich soil. Occasional in the northwestern part of the state, becoming rare eastward and southward, reaching Ashford (Bissell), East Haddam (Graves), Huntington and Redding (Eames). May.

An attractive tree at all seasons of the year.

Acer Pseudo-platanus L. (simulating Platanus, the Plane Tree).

Sycamore Maple.

Rare. Sparingly escaped from an old nursery to a pasture at Wethersfield (H. S. Clark & Bissell). May. Introduced from Europe.

Sometimes planted as an ornamental tree.

Acer spicatum Lam. (spiked).

Mountain Maple.

Cool, rocky woods. Occasional in the northern part of the state, becoming rare southward, reaching East Haddam (Graves), Guilford, at Bluff Head (G. H. Bartlett), Meriden (D. C. Eaton), Redding (Eames & C. C. Godfrey). May.

Acer saccharum Marsh. (sugar).

Acer saccharinum Wang., not L.

Sugar or Rock Maple.

Rocky woods, roadsides and fence-rows. Frequent or common in northern districts, becoming rare near the coast, except as an escape from cultivation. May.

A popular shade tree, very common in cultivation. Very valuable for its wood, which is extensively used in cabinet work, for floors and for fuel. "Bird's-eye Maple" is of this species. It is also the source of genuine maple sugar. The autumnal foliage is very brilliant.

Acer saccharum Marsh., var. nigrum (Michx. f.) Britton (black).

Acer saccharinum Wang., var. nigrum of Gray's Manual ed. 6. Acer nigrum Michx. f.

Black Sugar Maple.

Rare. Roadside as an escape from cultivation: Salisbury (Mrs. C. S. Phelps). May. Adventive from the North or West.

Acer platanoides L. (like Platanus, the Plane Tree).

Norway Maple.

Rare. Escaped from cultivation to roadside thickets in Hartford (H. S. Clark & Bissell). May. Adventive from Europe.

Frequent and well known in cultivation.

Acer saccharinum L. (sugary).

Acer dasycarpum Ehrh.

White, Silver or Soft Maple.

River banks and swamps. Frequent inland along the larger streams; rare elsewhere. March — April, rarely earlier.

Often planted for shade or ornament.

Acer rubrum L. (red).

Red, Swamp or Soft Maple.

Common. Swamps, low woods or sometimes in dry ground. March — April.

The wood is largely used in the manufacture of furniture and wooden ware and for fuel. A beautiful tree at all seasons and one of the most brilliant in spring and fall; it is worthy of much more extensive cultivation. The bark is medicinal.

Acer Negundo L. (an Indian name).

Negundo aceroides Moench.

Box Elder. Ash-leaved Maple.

Rare or local. River banks or roadsides. Apparently native along the Housatonic River from Oxford (Harger) to Salisbury (Mrs. C. S. Phelps); escaped from cultivation at Putnam (Harger), Groton (Graves), Southington (Andrews), Wethersfield (Bissell), and Norwalk (Miss A. E. Carpenter). April — May.

It is a rapid grower, thriving best in moist ground. Often planted as a shade tree and in the West grown for wind-breaks.

SAPINDACEAE. SOAPBERRY FAMILY.

CARDIOSPERMUM L.

Cardiospermum Halicacabum L. (classical name).

Balloon Vine. Heart-seed.

Rare. Escaped from gardens to waste ground in Bridgeport (Eames). Oct. Fugitive from the Tropics.

AESCULUS L. Horse-chestnut. Buckeye.

Aesculus Hippocastanum L. (horse-chestnut).

Common Horse-chestnut.

Rare. Southington, escaped from cultivation to a fence-row (Andrews). June. Native of Asia.

Extensively planted for shade or ornament.

BALSAMINACEAE. TOUCH-ME-NOT FAMILY.

IMPATIENS L. Balsam. Jewelweed.

Impatiens pallida Nutt. (pale).

Impatiens aurea Muhl. (?)

Pale Touch-me-not.

Damp, rocky woods. Rare in most districts, becoming occasional in the northwestern part of the state. July — Sept.

The herb possesses the same properties as the following species.

Impatiens biflora Walt. (two-flowered).

Impatiens fulva Nutt.

Spotted Touch-me-not. Snap-weed. Silver Weed.

Common. Moist or wet, mostly shaded places. July — Sept.

A form with pale yellow flowers occurs at Thompson (Weatherby & Bissell).

The plant bears cleistogamous fertile flowers in the earlier stages of its growth. Medicinal; it is said also to be efficacious in relieving the effects of poisoning by species of *Rhus* and stinging nettles.

RHAMNACEAE. BUCKTHORN FAMILY.

RHAMNUS L. Buckthorn.

Rhamnus alnifolia L'Hér. (alder-leaved).

Dwarf Alder.

Rare or local. In swamps: Litchfield (Weatherby & Bissell), Cornwall (E. E. Brewster), Norfolk (Bissell), Salisbury (M. L. Fernald), East Granby (Harger). May.

Rhamnus cathartica L. (cathartic).

Common Buckthorn.

Rare or local. Escaped from cultivation to roadsides and pastures: Stonington, Lebanon, Woodstock and Stafford (Graves), Norwich (Mrs. E. E. Rogers), Middletown (J. D. Cochrane), East Hartford (C. C. Hanmer), Waterbury (A. E. Blewitt), New Milford and Kent (C. K. Averill), Cornwall and Norfolk (Bissell), Salisbury (Mrs. C. S. Phelps). May — June. Naturalized from Europe.

A good hedge plant. The berries and bark are actively cathartic. Another species of this genus, *Rhamnus Purshiana* DC. of western North America, furnishes the well known *Cascara sagrada*.

CEANOTHUS L. Red-root.

Ceanothus americanus L.

New Jersey Tea. Red-root.

Common. Dry, open woods and fields in sterile soil. June — July.

The leaves are said to have been used during the American revolution as a substitute for tea. The root and leaves were formerly used for dying wool red. Medicinal.

VITACEAE. VINE FAMILY.

PSEDERA Neck. Virginia Creeper. Woodbine.

Psedera quinquefolia (L.) Greene (five-leaved).

Ampelopsis quinquefolia Michx.

Parthenocissus quinquefolia Planch.

Woodbine. American Ivy.

Frequent or common. Woods, thickets and fence-rows. June.

Often cultivated, and very attractive as an ornamental plant, especially in autumnal foliage. The bark and young twigs have medicinal properties.

Psedera quinquefolia (L.) Greene, var. hirsuta (Donn) Rehder (hairy).

Woods and thickets. Occasional or frequent in Litchfield County, not reported elsewhere. June.

Psedera vitacea (Knerr) Greene (like Vitis, the Grape).
Woodbine

Woods and thickets. Apparently occurs in most parts of the state, but its exact distribution and frequency are not known. June.

VITIS L. Grape.

Vitis labrusca L. (classical name).

Northern Fox Grape. Fox or Skunk Grape.

Frequent or common. Woods, swamps and thickets. Iune: fruit mid-Aug.— Sept.

The fruit is often gathered for making jelly and preserves. The cultivated Isabella, Catawba, Concord and Brighton grapes are derived from this species, and it is the parent of the greater part of American cultivated grapes. Rarely occurs with fruit amber-green or reddish brown in color. The Niagara and some other so-called White Grapes are derivatives of this form.

Vitis aestivalis Michx. (belonging to summer).

Summer, Pigeon or Bunch Grape.

Frequent or common. Woods and thickets. June; fruit Sept.— Oct.

Hybridizes to some extent with Vitis labrusca and is next

in importance to that species as a source of cultivated varieties. Its derivatives are largely wine grapes.

Vitis bicolor Le Conte (two-colored).

Summer or Blue Grape.

Rare. In thickets: Southington and Colebrook (Bissell). June; fruit Sept.—Oct.

Vitis vulpina L. (pertaining to a fox).

Vitis riparia Michx.

River-bank or Frost Grape.

Frequent on banks of rivers and streams; rare or occasional in other situations. June; fruit Sept.— Oct.

The leaves, tendrils and fruit are somewhat medicinal, as are those of other species of the genus.

TILIACEAE. LINDEN FAMILY.

TILIA L. Linden. Basswood.

Tilia americana I.

Basswood, American Linden, Whitewood,

Occasional. Woods, fence-rows and fields. June —July. The wood is light, white and soft, but is durable, and well adapted for carriage bodies, cabinet work, interior finish of houses, and light boxes, such as honey boxes. It also makes a fine grade of charcoal. The fibrous inner bark is made into mats and cordage. It is an important honey plant and the saps yields sugar. The flowers and bark are sometimes used medicinally.

Tilia Michauxii Nutt.

Tilia pubescens of Gray's Manual, ed. 6, not Ait. Basswood.

Rare. Wooded hillsides: Ledyard (Graves), Franklin (Graves, R. W. Woodward), Old Lyme (Miss A. M. Ryon). Late June—early July.

Tilia vulgaris Hayne (common).

European Linden.

Rare. Escaped from cultivation to roadsides in Hartford (H. S. Clark & Bissell). June. Introduced from Europe.

This is the species so much esteemed for street decoration in Berlin.

MALVACEAE. MALLOW FAMILY.

ABUTILON Mill. Indian Mallow.

Abutilon Theophrasti Medic.

Abutilon Avicennae Gaertn.

Abutilon Abutilon Rusby.

Velvet Leaf.

Occasional. Waste places and roadsides. Aug.—Sept. Naturalized from Asia.

Abutilon pictum (Gill.) Walp. (painted).

Abutilon striatum Dicks.

Flowering Maple. Tassel Tree.

Rare. Salisbury, a few plants in waste ground as an escape from cultivation (H. S. Clark). June — Aug. Fugitive from Brazil.

SIDA L.

Sida spinosa L. (spiny).

Rare. Bridgeport, several plants in a dry sandy waste (Eames). Sept. Fugitive from the Tropics.

ALTHAEA L. Marsh Mallow.

Althaea officinalis L. (of the shops).

Marsh Mallow. Sweatweed. Mortification Root.

Rare. Borders of marshes: Norwich (Mrs. E. E. Rogers), Guilford (G. H. Bartlett & Bissell). July — Aug. Naturalized from Europe.

The root, the leaves and the flowers are medicinal, the first named officinal. The root is very mucilaginous and is used in the manufacture of confectionery.

Althaea rosea (L.) Cav. (rose-colored).

Hollyhock.

Rare. Waste places and street gutters as an escape from gardens: New London (Graves), Hartford (H. S. Clark & Bissell), New Britain (J. N. Bishop), Meriden (Andrews), Bridgeport and Fairfield (Eames). July—Aug. Adventive from southern Europe.

An old and deservedly popular garden plant.

MALVA L. Mallow.

Malva rotundifolia L. (round-leaved).

Common or Dwarf Mallow. Cheeses.

Common. Waste places and cultivated fields. May — Oct. Naturalized from Europe.

Sometimes troublesome as a weed. The plant is medicinal, and like most species of this family abounds in mucilage.

Malva crispa L. (curled).

Curled Mallow.

Rare. Escaped from gardens to cultivated ground: East Lyme (Miss A. M. Ryon), Oxford (Harger). June — Aug. Adventive from Europe.

Malva sylvestris L. (of woods).

High Mallow.

Rare or local. Roadsides and waste ground: Norwich (Mrs. E. E. Rogers), East Lyme (Miss A. M. Ryon), New Haven (O. D. Allen), Southington (Bissell), Oxford (Harger), Bridgeport (Eames), Litchfield (Miss E. H. Thompson). Aug.—Sept. Adventive from Europe.

The plant is medicinal.

Malva moschata L. (musky).

Musk Mallow or Rose.

Rare, but found throughout the state. Escaped from gardens to roadsides and waste ground. June — Aug. Adventive from Europe.

Malva Alcea L. (classical name for some mallow).

European Mallow.

Rare. Roadsides and waste ground as an escape from gardens: Griswold and East Lyme (Graves), Stafford and Southington (Bissell), East Granby (H. S. Clark), Trumbull (J. P. Coles), Weston (Eames & C. C. Godfrey), Salisbury (Mrs. C. S. Phelps). June — Sept. Adventive from Europe.

HIBISCUS L. Rose Mallow.

Hibiscus syriacus L.

Rose of Sharon. Shrubby Althaea.

Rare. Meriden, ballast ground (Andrews), Fairfield,

freely escaped to a shrubby hillside (Eames), Salisbury (C. C. Godfrey). Aug. Naturalized from Asia.

Hibiscus Moscheutos L. (producing offsets).

Wild or Swamp Rose Mallow.

Frequent along the coast in brackish and saline marshes; rare inland as at Woodbury (Harger). Aug.— Sept.

The root is sometimes used medicinally. Will thrive in any garden soil and is well worthy of cultivation.

Hibiscus Trionum L.

Bladder Ketmia, Flower-of-an-Hour.

About old gardens and in waste places as an escape from cultivation. Rare in most districts: Ledyard (Graves), Guilford (G. H. Bartlett), East Windsor (Bissell), Southington (Andrews). Occasional in the southwestern part of the state. July — Aug. Adventive from Europe.

Hibiscus esculentus L. (edible).

Okra. Gumbo.

Rare. Waste ground in Fairfield (Eames). Aug.—Sept. Fugitive from tropical Asia.

Much cultivated in the South for its young pods which are added to soups and stews. It can be grown successfully in southern Connecticut.

HYPERICACEAE. ST. JOHN'S-WORT FAMILY. HYPERICUM L. St. John's-Wort.

Hypericum Ascyron L. (classical name for some species of St. John's-wort).

Great St. John's-wort.

Alluvial soil on banks of streams. Rare in most districts: Wethersfield and Simsbury (A. W. Driggs), Southington (Andrews). Occasional along the Housatonic River throughout its course. July — Aug.

Hypericum perforatum L. (perforated).

Common St. John's-wort.

Common. Waste places, open fields and roadsides. May —June. Naturalized from Europe.

The herb is medicinal and is used as a substitute for Arnica.

Hypericum punctatum Lam. (dotted).

Hypericum maculatum Walt., not Crantz.

Hypericum corymbosum Muhl.

Hypericum maeulatum Walt., var. subpetiolatum Bicknell.

Frequent. Moist ground. July - Aug.

Hypericum prolificum L. (prolific; fertile).

Shrubby St. John's-wort.

Rare. Escaped from cultivation to fields and roadsides: Woodstock (Graves & Harger), Salisbury (Mrs. C. S. Phelps). June — Aug. Adventive from the South.

Hypericum adpressum Bart. (appressed).

Rare. Wet shores: Lisbon (W. A. Setchell & Graves), Lebanon (Mrs. C. B. Graves), East Lyme (Miss A. M. Ryon). June—July.

Hypericum Bissellii Robinson.

Rare. Open rocky woods: Southington (Bissell). July — Aug.

Hypericum ellipticum Hook. (oval).

Pale St. John's-wort.

Common. Moist places and along streams. Late June — July.

Hypericum boreale (Britton) Bicknell (northern).

Hypericum canadense L., var. minimum Gray's Manual ed. 6.
 Wet or moist sandy soil. Probably occasional or frequent throughout but its exact distribution is not known. July — Sept.

Hypericum mutilum L. (mutilated).

Dwarf St. John's-wort.

Common. Moist or wet sandy ground along streams and in ditches and about ponds. July — Sept.

Hypericum majus (Gray) Britton (larger).

Hypericum canadense L., var. majus Gray.

Moist sandy ground, usually along streams. Rare or local in most parts of the state: Groton (Graves), Union (Bissell), Southington (Andrews, Bissell). Occasional along the Connecticut River and in parts of New Haven and Fairfield Counties. July — Aug.

Hypericum canadense L.

Common. Sandy ground, usually in moist or wet but sometimes in dry places. July — Sept.

Hypericum gentianoides (L.) BSP. (gentian-like).

Hypericum nudicaule Walt.

Sarothra gentianoides L.

Orange Grass. Pineweed.

Common. Dry sandy or rocky ground, often plentiful on sand plains. Aug.— Sept.

Hypericum virginicum L.

Triadenum virginicum Raf.

Elodea campanulata Pursh.

Marsh St. John's-wort.

Frequent. Swamps and in shallow water. July - Sept.

ELATINACEAE. WATERWORT FAMILY.

ELATINE L. Waterwort.

Elatine americana (Pursh) Arn.

Mud Purslane.

Muddy shores and in shallow water. Rare or local in most districts: Norwich (Mrs. E. E. Rogers), Groton, Lyme and Old Lyme (Graves), Guilford (G. H. Bartlett), Southington (Andrews & Bissell), Middlebury (Harger), Kent (Eames & E. H. Austin). Local or occasional in southwestern Connecticut. July — Aug.

CISTACEAE. ROCKROSE FAMILY.

HELIANTHEMUM Mill. Rockrose.

Helianthemum canadense (L.?) Michx.

Frostweed.

Frequent. Dry sandy or gravelly places. Mid-May —July. The plant is medicinal.

Helianthemum majus BSP. (larger).

Frostweed.

Frequent. Dry open ground in sandy or gravelly soil. June —July.

HUDSONIA L.

Hudsonia tomentosa Nutt. (woolly).

False Heather. Poverty Grass.

Rare, occasional or local on sand dunes along the coast from Groton (Graves), westward as far as Westport (Eames & C. C. Godfrey); occurs also inland at Ledyard (Graves). Late May—June.

LECHEA L. Pinweed.

Lechea villosa Ell. (hairy).

Lechea major Michx., not L.

Hairy Pinweed.

Common. Roadsides, fields and waste ground in sterile soil. July-Aug.

Lechea minor L. (smaller).

Lechea thymifolia Michx.

Rare or local. Dry open ground or in half-shade: New London and East Lyme (Graves), Middletown and Enfield (Bissell), Southington (Andrews), Kent (Eames), Salisbury (Mrs. C. S. Phelps). July — Aug.

Lechea intermedia Leggett (intermediate).

Lechea minor Gray's Manual ed. 6.

Open ground or thin woods in sterile soil. Rare near the coast, becoming frequent or common northward. July — Aug.

Lechea maritima Leggett (of the seaside).

Lechea minor L., var. maritima Gray.

Beach Pinweed.

Frequent on sandy beaches and dunes along the coast. July — Aug.

Lechea maritima Leggett, var. interior Robinson (inland).

Dry sandy or sterile soil. Rare or occasional in the south-eastern part of the state, extending to Sterling (Graves), East Hartford (Weatherby), and Southington (Andrews). July — Aug.

Lechea tenuifolia Michx. (fine-leaved).

Frequent. Dry sandy or sterile ground. July - Aug.

Lechea Leggettii Britton & Hollick.

Lechea moniliformis Bicknell.

Dry or sandy places. Occasional or local in New London County (Graves); not reported elsewhere. July — Aug.

VIOLACEAE. VIOLET FAMILY.

VIOLA L. Violet. Heart's-ease.

Viola pedata L. (like a bird's foot; referring to the form of the leaves).

Viola pedata L., var. bicolor Pursh.

Bird-foot Violet.

Dry sandy or rocky ground. Rare in its typical form: New Milford (Miss S. Hartwell), Branford (Miss R. Doolittle), and rarely near the coast eastward (Graves).

The var. LINEARILOBA DC. (very narrow-lobed), *Viola pedata* of Gray's Manual ed. 6, not L., is frequent in most parts of the state and is sometimes common on sandy plains. May and sometimes again in Sept.

Occasionally occurs with white or pink flowers.

Viola cucullata Ait. (hooded).

Viola palmata L., var. cucullata Gray in part.

Marsh Blue Violet.

Frequent or common. Wet meadows, swamps and banks of streams. May—June.

Sometimes occurs with white, pale or variegated flowers. A hybrid with Viola fimbriatula is frequent; a hybrid with Viola palmata occurs at East Lyme (Miss A. M. Ryon); hybrids with Viola papilionacea and Viola sororia are occasional; a hybrid with Viola Brittoniana occurs locally along the coast westward (Eames); a hybrid with Viola septentrionalis occurs at Killingly (Weatherby & Bissell); a hybrid with Viola sagittata occurs at Windsor (Bissell) and Fairfield (Eames).

This and the twelve species immediately following constitute a group of closely related species that hybridize freely when growing together. These hybrids show characters more or less intermediate between those of the parents, and many of them have been described as species. They are often plentiful locally and vigorous in growth, but show impaired fertility, a large proportion of the ovules never forming seeds.

Viola nephrophylla Greene (kidney-leaved).

Viola vagula Greene.

Rare. Rich humus about a cold spring on a wooded hillside, Salisbury (Mrs. C. S. Phelps & Bissell), New Milford, moist ledges on river bank (Bissell). May.

Viola affinis Le Conte (related).

Viola venustula Greene.

Viola obliqua of Britton's Manual.

Rich woods and thickets, mostly in alluvial soil. East Lyme (Miss A. M. Ryon), Windsor (Weatherby), Plainville (Andrews), Southington (Bissell), and occasional along the Housatonic River in the northwestern part of the state. May—June.

Viola latiuscula Greene (somewhat broad).

Rare. Rich woods or moist grassland: Southington and Cornwall (Bissell). May.

Viola papilionacea Pursh (butterfly-like).

Viola palmata L., var. cucullata Gray in part.

Common. Meadows, pastures and open places. May — June.

A hybrid with $Viola\ sagittata$ occurs at Glastonbury (Bissell); a hybrid with $Viola\ sororia$ is occasional throughout.

Sometimes found with pure white flowers, or white flecked with blue.

Viola palmata L. (palmate).

Dry woods. Rare in New London County: Ledyard (Graves), East Lyme (Miss A. M. Ryon). Occasional elsewhere. May—June.

A hybrid of this with Viola papilionacea is sometimes found.

Viola triloba Schwein. (three-lobed).

Viola palmata L., var. dilatata Pollard, not Ell.

Occasional. Rich woods either dry or moist. May — June.

Viola sororia Willd. (sisterly).

Viola palmata L., var. sororia Pollard.

Woolly Blue Violet.

Occasional or frequent. Woods and dry open ground. May—June.

Viola septentrionalis Greene (northern).

Rare. Roadsides and shaded banks: Union, East Windsor, Plainville, New Hartford and Winchester (Bissell). May—June.

Viola fimbriatula J. E. Smith (finely fringed).

Viola sagittata Gray's Manual ed. 6 in part.

Viola ovata Nutt.

Common. Dry fields and woods. April - May.

Hybrids of this with Viola palmata, Viola papilionacea, Viola sagittata and Viola sororia are occasional. A hybrid with Viola Brittoniana is reported from Southington (Andrews), and occurs at Fairfield (Eames).

Rarely seen with white flowers.

Viola sagittata Ait. (arrow-head shaped).

Viola subsagittata Green.

Moist or dry sandy or heavy soils. Generally rare: East Lyme (Miss A. M. Ryon), Glastonbury, Windsor and Bloomfield (Bissell), Plainville and Southington (Andrews). Occasional along the coast in Fairfield County (Eames). May—June.

A hybrid of this with *Viola Brittoniana* is reported from Southington (Andrews), and occurs along the coast in Fair-field County (Eames).

Viola Brittoniana Pollard.

Viola septemloba of authors, not LeConte.

Viola atlantica Britton, not Pomel.

Meadows or sometimes dry open places. Occasional or local along the coast from New Haven westward (Eames). May—June.

Viola pectinata Bicknell (comb-like).

Rare. Stratford, inner edge of salt meadows (C. C. Godfrey). May —June.

A hybrid of this with $Viola\ Brittoniana$ occurs at Stratford (Eames).

Viola lanceolata L. (lance-shaped).

Lance-leaved Violet.

Low meadows, swamps and wet places about ponds. Rare or occasional in Litchfield County but frequent or common elsewhere. May—June.

Viola primulifolia L. (primrose-leaved).

Primrose-leaved Violet.

Moist sandy woods, meadows and open swamps. Occasional over most of the state but not reported from Litchfield County. May—June.

Viola pallens (Banks) Brainerd (pale).

Viola blanda of recent American authors, not Willd.

Sweet White Violet.

Common. Moist or wet fields and woods or in swamps. May —June.

Viola blanda Willd. (mild).

Viola amoena LeConte.

Viola blanda Willd., var. palustriformis Gray.

Occasional or frequent. Moist or wet woods in rich soil. May —June.

Viola incognita Brainerd (unknown).

Rare. Deep moist or wet woods: North Canaan (Bissell), Salisbury (Mrs. C. S. Phelps, Weatherby), Colebrook (Weatherby). May.

Viola rotundifolia Michx. (round-leaved).

Early Yellow Violet. Round-leaved Violet.

Damp woods and cool shaded banks. Rare or local in New London County: Waterford and Franklin (Graves), Norwich (Mrs. E. E. Rogers). Becoming occasional or frequent northward and westward. April — May.

Viola odorata L. (fragrant).

English or Sweet Violet.

Rare. About gardens as an escape from cultivation: New London (Graves), Norwich (Mrs. E. E. Rogers), East Wind-

sor (Bissell), Southington (Andrews), Waterbury (A. E. Blewitt), Oxford (Harger), Bridgeport (Miss A. E. Carpenter). April — May. Adventive from Europe.

The herb and the flowers are medicinal.

Viola pubescens Ait. (downy).

Downy Yellow Violet.

Occasional or frequent. Rich woods. May-June.

Viola scabriuscula Schwein. (slightly rough).

Viola pubescens Ait., var. scabriuscula Torr. & Gray.

Smooth Yellow Violet.

Rare or occasional. Rich woods usually in moist soil. Late April — May.

Viola canadensis L.

Canada Violet.

Rare. Rocky woods in moist rich soil: New Haven, station now obliterated (H. W. Bailey), Guilford (W. R. Dudley), Torrington (Miss B. A. Parker), Colebrook (H. C. Beardslee). May—July.

Viola conspersa Reichenb. (sprinkled).

Viola canina L., var. Muhlenbergii Gray.

Viola labradorica of recent American authors, not Schrank. Viola Muhlenbergii Torr.

Dog Violet.

Frequent. Moist or dry woods and fields. May -June.

Viola rostrata Pursh (beaked).

Long-spurred Violet.

Rich woods. Guilford (G. H. Bartlett), Meriden (D. C. Eaton), Wilton (G. P. Ells); becoming occasional northward in western Connecticut. May.

Viola tricolor L. (three-color).

Heart's-ease. Johnny-jump-up. Pansy.

Rare or occasional. An escape about old gardens. May —July. Introduced from Europe.

One of the oldest of garden flowers, of which the modern Pansy is an improved form.

Viola arvensis Murr. (of cultivated land).

Field or Wild Pansy.

Rare. Cultivated ground, meadows and waste places: Southington (Mrs. J. Dunham), Oxford (Harger), Bridgeport (Eames). May — Oct. Adventive from Europe.

CACTACEAE. CACTUS FAMILY.

OPUNTIA Mill. Prickly Pear. Indian Fig.

Opuntia vulgaris Mill. (common).

Opuntia Opuntia Coult.

Prickly Pear. Indian Fig.

Exposed rocks and in sandy soils. Occasional along the coast; rare inland, reaching Scotland (G. Waldo), Guilford, at North Guilford (G. H. Bartlett), Naugatuck and Beacon Falls (J. K. Goodrich), Seymour and Oxford (Harger). June—July.

THYMELAEACEAE. MEZEREUM FAMILY.

DIRCA L. Leatherwood. Moosewood.

Dirca palustris L. (of marshes).

Wicopy. Leatherwood. Moosewood.

Damp rich woods. Rare near the coast and in eastern Connecticut: Scotland (G. Waldo), Guilford (G. H. Bartlett), Orange (Harger), Bridgeport (Eames). Becoming occasional northward and westward. April — May.

The bark is very tough and was formerly used by the Indians for thongs. Medicinal.

LYTHRACEAE. LOOSESTRIFE FAMILY. ROTALA L.

Rotala ramosior (L.) Koehne (very branching).

Rare or local. Moist meadows and shores of ponds: Griswold (Harger & Graves), Stratford, Milford and Bridgeport (Eames). July — Sept.

DECODON J. F. Gmel. Swamp Loosestrife.

Decodon verticillatus (L.) Ell. (whorled).

Water Willow. Swamp Loosestrife.

Local or frequent. Shallow water of swamps or edges

of ponds and streams, sometimes plentifully bordering such places. July — Sept.

A form with double flowers occurs at Plainville (J. N. Bishop).

LYTHRUM L. Loosestrife.

Lythrum alatum Pursh (winged).

Rare or local. Moist fields and open swamps: Norwich (Mrs. E. E. Rogers), Farmington (A. W. Driggs & Weatherby), Fairfield (Eames), Orange and Norfolk (Bissell), Salisbury (Mrs. C. S. Phelps). June — Aug.

Lythrum Salicaria L. (willow-like).

Spiked or Purple Loosestrife.

Rare or local. River banks and moist meadows: East Haddam (Dr. E. J. Thompson), Southington (Andrews, Bissell), Bristol (D. C. Eaton), Fairfield (Eames), Woodbury (H. S. Clark & Bissell), Litchfield (Miss E. H. Thompson), Danbury (C. K. Averill), New Milford (E. H. Austin), Salisbury (Mrs. C. S. Phelps). July—Aug. Naturalized from Europe.

CUPHEA P. Br.

Cuphea petiolata (L.) Koehne (having leaf-stalks).

Cuphea viscosissima Jacq.

Parsonsia petiolata Rusby.

Clammy Cuphea.

Moist or dry open ground and pastures. Rare in most districts: Groton (Harger & Graves), Guilford (G. H. Bartlett & Bissell), East Hartford (A. W. Driggs & Weatherby), Wallingford and Oxford (Harger), Plainville (J. N. Bishop), Danbury (Miss G. L. Northrop). Local throughout southwestern Connecticut (Eames). Aug.—Sept.

MELASTOMACEAE. MELASTOMA FAMILY.

RHEXIA L. Deergrass. Meadow Beauty.

Rhexia virginica L.

Meadow Beauty.

Low fields and meadows. Rare or absent in northwestern Connecticut, becoming occasional eastward and southward and frequent in the vicinity of the coast. July — Sept.

ONAGRACEAE. EVENING PRIMROSE FAMILY.

LUDVIGIA L. False Loosestrife.

Ludvigia alternifolia L. (alternate-leaved).

Seedbox.

Occasional or frequent. Moist places and about swamps. June — $\operatorname{Aug}\nolimits_{\boldsymbol{\cdot}}$

Ludvigia sphaerocarpa Ell. (globular-fruited).

Rare. Guilford, shallow water of ponds (W. H. Dudley, G. H. Bartlett). Aug.; fruit Sept.— Oct.

Ludvigia polycarpa Short & Peter (many-fruited).

Local. Hartford, plentiful about shallow ponds in meadows along the Connecticut River (C. Wright, H. S. Clark & Bissell). July — Aug.

Ludvigia palustris (L.) Ell. (of marshes).

Isnardia palustris L.

Marsh or Water Purslane.

Frequent or common. In streams, on muddy shores or in shallow water. June — Sept.

EPILOBIUM L. Willow-herb.

Epilobium angustifolium L. (narrow-leaved).

Chamaenerion angustifolium Scop.

Great Willow-herb. Fireweed.

Occasional or frequent. Woodlands and pastures, more often in newly cleared land. July — Sept.

The leaves and roots are used medicinally.

Epilobium molle Torr. (soft).

Epilobium strictum Muhl. (?).

Open bogs and swamps. Rare or local in the northwestern part of the state, extending eastward to East Hartford (Weatherby) and southward to Fairfield (Eames). Aug.—Sept.

Epilobium densum Raf. (close together).

Epilobium lineare Muhl. (?).

Occasional to frequent. Swamps and wet places. July — Sept.

Epilobium palustre L. (of marshes).

Rare. Litchfield, only one plant in a shaded sphagnum bog (Bissell). Aug.—Sept.

Epilobium palustre L., var. monticola Haussk. (living in mountains).

Rare. Sphagnum bogs: Wolcott (Bissell), Monroe (Harger), New Fairfield (Eames). Aug.—Sept.

The leaves and root are medicinal, as are those of the species.

Epilobium coloratum Muhl. (colored).

Moist or wet shaded places. Rare in the southeastern part of the state: Lyme (Graves). Frequent or common elsewhere. July — Aug.

Epilobium adenocaulon Haussk. (having glandular stems).

Damp woods and moist open ground. Rare in most districts: Salisbury (Mrs. C. S. Phelps), Norfolk and Middletown (Bissell), Watertown (Harger), Stratford (Eames), New Britain (Bissell). Frequent in New London County (Graves). July — Sept.

OENOTHERA L. Evening Primrose.

Oenothera cruciata Nutt. (cross-shaped).

Oenothera biennis L., var. cruciata Torr. & Gray.

Onagra cruciata Small.

Rare or local. Waste ground: Hartford (H. S. Clark), Salisbury (Mrs. C. S. Phelps). July — Aug.

Oenothera Oakesiana Robbins.

Oenothera biennis I., var. Oakesiana Gray.

Onagra Oakesiana Britton in part.

Frequent along the coast on sea beaches, sand dunes and railway embankments (Graves, Eames). July — Oct.

Oenothera biennis L. (of two years).

Onagra biennis Scop.

Common Evening Primrose.

Common. Dry fields, pastures and roadsides. June — Oct.

All parts of the plant are used medicinally.

Oenothera grandiflora Ait. (large-flowered).

Oenothera biennis L., var. grandiflora Lindl.

Onagra biennis Scop., var. grandiflora Lindl.

Rare. Open ground: Franklin and Griswold (Graves), Southington (Andrews), Bridgeport (Eames), Norfolk (J. H. Barbour), Litchfield (Miss E. H. Thompson). Aug.—Oct. Adventive or fugitive from the South.

Oenothera laciniata Hill (slashed).

Oenothera sinuata L.

Rare. Waste ground: Norwich (Mrs. E. E. Rogers), East Lyme (Miss A. M. Ryon), East Hartford (J. F. Smith), Derby (Harger), Bridgeport (Eames). May—June. Fugitive from the southern United States.

Oenothera pumila L. (dwarf).

Kneiffia pumila Spach.

Frequent or common. Moist or dry open fields and roadsides. June — Aug.

Oenothera fruticosa L. (shrubby).

Sundrops.

Kneiffia fruticosa Raimann.

Rare. Borders of marshes: East Haven (G. Thurber), Fairfield (Eames). June—July.

The var. HIRSUTA Nutt. (rough-hairy), Kneissia fruticosa Raimann, var. pilosella Britton, has been found in a field at Southington (H. M. Whitney), but afterward disappeared.

Oenothera linearis Michx. (very narrow).

Oenothera fruticosa L., var. linearis Wats.

Kneiffia linearis Spach.

Wet meadows and about marshes. Frequent or local along the coast from New Haven (H. S. Clark) westward; extending inland to Oxford and Southbury (Harger) and Woodbury (H. S. Clark). June—Aug.

Kneiffia Alleni Small or Oenothera fruticosa L. var. humifusa Allen is a sprawling or decumbent form of this, growing in barren sand; it occurs at Stratford (Eames).

The var. EAMESII Robinson is rare: Stratford, sandy shore of a salt pond (Eames).

Oenothera longipedicellata (Small) Robinson (having long flower-stalks).

Kneiffia longipedicellata Small.

Low meadows and borders of marshes. Occasional on the coast from Milford (Eames) westward; and inland at Southbury (A. E. Blewitt) and Woodbury (H. S. Clark & Bissell). June — July.

Oenothera pratensis (Small) Robinson (of meadows).

Kneiffia pratensis Small.

Rare. Border of salt marsh: Bridgeport (I. F. Moore). June.

GAURA L.

Gaura biennis L. (of two years).

Rare or local. Dry open ground: Southington (Bissell), New Haven (H. S. Clark, Harger), Oxford and Seymour (Harger). Aug.— Sept. In part adventive from the West.

CIRCAEA L. Enchanter's Nightshade.

Circaea lutetiana L.

Occasional or frequent. Moist woods. July - Aug.

Circaea alpina L. (alpine).

Rocky woods in moist humus. Rare in southern districts: North Stonington (Graves), Guilford (G. H. Bartlett), Orange and Huntington (Eames). Becoming occasional northward. June—July.

HALORAGIDACEAE. WATER MILFOIL FAMILY.

MYRIOPHYLLUM L. Water Milfoil.

Myriophyllum spicatum L. (spiked).

Rare. Litchfield, in Bantam Lake (T. F. Allen), Kent, in Spectacle Ponds (Eames). July — Aug.

Myriophyllum verticillatum L. (whorled), var. pectinatum Wallr. (comb-like).

Myriophyllum verticillatum Gray's Manual ed. 6 in part. Rare. In ponds and rivers: Lyme (Grayes), Guilford (G. H. Bartlett), Southington (Bissell, Andrews), Plainville (J. N. Bishop), Litchfield (Miss E. H. Thompson), New Milford and Kent (Eames). June—Aug.

Myriophyllum scabratum Michx. (roughened).

Myriophyllum pinnatum BSP., at least in part, possibly Potamogeton pinnatum Walt.

Water Milfoil.

Rare. Muddy shores of ponds: Groton and East Lyme (Graves). July — Sept.

Myriophyllum humile (Raf.) Morong (lowly).

Myriophyllum ambiguum Nutt., var. limosum Nutt. Water Milfoil.

Rare to frequent. Borders of ponds and on muddy shores. July — Sept.

The forma NATANS (DC.) Fernald (floating), Myriophyllum ambiguum Nutt., and the forma CAPILLACEUM (Torr.) Fernald (hair-like), Myriophyllum ambiguum Nutt., var. capillaceum Torr., both occur in shallow or deep water of ponds, the latter even in rapid water.

Myriophyllum tenellum Bigel. (delicate).

Rare. Muddy shores and in shallow water: New London County (Graves), Litchfield (T. F. Allen), Kent (E. H. Austin & Eames). July — Aug.

PROSERPINACA L. Mermaid-weed.

Proserpinaca palustris L. (of marshes).

Mermaid-weed.

Frequent. Borders of ponds and in swamps. July -Aug.

ARALIACEAE. GINSENG FAMILY.

ACANTHOPANAX Dene. & Planch.

Acanthopanax pentaphyllum (Thunb.) Marchal (five-leaved). Acanthopanax.

Rare. Hartford, escaped from cultivation to roadside (H. S. Clark & Bissell). July. Adventive from Japan.

ARALIA I.

Aralia spinosa L. (spiny).

Angelica Tree. Hercules' Club. Devil's Walking-stick.
Rare. Escaped from cultivation to a roadside in Bridge-port (Eames). July—Aug. Adventive from the South.

Aralia racemosa L. (racemose).

Spikenard. American Spikenard. Spignet. Hungry-root. Occasional. Rich woods and thickets. July—Aug. The root is medicinal and is much used both in profes-

sional and domestic practice.

Aralia hispida Vent. (rough-haired).

Bristly Sarsaparilla. Wild Elder.

Occasional or local. Dry rocky woods or in sandy ground. June — Aug .

The root is of medicinal value.

Aralia nudicaulis L. (naked-stemmed).

Wild, False or American Sarsaparilla.

Frequent or common. Dry or moist woodlands. May —June. The aromatic root is used medicinally.

PANAX L. Ginseng.

Panax quinquefolium L. (five-leaved).

Aralia quinquefolia Dene. & Planch.

Ginseng.

Rare. Rich woods or rocky hillsides: Lyme and East Haddam (Graves), Guilford (G. H. Bartlett), Middletown (Harger), Southington (Andrews & Bissell), West Hartford (Miss A. Lorenz), Farmington (Bissell), Wolcott (Andrews), Woodbridge (P. P. Sperry), Colebrook (J. W. Robbins), Goshen (L. M. Underwood), Danbury (F. Mills), New Fairfield (Eames). June; fruit Aug.

The roots are much prized by the Chinese and are exported to China in large quantities, but they seem to be of no great medicinal value.

Panax trifolium L. (three-leaved).

Aralia trifolia Dene. & Planch.

Dwarf Ginseng. Groundnut.

Rich moist woods, often in sandy soil. Mid-April — June.

UMBELLIFERAE. PARSLEY FAMILY.

ERYNGIUM L. Eryngo.

Eryngium planum L. (flat).

Rare. Fairfield, in sandy waste ground (Eames). Aug.—Sept. Fugitive from Europe.

Eryngium yuccifolium Michx. (having leaves like Yucca, the Spanish Bayonet).

Eryngium aquaticum of Britton's Manual.

Rattlesnake Master, Button Snakeroot,

· Rare. Bridgeport, in a sandy field (Eames). July. Introduced from the South, or possibly native.

The rootstock is medicinal.

SANICULA L. Sanicle. Black Snakeroot.

Sanicula marilandica L.

Frequent. Rich woods and more open places in either moist or dry ground. June —July.

The roots of this and the other species of the genus are used medicinally and their fibres in veterinary practice.

Sanicula gregaria Bicknell (herding together).

Rich moist or wet woods. Rare in most districts: New Britain (Bissell), Southington (Andrews, Bissell), Norfolk (J. H. Barbour), Seymour (Harger). Occasional in the southwestern part of the state (Eames). June—July.

Sanicula canadensis L.

Sanicula marilandica L., var. canadensis Torr.

Occasional or frequent. Dry rocky woods. June -July.

Sanicula trifoliata Bicknell (three-leaved).

Rare or local. Woods and fence-rows: New Britain and Plainville (Bissell), Southington (Andrews, Bissell), Oxford (Harger). June—July.

HYDROCOTYLE L. Water Pennywort.

Hydrocotyle umbellata L. (umbellate).

Rare or local. Muddy shores and in shallow water: Thompson (R. W. Woodward & Weatherby), Groton, East

Lyme and Old Lyme (Graves), Guilford (G. H. Bartlett), New Haven (C. Wright), Hamden and Litchfield (D. C. Eaton), Oxford (Harger), Ridgefield (Eames). June — Sept.

Hydrocotyle americana L.

Common. Moist woods and shaded places and in bogs. June — Sept.

OSMORHIZA Raf. Sweet Cicely.

Osmorhiza Claytoni (Michx.) Clarke.

Osmorhiza brevistylis DC.

Washingtonia Claytoni Britton.

Sweet Cicely.

Rocky woods. Rare in the eastern part of the state, becoming occasional or frequent westward. Late May —June.

The roots are less aromatic than those of Osmorhiza longistylis.

Osmorhiza longistylis (Torr.) DC. (long-styled).

Washingtonia longistylis Britton.

Sweet Cicely. Anise-root. Sweet Chervil.

Frequent. Rich woods, thickets and fence-rows. May — June.

An aromatic oil is obtained from the root.

CONIUM L. Poison Hemlock.

Conium maculatum L. (spotted).

Poison Hemlock. Spotted Parsley.

Rare. Roadsides and waste places: Groton and New London (Graves), Oxford and Woodbury (Harger), Bridgeport (Eames), Sharon (Bissell), Salisbury (Mrs. C. S. Phelps, Bissell). June — Aug. Naturalized from Europe.

An actively poisonous plant well known as the Hemlock of the ancients. The fruit and leaves are medicinal, the first named officinal. Cases of accidental poisoning to man have arisen from mistaking the seed for anise seed, the leaves for those of parsley, and the root for parsnips. The seed has been found to some extent as an adulterant of anise seed. Blowing whistles made from the hollow stem has also been reported as a cause of poisoning.

PTILIMNIUM Raf. Mock Bishop's-weed.

Ptilimnium capillaceum (Michx.) Raf. (hair-like).

Discopleura capillacea DC.

Mock Bishop's-weed.

Occasional to frequent in salt, brackish and fresh marshes along the coast and within tidal influence a few miles inland: also extends up the Conencticut River as far as East Haddam (Dr. E. J. Thompson). Late July — Sept.

AEGOPODIUM L. Goutweed.

Aegopodium Podagraria L. (pertaining to gout).

Goutweed. Goutwort. Herb Gerard.

Rare. Yards, streets and waste places as an escape from cultivation: East Windsor (Bissell), Hartford (Mrs. W. Seliger), Norwalk (E. H. Baldwin). June. Adventive from Europe.

Occurs only in the variegated form.

CICUTA L. Water Hemlock.

Cicuta maculata L. (spotted).

Spotted Cowbane. Musquash Root. Beaver Poison. Water Hemlock.

Frequent. Swamps and borders of streams. July — Aug. One of the most dangerously poisonous of native plants, and many cases of fatal poisoning to man have been reported. As a rule the root has been mistaken for some edible or innocent root like Horseradish, Sweet Cicely, etc. Cattle are poisoned by eating the rootstock or by drinking water containing juice from the bruised root. The leaves are used medicinally.

Cicuta bulbifera L. (bulb-bearing).

Water Hemlock.

Occasional or frequent. Banks of ponds and streams. Iuly - Aug.

CARUM L. Caraway.

Carum Carvi L. (classical name for this species).

Caraway.

Occasional or local. Escaped from cultivation to fields and roadsides. June - July. Adventive from Europe.

The seeds are much used to flavor cakes and cookies and are eaten as a carminative.

PETROSELINUM Hoffm. Parslev.

Petroselinum hortense Hoffm. (of gardens).

Petroselinum Petroselinum Karst.

Carum Petroselinum Benth. & Hook.

Apium Petroselinum L.

Common or Garden Parsley.

Rare. Escaped from cultivation to waste ground in Bridgeport and Stratford (Eames). July - Aug. Adventive from Europe.

SIUM L. Water Parsnip.

Sium cicutaefolium Schrank (hemlock-leaved).

Sium lineare Michx

Sium Carsonii Durand.

Occasional. Swamps and along streams in wet places. June - Sept.

CRYPTOTAENIA DC. Honewort.

Cryptotaenia canadensis (L.) DC.

Deringa canadensis Kuntze.

Honewort.

Frequent. Moist shady places. June - July.

ZIZIA Koch.

Zizia aurea (L.) Koch (golden).

Golden Alexanders. Golden Meadow Parsnip.

Common. Low fields and wet meadows. May-June. The var. OBTUSIFOLIA Bissell (blunt-leaved), occurs at South Windsor and Canaan (A. W. Driggs); and Salisbury (Bissell).

Zizia cordata (Walt.) DC. (heart-shaped).

Dry or wet copses. Rare in most districts: Groton (Graves), Branford (Andrews), Farmington (D. C. Eaton). Occasional in Fairfield County (Eames). June—Oct.

FOENICULUM Hill. Fennel.

Foeniculum vulgare Hill (common).

Foeniculum officinale All.

Foeniculum Foeniculum Karst.

Common or Garden Fennel.

Rare or local. Escaped from cultivation to roadsides and ballast grounds: Southington (Andrews), New Milford (E. H. Austin & Eames), Bridgeport (Eames). July — Sept. Adventive from Europe.

The seeds are aromatic, well known for their medicinal properties, and are officinal.

TAENIDIA Drude.

Taenidia integerrima (L.) Drude (quite entire).

Pimpinella integerrima Grav.

Yellow Pimpernel.

Rare. New Haven (A. B. Eaton, 1859), Stratford and Milford, dry, lightly wooded banks along the Housatonic River (Eames), also at Wilton (Miss A. E. Carpenter). May—June.

LILAEOPSIS Greene.

Lilaeopsis lineata (Michx.) Greene (marked with lines). Crantzia lineata Nutt.

Muddy tidal shores: Norwich (W. A. Setchell), Montville, East Lyme and Old Lyme (Graves). Local or occasional along the coast westward. June—Aug.

LIGUSTICUM L. Lovage.

Ligusticum scothicum L.

Sea Parsley. Scotch Lovage.

Rocky shores of the Sound. Occasional from East Lyme (Graves) eastward. July — Aug.

CORIANDRUM L. Coriander.

Coriandrum sativum L. (sown).

Coriander.

Rare. Escaped from cultivation or spontaneous in waste places in Bridgeport (Eames). June—July. Fugitive from Europe.

The seeds are commonly used as flavoring in confections, pastries, liquors, etc.

AETHUSA L. Fool's Parsley.

Aethusa Cynapium L. (dog-parsley).

Fool's Parsley.

Rare. Waste ground: Norwalk (E. H. Baldwin, Eames). June — Sept. Adventive from Europe.

The plant is poisonous.

PASTINACA L. Parsnip.

Pastinaca sativa L. (sown).

Wild or Poison Parsnip.

Common. Roadsides and waste places. June — Sept. Naturalized from Europe.

Well known in cultivation, from which the wild plant is an escape. The plant is poisonous to some persons.

LEVISTICUM Hill. Lovage.

Levisticum officinale (L.) Koch (of the shops).

Ligusticum Levisticum L.

Levisticum Levisticum Karst.

Lovage.

Rare. Roadsides and waste ground: Oxford (Harger), Salisbury (Mrs. C. S. Phelps). July — Aug. Adventive from Europe.

Commonly cultivated in old gardens for its carminative seeds, which are believed to possess several medicinal properties.

ANETHUM L. Dill.

Anethum graveolens L. (strong-smelling).

Dill.

Rare. Escaped from cultivation or spontaneous in waste

places: Stratford and Bridgeport (Eames). July—Aug. Fugitive or adventive from Europe.

The seeds are commonly used as flavoring in confections, pastries, liquors, etc.

HERACLEUM L. Cow Parsnip.

Heracleum lanatum Michx. (woolly).

Cow Parsnip. Masterwort.

Occasional or frequent. Roadsides and waste ground in moist soils. June — July.

The root, leaves and seeds are medicinal.

CONIOSELINUM Fisch. Hemlock Parsley.

Conioselinum chinense (L.) BSP.

Conioselinum canadense Torr. & Gray.

Hemlock Parsley.

Rare. Wet, cold woods and banks: Kent (E. H. Austin & Eames), Cornwall (E. E. Brewster), Canaan (C. K. Averill), Salisbury (Bissell). Aug.—Sept.

ANGELICA L. Angelica.

Angelica villosa (Walt.) BSP. (hairy).

Angelica hirsuta Muhl.

Moist or dry fields and woods. New Haven (D. C. Eaton), Southington (Andrews & Bissell), and occasional westward, becoming frequent near the coast. July — Aug.

Angelica atropurpurea L. (dark purple).

Masterwort. Purple or High Angelica.

Rare to occasional. Wet ground along streams. June — July.

The root and seeds are used medicinally. The fresh root is poisonous.

DAUCUS L. Carrot.

Daucus Carota L. (classical name for the Carrot).

Wild Carrot.

Common. Fields, roadsides and waste places. June — Sept. Naturalized from Europe.

One of our most persistent, troublesome and wide-spread

weeds. A statute of Connecticut enacted in 1881, provides that "Every owner or possessor of lands shall cut down all wild carrots and Canada thistles growing thereon, or in the highway adjoining, so often as to prevent going to seed; and upon failure so to do, any person aggrieved, or any citizen of the town wherein the lands are situated, may complain to any grand juror of said town, who shall thereupon forthwith notify such owner or possessor of such complaint. If said owner or possessor shall still neglect to comply with the provisions of this section, he shall be fined not more than five dollars for each and every day of such neglect after such notice." Revised Statutes, Sec. 1374.

All parts of the plant have medicinal properties.

CORNACEAE. DOGWOOD FAMILY.

CORNUS L. Cornel. Dogwood.

Cornus canadensis L.

Dwarf or Low Cornel. Bunchberry.

Low or rocky woods and in swamps. Rare over most of the state, becoming frequent in Litchfield County. May—June.

Cornus florida L. (flowering).

Flowering Dogwood. Boxwood.

Occasional, local or frequent, mostly in rocky woods. May. One of the most beautiful of our flowering trees and worthy of much more extensive cultivation. The bark, especially of the root, is used medicinally, and the powdered bark makes a good tooth-powder. The bark also yields a scarlet dye, and mixed with sulphate of iron makes a good black ink. The wood is heavy and close-grained and is used to make tool-handles and other small articles of turnery.

Cornus circinata L'Hér. (rounded).

Round-leaved Cornel or Dogwood.

Usually in rocky woods or on ledges. Rare in New London County (Graves); local or occasional elsewhere. May—June.

The bark is used medicinally.

Cornus Amomum Mill. (classical name for some shrub).

Cornus sericea L.

Cornus Purpusi Koehne.

Silky Cornel. Kinnikinnik. Swamp Dogwood.

Frequent. Low thickets and along streams. June —July.

The bark is used medicinally.

Cornus stolonifera Michx. (shoot-bearing).

Red-osier Cornel or Dogwood.

Wet places. Common in northwestern Connecticut, extending eastward to East Granby (I. Holcomb) and southward to New Milford (C. K. Averill); occurs also at East Hartford on a river bank (A. W. Driggs). May—June.

A good shrub for planting in moist soils.

Cornus paniculata L'Hér. (panicled).

Cornus candidissima Marsh. (?), not Mill.

Panicled Cornel.

Occasional or frequent. Roadsides, thickets and borders of woods in either dry or moist ground. July.

A handsome shrub both in flower and fruit, and well worthy of cultivation.

Cornus alternifolia L. f. (alternate-leaved).

Dogberry.

Frequent. Fence-rows, copses and open woods. May — June.

NYSSA L. Tupelo. Pepperidge. Sour Gum.

Nyssa sylvatica Marsh. (of woods).

Black or Sour Gum. Pepperidge. Tupelo.

Frequent. Woods and fields, usually in moist or wet ground. June.

The wood is soft but very hard to split; it is used for beetle-heads, chopping-bowls, rollers, etc. A tree of interesting habit and, especially in autumn, very ornamental. Worthy of cultivation, but very difficult to transplant from the wild.

ERICACEAE. HEATH FAMILY.

CLETHRA L. White Alder.

Clethra alnifolia L. (alder-leaved).

Sweet Pepperbush.

Swamps and low thickets. Rare in Litchfield County: Kent (E. H. Austin), Litchfield (Miss E. H. Thompson). Frequent elsewhere. July — Aug.

Often cultivated for its very fragrant white flowers.

CHIMAPHILA Pursh. Pipsissewa.

Chimaphila umbellata (L.) Nutt. (umbellate).

Prince's Pine. Pipsissewa.

Occasional or frequent. Dry woods. June—July. The leaves are medicinal and are officinal.

Chimaphila maculata (L.) Pursh (spotted).

Spotted Wintergreen.

Occasional or frequent. Dry woods. July — Aug. Has medicinal properties similar to those of *Chimaphila* umbellata.

MONESES Salisb. One-flowered Pyrola.

Moneses uniflora (L.) Gray (one-flowered).

Moneses grandiflora S. F. Gray.

One-flowered Pyrola or Wintergreen.

Rare or local. Pine woods: Woodstock (Graves), Union (H. E. Back), Avon (H. S. Clark), East Granby (I. Holcomb), Norfolk (Miss M. C. Seymour), Newtown (I. P. Blackman), Canaan (W. H. Leggett), Salisbury (Mrs. C. S. Phelps). June—July.

PYROLA L. Wintergreen. Shin Leaf.

Pyrola secunda L. (one-sided).

Dry woods, often under pines and hemlocks. Rare near the coast: Ledyard (Graves), Hamden (Harger), Orange (Eames), Fairfield (L. N. Johnson). Occasional or local elsewhere. June—July.

Pyrola chlorantha Sw. (green-flowered).

Dry woods, usually under evergreens. Rare near the

coast: Ledyard (Graves), Guilford (W. R. Dudley). Becoming occasional northward. June.

Pyrola elliptica Nutt. (oval).

Shin Leaf.

Occasional to frequent. Dry woods, usually in rich soil. June — July.

Pyrola americana Sweet.

Pyrola rotundifolia Gray's Manual ed. 6, not L.

Round-leaved Shin Leaf.

Frequent or local. Dry woods. June -July.

This, like all other species of the genus, is sometimes used medicinally.

MONOTROPA L. Indian Pipe. Pinesap.

Monotropa uniflora L. (single-flowered).

Indian Pipe. Corpse Plant. Fit-root. Ghost-flower.

Frequent. Moist or dry woods in rich soil. July — Aug. The root is sometimes employed medicinally and has been used as a substitute for opium.

Monotropa Hypopitys L. (under pine trees).

Hypopitys Hypopitys Small.

Hypopitys lanuginosa Nutt.

Hypopitys americana Small.

Pinesap. False Beech-drops.

Occasional. Rich woods. Aug. - Sept.

LEDUM L. Labrador Tea.

Ledum groenlandicum Oeder.

Ledum latifolium Ait.

Labrador Tea.

Rare or local. Bogs or sphagnum swamps: Willington (Graves), Norfolk (Miss M. C. Seymour). June.

The leaves are medicinal.

RHODODENDRON L.

Rhododendron viscosum (L.) Torr. (sticky).

Azalea viscosa L.

Clammy Azalea. White Swamp Honeysuckle.

Low thickets and swamps. Rare or occasional in northwestern Connecticut; frequent elsewhere. June—July.

The var. Glaucum (Michx.) Gray (glaucous) is occasional growing with the typical form. The var. NITIDUM (Pursh) Gray (shining) is rare: Groton and Waterford (Graves), Huntington (Eames), Oxford (Harger).

Rarely occurs with pink flowers.

$\label{eq:Rhododendron nudiflorum (L.) Torr. (naked-flowered).}$

Azalea nudiflora L.

Purple, Pink or Wild Azalea. Pinxter Flower. May Apple. Wild Honeysuckle.

Frequent or common. Woods and thickets. May — June. This and the following species are desirable shrubs for cultivation.

Rhododendron canescens (Michx.) G. Don (hoary).

Azalea canescens Michx.

Purple Azalea.

Rare. Woods and thickets: Colchester and Voluntown (Graves), Norfolk and Salisbury (Bissell). May—June.

Rhododendron canadense (L.) BSP.

Rhododendron Rhodora Don.

Rhodora canadensis L.

Rhodora.

Swamps and low woods and thickets. Rare in most districts: Voluntown (Graves), East Hartford (A. W. Driggs), Enfield (Mrs. G. S. Phelps), Burlington (J. N. Bishop), Southington (J. Shepard), North Haven (A. W. Evans), Middlebury (Harger). Occasional or local in northeastern Connecticut. May.

Noteworthy as the subject of one of Emerson's best known poems.

Rhododendron maximum L. (greatest).

Great Laurel. Rhododendron. Rose Bay.

Rare or local. Swampy woods or rarely on dry wooded hillsides: Litchfield, New London and Tolland Counties. July.

One of the most striking of the broad-leaved evergreens, and extensively planted for ornament. The leaves contain a poisonous principle and are sometimes used in medicine.

KALMIA L. American Laurel.

Kalmia latifolia L. (broad-leaved).

Mountain Laurel. Calico Bush. Spoon-wood.

Frequent, local or common. Woods and thickets. June. Often planted for ornament. All parts of the plant are poisonous except the wood. Many instances of fatal poisoning of stock from eating this and allied plants have been reported. Sheep and young cattle are most susceptible, but horses and even goats have been known to die from the effects of it. Cases of human poisoning are quite rare. The leaves are employed medicinally.

The following act of the General Assembly was approved and became a law April 17, 1907:—"The Mountain Laurel, Kalmia latifolia, is hereby made, constituted, and declared to be the State Flower of the State of Connecticut."

Kalmia angustifolia L. (narrow-leaved).

Sheep Laurel. Lambkill. Wicky.

Bogs, wet ground or open pastures. Local in Fairfield County; frequent or common elsewhere. June—July.

Its medicinal and poisonous properties are as in Kalmia latifolia.

Kalmia polifolia Wang. (gray-leaved).

Kalmia glauca Ait.

Pale or Swamp Laurel.

Rare. Sphagnum bogs: Burlington (J. N. Bishop), Norfolk (J. H. Barbour), Litchfield (Bissell), Woodbury (Harger), Ridgefield (S. B. Mead), Kent (C. K. Averill), Salisbury (Mrs. C. S. Phelps). May —June.

LEUCOTHOË D. Don. Fetter Bush.

Leucothoë racemosa (L.) Gray (racemose).

Leucothoë.

Rare or local. Moist woods or in swamps: Groton, Waterford, Ledyard and East Haddam (Graves), Haddam and Durham (Dr. E. J. Thompson), Middlefield (C. S. Phelps), East Hartford (A. W. Driggs), Stratford (Eames), Huntington (Harger). May—June.

ANDROMEDA L.

Andromeda glaucophylla Link (glaucous-leaved).

Andromeda Polifolia mostly of American authors, not L.

Bog or Marsh Rosemary. Marsh Holy Rose.

Rare. Sphagnum bogs: East Granby (Bissell), Litchfield (J. P. Brace, Harger, Weatherby & Bissell), Norfolk (J. H. Barbour), Kent (Eames, C. K. Averill), Ridgefield (S. B. Mead), Danbury (Miss G. L. Northrop). May—June.

LYONIA Nutt.

Lyonia mariana (L.) D. Don.

Andromeda mariana L.

Pieris mariana Benth. & Hook.

Stagger-bush.

Rare. Stratford, shrubby bank near the coast (J. P. Coles). June.

In New Jersey and southward it is injurious to sheep when eaten by them, producing a disease called "Staggers," hence its common name. A valuable shrub in cultivation.

Lyonia ligustrina (L.) DC. (like Ligustrum, the Privet).

Andromeda ligustrina Muhl.

Xolisma ligustrina Britton.

Male Berry.

Frequent or common. Woods, thickets and pastures; sometimes in dry but usually in moist ground. June—July.

Like the preceding species, is poisonous to stock, especially to sheep.

Lyonia ligustrina (L.) DC., var. foliosiflora (Michx.) Fernald . (having leaves intermixed with the flowers).

Xolisma foliosiflora Small.

Low thickets. Forms that apparently belong with this variety occur rarely near the coast. June —July.

CHAMAEDAPHNE Moench. Leather Leaf. Cassandra.

Chamaedaphne calyculata (L.) Moench (calyculate).

Cassandra calyculata D. Don.

Leather Leaf.

Occasional or frequent. Sphagnum swamps and wet places. April — May.

EPIGAEA L. Ground Laurel. Trailing Arbutus.

Epigaea repens L. (creeping).

Trailing Arbutus. Mayflower.

Occasional or local. Rocky or sandy woods, usually preferring granite regions. April — May.

The leaves are used medicinally. In the neighborhood of cities it has been nearly exterminated by careless flowergatherers. A statute of Connecticut, enacted in 1899, provides that "Every person who shall wilfully destroy, pull up, tear up, or dig up, any trailing arbutus from the land of another, or who shall sell, expose for sale, or purchase or have in his possession, any trailing arbutus with the roots or under-ground stems attached, taken from land not owned or occupied by him, shall be fined not more than twenty dollars." Revised Statutes, sec. 1224.

GAULTHERIA L. Aromatic Wintergreen.

Gaultheria procumbens L. (trailing).

Wintergreen. Checkerberry. Boxberry. Teaberry. Ivory Plum.

Occasional or frequent. Dry woods or sometimes in moist open ground, growing in colonies. July — Aug.

The berries and the young leaves are often eaten. The leaves and the volatile oil distilled from them are officinal and widely used in medical practice. The oil is also largely used as a flavoring agent.

ARCTOSTAPHYLOS Adans. Bearberry.

Arctostaphylos Uva-ursi (L.) Spreng. (bear-grape).

Bearberry. Uva-ursi.

Dry sandy or rocky places: Voluntown and Griswold (Graves), Norwich (Mrs. E. E. Rogers), Somers and West Hartford (Miss A. Lorenz), Middletown (J. D. Cochrane), Southington (D. C. Eaton, Andrews). Occasional or local near the coast. May —June.

The leaves are officinal and much used in medicine.

CHIOGENES Salisb. Creeping Snowberry.

Chiogenes hispidula (L.) Torr. & Gray (having fine rough hairs).

Chiogenes serpyllifolia Salisb.

Creeping Snowberry. White Teaberry. Moxie Plum. Capillaire.

Rare. Sphagnum swamps, usually in shade: Preston (W. A. Setchell & Graves), Voluntown (Graves), Burlington (J. N. Bishop), Bethany and Middlebury (Harger), Litchfield (Miss E. H. Thompson), Kent (E. H. Austin), Salisbury (Mrs. C. S. Phelps), Stafford (Weatherby). May—June.

This plant yields a volatile oil identical with that of Gaultheria procumbens.

GAYLUSSACIA HBK. Huckleberry.

Gaylussacia dumosa (Andr.) Torr. & Gray (bushy).

Dwarf Huckleberry.

Rare. Sphagnum bogs: Thompson (Harger), Southington (Andrews), Stratford and Huntington (Eames), Bethany and Middlebury (Harger), Litchfield (J. P. Brace, 1822; Weatherby & Bissell). June—July.

Gaylussacia frondosa (L.) Torr. & Gray (leafy).

Dangleberry. Blue Tangle.

Swamps or open sandy woods. Frequent in New London County (Graves), becoming rare northward and westward, reaching Putnam (Harger), Stafford and East Hartford (Weatherby), Manchester (A. W. Driggs), East Haven, Bethany and Oxford (Harger). June.

The berries are delicious.

Gaylussacia baccata (Wang.) K. Koch (berry-bearing).

Gaylussacia resinosa Torr. & Gray.

Common or Black Huckleberry.

Common. Moist or dry ground in various situations. May —June.

The forma GLAUCOCARPA (Robinson) Mackenzie (glaucous-fruited), Blue Huckleberry, is rare or occasional growing with the typical form.

The common Huckleberry, extensively gathered for market

and for home consumption. The fruit of the blue is often larger and better than that of the ordinary black form.

VACCINIUM L. Blueberry. Cranberry.

Vaccinium stamineum L. (having prominent stamens).

Polycodium stamineum Greene.

Buckberry. Deerberry. Squaw Huckleberry.

Dry woods: Waterbury (J. M. Richardson), New Canaan (E. H. Baldwin), and occasional in western Litchfield County. Late May —June.

A desirable shrub for planting in shaded situations.

Vaccinium pennsylvanicum Lam.

Dwarf Blueberry. Low Sweet or Early Sweet Blueberry.

Common. Dry rocky or sandy woods. May; fruit late June — early July.

The var. Angustifolium (Ait.) Gray (narrow-leaved) is rare: Voluntown (Graves).

The fruit is sweet and delicious but not usually plentiful.

Vaccinium pennsylvanicum Lam., var. nigrum Wood (black).

Vaccinium nigrum Britton.

Low Black Blueberry.

Rare. Rocky woods: Salisbury (Mrs. C. S. Phelps). May.

Vaccinium canadense Kalm.

Sour-top or Velvet-leaf Blueberry.

Rare. Cold moist woods at an altitude of 1900 ft., Salisbury (Weatherby). May; fruit Aug.

Vaccinium vacillans Kalm (swaying).

Late Low Blueberry.

Common. Dry or rocky places. May; fruit July. Fruit inferior to that of the following species.

Vaccinium corymbosum L. (corymbose).

High-bush or Tall Blueberry. Common or Swamp Blueberry or Bilberry.

Common. Swamps, borders of ponds and drier places. May —June; fruit late July — Aug.

Fruit much gathered for market and for domestic use.

Vaccinium corymbosum L., var. amoenum (Ait.) Gray (pleasant).

Swamps and wet places. Occasional in the vicinity of the coast. May — early June.

Vaccinium atrococcum (Gray) Heller (having black berries). Vaccinium corymbosum L., var. atrococcum Gray.

Black High Blueberry.

Occasional. Swampy woods and wet thickets. May — June.

Vaccinium Oxycoccos L. (sour berry).

Oxycoccus Oxycoccus MacM.

Small Cranberry.

Sphagnum bogs: Willington (Graves), Bloomfield (Weatherby), Southington (Andrews), Bethany (Harger), Stratford (Eames). Becoming occasional in northwestern Connecticut. May —June; fruit Sept. and through the winter.

The var. OVALIFOLIUM Michx. (oval-leaved), var. intermedium Gray's Manual ed. 7, occurs at Willington, Norfolk and Salisbury (Bissell), Simsbury (A. W. Driggs), Cornwall (E. E. Brewster).

Vaccinium macrocarpon Ait. (large-fruited).

Oxycoccus macrocarpus Pursh.

Cranberry. Large or American Cranberry.

Occasional or frequent. Wet meadows, bogs and low pastures. June — Aug.; fruit Sept.

Extensively cultivated on Cape Cod, Massachusetts, and in some parts of New Jersey, for its fruit, which is of much value and is sold everywhere in the markets. "Turkey and Cranberry Sauce" is almost a national dish.

PLUMBAGINACEAE. LEADWORT FAMILY.

LIMONIUM Hill. Sea Lavender. Marsh Rosemary.

Limonium carolinianum (Walt.) Britton.

Statice Limonium L., var. caroliniana Gray.

Marsh Rosemary. Sea Lavender. Ink-root. Canker-root. Common along the coast on salt marshes and meadows. July — Sept.

The root has long been used in medicine.

PRIMULACEAE. PRIMROSE FAMILY.

HOTTONIA L. Featherfoil. Water Violet.

Hottonia inflata Ell. (inflated).

Water Violet. American Featherfoil.

Ditches and shallow water. Rare or local near the coast; not reported far inland. June.

SAMOLUS L. Water Pimpernel. Brook-weed.

Samolus floribundus HBK. (abounding in flowers).

Samolus Valerandi L., var. americanus Gray.

Water Pimpernel. Brook-weed.

Occasional in salt or brackish marshes along the coast, and rare inland as at Ridgefield (Eames & C. C. Godfrey). June — Oct.

LYSIMACHIA L. Loosestrife.

Lysimachia vulgaris L. (common).

Golden Loosestrife.

Rare. Wilton, along roadside (Miss A. E. Carpenter). July. Fugitive from Europe.

Lysimachia punctata L. (dotted).

Spotted Loosestrife.

Rare. Escaped from gardens to roadsides and waste places: Norwich (W. A. Setchell, Mrs. E. E. Rogers & Graves), Preston (Graves), Guilford (G. H. Bartlett), Westport (Eames), Wilton (Miss A. E. Carpenter). June—July. Naturalized from Europe.

Lysimachia quadrifolia L. (four-leaved).

Cross-wort.

Common. Woods and thickets. June -July.

The root is medicinal.

XLysimachia producta (Gray) Fernald (lengthened).

Lysimachia foliosa Small.

Rare. Fields and thickets, mostly near the coast: Ledyard (Graves), Groton and Putnam (Harger), Stratford and Fairfield (Eames), Norwalk (Bissell), Stamford (W. H. Hoyt). June—July.

This is regarded as a hybrid between Lysimachia quadrifolia and Lysimachia terrestris.

Lysimachia terrestris (L.) BSP. (terrestrial).

Lysimachia stricta Ait.

Frequent. Low grounds and open swamps. Late June — Aug.

Lysimachia Nummularia L. (coin-like, referring to the shape of the leaves).

Moneywort. Yellow Myrtle.

Frequent. Lawns, roadsides and waste places, usually in moist soil. June—July. Naturalized from Europe.

An escape from gardens and often a pest in lawns.

The plant is medicinal, in domestic practice applied to sores and wounds.

Lysimachia thyrsiflora L. (having its flowers in a thyrse). Naumburgia thyrsiflora Duby.

Tufted Loosestrife.

Rare or local. Wet places about ponds: North Branford (G. H. Bartlett), Bloomfield and East Granby (Weatherby), Plainville (J. N. Bishop), Southington (Andrews), Hamden and Litchfield (Harger), Norfolk (J. H. Barbour), Kent (C. K. Averill), Salisbury (Mrs. C. S. Phelps, Bissell). June—early July.

STEIRONEMA Raf.

Steironema ciliatum (L.) Raf. (fringed).

Fringed Loosestrife.

Frequent. Thickets and low grounds. July - Aug.

Steironema lanceolatum (Walt.) Gray (lance-shaped).

Swamps and borders of ponds and streams. Rare inland: Ledyard and North Stonington (Graves), New Milford (I. Holden & Baker). Occasional near the coast. July—Aug.

TRIENTALIS L. Chickweed Wintergreen.

Trientalis americana (Pers.) Pursh.

Star Flower.

Occasional to frequent. Rich, usually moist woods. May—June.

ANAGALLIS L. Pimpernel.

Anagallis arvensis L. (of cultivated ground).

Common Pimpernel. Poor Man's Weather-glass.

Sandy or rocky ground and waste places. Rare inland: Southington (Andrews), Oxford (Harger). Frequent on or near the coast. June — Sept. Naturalized from Europe.

The var. CAERULEA (Schreb.) Ledeb. (sky-blue) is rare in lawns or waste ground: Granby (I. Holcomb), Norwalk (Miss A. E. Carpenter).

EBENACEAE. EBONY FAMILY.

DIOSPYROS L. Persimmon.

Diospyros virginiana L.

Common Persimmon.

Rare. In New Haven, at Lighthouse Point, there is a grove of about one hundred and twenty-five small trees on the beach not far from the water's edge. Here they are exposed to fierce winds and winter storms which drive the salt water up around them, consequently they are not in a flourishing condition. This station is said to have been known as early as 1846, when the ground where they now stand was grassy and fertile. This is the only known station for this species in New England, and it is possible that it may not be native here but introduced from some more southern locality. July: fruit Oct.

OLEACEAE. OLIVE FAMILY.

FRAXINUS L. Ash.

Fraxinus americana L.

White Ash.

Frequent. Woods and fields. May.

The wood is hard, white and tough; valued for interior finish, furniture, carriage-building, ladders, oars, tool-handles and agricultural implements. The bark is medicinal.

Fraxinus pennsylvanica Marsh.

Fraxinus pubescens Lam.

Fraxinus Darlingtonii Britton.

Red, Brown or River Ash.

Frequent. Along streams and in swamps, sometimes in drier places. May.

The timber is of less value than that of the White Ash, though used for furniture and the interior finish of buildings. Its medicinal properties are the same as those of *Fraxinus americana*.

Fraxinus pennsylvanica Marsh., var. lanceolata (Borkh.) Sarg. (lance-shaped).

Fraxinus viridis Michx.

Fraxinus lanceolata Borkh.

Green Ash.

Rare. Low grounds: Norwich, Bozrah and Stonington (Graves), Rocky Hill (Andrews), New Haven (D. C. Eaton). May.

Fraxinus nigra Marsh. (black).

Fraxinus sambucifolia Lam.

Black, Swamp, Basket or Hoop Ash.

Occasional. Swamps and along streams. May.

The wood is much used for interior finish, cabinet work, barrel hoops and basket making. Medicinal properties the same as those of *Fraxinus americana*.

Fraxinus excelsior L. (taller).

Rare. Fairfield, roadside distant from any known source of origin (Eames). May. Native of the Old World.

FORSYTHIA Vahl.

Forsythia viridissima Lindl. (very green).

Golden Bell.

Rare. Wethersfield, escaped from cultivation to a pasture (H. S. Clark & Bissell). May. Fugitive from Asia.

SYRINGA L. Lilac.

Syringa vulgaris L. (common).

Common Lilac.

Occasional. Escaped from cultivation to roadsides and about abandoned house-sites. May. Naturalized from Europe.

LIGUSTRUM L. Privet.

Ligustrum vulgare L. (common).

Privet. Prim.

Roadsides and thickets as an escape from cultivation. Rare inland: Thompson and Wethersfield (Bissell), Woodbury and Oxford (Harger). Occasional or frequent near the coast. June —July. Naturalized from Europe.

GENTIANACEAE. GENTIAN FAMILY.

SABATIA Adans.

Sabatia campestris Nutt. (growing in fields).

Rare. Bridgeport, in waste ground (Eames). Aug.—Sept. Fugitive from the Southwest.

Sabatia stellaris Pursh (star-shaped).

Sea or Marsh Pink. Sabatia.

Occasional or local on borders of salt marshes along the coast. July — Sept.

Rarely occurs with white flowers.

Sabatia dodecandra (L.) BSP. (having twelve stamens). Sabatia chloroides Pursh.

Large Marsh Pink.

Rare. Marshes near the coast: Old Lyme (F. H. Dart), Saybrook (Berzelius Catalogue), Guilford (Miss K. Dudley). July — Sept.

GENTIANA L. Gentian.

Gentiana crinita Froel. (having long hairs; referring to the fringed corolla).

Fringed Gentian.

Occasional or local. Moist meadows and pastures. Sept. — Oct.

The gentian root of medicine, much used as a bitter tonic, comes from *Gentiana lutea* of Europe, but our American species have similar properties and are also used somewhat in the same way.

Gentiana quinquefolia L. (five-leaved).

Gentiana quinqueflora Hill.

Moist fields, roadsides and thickets. New Milford (C. D. Bishop, C. K. Averill), Litchfield (Miss E. H. Thompson), Norfolk (Miss M. C. Seymour), and occasional or frequent in northwestern Connecticut. Sept.—Oct.

Gentiana Andrewsii Griseb.

Closed Gentian. Bottle Gentian.

Occasional or frequent. Moist places and along streams. Sept.— Oct.

Sometimes occurs with white flowers.

BARTONIA Muhl.

Bartonia virginica (L.) BSP.

Bartonia tenella Muhl.

Occasional or frequent. Moist meadows and woods. July — Sept.

Bartonia paniculata (Michx.) Robinson (panicled).

Bartonia lanceolata Small.

Rare or local. Wet woods and meadows: Griswold (Harger), Hartford (H. S. Clark), Plymouth (Bissell), Stratford (Eames), New Milford (C. K. Averill). Aug.— Sept.

MENYANTHES L. Buckbean.

Menyanthes trifoliata L. (three-leaved).

Bog Bean. Marsh Trefoil. Water Shamrock.

Bogs, borders of ponds and in wet meadows. Occasional or local in most parts of the state; frequent in Litchfield County. May—June.

The leaves and rootstock are used medicinally. In parts of northern Europe it is used as a substitute for hops.

NYMPHOIDES Hill. Floating Heart,

Nymphoides lacunosum (Vent.) Fernald (of ponds).

Limnanthemum lacunosum Griseb.

Floating Heart.

Rare or local. In ponds and rivers: Groton and Lyme (Graves), Ledyard (W. A. Setchell), Branford (W. A. Setchell & Harger), Woodstock, Mansfield and Glastonbury

(Weatherby), Windsor (H. S. Clark, Weatherby & Bissell), Southington (Andrews), Litchfield (C. K. Averill), Danbury (F. Mills), Salisbury (Mrs. C. S. Phelps). July—Aug.

APOCYNACEAE. DOGBANE FAMILY.

VINCA L. Periwinkle.

Vinca minor L. (smaller).

Common Periwinkle. Blue Myrtle.

Occasional. Roadsides near dwellings and about cemeteries, escaped from cultivation. April — May. Naturalized from Europe.

Rarely occurs with white or variegated flowers or leaves.

APOCYNUM L. Dogbane. Indian Hemp.

Apocynum androsaemifolium L. (having leaves like Hypericum Androsaemum, the Tutsan).

Spreading Dogbane. Honey-bloom.

Frequent. Fields and roadsides. June — Aug. The plant is medicinal.

Apocynum medium Greene (intermediate).

Apocynum Milleri Britton.

Apocynum urceolifer G. S. Miller.

Occasional or frequent. Dry fields, roadsides and open woods. June — Aug.

Very variable and several forms have been described.

Apocynum cannabinum L. (hemp-like).

American, Canadian or Indian Hemp.

Frequent. Fields, thickets and roadsides, often in sterile soil. June—July. The so-called *Apocynum album* Greene is a dwarfed or prostrate form of this species growing on rocky or sandy banks of streams or ponds, and is occasional.

The fibre has been used as hemp. The rootstock of this and closely allied species has active medicinal properties and is officinal.

Apocynum cannabinum L., var. pubescens (R. Br.) DC. (downy).

Apocynum pubescens R.Br.

Rare. Dry open places: East Lyme (Graves), East Haven and Southington (Bissell), Huntington (Harger), Bridgeport (Eames). July.

ASCLEPIADACEAE. MILKWEED FAMILY.

ASCLEPIAS L. Milkweed. Silkweed.

Asclepias tuberosa L. (tuberous).

Asclepias tuberosa L., var. decumbens Pursh.

Asclepias decumbens L.

Butterfly-weed. Pleurisy-root.

Dry fields and roadsides. Rare in Litchfield County, occasional to frequent in other sections. July — Aug.

The root was formerly officinal and is used medicinally.

Asclepias purpurascens L. (purplish).

Purple Milkweed.

Occasional or frequent. Moist fields and open pastures. June — July.

Asclepias incarnata L. (flesh-colored).

Swamp Milkweed.

Borders of ponds and streams. Occasional along the Connecticut and Housatonic Rivers and in the northwestern part of the state; rare elsewhere. July — Aug.

Asclepias incarnata L., var. pulchra (Ehrh.) Pers. (beautiful).

Asclepias pulchra Ehrh.

Swamp Milkweed.

Swamps and wet places. Frequent except in Litchfield County where it is occasional or rare. July — Aug.

The root is medicinal.

Asclepias syriaca L.

Asclepias Cornuti Dene.

Common Milkweed or Silkweed.

Common. Roadsides, pastures and waste places. July — Aug.

The root is medicinal. The young shoots are used as Asparagus. Sometimes troublesome as a weed.

Asclepias amplexicaulis Sm. (stem-clasping; referring to the leaves).

Asclepias obtusifolia Michx.

Open ground in sandy soil. Rare or local in southern Fairfield County, occasional or frequent elsewhere. June — July.

Asclepias phytolaccoides Pursh (like Phytolacca, the Pokeweed).

Asclepias exaltata Muhl. (?).

Poke Milkweed.

Occasional. Moist woods and thickets. Late June - July.

Asclepias variegata L. (of various colors).

Rare. Dry woods: Norwich (Miss Wohlfurth), East Lyme (Miss A. M. Ryon), Portland (Dr. E. J. Thompson). July.

Asclepias quadrifolia Jacq. (four-leaved).

Occasional. Dry woods. June - July.

Asclepias verticillata L. (whorled).

Whorled Milkweed.

Occasional or local. Sandy or sterile ground. July — Aug.

ACERATES Ell. Green Milkweed.

Acerates viridiflora Ell. (green-flowered).

Rare. Dry open ground: East Haven (O. Harger, H. S. Clark), Oxford (Harger), New Milford (Eames). July—Aug.

The var. Lanceolata (Ives) Gray (lance-shaped), var. *Ivesii* Britton, has been found at New Haven (E. Ives).

CYNANCHUM L.

Cynanchum nigrum (L.) Pers. (black).

Vincetoxicum nigrum Moench.

Black Swallow-wort.

Rare. Roadsides and fields as an escape from cultivation: Stonington (W. E. Britton), New London (Graves), New Haven (H. S. Clark, Harger), Oxford (Harger), Orange and Bridgeport (Eames), Stamford (W. H. Hoyt). June — July. Adventive from Europe.

CONVOLVULACEAE. CONVOLVULUS FAMILY.

IPOMOEA L. Morning Glory.

Ipomoea coccinea L. (red).

Quamoclit coccinea Moench.

Small Red Morning Glory.

Rare. Southington, in waste ground (Andrews), Orange (Harger). July — Sept. Fugitive from the Southwest or from tropical America.

Ipomoea hederacea Jacq. (like Hedera, the Ivy).

Ivy-leaved Morning Glory.

Rare. Roadsides and waste ground as an escape from gardens: New London (Graves), Glastonbury (Bissell), Stratford (Eames), Oxford (Harger), Darien (Miss A. E. Carpenter). Aug.—Sept. Adventive from tropical America.

Ipomoea purpurea (L.) Roth (purple).

Common Morning Glory.

Occasional. Waste places and about old gardens as an escape from cultivation. July — Sept. Adventive or fugitive from tropical America.

Ipomoea pandurata (L.) G. F. W. Mey. (fiddle-shaped).

Wild Potato-vine. Man-of-the-Earth.

Rare. Dry soil of upland pastures: New Milford (J. W. Robbins), Kent (E. H. Austin). June — Aug.

The root is medicinal.

CONVOLVULUS L. Bindweed.

Convolvulus spithamaeus L. (a span long).

Rare or local. Gravelly hillsides: Southington (Andrews), Oxford (Harger), Southbury (B. B. Bristol), New Milford (C. K. Averill & E. H. Austin), Salisbury (Mrs. C. S. Phelps). May—June.

Convolvulus japonicus Thunb.

California Rose.

Rare. Sandy fields as an escape from cultivation, mostly in the double-flowered form: Plainville (Bissell), Southington (Andrews), Trumbull (Eames), Wilton (Miss A. E. Carpenter). July. Adventive from eastern Asia.

Convolvulus sepium L. (of hedges).

Convolvulus sepium L., var. americanus Sims.

Wild Morning Glory. Hedge Bindweed.

Frequent. Sandy fields, roadsides and waste places. June — Aug.

The root is medicinal.

Convolvulus sepium L., var. pubescens (Gray) Fernald (downy).

Convolvulus sepium L., var. repens Gray.

Convolvulus repens L.

Open fields or stony and gravelly places on and near the coast. Frequent eastward, becoming occasional westward. June — Aug.

The root is medicinal.

Convolvulus arvensis L. (of cultivated ground).

Field Bindweed.

Rare. Waste ground and roadsides: New London (Graves), Hartford (H. S. Clark, Bissell), New Haven (Miss A. E. Carpenter), Southington (Andrews), Ansonia (Harger), Orange and Bridgeport (Eames), Westport (Eames & C. C. Godfrey). July. Adventive from Europe.

CUSCUTA L. Dodder. Love Vine.

Cuscuta Epithymum Murr. (upon thyme).

Clover Dodder.

Rare. Clover fields: Mansfield (Mrs. C. S. Phelps), East Windsor and Granby (Bissell), Southington (Andrews), Oxford (Harger), Litchfield (Miss E. H. Thompson), East Lyme (Miss A. M. Ryon), Fairfield (Eames). July—Sept. Adventive from Europe.

Cuscuta arvensis Beyrich (of cultivated ground).

Field Dodder.

Rare. In fields: Granby (Bissell), Oxford and Southbury (Harger). July — Sept.

Cuscuta Coryli Engelm. (of hazel).

Cuscuta inflexa Engelm.

Hazel Dodder.

Rare. On shrubs: Norwich (Mrs. E. E. Rogers). Aug.

Cuscuta Gronovii Willd.

Dodder. Love Vine.

Common. On herbs and low shrubs, often very plentiful in open swamps. July - Sept.

Cuscuta compacta Juss. (compact).

Rare or local. On shrubs: Groton (Graves), Franklin (R. W. Woodward), Milford, Stratford and Westport (Eames). Aug.— Sept.

POLEMONIACEAE. POLEMONIUM FAMILY.

PHLOX L.

Phlox paniculata L. (panicled).

Phlox acuminata Pursh.

Phlox glandulosa Shuttlw.

Phlox amplifolia Britton.

Garden Phlox.

Occasional. Readsides and about old gardens. Aug.-Sept. Adventive from the Southwest.

Phlox maculata L. (spotted).

Wild Sweet William.

Rare. Escaped from cultivation to roadsides and waste places: Waterford (Graves), Franklin (R. W. Woodward & Weatherby), Fairfield, well established at two localities (Eames). June - Aug. In Connecticut adventive from the South or West.

The var. CANDIDA Michx. (shining white) occurs at Fairfield (Eames).

Phlox pilosa L. (hairy).

Rare. Moist grassy bank, Southbury (Harger). May -

This is the only reported station for the species in New England.

Phlox subulata L. (awl-shaped).

Ground or Moss Pink.

Rare to occasional. Escaped from cultivation, often in and near old cemeteries. May. Adventive from the West.

It is seen rarely with white flowers.

POLEMONIUM L. Greek Valerian.

Polemonium Van-Bruntiae Britton.

Polemonium coeruleum Gray's Manual ed. 6, not L.

Rare. In swamps: Salisbury (Mrs. C. S. Phelps). June—July.

HYDROPHYLLACEAE. WATERLEAF FAMILY.

HYDROPHYLLUM L. Waterleaf.

Hydrophyllum virginianum L.

Waterleaf.

Rare or local. Moist or wet shady places: South Windsor (Weatherby), Waterbury (W. H. Paton), Wilton (Miss E. A. Carpenter, Eames), Norwalk (G. P. Ells), North Canaan (H. N. Adams, M. B. Tobey), Salisbury (Mrs. C. S. Phelps). June.

ELLISIA L.

Ellisia Nyctelea L.

Macrocalyx Nyctelea Kuntze.

Rare. New London, in a pasture (Mrs. E. M. Tilton). May—July. Fugitive from the South or West.

PHACELIA Juss.

Phacelia viscida (Benth.) Torr. (sticky).

Rare. Meriden, escaped from cultivation and spontaneous in a spot on which muck had been deposited (Miss E. J. Leonard). June. Fugitive from California.

Phacelia Purshii Buckley.

Rare. Branford, waste ground at Short Beach (Miss E. J. Leonard). May—June. Fugitive from the Central States.

BORAGINACEAE. BORAGE FAMILY.

CYNOGLOSSUM L. Hound's Tongue.

Cynoglossum officinale L. (of the shops).

Common Hound's Tongue.

Rare. Roadsides and pastures: Ledyard (Graves), Meriden and New Haven (Harger), Bridgeport (C. K. Averill), Salisbury (Mrs. C. S. Phelps). June — Aug. Adventive from Europe.

Cynoglossum boreale Fernald (northern).

Cynoglossum virginicum of Gray's Manual ed. 6 in part. Wild Comfrey.

Rare. Rocky woods: East Haven (I. A. Allen). Meriden (Andrews), Norfolk (J. H. Barbour), Barkhamsted and Salisbury (Mrs. C. S. Phelps), Cornwall (E. E. Brewster). June —July.

LAPPULA Moench. Stickseed.

Lappula virginiana (L.) Greene.

Echinospermum virginicum Lehm.

Stickseed. Beggar's Lice.

Frequent, Woods, hedge-rows and thickets in dry ground. July - Aug.

Lappula echinata Gilib. (prickly).

Echinospermum Lappula Lehm.

Lappula Lappula Karst.

Rare. Waste places: New Haven (Merrill), Seymour (Harger), New Milford (Eames & E. H. Austin), Salisbury (Mrs. C. S. Phelps). July — Aug. Adventive from Europe.

AMSINCKIA Lehm.

Amsinckia lycopsoides Lehm. (like Lycopsis, the Bugloss).

Rare. Cultivated or waste ground: Hartford (Bissell), Southington (Andrews), Salisbury (Mrs. C. S. Phelps). May -July. Fugitive from the Pacific Coast.

SYMPHYTUM L. Comfrey.

Symphytum officinale L. (of the shops).

Common Comfrey.

Rare or local. Roadsides, waste places and along streams, usually in moist ground and as an escape from cultivation. June — Aug. Naturalized from Europe.

Formerly used medicinally.

Symphytum tuberosum L. (tuberous).

Rare. Ditches and wet places: Guilford (G. H. Bartlett), Southington (Andrews). May -June. Adventive from Europe.

Symphytum asperrimum Donn (very rough).

Rough Comfrey.

Moist roadsides: Oxford (Harger), Rare. Kent (Eames). June - Aug. Adventive from Europe.

BORAGO L. Borage.

Borago officinalis L. (of the shops).

Borage.

Rare. Bridgeport, escaped from gardens (I. Holden & Baker). June - Sept. Fugitive from Europe.

Cultivated for ornament and for its supposed medicinal properties.

ANCHUSA L. Alkanet.

Anchusa officinalis L. (of the shops).

Rare. Waste ground in Fairfield (Eames). June - Aug. Adventive from Europe.

MYOSOTIS L. Forget-me-not. Scorpion Grass.

Myosotis scorpioides L. (scorpion-like).

Myosotis palustris Hill.

True Forget-me-not.

Along streams as an escape from cultivation: North Branford and Oxford (Harger), Stratford (Eames), Southington (Andrews). May - June. Native of Europe.

Myosotis laxa Lehm. (loose).

Wild Forget-me-not.

Frequent. Along streams and in wet places. May —June.

Myosotis arvensis (L.) Hill (of cultivated ground).

Rare. In grassland: Norwich (Mrs. E. E. Rogers), Ledyard (Graves), Granby (I. Holcomb). May -June.

Myosotis virginica (L.) BSP.

Myosotis verna Nutt.

Occasional or local. Dry, sterile and rocky places. May -Tune.

LITHOSPERMUM L. Gromwell. Puccoon.

Lithospermum arvense L. (of cultivated ground).

Corn Gromwell. Stone-seed.

Occasional. Sandy or waste places. May—June. Naturalized from Europe.

Lithospermum officinale L. (of the shops).

Common Gromwell.

Rare or local. Dry fields and in rocky ground: New Britain (Bissell), Southington (Andrews), North Canaan (Weatherby), New Milford (A. E. Blewitt). June — Sept. Naturalized from Europe.

ONOSMODIUM Michx. False Gromwell.

Onosmodium virginianum (L.) A. DC.

Gravel-weed. Pearl-plant. Wild Job's Tears. False Gromwell.

Rare. Dry or sandy ground: Preston (Graves), East Haddam (Dr. E. J. Thompson), Hartford and Windsor (H. S. Clark), New Haven (D. C. Eaton), Fairfield (Eames), Ansonia and Southbury (Harger), Kent (E. H. Austin). June—July.

The root and seeds are medicinal.

ECHIUM L. Viper's Bugloss.

Echium vulgare L. (common).

Viper's Bugloss. Blue-weed. Blue Devil.

Open sandy or sterile places. Rare or local over most of the state: Montville (Graves), Windsor (H. S. Clark), Southington (Andrews), New Haven (Harger), New Hartford (Andrews & Bissell). Becoming occasional in western Connecticut. July — Aug. Naturalized from Europe.

Sometimes occurs with rose-colored flowers. A showy plant when in bloom, but a bad weed, difficult to eradicate.

VERBENACEAE. VERVAIN FAMILY.

VERBENA L. Vervain.

Verbena officinalis L. (of the shops).

European Vervain.

Rare. Waste ground: New Haven (J. S. Smith), Bridgeport (Eames). June — Sept. Fugitive from the Old World.

The herb was reputed to have many desirable properties and was highly esteemed in old times, but is rarely if ever used now.

Verbena urticaefolia L. (having leaves like Urtica, the Nettle). White Vervain.

Frequent. Fields, roadsides and waste ground. July — Aug.

Verbena angustifolia Michx. (narrow-leaved).

Rare or local. Sandy fields: Waterford (Graves), New Haven (Harger), Orange (Eames, Andrews & Bissell), Stratford (I. Holden & Baker), Southington (Andrews & Bissell), Kent (E. H. Austin, Eames & C. C. Godfrey), Salisbury (Mrs. C. S. Phelps). June —July.

Verbena hastata L. (spear-shaped).

Verbena hastata L., var. pinnatifida Britton.

Blue Vervain.

Frequent. Roadsides, fields and waste places. July — Aug. A hybrid of this with *Verbena urticaefolia* has been collected at Oxford (Harger).

Flowers sometimes rose color. The root and leaves are medicinal and are occasionally used in domestic practice.

Verbena stricta Vent. (upright; straight).

Hoary Vervain.

Rare. Fields and waste places: Old Lyme (Graves), Naugatuck (Mrs. C. H. Lyman), Bridgeport (Eames). June—Aug. Adventive from the West.

Verbena bracteosa Michx. (having bracts).

Rare or local. Waste ground: Hebron (Graves), Naugatuck (Mrs. C. H. Lyman), Bridgeport (Eames), Winchester (M. L. Fernald & Weatherby). June — Aug. Adventive from the West.

Verbena canadensis (L.) Britton.

Verbena Aubletia Jacq.

Verbena Drummondi of authors.

Verbena.

Rare. Escaped from old gardens: Southington (Bis-

sell), Oxford (Harger). June — Sept. Fugitive from the Southwest.

Many of the cultivated forms of Verbena are derived from this species.

LABIATAE. MINT FAMILY.

AJUGA L. Bugle Weed.

Ajuga genevensis L.

Erect Bugle.

Rare. Along roadsides and about dwellings as an escape from cultivation: Middletown (Miss Day), New Haven (D.

C. Eaton), Southington (Andrews & Bissell), Plainville (J.

N. Bishop), Bristol (W. A. Terry), Milford (Eames & C.

C. Godfrey). May —June. Adventive from Europe. Flowers sometimes rose-colored or white.

TEUCRIUM L. Germander.

Teucrium canadense L.

American Germander. Wood Sage.

Rare or occasional. Fields, roadsides and in alluvial soil along streams. July — Aug.

Teucrium canadense L., var. littorale (Bicknell) Fernald (of the sea shore).

Teucrium littorale Bicknell.

Coast Germander.

Frequent on beaches and about salt meadows along the coast. July — Aug.

TRICHOSTEMA L. Blue Curls.

Trichostema dichotomum L. (forked in pairs).

Blue Curls. Bastard Pennyroyal.

Common. Dry sandy or sterile soil. July — Sept. Sometimes occurs with pink flowers.

Trichostema lineare Walt. (very narrow).

Rare. Milford, in sandy soil (J. W. Robbins, 1829). July — Aug.

SCUTELLARIA L. Skullcap.

Scutellaria lateriflora L. (side-flowering).

Mad-dog Skullcap.

Frequent. Wet places, usually in shade. July — Sept. Sometimes occurs with white flowers. The plant was formerly used as a remedy for hydrophobia, whence its common name. It is officinal in medical practice.

Scutellaria galericulata L. (having a small helmet; referring to the calyx).

Marsh Skullcap.

Occasional. Borders of ponds, wet places along streams, open swamps or sometimes also on dry banks or even in sand near the coast. June — Aug.

Sometimes occurs with pink flowers.

Scutellaria integrifolia L. (entire-leaved).

Rare. Sandy fields and in woodland, either dry or moist: Union (G. Towne), Norwich (Mrs. E. E. Rogers), Lyme (Graves), East Haddam (W. E. Nichols), East Hartford (Weatherby), East Windsor and Rocky Hill (Bissell), Hartford (H. S. Clark), Windsor Locks (Miss A. E. Carpenter). July.

Scutellaria parvula Michx. (small), var. ambigua (Nutt.) Fernald (doubtful).

Scutellaria parvula Britton, not Michx.

Rare. Dry sandy or rocky ground: Guilford (G. W. Hawes), East Haven (H. C. Beardslee, Harger), Plainville (J. N. Bishop), Orange (A. H. Young), Salisbury (Mrs. C. S. Phelps). June — Aug.

MARRUBIUM L. Horehound.

Marrubium vulgare L. (common).

Common Horehound.

Rare or occasional. Roadsides and waste ground as an escape from cultivation. June—July. Naturalized from Europe.

Used as a cough medicine and in candy. An officinal medicine.

SIDERITIS L. Ironwort.

Sideritis montana L. (of mountains).

Rare. Naugatuck, one plant in waste ground (A. E. Blewitt). July. Fugitive from southeastern Europe.

AGASTACHE Clayt. Giant Hyssop.

Agastache nepetoides (L.) Kuntze (like Nepeta, the Catnip). Lophanthus nepetoides Benth.

Rare or local. Rocky woods and thickets: Meriden (D. C. Eaton), Southington (Andrews), Derby (Harger), Norwalk (Bissell). Aug.— Sept.

Agastache scrophulariaefolia (Willd.) Kuntze (having leaves like Scrophularia, the Figwort).

Lophanthus scrophulariaefolius Benth.

Rare or occasional. Woods, thickets and waste ground, either moist or dry. July — Aug.

The var. MOLLIS (Fernald) Heller (soft) occurs at Fair-field (Eames).

Agastache Foeniculum (Pursh) Kuntze (like Foeniculum, the Fennel; referring to its odor).

Lophanthus anisatus Benth.

Agastache anethiodora Britton.

Rare. Waste ground: Portland (Mrs. F. W. Starmer). Aug. Fugitive from the West.

NEPETA L. Cat Mint.

Nepeta Cataria L. (of a cat).

Catnip.

Frequent. Fields and waste ground. July — Oct. Naturalized from Europe.

The herb is well known to have strong attraction for cats. Much used in domestic medical practice.

Nepeta hederacea (L.) Trevisan (like Hedera, the Ivy).

Nepeta Glechoma Benth.

Glecoma hederacea L.

Gill-over-the-Ground. Ground Ivy. Gill. Robin Runaway. Frequent. Moist shaded places in fields, waste ground and about old yards. April — June. Naturalized from Europe.

Sometimes a bad weed in lawns and gardens. Formerly used in domestic medical practice.

DRACOCEPHALUM L. Dragon Head.

${\bf Dracocephalum\ parviflorum\ Nutt.\ (small-flowered)}.$

Dragon Head.

Rare. Southington, one plant as a fugitive in a garden (Andrews); also occurs at New Milford (Eames & E. H. Austin). June—July. Native from New York westward.

PRUNELLA L. Self-heal.

Prunella vulgaris L. (common).

Brunella vulgaris of Manuals.

Common Self-heal or Heal-all. Carpenter-weed.

Common. Fields, woods and waste ground, both dry and moist. June — Oct.

Often a troublesome weed in lawns and difficult to eradicate. Formerly used as a medicine. Sometimes occurs with white flowers.

PHYSOSTEGIA Benth. False Dragon Head.

Physostegia virginiana (L.) Benth.

Lion's Heart.

Roadsides and waste ground. Occasional in New London County, becoming rare or local northward and westward. Aug. Introduced from the West.

GALEOPSIS L. Hemp Nettle.

Galeopsis Tetrahit L.

Common Hemp Nettle.

Rare or occasional. Roadsides and waste grounds. July — Sept. Introduced from Europe.

A troublesome weed in some parts of northern New England.

Galeopsis Ladanum L.

Red Hemp Nettle.

Rare. Naugatuck, in waste ground (B. B. Bristol). June—July. Fugitive from Europe.

LAMIUM L. Dead Nettle.

Lamium amplexicaule L. (stem-embracing; referring to the leaves).

Henbit.

Waste or cultivated ground. Occasional in Fairfield County; rare or local elsewhere. May — Oct. Naturalized from Europe.

Lamium purpureum L. (purple).

Red Dead Nettle.

Rare. Waste ground: Fairfield (Eames). May —June. Adventive from Europe.

Lamium hybridum Vill. (mongrel).

Local. Waste or cultivated ground: Cornwall, becoming a weed (T. S. Gold). May —June. Adventive from Europe.

Lamium maculatum L. (spotted).

Spotted Dead Nettle.

Rare. Along roadsides and in yards as an escape from cultivation: Norwich (Mrs. E. E. Rogers), New Haven (D. C. Eaton), Southington (Andrews & Bissell), Woodbury (Harger). May — Oct. Introduced from Europe.

Sometimes occurs with white flowers.

LEONURUS L. Motherwort.

Leonurus Cardiaca L. (of the heart).

Common Motherwort. Lion's Tail. Throw-wort.

Frequent. Roadsides and waste places. June—July. Naturalized from Europe.

Formerly used in domestic medical practice, especially for diseases of women, whence the common name.

BALLOTA L. Fetid Horehound.

Ballota nigra L. (black).

Black Horehound.

Rare. An escape to roadsides: New Haven (D. C. Eaton), Milford (Eames). June — Aug. Native of Europe.

Formerly cultivated because of supposed medicinal qualities.

STACHYS L. Hedge Nettle.

Stachys hyssopifolia Michx. (hyssop-leaved).

Rare. Killingly, sandy border of pond (Bissell), Wallingford (N. Coleman), West Hartford (H. S. Clark). July—Aug.

Stachys tenuifolia Willd. (thin-leaved), var. aspera (Michx.) Fernald (rough).

Stachys aspera Michx.

Rare or local. Moist ground along streams or on roadsides: Lyme (Graves), Glastonbury (A. W. Driggs, Bissell), East Windsor (Bissell), Stratford (Eames). July—Aug.

Stachys palustris L. (growing in marshes).

Woundwort.

Rare. Roadsides, fields and wet meadows: Fairfield and Bridgeport (Eames), Salisbury (Mrs. C. S. Phelps), New Fairfield (Harger). July — Aug.

The var. HOMOTRICHA Fernald (having the hairs alike) occurs at Oxford (Harger).

SALVIA L. Sage.

Salvia lyrata L. (lyre-shaped).

Lyre-leaved Sage.

Local. About a fourth of an acre of grassy meadow is covered with this species in Woodbridge (Harger). May—June.

Salvia pratensis L. (belonging to a meadow).

Meadow Sage.

Rare. Fields and cultivated ground: Norwich (Mrs. E. E. Rogers), Southington (L. Fox). June. Fugitive from Europe.

Salvia officinalis L. (of the shops).

Garden Sage.

Rare. Roadsides and cultivated ground as an escape from cultivation: Southington (Andrews), Milford (Eames). June. Adventive from Europe.

The leaves are officinal in medical practice, also used for flavoring meats, cheese, etc.

Salvia splendens Ker (shining).

Scarlet Sage.

Rare. Escaped from cultivation to waste places: Westport (Eames). Sept.—Oct. Fugitive from Brazil.

MONARDA L. Horse Mint.

Monarda didyma L. (twin).

Bee Balm. Oswego Tea. Fragrant Balm.

Rare or occasional. Roadsides, about old houses and borders of woods as an escape from cultivation. July — Aug. Naturalized from the West.

The herb finds some popular uses in medical practice, depending on its aromatic properties. All our species are similar in this respect and are one of the sources of thymol.

Monarda clinopodia L. (like Clinopodium, the Basil). Basil Balm.

Rare. Waste ground and roadsides: Ledyard (Graves), Waterbury (A. E. Blewitt). July - Aug. Adventive from the West.

Monarda fistulosa L. (tubular).

Wild Bergamot.

Rare. Dry soil of shrubby and waste places: East Lyme (Miss A. M. Ryon), Bolton (Bissell), Manchester (H. S. Clark), West Hartford and Southbury (Harger), Stratford, Bridgeport, Fairfield and Norwalk (Eames). July - Aug.

The var. RUBRA Gray (red), Monarda media Willd., is rare as an escape from gardens: Groton (Graves), Andover (Mrs. C. S. Phelps & Weatherby), Somers and Southington (Bissell), Bridgeport (Eames). The variety is adventive from the West as is the species in part.

Monarda mollis L. (soft).

Monarda fistulosa L., var. mollis Benth.

Downy Bergamot.

Occasional or frequent. Dry pastures, waste places and roadsides. July - Aug.

BLEPHILIA Raf.

Blephilia ciliata (L.) Raf. (fringed).

Wood Mint.

Rare. Dry open ground: Plainville (Bissell), Orange (A. W. Evans), Beacon Falls (Harger), Salisbury (Mrs. C. S. Phelps). June.

Blephilia hirsuta (Pursh) Benth. (hairy).

Wood Mint.

Rare. Border of woods: Waterbury and Thomaston (A. E. Blewitt). June — July.

HEDEOMA Pers. Mock Pennyroyal.

Hedeoma pulegioides (L.) Pers. (like Mentha Pulegium, the Pennyroval).

American Pennyroval.

Common. Open or shaded ground, usually in dry soil. July — Aug.

The leaves and flowering tops as well as the oil distilled from them are officinal in medical practice and find many popular uses in home medication. The taste and odor are nearly the same as those of true Pennyroyal, Mentha Pulegium of Europe.

Hedeoma hispida Pursh (rough-hairy).

Rare. Putnam, dry plains near the Quinebaug River (Harger). June - Aug. Adventive from the West.

> MELISSA L. Balm.

Melissa officinalis L. (of the shops).

Common or Lemon Balm.

Rare. Roadsides, vards and fields near old houses as an escape from cultivation: Ledvard and Lyme (Graves), New Haven (D. C. Eaton), Huntington, Trumbull, Fairfield and Norwalk (Eames). July - Sept. Native of Europe.

The leaves and tops are medicinal and were formerly officinal.

SATUREJA L. Savory. Calamint.

Satureja vulgaris (L.) Fritsch (common).

Clinopodium vulgare L.

Calamintha Clinopodium Benth.

Basil.

Frequent. Woods, fields and thickets. June - Sept.

HYSSOPUS L. Hyssop.

Hyssopus officinalis L. (of the shops).

Hyssop.

Rare. Roadsides as an escape from cultivation: Salisbury (Mrs. C. S. Phelps). June — Sept. Native of Europe. The plant is medicinal.

ORIGANUM L. Wild Marjoram.

Origanum vulgare L. (common).

Wild Marjoram.

Rare or local. Dry pastures, roadsides and waste places: New Haven (O. Harger et al.), Sherman (E. H. Austin & Eames), Kent (C. K. Averill), Sharon (Bissell), Salisbury (Mrs. C. S. Phelps). July — Sept. Adventive from Europe.

PYCNANTHEMUM Michx. Mountain Mint. Basil.

Pycnanthemum clinopodioides Torr. & Gray (like Clinopodium, the Basil).

Koellia clinopodioides Kuntze.

Rare. Dry ground: Southington (Andrews), Cheshire (A. E. Blewitt), Hamden (O. Harger). Aug.

Pycnanthemum flexuosum (Walt.) BSP. (flexuous).

Pycnanthemum linifolium Pursh.

Koellia flexuosa MacM.

Occasional. Open sandy ground either dry or moist. July — Aug.

Pycnanthemum virginianum (L.) Durand & Jackson.

Pycnanthemum lanceolatum Pursh.

Koellia lanceolata MacM.

Wild Isaac.

Common. Sterile ground either dry or moist. July — Aug.

Pycnanthemum pilosum Nutt. (hairy).

Pycnanthemum muticum Pers., var. pilosum Gray.

Koellia pilosa Britton.

Rare. Edge of thicket in rather dry gravelly soil, Plainfield (Bissell & Weatherby). Aug.—Sept.

Pycnanthemum verticillatum (Michx.) Pers. (whorled).

Koellia verticillata Kuntze.

Rare or occasional. Hillsides and pastures either moist or dry. July — Aug.

Pycnanthemum incanum (L.) Michx. (hoary-white).

Koellia incana Kuntze.

Occasional. Rocky copses, thin woods and clearings. Aug.

Pycnanthemum muticum (Michx.) Pers. (pointless).

Koellia mutica Britton.

Frequent. Poor soils either dry or wet. July — Aug.

THYMUS L. Thyme.

Thymus Serpyllum L. (classical name for this plant).

Wild or Creeping Thyme.

Rare or occasional. Fields and waste places, usually in dry ground. June — Sept. Adventive from Europe.

Sometimes cultivated and used for seasoning in cookery.

LYCOPUS L. Water Horehound.

Lycopus virginicus L.

Bugle Weed.

Wet open ground or shaded swamps. Rare in most districts: Franklin (R. W. Woodward), Windsor (Bissell), Hartford (H. S. Clark). Occasional or frequent near the coast and in the southwestern part of the state. July — Sept.

The herb has medicinal properties, like other species of the genus.

Lycopus uniflorus Michx. (one-flowered).

Lycopus communis Bicknell.

Lycopus membranaceus Bicknell.

Bugle Weed.

Common. Wet or dry places in various soils. Aug.— Sept.

Lycopus sessilifolius Gray (sessile-leaved).

Rare. Wet ground about ponds: Voluntown, Ledyard, Groton and East Lyme (Graves), Old Saybrook and Middlebury (Harger). Aug.— Sept.

Lycopus rubellus Moench (reddish).

Rare. Low ground: Groton and New London (Graves), Southington (Andrews, Bissell), Huntington (Harger). Aug. - Sept.

Lycopus americanus Muhl.

Lycopus sinuatus Ell.

Frequent. Moist or wet places. Aug. -- Sept.

MENTHA L.

Mentha longifolia (L.) Huds. (long-leaved).

Mentha sylvestris L.

Horse Mint of Europe.

Rare. Fields and waysides: Ledyard (Graves), Milford (Eames & C. C. Godfrey), Westport (Eames). July — Sept. Naturalized from Europe.

Mentha alopecuroides Hull (like Stachys Alopecuros, the Betony).

Mentha sylvestris L., var. alopecuroides Baker.

Rare. Roadsides in Fairfield (Eames). Aug. Sept. Adventive from Europe.

Mentha spicata L. (spiked).

Mentha viridis L.

Spearmint.

Frequent. Fields and roadsides in wet ground. July -Sept. Naturalized from Europe.

The leaves and flowering tops as well as the oil distilled from them are officinal in medical practice and are in popular use. The herb is used in sauce for roast lamb, etc.

Mentha piperita L. (peppery).

Peppermint.

Occasional. Wet places. Aug.—Sept. Naturalized from Europe.

The source of oil of peppermint. Like the preceding species officinal, much used in medical practice and as a flavor for confectionery.

Mentha aquatica L. (aquatic).

Water Mint.

Rare or local. Moist ground: New London (Graves), Southbury (T. M. Prudden), Litchfield (T. M. Allen). Aug. — Sept. Adventive from Europe.

Mentha crispa L. (curled).

Mentha aquatica L., var. crispa Benth.

Curled Mint.

Rare or local. Roadsides: Norwich (Mrs. E. E. Rogers), New London, Ledyard and Preston (Graves), Stratford (Eames, Harger), Waterbury (Mrs. C. H. Lyman), Oxford (Harger), Bridgeport (Eames). Aug.— Sept. Adventive from Europe.

Properties similar to those of peppermint. Often cultivated both for ornament and use.

Mentha citrata Ehrh. (like Citrus Limonum, the Lemon: referring to its odor).

Bergamot Mint.

Rare. Roadsides and waste places in moist ground: East Hartford (Weatherby), Rocky Hill (Mrs. F. W. Starmer), Oxford (Harger), Litchfield (T. F. Allen), Salisbury (Mrs. C. S. Phelps). Aug.—Sept. Adventive from Europe.

Mentha Cardiaca Gerarde (of the heart).

Mentha sativa of many American authors.

Rare. Southington, wet ground (Andrews & Bissell). Aug.— Sept. Adventive from Europe.

Mentha gentilis L. (related).

Mentha sativa L.

Spotted or Whorled Mint. Runaway Robin.

Rare. Roadsides, waste places and about old houses: Ledyard and Preston (Graves), Union and Salisbury (Bissell), Bolton (Weatherby), Plainville (J. N. Bishop), Southington (Andrews & Bissell), Bridgeport, Fairfield, Newtown and Sherman (Eames). July — Sept. Naturalized from Europe.

Mentha arvensis L. (of cultivated ground).

Field Mint.

Occasional. Low fields and wet places. July - Sept.

Mentha arvensis L., var. canadensis (L.) Briquet.

Mentha canadensis L.

Wild Mint.

Frequent. Wet places, often along streams. July - Sept.

COLLINSONIA L. Horse Balm.

Collinsonia canadensis L.

Richweed. Stone-root.

Common. Moist rich woods. July — Sept. The root and herb are used in medicine.

PERILLA L.

Perilla frutescens (L.) Britton (shrubby).

Perilla ocymoides L.

Rare. About old gardens as an escape from cultivation: Groton (Mrs. C. B. Graves), Southington (Andrews), Oxford (Harger), Bridgeport (Eames). July—Sept. Native of Asia.

Sometimes cultivated as a foliage plant.

SOLANACEAE. NIGHTSHADE FAMILY.

CAPSICUM L. Pepper.

Capsicum annuum L. (annual).

Red. Cavenne or Chili Pepper.

Rare. Waste ground: Hartford (H. S. Clark), Bridgeport (Eames). July—Aug. Fugitive from the Tropics. Well known in cultivation.

LYCOPERSICUM Mill. Tomato.

Lycopersicum esculentum Mill. (edible).

Lycopersicon Lycopersicon Karst.

Tomato.

Rare. An escape in waste places and on river shores. Aug.— Sept. Introduced from South America.

Cultivated for its edible fruit.

SOLANUM L. Nightshade.

Solanum tuberosum L. (producing tubers).
Potato.

Rare. Cultivated ground and waste places. July. Fugitive from temperate South America.

One of the important food plants of the world.

Solanum Dulcamara L. (bitter-sweet).

Woody Nightshade. Bittersweet. Wolf Grape. Violet Bloom.

Frequent. Moist or wet thickets, waste grounds, road-sides, about ponds and along streams. June — Aug.; fruit July — Sept. Naturalized from Europe.

The young branches and leaves are sometimes used medicinally and were formerly officinal. The berries are somewhat poisonous.

Solanum nigrum L. (black).

· Black or Common Nightshade.

Frequent. Moist rich soil or often in drier places or on sea beaches. July — Sept.; fruit Aug.— Oct.

Stock are sometimes poisoned by eating this plant. All parts of the plant are said to be more or less poisonous. This plant has recently been somewhat extensively advertised in seed catalogues as Garden Huckleberry, and it is claimed the ripe berries are entirely safe and wholesome either fresh or cooked. The testimony is somewhat conflicting.

It is stated that in some countries the leaves are eaten as a pot-herb after thorough cooking; that in the Dakotas the plant is called Stubbleberry, and the ripe fruit is much used for making pies and preserves.

On the other hand the best chemical authorities state that active poisonous principles have been found in the ripe berries as well as in other parts of the plant. The species is quite variable, and it is probable that some plants are more poisonous than others, in consequence of conditions of growth not yet understood.

All things considered, its indiscriminate use as a food plant cannot be recommended.

Solanum carolinense L.

Horse or Bull Nettle. Sand Brier.

Rare. Fields and meadows: Middletown (Bissell), Nau-

gatuck (A. E. Blewitt), Seymour (Harger), Milford and Bridgeport (Eames), Norwalk (G. P. Ells), Salisbury (Mrs. C. S. Phelps), New Milford (E. H. Austin), Greenwich (J. W. Robbins). July—Sept.; fruit Aug.—Oct. Naturalized from the South.

A pernicious weed in the South, destructive to cattle. The root and leaves are employed medicinally.

Solanum rostratum Dunal (beaked).

Sand Bur. Buffalo Bur.

Rare. Waste or cultivated ground: New London (Miss E. Shelly), Hartford and East Haddam (Dr. E. J. Thompson), Southington (Miss L. Upson, Andrews), Naugatuck (B. B. Bristol), Milford (Harger), Wilton (Miss A. E. Carpenter), Kent and New Milford (E. H. Austin), Salisbury (Mrs. C. S. Phelps). July—Sept. Adventive from the West.

A pernicious weed which should be eradicated on its first appearance.

PHYSALIS L. Ground Cherry.

Physalis angulata L. (angular).

Rare. Hartford, in waste ground (H. S. Clark & Bissell). July — Sept. Fugitive from the South.

Physalis pruinosa L. (frosted).

Strawberry Tomato.

Cultivated or waste ground. Rare in most districts: Norwich (Mrs. E. E. Rogers), Groton (Mrs. C. B. Graves), Southington (Andrews & Bissell). Occasional in the southwestern part of the state (Eames). July—Oct.

Physalis Alkekengi L.

Winter Cherry.

Rare. New Milford, spreading from cultivation (E. H. Austin). Fruit Aug.—Oct. Introduced from eastern Asia.

Physalis heterophylla Nees (various-leaved).

Physalis virginiana Gray's Manual ed. 6, not Mill.

Occasional. Dry fields and waste places. June — Sept.; fruit Aug. — Oct.

The var. Ambigua (Gray) Rydb. (doubtful) sometimes occurs with the typical form.

The var. NYCTAGINEA (Dunal) Rydb. (like the Four-o'clock) is rare: Windsor, shaded alluvial soil on bank of the Connecticut River (Bissell).

Physalis subglabrata Mackenzie & Bush (nearly smooth).

Physalis philadelphica Gray's Manual ed. 6, perhaps not Lam.
Rare. Waste grounds, roadsides and fields: East Windsor and Norwalk (Bissell), Bridgeport (Eames), Waterbury (A. E. Blewitt), New Milford (Eames & E. H. Austin), Salisbury (Mrs. C. S. Phelps). July — Sept.

Sometimes cultivated for its edible fruit.

Physalis virginiana Mill.

Physalis lanceolata Gray's Manual ed. 6 in part, not Michx.
Rare. Dry or moist fields: Southington (Andrews),
Southbury (Harger). June — Aug.

NICANDRA Adans. Apple of Peru.

Nicandra physalodes (L.) Pers. (like Physalis, the Ground Cherry).

Physalodes physalodes Britton.

Apple of Peru.

Rare. Waste ground and cultivated fields: Norwich (Mrs. E. E. Rogers), Southington (Andrews), New Haven (O. Harger), Waterbury (H. S. Clark), Oxford and Ansonia (Harger), Bridgeport and Norwalk (Eames), Winchester (A. E. Blewitt), Norfolk (H. S. Clark & Bissell). July—Sept. Adventive from Peru.

LYCIUM L. Matrimony Vine.

Lycium halimifolium Mill. (having leaves like Atriplex Halimus, the Orach).

Lycium vulgare Dunal.

Common Matrimony Vine.

Rare or local. Roadsides and about old houses. May — Sept.; fruit Aug.— Oct. Adventive from Europe.

DATURA L. Jamestown or Jimson Weed. Thorn Apple.

Datura Stramonium L. (old name for this species).

Stramonium. Jimson Weed. Thorn Apple.

Rare or occasional. Waste places, mostly in rich soil. July — Oct.; fruit Oct. Naturalized, probably from Asia.

The leaves are officinal and with the seeds are valued in medicine. The plant is poisonous. In numerous instances children have been killed by eating the seeds.

Datura Tatula L. (Persian name for this species).

Purple Stramonium. Jimson Weed. Purple Thorn Apple. Rich waste places and on sea beaches. Occasional, becoming frequent or common in villages and cities. July — Oct.; fruit Oct. Naturalized from tropical America.

Poisonous and medicinal like Datura Stramonium.

Datura Metel L. (Arabic name for this species).

Rare. Waste ground: New Haven (H. S. Clark), Bridgeport (Eames). July — Oct.; fruit Oct.

Fugitive from tropical America.

A narcotic poison.

Datura meteloides DC. (like Datura Metel).

Rare. Waste ground: Southington, two plants seen for a single season (Bissell & Andrews). Aug.—Sept. Fugitive from tropical America.

A narcotic poison. Sometimes cultivated for ornament.

NICOTIANA L. Tobacco.

Nicotiana rustica L. (of the country).

Wild Tobacco.

Rare. New Haven, waste fields (F. W. Hall, 1873), New London (Graves). Aug. — Sept. A fugitive, its nativity unknown, but formerly cultivated by the Indians.

Nicotiana alata Link & Otto (winged).

Rare. Waste places: Bridgeport, several stations (Eames), Southington (Andrews). Aug.— Sept. Native of South America.

Often cultivated as an ornamental plant.

Nicotiana Tabacum L. (Indian name).

Tobacco.

Rare. Waste ground: Bridgeport and Fairfield (Eames). Aug.— Sept. Fugitive from South America.

Well known in cultivation.

PETUNIA Juss.

Petunia axillaris (Lam.) BSP. (growing in an axil).

White Petunia.

Rare. Waste places: New London (Graves), Southington (Andrews), Ansonia (Harger), Bridgeport and Norwalk (Eames). July — Sept. Fugitive or in part adventive from tropical America.

Commonly cultivated for ornament.

Petunia violacea Lindl. (violet).

Purple Petunia.

Rare. Waste ground: New London (Graves), Oxford (Harger), Bridgeport (Eames). July—Sept. Fugitive or in part adventive from South America.

Cultivated. Most of the forms in cultivation are hybrids of this species with *Petunia axillaris*.

SCROPHULARIACEAE. FIGWORT FAMILY.

VERBASCUM L. Mullein.

Verbascum Thapsus L. (classical name for this species).

Common Mullein. Velvet Dock. Flannel-leaf.

Frequent or common. Dry fields, pastures and newly cleared land. June — Oct. Naturalized from Europe.

The leaves, tops and flowers are used medicinally, and the leaves are often dried and smoked like tobacco for respiratory affections.

Verbascum phlomoides L. (like Phlomis, the Jerusalem Sage).
Rare. Granby, a few plants in grassland (I. Holcomb).

July. Fugitive from Europe.

Verbascum Blattaria L. (classical name for this species).

Moth Mullein.

Occasional. Fields, mostly in grassland and in dry soil. June — Sept. Naturalized from Europe.

The var. Albiflorum Kuntze (white-flowered) sometimes occurs with the species.

Medicinal, having the same properties as $Verbascum\ Thapsus.$

Verbascum Pseudo-Lychnitis Schur (simulating Verbascum Lychnitis).

Rare. Kent, a few plants in grassland (Miss J. T. Gregory). Aug. Fugitive from Europe.

LINARIA Hill. Toadflax.

Linaria vulgaris Hill (common).

Linaria Linaria Karst.

Ramsted. Butter and Eggs.

Common. Fields, roadsides and waste places. June -Oct. Naturalized from Europe.

A troublesome weed, difficult to eradicate. Medicinal.

Linaria canadensis (L.) Dumont.

Blue Toadflax.

Common. Dry to moist mostly sterile or sandy soil. May

A part of the flowers are usually cleistogamous, sometimes all of them.

Linaria minor (L.) Desf. (smaller).

Chaenorrhinum minus Lange,

Rare. Stamford, in waste ground (W. H. Hovt). June - Aug. Fugitive from Europe.

Linaria Elatine (L.) Mill. (classical name for some kind of Toadflax).

Kickxia Elatine Dumont.

Elatinoides Elatine Wettst.

Rare. There is in the Eaton Herbarium a specimen of this species collected in Connecticut by Charles Wright, but the exact locality is not known. Not otherwise reported from the state. June - Sept. Fugitive from Europe.

Linaria Cymbalaria (L.) Mill. (like a cymbal).

Cymbalaria Cymbalaria Wettst.

Kenilworth or Coliseum Ivy.

Rare. Roadsides, waste places and on walls: Norwich, Groton and New London (Graves), Windham (Bissell), Bridgeport (Eames), Fairfield (Mrs. Mabel Osgood Wright, Eames), Seymour (Harger). June - Sept. Adventive from Europe.

ANTIRRHINUM L. Snapdragon.

Antirrhinum Orontium L.

Small Snapdragon.

Rare. Bridgeport, one plant in waste ground (Eames). June. Fugitive from Europe.

SCROPHULARIA L. Figwort.

Scrophularia marilandica L.

Scrophularia nodosa L., var. marilandica Gray.

Figwort. Scrofula Plant.

Fields and thickets. Rare east of the Connecticut River: Franklin (R. W. Woodward). Occasional or frequent in the western part of the state. July — Sept.

· The herb and root are medicinal in both this and the following species.

Scrophularia leporella Bicknell (a little hare).

Occasional or frequent. Fields, thickets and fence-rows. Late May—early July.

A. form of this with deeply laciniate leaves occurs at Bridgeport (H. S. Clark).

PENTSTEMON Ait. Beard-tongue.

Pentstemon hirsutus (L.) Willd. (hairy).

Pentstemon pubescens Ait.

Dry fields and banks. Frequent in Litchfield County; rare, occasional or local in other parts of the state. Late May—early July.

Pentstemon tubiflorus Nutt. (tubular-flowered).

Rare. Pastures and grassland: Granby (I. Holcomb), Sharon (Bissell), Kent (H. Mosher), Salisbury (Mrs. C. S. Phelps). June—July. Adventive from the West.

Pentstemon laevigatus Ait. (smoothed).

Pentstemon Pentstemon Britton.

Rare or occasional. Wet or dry grassland and waste places. June — early July. Adventive from the West.

Pentstemon laevigatus Ait., var. Digitalis (Sweet) Gray (like Digitalis, the Foxglove).

Pentstemon Digitalis Nutt.

Pentstemon calycosus Small.

Occasional, frequent or common. Moist or dry grassland. June — early July. Introduced from the West.

Pentstemon grandiflorus Nutt. (large-flowered).

Rare. Granby, a few plants in a field (I. Holcomb). June. Fugitive from the West.

CHELONE L. Turtlehead. Snakehead.

Chelone glabra L. (smooth).

Turtlehead, Snakehead. Balmony.

Frequent. Wet places. Aug.—Sept.

The leaves and tops are medicinal.

MIMULUS L. Monkey Flower.

Mimulus ringens L. (gaping).

Frequent. Wet thickets and open places. July - Sept.

Mimulus alatus Ait. (winged).

Rare. Wet places and banks of streams: Lyme (Bissell), East Hartford (J. F. Smith), Hartford (H. S. Clark), Stamford (W. H. Hoyt). July — Sept.

Mimulus Langsdorffii Donn.

Mimulus luteus Gray's Manual ed. 6, not L.

Mimulus guttatus DC.

Yellow Monkey Flower.

Rare or local. Wet ground along brooks: Norfolk (J. H. Barbour), New Milford (Miss J. T. Gregory). June — Aug. Adventive from the Pacific Coast.

LIMOSELLA L. Mudwort.

Limosella aquatica L. (aquatic), var. tenuifolia (Wolf) Pers. (slender-leaved).

Limosella tenuifolia Wolf.

Mudwort.

Occasional on muddy tidal shores. June - Oct.

ILYSANTHES Raf. False Pimpernel.

Ilysanthes dubia (L.) Barnhart (doubtful).

Ilysanthes riparia Gray's Manual ed. 6 in part, and perhaps of Raf.

Ilysanthes gratioloides Benth.

Ilysanthes attenuata Small.

Frequent. Wet muddy or sandy open places and about ponds and streams. Tune — Sept.

Ilysanthes anagallidea (Michx.) Robinson (like Anagallis, the Pimpernel).

Ilysanthes dubia of American authors, not Gratiola dubia L. Ilysanthes riparia Raf. (?).

Wet muddy or sandy places. East Haddam (Eaton Herb.), and occasional in the southwestern part of the state (Eames). June - Sept.

GRATIOLA L. Hedge Hyssop.

Gratiola virginiana L.

Common. Wet places. June - Sept. The plant is medicinal.

Gratiola aurea Muhl. (golden).

Lake and river shores. Monroe (H. C. Beardslee), and occasional or frequent in central and eastern Connecticut. June - Sept.

DIGITALIS L. Foxglove.

Digitalis purpurea L. (purple).

Common Foxglove.

Rare. Bridgeport, in waste places (Eames). June - July. Fugitive from Europe.

VERONICA L. Speedwell.

Veronica virginica L.

Leptandra virginica Nutt.

Culver's-root. Culver's Physic.

Occasional to frequent. Fields, thickets and fence-rows. Tuly - Aug.

The rhizome and roots are medicinal and are officinal.

Veronica longifolia L. (long-leaved).

Rare. Roadsides as an escape from cultivation: Waterford (E. F. Burleson), Union (Bissell), Milford and Fairfield (Eames). July — Aug. Native of Europe.

Veronica americana Schwein.

American Brooklime.

Springs and wet places. Windsor (Eames & Harger),

Southington (Andrews & Bissell), and occasional throughout the western part of the state. May — Aug.

Medicinal. Said to be also used as a salad plant.

Veronica scutellata L. (platter-like, in allusion to the flat flowers).

Swamp or Marsh Speedwell.

Occasional or frequent. Wet places. May - Oct.

Veronica officinalis L. (of the shops).

Speedwell. Paul's Betony. Common Speedwell.

Common. Dry fields and woods. May -June.

The plant has medicinal uses.

Veronica Chamaedrys L. (classical name for Germander).
Bird's-eve.

Rare. In grassland: New London (Graves), Norfolk (Miss M. C. Seymour). May—June. Adventive from Europe.

Veronica Teucrium L. (like the Germander).

Rare. Fairfield, grassy roadside (Eames), Salisbury (Mrs. C. S. Phelps). June. Native of Europe.

The plant is medicinal.

Veronica serpyllifolia L. (thyme-leaved).

Creeping or Thyme-leaved Speedwell.

Frequent or common. Fields and thickets, usually in moist, but sometimes in dry soil. May —July.

Often troublesome as a weed in lawns.

Veronica peregrina L. (foreign).

Neckweed. Purslane Speedwell.

Frequent. Cultivated and waste ground either dry or moist. April —June.

Medicinal, resembling *Veronica officinalis* in its properties. Sometimes troublesome as a weed.

Veronica arvensis L. (of cultivated ground).

Corn Speedwell.

Occasional or frequent. Along the shore a weed in cultivated ground or along sandy roadsides; inland mostly in dry

rocky woods or on ledges. May — June. Naturalized from Europe.

Medicinal like Veronica officinalis.

Veronica Tournefortii C. C. Gmel.

Veronica Buxbaumii Tenore.

Veronica byzantina BSP.

Rare. Cultivated or waste ground: Oxford (Harger), Litchfield (Miss E. H. Thompson). April — Nov. Adventive from Europe.

Veronica hederaefolia L. (ivy-leaved).

Ivy-leaved Speedwell.

Rare. Norfolk, introduced along roadsides (Miss M. C. Seymour). April—June. Fugitive from Europe.

GERARDIA L. Gerardia.

Gerardia pedicularia L. (like Pedicularis, the Lousewort).

Dasystoma pedicularia Benth.

Lousewort.

Occasional. Dry sandy or rocky woods and fields. Aug. — Sept.

The plant is medicinal.

Gerardia flava L. (yellow).

Dasystoma flava Wood.

Downy Yellow or False Foxglove.

Frequent. Dry woods and thickets. July - Sept.

Gerardia virginica (L.) BSP.

Gerardia quercifolia Pursh.

Dasystoma virginica Britton.

Oak-leaved or Smooth False Foxglove.

Dry woods. Occasional, becoming frequent near the coast. Aug.— Sept.

This and the preceding species are root-parasitic.

Gerardia purpurea L. (purple).

Purple Gerardia.

Frequent along the coast in moist fields and borders of marshes. Aug.— Oct.

Gerardia paupercula (Gray) Britton (stunted).

Gerardia purpurea L., var. paupercula Gray.

Wet sandy places. Rare inland: Thompson (Weatherby & Bissell), Union and Salisbury (Bissell), East Hartford and Simsbury (Weatherby), Enfield and Southington (Andrews & Bissell), Litchfield (Miss E. H. Thompson). Occasional or frequent along the coast. Aug.—Oct.

Gerardia maritima Raf. (of the seaside).

Seaside Gerardia.

Occasional or local on the coast in salt marshes. Aug.—Oct.

Gerardia tenuifolia Vahl (slender-leaved).

Gerardia Gattingeri Small.

Gerardia.

Frequent or common. Woods, thickets and fields, mostly in dry soils. Aug.— Sept.

The var. MACROPHYLLA Benth. (large-leaved), *Gerardia Besseyana* Britton, occurs at Wethersfield (C. Wright), and at Orange (Bissell).

Gerardia parvifolia Chapman (small-leaved).

Gerardia Skinneriana Gray's Manual ed. 6, not Wood.

Rare. Farmington, in sandy woods (Miss C. A. Shepard). Aug.— Sept.

CASTILLEJA Mutis. Painted Cup.

Castilleja coccinea (L.) Spreng. (scarlet).

Scarlet Painted Cup. Meadow Pink. Nosebleed. Headache Plant. Soldiers on the Green.

Occasional, local or frequent. Wet meadows and pastures. April —June.

The root was formerly used in medicine. The species is root-parasitic. Sometimes seen with yellow flowers.

MELAMPYRUM L. Cow Wheat.

Melampyrum lineare Lam. (very narrow).

Melampyrum americanum Michx.

Cow Wheat.

Common. Dry woods. June - Aug.

PEDICULARIS L. Lousewort.

Pedicularis canadensis L.

Common Lousewort. Wood Betony. Greaseweed.

Frequent or common. Fields and woods in either dry or moist ground. May — June.

Pedicularis lanceolata Michx. (lance-shaped).

Swamp Lousewort.

Bogs and wet meadows. Rare, occasional or local in most parts of the state, but not reported from Fairfield County. Aug.—Sept.

RHINANTHUS L. Yellow Rattle.

Rhinanthus Crista-galli L. (cock's-comb).

Rhinanthus minor Ehrh.

Rattle. Yellow Rattle. Rattle-box.

Local. Fields and meadows, either moist or dry: North Branford and New Haven (Harger), Cheshire (Miss Hotchkiss), Waterbury (Eaton Herb.), and occasional westward and southward as far as Milford (W. A. Setchell, H. S. Clark, Eames), and Stratford (Eames). May—June.

SCHWALBEA L. Chaff-seed.

Schwalbea americana L.

Chaff-seed.

Rare. East Lyme, gravelly roadside (Mrs. C. B. Graves). May—July.

LENTIBULARIACEAE.

BLADDERWORT FAMILY.

UTRICULARIA L. Bladderwort.

Utricularia inflata Walt. (inflated).

In still water. Rare in most districts: Mansfield (Weatherby), Windsor (A. W. Driggs & Weatherby), Bristol (J. N. Bishop). Occasional in New London County (Graves). July—Sept.

Utricularia clandestina Nutt. (secret).

Rare. Muddy pools or shores: Waterford (Graves), Fairfield (L. N. Johnson). July.

Utricularia vulgaris L. (common), var. americana Gray.

Utricularia vulgaris of Manuals in part.

Greater Bladderwort.

Occasional or local. Still water or slow streams. June — Aug.

Utricularia minor L. (lesser).

Smaller Bladderwort.

Rare. In still water: East Lyme (Miss A. M. Ryon), New Haven (Eaton Herb.), Fairfield, Milford and Ridgefield (Eames), Easton (Eames & C. C. Godfrey), Salisbury (Mrs. C. S. Phelps). May—June.

Utricularia gibba L. (humped).

Rare, local or occasional. Shallow water or mud about swamps, pools and ponds. July — Oct.

Utricularia biflora Lam. (two-flowered).

Rare. Ponds and pools: Groton (Graves), Southington (Andrews). July — Sept.

Utricularia intermedia Hayne (intermediate).

Sphagnum bogs and borders of ponds. Rare in northern districts, becoming occasional in the southern part of the state. May—July.

The flowers are seldom seen.

Utricularia purpurea Walt. (purple).

Purple Bladderwort.

In ponds. Rare or local in most districts: Middlebury (Harger), Mansfield (Weatherby), Guilford (G. H. Bartlett). Occasional near the coast in New London County (Graves). Aug.

Utricularia resupinata B. D. Greene (bent backward).

Rare. East Lyme, at Dodge's Pond (Graves), Woodbury, in a sphagnum bog (B. B. Bristol et al.). July — Sept.

Utricularia cornuta Michx. (horned).

Muddy or sphagnum bogs. Salisbury (Bissell), Norfolk (J. W. Robbins, J. H. Barbour), Woodbury, Bethany and Kent (Harger), Southington (Andrews), and occasional in New London County (Graves). Aug.

OROBANCHACEAE. BROOM-RAPE FAMILY.

EPIFAGUS Nutt. Cancer-root. Beech-drops.

Epifagus virginiana (L.) Bart.

Leptamnium virginianum Raf.

Beech-drops.

Occasional. Dry woods, under beech trees. Aug.—Sept. The earlier flowers are cleistogamous. Medicinal.

CONOPHOLIS Wallr. Squaw-root. Cancer-root.

Conopholis americana (L. f.) Wallr.

Cancer-root.

Rare. Rich woods: Plainville (J. N. Bishop), Southington (Andrews & Bissell), Guilford (G. H. Bartlett). New Haven (Eaton Herb.). June.

OROBANCHE L. Broom-rape.

Orobanche uniflora L. (one-flowered).

Aphyllon uniflorum L. Grav.

Thalesia uniflora Britton.

One-flowered Cancer-root.

Occasional or frequent. Dry or moist woods and thickets, sometimes in fields or by roadsides. May -June.

The plant is medicinal.

BIGNONIACEAE. BIGNONIA FAMILY.

TECOMA Juss. Trumpet-flower.

Tecoma radicans (L.) Juss. (rooting).

Trumpet Creeper.

Rare or local. Roadsides and thickets as an escape from cultivation. Aug. -- Sept. Adventive from the South.

Cultivated for ornament. In the South it becomes a pernicious weed in cultivated ground.

CATALPA Scop. Indian Bean. Catalpa.

Catalpa bignonioides Walt. (like Bignonia).

Catalpa Catalpa Karst.

Catalpa. Candle or Bean Tree.

Rare: Fields and roadsides as an escape from cultivation:

Norwich and New London (Graves), Southington (An-

drews), Huntington and Southbury (Harger), Bridgeport (Eames). June. Adventive from the Gulf States.

Planted for ornament and valuable farther south for its timber.

MARTYNIACEAE. MARTYNIA FAMILY.

MARTYNIA L. Unicorn-plant.

Martynia louisiana Mill.

Martynia proboscidea Gloxin.

Unicorn-plant. Proboscis Flower.

Rare. Cultivated ground: Oxford (Harger). July — Oct. Fugitive from the Southwest.

The young pods are used for pickling.

PHRYMACEAE. LOPSEED FAMILY.

PHRYMA L. Lopseed.

Phryma Leptostachya L. (slender-spiked). Lopseed.

Occasional. Rich woods and thickets. July - Aug.

PLANTAGINACEAE. PLANTAIN FAMILY.

PLANTAGO L. Plantain. Ribwort.

Plantago major L. (larger).

Common Plantain.

Common. Fields, waste places and especially along paths and roadsides. June — Sept.

The var. Intermedia (Gilib.) Done. (intermediate), *Plantago halophila* Bicknell, is frequent on the borders of salt marshes and rarely occurs inland.

The leaves and root are medicinal. The young leaves are used as a pot-herb. An unsightly and pernicious weed in lawns

Plantago Rugelii Dene.

Plantain.

Common. Moist fields, yards, thickets and woods. June — Aug.

The young leaves are used as a pot-herb.

Plantago decipiens Barneoud (deceiving).

Plantago maritima Gray's Manual ed. 6, not L.

Seaside Plantain.

Occasional to common in salt marshes and on tidal shores. July — Oct.

Plantago lanceolata L. (lance-shaped).

English Plantain. Rib Grass. Ripple Grass.

Common. Fields, roadsides and waste ground. May — Sept. Naturalized from Europe.

A troublesome weed. The plant is medicinal.

Plantago aristata Michx. (bearing bristles).

Plantago patagonica Jacq., var. aristata Gray.

Occasional. Dry fields and roadsides. June — Aug. Introduced from the West and becoming more frequent.

Plantago virginica L.

Dry rocky or sandy soil. Rare or local in most districts: Rocky Hill (M. Hitchcock), New Haven and Oxford (Harger), Norwalk (Miss A. E. Carpenter, Eames), New Milford (E. H. Austin). Occasional in New London County (Graves). May —June.

Plantago elongata Pursh (lengthened).

Plantago pusilla Nutt.

Rare. Old Lyme, sandy roadside (Bissell), Guilford, thin soil on the edges of granite outcrops (G. H. Bartlett). May.

RUBIACEAE. MADDER FAMILY.

ASPERULA L.

Asperula glauca (L.) Bess. (glaucous).

Asperula galioides Bieb.

Woodruff.

Rare. Southington, in fields (Bissell). June. Adventive from Europe.

GALIUM L. Bedstraw. Cleavers.

Galium Aparine L. (classical name for some species of Bedstraw).

Cleavers. Goose Grass.

Frequent. Moist thickets and waste places. May —June. The plant is medicinal.

Galium verum L. (true).

Yellow Bedstraw.

Rare. Fields and waste ground: Waterford (Graves), Guilford (G. H. Bartlett), Plainville (C. D. Bishop), Naugatuck (B. B. Bristol), Huntington (Eames), Stratford (Mrs. R. H. Russell), Norfolk (Miss M. C. Seymour), Southbury (Weatherby & Harger), Monroe (Eames & C. C. Godfrey), Stamford (W. H. Hoyt), Salisbury (Mrs. C. S. Phelps). June — July. Adventive from Europe.

Galium Wirtgenii F. Schultz.

Rare. Norfolk, in grassland (Miss M. C. Seymour). June. Fugitive from Europe.

Galium pilosum Ait. (hairy).

Frequent. Dry soil of woods and fields. July - Aug.

Galium pilosum Ait., var. puncticulosum (Michx.) Torr. & Gray (minutely punctate).

Rare. Dry ground: South Windsor (A. W. Driggs). July — Aug.

Galium circaezans Michx. (imitating Circaea, the Enchanter's Nightshade).

Wild Liquorice.

Occasional or frequent. Rich woods. June-July.

Galium lanceolatum Torr. (lance-shaped).

Wild Liquorice.

Rich woods. Rare in New London County: Norwich (Mrs. E. E. Rogers), Ledyard and Salem (Graves). Becoming occasional to frequent northward and westward. June -July.

Galium boreale L. (northern).

Northern Bedstraw.

Fields and rocky banks. Farmington (Miss Willard), New Britain (Bissell), Derby (Harger), Milford (Eames), and occasional northwestward. June - July.

Galium Mollugo L. (classical name for some bur-bearing plant).

Wild Madder.

Rare. Roadsides and grassland: East Haddam (Dr. E. J. Thompson), Granby (I. Holcomb), Southington and Winchester (Bissell), Bridgeport, Fairfield and Westport (Eames). June - July. Naturalized from Europe. The plant is medicinal.

Galium erectum Huds. (erect).

Rare. Grassy fields: Plainville (Bissell), Southington (Andrews & Bissell), Westport (Eames), Norwalk (Eames & C. C. Godfrey), Salisbury (Mrs. C. S. Phelps). May -June. Adventive from Europe.

Galium palustre L. (of marshes).

Rare or local. Swamps: New London (Graves), Lyme (Graves, Harger), Plainville and Southington (Bissell), Litchfield (Bissell & Weatherby). June - July.

Galium trifidum L. (three-cleft).

Galium trifidum L., var. pusillum Gray.

Rare. Cold swamps: Norfolk and Sharon (Bissell), Salisbury (Mrs. C. S. Phelps & Bissell). July — Aug.

Galium Claytoni Michx.

Galium trifidum Gray's Manual ed. 6 in part.

Frequent. Swamps and bogs. June - Aug.

Galium tinctorium L. (used for dyeing).

Galium trifidum L., var. latifolium Torr.

Frequent. Bogs and swamps. June - July.

Galium labradoricum Wiegand.

Galium tinctorium L., var. labradoricum Wiegand.

Rare. Larch swamps: Norfolk (H. S. Clark & Bissell), Salisbury (M. L. Fernald). Late May—June.

Galium asprellum Michx. (slightly rough).

Rough Bedstraw.

Frequent. Swamps and borders of streams. July.

Galium triflorum Michx. (three-flowered).

Sweet-scented Bedstraw.

Frequent. Dry woods, often in rocky ground. June — Aug.

DIODIA L. Buttonweed.

Diodia teres Walt. (rounded).

Rare or local. Beaches along the coast and in dry sandy

fields: Old Saybrook (Bissell), New Haven (O. Harger), Bridgeport (L. N. Johnson), Fairfield, plentiful on the beach (Eames), Sherman, introduced in grassland (Eames, E. H. Austin & J. Pettibone). July — Oct.

MITCHELLA L. Partridge Berry.

Mitchella repens L. (creeping).

Partridge Berry. Squaw Vine. Checkerberry.

Frequent or common. Rich woods. June — July; fruit Sept., persisting through the winter.

The berries are edible but insipid. A form with white berries is reported from Canaan. The plant is medicinal and was formerly much used by Indian squaws.

CEPHALANTHUS L. Buttonbush.

Cephalanthus occidentalis L. (western).

Buttonbush.

Common. Shallow water of ponds, swamps and ditches. July — Aug.

The bark is medicinal.

HOUSTONIA L.

Houstonia caerulea L. (sky-blue).

Bluets. Innocence. Mayflower.

Common. Fields and woods, mostly in moist ground. April —June.

Houstonia longifolia Gaertn. (long-leaved).

Houstonia purpurea L., var. longifolia Gray.

Rare or local. Dry ground: Ledyard (Mrs. C. B. Graves), Norwich (Mrs. E. E. Rogers), Waterford (Miss Crofton), East Lyme (Mrs. F. H. Dart & Miss Bond), Sprague (Miss Smith), Granby (I. Holcomb), Oxford (Harger), Salisbury (Mrs. C. S. Phelps). June—July.

Houstonia lanceolata (Poir.) Britton (lanceolate).

Houstonia purpurea L., var. calvcosa Gray.

Rare. Upland meadow in Wilton (Miss M. K. Jennings). June—July. Adventive from the West or possibly native.

CAPRIFOLIACEAE. HONEYSUCKLE FAMILY.

DIERVILLA Adans. Bush Honeysuckle.

Diervilla Lonicera Mill. (like Lonicera, the Honeysuckle).

Diervilla trifida Moench.

Diervilla Diervilla MacM.

Bush Honeysuckle.

Frequent. Dry or moist woods and on banks. May — July.

Medicinal.

LONICERA L. Honeysuckle.

Lonicera caerulea L. (sky-blue), var. villosa (Michx.) Torr. & Gray (hairy).

Lonicera caerulea of Gray's Manual ed. 6, not L.

Mountain Fly Honeysuckle.

Swamps and low or rocky pastures and thickets. Plainville (J. N. Bishop), Griswold and Voluntown (Graves); and occasional or even common in northeastern Connecticut, where it is sometimes troublesome in pastures and is locally known as Hardhack. May—June; fruit June—July.

The berries are edible, resembling the blueberry in flavor.

Lonicera tatarica L.

Tartarian Honeysuckle.

Rare. Roadsides as an escape from cultivation: Fairfield (Eames), Redding (Eames & C. C. Godfrey), Cornwall (H. S. Clark & Bissell). May. Introduced from Asia.

Lonicera canadensis Marsh.

Lonicera ciliata Muhl.

American Fly Honeysuckle.

Dry rocky woods. Old Lyme (Graves), North Branford (A. W. Evans), Middletown (L. N. Johnson), Meriden (Eaton Herb.), and occasional in Litchfield County. May; fruit June.

Lonicera Xylosteum L. (bone-wood; referring to the hardness of the wood).

European Fly Honeysuckle.

Rare. Westport, escaped from cultivation to a roadside

(Eames). Mid-May — early June; fruit Aug.— Sept. Native of the Old World.

Lonicera orientalis Lam. (of the Orient).

Rare. Escaped from an old nursery to a pasture at Wethersfield (H. S. Clark & Bissell). June. Adventive from Asia.

Lonicera japonica Thunb.

Japanese Honeysuckle.

Roadsides and thickets. Occasional or local in most districts, becoming frequent near the coast. June—Oct. Naturalized from Asia.

Medicinal. Often cultivated for ornament.

Lonicera sempervirens L. (evergreen).

Trumpet Honeysuckle.

Occasional in woods and copses near the coast; also escaped from cultivation inland at South Windsor (A. W. Driggs), East Hartford (Weatherby), Salisbury (Mrs. C. S. Phelps). June; fruit Aug.

Cultivated for ornament. Medicinal.

Lonicera dioica L. (dioecious).

Lonicera glauca Hill.

Wild Honeysuckle.

Occasional. Woods and thickets. May — mid-June; fruit July.

SYMPHORICARPOS Ludwig. Snowberry.

Symphoricarpos orbiculatus Moench (circular).

Symphoricarpos vulgaris Michx.

Symphoricarpos Symphoricarpos MacM.

Indian Currant. Coral-berry.

Rare. Roadsides as an escape from cultivation: Waterford (Graves), Hartford (H. S. Clark & Bissell), Monroe and Seymour (Harger), Bridgeport and Darien (Eames), New Milford (C. K. Averill), Salisbury (Mrs. C. S. Phelps). July — Sept.; fruit Oct.— Dec. Introduced from the West or South.

Cultivated for ornament, as is the following species.

Symphoricarpos racemosus Michx. (racemed), var. laevigatus Fernald (smoothed).

Symphoricarpos racemosus of authors, not Michx.

Snowberry. Snowball.

Rare. Roadsides and about old house sites as an escape from cultivation: Ledyard and Montville (Graves), Southington (Andrews), Goshen (Bissell), Oxford (Harger), Milford, Fairfield and Ridgefield (Eames). June — Aug.; fruit Sept. — Oct. Introduced from the Northwest.

LINNAEA L. Twin-flower.

Linnaea borealis L. (northern), var. americana (Forbes) Rehder.

Linnaea borealis Gray's Manual ed. 6, not L.

Linnaea. Twin-flower.

Rare. Woods, either moist or dry: Ledyard and Franklin (Graves), Glastonbury (Mrs. F. W. Starmer), Granby (I. Holcomb), New Haven, formerly on East Rock (H. C. Beardslee), Milford (G. B. Grinnell, W. A. Setchell), Cornwall (E. E. Brewster). June.

TRIOSTEUM L. Horse Gentian. Feverwort.

Triosteum perfoliatum L. (with leaves meeting around the stem).

Feverwort. Tinker's Weed. Wild Coffee.

Frequent in dry fields and copses in the shore towns; not reported inland. Late May—June; fruit Sept.—Oct.

Medicinal, as is the following species.

Triosteum aurantiacum Bicknell (orange-colored).

Feverwort. Wild Coffee. Horse Gentian.

Dry woods, copses or pastures. Groton (Bissell), Franklin (Graves), and occasional or local westward and northward. May —June; fruit Aug.— Sept.

Triosteum angustifolium L. (narrow-leaved).

Rare. Rocky or sandy open woods: South Windsor and East Granby (H. S. Clark), Milford and Stratford, four widely separated stations (Eames). May; fruit Aug.

VIBURNUM L. Arrow-wood. Laurestinus.

Viburnum alnifolium Marsh. (alder-leaved).

Viburnum lantanoides Michx.

Hobble-bush. Witch Hobble. Moosewood.

Rich woods. Union (Graves, Bissell), Hamden (D. C. Eaton), Monroe (H. C. Beardslee), Redding (F. Mills), and occasional or frequent in the northwestern part of the state. May; fruit July.

Viburnum Opulus L. (classical name for some Maple), var. americanum (Mill.) Ait.

Viburnum Opulus Gray's Manual ed. 6, not L.

Viburnum americanum Mill.

High-bush Cranberry. Cranberry Tree. Cramp-bark. Pimbina.

Swamps and wet ground. Southington (Andrews), Waterbury (H. J. Bassett), Brookfield (C. K. Averill), and rare or local through the northwestern part of the state. May—June; fruit Aug.

The fruit is edible. The bark is of considerable value medicinally and is officinal. A cultivated form of the European *Viburnum Opulus* with transformed florets is the common Snowball of cultivation.

Viburnum acerifolium L. (maple-leaved).

Maple-leaved Viburnum. Dockmackie. Arrow-wood.

Common. Dry woods and thickets. June; fruit July — Aug.

Medicinal.

Viburnum pubescens (Ait.) Pursh (downy).

Downy Arrow-wood.

Rare. Dry rocky woods; Guilford (G. H. Bartlett), New Haven (Eaton Herb.), Meriden (Bissell), Southington (Andrews), Cheshire (Harger), Hamden and Kent (Eames), Salisbury (C. K. Averill). May—June; fruit Aug.

Viburnum dentatum L. (toothed).

Arrow-wood. Mealy Tree.

Frequent. Swamps and on banks of streams. June; fruit $\boldsymbol{\mathsf{Aug.}}$

Viburnum cassinoides L. (like Ilex Cassine, the Yaupon). Withe-rod, Wild Raisin.

Swamps and wet woods. Frequent except in the southwestern part of Fairfield County where it is not known. June; fruit Aug .- Sept.

Viburnum nudum L. (naked).

Wild Raisin.

Rare. Swampy woods: Milford and Derby (Eames). Late June - July.

Viburnum Lentago L. (tough; pliant).

Sweet Viburnum. Sheepberry. Nannyberry. Wild Raisin. Occasional or frequent. Thickets and fence-rows in either dry or wet ground. Late May - June; fruit Sept. - Oct.

The var. SPHAEROCARPUM Grav (round-fruited) sometimes occurs with the species, but its distribution is not known.

The fruit is edible but is unpalatable to many persons. The bark of the root is medicinal and is officinal, with, and under the name of, Viburnum prunifolium.

Viburnum prunifolium L. (plum-leaved).

Black Haw. Sloe. Stag-bush.

Rocky woods and thickets. Fairfield (Eames), and occasional or frequent near the coast westward. May - early June: fruit Sept.

The var. GLOBOSUM Nash (spherical) occurs at Greenwich (Bissell).

The bark of the root is much valued for its medicinal properties and is officinal.

SAMBUCUS L. Elder.

Sambucus canadensis L.

Common or Black-berried Elder.

Common. Moist thickets and fence-rows. Mid-June --July; fruit Aug.— Sept.

The berries are used for making wine. The fruit and bark are medicinal, as are the flowers which were formerly officinal.

Sambucus racemosa L. (racemed).

Sambucus pubens Michx.

Red-berried Elder.

Rocky woods and thickets. Norwich (Mrs. E. E. Rogers), North Stonington, Preston and East Haddam (Graves), New Haven and Trumbull (Eames), Wilton (Eames & G. P. Ells), and occasional or frequent northward. May; fruit June—July.

VALERIANACEAE. VALERIAN FAMILY.

VALERIANA L. Valerian.

Valeriana officinalis L. (of the shops).

Garden Valerian or Heliotrope.

Rare. Roadsides as an escape from cultivation: Waterford and Lebanon (Graves), Southington (Andrews), Norfolk (Miss M. C. Seymour), Fairfield (Eames), Westport (Eames & C. C. Godfrey), Darien (Miss A. E. Carpenter). June. Introduced from Europe.

The root is well known for its medicinal properties and is officinal.

VALERIANELLA Hill. Corn Salad. Lamb's Lettuce.

Valerianella Locusta (L.) Betcke (old name for this plant).

Valerianella olitoria Poll.

Corn Salad.

Rare. Escaped from cultivation to waste ground in Fair-field (Eames). Aug. Fugitive from Europe.

Abroad is prized as a fall and winter salad plant, but is little known in America.

Valerianella radiata (L.) Dufr. (having rays).

Rare. Waterford, many plants on the banks of the Niantic River (Miss E. Shelly). June—July.

DIPSACACEAE. TEASEL FAMILY.

DIPSACUS L. Teasel.

Dipsacus sylvestris Huds. (of the woods).

Wild Teasel. Gipsy Combs.

Rare. Roadsides, pastures and waste places: Middletown (W. H. Blanchard), Southington (Andrews), New Haven

(Eaton Herb.), Milford, Bridgeport and Newtown (Eames), Southbury (Harger), Goshen (Bissell), Salisbury (C. C. Godfrey). July — Sept. Naturalized from Europe.

The plant is medicinal.

KNAUTIA L.

Knautia arvensis (L.) T. Coulter (of cultivated ground).

Scabiosa arvensis L.

Field Scabious.

Rare. Southington, a few plants in an old field (W. N. Clute). June —July. Fugitive from Europe.

CUCURBITACEAE. GOURD FAMILY.

MOMORDICA L. Balsam-apple.

Momordica Charantia L.

Balsam-apple. Art Pumpkin. La-kwa.

Rare. Waste ground in Hartford (H. S. Clark & Bissell). Aug.—Sept. Fugitive from the Tropics.

The fruit is sometimes used medicinally. Cultivated for its fruit by the Chinese.

CITRULLUS Neck.

Citrullus vulgaris Schrad.

Citrullus Citrullus Karst.

Watermelon. Citron.

Rare. Waste places and about dumping grounds. July — Sept. Fugitive from Africa.

CUCUMIS L.

Cucumis Melo L. (an apple-shaped melon).

Melon. Muskmelon. Cantaloupe.

Rare. Waste or cultivated ground. June — Aug. Fugitive from southern Asia.

Common in cultivation, having many varieties dependent on the nature of the fruit.

Cucumis sativus L. (sown; planted).

Cucumber.

Rare. Waste ground about gardens and on dumps. July — Aug. Fugitive from southern Asia.

CUCURBITA L. Gourd. Squash. Pumpkin.

Cucurbita maxima Duchesne (greatest).

Hubbard Squash. Marrow Squash.

Rare. Cultivated and waste ground. July - Aug. Fugitive, probably from tropical America.

Cucurbita moschata Duchesne (musky).

China Squash. Canada or Winter Crookneck Squash.

Rare. Waste ground and about dumps. July - Aug. Fugitive, probably from tropical America.

Cucurbita Pepo L. (classical name).

Pumpkin.

Rare or occasional. Waste places and cultivated ground. July — Aug. Fugitive, probably from tropical America. Was formerly cultivated by the Indians.

Cucurbita Pepo L., var. condensa Bailey (condensed).

Summer Crookneck Squash. Scallop Squash.

Rare. Waste and cultivated ground. June - Aug. Fugitive from tropical America.

SICYOS L. One-seeded Bur Cucumber.

Sicyos angulatus L. (angular).

Star Cucumber.

Moist rich soil of river banks and waste places. Frequent to common along the coast and larger rivers; rare elsewhere. Aug.— Sept.

ECHINOCYSTIS Torr. & Gray. Wild Balsam-apple.

Echinocystis lobata (Michx.) Torr. & Gray (lobed).

Micrampelis lobata Greene.

Wild Cucumber.

Occasional or frequent. Moist rich soil along streams and in waste places. July - Sept.

Often planted for ornament.

CAMPANULACEAE. BLUEBELL FAMILY.

SPECULARIA Fabricius. Venus's Looking-glass.

Specularia perfoliata (L.) A. DC. (with leaves that meet around the stem).

Legousia perfoliata Britton.

Venus's Looking-glass.

Frequent to common. Dry woods and fields. June — Aug. Reduced forms occur having all the flowers cleistogamous.

CAMPANULA L. Bellflower.

Campanula rapunculoides L. (like Campanula Rapunculus, the Rampion).

Bellflower.

Occasional. Roadsides and waste places. June — Oct. Naturalized from Europe.

The var. UCRANICA (Bess.) K. Koch occurs at Groton (Graves), Putnam and Southington (Bissell), Huntington (Eames).

Campanula rotundifolia L. (round-leaved).

Campanula intercedens Witasek.

Harebell. Bluebell.

Dry, often rocky soil or on ledges. Rare in the eastern, central and southern parts of the state, becoming frequent or common in northwestern Connecticut. June — Sept.

Campanula patula L. (open; spreading).

Rare. Plainfield, a few plants in a newly seeded field (J. L. Sheldon). June. Fugitive from Europe.

Campanula aparinoides Pursh (like Galium Aparine, the Bedstraw).

Marsh Bellflower.

Frequent. Bogs and wet meadows. Late June —July.

Campanula carpatica Jacq.

Rare. Southington, a few plants in newly seeded ground (Andrews & Bissell). May —June. Fugitive from Europe.

JASIONE L. Sheep's-bit.

Jasione montana L. (of mountains).

Sheep's-bit.

Rare. Plainfield, a few plants in a newly seeded field (J. L. Sheldon), East Lyme (Miss F. McCook). June. Fugitive from Europe.

LOBELIACEAE. LOBELIA FAMILY.

LOBELIA L.

Lobelia cardinalis L. (cardinal).

Cardinal-flower.

Frequent. Open or shaded wet places. July — Sept.

One of our most brilliant flowers, and often succeeds well in cultivation. The plant is sometimes used medicinally.

Lobelia siphilitica L. (syphilitic).

Great Blue Lobelia.

Moist grassland or borders of streams. Orange (Eames), Oxford (Harger), and occasional westward and northward, becoming frequent or common in Litchfield County. July—Sept.

The plant is sometimes used medicinally.

Lobelia spicata Lam. (spiked).

Frequent to common. Fields and meadows. June — Aug.

Lobelia Kalmii L.

Swamps and on wet ledges. Goshen (J. P. Brace, 1822), Litchfield and Norfolk (Bissell), New Milford (C. K. Averill & E. H. Austin), becoming frequent in the limestone district of northwestern Connecticut. July — Oct.

Lobelia inflata L. (inflated).

Indian Tobacco.

Common. Woods, fields, roadsides and cultivated ground. Inly — Oct.

The leaves, tops and seeds are medicinal, the leaves and tops officinal. Somewhat poisonous, resembling tobacco in in its action

Lobelia Dortmanna L.

Water Lobelia.

In ponds and lakes. Rare in most districts: Salisbury (Mrs. C. S. Phelps), Canaan (J. H. Barbour), Litchfield (L. M. Underwood). Middlebury (Harger), Ridgefield (Eames), Monroe (H. C. Beardslee), Mansfield (Weatherby), Thompson (R. W. Woodward & Weatherby), Killingly (Weatherby & Bissell), Salem (W. A. Setchell), Griswold (E. F. Burle-

son. Occasional near the coast in New London County. July — Sept.

COMPOSITAE. COMPOSITE FAMILY.

VERNONIA Schreb. Ironweed.

Vernonia noveboracensis Willd.

Ironweed.

Occasional, frequent or common. Low pastures and open swamps. July — Sept.

The root is medicinal. Sometimes a troublesome weed in low pastures.

EUPATORIUM L. Thoroughwort.

Eupatorium purpureum L. (purple).

Joe-Pye Weed, Purple Boneset. Trumpet Weed. Queen of the Meadow. Gravel-root.

Rare, local or frequent. Moist woods and in swamps. July — Sept.

The root is valued for its medicinal properties and the leaves are also used.

Eupatorium purpureum L., var. maculatum (L.) Darl. (spotted).

Eupatorium maculatum L.

Joe-Pye Weed. Trumpet Weed. Purple Boneset.

Common. Open swampy places. July — Sept.

Sometimes occurs with white flowers. Medicinal like the typical form of the species.

Eupatorium purpureum L., var. amoenum (Pursh) Gray (pleasant).

Eupatorium maculatum L., var. amoenum Britton.

Rare. In swamps: Preston (Graves), Huntington (Eames). July — Sept.

Eupatorium hyssopifolium L. (having leaves like Hyssop).

Rare. Dry ground, mostly in the shore towns: East Lyme (Miss A. M. Ryon & Graves), Old Saybrook, Westbrook and Orange (Harger), Bridgeport (Eames). Inland at Southington (Bissell). Aug.—Sept.

Eupatorium verbenaefolium Michx. (having leaves like Verbena, the Vervain).

Eupatorium teucrifolium Willd.

Rough Boneset.

Open woods and borders of swamps, usually in sandy soil. Rare at Monroe (Harger), and Southington (Bissell); occasional in the valley of the Connecticut River, becoming frequent near and along the coast. Aug.— Sept.

Medicinal like Eupatorium perfoliatum.

Eupatorium pubescens Muhl. (downy).

Eupatorium rotundifolium L., var. ovatum Torr.

Open woods and thickets, mostly in dry ground. Rare at Stratford (Eaton Herb., Eames), and East Haven (Bissell); occasional in New London County and in the valley of the Connecticut River. Aug.—Sept.

Eupatorium sessilifolium L. (sessile-leaved).

Upland Boneset.

Dry woods. Rare in most districts: Southington and Meriden (Andrews & Bissell), Beacon Falls, Ansonia and Seymour (Harger), Salisbury (Mrs. C. S. Phelps). Occasional in the vicinity of the coast. Aug.— Sept.

Eupatorium perfoliatum L. (with leaves meeting around the stem).

Boneset. Thoroughwort. Ague-weed. Wild Sage.

Common. Low or wet ground. Aug.— Sept.

The var. TRUNCATUM Gray (cut off) is rare: Old Saybrook (Harger), Woodbury (Eames & C. C. Godfrey).

A form with the leaves in whoris of three has been collected at Bolton (Dr. E. J. Thompson).

The leaves and tops are much used in domestic medicine and are officinal.

Eupatorium urticaefolium Reichard (having leaves like Urtica, the Nettle).

Eupatorium ageratoides L.f.

White Snakeroot.

Occasional, local or frequent. Rocky woods in rich soil. Aug.— Sept.

The root is medicinal.

Eupatorium aromaticum L. (aromatic).

White Snakeroot.

Rare. Dry woods: Lisbon (Graves), Norwich (Mrs. E. E. Rogers), New Haven (Eaton Herb.). Aug.

The root is used medicinally like that of Eupatorium urticaefolium.

MIKANIA Willd. Climbing Hemp-weed.

Mikania scandens (L.) Willd. (climbing).

Willoughbya scandens Kuntze.

Climbing Boneset or Hemp-weed.

Swamps and along streams. Occasional or local in most parts of the state; frequent in southwestern Connecticut. Aug. — Sept.

LIATRIS Schreb. Button Snakeroot. Blazing Star.

Liatris scariosa Willd. (thin and dry).

Lacinaria scariosa Hill.

Devil's Bit. Blazing Star.

Dry, mostly sandy soil of fields, thickets and sand dunes. Frequent in the shore towns; occasional or local northward, especially in the central part of the state. Aug.— Oct.

The root is medicinal.

GRINDELIA Willd. Gum-plant. Tar-weed.

Grindelia squarrosa (Pursh) Dunal (with spreading scales). Gum-plant.

Rare. Waste ground: Naugatuck (B. B. Bristol). July — Sept. Fugitive from the West.

The plant is used as a medicine by the Indians. The leaves and fruiting tops are officinal.

CHRYSOPSIS Nutt. Golden Aster.

Chrysopsis falcata (Pursh) Ell. (sickle-shaped).

Golden Aster.

In sand, especially on sea beaches. Rare inland: Colchester (Dr. E. J. Thompson). Plentiful on the coast from Milford (Harger, Eames) westward to Westport, especially on beaches in Stratford and Bridgeport (Eames). July — Oct.

SOLIDAGO L. Golden-rod.

Solidago squarrosa Muhl. (with spreading scales).

Rare or local. Dry rocky woods in either trap or limestone soils: Meriden (Eaton Herb.), Berlin and New Britain (Bissell), Southington (Andrews), Farmington and Cheshire (Harger), Salisbury (Bissell). Aug.—Sept.

Solidago caesia L. (bluish-gray).

Frequent. Woods and thickets, usually in rich soil. Late Aug.— Oct.

The var. AXILLARIS (Pursh) Gray (axillary) is occasional with the species. The var. Paniculata Gray (panicled) occurs at Willington (Bissell) and New Haven (D. C. Eaton). A hybrid with *Solidago latifolia* has been collected at Lantern Hill, North Stonington (Graves).

Solidago latifolia L. (broad-leaved).

Solidago flexicaulis L. in part.

Occasional or local. Rich, often rocky, woods. Aug.—Oct.

Solidago bicolor L. (two-colored).

White Golden-rod.

Common. Dry fields and open woods. Aug. - Oct.

Solidago hispida Muhl. (rough-hairy).

Solidago bicolor L., var. concolor Torr. & Grav.

Rare. Dry rocky woods or fields: Franklin (R. W. Woodward), Waterford (Graves), Meriden (Andrews), Simsbury (I. Holcomb), Waterbury (A. E. Blewitt), Oxford (Harger), Farmington and Winchester (Bissell). Aug.—Sept.

Solidago puberula Nutt. (slightly downy).

Rare or local. Rocky or sandy woods and fields, sometimes in moist ground: North Stonington, Voluntown, Waterford and Stafford (Graves), Union (Graves, Bissell), Hampton and East Hartford (Weatherby), Glastonbury (Mrs. F. W. Starmer), Guilford (G. H. Bartlett), Southington (Andrews & Bissell), Oxford (Harger), Milford (Eames), Salisbury (Bissell). Aug.—Sept.

A handsome species.

Solidago uliginosa Nutt. (growing in marshes).

Rare. Salisbury, in swamps (Bissell). Aug.—Sept.

Solidago speciosa Nutt. (showy).

Dry fields, pastures and open woods. Putnam (Weatherby & Bissell), Willington (Graves & Bissell), Hampton and South Windsor (Weatherby), Salisbury (Mrs. C. S. Phelps, Bissell); becoming occasional southward and frequent near the coast. Sept.— Oct.

Of striking habit and a beautiful plant when in flower.

Solidago sempervirens L. (evergreen).

Common on and about salt marshes and along tidal streams. Aug.— Oct.

Solidago patula Muhl. (open; spreading).

Wet places, either open or shaded. Rare in New London County. Occasional or frequent elsewhere. Aug.—Sept.

Solidago arguta Ait. (sharp).

Rocky woods or in half-shade. Rare in New London County: Franklin (R. W. Woodward). Occasional or frequent elsewhere. Aug.—Sept.

Solidago juncea Ait. (like Juncus, the Rush).

Common. Dry fields and roadsides. July - Aug.

This is the earliest to bloom of our common Golden-rods.

A form approaching var. ramosa Porter & Britton has been found at Wolcott (H. S. Clark & Bissell), and Derby (Eames).

Solidago neglecta Torr. & Gray (neglected).

Frequent. Swamps and open bogs. Aug. Sept.

Solidago uniligulata (DC.) Porter (having one ray flower). Solidago neglecta Torr. & Gray, var. linoides Gray.

Rare. In swamps: Groton (Graves), Thompson (Weatherby & Bissell), Franklin (R. W. Woodward), Salisbury (Bissell). Aug.

Solidago odora Ait. (fragrant).

Sweet Golden-rod.

Dry woods and copses, usually in sandy soil. Occasional

in the central part of the state and in the valley of the Housatonic River; frequent near the coast. July — Aug.

The leaves and tops are used medicinally.

Solidago Elliottii Torr. & Gray.

Rare. Usually in swampy ground but sometimes in drier places: Voluntown, Groton and Waterford (Graves), Windsor (H. S. Clark, Weatherby & Bissell), Southington (Andrews & Bissell), Glastonbury and Goshen (Bissell). Sept.

Solidago ulmifolia Muhl. (having leaves like Ulmus, the Elm).

Occasional. Dry woods and copses. Aug.—Sept.

Solidago rugosa Mill. (wrinkled).

Solidago altissima of authors, not L.

Golden-rod. Wallweed.

Common. Fields, thickets and roadsides in various soils. Aug.— Oct.

The var. Sphagnophila Graves (loving peat-moss) occurs in sphagnum swamps in Voluntown and Waterford (Graves).

XSolidago asperula Desf. (roughish).

Rocky ground. Occasional on the coast from the mouth of the Connecticut River eastward (Graves). Aug.—Sept. This is believed to be a hybrid between Solidago rugosa and Solidago sempervirens.

Solidago aspera Ait. (rough).

Solidago rugosa of Gray's Manual ed. 6 in part.

Occasional. Woods, fields and roadsides, usually in dry ground. Aug.—Sept.

Solidago nemoralis Ait. (of groves).

Common. Dry fields and open places. Aug.— Sept.

Solidago canadensis L.

Solidago canadensis L., var. glabrata Porter.

Rare. Alluvial soil at Selden's Cove, Lyme (Graves). Late July — Aug.

Solidago altissima L. (tallest).

Solidago canadensis of Gray's Manual ed. 6 in part.

Solidago canadensis L. var. scabra Torr. & Gray.

Solidago canadensis L., var. scabriuscula Porter.

Golden-rod.

Common. Fields, roadsides and fence-rows. Aug.— Sept. A handsome and well-marked species.

Solidago serotina Ait. (late).

Rare, occasional or local. Moist places, often in alluvial soil. July — Aug.

Solidago serotina Ait., var. gigantea (Ait.) Gray (gigantic).

Occasional or frequent. Low fields and thickets and borders of swamps. Aug.— Sept.

Solidago rigida L. (stiff).

Rare or local. Dry fields and open woods: Stonington and Mansfield (Graves), Andover (Mrs. C. S. Phelps), East Lyme (Miss A. M. Ryon, Graves), Guilford (G. H. Bartlett), Branford (O. Harger), East Haven and Brookfield (Harger), Milford (Bissell), Stratford (Eames), Monroe (H. C. Beardslee), Norwalk (E. H. Baldwin). Aug.— Oct.

Solidago graminifolia (L.) Salisb. (grass-leaved), var. Nuttallii (Greene) Fernald.

Solidago lanceolata Gray's Manual ed. 6 in part.

Euthamia graminifolia Britton's Manual in part.

Frequent or common. Moist ground, usually in rich soil, and in swamps. Aug.— Sept.

Solidago tenuifolia Pursh (narrow-leaved).

Euthamia caroliniana of American authors in part, not Greene. Euthamia tenuifolia Greene.

Dry or moist fields. Common in southwestern Connecticut; occasional or local elsewhere. Aug.— Oct.

Sometimes troublesome to farmers as a weed in pastures.

BOLTONIA L'Hér.

Boltonia asteroides (L.) L'Hér. (aster-like).

Boltonia.

Rare. Roadsides, waste ground and rocky woods: Thompson (Weatherby & Bissell), Hartford (A. W. Driggs), Meriden (R. W. Woodward & Andrews). Sept. Introduced from the West.

A good plant for hardy borders and often cultivated for ornament.

ASTER L. Starwort. Aster. Frost-flower.

Aster divaricatus L. (widely divergent).

Aster corymbosus Ait.

Aster carmesinus Burgess.

Aster tenebrosus Burgess.

Aster divaricatus and varieties Burgess.

Aster Claytoni Burgess.

Aster Claytoni Burgess, var. crispicans Burgess.

Common. Woods and thickets, in either moist or dry ground. Aug.—Sept.

A very variable species with many described forms.

Aster Schreberi Nees.

Aster curvescens Burgess.

Aster curvescens Burgess, var. umbelliformis Burgess.

Aster curvescens Burgess, var. oviformis Burgess.

Rare, local or frequent. Woods and thickets, usually in rich soil. July — Aug.

Aster macrophyllus L. (large-leaved).

Aster roscidus Burgess.

Aster macrophyllus and varieties Burgess.

Rare or occasional. Rich woods, more often in rocky places. Mid-July — Sept.

The var. PINGUIFOLIUS Burgess (greasy-leaved) occurs at Colchester (Graves), Meriden and Southington (Andrews & Bissell), Bristol and Norwalk (Bissell), Trumbull and Fairfield (Eames), Bridgeport and New Milford (C. K. Averill).

The var. IANTHINUS (Burgess) Fernald (violet-colored), Aster ianthinus Burgess, Aster violaris Burgess, Aster multiformis Burgess, Aster nobilis Burgess, is rare: Groton (Graves), Union (Bissell), Meriden (Andrews), Milford (H. S. Clark), Fairfield County (Eames).

Aster Herveyi Gray.

Rare. Dry woods: Groton (Graves), Stratford (Eames). Aug.— Sept.

Aster spectabilis Ait. (showy).

Rare. Dry rocky or sandy soil: Voluntown, Groton and Waterford (Graves). Sept.

Aster radula Ait. (a scraper; referring to the rough leaves).

Rare. Low ground: Voluntown (Graves), East Hartford (Weatherby), Hamden (Eaton Herb.). Sept.

Aster novae-angliae L.

New England Aster.

Frequent. Fields and roadsides, usually in moist rich soil. Aug.— Oct.

The var. ROSEUS (Desf.) DC. (rosy; pink) is sometimes seen.

One of the most beautiful of our Asters.

Aster patens Ait. (spreading).

Frequent. Dry fields and open woods, in sandy or sterile soil. Aug.— Sept.

Aster undulatus L. (wavy).

Aster undulatus and varieties Burgess.

Common. Woods, thickets and fields in dry soil. Aug.—Oct.

A very variable species.

Aster cordifolius L. (having heart-shaped leaves).

Aster cordifolius and varieties Burgess.

Common. Woods, thickets and roadsides. Sept.—Oct. The var. Polycephalus Porter (many-headed) is occasional, as well as a variety of forms intermediate between it and the species. A hybrid with *Aster ericoides* occurs at Salisbury (Mrs. C. S. Phelps & Bissell).

Aster Lowrieanus Porter.

Rare. Dry open woods: New Haven (R. W. Woodward). Sept.

The var. Lanceolatus Porter (lance-shaped), var. lancifolius Porter, Aster cordifolius L., var. lanceolatus Porter, is rare or local in rich woods.

A great variety of intermediates between the variety and the typical form have been noted.

Aster laevis L. (smooth).

Frequent or common. Moist or dry fields, thickets and borders of woods. Late July — Sept.

The var. AMPLIFOLIUS Porter (large-leaved) occurs at Hampton (A. W. Driggs).

Very variable as to form of leaf. A handsome species.

Aster concinnus Willd. (neat; elegant).

Rare. Southington, rock crevices of dry shaded ledges at Meriden Mt. (Andrews). Sept.

One of the rarest plants of North America. Three, or doubtfully four, other stations only are known. See Rhodora 2:166.

Aster ericoides L. (like Erica, the Heath).

Common. Dry mostly open places. Sept.—Oct.

The var. VILLOSUS Torr. & Gray (hairy), var. pilosus Porter, is occasional in New London County (Graves), and occurs as far west as New Haven (J. A. Allen). A hybrid with Aster undulatus occurs at Oxford (Harger).

Aster amethystinus Nutt. (of the color of amethyst).

Rare. Dry to moist open ground: New London and Sprague (Graves), Oxford and Southbury (Harger), Salisbury (Mrs. C. S. Phelps). Sept.

Aster multiflorus Ait. (many-flowered).

Common. Dry fields and roadsides. Sept.—Oct.

The var. EXIGUUS Fernald (small; mean) sometimes occurs with the typical form.

Aster dumosus L. (bushy).

Dry soil of open fields or in half shade. Southington (Andrews & Bissell), Farmington (Bissell), Manchester (Weatherby), Stafford (Graves), Old Saybrook (Bissell); becoming frequent in eastern Connecticut. July — Sept. The so-called Aster Gravesii Burgess is apparently a hybrid of Aster dumosus with some other species, probably Aster laevis, and occurs at Waterford (Graves).

Aster dumosus L., var. coridifolius (Michx.) Torr. & Gray (having leaves like Coris, a genus of the Primrose Family).

Rare. Sandy thickets or more open ground: Ellington (Weatherby), Southington (Bissell). Aug.— Sept.

Aster dumosus L., var. strictior Torr. & Gray (more upright).

Rare. Dry fields: Stafford and Groton (Graves). Aug.—Sept.

Aster vimineus Lam. (bearing long flexible twigs).

Common. Moist fields and roadsides. Aug. Oct.

The var. Foliolosus Gray (leafy) is occasional, growing with the typical form.

Aster lateriflorus (L.) Britton (having one-sided flower-clusters).

Aster diffusus Ait.

Aster lateriflorus Britton, var. pendulus Burgess.

Common. Fields and woods in either moist or dry ground. Aug.— Oct.

Aster lateriflorus (L.) Britton, var. hirsuticaulis (Lindl.) Porter (hairy-stemmed).

Aster hirsuticaulis Lindl.

Aster diffusus Ait., var. hirsuticaulis Gray.

Occasional. Moist shaded ground. Sept .- Oct.

Aster lateriflorus (L.) Britton, var. thyrsoideus (Gray) Sheldon (wand-like).

Aster diffusus Ait., var. thyrsoideus Gray.

Rare. Fields: Fairfield and Westport (Eames). Sept.—Oct.

Aster Tradescanti L.

Rare. In swamps: East Hartford (A. W. Driggs), Stratford (Eames), Salisbury (Bissell). Aug.— Sept.

Aster paniculatus Lam. (panicled).

Frequent or common. Moist roadsides and thickets, and in alluvial soil along streams. Aug.— Sept.

The var. SIMPLEX (Willd.) Burgess (simple) and the var. ACUTIDENS Burgess (having sharp teeth) occur rarely in moist ground.

Aster longifolius Lam. (long-leaved).

Rare. In swamps: Farmington and Litchfield (Bissell). Sept.

Aster novi-belgii L.

Moist or wet ground or in swamps. Common along the

coast; frequent in the Connecticut Valley; occasional, local or rare elsewhere. Sept.— Oct.

Aster tardiflorus L. (late-flowering).

Rare. Borders of swamps and in low thickets: Stafford, Plymouth and Salisbury (Bissell). Sept.

Aster prenanthoides Muhl. (like Prenanthes, the Rattlesnakeroot).

Rare. Wet thickets: Trumbull (Eames). A specimen in the Bassett Herbarium at Waterbury, labelled "Ct.," is apparently of this species. Sept.

Aster puniceus L. (crimson).

Red-stalked Aster.

Frequent to common. Open or wooded wet places. Aug. — Sept.

The var. Compactus Fernald (close); the var. Firmus (Nees) Torr. & Gray (strong), var. laevicaulis Gray; the var. demissus Lindl. (low); and the var. lucidulus Gray (somewhat shining) are all reported to occur rarely or occasionally with the species.

The root is medicinal.

Aster umbellatus Mill. (umbellate).

Doellingeria umbellata Nees.

Frequent. Moist woods and thickets. July - Sept.

Aster infirmus Michx. (not strong).

Doellingeria infirma Greene.

Rare. Dry woods and thickets: West Hartford (Harger), Southington (Andrews & Bissell), Meriden and Wolcott (Andrews), New Milford and Kent (C. K. Averill), New Fairfield (Eames & C. C. Godfrey). July — Aug.

Aster linariifolius L. (having leaves like Linaria, the Toadflax).

Ionactis linariifolius Greene.

Frequent or local. Dry open sandy or sterile soil. Aug.—Oct.

Aster tataricus L. f.

Siberian Aster.

Rare. Killingly, escaped from cultivation to waste ground (Graves). Oct. Introduced from Asia.

Aster acuminatus Michx. (taper-pointed).

Occasional or frequent. Rich woods. Aug. -- Sept.

Aster tenuifolius L. (slender-leaved).

Frequent in salt marshes and about tidal waters. Aug.—Oct.

Aster subulatus Michx. (awl-shaped).

Common in salt marshes. Sept. - Oct.

ERIGERON L. Fleabane.

Erigeron pulchellus Michx. (pretty).

Erigeron bellidifolius Muhl.

Robin's Plantain.

Common. Fields, meadows and open woods, usually in moist soil. May — June.

Erigeron philadelphicus L.

Daisy Fleabane. Skevish.

Fields, meadows and roadsides. Norwich (J. Trumbull), Guilford (G. H. Bartlett), Southington (Andrews), and frequent in towns along the Connecticut and Housatonic Rivers. June—July.

The herb is medicinal.

Erigeron annuus (L.) Pers. (annual).

Daisy Fleabane. Sweet Scabious.

Common. Fields and waste places. June - Sept.

The herb has medicinal properties.

Erigeron ramosus (Walt.) BSP. (branching).

Erigeron strigosus Muhl.

Daisy Fleabane.

Common. Fields and waste places. June - Sept.

The var. DISCOIDEUS (Robbins) BSP. (having disk flowers only) is occasional with the species.

Erigeron canadensis L.

Leptilon canadense Britton.

Horse-weed. Canada Fleabane. Butter-weed.

Common. Cultivated and waste ground. July — Oct.

The herb is used medicinally and the oil distilled from it is officinal. Often a troublesome weed.

SERICOCARPUS Nees. White-topped Aster.

Sericocarpus asteroides (L.) BSP. (aster-like).

Sericocarpus conyzoides Nees.

Common. Dry woods and fields. July - Aug.

Sericocarpus linifolius (L.) BSP. (having leaves like Linum, the Flax).

Sericocarpus solidagineus Nees.

Rare or local. Dry fields, woods and on rocky summits: Groton and Waterford (Graves), East Hartford (A. W. Driggs & Weatherby), East Windsor (Bissell), Southington and Plainville (Andrews, Bissell), Hamden, Waterbury and Oxford (Harger), Beacon Falls and Huntington (Eames). July — Aug.

BACCHARIS L. Groundsel Tree.

Baccharis halimifolia L. (having leaves like Atriplex Halimus). Groundsel Tree. Pencil Tree.

Rare. Borders of salt marshes: Stonington and Groton (Graves), New London (Miss M. Crofton), East Lyme (Miss A. M. Ryon, Gen. Haskins), East Haven (Harger), Bridgeport (C. K. Averill, Eames), Norwalk (Miss A. E. Carpenter, Bissell). Sept.; fruit Oct.

PLUCHEA Cass. Marsh Fleabane.

Pluchea camphorata (L.) DC. (having the odor of camphor). Salt Marsh Fleabane.

Frequent on salt marshes along the coast. Aug.—Oct. Rarely occurs with white flowers.

ANTENNARIA Gaertn. Everlasting. Ladies' Tobacco.
Pussy's Toes.

Antennaria Parlinii Fernald.

Antennaria arnoglossa Greene.

Rare. Dry woods and banks: Guilford (G. H. Bartlett), East Hartford (Weatherby), New Haven (M. L. Fernald),

Woodstock, Wallingford and Monroe (Harger), Winchester (Bissell). May.

Antennaria canadensis Greene.

Rare or local. Dry woods and fields: Stafford (Graves), Lisbon and Southbury (Harger), Bolton, East Hartford and Salisbury (Weatherby), West Hartford (A. W. Driggs), Southington (Andrews & Bissell), North Canaan (Bissell). May.

Antennaria plantaginifolia (L.) Richards. (plantain-leaved).

Antennaria plantaginea R. Br.

Plantain-leaved Everlasting.

Frequent to common. Dry woods and fields. Late April — May.

Antennaria fallax Greene (deceitful).

Antennaria ambigens Fernald.

Dry woods and fields. Frequent in the southwestern part of the state, becoming local or occasional eastward and northward. May.

Antennaria neodioica Greene.

Frequent. Dry fields and open woods. April - May.

Antennaria neglecta Greene (neglected).

Indian Tobacco.

Common. Dry or sterile places, mostly in open fields. April — May.

The earliest flowering and most plentiful species of the genus.

ANAPHALIS DC. Everlasting.

Anaphalis margaritacea (L.) Benth. & Hook. (pearly).

Pearly Everlasting.

Frequent to common. Fields and pastures, usually in dry soil. July — Sept.

The leaves are medicinal and reputed to be a cure for rattlesnake bite.

GNAPHALIUM L. Cudweed.

Gnaphalium polycephalum Michx. (many-headed)
Gnaphalium obtusifolium of Britton's Manual.

Common or Sweet Everlasting.

Common. Dry ground in various soils. Aug.- Sept.

Gnaphalium decurrens Ives (decurrent).

Everlasting.

Rare or local. Dry fields and woods: Southington (Bissell), New Haven (E. Ives), Oxford, Seymour and Middlebury (Harger), Litchfield (Eaton Herb.), Huntington, New Milford and Kent (Eames), Salisbury (Mrs. C. S. Phelps). Aug.— Sept.

Gnaphalium uliginosum L. (growing in marshes).

Cudweed. Low Cudweed.

Common. Fields and roadsides in moist ground. June — Sept.

Gnaphalium purpureum L. (purple).

Purplish Cudweed.

Rare or local. Dry fields and pastures: Stonington, Groton and Waterford (Graves). June — Aug.

INULA L. Elecampane.

Inula Helenium L. (classical name).

Elecampane.

Occasional to frequent. Fields, pastures and roadsides, mostly in moist rich soil. July — Sept. Naturalized from Europe.

The root is medicinal and was formerly officinal.

POLYMNIA L. Leafcup.

Polymnia canadensis L.

Leafcup.

Rare or local. Rocky open woods on slopes of loose trap rock: North Branford (G. H. Bartlett), Durham, north end of Pistapaug Pond (O. D. Allen), also in Wallingford, in a similar situation 1/4 mile from the Durham locality (Harger). Sept.

SILPHIUM L. Rosin-weed.

Silphium perfoliatum L. (having leaves that meet around the stem).

Cup Plant.

Rare. Waste ground: Southington (Weatherby & Bissell), Fairfield (Eames). Aug. Introduced from the West. The rhizome is medicinal.

IVA L. Marsh Elder. Highwater-shrub.

Iva oraria Bartlett (of the coast).

Iva frutescens of Gray's Manual ed. 6, not L. Highwater-shrub.

Common on salt marshes and seashores. July - Sept.

Iva xanthifolia Nutt. (having leaves like Xanthium, the Clotbur).

Rare. Waste places: Naugatuck (A. E. Blewitt), Bridgeport (Eames), New Milford (E. H. Austin). July — Sept. Introduced from the West.

AMBROSIA L. Ragweed.

Ambrosia bidentata Michx. (two-toothed).

Rare. Bridgeport, in waste ground (Eames). Sept. Fugitive from the West.

Ambrosia trifida L. (three-cleft).

Great Ragweed.

Moist places and alluvial flats. Usually rare; but local, frequent or common along the larger rivers and in southwestern Connecticut. Aug.— Sept.

The var. Integrifolia (Muhl.) Torr. & Gray (having entire leaves) is occasional with the typical form.

A coarse and unsightly weed.

Ambrosia artemisiifolia L. (having leaves like Artemisia, the Wormwood).

Ragweed. Hog-weed. Bitter-weed. Roman Wormwood. Common. Open places, especially in waste and cultivated ground. July — Sept.

A troublesome and pernicious weed in all soils. Its pollen is said to cause hay fever. The plant is medicinal.

XANTHIUM L. Clothur, Cocklebur,

Xanthium spinosum L. (spiny).

Prickly or Spiny Clotbur.

Rare. Waste ground: Bridgeport (Eames), Naugatuck (A. E. Blewitt). Aug.—Sept.; fruit Sept.—Nov. Adventive from tropical America.

The leaves are medicinal.

Xanthium canadense Mill.

Xanthium glabratum Britton.

Xanthium pungens Wallr. (?).

Xanthium strumarium of Britton & Brown's Ill. Flora.

Rare or local. Sandy roadsides and beaches, banks of streams and in waste places: Stratford and Fairfield (Eames), Oxford (Harger), West Hartford, Goshen, Norwalk and Sharon (Bissell). Aug.— Sept.

Xanthium commune Britton (growing in colonies).

Rare. Banks of streams and in waste places: East Windsor (Bissell), Stratford, Bridgeport, Fairfield and New Milford (Eames), Stamford (A. W. Driggs). Aug.—Sept.

Xanthium echinatum Murr. (hedgehog-like).

Xanthium canadense Mill., var. echinatum Gray.

 $\label{eq:common.} Frequent\ or\ common.\ Waste\ places,\ banks\ of\ streams \\ \ and\ about\ ponds.\ Aug.\mbox{$-$ Sept.}$

HELIOPSIS Pers. Ox-eye.

Heliopsis helianthoides (L.) Sweet (like Helianthus, the Sunflower).

Heliopsis laevis Pers.

Rare. Waste ground and sandy woods: Southington (Andrews & Bissell), Seymour (Harger), Naugatuck (A. E. Blewitt), Fairfield (Eames). July — Sept. Introduced from the West.

Heliopsis scabra Dunal (rough).

Rare. Dry fields and roadsides: East Lyme (Miss A. M. Ryon & Graves), Montville (Graves), Berlin (Andrews & Bissell), Cheshire (A. E. Blewitt), Oxford (Harger), Seymour and Huntington (Eames). July — Sept.

RUDBECKIA L. Cone-flower.

Rudbeckia triloba L. (three-lobed).

Rare. Roadsides and banks of streams: Hartford (H. S.

Clark & Bissell), Meriden (Andrews), Waterbury (A. E. Blewitt), Woodbury (Eames & C. C. Godfrey), New Milford (C. K. Averill, Eames), Salisbury (Mrs. C. S. Phelps). Aug.—Sept. Introduced from the West.

Rudbeckia subtomentosa Pursh (somewhat woolly).

Rare. Roadside in Windsor (Bissell). Aug.—Sept. Adventive from the West.

Rudbeckia hirta L. (rough).

Yellow Daisy. Black-eyed Susan. Nigger-head.

Common. Fields and meadows, more often in dry ground. June — Aug. Introduced from the West.

Rudbeckia speciosa Wenderoth (showy).

Cone-flower.

Local. Waterford (Miss A. Smith), Brookfield, fairly plentiful in a field and along a roadside (Harger). Aug.—Sept. Adventive from the south-central United States.

Rudbeckia laciniata L. (slashed).

Tall Cone-flower. Thimble-weed.

Occasional to frequent. Moist thickets and along streams. **July** — Sept.

A double-flowered form of this is often cultivated for ornament under the name of Golden Glow, and sometimes escapes to roadsides and waste ground. The plant is medicinal.

BRAUNERIA Neck. Purple Cone-flower.

Brauneria pallida (Nutt.) Britton (pale).

Echinacea angustifolia of authors, not DC.

Purple Cone-flower.

Rare. Dry ground: Griswold (E. F. Burleson), East Lyme (Mrs. F. H. Dart), Vernon (A. W. Driggs), Southington (Andrews). July. Adventive from the West.

LEPACHYS Raf.

Lepachys pinnata (Vent.) Torr. & Gray (pinnate).

Ratibida pinnata Barnhart.

Cone-flower.

Rare. Oxford, in dry fields (Harger). Aug. Fugitive from the West.

HELIANTHUS L. Sunflower.

Helianthus annuus L. (annual).

Common Sunflower.

Occasional. Waste places as an escape from cultivation.

July — Sept. Adventive from the western United States.

Cultivated for ornament and for its seeds which yield an oil or are fed to poultry. The plant is medicinal.

Helianthus petiolaris Nutt. (provided with leaf-stalks).

Rare. Roadsides and waste ground as an escape from cultivation: East Lyme (Miss A. M. Ryon), Hartford (H. S. Clark), Naugatuck (B. B. Bristol), New Milford (E. H. Austin). Aug.— Sept. Introduced from the western United States.

Helianthus debilis Nutt. (weak).

Rare. Waste ground: Waterbury (A. E. Blewitt). Sept.—Oct. Fugitive from the South.

Helianthus debilis Nutt., var. cucumerifolius (Torr. & Gray) Gray (cucumber-leaved).

Rare. New London, escaped from gardens (Graves), Bridgeport (Eames). July — Aug. Fugitive from the Southwest.

Helianthus scaberrimus Ell. (very rough).

Helianthus rigidus Desf.

Rare. Dry fields: Waterbury (A. E. Blewitt), Oxford (Harger). Aug.— Sept. Adventive from the West.

Helianthus laetiflorus Pers. (flowering abundantly).

Rare. Glastonbury, along roadside and in waste ground (Bissell). Aug.—Sept. Adventive from the West.

Helianthus grosseserratus Martens (coarsely toothed).

Rare. Fields and open places: Newington, apparently native at this station (Weatherby), Oxford, probably introduced (Harger). Aug.—Sept.

Helianthus giganteus L. (gigantic).

Helianthus giganteus L., var. ambiguus Torr. & Gray.

Moist ground and banks of streams. Occasional or frequent near the coast eastward, becoming common in the south-

western part of the state; extending inland as far as Waterbury (H. J. Bassett) and Kent (Eames). Aug.—Sept.

Helianthus Maximiliani Schrad.

Rare. Waste ground: Naugatuck (A. E. Blewitt), New Milford (E. H. Austin), Bridgeport (Eames). Mid-July—Aug. Fugitive from the western United States.

Helianthus divaricatus L. (widely diverging).

Common. Dry fields, thickets and open woods. July — Sept.

Helianthus strumosus L. (bearing wens or swellings).

Frequent. Thickets and borders of woods. Aug.—Sept. The var. MOLLIS Torr. & Gray (soft), var. macrophyllus Britton, is rare: Groton (Graves), Norwich (Mrs. E. E. Rogers), Willington (Graves & Bissell).

Helianthus tracheliifolius Mill. (having leaves like Trachelium, the Throatwort).

Rare. There is a specimen of this in the Gray Herbarium collected at New Haven by Charles Wright. Not otherwise known from the state. Aug.— Sept.

Helianthus decapetalus L. (having ten petals).

Wild Sunflower.

Frequent. Moist or dry woods, thickets and fence-rows. Aug.— Sept.

Helianthus tuberosus L. (bearing tubers.)

Jerusalem Artichoke.

Occasional. Waste places and roadsides. Aug.—Oct. Naturalized from the West.

The tubers are edible and are used for pickles and salads; they also furnish a valuable food for stock. The plant was formerly cultivated by the Indians.

COREOPSIS L. Tickseed.

Coreopsis tinctoria Nutt. (used for dyeing).

Rare. Waste places: New London (Graves), Southington (Andrews), Bridgeport, Stratford and Norwalk (Eames). June — Sept. Adventive from the West.

Coreopsis lanceolata L. (lance-shaped).

Rare. Roadsides: Southington (Andrews & Bissell), Oxford (Harger). July. Adventive from the Southwest.

BIDENS L. Bur Marigold.

Bidens discoidea (Torr. & Gray) Britton (having only disk flowers).

Coreopsis discoidea Torr. & Gray.

Swamps and about ponds. Occasional near the coast and throughout the valley of the Connecticut River. Aug.—Sept.

Bidens frondosa L. (leafy).

Bidens melanocarpa Wiegand.

Common Beggar-ticks. Stick-tight.

Common. Moist fields, swamps, waste places and cultivated ground. Aug.—Sept.

Bidens vulgata Greene (common).

Bidens frondosa Wiegand, not L.

Beggar-ticks. Stick-tight.

Frequent. Fields, roadsides and cultivated ground, in moist soil. Aug.— Sept.

Bidens comosa (Gray) Wiegand (bearing a tuft of hairs).

Bidens connata Muhl., var. comosa Gray.

Frequent. Moist soil in various situations. Aug. Oct.

Bidens connata Muhl., var. petiolata (Nutt.) Farwell (having leaf-stalks).

Bidens connata of authors in part.

Swamp Beggar-ticks.

Frequent. Swamps and wet woods. Aug. Sept.

A form with ray flowers occurs occasionally.

Bidens cernua L. (nodding).

Bidens cernua L., var. elliptica Wiegand.

Stick-tight.

Common. Wet meadows, along ditches and on shores. Sept.— Oct.

Bidens laevis (L.) BSP. (smooth).

Bidens chrysanthemoides Michx.

Bur Marigold.

Marshes and borders of ponds and streams. Frequent near the coast in southwestern Connecticut and inland as far as Ridgefield (Eames & C. C. Godfrey); occurs also along the Connecticut River throughout its course; not reported elsewhere. Aug.—Oct.

Bidens bipinnata L. (twice-pinnate).

Spanish Needles.

Rocky woods, roadsides and waste places in sandy soil. New London (Graves), Oxford (Harger), and occasional in the southwestern part of the state. Aug.—Oct.

The plant is medicinal.

Bidens leucantha Willd. (white-flowered).

Rare. Hartford, in waste ground (H. S. Clark). Sept. Fugitive from the South.

Bidens trichosperma (Michx.) Britton (with hairy seeds). Coreopsis trichosperma Michx.

Tickseed Sunflower.

Rare. New Haven, Goffe St. (O. Harger). Aug. - Oct.

Bidens aristosa (Michx.) Britton (bearing bristles).

Coreopsis aristosa Michx.

Rare. Waste places: Norwich (Mrs. E. E. Rogers), Lebanon and Windham (Graves). Sept. Fugitive from the West.

Bidens Beckii Torr.

Water Marigold.

Rare. In ponds: Lyme (Graves), Guilford (G. H. Bartlett), Wallingford (Harger), North Haven (Eaton Herb.), Plainville (J. N. Bishop), East Granby (Harger), Danbury (Eames & C. C. Godfrey). Aug.— Sept.

GALINSOGA Ruiz & Pavon.

Galinsoga parviflora Cav. (small-flowered).

Galinsoga.

Local. Waste ground, mostly in cities. July — Sept. Adventive from tropical America.

The var. HISPIDA DC. (rough-hairy) is often more plentiful than the typical form.

HELENIUM L. Sneezeweed.

Helenium nudiflorum Nutt. (naked-flowered).

Rare. Fields: Groton (Mrs. C. B. Graves), East Lyme (F. H. Dart), Bridgeport (Eames). June — Oct. Introduced from the South.

Helenium autumnale L. (autumnal).

Sneezeweed. Staggerwort.

Occasional or frequent. Swamps and on river banks. Aug.— Oct.

The herb is used as a substitute for Arnica and in powder as a snuff for catarrh. The flowers are poisonous and cattle and horses are sometimes killed by eating freely of them.

Helenium tenuifolium Nutt. (fine-leaved).

Rare. Bridgeport, in railroad wastes (Eames). Aug.—Sept. Adventive from the South.

ACHILLEA L. Yarrow.

Achillea Millefolium L. (thousand-leaved).

Common Yarrow, Milfoil.

Common. Fields and waste ground. June - Nov.

A form with pink or reddish flowers is grown for ornament and sometimes escapes from gardens to roadsides. The plant is medicinal.

Achillea lanulosa Nutt. (woolly).

Yarrow.

Rare. Fields and waste ground: Southington (Andrews), and probably elsewhere, as it has not been distinguished from *Achillea Millefolium*. July — Aug. Introduced from the West.

ANTHEMIS L. Chamomile.

Anthemis Cotula L. (like Cotula, the Buck's-horn).

May-weed. Dog Fennel. Fetid Chamomile.

Common. Roadsides and waste places. June — Nov. Naturalized from Europe.

The plant is medicinal.

Anthemis arvensis L. (of cultivated ground).

Corn Chamomile.

Rare, Roadsides and waste ground. May-June. Adventive from Europe.

The var. AGRESTIS (Wallr.) DC. (of fields) occurs rarely in waste ground.

Both the-species and the variety are medicinal.

Anthemis nobilis L. (well-known).

Garden Chamomile.

Rare. Wolcott, roadside near a deserted dwelling (Andrews & Bissell). Aug. Fugitive from Europe.

The plant is medicinal, the flower-heads officinal.

Anthemis tinctoria L. (used for dveing).

Golden Marguerite. Yellow Chamomile.

Rare. Roadsides and grassland as an escape from cultivation: Franklin (Mrs. E. E. Rogers), East Windsor (Bissell), Southington (Andrews), Oxford (Harger), Fairfield (Eames), Wilton (Miss A. E. Carpenter), Litchfield (Miss E. H. Thompson). June - Aug. Adventive from Europe. Often cultivated for ornament.

MATRICARIA L. Wild Chamomile.

Matricaria inodora L. (odorless).

Rare. Waste places and in grain fields: Naugatuck (B. B. Bristol), Bridgeport (Eames), Oxford and Southbury (Harger), Wilton (Miss A. E. Carpenter). June - Sept. Fugitive from Europe.

Matricaria Chamomilla L. (classical name for this plant). German Chamomile.

Rare. Naugatuck, waste ground (B. B. Bristol). July -Aug. Fugitive from Europe.

The dried flower-heads are officinal, and are much used in household practice, especially by German people.

Matricaria suaveolens (Pursh) Buchenau (sweet-smelling). Matricaria matricarioides Porter.

Matricaria discoidea DC.

Pineapple-weed.

Rare. Waste places: Naugatuck (B. B. Bristol), Bridgeport (Eames). July. Fugitive from the Pacific Coast.

CHRYSANTHEMUM L.

Chrysanthemum Leucanthemum L. (white-flowered), var. pinnatifidum Lecoq & Lamotte (pinnately cleft).

Chrysanthemum Leucanthemum of Manuals.

Daisy. White or Ox-eye Daisy. White-weed. Marguerite. Common. Fields, meadows and roadsides. May-July. Naturalized from Europe.

Often a troublesome weed in grassland. The plant is medicinal.

Chrysanthemum Parthenium (L.) Bernh. (ancient name of some plant).

Feverfew.

Rare. Waste ground as an escape from gardens. June -Aug. Introduced from Europe.

The herb is medicinal.

Chrysanthemum Balsamita L., var. tanacetoides Boiss. (like Tanacetum, the Tansy).

Costmary. Alecost. Mint Geranium.

Rare. Escaped from gardens to fields and roadsides: East Lyme (Graves), Groton (Graves & Bissell), Southington (Andrews & Bissell), Oxford (Harger), Trumbull (Eames), Wilton (Miss A. E. Carpenter). Sept.—Oct. Adventive from Asia.

Medicinal.

TANACETUM L. Tansy.

Tanacetum vulgare L. (common).

Common Tansy.

Frequent. Roadsides and waste places. July - Oct. Naturalized from Europe.

The var. CRISPUM DC. (crisped) is occasional with the

The leaves and flowering tops are medicinal and were formerly officinal.

ARTEMISIA I. Wormwood

Artemisia caudata Michx. (tailed).

Dry sandy ground. Common along the coast, extending

inland as far as Wallingford and Haddam (Bissell), and Seymour (Harger). Aug.— Sept.

Artemisia campestris L. (of fields), var. pubescens (Jord. & Fourr.) Rouy & Foucaud (downy).

Rare. Naugatuck, in waste ground (A. E. Blewitt, Harger). Mid-Aug.— Sept. Fugitive from Europe.

Artemisia Abrotanum L. (classical name for this species).

Old Man. Southernwood.

Rare. Waste ground as an escape from gardens: Bridgeport and Fairfield (Eames). July—Oct. Fugitive from Europe.

Medicinal much like Artemisia Absinthium.

Artemisia vulgaris L. (common).

Common Mugwort. Felon-herb. Sailor's Tobacco.

Rare or occasional. Roadsides, waste ground and about old gardens: New London and Sprague (Graves), East Hartford (Weatherby), Southington (Andrews & Bissell), Lisbon, Oxford and Southbury (Harger), Fairfield County (Eames). July — Sept. Adventive from Europe.

The plant is medicinal.

Artemisia Dracunculus L. (classical name for this species).
Tarragon. Estragon.

Rare. Naugatuck, in waste ground (B. B. Bristol). July
— Sept. Fugitive from Europe.

In Europe it is cultivated for its leaves which are used for seasoning.

Artemisia Stelleriana Bess.

Dusty Miller. Beach Wormwood. Old Woman.

Occasional on sea-shores in New London County (Graves). July — Aug. Naturalized from Asia.

Sometimes cultivated for ornament.

Artemisia biennis Willd. (biennial).

Rare. Waste ground: Bloomfield (Bissell), Naugatuck (B. B. Bristol), Stratford (Harger), New Milford (E. H. Austin). Sept. Adventive from the West.

Artemisia annua L. (annual).

Rare. Waste ground: East Lyme (Graves), Naugatuck

(B. B. Bristol), Bridgeport (Eames). Aug.—Sept. Fugitive from Asia.

Artemisia Absinthium L.(classical name for this plant). Wormwood.

Rare. Roadsides and waste places as an escape from gardens: East Windsor (Bissell), Naugatuck (A. E. Blewitt), Oxford (Harger), Milford and Fairfield (Eames), Salisbury (Mrs. C. S. Phelps). Aug.— Sept. Adventive from Europe.

The leaves and tops were formerly much prized in domestic medicine and were until recently officinal.

Artemisia pontica L.

Roman Wormwood.

Rare. Roadsides as an escape from cultivation: Scotland (Graves), Southington (Weatherby & Bissell), Salisbury (Mrs. C. S. Phelps). July — Aug. Adventive from Europe.

In Europe this species is much used in the preparation of absinthe.

Artemisia frigida Willd. (cold).

Rare. Naugatuck, in waste ground (B. B. Bristol). Aug. Fugitive from the western United States.

TUSSILAGO L. Coltsfoot.

Tussilago Farfara L. (classical name for this species).

Coltsfoot. Coughwort.

Occasional or local. Wet places, roadsides and along streams, usually in heavy soils. March — May. Naturalized from Europe.

A popular remedy for coughs and colds and much used in domestic medical practice.

PETASITES Hill. Sweet Coltsfoot.

Petasites palmatus (Ait.) Gray (palmate).

Sweet Coltsfoot.

Rare. Salisbury, wet cold woods (Mrs. C. S. Phelps). April.

Petasites vulgaris Hill (common).

Petasites Petasites Karst.

Butterbur.

Rare. Hartford, escaped from a garden (Mrs. W. Seliger). April. Fugitive from Europe.

The plant is medicinal.

ERECHTITES Raf. Fireweed.

Erechtites hieracifolia (L.) Raf. (having leaves like Hieracium, the Hawkweed).

Erechtites praealta Raf.

Fireweed. Pilewort.

Common. Fields, roadsides and woodland clearings in either dry or moist ground; also on borders of salt marshes. July — Oct.

The plant is medicinal.

CALENDULA L. Marigold.

Calendula officinalis L. (of the shops).

Pot Marigold. Calendula. Mary-bud.

Rare. Waste ground as an escape from gardens: Southington (Andrews, Bissell), South Norwalk (Miss A. E. Carpenter). July—Aug. Fugitive from southern Europe.

This is the "Marygold" of Shakespeare. The dried flowers are medicinal, often used in the treatment of wounds.

CACALIA L. Indian Plantain.

Cacalia suaveolens L. (sweet-smelling).

Synosma suaveolens Raf.

Indian Plantain.

Dry or moist open woods or banks. Rare in most districts: East Haven (D. C. Eaton et al.), Derby (H. C. Beardslee). Local near the coast from Orange westward (Eames). July — Sept.

SENECIO L. Groundsel. Ragwort. Squaw-weed.

Senecio vulgaris L. (common).

Common Groundsel.

Rare. Waste and cultivated ground: New London (Graves), Hartford (H. S. Clark), Southington (Andrews), Bridgeport (Miss A. E. Carpenter). June—Nov. Adventive from Europe.

The plant is medicinal.

Senecio viscosus L. (sticky).

Rare. Waste ground: Stamford (Eames & W. H. Hoyt). July — Aug. Adventive from Europe.

Senecio obovatus Muhl. (inversely egg-shaped; the broad end up).

Senecio aureus L., var. obovatus Torr. & Gray.

Squaw-weed. Ragwort.

Dry soil, mostly in open woods. Occasional to frequent west of the Connecticut River, but not reported from the eastern part of the state. May—June.

Senecio aureus L. (golden).

Life-root. Golden Ragweed or Ragwort. Swamp Squawweed.

Frequent to common. Swamps or in wet ground. May — June.

The roots and tops of this and allied species are used medicinally.

Senecio Balsamitae Muhl., var. praelongus Greenman (very long).

Senecio aureus L., var. Balsamitac Gray's Manual ed. 6 in part.

Rare. Dry grassland and open woods: Oxford and Southbury (Harger), Woodbury (Eames & C. C. Godfrey). June.

No other specimens of this variety have been seen and none of the typical form. Probably most reports of the latter are based on forms of *Senecio obovatus*.

ARCTIUM L. Burdock.

Arctium Lappa L. (a bur).

Arctium Lappa L., var. majus Gray.

Great Burdock.

Roadsides and waste ground. Rare or local in the southern part of the state, becoming occasional northward. July — Sept. Naturalized from Europe.

The roots of this and allied species are officinal and the seeds and leaves are also used medicinally. Both this and the following species are unsightly weeds.

Arctium minus (Hill) Bernh. (smaller).

Arctium Lappa L., var. minus Gray.

Arctium Lappa L., var. tomentosum Gray.

Arctium tomentosum of Britton's Manual in part.

Common Burdock.

Common. Roadsides and waste places. July — Oct. Naturalized from Europe. A form with woolly involucral bracts sometimes occurs.

CARDUUS L. Plumeless Thistle.

Carduus acanthoides L. (like Acanthus, the Bear's-breech).
Curled Thistle.

Rare. Waste ground: Salisbury (Mrs. C. S. Phelps). July — Aug. Fugitive from Europe.

CIRSIUM Hill. Common or Plumed Thistle.

Cirsium lanceolatum (L.) Hill (lance-shaped).

Carduus lanceolatus L.

Cnicus lanceolatus Willd.

Common or Bull Thistle.

Frequent. Roadsides and pastures. July — Sept. Naturalized from Europe.

Cirsium spinosissimum (Walt.) Scop. (very spiny).

Carduus spinosissimus Walt.

Cnicus horridulus Pursh.

Yellow Thistle.

Occasional in fields and borders of salt marshes along the coast. June —July.

Rarely occurs with purple flowers.

Cirsium discolor (Muhl.) Spreng. (of different colors).

Carduus discolor Nutt.

Cnicus altissimus Willd., var. discolor Gray.

Field Thistle.

Fields and thickets. Occasional in most sections, but frequent to common along the coast and throughout the Housatonic Valley. Aug.—Sept.

Flowers sometimes white.

Cirsium altissimum (L.) Spreng. (tallest).

Carduus altissimus L.

Cnicus altissimus Willd.

Tall Thistle.

Rare. Introduced with garden seed about a yard, a few plants only, Salisbury (Mrs. C. S. Phelps). Aug.—Sept. Fugitive from the West.

Cirsium muticum Michx. (pointless).

Carduus muticus Pers.

Cnicus muticus Pursh.

Swamp Thistle.

Frequent. Swamps and moist thickets. Aug.—Sept.

Cirsium pumilum (Nutt.) Spreng. (low).

Carduus odoratus Porter.

Cnicus pumilus Torr.

Pasture or Bull Thistle.

Common. Fields and pastures. July - Sept.

Cirsium arvense (L.) Scop. (of cultivated ground).

Carduus arvensis Robson.

Cnicus arvensis Hoffm.

Canada Thistle.

Frequent. Fields, meadows, pastures and waste ground. June — Aug. Naturalized from Europe.

The var. Vestitum Wimm. & Grab. (clothed) and the var. Integrifolium Wimm. & Grab. (entire-leaved) occur in grassland in Salisbury (Mrs. C. S. Phelps & Bissell); the first named variety has also been found at Orange (Weatherby).

A pernicious weed extremely difficult to eradicate. The root is medicinal.

A statute of Connecticut enacted in 1881, provides that "Every owner or possessor of lands shall cut down all wild carrots and Canada thistles growing thereon, or in the highway adjoining, so often as to prevent them going to seed; and upon failure so to do, any person aggrieved, or any citizen of the town wherein the lands are situated, may complain to any grand juror of said town, who shall thereupon forthwith notify such owner or possessor of such complaint. If said

owner or possessor shall still neglect to comply with the provisions of this section, he shall be fined not more than five dollars, for each and every day of such neglect after such notice." Revised Statutes, sec. 1374.

ONOPORDUM L. Cotton or Scotch Thistle.

Onopordum Acanthium L.

Cotton Thistle.

Rare. Fields and roadsides: Ledyard, Groton and Waterford (Graves), New Haven (Harger). July — Sept. Adventive from Europe.

CENTAUREA L. Star Thistle.

Centaurea Jacea L.

Meadow Centaury.

Rare. Fields: Norwich (Mrs. E. E. Rogers), Guilford (G. H. Bartlett), Southington (Bissell), Bridgeport (Eames). June — Sept. Adventive from Europe.

Centaurea Jacea L., var. lacera Koch (torn).

Rare. In fields: Granby (Bissell), Naugatuck (A. E. Blewitt), Oxford (Harger), Bridgeport (Eames). June — Sept. Adventive from Europe.

Centaurea Cyanus L. (classical name for this species).

Corn-flower. Bluebottle. Bachelor's Button.

Rare. Waste ground and about gardens as an escape from cultivation: Ledyard and Lyme (Graves), East Windsor (Bissell), Southington (Andrews, Bissell), Seymour and Oxford (Harger), Fairfield County (Eames). June — Oct. Introduced from Europe.

Often cultivated for ornament. The plant is medicinal.

Centaurea nigra L. (black).

Spanish Buttons. Hardheads. Knapweed. Black Centaury. Rare. Roadsides and waste ground: New London and Waterford (Graves), Waterbury (A. E. Blewitt), Bridgeport (Eames), Norwalk (G. P. Ells), Salisbury (Bissell). May — Aug. Introduced from Europe.

Centaurea nigra L., var. radiata DC. (bearing rays).

Rare. Waste ground: Waterbury (J. N. Bishop), Oxford

(Harger), Bridgeport (Eames). May — Aug. Introduced from Europe.

Centaurea maculosa Lam. (spotted).

Rare. Fields and waste ground: Griswold (E. F. Burleson), Granby (I. Holcomb), Litchfield (Miss E. H. Thompson), Salisbury (Mrs. C. S. Phelps). Aug. Adventive from Europe.

Centaurea vochinensis Bernh.

Rare. Fields and roadsides: Southington (Andrews & Bissell), Fairfield and Darien (G. P. Ells). June — Sept. Adventive from Europe.

LAPSANA L. Nipple-wort.

Lapsana communis L. (growing in colonies).

Nipple-wort.

Rare. Waste ground: New Haven (A. W. Evans). June — Sept. Adventive from Europe.

CICHORIUM L. Succory. Chicory.

Cichorium Intybus L. (classical name for this species).

Cichorium Intybus L., var. divaricatum of American authors, probably not DC.

Common Chicory. Blue Sailors.

Occasional or frequent, Fields and roadsides. June — Aug. Naturalized from Europe.

The root is medicinal; it is also used as an adulterant of and substitute for coffee. The flowers are sometimes rose-color or rarely pure white.

KRIGIA Schreb. Dwarf Dandelion.

Krigia virginica (L.) Willd.

Adopogon carolinianum Britton.

Dwarf Dandelion.

Frequent. Dry sandy or sterile ground. April - Sept.

Krigia amplexicaulis Nutt. (stem-clasping).

Adopogon virginicum Kuntze.

Cynthia.

Rare. Dry sandy soil: Litchfield (Miss E. H. Thompson).

Southbury (Mrs. H. G. Morse), Washington (C. C. Godfrey), Greenwich (W. P. Alcott). May - July.

HYPOCHAERIS L. Cat's-ear.

Hypochaeris radicata L. (having roots; referring to the long tap-roots).

Cat's-ear.

Rare. In grassland: Southington (Bissell), Bridgeport and Fairfield (Eames). July. Adventive from Europe.

Has proved to be a bad weed in some parts of New England.

LEONTODON L. Hawkbit.

Leontodon autumnalis L. (autumnal).

Fall Dandelion, Arnica,

Moist grassland. Guilford (G. H. Bartlett); and frequent or common in the town of Thompson (Weatherby & Bissell), also in Hartford County and some adjacent towns. May -Nov. Naturalized from Europe.

Leontodon autumnalis L., var. pratensis Koch (of meadows). Fall Dandelion.

Moist grassland. Norwich (Mrs. E. E. Rogers), Litchfield (Miss E. H. Thompson); and occasional in Hartford County. May - Nov. Naturalized from Europe.

Leontodon hastilis L. (like a spear-shaft).

Rare. Southington, in fields (Bissell). May -June. Fugitive from Europe.

Leontodon nudicaulis (L.) Banks (naked-stemmed). Leontodon hirtus I.

Local. In grassland: Waterford, plentiful at one station (Graves), East Lyme (Miss A. M. Ryon). July - Aug. Naturalized from Europe.

PICRIS L.

Picris hieracioides L. (like Hieracium, the Hawkweed).

Rare or local. Fields and waste places: Old Lyme (E. F. Williams), Guilford (G. H. Bartlett), Westport, plentiful in one locality, and Bridgeport (Eames), Salisbury

(Mrs. C. S. Phelps & Bissell). June - July. Adventive from Europe.

Picris echioides L. (like Echium, the Viper's Bugloss).

Ox-tongue.

Southington, in cultivated ground (Andrews), Fairfield, in grassland (Eames). July - Sept. Fugitive from Europe.

TRAGOPOGON L. Goat's Beard.

Tragopogon porrifolius L. (having leaves like Allium Porrum, the Leek).

Oyster-plant. Salsify.

Rare. Fields and roadsides: Tolland (Weatherby & Bissell), Southington (Andrews, Bissell), Ridgefield (W. H. Hoyt). May - June. Adventive from Europe.

Tragopogon pratensis L. (of meadows).

Goat's Beard.

Fields and roadsides. Norwich (Mrs. E. E. Rogers), Orange (Harger), and occasional in the western part of the state. June - Sept. Naturalized from Europe.

The root is medicinal.

TARAXACUM Ludwig. Dandelion.

Taraxacum officinale Weber (of the shops).

Taraxacum Taraxacum Karst.

Common Dandelion.

Common. Fields, lawns and waste ground. April - Nov., but especially in May. Naturalized from Europe.

The root is medicinal and is officinal: it is also used as a substitute for coffee. The plant is much used as a pot-herb.

Taraxacum officinale Weber, var. palustre (Sm.) Blytt (of marshes).

Frequent. Moist fields and waste places. April - Nov. Naturalized from Europe.

Uses and properties as in the typical form of the species.

Taraxacum erythrospermum Andrz. (red-seeded).

Red-seeded Dandelion.

Local. Usually in dry but sometimes in moist fields or

open woods. May - Nov., especially in May. Naturalized from Europe.

Uses and properties as in Taraxacum officinale.

SONCHUS L. Sow Thistle.

Sonchus arvensis L. (of cultivated ground).

Field Sow Thistle.

Rare. Roadsides and waste places: Norwich (W. A. Setchell), New London and Montville (Graves), Preston (Mrs. E. E. Rogers), East Hartford (Weatherby), Bridgeport (Eames). Late June - Sept. Naturalized from Europe.

Sonchus oleraceus L. (suitable for a pot-herb).

Common Sow Thistle.

Occasional. Waste and cultivated grounds. July - Oct. Naturalized from Europe.

Medicinal.

Sonchus asper (L.) Hill (rough).

Spiny-leaved Sow Thistle.

Rare to occasional. Waste ground and on shores. July -Aug. Naturalized from Europe.

LACTUCA L. Lettuce.

Lactuca scariola L.

Prickly Lettuce.

Rare. Waste ground: New London (Graves), Naugatuck (B. B. Bristol), Norwalk (Eames). July — Aug. Adventive from Europe.

The herb is medicinal.

Lactuca scariola L., var. integrata Gren. & Godr. (entire).

Lactuca virosa of American authors, not L.

Prickly Lettuce.

Occasional. Waste ground, mostly near railroads or in populous districts. Aug. - Sept. Naturalized from Europe. The herb is medicinal.

Lactuca canadensis L.

Wild Lettuce. Horse-weed.

Common. Fields and roadsides. June - Aug.

The var. MONTANA Britton (of mountains), var. integri-

folia of some authors, not Lactuca integrifolia Bigel., is rare or occasional with the typical form.

The plant is medicinal.

Lactuca integrifolia Bigel. (entire-leaved).

Lactuca sagittifolia of Britton's Manual in part.

Rare. Roadsides and fields: Union (Bissell), Hartford (A. W. Driggs), Seymour (Eames & C. K. Averill). Probably occurring at other localities, its distribution unknown. July — Sept.

Lactuca hirsuta Muhl. (hairy).

Rare. Dry woods or fields: Groton, Montville and Waterford (Graves), Norwich (Mrs. E. E. Rogers), Ellington, Bristol and Wolcott (Bissell), Southington (Andrews, Bissell), Meriden (Andrews), Oxford and Southbury (Harger), Stratford and Fairfield (Eames). July—Aug.

Lactuca spicata (Lam.) Hitchc. (having spikes).

Lactuca leucophaea Gray.

Wild Blue Lettuce.

Frequent. Roadsides, thickets and woodlands. Aug.—Sept.

Lactuca sativa L. (sown; planted).

Lettuce.

Rare. Waste ground as an escape from cultivation: Bridgeport (Eames). June — Aug. Fugitive from Europe. Well known as a salad plant.

CREPIS L. Hawk's Beard.

Crepis capillaris (L.) Wallr. (hair-like).

Crepis virens L.

Crepis virens L., var. dentata Bisch.

Rare. In grassland: Groton (Graves), North Stonington and Norwich (Mrs. E. E. Rogers), Plainfield (J. L. Sheldon), East Hartford (C. C. Hanmer), East Windsor (Bissell), Oxford (Harger), Norwalk (G. P. Ells), Greenwich (W. E. Wheelock). Aug.— Sept. Adventive from Europe.

Crepis tectorum L. (of dwellings).

Rare. North Stonington (Mrs. E. E. Rogers). Sept. Adventive from Europe.

Crepis taraxacifolia Thuill. (having leaves like Taraxacum, the Dandelion).

Rare. Southington, in grassland (Bissell). May —June. Fugitive from Europe.

Crepis setosa Haller f. (bristly).

Rare. Fairfield, in grassland, probably introduced with grass seed (Eames). Sept.—Oct. Adventive from Europe.

Crepis rigida W. & K. (stiff).

Rare. Southington, in fields (Bissell). June—July. Fugitive from Europe.

PRENANTHES L. Rattlesnake-root.

Prenanthes alba L. (white).

Nabalus albus Hook.

White Lettuce. Rattlesnake-root.

Rare, local or frequent. Open woods, copses and fencerows. Aug.— Oct.

The plant and roots are medicinal.

Prenanthes serpentaria Pursh (classical name).

Nabalus serpentarius Hook.

Lion's-foot. Gall-of-the-earth.

Woods and thickets. Voluntown, Waterford and Windham (Graves), Groton and Oxford (Harger), Southington (Bissell), and occasional toward the south and southwest. Aug.—Oct.

The root and leaves are medicinal.

Prenanthes trifoliolata (Cass.) Fernald (with three leaflets).

Nabalus trifoliolatus Cass.

Prenanthes serpentaria Gray's Manual ed. 6 in part, not Pursh. Gall-of-the-earth.

Frequent. Woods and thickets. Aug.-Oct.

Extremely variable in leaf form.

Prenanthes altissima L. (very tall).

Nabalus altissimus Hook.

Gall-of-the-earth.

Occasional or frequent. Rich woods. Aug.— Oct.

The var. HISPIDULA Fernald (minutely hispid) occurs at Stafford (Graves & Bissell), and Oxford (Harger).

The plant is medicinal. All species of *Prenanthes* have been used as a remedy for the bites of venomous snakes.

HIERACIUM L. Hawkweed.

Hieracium Pilosella L. (somewhat hairy).

Mouse-ear.

Rare. Dry grassland: Southington (Andrews), Wilton (Miss A. E. Carpenter). May—July. Adventive from Europe.

Hieracium aurantiacum L. (orange-colored).

Orange Hawkweed. Devil's Paint-brush. Grim the Collier. Rare, occasional or local. Dry to wet woods, fields and roadsides. June. Naturalized from Europe.

A bad weed in some parts of northern New England.

Hieracium floribundum Wimm. & Grab. (many-flowered).

Rare. Fields and waste ground: Guilford (G. H. Bartlett), Wallingford (A. W. Evans & Harger), East Haven (Andrews), Cheshire (Bissell), Southington (M. W. Frisbie). May—June. Adventive from Europe.

Hieracium pratense Tausch (of meadows).

King Devil.

Rare. Fields: Norwich (Mrs. E. E. Rogers), Bristol (H. S. Clark & J. N. Bishop), Waterbury (A. E. Blewitt), Stamford (W. H. Hoyt). June. Adventive from Europe.

Hieracium venosum L. (veiny).

Rattlesnake-weed. Poor Robin's Plantain.

Frequent. Dry woods and fields. June -July.

The var. Subcaulescens Torr. & Gray (having a short stem) is occasional with the species.

The leaves and tops are medicinal.

Hieracium paniculatum L. (having an open, branched flowercluster).

Frequent. Dry woods. July - Sept.

Hieracium marianum Willd.

Rare. Dry woods: Norwich (Mrs. E. E. Rogers), Franklin (R. W. Woodward), Glastonbury (A. W. Driggs),

Orange and Oxford (Harger), Huntington and Woodbury (Eames), Salisbury (Bissell). July.

Hieracium scabrum Michx. (rough).

Frequent. Woods and thickets, mostly in dry soil. July - Sept.

Hieracium Gronovii L.

Hairy Hawkweed.

Dry fields or open woods, in sandy or sterile soil. Frequent in most districts but not reported from Litchfield County. Aug .- Oct.

Hieracium canadense Michx.

Canada Hawkweed.

Occasional. Fields and thickets in either moist or dry soil. Aug.- Sept.

Appendix.

ADDITIONS AND CORRECTIONS.

Page 19, under Woodwardia virginica, add: Stafford (Weatherby).

Page 22, under Aspidium marginale, add: The var. ELEGANS J. Robinson (elegant) has been found in rich woods at New Fairfield (Eames & C. C. Godfrey). Forms approaching this variety are not rare.

Page 33, after Isoëtes Dodgei, insert:

Isoëtes Dodgei A. A. Eaton, var. Robbinsii A. A. Eaton.

Rare. North Stonington, shallow water of Lantern Hill Pond (Graves & Bissell). July — Sept.

Page 35, under $Pinus\ sylvestris$, add: Wethersfield (H. S. Clark & Bissell).

Page 39, under *Sparganium eurycarpum*, after "A. W. Driggs" change text to read: East Windsor, Windsor and Sharon, at Indian Pond (Bissell). Occasional along the Housatonic River from Oxford (Harger) northward, and near the coast in New Haven and Fairfield Counties.

Page 43, under *Potamogeton bupleuroides*, add: Kent (Eames).

Page 49, under Sorghum halepense, add: New Haven (Bissell).

Page 51, under Panicum philadelphicum, add: Sharon, at Mudge Pond (Weatherby).

Page 52, under *Panicum Werneri*, add: Southbury (Weatherby), New Milford (Bissell).

Page 54, under *Panicum subvillosum*, add: Orange (Bissell).

Pages 54-55, under *Panicum villosissimum*, omit "Southbury (Harger)," and add: Kent (Bissell).

Page 66, under *Trisetum spicatum*, add: East Granby, on trap ledges (Harger).

Page 69, under Spartina patens, var. caespitosa, add: Bridgeport (Eames).

Page 72, under *Briza media*, add: Southbury, along road-side (Harger).

Page 72, under Cynosurus cristatus, add: Oxford, in a lawn (Harger).

Page 77, under *Bromus commutatus*, add: Middletown, at several widely separated localities (Bissell). Omit "Fugitive" and substitute: Adventive.

Page 77, after Bromus tectorum, insert:

Bromus sterilis L. (sterile).

Local. Middletown, well established on sandy railroad embankments (Bissell). June. Adventive from Europe.

Pages 77-78, under Bromus altissimus, add: Franklin (R. W. Woodward).

Page 78, after Bromus altissimus, insert:

Bromus incanus (Shear) Hitchc. (hoary).

Rare. Putnam, thicket near river bank (Weatherby & Bissell). July — Aug.

Page 81, after Elymus canadensis, insert:

Elymus brachystachys Scribn. & Ball (short-spiked).

Rare. Naugatuck, in dry ground, introduced with mill waste (A. E. Blewitt). Fugitive from the southwestern United States.

Page 84, under *Eleocharis diandra*, add: Hartford (Bissell).

Page 84, under *Eleocharis ovata*, add: Hartford (Weatherby & Bissell).

Page 85, under *Eleocharis intermedia*, add: Sharon, at Indian Pond (R. W. Woodward).

Page 87, under Scirpus rubrotinctus, add: New Milford (Harger).

Page 87, under *Scirpus atrovirens*, add: Franklin (R. W. Woodward), New Britain and Canaan (Bissell).

Page 88, under Scirpus cyperinus, var. pelius, add: Colebrook and Salisbury (M. L. Fernald).

Page 90, under Rynchospora alba, add: the var. MACRA Clarke (large) occurs at Southington (Bissell).

Page 92, under Carex tribuloides, var. reducta, change statement of range to read: Rare or occasional in the northern half of the state.

Page 93, under Carex straminea, change statement of range to read: Occasional or local in the northern half of the state.

Page 94, under Carex foenea, var. perplexa, add: Thomaston (A. E. Blewitt).

Page 96, after Carex trisperma, insert:

Carex trisperma Dewey, var. Billingsii Knight.

Local. Bethany, plentiful in a swamp (B. B. Bristol & A. E. Blewitt). June —July.

Page 98, under Carex aurea, add: Sherman (A. E. Blewitt & Harger).

Page 99, under Carex Davisii, add: East Granby (Harger).

Page 100, under Carex aestivalis, add: Colebrook (M. L. Fernald).

Page 100, after Carex umbellata, insert:

Carex umbellata Schk., var. brevirostris Boott (short-beaked).

Rare. Cheshire, dry rocky hills (A. E. Blewitt). June.

Very large plants growing in large tufts.

Page 101, under Carex polymorpha, add: Waterbury (A. E. Blewitt).

Page 104, under Carex flava, add: Waterbury (A. E. Blewitt).

Page 105, under Carex castanea, add: Canaan, moist sandy thicket (Mrs. C. S. Phelps & A. E. Blewitt).

Page 106, under Carex trichocarpa, add: New Milford, plentiful in meadows along the Housatonic River.

Page 107, under Carex retrorsa, add: Sherman (A. E. Blewitt & Harger).

Page 108, under Carex intumescens, var. Fernaldii, add: Colebrook, many plants in rich woods (M. L. Fernald).

Page 112, under Wolffia columbiana, add: Orange (Harger).

Page 112, before Xyris caroliniana, insert:

Xyris montana Ries (of mountains).

Rare. Woodbury, in sphagnum bog (Harger). July — Aug.

Pages 114-115, under Juncus tenuis, var. anthelatus, add: East Haven (Bissell).

Page 115, under *Juncus Dudleyi*, change statement of habitat and range to read: Sandy or sterile ground, in either moist or dry places. East Granby (Harger), South Windsor (Bissell), Meriden (Andrews), and occasional in the northwestern part of the state.

Pages 115-116, under *Juncus brachycephalus*, add: Kent (Eames), New Milford (Bissell).

Page 123, under *Smilacina trifolia*, add: Stafford (Weatherby).

Page 131, under *Habenaria orbiculata*, add: Ledyard (B. T. Avery, Jr.).

Page 133, under Pogonia affinis, add: Ledyard (B. T. Avery, Jr.).

Page 134, under Spiranthes cernua, var. ochroleuca, add: Occasional in the southern part of the state.

Page 136, under *Microstylis monophyllos*, add: Colebrook (Bissell).

Pages 139-140, under Salix discolor, var. eriocephala, add: Durham (J. Barratt).

Pages 139-140, under Salix discolor, var. prinoides, add: Durham (J. Barratt).

Page 140, after Salix sericea, insert:

Salix subsericea (Anders.) Schneider (somewhat silky).

Rare or local. Colebrook, wet ground along roadsides and borders of woods (M. L. Fernald & Bissell). April — mid-May; fruit May — June.

Page 143, under Myrica Gale, omit "not reported from the vicinity of the coast."

Page 146, after *Corylus rostrata*, insert: **Corylus heterophylla** Fisch. (various-leaved).

Rare. Wethersfield, sparingly escaped about an old nursery (H. S. Clark & Bissell). April; fruit Sept. Fugitive from Europe.

Page 154, under Maclura pomifera, add: Wethersfield (Bissell).

Page 158, under Rumex elongatus, add: New Britain (Bissell).

Pages 160-161, under *Polygonum lapathifolium*, add: The var. NODOSUM (Pers.) Weinmann (knotty) occurs at Lyme (Graves & Bissell).

Page 164, under *Polygonum cuspidatum*, add: Southington (Andrews).

Page 165, under Cycloloma atriplicifolium, add: Danbury (Eames & C. C. Godfrey).

Page 165, under Kochia Scoparia, add: New London (Graves), Derby, along a roadside (Harger).

Page 167, under Beta vulgaris, add: Sometimes found about dumping grounds.

Page 169, under Salsola Kali, add: The var. CAROLINIANA (Walt.) Nutt. occurs with the typical form.

Page 173, after Spergularia marina, insert: Spergularia canadensis (Pers.) Don.

Buda borealis Wats.

Tissa canadensis Britton.

Rare. Groton, border of salt marsh at Esker Point (Graves & Bissell). June — Aug.

Page 179, under Silene noctiflora, add: Winchester (M. L. Fernald & Weatherby).

Page 186, under Ranunculus sceleratus, add: Wethersfield (Dr. E. J. Thompson), Newington (Bissell).

Page 186, under Ranunculus allegheniensis, add: Redding (Eames & C. C. Godfrey).

Page 191, after Nigella sativa, insert:

Nigella damascena L.

Love-in-a-Mist.

Rare. Newtown, about a garden (Eames & C. C. Godfrey). June. Fugitive from Eurasia.

Sometimes cultivated for ornament.

Page 194, under *Podophyllum peltatum*, add: Perhaps native at Southington (Bissell).

Page 196, under *Eschscholtzia californica*, add: Roadside, Salisbury (R. W. Woodward & Weatherby).

Page 200, under Alyssum alyssoides, add: Griswold (E. F. Burleson).

Page 201, after Lepidium campestre, insert:

Lepidium Draba L. (like Draba, the Whitlow Grass).

Hoary Cress.

Rare. Guilford, a few plants in a field (G. H. Bartlett). May—June. Fugitive from Europe.

Page 202, under Brassica alba, add: Hartford (Bissell).

Page 242, under Rosa setigera, add: Middlefield (Bissell).

Page 242, under Rosa spinosissima, add: Cornwall (Miss M. J. Whitney).

Page 292, under *Epilobium adenocaulon*, add: Monroe (Harger).

Page 347, after Lycium halimifolium, insert:

HYOSCYAMUS L. Henbane.

Hyoscyamus niger L. (black).

Black Henbane.

Rare. Middletown, in waste ground (J. Barratt). June — July. Fugitive from Europe.

The plant is medicinal, the leaves of the second year's growth officinal.

Page 396, after Bidens comosa, insert:

Bidens connata Muhl. (united).

Rare. Swamps and borders of streams: Lyme (Graves & Bissell), Huntington and Milford (Harger). Aug.—Sept.

NATIVE PLANTS NOT FOUND IN RECENT YEARS.

The species named below were found growing in Connecticut by former collectors whose specimens have been preserved, but none of them have been seen within the last twenty years, and most of them have not been found for a much longer period. They are listed here to call special attention to them that it may be ascertained whether they can at present be found growing in the state or not.

Lycopodium Selago L.

Isoëtes foveolata A. A. Eaton.

Sparganium angustifolium Michx.

Sparganium fluctuans (Morong) Robinson. Potamogeton lateralis Morong. Elymus australis Scribn. & Ball.

Carex livida (Wahlenb.) Willd.

Melanthium latifolium Desr.

Euphorbia Ipecacuanhae L.

Acerates viridiflora Ell., var. lanceolata (Ives) Gray.

Trichostema lineare Walt.

Helianthus tracheliifolius Mill.

Bidens trichosperma (Michx.) Britton.

EXCLUDED SPECIES.

The following species and varieties, reported from Connecticut in earlier lists, have been omitted from the present Catalogue, either because of known errors, or because no authentic specimens of them have been found.

The names are those of the older lists; in all cases, however, in which they differ from those in the seventh edition of Gray's Manual, the latter are also given, after the original names.

Abbreviations indicate the list or lists in which each species appears. These abbreviations and the lists they represent, are as follows:

- Berz. A Catalogue of the Flowering Plants and Higher Cryptogams growing without cultivation within thirty miles of Yale College. Published by the Berzelius Society. New Haven, 1878.
- BI. Bishop, James N. A Catalogue of all Phaenogamous Plants at present known to grow in the State of Connecticut. Rep. Sec. Conn. Board Agric. 1884-5. Hartford, 1885.
- B2. Same, 2d edition. Vascular Cryptogams added. Rep. Sec. Conn. Board Agric. 1895. Hartford, 1896.
- Ba. Same, Additions and Corrections. Rep. Sec. Conn. Board Agric. 1897. Hartford, 1898.
- B3. Same, 3d edition. Rep. Sec. Conn. Board Agric. 1900. Hartford, 1901.

- Biss. Bissell, C. H. Fern Flora of Connecticut. Fern Bulletin, vol. xiv, 1906.
- B. & A. Bissell, C. H., and Andrews, Luman. Flora of the Town of Southington and Vicinity. Conn. School Document No. 222. [Hartford] 1902.
- Br. Brace, John P. List of Plants growing spontaneously in Litchfield and in its Vicinity. American Jour. of Science, vol. iv, 1822.
- C. & S. Case, George R., and Setchell, William A. A Catalogue of Wild Plants growing in Norwich and Vicinity, arranged in the order of flowering for the year 1882. Norwich, 1883.
- D. Driggs, A. W. Notes on the Flora of Connecticut. Conn. School Document No. 198. [Hartford] 1901.
- Leon. Leonard, Emily J. Catalogue of the Phaenogamous and Vascular Cryptogamous Plants found growing in Meriden, Conn. Trans. Meriden Sci. Ass., 1, 1884. Meriden, 1885.
- Rogers, Mrs. Elisha E. Flora of Norwich. Conn. School R. Document No. 213. [Hartford] 1902.
- Cryptogramma acrostichoides R. Br. Biss.

An error in transcribing. Should have read Cryptogramma Stelleri.

Asplenium viride Huds. B2.

Noted as doubtful by Bishop.

Dryopteris aculeata Braunii (Spenner) Underw. Polystichum Braunii (Spenner) Fée B2.

Botrychium Lunaria Sw. B2, B3, R.

Probably Botrychium simplex.

Isoëtes lacustris L. B2, B3.

An error in determination. Plant was Isoëtes Tuckermani.

Pinus inops Ait. Pinus virginiana Mill. Ba.

An error in determination. Tree was Pinus sylvestris.

Juniperus Sabina L., var. procumbens Pursh. Juniperus horizontalis Moench. B2, B3.

An error in determination. Plant was Juniperus communis, var. depressa.

Potamogeton crispus L. B2, B3.

Triglochin palustris L. Berz., B1, B2, B3.

Paspalum laeve Michx. Berz., B1, B2, B3, R.

Avena fatua L. B2, B3.

Danthonia sericea Nutt. Leon.

Poa flexuosa Muhl. Poa autumnalis Muhl. B1, B2, B3.

Festuca ovina L., var. duriuscula Hack. Ba, B3.

An error in determination. Plant was Festuca rubra.

Cyperus Houghtonii Torr. B3.

An error in determination. Plant was Cyperus filiculmis.

Scirpus supinus L., var. Hallii Gray. Scirpus Hallii Gray. B2.

Rynchospora capillacea Torr. B2, B3.

Carex adusta Boott. Berz., B1.

Carex exilis Dewey. C. & S., B3, R.

Perhaps correct, but no specimen has been seen by the committee.

Carex Goodenowii J. Gay. B3.

Lemna perpusilla Torr. Ba.

Juncus scirpoides Lam. B1, B2, B3.

Helonias bullata L. Leon.

Allium sativum L. B1, B2, B3.

Lilium Catesbaei Walt. Leon.

Cypripedium arietinum R. Br. Berz., B1, B2, B3.

Perhaps correct, but no specimen has been seen.

Cypripedium candidum Willd. B3, D.

Habenaria rotundifolia Richards. Orchis rotundifolia Banks. Br. B2, B3.

Probably actually collected by Dr. J. W. Robbins, but no specimen has been seen.

Habenaria peramoena Gray. Leon.

Salix petiolaris Sm. B3.

An error in determination.

Alnus viridis DC. B3.

Rumex sanguineus L. B2, B3.

Rumex maritimus L. Rumex persicarioides L. Br, B2.

Polygonum maritimum L. B2.

Chenopodium Bonus-Henricus L. B2, B3.

An error in determination. Plant was Atriplex patula, var. hastata.

Stellaria pubera Michx. Leon.

Cerastium viscosum L. Berz., C. & S., B1, B2, B3, R.

Holosteum umbellatum L. Leon.

Silene nivea Otth. B2, B3.

Talinum teretifolium Pursh. Berz., B1, B2, B3.

Specimen extant, but not certainly from Connecticut.

Ranunculus Flammula L. Br.

Thalictrum clavatum DC. Leon.

Berberis canadensis Pursh. B2.

An error in determination. Plant was Berberis vulgaris.

Crataegus tomentosa L. Berz., Leon., B1, B3.

Geum macrophyllum Willd. B2, B3.
Probably Geum strictum.

Rubus invisus Bailey. B. & A.

An error in determination. Plant was a form of Rubus villosus.

Baptisia australis R. Br. Leon.

Trifolium medium L. Leon.

Desmodium strictum DC. B3.

Clitoria mariana L. Leon.

Euphorbia glyptosperma Engelm. Ba, B3.

Euphorbia dentata Michx. Br., Leon.

Vitis indivisa Willd. Cissus Ampelopsis Pers. Leon.

Vitis bipinnata Torr. & Gray. Cissus arborea (L.) Des Moulins. Leon.

Vitis cordifolia Michx. Berz., Leon., B1, B2, B3, R.
An error in determination. Plant was Vitis vulpina.

Helianthemum corymbosum Michx. Leon.

Viola striata Ait. B1, B2, B3.

Specimens extant, but not certainly from Connecticut.

Viola canina L. Leon.

Probably carelessly written for Viola canina, var. sylvestris of Gray's Manual ed. 5 (=Viola conspersa).

Opuntia Rafinesquii Engelm. Berz., B1, B2, B3.

Epilobium Hornemanni Reichenb. B2.

An error in determination. Plant was probably Epilobium adenocaulon.

Hippuris vulgaris L. Berz., B1, B2, B3.

Bupleurum rotundifolium L. Berz., B1, B2, B3.

Probably correct, but no specimen has been seen.

Thaspium aureum Nutt. Br. (as Smyrneum), C & S., Leon., Br, B2.
Probably Zizia aurea.

Thaspium trifoliatum Gray. Berz., B1, B2.
Probably Zizia aurea.

Thaspium barbinode Nutt. C. & S. An error in determination.

Azalea arborescens Pursh. Rhododendron arborescens (Pursh) Torr. Leon.

Vaccinium arboreum Marsh. C. & S. An error in determination.

Vaccinium corymbosum Ait., var. pallidum Gray. Leon.

Samolus Valerandi L. B2, B3, R. Probably Samolus floribundus.

Gentiana Amarella L. B2, B3.

Probably Gentiana quinquefolia.

Gentiana Saponaria L. Br., B2.

Probably Gentiana Andrewsii.

Apocynum cannabinum L., var. hypericifolium Gray. Ba.

Periploca graeca L. Leon.

Perhaps correct, but no specimen has been seen.

Asclepiodora viridis Gray. B2.

Probably meant for Acerates viridiflora.

Asclepias paupercula Michx. Asclepias lanceolata Walt. Leon.

Asclepias ovalifolia Decsne. Leon.

Asclepias parviflora Pursh. Asclepias perennis Walt. Leon.

Cuscuta tenuiflora Engelm. Cuscuta Cephalanthi Engelm. Leon.

Ajuga reptans L. Berz., B1, B2, B3, B. & A.

An error in determination. The plant was Ajuga genevensis.

Isanthus caeruleus Michx. Isanthus brachiatus (L.) BSP. Br., B2, B3.

Scutellaria saxatilis Riddell. Leon.

Lamium album L. Berz., B1, B2, B3, B. & A.

Probably wrong determination. In two cases the plant is known to have been a white-flowered form of Lamium maculatum.

Stachys palustris L., var. cordata Gray. Stachys cordata Riddell. Berz., B1, B2, B3.

Probably a form of Stachys tenuifolia, var. aspera.

Monarda punctata L. Leon.

Satureja hortensis L. Berz., B1, B2, B3.

Pycnanthemum aristatum Michx. Br.

Mentha rotundifolia L. Br, B2, B3.

Physalis pubescens L. Leon., B1, B2.

Linaria genistifolia Mill. C. & S.

Antirrhinum majus L. B3.

Mimulus Jamesii Torr. Mimulus glabratus HBK., var. Jamesii (Torr. & Gray) Gray. Ba.

An error in determination. Probably Minulus Langs-dorffii.

Micranthemum Nuttallii Gray. Micranthemum micranthemoides (Nutt.) Wettst. Br, B2, B3.

Veronica Anagallis L. Veronica Anagallis-aquatica L. B2. Probably Veronica americana.

Veronica Beccabunga L. Br.

Veronica agrestis L. C. & S.

Gerardia linifolia Nutt. Leon.

Utricularia striata LeConte. Utricularia fibrosa Walt. Br.

Lonicera Caprifolium L. Leon., B1, B2, B3.

Valeriana edulis Nutt. B1, B2, B3.

Campanula americana L. C. & S., Leon.
C. & S. report later corrected by them.

Liatris squarrosa Willd. B2, B3.

An error in determination. Plant was Liatris scariosa.

Liatris cylindracea Michx. B2, B3.

Chrysopsis mariana Nutt. B3.

Specimens extant, but not certainly from Connecticut.

Solidago stricta Ait. Leon.

Aster concolor L. B1, B2, B3.

Aster sagittifolius L. B2, B3.

Aster salicifolius Willd. B2, B3.

An error in determination.

Diplopappus amygdalinus Torr. & Gray. Aster umbellatus Mill., var. latifolius Gray. Leon.

Helianthus angustifolius L. B2, B3.

Helianthus doronicoides Lam. B1, B2, B3.

Coreopsis rosea Nutt. B3.

In B3 occurs also the combination Helianthus scabra (sic),

without author citation, and in **Leon.** the combinations Saponaria inflata, Ampelopsis trifolia and Centaurea arvense (sic). Of these the first two are probably errors for Heliopsis scabra and Silene inflata respectively. The others are presumably mistakes of the same sort, but it is not apparent for what they were intended.

According to Britton's Manual, 3d ed., Scleria reticularis Michx., var. pubescens Britton, occurs in Connecticut; and, on the strength of presumably reliable records, Gray's Manual, 7th ed., credits Setaria imberbis R. & S. to the state. The committee, however, have seen no specimens of these plants from Connecticut, and they are therefore omitted from the present Catalogue.

FUGITIVE SPECIES.

The species named in the following lists of fugitives are known to have occurred spontaneously in Connecticut, thus requiring mention in the Catalogue. For convenience of reference they are given in their proper place under the families to which they belong. They are not, however, to be regarded as properly forming a part of our uncultivated flora, and in making up the tables of statistics that follow they are left out of account entirely.

These fugitives may be separated into groups as follows:

GROUP I.

Species of which neither seed nor plant is ordinarily hardy in this climate and which can therefore continue but for a single season; mostly plants of dumping grounds.

Zea Mays L.

Eichhornia crassipes (Mart.) Solms.

Cicer arietinum L.

Vicia Faba L.

Pisum sativum L.

Pisum sativum L., var. arvense (L.) Poir.

Phaseolus vulgaris L.

Phaseolus vulgaris L., var. nanus (L.) Taubert.

Ricinus communis L.

Abutilon pictum (Gill.) Walp. Hibiscus esculentus L.

GROUP 2.

Annual or biennial species cultivated either for use or ornament, that persist for a year or two in the locality where cultivated or where the seeds may be accidentally scattered; perennials, often grown for ornament, that rarely escape and maintain themselves for a few years and later disappear; and species that appear spontaneously but remain only a year or two.

Polypogon monspeliensis (L.) Desf.

Avena sativa L.

Cynodon Dactylon (L.) Kuntze.

Secale cereale L.

Triticum sativum Lam.

Hordeum vulgare L.

Cyperus fuscus L.

Juneus brachycarpus Engelm.

Sisyrinchium albidum Raf.

Fagopyrum esculentum Moench.

Beta vulgaris L.

Portulaca grandiflora Hook.

Papaver Rhoeas L.

Argemone alba Lestib.

Argemone mexicana L.

Lobularia maritima (L.) Desv.

Lepidium sativum L.

Raphanus sativus L.

Brassica Napus L.

Brassica Rapa L.

Brassica oleracea L.

Lunaria annua L.

Cleome spinosa L.

Reseda alba L.

Cytisus scoparius (L.) Link.

Trifolium incarnatum L.

Glycyrrhiza lepidota (Nutt.) Pursh.

Geranium dissectum L.

Anethum graveolens L.

Lysimachia vulgaris L. Ipomoea coccinea L. Verbena officinalis L. Salvia pratensis L. Salvia splendens Ker. Capsicum annuum L. Solanum tuberosum L. Datura meteloides DC. Nicotiana rustica L. Nicotiana Tabacum L. Linaria Elatine (L.) Mill. Pentstemon grandiflorus Nutt. Citrullus vulgaris Schrad. Cucumis Melo L. Cucumis sativus L. Cucurbita maxima Duchesne Cucurbita moschata Duchesne. Cucurbita Pepo L. Cucurbita Pepo L., var. condensa Bailey. Anthemis nobilis L. Artemisia Abrotanum L. Calendula officinalis L. Cirsium altissimum (L.) Spreng. Leontodon hastilis L. Lactuca sativa L. Crepis taraxacifolia Thuill. Crepis rigida W. & K.

GROUP 3.

Species that are cultivated and inclined to escape, and species that appear spontaneously, the latter mostly brought in with hay or grain, with grass or clover seed, in mill supplies and by railroads; that are of so recent introduction or have been so little observed that it is not yet known whether they will persist.

The line drawn between this group and a number of species regarded as adventive is of necessity somewhat arbitrary, and no doubt further observation will show that some of the species listed here have become a part of our uncultivated flora. It is

also possible that a species now considered adventive and well established may later disappear.

Sorghum halepense (L.) Pers.

Echinochloa frumentacea (Roxb.) Link.

Bromus squarrosus L.

Agropyron tenerum Vasey.

Elymus brachystachys Scribn. & Ball.

Salix incana Schrank.

Corylus heterophylla Fisch.

Cycloloma atriplicifolium (Spreng.) Coulter.

Chenopodium capitatum (L.) Aschers.

Atriplex tatarica L.

Acnida tuberculata Moq.

Acnida tuberculata Moq., var. prostrata (U. & B.) Robinson.

Mirabilis Jalapa L.

Anychia polygonoides Raf.

Tetragonia expansa Murr.

Gypsophila muralis L.

Gypsophila elegans Bieb.

Nigella sativa L.

Nigella damascena L.

Eschscholtzia californica Cham.

Lepidium ruderale L.

Lepidium Draba L.

Iberis amara L.

Camelina sativa (L.) Crantz.

Camelina microcarpa Andrz.

Neslia paniculata (L.) Desf.

Brassica japonica Siebold.

Diplotaxis muralis (L.) DC.

Conringia orientalis (L.) Dumort.

Alliaria officinalis Andrz.

Sisymbrium canescens Nutt.

Sisymbrium Sophia L.

Iodanthus pinnatifidus (Michx.) Steud.

Reseda Luteola L.

Reseda odorata L.

Philadelphus inodorus L.

Deutzia scabra Thunb.

Ribes nigrum L.

Filipendula hexapetala Gilib.

Sanguisorba minor Scop.

Cercis canadensis L.

Medicago arabica Huds.

Medicago hispida Gaertn.

Hosackia americana (Nutt.) Piper.

Vicia hirsuta (L.) S. F. Gray.

Lens esculenta Moench.

Geranium pratense L.

Geranium molle L.

Erodium cicutarium (L.) L'Hér.

Erodium moschatum (L.) L'Hér.

Cardiospermum Halicacabum L.

Sida spinosa L.

Oenothera laciniata Hill.

Eryngium planum L.

Coriandrum sativum L.

Forsythia viridissima Lindl.

Sabatia campestris Nutt.

Ellisia Nyctelea L.

Phacelia viscida (Benth.) Torr.

Phacelia Purshii Buckley.

Amsinckia lycopsoides Lehm.

Borago officinalis L.

Verbena canadensis (L.) Britton.

Sideritis montana L.

Agastache Foeniculum (Pursh) Kuntze.

Galeopsis Ladanum L.

Physalis angulata L.

Hyoscyamus niger L.

Datura Metel L.

Verbascum phlomoides L.

Verbascum Pseudo-Lychnitis Schur.

Linaria minor (L.) Desf.

Antirrhinum Orontium L.

Digitalis purpurea L.

Veronica hederaefolia L.

Martynia louisiana Mill.

Galium Wirtgenii F. Schultz.

Valerianella Locusta (L.) Betcke.

Knautia arvensis (L.) T. Coulter.

Momordica Charantia L.

Campanula patula L.

Campanula carpatica Jacq.

Jasione montana L.

Grindelia squarrosa (Pursh) Dunal.

Ambrosia bidendata Michx.

Lepachys pinnata (Vent.) Torr. & Gray.

Helianthus debilis Nutt.

Helianthus debilis Nutt., var. cucumerifolius (Torr. & Gray) Gray.

Helianthus Maximiliani Schrad.

Bidens leucantha Willd.

Bidens aristosa (Michx.) Britton.

Matricaria inodora L.

Matricaria Chamomilla L.

Matricaria suaveolens (Pursh) Buchenau.

Artemisia campestris L., var. pubescens (Jord. & Fourr.) Rouy & Foucaud.

Artemisia Dracunculus L.

Artemisia annua L.

Artemisia frigida Willd.

Petasites vulgaris Hill.

Carduus acanthoides L.

Centaurea nigra L., var. radiata DC.

Picris echioides L.

Total number of fugitive species and varieties listed 169.

STATISTICAL SUMMARIES.

TABULAR LIST OF FAMILIES.

n	Genera.		Species.		Varieties and Named Forms.	
Families.	Native.	Introd.	Native.	Introd.	Native.	Introd.
PTERIDOPHYTA						
Polypodiaceae	16		37		10	
Schizaeaceae	1		I			
Osmundaceae	I		3		3	

							-
		Gen	era.	Species.		Varieties and	
	Families.	Native.	Introd.	Native.	Introd.	Named l Native.	Forms. Introd.
	Ophioglossaceae	2		7		2	
	Marsileaceae	I		I			
	Equisetaceae	I		8		I	
	Lycopodiaceae	I		8		3	
	Selaginellaceae	I		2			
	Isoëtaceae	I		7		3	
CDEDI	МАТОРНҮТА						
	INOSPERMAE						
GIM		_					
	Taxaceae	1 8	• • •	I	• • •		
	Pinaceae	8	• • •	12	4	I	
ANG	IOSPERMAE						
M	ONOCOTYLEDONEAE						
	Typhaceae	1		2			
	Sparganiaceae	1		7		2	
	Najadaceae	5		33		10	
	Juncaginaceae	2		2			
	Alismaceae	3		9		7	
	Hydrocharitaceae	2		2			
	Gramineae	47	10	146	41	13	3
	Cyperaceae	12		174		72	
	Araceae	6		7			
	Lemnaceae	3		5			
	Eriocaulaceae	I		I			
	Xyridaceae	1		4			
	Commelinaceae	I	I	ī	I		
	Pontederiaceae	2		3		I	
	Juncaceae	2		20		6	
	Liliaceae	17	7	30	12		
	Haemodoraceae	ĭ		I			
	Dioscoreaceae	I		I			
	Amaryllidaceae	I	2	I	3		
	Iridaceae	2	1	6	4		
	Orchidaceae	12		40		2	
רו	ICOTYLEDONEAE						
D	Piperaceae	I		I			
	Salicaceae	2		18			
	Myricaceae	2 I			_	-	
		_		3		• • •	• • •
	Juglandaceae Betulaceae	2		7 11	• • •	п	
		5	• • •		• • •		
	Fagaceae Urticaceae	3		14 11			
	Santalaceae	9	3	11	-		
	Loranthaceae	I	• • •	I	• • •	• • •	
	Lorantnaceae	I	• • •	1			

	Genera.		Spec	ies.	Varieties and Named Forms.	
Families.	Native.	Introd.	Native.	Introd.	Named. Native.	Introd.
Aristolochiaceae	2		2		2.	
Polygonaceae	3		22	14	8	
Chenopodiaceae	5	I	12	7	2	3
Amaranthaceae	2		2	6		I
Phytolaccaceae	1		r			
Nyctaginaceae		I		3		
Illecebraceae	I	I	I	I		
Aizoaceae		1		1		
Caryophyllaceae	6	5	11	24	I	
Portulacaceae	1	I	2	I		
Ceratophyllaceae	1		I		I	
Nymphaeaceae	4		7		I	
Ranunculaceae	13	I	37	5	5	I
Magnoliaceae	1.J		J/			
Menispermaceae	ī		I			
Berberidaceae	ī	2	ī	2	•••	•••
Lauraceae	2		2		• • •	
Papaveraceae	1	2	I	3	• • • •	
Fumariaceae	3	1	4	J I		
Cruciferae	-	9	4 22	25		· · ·
Capparidaceae	9	-	22 I	25 I		1
* *	I	• • • •		1	• • •	• • • •
Resedaceae	• • • •	I	• • • •	_	• • •	• • •
Sarraceniaceae	I	• • • •	I			
Droseraceae	I	• • •	2			• • •
Podostemaceae	I	• • •	I		• • •	• • •
Crassulaceae	2	2	3	3		• • •
Saxifragaceae	7	I	15	6		• • •
Hamamelidaceae		• • •	2	• • •		
Platanaceae	I	• • •	I			
Rosaceae	15	5	79	35	21	3
Leguminosae	13	8	38	23	I	I
Linaceae	1		4	1		
Oxalidaceae	1	• • •	5	I		• • •
Geraniaceae	I		3	I		• • •
Rutaceae	1	1	I	I		
Simarubaceae		I		I		
Polygalaceae	I		7		I	
Euphorbiaceae	3		8	6		
Callitrichaceae	I		3			
Limnanthaceae	I		I			
Anacardiaceae	I		6		I	
Aquifoliaceae	2		5		2	
Celastraceae	I	I	I	3		
Staphyleaceae	I		I			
Aceraceae	I		6	2		1

Families.	Genera.		Spec	ies.	Variet	Varieties and	
ramines.	Native.	Introd.	Native.	Introd.	Named Native.	Forms. Introd.	
Sapindaceae		1		I			
Balsaminaceae	I		2				
Rhamnaceae	2		2	1			
Vitaceae	2		6		I		
Tiliaceae	I		2	I			
Malvaceae	I	3	I	10			
Hypericaceae	I		II	2			
Elatinaceae	I		I				
Cistaceae	3		9		I		
Violaceae	I		25	3	I		
Cactaceae	I		I				
Thymelaeaceae	e 1		I				
Lythraceae	4		4	I			
Melastomaceae	. 1		I				
Onagraceae	5		21	1	3		
Haloragidacea	e 2		6		2		
Araliaceae	2	I	5	2			
Umbelliferae	15	10	23	10	I		
Cornaceae	2		8				
Ericaceae	18		39		8		
Plumbaginacea	ie i		I				
Primulaceae	5	I	9	3		I	
Ebenaceae	ī		I				
Oleaceae	I	2	3	3	ī		
Gentianaceae	5		9				
Apocynaceae	I	ī	3	1	I		
Asclepiadaceae		т	10	I	2		
Convolvulacea			7	5	7		
Polemoniaceae	U		2	3		I	
Hydrophyllace			1				
Boraginaceae	4	4	6	10			
Verbenaceae			3	2			
Labiatae	15	14	34	31	4	I	
Solanaceae	2	6	5	12	2		
Scrophulariace		ī	32	12	- T	2	
Lentibulariace:			10				
Orobanchaceae			3				
Bignoniaceae		2					
Phrymaceae	т.						
Plantaginaceae					т		
Rubiaceae			5	_	T T		
Caprifoliaceae	5 6		17	.1 6	-		
A .			20		2	• • • •	
Valerianaceae	I	I	I	I			
Dipsacaceae		I		I			
Cucurbitaceae	2		2				

Families.	Ger	Genera. Species.			Varieties and Named Forms.	
	ative.	Introd.	Native.	Introd.	Native.	Introd.
Campanulaceae	2		3	I		I
Lobeliaceae	I		6			
Compositae	34	22	146	69	33	10
SUMMARY	BY I	DIVISIONS	AND	CLASSES.		
Pteridophyta	25		74		22	
Spermatophyta	454	142	1407	461	233	31
Gymnospermae	9		13	4	I	
Angiospermae	445	142	1394	457	232	31
Monocotyledoneae	123	21	495	61	113	3
Dicotyledoneae	322	121	899	396	119	28
SUM	MARY	BY MINO	R GROU	JPS.		
Families Genera				. 1	34	
native			. 4	79		
introduce	1.		. 1	42		
total				. 6	21	
Species						
native			. 14	8τ		
introduce	1 .		. 4	.61		
total				. 19	42	
Varieties and	l Nan	ed Forms	3			
native			. 2	55		
introduce	d.			31		
total				. 2	86	

Whole number of different plants (species, varieties and named forms), not including those listed as fugitives, 2,228.

ORIGIN OF INTRODUCED SPECIES.

	Temperate North America.	Tropical America.	Europe.	Eurasia.	Asia.	Unknown.
Pinaceae	I		3			
Gramineae			42	I	I	
Commelinacea	ae I					
Liliaceae	I		8		3	
Amaryllidacea	ae		3			
Iridaceae			2		2	
Salicaceae			8		I	
Urticaceae	2		3	I	3	
Polygonaceae	3		7	1	3	
Chenopodiace	ae	2	7		I	
Amaranthacea	ae 1	5			I	
Nyctaginacea	e 3					
Illecebraceae			I			

7	remperate North America.	Tropical America.	Europe.	Eurasia.	Asia.	Jnknown.
Aizoaceae	1					
Caryophyllace	a e		21	2	ĭ	
Portulacaceae			I			
Ranunculacea	e		6			
Berberidaceae	I		1			
Papaveraceae			3			
Fumariaceae			I			
Cruciferae			24	I	1	
Capparidaceae	I					
Resedaceae			1		• • • •	
Crassulaceae			3			
Saxifragaceae	3		3			
Rosaceae	3		13	12	8	2
Leguminosae	5		16	3		
Linaceae						I
Oxalidaceae			I			
Geraniaceae			I			
Rutaceae	I					
Simarubaceae					I	
Euphorbiacea	e 2		4			
Celastraceae	I			I	I	
Aceraceae	I		I	I		
Sapindaceae					1	
Rhamnaceae			I			
Tiliaceae			I		• • •	
Malvaceae			8		2	
Hypericaceae	I		1			
Violaceae	• • •		3			
Lythraceae			I			
Onagraceae	I					
Araliaceae	I				I	
Umbelliferae			10			
Primulaceae			3	I		
Oleaceae	• • •		3			
Apocynaceae			1			
Asclepiadacea			I			• • •
Convolvulacea		2	2		I	
Polemoniacea	e 4					
Boraginaceae	• • •		10		• • •	
Verbenaceae	2					
Labiatae	6		25		I	
Solanaceae	2	6	2		2	
Scrophulariac			10			
Bignoniaceae	2					
Plantaginacea	ie I		1			

r	emperatur North America.	re. Tropical America.	Europe.	Eurasia.	Asia.	Unknown.
Rubiaceae			4			
Caprifoliaceae	2		I		3	
Valerianaceae			I			
Dipsacaceae			I			
Campanulacea	e		I	I		
Compositae	20	3	53		3	

SPECIES, VARIETIES AND NAMED FORMS IN SOME OF THE PRINCIPAL GENERA.

	Species.			ies and Forms.	
	Native.	Introd.	Native.	Introd.	Total.
Potamogeton	27		10		37
Panicum	40	I	2		43
Bromus	5	8			13
Cyperus	12		4		16
Eleocharis	14		2		16
Scirpus	23		9		32
Carex	III		53		164
Juncus	18		6		24
Habenaria	13				13
Salix	13	5	5		23
Quercus	12				12
Rumex	3	7			10
Polygonum	18	7	8		33
Chenopodium	4	6		2	12
Ranunculus	16	2	2	I	21
Ribes	6	4			10
Crataegus	18	1	II		30
Potentilla	9	2	2		13
Rosa	5	7		I	13
Rubus	16	3	4		23
Prunus	9	6			15
Desmodium	13				13
Euphorbia	5	6			II
Hypericum	11	2			13
Viola	25	3	I		29
Mentha	I	9	I		II
Veronica	6	5			II
Galium	II	3	I		15
Solidago	27		4		31
Aster	32	I	19		52
Helianthus	6	5	ī		12
Bidens	10		I		11

BOTANICAL AUTHORS CITED.

The following list is not entirely complete, but is intended to summarize such information as the Committee were able to gather in the time, and with the resources, at their disposal.

- A. A. Eaton. Alvah Augustus Eaton, 1865-1908. United States. Student particularly of the *Isoëtaceae* and *Equi*setaceae of North America.
- A. Br. See Braun.
- Adans. Michel Adanson, 1727-1806. Author of a work on the families of plants.
- A. DC. Alphonse Louis Pierre Pyramus De Candolle, 1806-1893. Switzerland. Editor of the Prodromus after his father's death, and contributor to it; author of works on botanical geography, etc.
- Ait. William Aiton, 1731-1793. England. Author of Hortus Kewensis.
- Ait. f. William Townsend Aiton, 1766-1849. England. Director of the Royal Gardens at Kew.
- A. J. Eames. Arthur Johnson Eames. United States.
- A. J. Grout. Abel Joel Grout. United States. Student of North American mosses.
- All. Carlo Allioni, 1725-1804. Italy. Prof. of Botany at Turin.
- Ames. Oakes Ames. United States. Director of the Botanic Garden, Harvard University. Student of *Orchidaceae*.
- **Anders.** Nils Johan Andersson, 1821-1880. Sweden. Prof. of Botany at Stockholm. Author of a monograph of the genus *Salix*, etc.
- Andr. Henry C. Andrews. England. Botanical artist and engraver; conducted the Botanists' Repository, 1799-1811.
- Andrz. Anton Lukianowicz Andrzejowski, 1784-1868. Russia. Prof. of Botany at Wilna.
- A. Nelson. Aven Nelson. United States. Prof. of Botany at the State University of Wyoming. Author of articles on Rocky Mountain botany.
- Angstr. Johan Angstroem. Sweden. Author of a work on mosses of Scandinavia, published 1842.
- Ard. Pietro Arduino, 1728-1805. Italy.
- Arn. George Arnold Walker Arnott, 1799-1868. Scotland.
- Aschers., Ascherson. Paul Friedrich August Ascherson. Germany. Prof. of Botany at the University of Berlin.

Ashe. William Willard Ashe. United States. Botanist, North Carolina Geological Survey.

Aust. Coe Finch Austin, 1831-1880. United States. Curator of the Herbarium at Columbia University. Student especially of North American mosses.

Avé-Lallemant. See Lall.

Bab. Charles Cardale Babington. England. Prof. of Botany at Cambridge University. Author of a manual of British botany, published 1843, etc.

Bailey. Liberty Hyde Bailey. United States. Director of the College of Agriculture at Cornell University. Author of studies of the genus Carex and of many works relating to horticulture.

Baker. John Gilbert Baker. England. Formerly Keeper of the Herbarium of the Royal Gardens, Kew.

Balbis. Giovanni Battista Balbis, 1765-1831. Italy. Prof. at Turin.

Ball. Carleton Roy Ball. United States. Agronomist in the Department of Agriculture.

Banks. Joseph Banks, 1743-1820. England. President of the Royal Society. Explorer, and generous patron of science.

Barneoud. F. Marius Barneoud. France. Author of a monograph of the Plantaginaceae, published 1845.

Barnh. John Hendley Barnhart. United States. Librarian, New York Botanical Garden.

Barratt. Joseph Barratt, 1707-1882. United States. Student chiefly of willows and sedges.

Bart., Barton. William Paul Crillon Barton, 1787-1856. United States. Prof. at the University of Pennsylvania. Author of Compendium Florae Philadelphicae, and of a flora of North America.

Bartlett. Harley Harris Bartlett. United States.

B. D. Greene. Benjamin D. Greene, 1793-1863. United States.

Beauv. Ambroise Marie François Joseph Palisot de Beauvois, 1755-1820. France. Author of a great work on grasses.

Beck. Lewis Caleb Beck, 1798-1853. United States. Prof. at various colleges. Author of Botany of the Northern and Middle States.

Beeby. William Hadden Beeby. England.

Benn. Arthur Bennett. England.

Benth. George Bentham, 1800-1884. England. Author or joint author of many important botanical works.

Berchtold. Friedrich, Graf von Berchtold, b. 1780. Bohemia.

Bergius. Peter Jonas Bergius, 1730-1790. Sweden.

Bernh. Johann Jacob Bernhardi, 1774-1850. Germany. Prof. of Botany at Erfurt.

Bess. Wilhelm S. J. G. von Besser, 1784-1842. Austria.

Betcke. Ernst Friedrich Betcke. Germany. Author of a work on the genus Valerianella, published 1826.

Beyrich. Karl Beyrich, d. 1834. Germany.

Bicknell. Eugene Pintard Bicknell. United States. Author of many articles on North American plants.

Bieb. Friedrich August Marschall von Bieberstein, 1768-1826. Germany and Russia. Author of works on the flora of Southern Russia.

Bigel. Jacob Bigelow, 1787-1879. United States. Author of Florula Bostoniensis, and of a Medical Botany.

Bisch., Bischoff. Gottlieb Wilhelm Bischoff, 1797-1854. Germany. Prof. of Botany at Heidelberg.

Bissell. Charles Humphrey Bissell. United States.

Blanchard. William Henry Blanchard. United States.

Blume. Karl Ludwig Blume, 1796-1862. Holland. Director of the Royal Herbarium at Leyden. Author of a great flora of Java.

Blytt. Matthias Numsen Blytt, 1789-1862. Norway. Prof. of Botany at Christiania. Author of a flora of Norway.

Boeckl. Johann Otto Boeckeler, 1803-1899. Germany. Writer on *Cyperaceae*.

Boehm. Georg Rudolf Boehmer, 1723-1803. Germany. Prof. at Wittenberg. (Boehmeria Jacq.)

Boenn. Clemens Maria Friedrich von Boenninghausen, 1785-1864. Germany.

Boiss. Edmond Boissier, 1810-1885. Switzerland. Author of a Flora Orientalis, various studies of the genus *Euphorbia*, etc.

Bonpland. See HBK.

Boott. Francis Boott, 1792-1863. United States and England. Author of a great work on the genus Carev. See also W. Boott.

Borkh. Moritz Balthasar Borkhausen, 1760-1806. Germany. Bosc. Louis Augustin Guillaume Bosc, 1759-1828. France. Bosch. Roelof Benjamin van den Bosch, 1810-1862. Holland.

Braun. Alexander Carl Heinrich Braun, 1805-1877. Germany. Professor at the University of Berlin. Writer on Cryptogams.

Bray. See U. & B.

Briquet. John Isaac Briquet. Switzerland. Director of the Geneva Botanic Garden.

Britten. James Britten. England. Senior Assistant, Department of Botany, British Museum. Editor, Journal of Botany.

Britton. Nathaniel Lord Britton. United States. Director, New York Botanical Garden. Author of Illustrated Flora of the Northern States and Canada (with Addison Brown), Manual of the Flora of the Northern States and Canada, and numerous botanical papers.

Brown. Addison Brown. United States. See also R. Br. Browne. See P. Br.

BSP. Nathaniel Lord Britton, E. E. Sterns and Justus Poggenburg. Authors of a Preliminary Catalogue of the Plants of the Vicinity of New York.

Franz Georg Philipp Buchenau, 1831-1906. Buchenau. Germany.

Samuel Botsford Buckley, 1809-1884. United Buckley. States.

Burgess. Edward Sanford Burgess. United States. Prof. of Natural Science, Normal College, New York. Author of studies of the genus Aster.

Burm. f. Nickolaus Laurens Burmann, 1734-1793. Holland. Bush. B. F. Bush. United States.

Candolle. See A. DC., DC.

C. & S. A. von Chamisso and D. F. L. von Schlechtendal. See Cham, and Schlecht.

Carey. John Carey, 1797-1880. England and United States. Lived and collected in the United States, 1830 to 1852; wrote on willows and sedges.

Carr. Élie Abel Carrière, 1818-1896. France. Éditor of Révue Horticole; author of a monograph of Coniferae.

Casp. Robert Caspary, 1818-1887. Germany. Botany at Königsberg. Wrote on water plants.

Cass. Alexandre Henri Gabriel, Comte de Cassini, 1781-1832. France.

Cav. Antonio José Cavanilles, 1745-1804. Spain. Prof. of Botany at Madrid.

C. C. Gmel. Carl Christian Gmelin, 1762-1837. Germany.

Čelak. Ladislav Čelakovsky, 1834-1902. Bohemia. Prof. of Botany at Prague.

Chaix. Dominique Chaix, 1731-1800. France.

Cham. Adalbert von Chamisso, 1781-1838. Germany. Poet and naturalist.

Chapm. Alvan Wentworth Chapman, 1809-1899. United States. Author of a standard flora of the Southern States.

Chase. (Mrs.) Agnes Chase. United States. Assistant in systematic agrostology, U. S. Department of Agriculture.

Chatelain. Jean Jacques Chatelain. Author of a work on the genus *Corallorrhiza*, published 1760.

Clarke. Charles Baron Clarke, 1832-1906. England. Student principally of the Cyperaceae.

Clayt. John Clayton, 1685-1773. Physician and collector in Virginia, and correspondent of Gronovius, whose Flora Virginica was based on Clayton's collections and notes. (Claytonia L.)

Clute. Willard Nelson Clute. United States. Student of North American ferns and fern-allies.

Cosson. Ernest Cosson, 1819-1889. France.

Coulter. John Merle Coulter. United States. Prof. of Botany at the University of Chicago. Author of a manual of Rocky Mountain Botany, botanical text-books, etc. See also T. Coulter.

Courtois. Richard Courtois, 1806-1835. Belgium. Prof. at Liège.

Coville. Frederick Vernon Coville. United States. Botanist, U. S. Department of Agriculture. Curator, U. S. National Herbarium. Author of many botanical papers.

Crantz. Heinrich Johann Nepomuk Crantz, 1722-1799. Austria. Prof. at Vienna.

Curtis. William Curtis, 1746-1799. England. Founder of Curtis's Botanical Magazine. See also M. A. Curtis.

C. Wright. Charles Wright, 1811-1886. United States. Made important collections in the southwestern U. S. and in Cuba.

Cyrill. Domenico Cyrillo, 1730-1799., Italy. Prof. at Naples.
Darby. John Darby, 1804-1877. United States. Author of a Botany of the Southern States.

Darl. William Darlington, 1782-1863. United States. Author of Flora Cestrica, a local flora of the vicinity of West Chester, Penn.

Davenp. George Edward Davenport, 1833-1907. United States. Student of American ferns.

DC. Augustin Pyramus De Candolle, 1778-1841. France and Switzerland. Projector of the Prodromus, writer of its earlier volumes and of other important botanical work. See also A. DC.

D. C. Eaton. Daniel Cady Eaton, 1834-1895. United States. Prof. of Botany at Yale University. Author of Ferns of North America, etc.

Done. Joseph Decaisne, 1809-1882. France. Prof. at the Jardin des Plantes, Paris.

D. Don. David Don, 1800-1841. England. Prof. at King's College, London.

De Candolle. See A. DC., DC.

Desf. Réné Louiche Desfontaines, 1750-1833. France. Prof. at the Jardin des Plantes, Paris.

Desr. Desrousseaux.

Desv. Augustin Nicaise Desvaux, 1784-1856. France. Prof. of Botany at Angers.

Dewey. Chester Dewey, 1784-1867. United States. Prof. at Rochester University. Student of American Carices.

Dicks. James Dickson, 1738-1822. Scotland. (Dicksonia L'Her.)

Dietr. Friedrich Gottlieb Dietrich, 1768-1850. Germany. Director of the Botanic Garden at Eisenach.

Don. See D. Don, G. Don.

Donn. James Donn, 1758-1813. England. Author of Hortus Cantabrigiensis.

Dougl. David Douglas, 1799-1834. Scotland. Collected much in northwestern North America.

Druce. George Claridge Druce. England. Author of various works on the British flora.

Drude. Oskar Drude. Germany. Prof. at Dresden. Author of works on plant geography, etc.

Duby. Jean Étienne Duby, b. 1798. Switzerland. Author of studies in the *Primulaceae*.

Duchesne. Antoine Nicolas Duchesne, 1747-1827. France.
 Dudley. William Russell Dudley. United States. Prof. of Botany at Leland Stanford, Jr., University.

Dufr. Pierre Dufresne, 1786-1836. France. Author of a work on the Valerianaccae.

Dulac. J. Dulac. France. Author of a Flora du Département des Hautes Pyrénées, 1867.

Dumont. Jules Sébastien César Dumont d'Urville, 1790-1842. France.

Dumort. Barthélemy Charles Dumortier, 1797-1878. Belgium.

Dunal. Michel Félix Dunal, 1789-1856. France. Prof. of Botany at Montpellier. Author of a monograph of Solanum and allied genera, etc.

Dur. Michel Charles Durieu de Maisonneuve, 1796-1878. France. Director of the Botanic Garden at Bordeaux.

Durand. Elias Durand, 1794-1873. United States. Collector of North American plants. See also Th. Durand.

DuRoi. Johann Philipp DuRoi, 1741-1785. Germany. Author of a work on the trees of North America.

Eames. Edwin Hubert Eames. United States. See also A. J. Eames.

Eaton. See A. A. Eaton, D. C. Eaton, H. H. Eaton.

Ebermaier. Karl Heinrich Ebermaier, 1802-1870. Germany. Eddy. Caspar Wistar Eddy. United States. Author of a local flora, Plantae Plandomenses, published 1808.

Eggleston. Willard Webster Eggleston. United States.

Collector; student of Crataegus.

E. Hitchc. Edward Hitchcock, 1793-1864. United States. Prof. at Amherst College. Author of a Catalogue of Plants in the Vicinity of Amherst College, etc.

Ehrh. Friedrich Ehrhart, 1742-1795. Germany.

Ell. Stephen Elliott, 1771-1830. United States. Author of Sketch of the Botany of South Carolina and Georgia.

Ellis. John Ellis, 1711-1776. England. (Ellisia L.)

Endlicher. Stephan Friedrich Ladislaus Endlicher, 1804-1849. Prof. at Vienna and Director of the Botanic Garden. Author of a Genera Plantarum.

Engelm. George Engelmann, 1809-1884. United States. Studied and monographed more or less completely several difficult genera of North American plants.

E. S. Miller. Elihu Sandford Miller. United States.

Fabric. Philipp Konrad Fabricius, 1714-1774. Germany. Prof. at Helmstadt.

Farwell. Oliver Atkins Farwell. United States.

Fée. Antoine Laurent Apollinaire Fée, 1789-1874. France. Prof. of Botany at Strassburg. Writer on ferns.

Fenzl. Eduard Fenzl, 1808-1879. Austria. Curator of the Botanical Museum at Vienna.

Fernald. Merritt Lyndon Fernald. United States. Assistant Prof. of Botany, Harvard University. Author of many papers and monographs dealing with the North American and Mexican floras.

Fisch. Friedrich Ernst Ludwig von Fischer, 1782-1854. Russia. Director of the Botanic Garden at St. Petersburg.

Flügge. Johann Flügge, 1775-1816. Germany.

Focke. Wilhelm Olbers Focke. Germany.

Forbes. John Forbes, 1773-1861. England. Gardener at Woburn Abbey. Author of Hortus Woburnensis.

Forskål. Pehr Forskål, 1736-1768. Sweden. Collected in Egypt and Arabia.

Foucaud. Julien Foucaud, 1847-1904. France.

Fourn. Pierre Nicolas Eugène Fournier, 1834-1884. France. Author of works on Mexican ferns and grasses.

Fourr. Jules Fourreau. France.

Fries. Elias Magnus Fries, 1794-1878. Sweden. Prof. at Upsala. Author of many works on systematic botany, chiefly of the lower Cryptogams.

Fritsch. Karl Fritsch. Austria. Prof. of Botany at the University of Graz.

Froel. Joseph Aloys Froelich, 1766-1841. Germany. Author of a monograph of the genus *Gentiana*, etc.

F. Schultz. Friedrich Wilhelm Schultz, b. 1804. Germany.

Gaertn. Joseph Gaertner, 1732-1791. Germany.

Garcke. Friedrich August Garcke, 1819-1904. Germany. Prof. at Berlin. Author of a standard manual of the German flora.

Gaud. Charles Gaudichaud-Beaupré, 1789-1864. France.

Gaudin. Jean François Gottlieb Philippe Gaudin, 1766-1833. Switzerland. Author of a Flora Helvetica.

Gay. See J. Gay.

G. Don. George Don, 1798-1856. England.

Germain. Ernest Germain de Saint-Pierre. France.

Gilbert. Benjamin Davis Gilbert, 1835-1907. United States. Student of American ferns.

Gilib. Jean Emmanuel Gilibert, 1741-1814. Prof. at Wilna, Russia, and at Lyons, France.

- Gill. John Gillies, d. before 1837. Lived and collected in South America.
- Gloxin. Benjamin Peter Gloxin. France. Published Observationes Botanicae, 1785.
- Gmel. Samuel Gottlieb Gmelin, 1743-1774. Russia. See also C. C. Gmel., J. F. Gmel.
- Godr. Dominique Alexandre Godron, 1807-1880. France. Prof. at Nancy. Joint author of a flora of France.
- John Goldie, 1793-1886. Scotland and Canada. Traveled and collected in eastern North America in the early 10th century.
- Good. Samuel Goodenough, 1743-1827. England.
- Grab. Heinrich Emmanuel Grabowski, 1792-1842. Germany.
- Graebner. Paul Graebner. Germany. Curator of the Royal Botanic Garden at Dahlem.
- Graves. Charles Burr Graves. United States.
- Gray. Asa Gray, 1810-1888. United States. The most distinguished of American botanists; for many years Prof. of Natural History at Harvard University. Author of the well-known Manual of the Botany of the Northeastern States, Synoptical Flora of North America, etc. See also S. F. Gray.
- Greene. Edward Lee Greene. United States. Former Prof. of Botany at the University of California and at the Catholic University of America, Georgetown. Author of many articles and monographs dealing with North American plants. See also B. D. Greene.
- Greenman. Jesse More Greenman. United States. Museum of Natural History, Chicago.
- Gren. Charles Grenier, 1808-1875. France. Prof. at Besancon. Joint author (with Godron) of a flora of France.
- Grev. Robert Kaye Greville, 1794-1866. Scotland. Prof. at Edinburgh. Author or joint author of several works, mostly on cryptogamic plants.
- Heinrich Rudolf August Grisebach, 1814-1879. Griseb. Germany. Prof of Botany at Göttingen. Author of a monograph of the Gentianaceae, Flora of the British West Indies, etc.
- Jan Fredrik Gronovius, 1690-1762. Holland. Author of a Flora Virginica; a distinguished botanist in his time.
- Grout. See A. J. Grout.

G. S. Miller. Gerrit Smith Miller, Jr. United States. Assistant Curator, U. S. National Museum.

Guss. Giovanni Gussone, 1787-1866. Italy. Prof. of Botany at Naples.

Haberer. Joseph V. Haberer. United States.

Hack. Eduard Hackel. Austria. Author of works on grasses.

Haller f. Gottlieb Emmanuel von Haller, 1730-1786. Switzerland.

Harper. Roland MacMillan Harper. United States.

Haussk. Carl Haussknecht.

Haw. Adrian Hardy Haworth, 1772-1833. England. Author of Synopsis Plantarum Succulentarum.

Hayne. Friedrich Gottlieb Hayne, 1763-1832. Germany. Prof. at Berlin.

HBK. Friedrich Wilhelm Heinrich Alexander von Humboldt, 1796-1859. Germany. Aimé Jacques Alexandre Bonpland, 1773-1858. France. Karl Sigismund Kunth, q. v. Joint authors of a great work on plants of the New World.

Hegelm. Christoph Friedrich Hegelmaier, 1833-1906. Germany. Prof. at Tübingen. Author of a monograph of the genus *Callitriche*, etc.

Heller. Amos Arthur Heller. United States. Collector; author of a Catalogue of North American Plants, etc.

H. H. Eaton. Hezekiah Hulbert Eaton, 1809-1832. United States.

Hill. John Hill, 1716-1775. England.

Hitchc. Albert Spear Hitchcock. United States. Systematic Agrostologist, U. S. Department of Agriculture. See also E. Hitchc.

Hochst. Christian Friedrich Hochstetter, 1787-1860. Germany.

Hoffm. Georg Franz Hoffman, 1761-1826. Germany and Russia. Prof. of Botany at Göttingen and Moscow.

Hoffmg. Johann Centurius, Graf von Hoffmansegg, 1766-1849. Germany.

Hollick. Charles Arthur Hollick. United States. Author of papers on the botany and geology of the vicinity of New York.

Hook. William Jackson Hooker, 1785-1865. England. Director of the Royal Garden at Kew. Author of Species Filicum, and of much important botanical work.

Hook, f. Joseph Dalton Hooker, England. Former Director of the Royal Garden and Museum at Kew. Joint author (with Bentham) of an authoritative work on the genera of plants. Author of Flora of British India, etc.

Horkel. Johann Horkel, 1769-1846. Germany. Prof. at the University of Berlin.

Hornem. Jens Wilken Hornemann, 1770-1841. Denmark. Prof. of Botany at Copenhagen.

Host, Nicolaus Thomas Host, 1761-1834. Austria. Wrote on Austrian grasses.

Houba. J. Houba. Belgium(?). Author of a work on oaks, published 1887.

House. Homer Doliver House. United States.

Howell. Thomas Howell. United States. Author of a flora of the Northwestern States.

Huds. William Hudson, 1730-1793. England. Author of a Flora Anglica. (Hudsonia L.)

Hull. John Hull, 1761-1843. England. Author of a British Flora.

Humboldt. See HBK.

Ives. Eli Ives, 1779-1861. United States. Prof. at Yale College.

Jackson. Benjamin Daydon Jackson. England. Curator of the Herbarium of the Linnean Society, London. author of the Index Kewensis.

Jacq. Nicolaus Joseph Jacquin, 1727-1817. Austria. Collected in tropical America. Author of several important botanical works.

I. E. Smith. See Sm.

J. F. Gmel. Johann Friedrich Gmelin, 1748-1804. Germany: Prof. at Tübingen and Göttingen.

J. Gay. Jacques Gay, 1786-1864. France.

J. G. Smith. Jared Gage Smith. United States. In charge of U. S. Agricultural Experiment Station, Hawaii.

Jord. Alexis Jordan. France. Joint author (with Fourreau) of Breviarium Plantarum Novarum, 1866.

Juss. Antoine Laurent Jussieu, 1748-1836. France. Prof. at the Jardin des Plantes, Paris. The first to attempt to define the natural families of plants, in his Genera Plantarum, 1774.

Kalm. Pehr Kalm, 1715-1779. Finland. Traveled and collected in America. (Kalmia L.)

Karst. Hermann Gustav Karl Wilhelm Karsten, 1817-1908. Austria and Germany. Prof. at Vienna.

Ker. John Bellenden Ker, 1765(?)-1871. England.

Kitaibel. See W. & K.

K. Koch. See Koch.

Knight. Ora Willis Knight. United States.

Koch. Karl Heinrich Emil Koch, 1809-1879. Germany. Prof. at Berlin.

Koehne. Bernhard Adalbert Emil Koehne. Germany. Prof. at Berlin. Dendrologist; author of a monograph of the Lythraceae of the United States.

Koeler. Georg Ludwig Koeler, d. 1807. Germany. Prof. at Mainz

Kuhn. Friedrich Adalbert Maximilian Kuhn, 1842-1894. Germany. Writer on ferns.

Kunth. Karl Sigismund Kunth, 1788-1850. Germany. Prof. at Berlin. Author of Enumeratio Plantarum, a work designed to supplement the Prodromus, Revisio Graminum, etc. See also HBK.

Kuntze. Karl Ernst Otto Kuntze, 1843-1907. Germany. Author of Revisio Generum Plantarum, a work chiefly nomenclatorial.

L. Carolus Linnaeus (Carl von Linné), 1707-1778. Sweden. Prof. of Botany at Upsala. The "Father of Botany." Inventor of the binomial system of nomenclature. His Species Plantarum is accepted as the basis of modern descriptive botany. (Linnaea Gronov.)

Laestad. Lars Levi Laestadius, b. 1800. Lapland.

Lag. Mariano Lagasca, 1776-1839. Spain. Wrote on Mexican and Spanish plants.

Julius Leopold Eduard Avé-Lallemant, 1803-1867. Germany.

Jean Baptiste Antoine Pierre Monnet de Lamarck, 1744-1829. France. Distinguished naturalist and philosopher; author of a theory of organic evolution which anticipated Darwin's.

Lamotte. Martial Lamotte. France.

Lamson-Scribner. See Scribn.

Lange. Johan Martin Christian Lange, 1818-1898. Denmark. Prof. of Botany at Copenhagen.

Le Conte. John Eaton Le Conte, 1784-1860. United States. Author of papers on various genera of North American plants.

- Lecoq. Henri Lecoq, 1802-1871. France. Prof. at Clermont-Ferrand.
- Ledeb. Karl Friedrich von Ledebour, 1785-1851. Russia. Prof. at Dorpat. Author of Flora Altaica, Flora Rossica.
- Johann Daniel Leers, 1727-1774. Germany. Leers. (Leersia Sw.)
- Leggett. William Henry Leggett, 1816-1882. United States. Founder of the Bulletin of the Torrey Botanical Club. Studied the genus Lechea.
- nm. Johann Georg Christian Lehmann, 1792-1860. Germany. Prof. and Director of the Botanic Garden at Hamburg.
- Leieune. Alexander Ludwig Simon Lejeune, 1779-1858. Belgium. Joint author (with Courtois) of Compendium Florae Belgicae.
- Lestib. François Joseph Lestiboudois, d. 1815. France. Prof. of Botany at Lille.
- Leyss. Friedrich Wilhelm von Leysser, 1731-1815. Germany. L. f. Carl von Linné, the son, 1741-1783. Sweden. Prof. at Upsala.
- L'Her. Charles Louis L'Heritier de Brutelle, 1746-1800. France.
- Lightf. John Lightfoot, 1735-1788. England. Author of a flora of Scotland.
- Lindl. John Lindley, 1799-1865. England. Prof. of Botany at London. Distinguished as a horticulturist and author of many botanical works.
- Link. Heinrich Friedrich Link, 1767-1851. Germany. Prof. of Botany at Berlin.
- Linnaeus, Linné. See L., L. f.
- Conrad Loddiges. England. Nurseryman near London; conducted Loddiges' Botanical Cabinet, 1817-1833.
- Loisel. Jean Louis Auguste Loiseleur-Deslongchamps, 1774-1849. France.
- Loud. John Claudius Loudon, 1783-1843. England. Author of an encyclopedia of plants native and cultivated in Great Britain, Arboretum et Fruticetum Brittanicum, etc.
- Ludwig. Christian Gottlieb Ludwig, 1709-1773. Germany. (Ludvigia L.)
- Mackenzie. Kenneth Kent Mackenzie. United States.
- MacMill. Conway MacMillan. United States. Author of works on Minnesota plants.

M. A. Curtis. Moses Ashley Curtis, 1808-1873. United States. Author of a flora of North Carolina and of important studies of North American fungi.

Magnus. Paul Magnus.

Marchal. Élie Marchal. Belgium.

Marsh. Humphrey Marshall, 1722-1801. United States. Author of a work on American trees and shrubs.

Martens. Martin Martens, 1797-1863. Belgium. Prof. of Botany at Louvain.

Martius. Karl Friedrich Philipp von Martius, 1794-1868. Germany. Prof. at Munich.

Maxim. Karl Johann Maximowicz, 1827-1891. Russia. Wrote much on Asiatic plants.

Maxon. William Ralph Maxon. United States. Assistant Curator, U. S. National Museum. Writer on ferns.

Medic. Friedrich Casimir Medicus, 1736-1808. Germany. Director of the Botanic Garden at Mannheim.

Meisn. Karl Friedrich Meisner, 1800-1874. Switzerland. Prof. of Botany at Basle.

Mérat. François Victor Mérat, 1780-1851. France.

Merr. Elmer Drew Merrill. United States. Government Botanist in the Philippine Islands.

Mert. Karl Heinrich Mertens, 1796-1830. Russia.

Mey. Ernst Heinrich Friedrich Meyer, 1791-1858. Germany. Prof. of Botany at Königsberg.

Micheli. See M. Micheli.

Michx. André Michaux, 1746-1802. France, but carried on much botanical work in North America.

Michx. f. François André Michaux, 1770-1855. France and United States. Son of the preceding. Author of a work on the trees of North America.

Milde. Julius Milde, 1824-1871. Germany. Author of works on mosses and pteridophytes.

Mill. Philip Miller, 1691-1771. England. Author of a celebrated Dictionary of Gardening.

Miller. See E. S. Miller, G. S. Miller, Mill.

Millsp. Charles Frederic Millspaugh. Curator, Department of Botany, Field Museum of Natural History, Chicago. Author of a flora of West Virginia and of numerous articles dealing chiefly with the plants of Mexico and the West Indies.

M. Micheli. Marco Micheli, 1844-1902. Switzerland.

Moench. Konrad Moench, 1744-1805. Germany. Prof. at Marburg.

Carl Theodor Mohr, 1824-1901. United States. Mohr. Botanist, Geological Survey of Alabama. Author of Plant Life of Alabama, etc.

Moore. Thomas Moore, 1821-1887. England. Curator of the Chelsea Botanic Garden. Author of an Index Filicum, etc. See also Pease & Moore.

Mog. Christian Horace Bénédict Alfred Moguin-Tandon, 1804-1863. France.

Morong. Thomas Morong, 1827-1894. United States. Curator of the Herbarium at Columbia University. Collected in Paraguay. Published much on Najadaceae.

Muell. Arg. Johann Mueller of Aargau, 1829-1896. Switzerland. Director of the Geneva Botanic Garden and Curator of the Delessert Herbarium.

Muench. Otto, Freiherr von Muenchhausen, 1716-1774. Germany.

Muhl. Gotthilf Henry Ernest Muhlenberg, 1756-1817. United States. Correspondent of many European botanists. Author of a Catalogue of North American Plants, Description of North American Grasses, etc. (Muhlenbergia Schreb.)

Müller. See Muell. Arg., O. F. Müller.

Murr. Johann Andreas Murray, 1740-1791. Germany. Prof. at Göttingen.

Mutis. José Celestino Mutis, 1732-1808. Spain.

Nash. George Valentine Nash. United States. Curator of Plantations, New York Botanical Garden. Writer on North American grasses.

Neck. Noel Joseph de Necker, 1729-1793. Germany.

Nees. Christian Gottfried Daniel Nees von Esenbeck, 1776-1858. Germany. Prof. of Botany at Breslau.

Nelson. See A. Nelson.

Thomas Nuttall, 1786-1859. United States and Nutt. England. Explorer, botanist and ornithologist. Director of the Harvard Botanic Garden. Author of Genera of North American Plants, Forest Trees of the United States.

Nym. Carl Fredrik Nyman, 1820-1893. Sweden.

Oakes. William Oakes, 1799-1848. United States. Collector and student of the New England flora. (Oakesia Wats.)

Oeder. Georg Christian Oeder, 1728-1791. Germany. Author of works on the plants of Denmark and Norway.

O. F. Müller. Otto Friedrich Müller, 1730-1784. Denmark.

Olney. Stephen T. Olney, 1812-1878. United States. Author of a Catalogue of Rhode Island Plants; student of Carices.

Otto. Friedrich Otto, 1782-1856. Germany.

Paine. John Alsop Paine. United States. Author of Plants of Oneida County [New York] and Vicinity.

Parl. Filippo Parlatore, 1816-1877. Italy. Prof. of Botany at Florence.

Pavon. José Pavon, fl. about 1800. Spain.

Pax. Ferdinand Pax. Germany. Prof. of Botany at the University of Breslau.

P. Br. Patrick Browne, 1720-1790. Ireland. Author of Civil and Natural History of Jamaica.

Pease & Moore. Arthur Stanley Pease and Albert Hanford Moore. United States.

Peck. Charles Horton Peck. United States. State Botanist of New York. Author of many botanical reports, dealing chiefly with fungi.

Pers. Christiaan Hendrik Persoon, 1755-1837. Germany, etc. Author of Synopsis Plantarum and several works on fungi.

Peter. Robert Peter, b. 1805. United States. Geologist and botanist.

Philippi. Rudolph Amandus Philippi, 1808-1904. Chile. Director of the Museum at Santiago.

Piper. Charles Vancouver Piper. United States. Agrostologist, U. S. Department of Agriculture. Author of a flora of the State of Washington.

Planch. Jules Émile Planchon, 1823-1888. France. Prof. at Montpellier.

Poggenburg. See BSP.

Poir. Jean Louis Marie Poiret, 1755-1834. France.

Poll. Johann Adam Pollich, 1740-1780. Germany.

Pollard. Charles Louis Pollard. United States. Author of many botanical articles, especially on the genus Viola.

Pomel. Nicola-Auguste Pomel, 1821-1898. France.

Porter. Thomas Conrad Porter, 1822-1901. United States. Prof. of Natural Sciences at Lafayette College. Author of Botany of Pennsylvania, etc.

Prantl. Karl Anton Eugen Prantl, 1849-1893. Germany. Prof. at Breslau.

Presl. Karel Boriwog Presl, 1794-1852. Bohemia. Prof. at Prague.

Prince. William Robert Prince, 1795-1869. United States. Horticulturist.

Pursh. Frederick Traugott Pursh, 1774-1820. Traveled for 12 years in the United States. Author of Flora Americae Septentrionalis.

Raf. Constantino Samuel Rafinesque-Schmaltz, 1784-1842.
Prof. of Natural History at Transylvania University,
Kentucky. A keen, but erratic botanist.

Raimann. Rudolf Raimann. Austria. Prof. at Vienna.

Rand. Edward Lothrop Rand. United States.

R. Br. Robert Brown, 1773-1858. England. A distinguished botanist, author of many important works.

Redfield. John Howard Redfield, 1815-1895. United States. Joint author (with Rand) of a flora of Mt. Desert.

Regel. Eduard August von Regel, 1815-1892. Russia. Director of the Botanic Garden at St. Petersburg.

Rehder. Alfred Rehder. United States. Assistant at the Arnold Arboretum, Harvard University.

Reichard. Johann Jakob Reichard, 1743-1782. Germany.

Reichenb. Heinrich Gottlieb Ludwig Reichenbach, 1793-1879. Germany. Prof. at Dresden.

Rendle. Alfred Barton Rendle. England. Keeper, Department of Botany, British Museum.

Retz. Anders Johan Retzius, 1742-1821. Sweden. Prof. at Lund.

Richard. Louis Claude Marie Richard, 1754-1821. France.

Richards. John Richardson, 1787-1865. England. Surgeon and naturalist with Sir John Franklin's earlier expeditions. Wrote a botanical appendix to Franklin's narrative.

Ricker. Percy Leroy Ricker. United States. Scientific Assistant in Taxonomy, U. S. Dept. of Agriculture.

Riddell. John Leonard Riddell, 1807-1867. United States. Prof. at the University of Louisiana. Author of Synopsis of the Flora of the Western States, Plants of Ohio, etc.

Ries. Heinrich Ries. United States. Prof. at Cornell University.

Robbins. James Watson Robbins, 1801-1879. United States. Collected in New England, the Lake region, Virginia and Maryland. Student of *Potamogeton*.

Robinson. Benjamin Lincoln Robinson. United States. Prof. of Systematic Botany and Curator of the Gray Herbarium, Harvard University. Author of many papers on the plants of North America and Mexico, a flora of the Galapagos Islands, etc.

Robson. Stephen Robson. England. Author of a British flora, published 1777.

Roem. Johann Jacob Roemer, 1763-1819. Switzerland. Prof. at Zürich.

Rostk. Friedrich Wilhelm Gottlieb Rostkovius, 1770-1848. Germany.

Roth. Albrecht Wilhelm Roth, 1757-1834. Germany.

Rottb. Christian Fries Rottboell, 1727-1797. Denmark. Prof. of Botany at Copenhagen.

Rouy. Georges-C-Ch. Rouy. France.

Roxb. William Roxburgh, 1759-1815. India. Director of the Botanic Garden at Calcutta. Wrote on plants of India.

Rudge. Edward Rudge, 1763-1846. England.

Ruiz. Hipolito Ruiz, 1754-1815. Spain. Joint author (with Pavon) of a flora of Peru and Chile.

Rupr., Ruprecht. Franz J. Ruprecht, 1814-1870. Russia. Curator of the Herbarium of the Imperial Academy of Sciences, St. Petersburg.

Rusby. Henry Hurd Rusby. United States. Prof., Department of Pharmacy, Columbia University.

Rydb. Per Axel Rydberg. United States. Curator, New York Botanical Garden. Author of several monographs, floras of Montana and Colorado, etc.

Salisb. Richard Anthony Salisbury, 1761-1829. England.

Sarg. Charles Sprague Sargent. United States. Prof. of Arboriculture and Director of the Arnold Arboretum, Harvard University. Author of Silva of North America, etc.

Sartwell. Henry Parker Sartwell, 1792-1867. United States. Student of Carices.

Schk. Christian Schkuhr, 1741-1811. Germany. Author of a work on sedges.

Schlecht. Diedrich Franz Leonhard von Schlechtendal, 1794-1866. Germany. Prof. at Halle.

Schleich. J. C. Schleicher. Author of a flora of Switzerland, 1800.

Schleid. Matthias Jacob Schleiden, 1804-1881. Germany.

Schmidt. Wilhelm Ludwig Ewald Schmidt, 1804-1843. Germany.

Schneider. Camillo Karl Schneider. Austria.

Schott. Heinrich Wilhelm Schott, 1794-1865. Austria. Director of the Imperial Garden at Schönbrunn. Author of a monograph of the *Araceae*, etc.

Schrad. Heinrich Adolph Schrader, 1767-1836. Germany. Prof. of Botany at Göttingen.

Schrank. Franz von Paula Schrank, 1747-1835. Germany. Prof. of Botany at Munich.

Schreb. Johann Daniel Christian von Schreber, 1739-1810. Germany.

Schult., Schultes. Joseph August Schultes, 1773-1831. Germany. Prof. at Landeshut.

Schultz. See F. Schultz.

Schum. Christian Friedrich Schumacher, 1757-1830. Denmark. Schur. Philipp Johann Ferdinand Schur, b. 1799. Austria.

Schwein. Lewis David von Schweinitz, 1780-1834. United States. Student of fungi, in which department his work is of much importance, and author of monographs of Viola and the North American species of Carex.

Scop. Johann Anton Scopoli, 1723-1788. Italy. Prof. at Pavia.

Scribn. Frank Lamson-Scribner. United States. Author of many articles on grasses.

Ser. Nicolas Charles Seringe, 1776-1858. France. Prof. at Lyons.

S. F. Gray. Samuel Frederick Grav, fl. 1780-1836. England. Shear. Cornelius Lott Shear. United States. Pathologist, U. S. Department of Agriculture.

Short. Charles Wilkins Short, 1794-1863. United States. Joint author (with Peter) of Plants of Kentucky.

Robert Shuttleworth, d. 1874. England and Shuttlw. Switzerland.

Sibth. John Sibthorp, 1758-1796. England. Author of a flora of Greece.

Sieb. Philipp Franz von Siebold, 1796-1866. Germany.

Sims. John Sims, 1792-1838. England. For many years editor of Curtis' Botanical Magazine.

Sm., Smith. James Edward Smith, 1759-1828. England. See also J. G. Smith.

Small. John Kunkel Small. United States. Curator of the Museums, New York Botanical Garden. Author of a flora of the southeastern United States, etc.

Solms. Herman, Graf zu Solms-Läubach. Germany. Former Prof. at the University of Strassburg.

Sonder. Otto Wilhelm Sonder, 1812-1888. Germany.

Spach. Eduard Spach, 1801-1870. France.

Spreng. Kurt Polycarp Joachim Sprengel, 1766-1833. Germany. Prof. of Botany at Halle.

Spring. Anton François Spring, 1814-1872. Belgium. Prof. at Liège. Author of a monograph of the Lycopodiaceae. Sterns. See BSP.

Steud. Ernst Gottlieb Steudel, 1783-1856. Germany.

Stokes. Jonathan Stokes, 1755-1831. England.

Sudworth. George Bishop Sudworth. United States. Chief of Dendrology, Forest Service, U. S. Dept. of Agriculture.

Sw. Olaf Swartz, 1760-1818. Sweden. Prof. at Stockholm. Author of a flora of the West Indies, Synopsis Filicum,

Sweet. Robert Sweet, 1783-1835. England.

Taubert. Paul Hermann Wilhelm Taubert, 1862-1897. Germany.

Tausch. Ignaz Friedrich Tausch, b. 1848. Bohemia.

T. Coulter. Thomas Coulter, d. 1843. Ireland. Published a monograph of Dipsacaceae.

Tenney. Sanborn Tenney, 1827-1877. United States. Prof. at Vassar and Williams Colleges.

Tenore. Michele Tenore, 1780-1861. Italy. Prof. of Botany at Naples.

Th. Durand. Theophile Durand. Belgium. Director of the Brussels Botanic Garden.

Thuill., Thuillier. Jean Louis Thuillier, 1757-1822. France. Thunb. Carl Peter Thunberg, 1743-1822. Sweden. Prof. of Botany at Upsala. Author of a Flora Japonica, etc.

Thurb. George Thurber, 1821-1890. United States. Botanist of the Mexican Boundary Commission. Student of Grasses.

Todaro, Agostino Todaro, 1818-1802. Italy, Director of the Botanic Garden at Palermo.

Torr. John Torrey, 1796-1873. United States. Botanist and chemist. Author of a flora of New York, a monograph of the North American Cyperaceae, etc. Joint author (with Gray) of a flora of North America.

Tratt. Leopold Trattinick, 1764-1849. Austria. Curator at the Herbarium in Vienna.

Christian Ludolf Treviranus, 1779-1864. Germany. Prof. of Botany at Bonn.

Trevisan. Vittore, Conte Trevisan, b. 1818. Italy.

Trin. Karl Bernhard Trinius, 1778-1844. Russia. Writer on grasses.

- Tuckerm. Edward Tuckerman, 1817-1886. United States. Prof. of Botany at Amherst College. Author of papers on *Carex* and *Potamogeton*, a catalogue of plants of the vicinity of Amherst College, works on lichens, etc.
- U. & B. Edwin B. Uline and William L. Bray. United States. Authors of a monograph of North American Amaranthaceae.
- Underw. Lucien Marcus Underwood, 1853-1907. United States. Prof. at Columbia University. Author of Our Native Ferns, and articles on ferns and Hepaticae.
- Vahl. Martin Vahl, 1749-1804. Denmark. Prof. of Botany at Copenhagen.
- Vail. (Miss) Anna Murray Vail. United States.
- Vasey. George Vasey, 1822-1893. United States. Botanist, U. S. Dept. of Agriculture. Wrote on grasses.
- Vent. Étienne Pierre Ventenat, 1757-1808. France.
- Vill. Dominique Villars, 1745-1814. France.
- Wahlenb. Georg Wahlenberg, 1781-1851. Sweden. Prof. at Upsala.
- Wallr. Karl Friedrich Wilhelm Wallroth, 1792-1857. Germany.
- Walp. Wilhelm Gerhard Walpers, 1816-1853. Germany.
- Walt. Thomas Walter, d. 1788. United States. Author of Flora Caroliniana.
- W. & K. Franz Adam, Graf von Waldstein, 1759-1823, and Paul Kitaibel, 1757-1817. Austria. Authors of a work on the plants of Hungary.
- Wang. Friedrich Adam Julius von Wangenheim, 1747-1800. Germany. Author of works on North American trees and shrubs.
- Wats. Sereno Watson, 1826-1892. United States. Prof. and Curator of the Gray Herbarium at Harvard University. Author of a Bibliographical Index to North American Botany, and of many articles dealing mostly with the flora of the western United States and Mexico.
- Watt. David Allan Poe Watt. Canada.
- W. Boott. William Boott, 1805-1887. United States. Collector; student of grasses and sedges.
- W. Curtis. See Curtis.
- Weber. Georg Heinrich Weber, 1752-1828. Germany. Prof. of Botany at Kiel.
- Weinm. J. A. Weinmann, 1782-1858. Russia.

Wenderoth. Georg Wilhelm Franz Wenderoth, 1774-1861. Germany. Prof. of Botany at Marburg.

Wendl., Wendland. Johann Christoph Wendland, 1755-1828. Germany.

Wettst. Richard Wettstein. Austria. Prof. and Director of the Botanic Garden at Vienna.

Wibel. August Wilhelm Eberhard Christoph Wibel, 1775-1814. Germany.

Wiegand. Karl McKay Wiegand. United States. Associate Prof. of Botany, Wellesley College.

Wiggers. Heinrich August Ludwig Wiggers, 1803-1880. Germany.

Willd. Karl Ludwig Willdenow, 1765-1812. Germany. Prof. of Botany at Berlin.

Wimmer. Friedrich Wimmer, 1803-1868. Germany.

Witasek. (Frl.) Johanna Witasek. Austria.

With. William Withering, 1741-1799. England.

Wood. Alphonso Wood, 1810-1881. United States. Author of botanical text-books, and of a flora of the Northeastern States.

Woodv. William Woodville, 1748(?)-1805. England.

Wright. See C. Wright.

Wulf. Franz Xavier Wulfen, 1728-1805. Austria. Prof. at Klagenfurt.

Zucc. Joseph Gerhard Zuccarini, 1797-1848. Germany. Prof. of Botany at Munich.



Index.*

A Deand one	Achillea 398
Aaron's Beard 221 Aaron's Rod 214	lanulosa 398
·	Millefolium 398
Abele 141	Achroanthes
Abies 37	
balsamea 37	monophylla 136 unifolia 136
Abutilon 278	
Abutilon 278	Acnida 171
pictum 278, 431	cannabina 171
striatum 278	tamariscina
Theophrasti 278	var. prostrata 171
Avicennae 278	" tuberculata 171
Acacia	tuberculata 171, 433
False 251	var. prostrata 171, 433
Rose 251	Acorus III
Acalypha 265	Calamus III
gracilens 265	Actaea 193
virginica 265	alba 193
var. gracilens 265	rubra 193
Acanthopanax 295	spicata
pentaphyllum 295	var. rubra 193
Acer 272	Adam-and-Eve 136
dasycarpum 273	Adam's Cup 213
Negundo 273	Adam's Needle 121
nigrum 273	Adder's Mouth 132
pennsylvanicum 272	Green 136
platanoides 273	White 136
Pseudo-platanus 272	Adder's Tongue 27
rubrum 273	Yellow 121
saccharinum 272, 273	Adder's Tongue Family 27
var. nigrum 273	Adiantum 18
saccharum 272	pedatum 18
var. nigrum 273	Adicea
spicatum 272	pumila 156
Aceraceae 272, 437, 440	Adlumia 197
Acerates 323	cirrhosa 197
viridiflora 323, 428	fungosa 197
var. Ivesii 323	Adopogon
" lanceolata 323, 423	carolinianum 408
ianceolata 323, 423	tu. 011.11.4111 400

^{*} In this index, synonyms and names of species previously reported from Connecticut but excluded from the present catalogue, are printed in italics.

Adopogon virginicum 108 Aegopodium 200 Podagraria 200 Aesculus 274 Hippocastanum 274 Aethusa 302 Cynapium 302 African Rose 197 Agastache 334 anethiodora 331 Foeniculum 334, 434 nepetoides 334 scrophulariaefolia 334 var. mollis 334 Agrimonia 240 Brittoniana 240 Eupatoria 240 gryposepala 240 hirsuta 240 mollis 241 parviflora 241 pubescens 241 rostellata 241 striata 240, 241 Agrimony 240 Hairy 240 Many-flowered 241 Small 211 Soft 241 Woodland 241 Agropyron 79 caninum 79 repens 79 tenerum 79, 433 Agrostemma 177 Githago 177 Agrostis 64 alba 64 var. aristata 64 " maritima 64 " vulgaris 64 canina 64 coarctata 61

hvemalis 64

intermedia 64

perennans 64

Agrostis scabra 61 var. montana 64 vulgaris 64 Ague Tree 195 Ague-weed 376 Ailanthus 263 glandulosa 263 Aizoaceae 173, 437, 440 Ajuga 332 genevensis 332, 428 reptans 428 Albany Hemp 155 Alder 148 Black 270 Dwarf 275 Hoary 148 Smooth 148 Snapping 148, 210 Speckled 148 Spotted 210 Tag 148 White 306 Witch 210 Alecost 400 Aletris 125 farinosa 125 Alexanders Golden 300 Alfalfa 250 Alisma 47 Plantago-aquatica 47 Alismaceae 45, 436 Alkali Grass 72 Alkanet 329 All-bone 176 Alleghany Plum 244 Vine 197 Alliaria 205 Alliaria 205 officinalis 205,433 Allionia hirsute 172 linearis 172 nyctaginea 172 Allison Sweet 199

Allium 119	Amaranthus 169
canadense 119	albus 170
sativum 425	blitoides 170
tricoccum 119	caudatus 170
vineale 119	graecizans 170
Allspice	hybridus 169
Wild 196	forma hypochondriacus 16
Alnus 148	var. paniculatus 170
incana 148	hypochondriacus 169
rugosa 148	paniculatus 170
serrulata 148	retroflexus 169
viridis 426	spinosus 170
Alopecurus 62	Amaryllidaceae 126, 436, 439
geniculatus 62	Amaryllis Family 126
var. aristulatus 63	Ambrose 165
pratensis 62	Ambrosia 165, 391
Alsike Clover 249	artemisiifolia 391
Alsine	bidentata 391, 435
borealis 175	trifida 391
graminea 176	var. integrifolia 391
Holostea 176	Amelanchier 224
longifolia 175	Botryapium 224
media 176	canadensis 224
Althaea 278	var. Botryapium 224
officinalis 278	" oblongifolia 224
rosea 278	" tomentula 224
Althaea	oblongifolia 224
Shrubby 279	var. micropetala 225
Alum Root 215	spicata 224
Common 215	American Aspen 141
Alyssum 200	Beech 148
alyssoides 200, 421	Bladder Nut 272
calycinum 200	Brooklime 353
maritimum 199	Cranberry 314
saxatile 200	Elm 152
Alyssum	Featherfoil 315
Hoary 199	Fly Honeysuckle 365
Small 200	Germander 332
Sweet 199	Globeflower 191
Amaranth 169, 170	Hemp 321
Green 169	Holly 269
Prostrate 170	Hornbeam 146
Purple 170	Ivy 276
Spiny 170	Larch 35
Thorny 170	Laurel 309
White 170	Linden 277
Amaranth Family 169	Lotus 184
Amaranthaceae 169, 437, 439	Mountain Ash 223

American

Nelumbo 181

Nettle Tree 153

Nightshade 171

Pennyroyal 339

Sanicle 215

Sarsaparilla 296

Senna 247

Spikenard 206

Sycamore 220

Valerian 120

White Hellebore 118

Wood Strawberry 232

Yew 34

Ammodenia

peploides 175

Ammophila 65 arenaria 65

arundinacea 65

Amorpha 251

fruticosa 251

Ampelopsis

quinquefolia 276

trifolia 430 Amphicarpa 259

monoica 259

Pitcheri 250

Amsinckia 328

lycopsoides 328, 434

Amyadalus

Persica 246

Anacardiaceae 268, 437

Anagallis 317

arvensis 317

var. caerulea 317

Anaphalis 380

margaritacea 389

Anchusa 329

officinalis 329

Andromeda 310

glaucophylla 310

ligustrina 310

mariana 310

Polifolia 310

Andropogon 48

furcatus 48

littoralis 48

scoparius 48

Andropogon

var. littoralis 48

virginicus 48

Anemone 180

canadensis 190

cvlindrica 180

nemorosa 190

pennsylvanica 190

quinquefolia 100

riparia 190

virginiana 190

Anemone 180

Long-fruited 189

Round-headed 100

Round-leaved 100

Rue 180

Spring 100

Summer 190

Tall 100

Wood 100

Anemonella 189

thalictroides 180

Anethum 302

graveolens 302, 431

Angelica 303

atropurpurea 303

hirsuta 303

villosa 303

Angelica 303

High 303

Purple 303 Angelica Tree 206

Anise-root 298

Ankle Brier 238

Annual Candytuft 201

Pearlwort 174

Antennaria 388

ambigens 389

arnoglossa 388

canadensis 380

fallax 389

neglecta 389

neodioica 389

Parlinii 388

plantaginea 380

plantaginifolia 389

Anthemis 308

arvensis 398

Anthemis	Apple
var. agrestis 399	Small Crab 222
Cotula 398	Thorn 347
nobilis 399, 432	Wild 222
tinctoria 399	Apple of Peru 347
Anthoxanthum 59	Aquifoliaceae 269, 437
odoratum 59	Aquilegia 192
Antirrhinum 351	canadensis 192
majus 428	var. flaviflora 192
Orontium 351, 434	vulgaris 192
Anychia 172	Arabis 210
canadensis 172	canadensis 211
capillacea 172	confinis 211
dichotoma 172	Drummondi 211
polygonoides 172, 433	glabra 210
Aphyllon	hirsuta 211
uniflorum 359	laevigata 211
Apios 258	lvrata 210
Apios 258	perfoliata 210
tuberosa 258	Araceae 100, 436
Apium	Aralia 206
Petroselinum 300	hispida 296
Aplectrum 136	nudicaulis 296
hyemale 136	quinquefolia 296
spicatum 136	racemosa 296
Apocynaceae 321, 438, 440	spinosa 296
Apocynum 321	trifolia 296
album 321	Araliaceae 295, 438, 440
androsaemifolium 321	Arbor Vitae 37
cannabinum 321	Arbutus
var. hypericifolium 428	Trailing 311
" pubescens 321	Arceuthobium 156
medium 321	pusillum 156
Milleri 321	Arctium 404
pubescens 321	Lappa 404
urceolifer 321	var. majus 404
Apple 222	" minus 405
Crab 222	" tomentosum 405
Devil's 194	minus 405
Hog 194	tomentosum 405
Indian 194	Arctostaphylos 311
Large Crab 222	Uva-ursi 311
May 194, 308	Arenaria 174
Mock 154	groenlandica 175
	lateriflora 174
Osage 154 Purple Thorn 348	
1 urpre 1 norn 340	macrophylla 174

Arenaria Michauxii 175 peploides 175 serpyllifolia 175 stricta 175 Arethusa 133 bulbosa 133 Argemone 197 alba 197, 431 mexicana 197, 431 Argentina 234 Anserina var. grandis 234 Arisaema 109 Dracontium 110 pusillum 100 triphyllum 100 var. pusillum 100 Aristida 60 dichotoma 60 gracilis 60 var. depauperata 60 purpurascens 60 tuberculosa 60 Aristolochia 157 Serpentaria 157 Aristolochiaceae 157, 437 Arnica 400 Aromatic Wintergreen 311 Aronia arbutifolia 222 atropurpurea 223 nigra 223 Arrhenatherum 67 avenaceum 67 elatius 67 Arrow Arum 110 Grass 45 Grass Family 45 Arrow-head 45 Arrow-leaved Tear-thumb 163 Arrow-wood 368 Downy 368 Indian 271 Art Pumpkin 371

Artemisia 400

Abrotanum 401, 432

Artemisia Absinthium 402 annua 401, 435 biennis 401 campestris var. pubescens 401, 435 caudata 400 Dracunculus 401, 435 frigida 402, 435 pontica 402 Stelleriana 401 vulgaris 401 Artichoke Jerusalem 395 Arum Arrow 110 Dragon 100 Water 110 Arum Family 109 Asarabacca 157 Asarum 157 acuminatum 157 canadense 157 var. acuminatum 157 " reflexum 157 reflexum 157 Asclepiadaceae 322, 438, 440 Asclepias 322 amplexicaulis 323 Cornuti 322 decumbens 322 exaltata 323 incarnata 322 var. pulchra 322 lanceolata 428 obtusifolia 323 ovalifolia 428 barviflora 428 paupercula 428 perennis 428 phytolaccoides 323 pulchra 322 purpurascens 322 quadrifolia 323 syriaca 322 tuberosa 322 var. decumbens 322

Asclepias

variegata 323 verticillata 323

Asclepiodora viridis 428

Ash 317

American Mountain 223

Basket 318 Black 318

Brown 318

European Mountain 223

Green 318

Hoop 153, 318

Northern Prickly 262

Prickly 262 Red 318

River 318

Swamp 318 White 317

Ash-leaved Maple 273

Spiraea 221

Asparagus 122 officinalis 122

Asparagus 122

Garden 122

Wild 125

Aspen 141

American 141 Large-toothed 142

Quaking 141

Asperula 361 galioides 361

glauca 361

Aspidium 22 acrostichoides 21

var. incisum 21

Boottii 23

cristatum 23

var. Clintonianum 23

Goldianum 22 marginale 22

var. elegans 416

noveboracense 22

simulatum 22

spinulosum 23

var. dilatatum 24 forma anadenium 24 Aspidium

var. intermedium 23 Thelypteris 22

Asplenium 19

Aspienium 19 acrostichoides 21

angustifolium 20

ebeneum 20

ebenoides 19 Filix-femina 21

montanum 20

pinnatifidum 19

platyneuron 20

var. serratum 20

Ruta-muraria 20

thelypteroides 21

Trichomanes 20

viride 424 Asprella

Hystrix 81

Aster 382, 441

acuminatus 387

amethystinus 384

Clautoni 282

Claytoni 382

var. crispicans 382

concinnus 384 concolor 429

cordifolius 383

var. lanceolatus 383

" polycephalus 383 corymbosus 382

curvescens 382

var. oviformis 382

" umbelliformis 382 diffusus 385

var, hirsuticaulis 385

" thyrsoideus 385

divaricatus 382 dumosus 384

var. coridifolius 384

" striction 384

" striction 38 ericoides 384

var. pilosus 384

" villosus 384

Gravesii 384 Hervevi 382

hirsuticaulis 385

Aster Aster ianthinus 382 umbellatus 386 infirmus 386 var. latifolius 429 laevis 383 undulatus 383 var. amplifolius 384 vimineus 385 lateriflorus 385 var. foliolosus 385 var. hirsuticaulis 385 violaris 382 pendulus 385 Aster 382 Golden 377 thyrsoideus 385 linariifolius 386 New England 383 Red-stalked 386 longifolius 385 Siberian 386 Lowrieanus 383 White-topped 388 var. lanceolatus 383 " lancifolius 383 Atheropogon macrophyllus 382 curtipendulus 69 var. ianthinus 382 Atragene " pinguifolius 382 americana 100 multiflorus 384 Atriplex 167 var. exiguus 384 arenaria 168 hastata 167 multiformis 382 laciniata 167 nobilis 382 novae-angliae 383 patula 167 var. roseus 383 var. hastata 167, 426 novi-belgii 385 tatarica 167, 433 paniculatus 385 Autumn Willow 138 var. acutidens 385 Avena 67 " simplex 385 fatua 425 sativa 67, 431 patens 383 prenanthoides 386 striata 72 Avens 235 puniceus 386 var. compactus 386 Cream-colored 235 " demissus 386 Drooping 235 " firmus 386 Field 235 " laevicaulis 386 Purple 235 " lucidulus 386 Rough 235 radula 383 Water 235 roscidus 382 White 235 sagittifolius 429 Yellow 235 salicifolius 429 Awned Wheat Grass 79 Schreberi 382 Axwort 252 Azalea spectabilis 382 subulatus 387 arborescens 427 canescens 308 tardiflorus 386 tataricus 386 nudiflora 308 tenebrosus 382 viscosa 307 tenuifolius 387 Azalea

Tradescanti 385

Clammy 307

Azalea Pink 308 Purple 308 Wild 308 Babies' Breath 121 Baccharis 388 halimifolia 388 Bachelor's Button 407 Bag-leaves 214 Ball Mustard 202 Balloon Vine 274 Ballota 336 nigra 336 Balm 339 Basil 338 Bee 338 Common 339 Fragrant 338 Horse 344 Lemon 339 Balm of Gilead 142 Balm-of-Gilead Fir 37 Balmony 352 Balsam 274 Balsam Fir 37 Poplar 142 Balsam-apple 371 Wild 372 Balsaminaceae 274, 438 Baneberry 193 Red 193 White 193 Bank Cress 205 Baptisia 247 australis 426 tinctoria 247 Barbarea 207 Barbarea 207 praecox 208 stricta 208 verna 208 vulgaris 207 var. stricta 208 Barberry 195 Common 195 European 195 Barberry Family 194

Barley 80 Common 80 Barnvard Grass 56 Barren Strawberry 232 Bartonia 320 lanceolata 320 paniculata 320 tenella 320 virginica 320 Basil 339, 340 Basil Balm 338 Basket Ash 318 Basswood 277 Bastard Cress 200, 201 Indigo 251 Mustard 203 Pennyroyal 332 Toad-flax 156 Batrachium confervoides 185 divaricatum 184 Drouetii 185 flaccidum 185 longirostre 184 trichophyllum 184 Bay Rose 308 Bayberry 143 Bay-leaved Willow 138 Beach Grass 65 Orach 168 Pea 257 Pinweed 283 Plum 244 Wormwood 401 Beak Rush 90 Beaked Hazelnut 146 Willow 140 Rean Blue 248 Bog 320 Bush 258 Common Pole 258 European Garden 256 Field 258 Indian 359 Kidnev 258

Bean Kidney Pole 258 Sacred 184 Trailing Wild 258 Wild 258 Bean Tree 359 Bear Grass 121 Oak 152 Bearberry 311 Beard Grass 48, 65 Bearded Darnel 78 Beard-tongue 351 Beaver Poison 299 Bedstraw 361 Northern 362 Rough 363 Sweet-scented 363 Yellow 362 Bee Balm 338 Beech 148 American 148 Blue 146 Water 146 Beech Family 148 Fern 17 Beech-drops 359 False 307 Beech-wheat 164 Beet 167 Common 167 Beet-root 169 Beggar's Lice 328 Beggar-ticks 240, 396 Common 396 Swamp 396 Beggar-weed 173 Behen 180 Belamcanda 128 chinensis 128 Belle Isle Cress 208 Belleville Dock 150 Bellflower 373 Marsh 373

Bells 102

Bellwort 118, 119

Benjamin Bush 196

Bent Fine 64 Rhode Island 64 Rough 64 Bent Grass 64 Benzoin 196 aestivale 196 Benzoin 106 Berberidaceae 194, 437, 440 Berberis 195 canadensis 426 vulgaris 195, 426 Bergamot Downy 338 Wild 338 Bergamot Mint 343 Bermuda Grass 69 Berteroa 199 incana 100 Beta 167 vulgaris 167, 421, 431 Betony Paul's 354 Wood 357 Betula 1.16 alba var. cordifolia 148 " papyrifera 147 lenta 147 lutea 147 papyrifera 147 populifolia 147 pumila 148 Betulaceae 146, 436 Bibernel 241 Bicuculla canadensis 108 Cucullaria 198 Bidens 306, 441 aristosa 397, 435 Beckii 307 bipinnata 397 cernua 396 var. elliptica 306 chrysanthemoides 396 comosa 396 connata 422

Bidens

var. comosa 396 " petiolata 396

discoidea 396 frondosa 396

laevis 396

leucantha 397, 435

melanocarpa 396

trichosperma 397, 423 vulgata 396

Big Blue-stem 48

Bignonia Family 359

Bignoniaceae 359, 438, 440

Bilberry

Common 313

Swamp 313

Billion-Dollar Grass 56

Bilsted 220

Bindweed 324

Black 163 Blackbird 163

Bush 163

Corn 163

Field 325 Fringed Black 163

Hedge 163, 325

Sow 163

Thicket 163

Birch 146

Black 147 Canoe 147, 148

Cherry 147

Gray 147 Low 148

Old Field 147

Paper 147, 148

Swamp 148

Sweet 147

White 147, 148

Yellow 147

Birch Family 146 Bird Cherry 244, 245

Bird-foot Violet 284

Bird-in-the-Bush 197 Bird's Pepper 200

Bird's-eye 174, 354

White 176

Bird's-eye Maple 273

Bird's-foot Trefoil 250 Bird's-tongue 160

Birthroot 124

Birthwort 157 Birthwort Family 157

Bishop's Cap 216

Bishop's-weed Mock 200

Bite-tongue 162

Biting Crowfoot 186 Stonecrop 214

Bitter Candytuft 201 Cress 207, 209, 210

Dock 159 Nut Hickory 145

Willow 141

Bitter-sweet 345 Climbing 271

Shrubby 271

Bitter-weed 391

Black Alder 270

Ash 318 Bindweed 163

Birch 147 Centaury 407

Cherry 245

Chokeberry 223

Cohosh 192 Currant 218

Grass 114 Gum 305

Haw 369

Henbane 422 High Blueberry 314

Horehound 336 Huckleberry 312

Larch 35 Locust 251

Medick 250

Mustard 203 Nightshade 345

Oak 152 Poplar 143

Raspberry 237 Scrub Oak 152

Snakeroot 192, 297

Blite

Black Spruce 36 Sumach 268 Swallow-wort 323 Walnut 144 Willow 137 Black-berried Elder 360 Blackberry Cut-leaved 238 Evergreen 238 High-bush 237, 239 Knee-high 238 Low 239 Mulberry 237 Running 239 Swamp 239 Sand 238 Blackberry Lily 128 Blackbird Bindweed 163 Black-cap 237 Black-eyed Susan 393 Bladder Campion 180 Fern 24 Ketmia 280 Nut 272 Nut Family 272 Bladderwort 357 Greater 358 Purple 358 Smaller 358 Bladderwort Family 357 Blazing Star 118, 377 Blephariglottis blephariglottis 131 ciliaris 131 grandiflora 131 lacera 131 psycodes 131 Blephilia 338 ciliata 338 hirsuta 330 Blister Flowers 188 Blisterwort 186

Rlite

Coast 166 Low Sea 168

Red 166 Sea 168 Strawberry 166 Tall Sea 169 Blitum capitatum 166 Bloodroot 196 Bloodwort 241 Bloodwort Family 126 Bloom-fell 250 Bloomy-down 181 Blue Bean 248 Beech 146 Bells 192 Cohosh 195 Curls 332 Devil 330 Flag 127 Grape 277 Huckleberry 312 Myrtle 321 Sailors 408 Tangle 312 Toad-flax 350 Vervain 331 Vetch 256 Bluebell 373 Bluebell Family 372 Blueberry 195, 313 Black High 314 Common 313 Dwarf 313 Early Sweet 313 High-bush 313 Late Low 313 Low Black 313 " Sweet 313 Sour-top 313 Swamp 313 Tall 313 Velvet-leaf 313 Blueberry Root 195 Bluebottle 407 Blue-eyed Grass 128 Blue-joint Grass 65

Blue-stem 48, 65	Botrychium
Big 48	forma obliquum 28
Bluets 364	var. australe 28
Blue-weed 330	" intermedium 28
Blunt Woodsia 24	virginianum 28
Blunt-leaved Dock 159	Bottle Gentian 320
Sandwort 174	Grass 57
Boehmeria 156	Bottle-brush Grass 81
cylindrica 156	Bouncing Bet 180
var. scabra 156	Bouteloua 69
Bog Bean 320	curtipendula 69
Myrtle 143	racemosa 69
Rosemary 310	Bow-wood 154
Rush 114, 115	Box Elder 273
Spruce 36	Boxberry 311
Strawberry 233	Boxwood 304
Willow 139	Boys-and-Girls 198
Bois d'Arc 154	Brachyelytrum 62
Bokhara Clover 249	aristatum 62
Boltonia 381	erectum 62
asteroides 381	Bracken 18
Boneset 376	Brake 18
Climbing 377	Cliff 18
Purple 375	Common 18
Rough 376	Purple Cliff 18
Upland 376	Rock 19
Borage 329	Slender Rock 19
Borage Family 327	Bramble 236
Boraginaceae 327, 438, 440	Brandy Bottle 183
Borago 329	Brasenia 184
officinalis 329, 434	peltata 184
Botrychium 27	purpurea 184
dissectum 28	Schreberi 184
lanceolatum 27	Brassica 202
var. angustisegmentum 27	alba 202, 4 22
Lunaria 424	arvensis 203
matricariaefolium 28	campestris 203
neglectum 28	japonica 203, 433
obliquum 28	juncea 203
var. dissectum 28	Napus 204, 431
" elongatum 28	nigra 203
" intermedium 28	oleracea 204, 431
" oneidense 28	Rapa 204, 431
ramosum 28	Sinapistrum 203
simplex 27, 424	Brauneria 393
tenebrosum 27	pallida 393
ternatum	Break-stone 174

Broom 248

Bridal Wreath 221 Broom Scotch 248 Bridewort 221, 235 Broom Corn 49 Brier Ankle 238 Corn Millet 51 Bull 125 Hickory 145 Cat 125 Broom-rape 359 Common Green 125 Broom-rape Family 359 Green 125 Broussonetia 154 papyrifera 154 Horse 125 Brown Ash 318 Running 239 Brunella Sand 345 vulgaris 335 Saw 125 Buckbean 320 Squirrel 125 Brier Rose 242 Buckberry 313 Bristly Buttercup 187 Buckeye 274 Crowfoot 187 Buckthorn 275 Locust 251 Common 275 Buckthorn Family 275 Sarsaparilla 296 Brittle Willow 138 Buckwheat 164 Bush 163 Briza 72 media 72, 417 Climbing False 163 Broad Dock 159 Climbing Wild 163 Thicket 163 Broad-leaved Spring Beauty 182 Wild 163 Brome Grass 76 Bromus 76, 441 Buckwheat Family 157 Budaaltissimus 77, 417 borealis 173 brizaeformis 77 marina 173 ciliatus 77 var. purgans 77 rubra 173 Buffalo Bur 346 commutatus 77, 417 Currant 210 erectus 78 Bugbane 192 hordeaceus 77 Bugle incanus 417 inermis 78 Erect 332 Bugle Weed 332, 341 Kalmii 78 mollis 77 Bugloss Viper's 330 purgans 77 Bulbous Buttercup 188 racemosus 77 Crowfoot 188 secalinus 76 squarrosus 77, 433 Bull Brier 125 sterilis 417 Grass 68 tectorum 77 Nettle 345 Brook Cress 210 Thistle 405, 406 Brooklime 206 Bullace Plum 244 Bull-head Lilv 183 American 353 Bull-rattle 178 Brook-weed 315

Bulrush 85, 115

Bulrush

Great 86

River 87

Bunch Grape 276

Grass 48

Pink 181

Bunchberry 304

Bunch-flower

Crisped 118 Bupleurum

rotundifolium 427

Bur Clover 250

Grass 58

Marigold 306

Oak 150 Burdock 404

Common 405

Great 404

Burnet 241

Canadian 241 Garden 241

Great American 241

Salad 241

Wild 241 Burnet Rose 242

Burning Bush 271

Bur-reed 39

Bur-reed Family 39

Bursa

Bursa-pastoris 201

Bush Bean 258 Bindweed 163

Buckwheat 163

Clover 254

Honeysuckle 365 Bushy Knotweed 160

Pigweed 170

Butter and Eggs 350

Butter Flowers 188

Butterbur 402

Buttercup 184

Bristly 187

Bulbous 188 Creeping 187

Early 187

Marsh 187

Meadow 188

Buttercup

Running 234

Spotted-leaf 187

Swamp 187

Tall 188

Tufted 187

Wood 187

Buttercups 188

Butterfly-weed 322 Butternut 144

Butter-weed 387

Button Snakeroot 297, 377

Buttonball 220 Buttonbush 364

Buttonweed 363

Buttonwood 220

Cabbage 204

Skunk 110

Cabinet Cherry 243

Cacalia 403 suaveolens 403

Cactaceae 289, 438

Cactus Family 280

Cadlock 203

Cakile 202

americana 202

edentula 202 Calamagrostis 65

canadensis 65

cinnoides 65

Nuttalliana 65

Calamint 339 Calamintha

Clinopodium 339

Calamus 111

Calendula 403

officinalis 403, 432 Calico Bush 300

California Peppergrass 203

Рорру 196

Rose 324

Calla 110

palustris 110

Calla Marsh 110

Wild 110

Callitrichaceae 267, 437

Callitriche 267 Austini 267 deflexa var. Austini 267 heterophylla 267 palustris 267 verna 267 Calopogon 133 pulchellus 133 Caltha 191 palustris 191 Camelina 201 microcarpa 202, 433 sativa 201, 433 silvestris 202 Campanula 373 americana 429 aparinoides 373 carpatica 373, 435 intercedens 373 patula 373, 435 rapunculoides 373 var. ucranica 373 rotundifolia 373 Campanulaceae 372, 439, 441 Campion 177, 179 Bladder 180 Day-blooming 178 Four-leaved 180 Meadow 178 Morning 178 Red 178 Rose 177 Starry 180 White 178 Camptosorus 21 rhizophyllus 21 Canada Blue Grass 73 Coltsfoot 157 Fleabane 387 Hawkweed 415 Lily 120 Nettle 155 Plum 246 Squash 372

Thistle 406

Violet 288

Canadian Burnet 241 Hemp 321 Canary Grass 58 Vine 197 Cancer-root 191, 359 One-flowered 359 Candle Rush 115 Tree 359 Candlewood 143 Candytuft 201 Annual 201 Bitter 201 Canker Rose 197, 242 Canker-root 314 Cannabis 153 indica 153 sativa 153 Canoe Birch 147, 148 Canoe-wood 194 Cantaloupe 371 Caper Family 211 Spurge 267 Capillaire 312 Capnoides sempervirens 198 Capparidaceae 211, 437, 440 Caprifoliaceae 365, 438, 441 Capriola Dactylon 69 Capsella 201 Bursa-pastoris 201 Capsicum 344 annuum 344, 432 Caraway 300 Cardamine 200 arenicola 210 bulbosa 200 var. purpurea 210 Douglassii 200 hirsuta 210 var. sylvatica 210 parviflora 210 pennsylvanica 210 pratensis 210 purpurea 189, 209 rhomboidea 209

var. purpurea 200

Cardinal-flower 374 Cardiospermum 274 Halicacabum 274, 434 Carduus 405 acanthoides 405, 435 altissimus 406 arvensis 406 discolor 405 lanceolatus 405 muticus 406 odoratus 406 spinosissimus 405 Careless 169 Carex 91, 441 adusta 425 aenea 94 aestivalis 100, 418 alata 93 albolutescens 92 albursina 103 aquatilis 98 arctata 105 Asa-Gravi 108 atlantica 04 aurea 98, 418 Baileyi 107 Bebbii 93 Bicknellii 03 bromoides os brunnescens 95 bullata 100 var. Greenii 100 " Olneyi 109 canescens 95 var. alpicola 95 " disjuncta 95 " subloliacea 95 " vulgaris 95 castanea 105, 410 cephaloidea 97 cephalophora 97 communis 100 var. Wheeleri 100 comosa 107 conoidea 104 costellata 99 Crawei 104

Carex Crawfordii 92 crinita 97 var. gynandra 97 cristata 92 cristatella 92 Davisii 99, 418 debilis var. interjecta 105 " Rudgei 105 Deweyana 96 diandra 97 var. ramosa 97 digitalis 102 eburnea 102 echinata var. angustata 04 " cephalantha 94 " conferta 94 " microstachys 94 exilis 425 festucacea 93 var. brevior 93 filiformis 106 var. latifolia 106 flava 104, 419 var. elatior 105 " graminis 105 rectirostra 105 " viridula 105 foenea 94 var. perplexa 94, 418 folliculata 108 formosa 99 fusca 99 glaucodea 104 Goodenowii 425 gracillima qq granularis 104 var. Haleana 104 " Schriveri 104 Gravii 108 var. hispidula 108 grisea 104 var. angustifolia 104 " rigida 104 gynandra 08

Carex Haydeni 98

Hitchcockiana 104

hormathodes 93

var. invisa 93

" Richii 93 hystericina 107

var. Cooleyi 107

" Dudleyi 107

interior 94

var. capillacea 95

intumescens 108

var. Fernaldii 108, 419

lanuginosa 106 laxiculmis 102

laxiflora 103

var. blanda 103

" gracillima 103 " latifolia 103

" leptonervia 103

" patulifolia 103 striatula 103

styloflexa 103

" varians 103

leptalea 99 limosa 101

littoralis 101

livida 101, 423 longirostris 105

lupuliformis 108 lupulina 108

var. pedunculata 108 " polystachya 108

lurida 107

var. exundans 107

" flaccida 107

gracilis 107

" parvula 107

magellanica 101 mirabilis 02

var. perlonga 92

" tincta 92 monile 108

Muhlenbergii o6

var. enervis 96

" xalapensis 96 nigro-marginata 100 Carex

Oederi

var. pumila 105

oligocarpa 104

oligosperma 106

pallescens 101 panicea 101

pauciflora 99

paupercula

var. pallens 101

bedicellata 100

var. Wheeleri 100 '

pedunculata 102

pennsylvanica 100 var. lucorum 100

plantaginea 102

platyphylla 102

polygama 99

polymorpha 101, 419

polytrichoides 99

prasina 102

Pseudo-Cyperus 107

var. americana 107

ptvchocarpa 103

pubescens 101

retroflexa 96 retrorsa 107, 419

riparia 106 rosea 96

var. minor 96

radiata o6

" retroflexa 96

rostrata 100

var. utriculata 100

scabrata 106

Schweinitzii 107 scirpoides 94

var. capillacea 95

scoparia 91

var. condensa 91

" moniliformis 91

scorsa 95 setacea

var. ambigua 97

setifolia 102

Shriveri 104

siccata 92

var. Billingsii 418

Tuckermani 100

Carex Carex silicea 93 typhina 106 sparganioides 97 typhinoides 106 squarrosa 106 umbellata 100 stellulata 94 var. brevirostris 418 var. angustata Q4 " tonsa 100 " cephalantha 94 utriculata 100 " excelsior 94 var. minor 100 " ormantha 94 varia 100 sterilis 94 var. colorata 100 var. cephalantha 94 vesicaria 108 " excelsior 94 var. distenta 108 stipata 97 " jejuna 108 " monile 108 straminea 93, 418 var. alata 93 vestita 106 " aperta 93 virescens 99 " brevior 93 var costata qq " cumulata 92 " Swanii 99 " foenea 92 viridula 105 " invisa 93 vulpinoidea 97 " mirabilis 92 Willdenowii 100 stricta 98 xanthocarpa 97 var. angustata 98 var. annectens 97 " curtissima 98 Carnation 181 " decora 98 Carpenter-weed 335 " xerocarpa 98 Carpet Weed 173 styloflexa 103 Carpet Weed Family 173 tenella 96 Carpinus 146 tenera 93 caroliniana 146 tenuis 105 Carrion-flower 125 teretiuscula 97 Carrot 303 var. prairea 97 Wild 303 " ramosa 97 Carum 300 tetanica 101 Carvi 300 var. Woodii 101 Petroselinum 300 torta 98 Carya 144 tribuloides 92 alba 144, 145 var. cristata 02 amara 145 " moniliformis 92 cordiformis 145 " reducta 92, 418 glabra 145 " turbata 92 microcarpa 145 triceps 99 ovata 144 var. hirsuta 99 porcina 145 trichocarpa 106, 419 tomentosa 145 trisperma 96 Caryophyllaceae 173, 437, 440

Cashew Family 268

Cassandra 310

Cassandra calyculata 310 Cassia 247 Chamaecrista 247 marilandica 247 nictitans 247 Castalia 183 odorata 183 tuberosa 184 Castanea 140 dentata 149 sativa var. americana 140 Castilleja 356 coccinea 356 Castor-oil Plant 265 Cat Brier 125 Mint 334 Spruce 36 Catalpa 350 bignonioides 359 Catalpa 359 Catchfly 179 Forked 179 Garden 179 Lobel's 179 Night-flowering 179 Sleepy 179 Snapdragon 179 Sweet William 179 Catgut 251 Catnip 334 Cat's-ear 409 Cat-tail 30 Common 39 Cat-tail Family 30 Flag 30 Grass 62 Caulophyllum 195 thalictroides 195 Cayenne Pepper 344 Ceanothus 275 americanus 275 Cedar

Red 38

White 37 Celandine 106 Celastraceae 271, 437, 440 Celastrus 271 scandens 271 Celerv Water 186 Wild 47 Celtis 153 occidentalis 153 var. pumila 153 Cenchrus 58 carolinianus 58 tribuloides 58 Centaurea 407 arvense 430 Cvanus 407 Jacea 407 var. lacera 407 maculosa 408 nigra 407 var. radiata 407, 435 vochinensis 408 Centaury Black 407 Meadow 407 Cephalanthus 364 occidentalis 364 Cerastium 176 arvense 176 longipedunculatum 177 nutans 177 semidecandrum 177 viscosum 426 vulgatum 176 Ceratophyllaceae 182, 437 Ceratophyllum 182 demersum 182 var. echinatum 182 Cercis 247 canadensis 247, 434 Chadlock 202, 203 Jointed 202 White 202 Chaenorrhinum minus 350 Chaetochloa alauca 57 italica 57

•
Chaetochloa
versicolor 57
verticillata 57
viridis 57
Chaff-seed 357
Chain Fern 19
Chair-maker's Rush 86
Chamaecyparis 37
sphaeroidea 37
thyoides 37
Chamaedaphne 310
calyculata 310
Chamaelirium 118
carolinianum 118
luteum 118
Chamaenerion
angustifolium 291
Chamomile 398
Corn 398
Fetid 398
Garden 399
German 399
Wild 399
Yellow 399
Champion Oak 151
Charlock 202, 203
Jointed 202
White 202
Cheat 76, 201, 202
Checkerberry 311, 364
Cheeses 279
Cheilanthes 18
lanosa 18
vestita 18
Chelidonium 196
majus 196 Chelone 352
Chelone 352
glabra 352
Chenopodiaceae 165, 437. 439
Chenopodium 165, 441
album 166
var. viride 166
ambrosioides 165
var. anthelminticum 165
anthelminticum 165

Bonus-Henricus 426

Boscianum 167

Chenopodium Botrys 165 capitatum 166, 433 glaucum 166 hybridum 166 leptophyllum 167 murale 167 rubrum 166 urbicum 167 Cherry 243, 245 Bird 244, 245 Black 245 Cabinet 243 Choke 244 Dwarf 245 Fire 244 Ground 346 Mahaleb 245 Mazzard 245 Morello 245 Old-fashioned 245 Perfumed 245 Pie 245 Pin 244 Red 245 Rum 243 Saint Lucie 245 Sand 245 Sour 245 Sweet 245 Whiskey 243 Wild 243 " Black 243 " Red 244 Winter 346 Cherry Birch 147 Chervil Sweet 298 Chess 76 Soft 77 Wild 78 Wood 77 Chestnut 149, 151 Chestnut Oak 150 Chick Pea 255 Chicken-toes 135, 168 Chickweed 175

Chickweed Common 176 Mouse-ear 176 Field 176 Forked 172 Gravel 172 Indian 173 Larger Mouse-ear 176 Meadow 176 Mouse-ear 176 Nodding 177 Sea 175 Small Mouse-ear 177 Winter 176 Chickweed Wintergreen 316 Chicory 408 Common 408 Chili Pepper 344 Chimaphila 306 maculata 306 umbellata 306 China Squash 372 Chinese Mustard 203 Chinquapin Water 184 Chinquapin Oak 151 Chiogenes 312 hispidula 312 serpyllifolia 312 Chocolate-root 235 Indian 235 Choke Cherry 244 Pear 222 Chokeberry 223 Black 223 Purple 223 Red 223 Christmas Fern 21 " Green 31 Chrysanthemum 400 Balsamita var. tanacetoides 400 Leucanthemum 400 var. pinnatifidum 400 Parthenium 400

Chrysopogon

avenaceus 49

Chrysopogon nutans 49 Chrysopsis 377 falcata 377 mariana 429 Chrysosplenium 216 americanum 216 Cicely Sweet 298 Cicer 255 arietinum 255, 430 Cichorium 408 Intybus 408 var, divaricatum 408 Cicuta 299 bulbifera 299 maculata 299 Cimicifuga 192 racemosa 192 var. dissecta 193 Cinna 65 arundinacea 65 latifolia 65 pendula 65 Cinnamon Fern 27 Rose 242 Cinnamon-wood 195 Cinquefoil 232, 234 Downy 233 Hoary 233 Marsh 233 Mountain 233 Purple 233 Rough 232 Shrubby 233 Silvery 233 Tall 232 Three-toothed 233 Circaea 294 alpina 294 lutetiana 294 Cirsium 405 altissimum 406, 432 arvense 406 var, integrifolium 406 " vestitum 406 discolor 405

Cirsium lanceolatum 405 muticum 406 pumilum 406 spinosissimum 405 Cissus Ampelopsis 427 arborea 427 Cistaceae 282, 438 Citron 371 Citrullus 371 Citrullus 371 vulgaris 371, 432 City Goosefoot 167 Cladium or mariscoides 91 Clammy Azalea 307 Cuphea 200 Locust 251 Clammy-weed 211 Claytonia 182 caroliniana 182, 180 virginica 182 Clearweed 156 Cleavers 361 Clematis 190 verticillaris 190 virginiana 100 Clematis Mountain 190 Purple 100 Wild 190 Cleome 212 spinosa 212, 431 Cleome Prickly 212 Clethra 306 alnifolia 306 Cliff Brake 18 Climbing Bitter-sweet 271 Boneset 377

False Buckwheat 163 Fern 26 Fumitory 197 Hemp-weed 377 Rose 242

Clinopodium vulgare 339 Clintonia 122 horealis 122 Clintonia 122 Yellow 122 Clitoriamariana 426 Closed Gentian 320 Clotbur 391 Prickly 391 Spiny 391 Clove Currant 219 Clover 248 Alsike 249 Bokhara 249 Bur 250 Bush 254 Common Red 248 Crimson 248 Honeysuckle 249 Hop 249 Italian 248 Low Hop 249 Meadow 218 Pea-vine 248 Rabbit-foot 248 Red 248 Russian 252 Stone 248 Swedish 249 Sweet 249 White 249 " Sweet 249 Yellow 249 Sweet 249 Clover Dodder 325 Clown's Mustard 201 Club Moss 30 Moss Family 30 Rush 85 Cnicus altissimus 406 var. discolor 405

arvensis 406

horridulus 405

Cnicus

lanceolatus 405

muticus 406 pumilus 406

Coast Blite 166

Germander 332 Goosefoot 166

Jointweed 164

Cock Sorrel 159 Cockle 177, 180

Corn 177

Cocklebur 240, 391 Cocksfoot 192

Cocksfoot Grass 56

Cockspur Grass 56 Thorn 225

Coeloglossum bracteatum 130

Coffee

Wild 367 Cohosh 193

Black 192

Blue 195 Rattle 192

Red 193 White 193

Cole

Sea 202 Colic-root 125, 126

Coliseum Ivy 350 Collinsonia 344

canadensis 344

Coltsfoot 402 Canada 157

> False 157 Sweet 157, 402

Columbine 192 European 192

Feathered 188 Garden 192

Red 192

Wild 192 Comandra 156 umbellata 156

Comarum
palustre 233

Comfrey 328

Comfrey

Common 328

Rough 329 Wild 328

Commelina 113

communis 113 nudiflora 113

Commelinaceae 113, 430, 439

Compositae 375, 439, 441 Composite Family 375

Comptonia

peregrina 143 Cone-flower 392, 393

Purple 393 Tall 393

Conioselinum 303 canadense 303

chinense 303

Conium 298

maculatum 298 Conopholis 359

americana 359 Conringia 204

orientalis 204, 433 Convallaria 124

majalis 124

Convolvulaceae 324, 438, 440

Convolvulus 324 arvensis 325 japonicus 324 repens 325

> sepium 325 var. americanus 325

var. americanus 32 " pubescens 325 " repens 325

spithamaeus 324

Convolvulus Family 324

Coolwort 215

Coptis 191 trifolia 191

Coral Root 135

Early 135 Large 135

Corallerrhine 193, 366

Corallorrhiza 135 Corallorrhiza 135 Corallorrhiza innata 135 maculata 135 multiflora 135 var. flavida 135 odontorhiza 135 trifida 135 Cord Grass 68 Coreopsis 305 aristosa 397 discoidea 396 lanceolata 396 rosea 420 tinctoria 395 trichosperma 397 Coriander 302 Coriandrum 302 sativum 302, 434 Corn 48 Broom 49 Indian 48 Kaffir 49 Squirrel 198 Turkev 198 Wild Broom 70 Corn Bindweed 163 Chamomile 308 Cockle 177 Grass 55, 56 Gromwell 329 Kale 203 Mustard 203 Poppy 197 Rose 197 Salad 370 Speedwell 354 Spurrey 173 Cornaceae 304, 438 Cornel 304 Dwarf 304

Low 304

Silky 305

Cornus 304

Corn-flower 407

Panicled 305

Red-osier 305

Round-leaved 304

Cornus alternifolia 305 Amomum 305 canadensis 304 candidissima 305 circinata 304 florida 304 paniculata 305 Perpusi 305 sericea 305 stolonifera 305 Coronilla 252 varia 252 Corpse Plant 307 Corydalis 198 glauca 198 sempervirens 198 Corydalis Pale 198 Pink 198 Corvlus 146 americana 146 heterophylla 420, 433 rostrata 146 Costmary 400 Cotton Grass 90 Thistle 407 Cottonwood 142 Couch Grass 79 Coughwort 402 Cow Bells 180 Cress 201 Lilv 183 Parsnip 303 Sorrel 150 Vetch 256 Wheat 356 Cowbane Spotted 200 Cow-herb 180 Cow-quake 173 Cow-rattle 180 Cowslips 191 Crab Siberian 222 Crab Apple 222 Grass 50, 61, 69, 160, 168 Cracca virginiana 251 Crack Willow 138 Crambling Rocket 212 Cramp-bark 368 Cranberry 313, 314 American 314 High-bush 368 Large 314 Small 314 Cranberry Tree 368 Cranesbill 261 Cut-leaved 262 Dove's-foot 262 Meadow 261 Small-flowered 262 Wild 261 Crantzia lineata 301 Crashes 206 Crassulaceae 214, 437, 440 Crataegus 225, 441 apposita 226 var. Bissellii 226 Arnoldiana 230 Baxteri 226 Bissellii 226 Brainerdi 230 var. scabrida 230 coccinea 226 var. macracantha 230 " rotundifolia 227 " viridis 226 cognata 228 conjuncta 220 cristata 220 Crus-galli 225 var. exigua 226 demissa 227 dissimilis 228 dissona 228 Dodgei 227 Eamesii 230 exiqua 226 ferentaria 231 festiva 229

flabellata 227

Crataegus foetida 226 Forbesae 228 fretalis 230 fulgens 231 genialis 228 glaucophylla 228 Gravesii 227 Grayana 227 Hargeri 227 Holmesiana 229 incisa 229 intricata 226 Jesupi 229 latisepala 228 levis 220 littoralis 229 lobulata 229 macracantha 230 var, rhombifolia 230 macrosperma 227 var. demissa 227 " matura 227 " pentandra 227 matura 227 modesta 226 monogyna 225 monstrata 228 Napaea 228 neo-londinensis 230 Oxyacantha 225 pedicellata 230 pellucida 231 bentandra 227 Pequotorum 220 polita 230 Porteri 229 premora 226 Pringlei 220 var. lobulata 220 pruinosa 228 forma dissona 228 var. conjuncta 228 " latisepala 228 " Porteri 229 punctata 226 quinebaugensis 220

Crataegus

rhombifolia 230 rotundifolia 227

scabrida 230

sejuncta 230

spatiosa 231 Stonei 227

stratfordensis 231

tenella 227

tomentosa 426 umbratilis 226

viridimontana 228

Crawley Root 135 Crawling Spearwort 185

Cream-colored Avens 235

Creeping Buttercup 187

Crowfoot 187

Fern 26

Snowberry 312

Spearwort 185 Speedwell 354

Thyme 341

Crepis 412

capillaris 412 rigida 413, 432 setosa 413

taraxacifolia 413, 432

tectorum 412 virens 412

var. dentata 412

Cress

Bank 205

Bastard 200, 201 Belle Isle 208

Bitter 207, 209, 210

Brook 210

Common Winter 207

Cow 201

Creeping Yellow 207 Early Winter 208

Field 201

Field Penny 200

Garden 201 Hairy Rock 211

Yellow 207

Hoary 421 Lamb's 210 Cress

Land 210

Low Rock 210

Marsh 207

Mouse-ear 206

Penny 200 Purple 210

Rock 210

Rocket 207 Small Bitter 210

Smooth Rock 211

Spring 209, 210

Thale 206

Tower 210

True Water 206

Wall 206, 210, 211

Water 206

Winter 207, 208

Yellow 207

" Water 207

Crimson Clover 248

Crinkle-root 208

Crisped Bunch-flower 118

Cross-wort 315

Crotalaria 248 sagittalis 248

Crotonopsis 265

linearis 265

Crowfoot 184

Biting 186

Bristly 187

Bulbous 188

Common White Water 185

Creeping 187 Cursed 186

Ditch 186

Early 187

Hooked 186

Kidnev-leaved 186

Marsh 186, 187

Meadow 188

Mountain 186

Rock 186

Rough 186

Sanicle-leaved 186

Seaside 185

Small-flowered 186

Crowfoot

Smooth 186

Spotted-leaf 187

Stiff Water 184

Swamp 187

Tall 188

Tufted 187 White Water 184

Wood 187

Yellow Water 185

Crowfoot Family 184

Grass 50

Crown Vetch 252

Cruciferae 199, 437, 440

Cryptogramma 19

acrostichoides 424

Stelleri 19, 424

Cryptotaenia 300

canadensis 300

Cuckoo Flower 210

Cucumber 371

One-seeded Bur 372

Star 372

Wild 372

Cucumber-root

Indian 124

Cucumis 371

Melo 371, 432

sativus 371, 432

Cucurbita 372

maxima 372, 432

moschata 372, 432

Pepo 372, 432

var. condensa 372, 432 Cucurbitaceae 371, 438

Cudweed 389, 390

Low 300

Purplish 300

Culver's Physic 353

Culver's-root 353

Cup Plant 300

Cuphea 200

netiolata 200

viscosissima 200

Cuphea 200

Clammy 200

Curled Dock 158

Curled

Mallow 279

Mint 343

Mustard 203

Thistle 405

Curly Dock 158

Grass Family 26

Currant 217

Black 218

Buffalo 219 Clove 210

European Black 218

Fetid 219

Flowering 218, 219

Garden Black 218

Red 219

Golden 219

Indian 366

Missouri 210

Mountain 210

Red 219

Skunk 219

Swamp Black 218

Sweet 210

Wild Black 218

Wine 219

Cursed Crowfoot 186

Cuscuta 325

arvensis 325

cephalanthi 428

compacta 326

Corvli 325

Epithymum 325

Gronovii 326

inflexa 325

tenuistora 428

Cut Grass 58

Cut-leaved Blackberry 238

Craneshill 262

Geranium 262

Pepper-root 200

Toothwort 209

Cycloloma 165

atriplicifolium 165, 420, 433

platyphyllum 165

Cydonia 224

iaponica 224

Cvdonia vulgaris 224 Cymbalaria Cymbalaria 350 Cynanchum 323 nigrum 323 Cynodon 69 Dactylon 69, 431 Cynoglossum 327 boreale 328 officinale 327 virginicum 328 Cynosurus 72 cristatus 72, 417 Cynthia 408 Cyperaceae 81, 436 Cyperus 81, 441 aristatus 82 dentatus 82 diandrus 81 var. castaneus 81 ervthrorhizos 82 var. pumilus 82 esculentus 82 var. angustispicatus 82 " leptostachyus 82 ferax 82 filiculmis 83, 425 var. macilentus 83 fuscus 82, 431 Gravii 83 Houghtonii 425 inflexus 82 Nuttallii 82 rivularis 81 speciosus 82

strigosus 83 var. capitatus 83 " robustion 83 Cypress 37 Mock 165

Cypress Spurge 267 Cypripedium 129 acaule 120 arietinum 425 candidum 425 hirsutum 129

Cypripedium parviflorum 129 var. pubescens 129 pubescens 129 reginae 129 spectabile 129 Cystopteris 24 bulbifera 24 fragilis 24

Cytisus 248 scoparius 248, 431 Dactylis 72

glomerata 72 Daffodil 126 Daisy

Ox-eye 400 White 400 Yellow 393 Daisy Fleabane 387 Dalibarda 240 repens 210 Damask Violet 206

Dame's Rocket 206 " Violet 206 Damson 244 Dandelion 410 Common 410 Dwarf 408 Fall 4co Red-seeded 410

Dangleberry 312 Danthonia 67 compressa 67 scricea 425 spicata 67 Darnel 78 Bearded 78 Common 78 Dasithora

fruticosa 233 Dasystoma flava 355 pedicularia 355 virginica 355

Datura 347 Metel 348, 434 meteloides 348, 432

Datura Stramonium 347 Tatula 348 Daucus 303 Carota 303 Day Lily 119, 120 Day-blooming Campion 178 Lychnis 178 Day-flower 113 Dead Nettle 336 Decodon 280 verticillatus 280 Deerberry 313 Deergrass 200 Deer-tongue Grass 55 Deerwood 146 Delphinium 192 Ajacis 192 Consolida 192 Dennstaedtia punctilobula 25 Dentaria 208 anomala 200 diphylla 208 incisa 200 incisifolia 200 laciniata 200 maxima 200 Deptford Pink 181 Deringa canadensis 300 Deschampsia 67 caespitosa 67 flexuosa 67 Desmodium 252, 441 acuminatum 252 bracteosum 253 canadense 253 canescens 252 ciliare 254 cuspidatum 253 Dillenii 253 glabellum 252 grandiflorum 252 humifusum 252 marilandicum 254

nudiflorum 252

Desmodium · obtusum 254 paniculatum 253 rigidum 253 roundifolium 252 sessilifolium 253 strictum 426 Deutzia 217 scabra 217, 433 Devil's Apple 194 Bit 118, 377 Fig 197 Hair 190 Paint-brush 414 Walking-stick 206 Dew Grass 64 Dewberry 239 Dew-plant 213 Dianthus 181 Armeria 181 barbatus 181 deltoides 181 plumarius 181 Dicentra 198 canadensis 198 Cucullaria 198 Dicksonia 25 pilosiuscula 25 punctilobula 25 forma cristata 25 schizophylla 25 Diervilla 365 Diervilla 365 Lonicera 365 trifida 365 Digitalis 353 purpurea 353, 434 Digitaria 40 filiformis 49 humifusa 40 sanguinalis 50 Dill 302

Diodia 363

teres 363

Dioscorea 126

villosa 126 - Dioscoreaceae 126, 436

Diospyros 317 virginiana 317 Diblachne fascicularis 69 Diplopappus amygdalinus 429

Diplotaxis 204

muralis 204, 433 tenuifolia 204

Dipsacaceae 370, 438, 441

Dipsacus 370 sylvestris 370

Dirca 289 palustris 289 Discopleura capillacea 299

Dish Mustard 200 Distichlis 72

maritima 72 spicata 72

Ditch Crowfoot 186

Grass 44 Moss 47 Stonecrop 214 Dock 157

Belleville 159 Bitter 159 Blunt-leaved 159

Broad 159 Curled 158 Curly 158 Great Water 158

Horse 158 Narrow 158 Pale 158 Patience 157 Peach-leaved 158

Sorrel 159 Spring 157 Swamp 158 Tall 158 Velvet 349

Yellow 158 Dock-leaved Persicaria 160

Dockmackie 368 Dodder 325, 326 Clover 325

Dodder Field 325 Hazel 325

Doellingeria infirma 386 umbellata 386

Dog Fennel 398

Grass 79 Rose 242 Violet 288 Dogbane 321

Spreading 321 Dogbane Family 321 Dogberry 217, 223, 305

Dog's Couch Grass 79 Dog's Wheat Grass 70

Dog's-tail Grass 72 Dog's-tooth Violet 121

Dogwood 304 Flowering 304 Poison 268 Red-osier 305 Round-leaved 304 Swamp 305

Dogwood Family 304 Dolphin Flower 102

Dondia

americana 169 maritima 168 Doorweed 160

Dove's-foot Cranesbill 262 Geranium 262

Downy Arrow-wood 368 Bergamot 338

Cinquefoil 233 Poplar 142

Yellow Foxglove 355 Violet 288

Draba 199 caroliniana 100 verna 199 Dracocephalum 335 parviflorum 335

Dragon Green 110 Dragon Arum 100 Head 335

Dragon Root 110 Dragon's Claw 135 Drooping Avens 235 Drop-seed 62, 63 Drop-seed Grass 61 Dropwort 235 Drosera 213 intermedia 213 var. americana 213 longifolia 213 rotundifolia 213 Droseraceae 213, 437 Dry Strawberry 232 Drymocallis arguta 232 Drvobteris acrostichoides 21 var. Schweinitzii 21 aculeata Braunii 424 Boottii 23 cristata 23 var. Clintoniana 23 Goldiana 22 marainalis 22 noveboracensis 22 simulata 22 spinulosa 23 var. dilatata 21 " intermedia 23 Thelypteris 22 Duchesnea 232 indica 232 Duck Acorn 184 Grass 73 Duck's-foot 194 Duck's-meat III Duckweed 111 Greater III Lesser 112 Duckweed Family 111 Dulichium 83 arundinaceum 83 spathaceum 83 Dumb Watches 213 Durfee Grass 70

Dusty Miller 177, 401

Dutch Flax 201, 202 Myrtle 143 Dutchman's Breeches 198 Dwarf Alder 275 Blueberry 313 Cherry 245 Cornel 304 Dandelion 408 Ginseng 206 Huckleberry 312 Mallow 270 Mistletoe 156 Nettle 155 Raspberry 237 St. John's-wort 281 Sumach 268 Dyer's Rocket 212 Weed 212 Weld 212 Early Buttercup 187 Coral Root 135 Crowfoot 187 Meadow Rue 188 Saxifrage 215 Sweet Blueberry 313 Yellow Violet 287 Easter Bell 176 Eatonia Dudleyi 66 nitida 66 obtusata 66 pennsylvanica 66 var. major 66 Ebenaceae 317, 438 Ebony Family 317 Spleenwort 20 Echinacea angustifolia 393 Echinochloa 56 crusgalli 56 frumentacea 56, 433 Walteri 56 Echinocystis 372 lobata 372 Echinospermum Lappula 328 virginicum 328

Echium 330	Elm
vulgare 330	American 152
Eel Grass 45, 47	Common 152
Eglantine 242	English 152
Eichhornia 114	European, 152
crassipes 114, 430	False 153
Elatinaceae 282, 438	= -
Elatinaceae 202, 430 Elatine 282	Feathered 152 Indian 152
americana 282	
Elatinoides	Moose 152
	Red 152
Elatine 350	Rock 152
Elder 369	Shade 152
Black-berried 369	Slippery 152
Box 273	Swamp 152
Common 369	Sweet 152
Marsh 391	Tawny 152
Poison 268	Wahoo 153
Red-berried 369	Water 152
Wild 296	Weeping 152
Elecampane 390	White 152
Eleocharis 83, 441	Winged 153
acicularis 84	Witch 153
diandra 84, 417	Elodea 47
Engelmanni 84	campanulata 282
intermedia 85, 418	canadensis 47
microcarpa 85	Elymus 80
mutata 83	australis 80, 423
obtusa 84	brachystachys 417, 433
olivacea 83	canadensis 80
ovata 84, 418	var. glaucifolius 81
palustris 84	hirsutiglumis 80
var. glaucescens 84	striatus 81
" major 84	virginicus 80
" vigens 84	var. hirsutiglumis 80
pygmaea 85	Enchanter's Nightshade 294
quadrangulata 83	English Elm 152
Robbinsii 83	Hawthorn 225
rostellata 85	Meadow-sweet 235
tenuis 85	Plantain 361
Torreyana 85	Violet 287
tuberculosa 84	Epifagus 359
Eleusine 69	virginiana 359
indica 69	Epigaea 311
Ellisia 327	repens 311
Nyctelea 327, 434	Epilobium 291
Elm vva	adamana ilan 202 422 427

adenocaulon 292, 422, 427

Elm 152

Epilobium	Erect
angustifolium 291	Goose Grass 160
coloratum 292	Knotweed 160
densum 291	Ericaceae 306, 438
Hornemanni 427	Erigeron 387
lineare 292	annuus 387
molle 291	bellidifolius 387
palustre 292	canadensis 387
var. monticola 292	philadelphicus 387
strictum 291	pulchellus 387
Epipactis 134	ramosus 387
pubescens 135	var. discoideus 387
repens	strigosus 387
var. ophioides 134	Eriocaulaceae 112, 436
tesselata 134	Eriocaulon 112
Equisetaceae 29, 436	septangulare 112
Equisetum 29	Eriophorum 89
arvense 29	alpinum 86
fluviatile 29	callitrix 80
hyemale 30	cyperinum 88
var. affine 30	var. laxum 89
" intermedium 29	gracile 89
limosum 29	lineatum 88
palustre 29	paucinervium 89
pratense 29	polystachyon 90
scirpoides 30	var. latifolium 90
sylvaticum 29	tenellum 89
variegatum 30	vaginatum 89
var. Jesupi 30	virginicum 90
Eragrostis 71	var. album 90
capillaris 71	viridi-carinatum 90
Frankii 71	Erodium 262
hypnoides 71	cicutarium 262, 434
major 71	moschatum 262, 434
megastachya 71	Erodium
minor 71	Musk 262
pectinacea 71	Ervum
	Lens 256
pilosa 71 Purshii 71	Eryngium 297
reptans 71	aquaticum 297
Eragrostis	planum 297, 434
0	vuccifolium 297
Purple 71	_ *
Erechtites 403	Eryngo 297 Erysimum 206
hieracifolia 403	cheiranthoides 206
praealta 403	Erythronium 121
Erect Bugle 332	Erymiomum 121

European

Linden 277

Mallow 279

Millet 51

Ervthronium americanum 121 Eschscholtzia 196 californica 196, 421, 433 Estragon 401 Eupatorium 375 ageratoides 376 aromaticum 377 hyssopifolium 375 maculatum 375 var. amoenum 375 perfoliatum 376 var. truncatum 376 pubescens 376 purpureum 375 var. amoenum 375 " maculatum 375 rotundifolium var. ovatum 376 sessilifolium 376 teucrifolium 376 urticaefolium 376 verbenaefolium 376 Euphorbia 265, 441 corollata 266 Cyparissias 267 dentata 426 Esula 266 glyptosperma 426 hirsuta 266 Ipecacuanhae 266, 423 Lathyrus 267 maculata 266 marginata 266 nutans 265 Peplus 267 polygonifolia 265 Preslii 265 Euphorbiaceae 265, 437, 440 European Barberry 195 Columbine 192 Elm 152

Fly Honeysuckle 365

Garden Bean 256

Gooseberry 218

Larch 35

Mountain Ash 223 Spindle Tree 271 Vervain 330 Wood Strawberry 231 Euthamia caroliniana 381 graminifolia 381 tenuifolia 381 Evening Lychnis 178 Primrose 292 Primrose Family 291 Ever-blooming Lychnis 178 Evergreen Blackberry 238 Everlasting 388, 389, 390 Common 390 Pearly 389 Plantain-leaved 380 Sweet 390 Everlasting Pea 257 Evonymus 271 alatus 271 atropurpureus 271 europaeus 271 Fagaceae 148, 436 Fagopyrum 164 esculentum 164, 431 Fagopyrum 164 Fagus 148 americana 148 ferruginea 148 grandifolia 148 Fairy Creeper 197 Cup 216 Faitour's Grass 266 Falcata comosa 259 Pitcheri 259 Fall Dandelion 400 False Acacia 251 Beech-drops 307 Coltsfoot 157 Dragon Head 335

False	Fern
Elm 153	Creeping 26
Flax 201, 202	Crested Shield 23
Foxglove 355	Flowering 26
Gromwell 330	Goldie's 22
Heather 283	Grape 27
Hellebore 118	Hairy Lip 18
	Hartford 26
Indigo 247, 251	
Loosestrife 291	Hay-scented 25
Mermaid 268	Interrupted 26
" Family 268	Lady 21
Miterwort 215	Long Beech 17
Mustard 211	Marginal Shield 22
Nettle 156	Marsh 22
Pimpernel 352	Massachusetts 22
Red Top 73	Net-veined Chain 19
Rice 58	New York 22
Sarsaparilla 296	Oak 17
Solomon's Seal 122	Ostrich 25
Spikenard 122	Rattlesnake 28
Sycamore 220	Royal 26
Unicorn-root 125	Sensitive 25
Feather Geranium 165	Shield 22
Grass 60	Spinulose Shield 23
Hyacinth 121	Sweet 144
Feathered Columbine 188	Virginia Chain 19
Elm 152	Walking 21
Featherfoil 315	Wood 22
American 315	Fern Family 17
Felon-herb 401	Fescue
Fen Orchis 136	Meadow 76
Fennel 301	Sheep's 76
Common 301	Slender 76
Dog 398	Taller 76
Garden 301	Fescue Grass 76
Fennel Flower 191	Festuca 76
Fern	capillata 76
Beech 17	elatior 76
Bladder 24	var. pratensis 76
•	nutans 76
Broad Beech 17 " Shield 24	•
Differed 24	octoflora 76
Chain 19	ovina 76
Christmas 21	var. capillata 76
Cinnamon 27	" duriuscula 425
Climbing 26	rubra 76, 425
Clinton's Shield 23	tenella 7 6

Fetid Chamomile 398
Currant 219
Horehound 336
Fetter Bush 309
Fever Bush 196
Feverfew 400
Feverwort 367
Field Avens 235
Bean 258
Bindweed 325
Chickweed 176
•
Cress 201
Dodder 325
Garlic 119
Kale 203
Larkspur 192
Mint 343
Pansy 288
Pea 258
Рорру 197
Scabious 371
Soapwort 180
Sorrel 159
Source 139

Thistle 405
Fig
Devil's 197
Indian 289
Figwort 351
Figwort Family 349
Filbert 146

Strawberry 231

Filipendula 234 hexapetala 235, 434 rubra 234

Ulmaria 234 Filix

bulbifera 24 fragilis 24 Fimbristylis 85 autumnalis 85 capillaris 85 Frankii 85

Snakeroot 157 Finger Grass 49, 50

Fiorin 64

Fine Bent 64

Fir 37

Balm-of-Gilead 37 Balsam 37

Scotch 35 Fire Cherry 244 Fire Plant

Mexican 165 Fire Pink 179

Fireweed 291, 403 Fit-root 307

Five-finger 232, 234 Marsh 233 Mountain 233 Purple 233

Purple 233 Three-toothed 233

Flag
Blue 127
Cat-tail 39
Larger Blue 127
Poison 127
Slender Blue 127
Sweet 111

Flannel-leaf 349 Flax 259 Common 259

Dutch 201, 202
False 201, 202
Wild Yellow 260
Flax Family 259
Fleabane 387
Canada 387

Daisy 387 Marsh 388 Salt Marsh 388 Fleur-de-lis 127

Flixweed 206 Floating Foxtail 62

Heart 320 Floerkea 268

proserpinacoides 268 Flowering Currant 218, 219

Dogwood 304 Fern 26 " Family 26

Locust 251 Maple 278 Spurge 266 Flowering Thistle 107 Wintergreen 263 Flower-of-an-Hour 280 Fly-away Grass 64 Foam-flower 215 Foeniculum 301 Foeniculum 301 officinale 301 vulgare 301 Fool's Parsley 302 Forget-me-not 329 True 329 Wild 329 Forked Catchfly 179 Chickweed 172 Forsythia 318 viridissima 318, 434 Four-leaved Campion 180 Four-o'clock 171 Four-o'clock Family 171 Fowl Meadow Grass 73, 74 Fox Grape 276 Foxglove 353 Common 353 Downy False 355 " Yellow 355 Oak-leaved False 355 Smooth False 355 Foxtail 57 Floating 62 Green 57 Marsh 62 Meadow 62 Water 62 Foxtail Grass 62 Fragaria 231 americana 232 canadensis 231 indica 232 terrae-novae 231 vesca 231 var. alba 232 " americana 232 virginiana 231 var. Grayana 231

" illinoensis 231

Fragrant Balm 338 Fraxinus 317 americana 317 Darlingtonii 317 excelsior 318 lanceolata 318 nigra 318 pennsylvanica 317 var. lanceolata 318 pubescens 317 sambucifolia 318 viridis 318 French Pink 181 Purslane 182 Rose 243 Fringe Cup 216 Fringed Gentian 319 Loosestrife 316 Orchis 130 Polygala 263 Frog Grass 114, 168 Lilv 183 Frog's Bit Family 47 Frost Grape 277 Frost-flower 382 Frostweed 282 Fumaria 198 officinalis 198 Fumariaceae 197, 437, 440 Fumitory 198 Climbing 197 Common 198 Hedge 198 Fumitory Family 197 Funkia lancifolia 120 ovata 119 Galeopsis 335 Ladanum 335, 434 Tetrahit 335 Galeorchis spectabilis 130 Galingale 81 Galinsoga 397 parviflora 397 var. hispida 307 Galium 361, 441

Galium

Aparine 361 asprellum 363 boreale 362 circaezans 362

Claytoni 363 erectum 363

labradoricum 363 lanceolatum 362

Mollugo 362 palustre 363

pilosum 362 var. puncticulosum 362

tinctorium 363

var. labradoricum 363 trifidum 363

var. latifolium 363 " pusillum 363

triflorum 363 verum 362

Wirtgenii 362, 435 Gall-of-the-Earth 413

Gama Grass 48 Garden Asparagus 122

Garden Asparagus 12 Black Currant 218

Burnet 241 Catchfly 179 Chamomile 399 Columbine 192 Cress 201

Fennel 301 Gooseberry 218 Heliotrope 370

Huckleberry 345 Larkspur 192 Mignonette 212

Orpine 214 Parsley 300 Patience 157

Pea 257 Peppergrass 201 Phlox 326

Pink 181
Plum 246
Poppy 197

Portulaca 182 Purslane 182 Garden

Radish 202 Red Currant 210

Sage 337 Sorrel 159

Valerian 370 Garget 171

Garlic 119 Field 119 Hedge 205

Meadow 119 Wild 119 Garlic Mustard 205

Gaultheria 311 procumbens 311

Gaura 294
biennis 294
Gaylussacia 312
baccata 312

forma glaucocarpa 312

dumosa 312 frondosa 312 resinosa 312

Gemmingia
chinensis 128
Gentian 319
Bottle 320

Closed 320
Fringed 319
Horse 367
Gentian Family 319

Gentiana 319
Amarella 427
Andrewsii 320, 428
crinita 319
quinqueflolia 319, 427
quinqueflora 319
Sabonaria 428

Gentianaceae 319, 438 Geraniaceae 261, 437, 440

Geranium 261 carolinianum 261 dissectum 262, 431 maculatum 261 molle 262, 434 pratense 261, 434 pusillum 262 Geranium Robertianum 261

Geranium

Cut-leaved 262

Dove's-foot 262 Feather 165

Meadow 261

Mint 400

Small-flowered 262 Geranium Family 261

Gerardia 355

Besseyana 356

flava 355

Gattingeri 356 linifolia 429

maritima 356

parvifolia 356 paupercula 356

paupercula 350 pedicularia 355

purpurea 355

var. paupercula 356

quercifolia 355 Skinneriana 356

tenuifolia 356

var. macrophylla 356

virginica 355

Gerardia 355, 356

Purple 355 Seaside 356

German Chamomile 300

Millet 57 Germander 332

American 332

Coast 332

Geum 235

album 235 canadense 235

flavum 235

macrophyllum 426

rivale 235 strictum 235, 426

virginianum 235

Ghost-flower 307

Giant Hyssop 334 Solomon's Seal 123

Gill 334

Gill-over-the-Ground 334

Ginger

Wild 157 Ginger-root

Wild 157

Ginseng 296 Dwarf 296

Ginseng Family 295

Gipsy Combs 370

Girls-and-Boys 198

Glasswort 168 Woody 168

Glaucous Willow 139

Glecoma

hederacea 334

Gleditsia 246 triacanthos 246

Globeflower 191, 236

American 191

Spreading 191 Swamp 191

Wild 191 Glossy Willow 138

Glyceria 74

acutiflora 75

borealis 75 canadensis 74

elongata 74

fluitans 75 grandis 74

nervata 74

obtusa 74 pallida 74

septentrionalis 75 Torrevana 74

Glycyrrhiza 252

lepidota 252, 431

Gnaphalium 389

decurrens 390
obtusifolium 389

polycephalum 389

purpureum 390

uliginosum 390 Goat's Beard 410

Rue 251

Gold-cups 188

Golden Alexanders 300

Aster 377

Golden

Bell 318

Chain 214

Club III

Currant 219 Glow 393

Loosestrife 315

Marguerite 399

Meadow Parsnip 300

Moss 214

Osier 143

Peppergrass 201

Ragweed 404

Ragwort 404 Saxifrage 216

Seal 193

Golden-rod 378, 380, 381

Sweet 379

White 378 Golden-tuft 200

Golden-Wonder Millet 57

Goldie's Fern 22

Gold-of-Pleasure 201, 202

Goldthread 191

Goodyera

pubescens 135

repens 134 tesselata 134

Goose Grass 69, 72, 75, 160, 361

Gooseberry 217 Common 218

European 218

Garden 218

Missouri 217 Northern 218

Prickly 217

Smooth 218

Swamp 218 Wild 218

Goosefoot 165

City 167 Coast 166

Maple-leaved 166

Nettle-leaved 167

Oak-leaved 166 Red 166

Seaside 169

Goosefoot

Upright 167

White 166

Goosefoot Family 165 Goshen Hardhack 233

Go-to-Bed-Noon 121

Gourd 372

Gourd Family 371

Goutweed 299 Goutwort 200

Gowan

Meadow 191

Gramineae 48, 436, 439

Grape 276 Blue 277

Bunch 276

Fox 276

Frost 277

Northern Fox 276

Pigeon 276

River-bank 277

Skunk 276

Summer 276, 277

Wolf 345

Grape Fern 27 Hyacinth 121

Grass

Alkali 72

Arrow 45

Awned Wheat 79

Barnyard 56

Beach 65

Bear 121

Beard 48, 65

Bent 64

Bermuda 69

Billion-Dollar 56

Black 114

Black Oat 60

Blue-eyed 128

Blue-joint 65

Bottle 57

Bottle-brush 81

Bristly Foxtail 57

Brome 76

Broom Beard 48

Brown Bent 64

Grass Bull 68 Bunch 48 Bur 58 Canada Blue 73 Canary 58 Cat-tail 62 Coast Knot 164 Cocksfoot 56 Cockspur 56 Common Hair 67 Cord 68 Corn 55, 56 Cotton 90 Couch 79 Crab 50, 61, 69, 160, 168 Creeping Spear 73 Crowfoot 50 Cut 58 Deer-tongue 55 Dew 64 Ditch 44 Dog 79 Dog's Couch 79 Dog's Wheat 79 Dog's-tail 72 Drop-seed 61 Duck 73 Durfee 79 Eel 45, 47 Erect Goose 160 Faitour's 266 Fall Witch 50 Feather 60 Fescue 76 Finger 49, 50 Flat-stemmed Blue 73 Floating Manna 75 Fly-away 64 Forked Beard 48

Fowl Meadow 73, 74 Foxtail 62 Frog 114, 168 Gama 48

German Knot 172 Goose 69, 72, 75, 160, 361

Green Eel 185

Grass

Hair 62, 64, 71 Hairy Brome 77 Hedgehog 58 Herd's 62 Holy 59 Hungarian 57

Brome 78

Indian 49 Italian Ray 78 Rye 78

Japanese Barnyard 56

Johnson 49 June 73 Kentucky Blue 73 Knot 79, 160 Knot-root 61 Large Crab 50 Low Spear 72 Lyme 80 Manna 74 Marsh 68 Meadow 72

Spear 74 Melic 72

Mesquite 60 Needle 60 Oat 67 Old-witch 51 Orange 282 Orchard 72 Pale Manna 74 Panic 51 Pearl 74 Perennial Foxtail 57

" Ray 78 Rve 78

Pigeon 57 Porcupine 60 Poverty 283 Quack 79 Quaking 72 Quitch 79 Rattlesnake 74 Reed Bent 65

" Canary 59 " Meadow 74

Grass	Grass
Rib 361	Terrell 80
Ribbon 59	Thatch 68
Rice Cut 58	Thin 64
Ripple 361	Tickle 51
Rough Foxtail 57	Toad 114
" Hair 64	Tongue 176, 200
Rough-stalked Meadow 73	Triple-awned 60
Rush 63	Tufted Hair 67
Salt Marsh 68	Twitch 57
" Meadow 68	Vanilla 59
" Reed 68	
Need 06	Velvet 66
Sand 70	Vernal Whitlow 199
Knot 104	Water Star 114
Scorpion 329	Way 160
Scratch 58, 163	White 58
Scurvy 208	" Bent 64
Scutch 69, 79	Whitlow 199
Sea Spear 75	Wild Oat 67
Seaside Knot 164	Wire 48, 69, 73 , 160
Seneca 59	Wood 49
Sesame 48	" Reed 65
Shave 30	Wool 88
Shear 79	Yard 69
Sickle 163	Yellow-eyed 112, 127
Silk 64	Grass Family 48
Slough 68	Grass of Parnassus 216
Small Crab 49	Grass Pink 133, 181
Smooth Meadow 73	Wrack 45
Snake 71	Gratiola 353
Sour 159	aurea 353
Spear 72, 73	dubia 353
Spike 72	virginiana 353
Spires 59	Gravel Chickweed 172
Squirrel-tail 80	Gravel-root 375
Star 125, 127	Gravel-weed 330
Stink 71	Gray Birch 147
Swamp Wire 73	Willow 141
Swamp Wife /3	
Sweet Vernal 59	Greaseweed 357
Switch 52	Great American Burnet 241
Sword 59, 98	Blue Lobelia 374
Tall Manna 74	Bulrush 86
Marsh 08	Burdock 404
Oat 07	Laurel 308
" Panic 52	Nettle 155
_" Quaking 74	Ragweed 391
Tape 47	St. John's-wort 280

Great
Solomon's Seal 123
Water Dock 158
Willow-herb 291
Greater Bladderwort 358

Duckweed 111
Starwort 176
Stitchwort 176

Greek Valerian 327

Green Adder's Mouth 136 Amaranth 169

Ash 318
Brier 125
Dragon 110
Foxtail 57
Hellebore 118

Hellebore 118 Milkweed 323

Grim the Collier 414

Grindelia 377 squarrosa 377, 435

Griottes 245 Gromwell 329 Common 330 Corn 329

False 330 Ground Cherry 346

Hemlock 34 Honeysuckle 250 Ivy 334

Laurel 311 Pine 31 Pink 326

Groundnut 258, 296 Groundsel 403 Common 403

Groundsel Tree 388

Gum
Black 305
Red 220
Sour 305
Star-leaved 220
Sweet 220

Sweet 220
Gum Tree
Sweet 220
Gumbo 280
Gum-plant 377

Gymnadeniopsis
clavellata 131

Gypsophila 181 elegans 181, 433

muralis 181, 433 Gypsophyll 181

Gyrostachys cernua 134 gracilis 133

linearis 133 ochroleuca 134 plantaginea 134

praecox 133 simplex 133 stricta 134 Gyrotheca

syrotheca capitata 126 tinctoria 126

Habenaria 130, 441 blephariglottis 131 bracteata 130 ciliaris 131

ciliaris 131 clavellata 131 dilatata 130 fimbriata 132 flava 130 grandiflora 132

Hookeri 131 var. oblongifolia 131

hyperborea 130 lacera 132 macrophylla 131 orbiculata 131, 419 peranoena 425 psycodes 132 rotundifolia 425 tridentata 131

virescens 130 Hackberry 153 Hackmatack 35

Haemodoraceae 126, 436 Hair Grass 62, 64, 71 Hairy Agrimony 240 Hawkweed 415

Lip Fern 18 Pinweed 283 Solomon's Seal 123 Hairy Tare 256 Vetch 256 Halberd-leaved Tear-thumb 163 Haloragidaceae 294, 438 Hamamelidaceae 219, 437 Hamamelis 219 virginiana 210 Hardhack 221, 233, 365 Goshen 233 Purple 221 Hardheads 407 Harebell 373 Hare's Tail 80 Hare's-ear 204 Hare's-ear Mustard 204 Hartford Fern 26 Haw Black 369 Red 225 Haw Bush 225 Tree 225 Hawkbit 400 Hawk's-beard 412 Hawkweed 414 Canada 415 Hairy 415 Orange 414 Hawthorn 225 English 225 Hay-scented Fern 25 Hazel 146 Hazel Dodder 325 Hazelnut 146 Beaked 146 Wild 146 Headache 197 Headache Plant 356 Heal-all Common 335 Heart Snakeroot 157 Heart-leaved Willow 130 Heart's-ease 162, 284, 288 Heart-seed 274 Heartweed 162

Heath Family 306

Heather False 283 Hedeoma 339 hispida 339 pulegioides 339 Hedge Bindweed 163, 325 Fumitory 198 Garlic 205 Hyssop 353 Mustard 205 Nettle 337 Pink 180 Thorn 225 Hedgehog Grass 58 Helenium 308 autumnale 308 nudiflorum 398 tenuifolium 398 Helianthemum 282 canadense 282 corymbosum 427 majus 282 Helianthus 394, 441 angustifolius 429 annuus 394 debilis 394, 435 var. cucumerifolius 304, 435 decapetalus 395 divaricatus 305 doronicoides 420 giganteus 394 var. ambiguus 394 grosseserratus 394 laetiflorus 304 Maximiliani 395, 435 petiolaris 394 rigidus 394 scaberrimus 394 scabra 420 strumosus 305 var. macrophyllus 395 " mollis 395 tracheliifolius 395, 423 tuberosus 395 Heliopsis 392 helianthoides 392

laevis 302

Heliopsis scabra 392, 430 Heliotrope Garden 370 Hellebore American White 118 False 118 Green 118 Helonias bullata 425 Hemerocallis 120 flava 120 fulva 120 Hemicarpha 90 micrantha oo subsquarrosa 90 Hemlock 37 Ground 34 Poison 208 Water 299 Hemlock Parsley 303 Hemp 153 Albany 155 American 321 Canadian 321 Common 153 Indian 321 Salt Marsh Water 171 Water 171 Hemp Nettle 335 Hemp-weed Climbing 377 Hen-and-Chickens 215 Henbane 422 Black 422 Henbit 336 Hepatica 180 acuta 189 acutiloba 180 Hepatica 180 triloba 189 Heracleum 303 lanatum 303

Herb Bennet 235

Gerard 200

Robert 261

Patience 157

Herb Sophia 206 Hercules' Club 206 Herd's Grass 62 Heron's-bill 262 Hesperis 206 matronalis 206 Heteranthera 113 dubia 114 graminea 114 reniformis 113 Heuchera 215 americana 215 Hibiscus 279 esculentus 280, 431 Moscheutos 280 syriacus 270 Trionum 280 Hickory 144 Bitter Nut 145 Broom 145 Little Pignut 145 Pignut 145 Shag-bark 145 Shell-bark 145 Small-fruited 145 Swamp 145 White-heart 145 Hickory Poplar 194 Hicoria alba 145 glabra 145 microcarpa 145 minima 145 ovata 144 Hieracium 414 aurantiacum 414 canadense 415 floribundum 414 Gronovii 415 marianum 414 paniculatum 414 Pilosella 414 pratense 414 scabrum 415 venosum 414 var. subcaulescens 414 Hierochloe 59 borealis 59 odorata 50 High Angelica 303 Mallow 279 High-bush Blackberry 237, 239 . Blueberry 313 Cranberry 368 Highwater-shrub 391 Hip Rose 242 Hippuris vulgaris 427 Hoary Alder 148 Alvssum 199 Cinquefoil 233 Cress 421 Pea 251 Vervain 331 Willow 140 Hobble-bush 368 Hog Apple 194 Lily 183 Peanut 259 Hog-weed 391 Holcus 66 lanatus 66 Holly 260 American 269 Mountain 270, 271 Holly Family 269 Hollyhock 278 Holosteum umbellatum 426 Holy Grass 59 Homalocenchrus oryzoides 58 virginicus 58 Honesty 208 Honewort 300 Honey Locust 246 Honey-bloom 321 Honeysuckle 102, 365 American Fly 365

Bush 365 European Fly 365 Ground 250 Tapanese 366

Honeysuckle Mountain Fly 365 Tartarian 365 Trumpet 366 White Swamp 307 Wild 308, 366 Honeysuckle Clover 249 Honeysuckle Family 365 Honey-sweet 235 Hooked Crowfoot 186 Hoop Ash 153, 318 Hop 153 Common 153 Japanese 154 Hop Clover 249 Hornbeam 146 Medick 250 Tree 263 Hordeum 80 jubatum 80 vulgare 80, 431 Horehound 333 Black 336 Common 333 Fetid 336 Water 341 Hornbeam 146 American 146 Hop 146 Hop 146 Horned Pondweed 44 Rush 90 Hornwort 182 Hornwort Family 182 Horse Balm 344 Brier 125 Dock 158 Gentian 367 Lilv 183 Mint 338, 342 Nettle 345 Plum 246 Horse-chestnut 274 Common 274 Horsefly-weed 247 Horseradish 207

Horsetail 20

Horsetail Common 29 Horsetail Family 20 Horse-weed 387, 411 Hosackia 250 americana 250, 434 Purshiana 250 Hosta 119 caerulea 119 japonica 120 Hottonia 315 inflata 315 Hound's Tongue 327 Common 327 House Sorrel 159 Houseleek 215 Houstonia 364 coerulea 364 lanceolata 364 longifolia 364 purpurea var. calvcosa 364 " longifolia 364 Hubbard Squash 372 Huckleberry 312 Black 312 Blue 312 Common 312 Dwarf 312 Garden 345 Squaw 313 Hudsonia 283 tomentosa 283 Humulus 153 japonicus 154 Lupulus 153 Hungarian Grass 57 Hungry-root 296 Huntsman's Cup 213 Hvacinth Feather 121 Grape 121 Starch Grape 121 Water 114 Hydrastis 103 canadensis 193 Hydrocharitaceae 47, 436

Hydrocotyle 297 americana 298 umbellata 297 Hydrophyllaceae 327, 438 Hydrophyllum 327 virginianum 327 Hyoscyamus 422 niger 422, 434 Hypericaceae 280, 438, 440 Hypericum 280, 441 adpressum 281 Ascyron 280 Bissellii 281 horeale 281 canadense 282 var. majus 281 " minimum 281 corymbosum 281 ellipticum 281 gentianoides 282 maculatum 281 var. subpetiolatum 281 maius 281 mutilum 281 nudicaule 282 perforatum 280 prolificum 281 punctatum 281 virginicum 282 Hypochaeris 409 radicata 409 Hypopitys americana 307 Hypopitys 307 lanuginosa 307 Hypoxis 127 erecta 127 hirsuta 127 Hyssop 340 Giant 334 Hedge 353 Hyssopus 340 officinalis 340 Hystrix 81 Hvstrix 81 patula 81

Iberis 201

Theris

amara 201, 433

Ilex 269

bronxensis 270 glabra 270

laevigata 270

opaca 260

verticillata 270

var. padifolia 270 " tenuifolia 270

Ilicioides

mucronata 271

Illecebraceae 172, 437, 439

Ilysanthes 352

anagallidea 353

attenuata 352 dubia 352, 353

aratioloides 352

riparia 352, 353 Impatiens 274

aurea 274

biflora 274

fulva 274

pallida 274

Indian Apple 194

Arrow-wood 271

Bean 350

Chickweed 173

Chocolate-root 235

Corn 48

Cucumber-root 124

Cup 213 Currant 366

Elm 152

Fig 289 Grass 49

Hemp 321

Mallow 278

Mustard 203

Paint 103

Pear 224

Pipe 307

Pitcher 213

Plantain 403

Poke 118

Rice 58

Strawberry 232

Indian

Tobacco 374, 389

Turmeric 193

Turnip 109

Indigo

Bastard 251 False 247, 251

Wild 217

Ink Plant

Red 171

Inkberry 171, 270

Ink-root 314

Innocence 364

Interrupted Fern 26

Inula 390

Helenium 390

Iodanthus 208

pinnatifidus 208, 433

Ionactis

linariifolius 386

Ipecac

Wild 266

Ipecac Spurge 266

Ipomoea 324

coccinea 324, 432

hederacea 324

pandurata 324

purpurea 324

Iridaceae 127, 436, 439

Iris 127

germanica 127

orientalis 127

prismatica 127

Pseudacorus 127

versicolor 127

Iris 127

Yellow 127

Iris Family 127

Iron Oak 150

Ironweed 375

Ironwood 146

Ironwort 334

Isanthus

brachiatus 428

caeruleus 428

Isnardia

palustris 291

33

Isoëtaceae 32, 436 Isoëtes 32 canadensis 33 Dodgei 33 var. Robbinsii 416 echinospora var. Braunii 32 " muricata 32 Engelmanni 33 var. gracilis 33 foveolata 32, 422 Gravesii 32 lacustris 424 riparia var. canadensis 33 saccharata var. Amesii 32 Tuckermani 32, 424 Isotria affinis 133 verticillata 133 Italian Clover 248 Millet 57 Ray Grass 78 Rve Grass 78 Iva 391 frutescens 391 oraria 391 xanthifolia 391 Ivory Plum 311 American 276 Coliseum 350 Ground 334 Kenilworth 350 Poison 269 Ivy-leaved Morning Glory 324 Speedwell 355 Ixophorus glaucus 57 italicus 57 verticillatus 57 viridis 57 Jack-in-the-Pulpit 109 Jacob's Ladder 125

Jamestown Weed 347

Japan Quince 224

Japanese Barnyard Millet 56 Honeysuckle 366 Hop 154 Knotweed 164 Rose 236, 242 Jasione 373 montana 373, 435 Jerusalem Artichoke 305 Cross 178 Oak 165 Jewelweed 274 Jimson Weed 347, 348 Job's Tears 113 Wild 330 Joe-Pye Weed 375 Johnny-jump-up 288 Johnson Grass 49 Jointed Chadlock 202 Charlock 202 Jointweed 164 Coast 164 Sand 164 Seaside 164 Judas Tree 247 Juglandaceae 144, 436 Juglans 144 cinerea 144 nigra 144 Juncaceae 114, 436 Juncaginaceae 45, 436 Juncoides campestre 117 pilosum 117 Juneus 114, 441 acuminatus 117 var. debilis 117 articulatus 117 var. obtusatus 117 brachycarpus 116, 431 brachycephalus 115, 419 brevicaudatus 116 bufonius 114 canadensis 116 var. brachycephalus 115 " brevicaudatus 115 " coarctatus 116

" longicaudatus 116

Juneus	Kerria :
var. subcaudatus 116	japoni
debilis 117	Ketmia
dichotomus 115	Bladd
var. platyphyllus 115	Kickxia
Dudleyi 115, 419	Elatin
effusus 115	Kidney
var. compactus 115	Kidney-
Gerardi 114	Kill-war
Greenei 115	King D
marginatus 117	King-cu
militaris 116	Kinnikir
nodosus 116	Kiss-me
pelocarpus 116	Kitchen
scirpoides 425	Kitten I
secundus 115	Knapwe
tenuis 114	Knautia
var. anthelatus 114, 419	arvens
" secundus 115	Knawel
" Williamsii 115	Knee-hi
June Grass 73	Kneiffia
Juneberry 224	Alleni
Juniper 38	frutice
Common 38	var.
Juniperus 38	linear
communis 38	longip
var. alpina 38	praten
" canadensis 38	pumile
" depressa 38, 424	Knight's
horizontalis 424	Knot G
nana 38	Knot-ro
Sabina	Knotted
var. procumbens 424	Knotwe
virginiana 38	Bushy
Kaffir Corn 49	Erect
Kale Kale	Japan
Corn 203	Pink
Field 203	Shore
Kalmia 309	Slende
angustifolia 309	
glauca 309	Knotwo
	Kochia
latifolia 309	Scopa
polifolia 309	Koellia
Kedlock 203	clinop
Kenilworth Ivy 350	flexuo
Kentucky Blue Grass 73	incana
Kerlock 203	lanceo

236 ica 236 er 280 e 350 Bean 258 leaved Crowfoot 186 t 196 evil 414 ps 188 nnik 305 over-the-Fence 162 Rose 242 Breeches 198 ed 407 371 sis 371, 435 172 gh Blackberry 238 293 osa 293 pilosella 293 is 293 edicellata 293 ısis 293 a 293 s Spur 192 rass 79, 160 ot Grass 61 Rush 116 ed 159, 172 160 160 ese 164 161 160 er 160 rt Family 172 165 ria 165, 421 odioides 340 sa 340 341 lanceolata 340

Koellia	Lamium
mutica 341	album 428
pilosa 340	amplexicaule 336
verticillata 341	hybridum 336
Koniga	maculatum 336, 428
maritima 199	purpureum 336
Krigia 408	Lance-leaved Violet 287
amplexicaulis 408	Land Cress 210
virginica 408	Laportea 155
Labiatae 332, 438, 440	canadensis 155
Labrador Tea 307	Lappula 328
Lachnanthes 126	echinata 328
tinctoria 126	Lappula 328
Lacinaria	virginiana 328
scariosa 377	Lapsana 408
Lactuca	communis 408
canadensis 411	Larch 35
var. integrifolia 411	American 35
" montana 411	Black 35
hirsuta 412	European 35
integrifolia 412	Large Coral Root 135
leucophaea 412	Cranberry 314
sagittifolia 412	Pepper-root 209
sativa 412, 432	Round-leaved Orchis 131
scariola 411	Toothwort 209
var. integrata 411	Twayblade 136
spicata 412	Large-flowered Syringa 217
virosa 411	Large-flowered White Trillium 124
Ladies' Smock 210	Large-leaved Sandwort 174
Tobacco 388	Large-toothed Aspen 142
Tresses 133	Larix 35
Lady Fern 21	americana 35
Lady's Slipper 129	đecidua 35
Large Yellow 129	europaea 35
Pink 129	laricina 35
Showy 129	Lark-heel 192
Smaller Yellow 129	Larkspur 192
Stemless 129	Field 192
Wild 129	Garden 192
Lady's Sorrel 261	Rocket 192
" Thumb 162	Late Low Blueberry 313
La-kwa 371	Lathyrus 257
Lamb's Cress 210	latifolius 257
Lettuce 370	maritimus 257
Quarters 166	palustris
Lambkill 309	var. linearifolius 257
Lamium 336	pratensis 257

Lauraceae 195, 437	Lemna
Laurel	trisulca 111
American 309	valdiviana 111
Great 308	Lemnaceae 111, 436
Ground 311	Lemon
Mountain 309	Wild 194
Pale 309	Lemon Balm 339
Sheep 309	Lily 120
Swamp 309	Lens 256
Laurel Family 195	esculenta 256, 434
Laurel-leaved Willow 138	Lentibulariaceae 357, 43
Laurestinus 368	Lentil 256
Lavender	Leontodon 409
Sea 314	autumnalis 409
Lavender Willow 141	var. pratensis 409
Leadwort Family 314	hastilis 409, 432
Leafcup 390	hirtus 409
Leafy Spurge 266	nudicaulis 409
Leather Leaf 310	Leonurus 336
Leatherwood 289	Cardiaca 336
Lechea 283	Leopard Flower 128
intermedia 283	Lepachys 393
Leggettii 284	pinnata 393, 435
major 283	Lepidium 200
maritima 283	apetalum 200
var. interior 283	campestre 201
minor 283	Draba 421, 433
var. maritima 283	intermedium 200
moniliformis 284	ruderale 200, 433
tenuifolia 283	sativum 201, 431
thymifolia 283	virginicum 200
villosa 283	Leptamnium
Ledum 307	virginianum 359
groenlandicum 307	Leptandra
latifolium 307	virginica 353
Leek	Leptilon
Wild 119	canadense 387
Leersia 58	Leptochloa 69
oryzoides 58	fascicularis 60
virginica 58	Leptoloma 50
Legouzia	cognatum 50
perfoliata 372	Leptorchis
Leguminosae 246, 437, 440	liliifolia 136
Lemna 111	Loeselii 136
cyclostasa III	Lespedeza 254
minor 112	Bicknellii 255
perpusilla 425	capitata 255
10,1,000 423	cupitata 233

Lilaeopsis

lineata 301

Lespedeza var. velutina 255 frutescens 255 hirta 255 Nuttallii 254 polystachya 255 procumbens 254 repens 254 reticulata 254 simulata 255 Stuvei 254 var. intermedia 255 velutina 255 violacea 254 virginica 254 Lesser Duckweed III Starwort 176 Stitchwort 176 Lettuce 411, 412 Lamb's 370 Prickly 411 White 413 Wild 411 " Blue 412 Leucojum 126 aestivum 126 Leucothoë 300 racemosa 309 Leverwood 146 Levisticum 302 Levisticum 302 officinale 302 Liatris 377 cylindracea 429 scariosa 377, 429 squarrosa 429 Life-of-Man 214 Life-root 404 Ligusticum 301 Levisticum 302 scothicum 301

Ligustrum 319

Lilac 318

vulgare 319

Common 318

Summer 206

Lilaeopsis 301

Liliaceae 118, 436, 439 Lilium 120 canadense 120 Catesbaei 425 philadelphicum 120 superbum 120 tigrinum 120 Lilv Blackberry 128 Blue Day 119 Bull-head 183 Canada 120 Common Day 120 Cow 183 Day 119, 120 Frog 183 Great Water 184 Hog 183 Horse 183 Lemon 120 Little Water 184 Plantain 119 Pond 183 Red 120 Rock 102 Small Yellow Pond 183 Spider 113 Sweet-scented White Water 183 Tiger 120 Trout 121 Turk's-cap 120 Water 183 White Pond 183 " Water 183, 184 Wild Orange-red 120 Tiger 120 " Yellow 120 Wood 120 Yellow Day 120 Dog's-tooth 121 Pond 183 Lily Family 118 Lily of the Valley 124 Wild 123 Limnanthaceae 268, 437

Limnanthemum

lacunosum 320

Limnorchis

dilatata 130 huronensis 130

hyperborea 130

Limodorum

tuberosum 133

Limonium 314

carolinianum 314

Limosella 352

aquatica var. tenuifolia 352

tenuifolia 352

Linaceae 259, 437, 440

Linaria 350

canadensis 350

Cymbalaria 350

Elatine 350, 432 genistifolia 428

Linaria 350

minor 350, 434

vulgaris 350

Linden 277

American 277

European 277

Linden Family 277

Benzoin 196

Linnaea 367

borealis 367

var. americana 367

Linseed 259

Linum 259 medium 260

medium 260 striatum 250

sulcatum 259

usitatissimum 259

virginianum 260

Lion's Heart 335

Tail 336

Lion's-foot 413 Liparis 136

liliifolia 136

Loeselii 136

Liquidambar 220

Styraciflua 220

Liquorice 252

Wild 252, 362

Liriodendron 194 Tulipifera 194

Lithospermum 329

arvense 329

officinale 330

Little Pignut Hickory 145

Little-boy's Breeches 198

Live-for-ever 214

Live-long 214

Liver Berry 123 Liverleaf 180

Liverwort 189

Lizard's Tail 137

Lobelia 374

cardinalis 374

Dortmanna 374

inflata 374

Kalmii 374 siphilitica 374

spicata 374

Lobelia

Great Blue 374

Water 374

Lobelia Family 374

Lobeliaceae 374, 439 Lobel's Catchfly 179

Lobularia 199

maritima 199, 431

Locust 251

Black 251

Bristly 251 Clammy 251

Common 251

Flowering 251

Honey 246

Lolium 78

italicum 78

multiflorum 78

perenne 78 temulentum 78

Lombardy Poplar 143

Long-bracted Orchis 130

Long-fruited Anemone 189 Long-leaved Starwort 175

Stitchwort 175

Long-leaved Sundew 213 Long-spurred Violet 288 Lonicera 365 caerulea 365 var. villosa 365 canadensis 365 caprifolium 429 ciliata 365 dioica 366 glauca 366 japonica 366 orientalis 366 sempervirens 366 tatarica 365 Xylosteum 365 Loosestrife 290, 315 False 291 Fringed 316 Golden 315 Purple 290 Spiked 290 Spotted 315 Swamp 289 Tufted 316 Loosestrife Family 280 Lophanthus anisatus 334 nepetoides 334 scrophulariaefolius 334 Lophotocarpus 47 spongiosus 47 Lopseed 360 Lopseed Family 360 Loranthaceae 156, 436 Lotus 250 americanus 250 corniculatus 250 Lotus 184 American 184 Yellow 184 Lousewort 355, 357 Common 357 Swamp 357 Lovage 301, 302 Scotch 301

Love Vine 190, 325, 326

Love-in-a-Mist 421 Love-lies-bleeding 170 Low Birch 148 Black Blueberry 313 Blackberry 239 Cornel 304 Cudweed 390 Sweet Blueberry 313 Lucerne 250 Ludvigia 291 alternifolia 201 palustris 291 polycarpa 291 sphaerocarpa 291 Lunaria 208 annua 208, 431 Lupine 248 Wild 248 Lupinus 248 perennis 248 Luzula 117 campestris 117 var. multiflora 117 saltuensis 117 vernalis 117 Lychnis 177 alba 178 chalcedonica 178 Coronaria 177 dioica 178 diurna 178 Flos-cuculi 178 Githago 177 vespertina 178 Lychnis Day-blooming 178 Evening 178 Ever-blooming 178 Morning 178 Mullein 177 Ragged 178 Red 178 Lycium 347 halimifolium 347 vulgare 347 Lycopersicum 344 esculentum 344

Lysimachia

Lycopersicum Lycopersicon 344 Lycopodiaceae 30, 436 Lycopodium 30 adpressum 30 annotinum 31 clavatum 31 var. monostachyon 31 complanatum 31 var. chamaecyparissus 31 " flabelliforme 31 inundatum 30 var. Bigelovii 30 lucidulum 30 obscurum 31 var. dendroideum 31 Selago 30, 422 tristachyum 31 Lycopus 341 americanus 342 communis 341 membranaceus 341 rubellus 342 sessilifolius 341 sinuatus 342 uniflorus 341 virginicus 341 Lygodium 26 palmatum 26 Lyme Grass 80 Lyonia 310 ligustrina 310 var. foliosiflora 310 mariana 310 Lyre-leaved Sage 337 Lysias Hookeriana 131 orbiculata 131 Lysimachia 315 foliosa 315 Nummularia 316 producta 315 punctata 315

quadrifolia 315

terrestris 316

thyrsiflora 316

stricta 316

vulgaris 315, 432 Lythraceae 289, 438, 440 Lythrum 290 alatum 200 Salicaria 290 Maclura 154 aurantiaca 154 pomifera 154, 420 Macrocalyx Nyctelea 327 Madder Wild 362 Madder Family 361 Mad-dog Skullcap 333 Madwort 199 Magnolia Family 194 Magnoliaceae 194, 437 Mahaleb Cherry 245 Maianthemum 123 canadense 123 Maiden Pink 181 Maidenhair 18 Maidenhair Spleenwort 20 Maize 48 Male Berry 310 Mallow 279 Common 279 Curled 279 Dwarf 279 European 279 High 279 Indian 278 Marsh 278 Musk 279 Rose 279 Swamp Rose 280 Wild Rose 280 Mallow Family 278 Maltese Cross 178 Malus Malus 222 Malva 279 Alcea 279 crispa 279 moschata 279 rotundifolia 279

Elder 301

Marsh Malva Fern 22 sylvestris 279 Malvaceae 278, 438, 440 Five-finger 233 Fleabane 388 Mandrake 194 Foxtail 62 Manna Grass 74 Grass 68 Man-of-the-Earth 324 Holy Rose 310 Many-flowered Agrimony 241 Mallow 278 Maple 272 Marigold 191 Ash-leaved 273 Bird's-eye 273 Pea 257 Pink 319 Black Sugar 273 Purslane 291 Flowering 278 Rosemary 310, 314 Mountain 272 St. John's-wort 282 Norway 273 Skullcap 333 Red 273 Rock 272 Speedwell 354 Trefoil 320 Silver 273 Marsilea 28 . Soft 273 quadrifolia 28 Striped 272 Marsileaceae 28, 436 Sugar 272 Martynia 360 Swamp 273 louisiana 360, 434 Sycamore 272 proboscidea 360 White 273 Martynia Family 360 Maple Family 272 Martyniaceae 360 Maple-leaved Goosefoot 166 Marvel of Peru 171 Viburnum 368 Mary-bud 403 Marcury 269 Massachusetts Fern 22 Marguerite 400 Masterwort 303 Golden 399 Matricaria 399 Marigold 403 Chamomilla 309, 435 Bur 396 discoidea 399 Marsh 191 inodora 399, 435 Pot 403 matricarioides 399 Water 397 Marjoram suaveolens 399, 435 Wild 340 Matrimony Vine 347 Common 347 Marram 65 Matteuccia Marrow Squash 372 Struthiopteris 25 Marrubium 333 May Apple 194, 308 vulgare 333 Bush 225 Marsh Bellflower 373 Buttercup 187 Pear 224 Tree 225 Calla 110 May-blobs 191 Cinquefoil 233 Mayflower 182, 189, 190, 215, 311, Cress 207 Crowfoot 186, 187

May-weed 398

Mazzard Cherry 245 Mead-sweet 235 Meadow Beauty 200 Buttercup 188 Campion 178 Centaury 407 Chickweed 176 Clover 248 Cranesbill 261 Crowfoot 188 Fescue 76 Foxtail 62 Garlic 110 Geranium 261 Gowan 191 Grass 72 Pink 178, 181, 356 Queen 235 Rose 242 Rue 188 Sage 337 Sorrel 159 Meadow-sweet 221, 235 English 235 Mealy Tree 368 Medeola 124 virginiana 124 Medicago 250 arabica 250, 434 denticulata 250 hispida 250, 434 lupulina 250 maculata 250 sativa 250 Medick 250 Black 250 Hop 250 Spotted 250 Toothed 250 Meeting-houses 102 Meibomia bracteosa 253 canadensis 253

canescens 252

Dillenii 253

alabella 252

grandiflora 252

Meibomia marylandica 254 Michauxii 252 nudiflora 252 obtusa 251 paniculata 253 rigida 253 sessilifolia 253 Melampyrum 356 americanum 356 lineare 356 Melanthium 118 latifolium 118, 423 racemosum 118 Melastoma Family 200 Melastomaceae 200, 438 Melic Grass 72 Melica 72 striata 72 Melilot White 249 Yellow 249 Melilotus 249 alba 249 officinalis 249 Melissa 339 officinalis 330 Melon 371 Menispermaceae 194, 437 Menispermum 194 canadense 194 Mentha 342, 441 alopecuroides 342 aquatica 342 var. crispa 343 arvensis 343 var. canadensis 3.14 canadensis 344 Cardiaca 343 citrata 343 crispa 343 gentilis 343 longifolia 342 piperita 342 rotundifolia 428 sativa 343 spicata 342

Milkwort

Purple 264

A ntha sylvestris 342 var. alopecuroides 342 viridis 342 Menyanthes 320 trifoliata 320 Mercury 269 Three-seeded 265 Vegetable 127 Mermaid-weed 205 Mespilus flabellata 227 Mesquite Grass 69 Mexican Fire Plant 165 Poppy 197 Tea 165 Mezereum Family 280 Micrampelis lobata 372 Micranthemum micranthemoides 420 Nuttallii 420 Microstylis 136 monophyllos 136, 420 ophioglossoides 136 unifolia 136 Mignonette 212 Common 212 Garden 212 Upright 212 White 212 Mignonette Family 212 Mikania 377 scandens 377 Mild Water Pepper 162 Milfoil 398 Water 185, 294, 295 Milk Purslane 266 Milkweed 322 Common 322 Green 323

Poke 323

Purple 322

Swamp 322

Whorled 323

Milkwort Family 263 Millet Broom Corn 51 Common 51, 57 European 51 German 57 Golden-Wonder 57 Italian 57 Japanese Barnvard 56 Sowna 56 True 51 Mimulus 352 alatus 352 alabratus var. Jamesii 420 guttatus 352 Jamesii 429 Langsdorffii 352, 429 luteus 352 ringens 352 Mint 342 Bergainot 342 Cat 334 Curled 340 Field 343 Horse 338, 342 Mountain 340 Spotted 343 Water 342 Whorled 343 Wild 344 Wood 338, 339 Mint Family 332 Geranium 400 Mirabilis 171 Jalapa 171, 433 Missouri Currant 210 Gooseberry 217 Mist 181 Mistletoe Dwarf 156 Mistletoe Family 156 Mitchella 364 Milkweed Family 322 repens 364 Milkwort 263, 264 Mitella 216

Mitelia diphylla 216 nuda 216 prostrata 216 Miterwort 216 False 215 Mithridate Mustard 200, 201 Moccasin Flower 129 Yellow 120 Mock Apple 154 Bishop's-weed 299 Cypress 165 Orange 154, 217 Pennyroyal 339 Strawberry 232 Mocker Nut 145 Modesty 198 Moehringia lateriflora 174 macrophylla 17.1 Mole Plant 267 Molinia 70 coerulea 70 Mollugo 173 verticillata 173 Momordica 371 Charantia 371, 435 Monarda_338 didyma 338 clinopodia 338 fistulosa 338 var. mollis 338 " rubra 338 media 338 mollis 338 punctata 428 Moneses 306 grandiflora 306 uniflora 306

Moneywort 316 Monkey Flower 352 Yellow 352 Monotropa 307 Hypopitys 307 uniflora 307 Moonseed 104

Money-plant 208

Moonseed Family 194 Moonwort 27, 208

Moose Elm 152 Moosewood 272, 289, 368

Morello Cherry 245

Morning Campion 178

Morning Glory 324

Common 324

Ivy-leaved 324 Small Red 324 Wild 325

Morning Lychnis 178 Mortification Root 278

Morus 154

alba 154 rubra 154

Moss

Club 30 Common Club 31

Ditch 47 Golden 214

Rose 182 Tree Club 31

Moss Pink 326 Mossy Stonecrop 214

Mossy-cup Oak 150

Moth Mullein 349 Mother's Heart 201

Motherwort 336 Common 336

Mountain Ash 223

Cinquefoil 233 Clematis 190

Crowfoot 186 Currant 219

Five-finger 233

Fly Honeysuckle 365 Fringe 197

Holly 270, 271 Laurel 308

Maple 272

Mint 340 Plum 244 Rice 50

Sandwort 175

Spleenwort 20 Starwort 175

Mountain				
Sumach 223 Virgin's Bower 190				
Mouse-ear 414				
Spring 177				
Mouse-ear Chickweed 176				
Cress 206				
Mouse-ears 189				
Mouth-root 191				
Moxie Plum 312				
Mud Plantain 113				
Purslane 282				
Mudwort 352				
Mugwort				
Common 401				
Muhlenbergia 61				
ambigua 61				
capillaris 62				
diffusa 62				
foliosa 61				
glomerata 61				
mexicana 61				
racemosa 61				
Schreberi 62				
sobolifera 61				
svlvatica 61				
tenuiflora 61				
Willdenowii 61				
Mulberry 154				
Paper 154				
Red 154				
Silkworm 154				
White 154				
Mulberry Blackberry 237				
Mullein 349				
Common 349				
Moth 349				
Mullein Lychnis 177				
Pink 177				
Muscari 121				
botryoides 121				
racemosum 121				
Musk Erodium 262				
Mallow 279				
Rose 279				
Storksbill 262				

Muskmelon 371

Musquash Root 200 Mustard 202 Ball 202 Bastard 203 Black 203 Chinese 203 Clown's 201 Corn 203 Curled 203 Dish 200 False 211 Garlic 205 Hare's-ear 204 Hedge 205 Hoary Hedge 205 Indian 203 Mithridate 200, 201 Pot-herb 203 Sand 204 Tansy 205 Tower 210 Treacle 200, 206 Tumble 205 Wall 204 White 202 Wild 203 Wormseed 206 Mustard Family 199 Myagrum 201, 202 Myosotis 329 arvensis 329 laxa 329 palustris 329 scorpioides 329 verna 329 virginica 329 Myrica 143 asplenifolia 143 carolinensis 143 cerifera 143 Gale 143, 420 Myricaceae 143, 436 Myriophyllum 294 ambiguum 295 var. capillaceum 295 " limosum 295 humile 205

Myriophyllum

forma capillaceum 295 " natans 295

pinnatum 295

scabratum 205

spicatum 294 tenellum 295

verticillatum

var. pectinatum 294

Myrtle

Blue 321

Bog 143

Dutch 143

Wax 143 Yellow 316

Myrtle Spurge 267

Nabalus

albus 413

altissimus 413 serpentarius 413

trifoliolatus 413

Naiad 45

Najadaceae 40, 436

Najas 45

flexilis 45

gracillima 45 indica 45

var. gracillima 45

Nannyberry 369 Narcissus 126 poeticus 126

Pseudo-Narcissus 126

Narcissus

Poet's 126 Narrow Dock 158

Narrow-leaved Spleenwort 20

Nasturtium

Armoracia 207 officinale 206

palustre 207

var. hispidum 207

sylvestre 207

Naumbergia thyrsiflora 316

Necklace Poplar 142 Necklace-weed 103

Neckweed 354

Needle Grass 60

Negundo

aceroides 273

Nelumbo 184 lutea 184

Nelumbo

American 184

Yellow 184

Nemopanthus 270 fascicularis 271

mucronatus 270

Nepeta 334

Cataria 334

Glechoma 334 hederacea 334

Neslia 202

paniculata 202, 433 Net-leaf Plantain 135

Nettle 155

Bull 345

Canada 155

Common Hemp 335

Dead 336 Dwarf 155

False 156

Great 155

Hedge 337 Hemp 335

Horse 345

Red Dead 336 " Hemp 335

Slender 155

Small 155

Spotted Dead 336 Stinging 155

Stingless 156

Tall Wild 155

Wood 155

Nettle Family 152 Nettle Tree 153

American 153

Nettle-leaved Goosefoot 167

Newcastle Thorn 225

New England Aster 383 New Jersey Tea 275

New York Fern 22

New Zealand Spinach 173

Nymphaea

Nicandra 347 physalodes 347 Nicotiana 348 alata 348 rustica 348, 432 Tabacum 348, 432 Nigella 191 damascena 421, 433 sativa 191, 433 Nigger-head 393 Nigger-heads 98 Night-flowering Catchfly 179 Nightshade 344 American 171 Black 345 Common 345 Enchanter's 294 Woody 345 Nightshade Family 3.14 Nimble Will 62 Nine-bark 220 Nipple-wort 408 Nodding Chickweed 177 Pogonia 132 Trillium 124 None-so-pretty 179 Nonesuch 78, 178, 250 Northeastern Rose 243 Northern Bedstraw 362 Gooseberry 218 Starwort 175 Stitchwort 175 Norway Maple 273 Spruce 36 Nosebleed 356 Nuphar advena 183 var. minus 183 Kalmianum 183 Nut Rush 91 Nutmeg Flower 191 Nyctaginaceae 171, 437, 439 Nymphaea 183 advena 183

var. variegata 183

Kalmiana 183

microphylla 183

odorata 183 var. minor 183 reniformis 184 rubrodisca 183 Nymphaeaceae 183, 437 Nymphoides 320 lacunosum 320 Nyssa 305 sylvatica 305 Oak 149 Bear 152 Black 152 Scrub 152 Bur 150 Champion 151 Chestnut 150, 151 Chinquapin 151 Iron 150 Jerusalem 165 Mossy-cup 150 Over-cup 150 Pin 151 Poison 260 Post 150 Quercitron 152 Red 151 Rock Chestnut 151 Scarlet 151 Scrub Chestnut 151 Swamp Spanish 151 " White 150 White 149 Yellow 150 Yellow-barked 152 Oak Fern 17 Oakesia 119 sessilifolia 119 Oak-leaved Goosefoot 166 Oat 67 Common 67 Purple 72 Oat Grass 67 Oats Water 58 Oenothera 202 biennis 292

Oenothera

var. cruciata 292

" grandistora 293

" Oakesiana 292

cruciata 292

fruticosa 293

var. hirsuta 293

" humifusa 293

" linearis 293

grandiflora 293

laciniata 293, 434 linearis 293

var. Eamesii 293

longipedicellata 294 Oakesiana 292

pratensis 294 pumila 293

sinuata 293

Oil Nut 144 Okra 280

Old Field Birch 147

Man 401 Woman 401

Old-fashioned Cherry 245 Old-maid's Pink 180

Old-witch Grass 51

Oleaceae 317, 438, 440 Olive Family 317

Onagra

biennis 292

var. grandistora 293 cruciata 292

Cruciata 292 Oakesiana 292

Onagraceae 291, 438, 440 One-flowered Cancer-root 359

Pyrola 306 Wintergreen 306

Onion 119

Wild 119 Onoclea 25

sensibilis 25 var. obtusilobata 25

Struthiopteris 25

Onopordum 407 Acanthium 407

Onosmodium 330 virginianum 330 Ophioglossaceae 27, 436

Ophioglossum 27

vulgatum 27 Opium Poppy 197

Opulaster
opulifolius 220

Opuntia 289

Opuntia 289

Rafinesquii 427 vulgaris 289

Orach 167 Beach 168

Spreading 167

Orange

Mock 154, 217

Osage 154 Orange Grass 282

Hawkweed 414

Orange-flower Tree 217 Orange-root 193

Orchard Grass 72 Orchidaceae 120, 436

Orchis 130 rotundifolia 425

spectabilis 130

Fen 136

Fringed 130 Large Purple Fringed 132

" Round-leaved 131 Long-bracted 130

Ragged 132 " Fringed 132

Rein 130

Showy 130 Small Green Wood 131

" Pale Green 130 Smaller Purple Fringed 132

Tall Leafy Green 130 " White Bog 130

White Fringed 131 Yellow Fringed 131

Orchis Family 129 Origanum 340

vulgare 340

Ornithogalum 121 umbellatum 121 Orobanchaceae 359, 438 Orobanche 350 uniflora 359 Orontium 111 aquaticum 111 Orpine 214 Garden 214 Orpine Family 214 Oryzopsis 59 asperifolia 60 canadensis 59 juncea 59 melanocarpa 60 pungens 50 racemosa 60 Osage Apple 154 Orange 154 Osier 137 Golden 143 Osmorhiza 298 brevistylis 298 Claytoni 298 longistylis 298 Osmunda 26 cinnamomea 27 var, frondosa 27 " incisa 27 Claytoniana 26 var. dubia 26 regalis 26 Osmundaceae 26, 435 Ostrich Fern 25 Ostrya 146 virginiana 146 virginica 146 Oswego Tea 338 Over-cup Oak 150 Oxalidaceae 260, 437, 440 Oxalis 260 Acetosella 260 Brittoniae 260 Bushii 261 corniculata 261 var. stricta 260, 261 cymosa 261 filipes 260

repens 261

Oxalis rufa 261 stricta 260, 261 violacea 260 Ox-eye 392 Ox-eye Daisy 400 Ox-tongue 410 Oxybaphus 172 angustifolius 172 hirsutus 172 linearis 172 nyctagineus 172 Oxycoccus macrocarpus 314 Oxycoccus 314 Oxygraphis Cymbalaria 185 Oyster-plant 410 Painted Cup 356 Scarlet 356 Painted Trillium 125 Pale Corydalis 198 Dock 158 Laurel 300 Persicaria 160 St. John's-wort 281 Touch-me-not 274 'Panax 206 quinquefolium 206 trifolium 206 Panic Grass 51 Panicled Cornel 305 Panicularia acutiflora 75 americana 74 borealis 75 canadensis 74 elongata 74 fluitans 75 nervata 74 obtusa 74 pallida 74 Panicum 51, 441 Addisonii 55 agrostoides 52 albemarlense 54 amaroides 51

Panicum

amarum

var. minor 51

Ashei 55

atlanticum 54 auburne 54

autumnale 50

barbulatum 53

Bicknellii 52

boreale 53

Boscii 56

var. molle 56

Bushii 52

capillare 51

clandestinum 55

columbianum 55 Commonsianum 55

commutatum 55

crusgalli 56

var. hispidum 56 depauperatum 52

dichotomiflorum 51

dichotomum 52

Eatoni 53

Enslini 52

filiculme 54

filiforme 49

glabrum 40

haemacarpon 54

huachucae 53

var. silvicola 53 implicatum 54

latifolium 56

var. molle 56

lanuginosum 53 Lindheimeri 53

linearifolium 52

longifolium 52

macrocarpon 56

meridionale 54 microcarpon 53

miliaceum 51

minimum 51 minus 51

nemopanthum 52 nitidum 53

oricola 54

Panicum

ovale 54

philadelphicum 51, 416

Porterianum 56

proliferum 51

psammophilum 55

pseudopubescens 54

pubescens 53

pubifolium 56

sanguinale 50

scoparioides 54

scoparium 35

Scribnerianum 55

sphaerocarpon 55

spretum 53

stipitatum 52

subvillosum 54, 417

tennesseense 54 tsugetorum 55

unciphyllum 53

var. implicatum 54

" meridionale 54

verrucosum 51

villosissimum 54, 417

virgatum 52

Walteri 56

Werneri 52, 416 xanthophysum 55

xanthospermum 54

Pansy 288

Field 288 Wild 288

Papaver 197

dubium 197

Rhoeas 197, 431 somniferum 197

Papaveraceae 196, 437, 440

Paper Birch 147, 148

Mulberry 154

Pappoose Root 195

Parietaria 156 pennsylvanica 156

Parilla

Yellow 104

Parnassia 216

caroliniana 216

Parsley 300

Peach 246

Parsley Common 300 Fool's 302 Garden 300 Hemlock 303 Sea 301 Spotted 298 Parsley Family 297 Parsnip 302 Cow 303 Golden Meadow 300 Poison 302 Water 300 Wild 302 Parsonsia petiolata 200 Parthenocissus quinquefolia 276 Partridge Berry 364 Pea 247 Paspalum 50 circulare 50 laeve 425 Muhlenbergii 50 plenipilum 50 prostratum 50 psammophilum 50 setaceum 50 Pastinaca 302 sativa 302 Pasture Thistle 406 Patience Garden 157 Patience Dock 157 Paul's Betony 354 Pea 257 Beach 257 Chick 255 Everlasting 257 Field 258 Garden 257 Hoary 251 Marsh 257 Partridge 247 Perennial 257 Sensitive 247

Peach-leaved Dock 158 Peanut Hog 259 Wild 250 Pear 222 Choke 222 Indian 224 May 224 Prickly 289 Sugar 224 Wild 222 Pearl Grass 74 Pearl-plant 330 Pearlwort 174 Annual 174 Small-flowered 174 Spurrey 174 Pearly Everlasting 389 Pea-vine Clover 248 Pedicularis 357 canadensis 357 lanceolata 357 Pellaea 18 atropurpurea 18 gracilis 19 Stelleri 19 Pellitory 156 Peltandra 110 undulata 110 virginica 110 Pencil Tree 388 Penny Cress 200 Pennyroyal 339 American 330 Bastard 332 Mock 339 Pennywort Water 297 Penthorum 214 sedoides 214 Pentstemon 351 calveosus 351 Digitalis 351 grandiflorus 352, 432 hirsutus 351 laevigatus 351 var. Digitalis 351

Pentstemon

Pentstemon 351 pubescens 351

tubiflorus 351

Pepper 344

Bird's 200

Cayenne 344

Chili 344

Common Water 162 Mild Water 162

Poor Man's 201

Red 344

Pepper Family 137

Pepperbush Sweet 306

Peppergrass 200

California 203

Garden 201

Golden 201 Roadside 200

Wild 200

Pepperidge 305

Pepperidge Bush 195

Peppermint 342

Pepper-root 208 Cut-leaved 200

Large 200

Pepperwort 200

Peramium

ophioides 134 pubescens 135

repens 134

tesselatum 134

Perennial Pea 257 Perfumed Cherry 245

Perilla 344

frutescens 344 ocymoides 344

Periploca

graeca 428 Periwinkle 321

Common 321

Persicaria

Common 161

Dock-leaved 160

Pale 160

Pink 161

Persicaria

Water 161

Willow 160

Persimmon 317 Common 317

Perularia

flava 130

Petasites 402

palmatus 402 Petasites 402

vulgaris 402, 435

Petroselinum 300

hortense 300

Petroselinum 300

Petty Spurge 267

Petunia 340

axillaris 349

violacea 349

Petunia

Purple 349

White 340

Phacelia 327

Purshii 327, 434

viscida 327, 434

Phalaris 58

arundinacea 59

var. picta 59 canariensis 58

Phaseolus 258

perennis 258

polystachyus 258 vulgaris 258, 430

var. nanus 258, 430

Pheasant's-eve Pink 181

Phegopteris 17

Dryopteris 17 hexagonoptera 17

Phegopteris 17

polypodioides 17

Philadelphus 217

coronarius 217

inodorus 217, 433 pubescens 217

Philotria

canadensis 47

Phleum 62

pratense 62

Phlox 326	Picea
acuminata 326	var. rubra 36
amplifolia 326	rubra 36
glandulosa 326	Pickerel-weed 113
-	
maculata 326	Pickerel-weed Family 113
var. candida 326	Pickle Plant 168
paniculata 326	Picris 409
pilosa 326	echioides 410, 435
subulata 326	hieracioides 409
Phlox	Pie Cherry 245
Garden 326	Pieris
Phragmites 70	mariana 310
communis 70	Pigeon Berry 171
Phragmites 70	Grape 276
vulgaris 70	Grass 57
Phryma 360	Pignut 145
Leptostachya 360	Pignut Hickory 145
Phrymaceae 360, 438	Pigweed 165, 166, 169
Physalis 346	Bushy 170
Alkekengi 346	Common 169
	-
angulata 346, 434	Rough 169
heterophylla 346	Slender 169
var. ambigua 346	Sweet 165
" nyctaginea 347	White 170
lanceolata 347	Winged 165
philadelphica 347	Pilea 156
pruinosa 346	pumila 156
pubescens 428	Pilewort 403
subglabrata 347	Pimbina 368
virginiana 346, 347	Pimpernel 241, 317
Physalodes	Common 317
physalodes 347	False 352
Physocarpus 220	Water 315
opulifolius 220	Yellow 301
Physostegia 335	Pimpinella
virginiana 335	integerrima 301
Phytolacca 171	Pin Cherry 244
decandra 171	Oak 150
Phytolaccaceae 171, 437	Pinaceae 34, 436, 439
Picea 36	Pine 34
Abies 36	Ground 31
alba 36	Pitch 34
brevifolia 36	Prince's 306
canadensis 36	Red 35
excelsa 36	Running 31
mariana 36	Scotch 35
nigra 36	White 34

No. 14.]	FLOWER
Pine Yellow 34 Pine Family 34 Pineapple-weed Pinesap 307 Pineweed 282 Pink 181 Bunch 181 Deptford 181 Fire 179 French 181 Garden 181 Grass 133, 181 Ground 326 Hedge 180 Large Marsh 319 Meadow 178, 1 Moss 326 Mullein 177 Old-maid's 180 Pheasant's-eye	319 81, 356
	181
Pinks Wax 182 Pinkweed 162 Pinnatifd Spleen Pinus 34 inops 424 resinosa 35 rigida 34 Strobus 34 sylvestris 35, 4	
virginiana 424	

Pinweed 283

Beach 283

Hairy 283

Pinxter Flower 308 Piperaceae 137, 436 Pipes 29 Pipewort 112 Pipewort Family 112 Pipsissewa 306 Pisum 257 sativum 257, 430 var. arvense 258, 430 Pitch Pine 34 Pitcher-plant 213 Pitcher-plant Family 213 Plane Tree 220 Plane Tree Family 220 Plantaginaceae 360, 438, 440 Plantago 360 aristata 361 decipiens 361 elongata 361 halophila 360 lanceolata 361 major 360 var. intermedia 360 maritima 361 patagonica var, aristata 361 pusilla 361 Rugelii 360 virginica 361 Plantain 360 Common 360 Downy Rattlesnake 135 English 361 Indian 403 Lesser Rattlesnake 134 Mud 113 Net-leaf 135 Poor Robin's 414 Rattlesnake 134 Robin's 387 Seaside 361 Water 47 Plantain Family 360 Lily 119 Plantain-leaved Everlasting 380 Platanaceae 220, 437 Platanus 220

Pogonia
Nodding 132
Rose 132
Smaller Whorled 133
Whorled 133
Poison Dogwood 268
Elder 268
Flag 127
Hemlock 298
Ivy 269
Oak 269
Parsnip 302
Sumach 268
Vine 269
Poke
Common 171
Indian 118
Poke Milkweed 323
Root 171
Pokeweed 171
Common 171
Pokeweed Family 171
Polanisia 211
graveolens 211
trachysperma 211
Polemoniaceae 326, 438, 440
Polemonium 327
coeruleum 327
Van-Bruntiae 327
Polemonium Family 326
Polycodium
stamineum 313
Polygala 263
ambigua 264
cruciata 264
Nuttallii 264
paucifolia 263
polygama 264
sanguinea 264
Senega 264 verticillata 264
var. ambigua 264
viridescens 264
Polygala
Fringed 263 Whorled 264
Polygalaceae 263, 437

Polygonaceae 157, 437, 439 Polygonatum 123

biflorum 123

commutatum 123

giganteum 123

Polygonella 164 articulata 164

Polygonum 159, 441

acre 162

var. leptostachyum 162

amphibium 161

var. Hartwrightii 161

" terrestre 161

arifolium 163 aviculare 160

var. littorale 160

" vegetum 160

Careyi 161 cilinode 163

var. breve 163

" erectum 163

Convolvulus 163 cristatum 164

cuspidatum 164, 420 dumetorum 163

forma cristatum 164

var. scandens 163

emersum 161 erectum 160

exsertum 159

Hartwrightii 161 Hydropiper 162

hydropiperoides 162

incarnatum 160 lapathifolium 160

var. incarnatum 160

" nodosum 420

littorale 160 maritimum 426

Muhlenbergii 161

orientale 162 pennsylvanicum 161

Persicaria 162

prolificum 159 punctatum 162

var. leptostachyum 162

ramosissimum 160

Polygonum

forma atlanticum 160 var. prolificum 150

var. prolificum 159 sachalinense 164

sagittatum 163

scandens 163

tenue 160

virginianum 163

Zuccarinii 164

Polymnia 390 canadensis 390

Polypodiaceae 17, 435

Polypodium 17 vulgare 17

var. cambricum 17

Polypody 17 Polypogon 65

monspeliensis 65, 431

Polystichum 21

acrostichoides 21 var. incisum 21

" Schweinitzii 21

Braunii 424 Pond Lily 183

Pondweed 40 Horned 44

Pondweed Family 40 Pontederia 113

cordata 113

var. angustifolia 113 Pontederiaceae 113, 436

Poor Annie 118

Poor Man's Pepper 201

Poor Man's Weather Glass 317

Poor Robin 178

Poor Robin's Plantain 414

Poplar 141

Balsam 142 Black 143

Downy 142 Hickory 194

Lombardy 143

Necklace 142 Silver-leaf 141

Swamp 142

Trembling 141

Tulip 194

Poplar	Potamogeton
White 141	var. connecticutensis 42
Yellow 194	bupleuroides 43, 416
Popple 141	crispus 425
Poppy 197	dimorphus 44
California 196	diversifolius 44
Common 197	epihydrus 41
Corn 197	var. cayugensis 41
Field 197	fluitans 41
Garden 197	foliosus 44
Mexican 197	Friesii 43
Opium 197	gemmiparus 44
Prickly 197	heterophyllus 42
Red 197	forma graminifolius 42
Shirley 197	" longipedunculatus 4
Smooth-fruited 197	" maximus 42
White Prickly 197	" myriophyllus 42
Poppy Family 196	" terrestris 42
Populus 141	Hillii 43
alba 141	hybridus 44
balsamifera 142	var. multi-denticulatus 44
var. candicans 142	lateralis 43, 423
candicans 142	lonchites 41
deltoides 142	var. novaeboracensis 41
dilatata 143	lucens 42
grandidentata 142	var. connecticutensis 42
heterophylla 142	mucronatus 43
monilifera 142	natans 40
nigra 143	nitens 43
var. italica 143	Nuttallii 41
tremuloides 141	var. cayugensis 41
Porcupine Grass 60	Oakesianus 41
Portulaca 182	obtusifolius 43
grandiflora 182, 431	pauciflorus 44
oleracea 182	pectinatus 44
Portulaca 182	pennsylvanicus 41
Garden 182	perfoliatus 43
Showy 182	var. lanceolatus 42
Portulacaceae 182, 437, 440	" Richardsonii 42
Post Oak 150	pinnatum 295
Pot Marigold 403	praelongus 42
Potamogeton 40, 441	pulcher 41
alpinus 41	pusillus 43
americanus 41	var. Sturrockii 43
var. novaeboracensis 41	Richardsonii 42
amplifolius 41	Robbinsii 44
angustifolius 42	rufescens 41

Potamogeton	Prickly
Spirillus 44	Saltwort 169
Vaseyi 43	Pride of the Meadow 235
zosterifolius 43	Prim 319
Potato 344	Primrose
Potato-vine	Common Evening 292
Wild 324	Evening 292
Potentilla 232, 441	Primrose Family 315
Anserina 234	Primrose-leaved Violet 287
argentea 233	Primulaceae 315, 438, 440
arguta 232	Prince's Feather 162, 169, 170
canadensis 234	Pine 306
var. simplex 234	Privet 319
fruticosa 233	Proboscis Flower 360
intermedia 233	Proserpinaca 295
monspeliensis 232	
var. norvegica 232	palustris 295
norvegica 232	Prostrate Amaranth 170
pacifica 234	Provence Rose 243
palustris 233	Prunella 335
pumila 234	vulgaris 335
recta 233	Prunus 243, 441
simplex 234	alleghaniensis 244
sulphurea 233	americana 246
tridentata 233	avium 245
Poterium	Cerasus 245
canadense 241	cuneata 245
Sanguisorba 241	domestica 246
Pot-herb Mustard 203	Gravesii 245
Poverty Grass 283	instititia 244
Powder-horn 177	Mahaleb 245
Prairie Rose 242	maritima 244
Willow 140	nigra 246
Prenanthes 413	pennsylvanica 244
alba 413	Persica 246
altissima 413	pumila 245
var. hispidula 413	serotina 243
serpentaria 413	spinosa
trifoliolata 413	var. instititia 244
Pretty Nancy 179	virginiana 244
Prickly Ash 262	Psamma 65
Cleome 212	Psedera 276
Clotbur 391	quinquefolia 276
Gooseberry 217	var. hirsuta 276
Lettuce 411	vitacea 276
Pear 289	Ptelea 263
Рорру 197	trifoliata 263

Pteridium

aquilinum 18

Pteris 18

aquilina 18 Ptilimnium 299

capillaceum 299

Puccinellia 75

angustata 75

Borreri 75

distans 75 maritima

var. minor 75

Puccoon 329 Red 196

White 196

Yellow 193

Pulse Family 246 Pumpkin 372

Art 371

Purple Amaranth 170

Angelica 303

Avens 235

Azalea 308 Bladderwort 358

Boneset 375

Chokeberry 223

Cinquefoil 233

Clematis 190

Cone-flower 393 Cress 210

Eragrostis 71

Five-finger 233

Flowering Raspberry 237

Gerardia 355 Hardback 221

Loosestrife 200

Meadow Rue 188

Milkweed 322

Milkwort 264

Oat 72 Petunia 349

Rocket 208

Stramonium 348 Trillium 124

Virgin's Bower 190

Wild Raspberry 236

Willow 141

Purple-wort 233

Purplish Cudweed 390 Purslane 182

French 182

Garden 182

· Marsh 291

Milk 266

Mud 282

Sea 175 Water 291

Purslane Family 182

Speedwell 354

Pusley 182

Pussy Willow 130

Pussy's Toes 388

Putty-root 136

Pycnanthemum 340

aristatum 428

clinopodioides 340

flexuosum 340

incanum 341

lanceolatum 340

linifolium 340

muticum 341

var. pilosum 340

pilosum 340

verticillatum 341

virginianum 340

Pygmy Weed 214

Pyrola 306

americana 307

chlorantha 306

elliptica 307

rotundifolia 307

secunda 306

Pyrola

One-flowered 306

Pvrus 222

americana 223

arbutifolia 222

var. atropurpurea 223

" melanocarpa 223 Aucuparia 223

baccata 222

communis 222

Cydonia 224

Malus 222

Pyrus melanocarpa 223 prunifolia 222 Quack Grass 79 Quaking Aspen 141 Grass 72 Quamoclit coccinea 324 Ouassia Family 263 Oueen of the Meadow 221, 235. 375 Queen of the Prairie 234 Quercitron Oak 152 Quercus 149, 441 acuminata 150 alba 149 bicolor 150 coccinea 151 var. tinctoria 152 ilicifolia 152 macrocarpa 150 minor 150 Muhlenbergii 150 nana 152 palustris 151 platanoides 150 prinoides 151 Prinus 151 rubra 151 stellata 150 velutina 151, 152 Ouicksilver Weed 188 Quillwort 32 Quillwort Family 32 Quince 224 Common 224 Japan 224 Quinsy-berry 218 Quitch Grass 79 Ouiver-leaf 141 Rabbit-foot Clover 248 Raccoon-berry 194 Radicula 206 Armoracia 207 Nasturtium-aquaticum 206 palustris 207 var. hispida 207

sylvestris 207

Radish 202 Garden 202 Wild 202 Ragged Jack 178 Lychnis 178 Orchis 132 Robin 178 Sailor 162 Ragweed 391 Golden 404 Great 391 Ragwort 403, 404 Golden 404 Raisin Wild 369 Ramsted 350 Ranunculaceae 184, 437, 440 Ranunculus 184, 441 abortivus 186 var. eucyclus 186 " micranthus 186 acris 187 var. Steveni 187 allegheniensis 186, 421 ambigens 185 aquatilis var. capillaceus 184 " trichophyllus 184 bulbosus 187 circinatus 184 Cymbalaria 185 delphinifolius 185 var. terrestris 185 divaricatus 184 fascicularis 187 Flammula 426 var. reptans 185 hispidus 187 laxicaulis 185 micranthus 186 multifidus 185 obtusiusculus 185 pennsylvanicus 187

recurvatus 186

repens 187

reptans 185

Ranunculus

sceleratus 186, 421

septentrionalis 187

Rape 204

Raphanus 202

Raphanistrum 202

sativus 202, 431

Raspberry

Black 237

Dwarf 237

European Red 236

Purple Flowering 237

" Wild 236

Red 236

Running 237

Wild Red 236 Ratibida

pinnata 393

Rattle 357 Yellow 357

Rattle Bags 180

Cohosh 192

Snakeroot 192

Rattle-box 248, 357

Rattlesnake Fern 28

Grass 74

Master 297

Plantain 134

Rattlesnake-root 413 Rattlesnake-weed 414

Rattle-top 192

Razoumofskya

pusilla 156

Red Ash 318

Baneberry 193 Benjamin 124

Blite 166

Campion 178

Cedar 38

Cherry 245

Chokeberry 223

Clover 248

Cohosh 103 Columbine 192

Currant 219

Elm 152

Goosefoot 166

Red

Gum 220

Haw 225

Indian Paint 196

Ink Plant 171

Lily 120

Lychnis 178

Maple 273

Mulberry 154

Oak 151

Pepper 344

Pine 35

Poppy 197

Puccoon 196

Raspberry 236

Robin 178, 261

Rose 243

Snakeroot 193

Sorrel 150

Spruce 36

Top 64

Trillium 124

Red-beads 193

Red-berried Elder 360

Redbud 247 Red-osier Cornel 305

Dogwood 305

Red-root 126, 196, 275

Red-seeded Dandelion 410

Red-shank 162

Red-stalked Aster 386

Reed 70

Sea Sand 65

Kein Orchis 130

Reseda 212

alba 212, 431

lutea 212

Luteola 212, 433

odorata 212, 433

Resedaceae 212, 437, 440

Rhamnaceae 275, 438, 440

Rhamnus 275

alnifolia 275

cathartica 275

Rheumatism-root 126

Rhexia 200

virginica 200

Rhinanthus 357 Crista-galli 357 minor 357 Rhode Island Bent 64 Rhododendron 307 arborescens 427 canadense 308 canescens 308 maximum 308 nudiflorum 308 Rhodora 308 viscosum 307 var. glaucum 308 " nitidum 308 Rhodora canadensis 308 Rhus 268 aromatica 269 canadensis 269 copallina 268 glabra 268 hirta 268 radicans 260 Toxicodendron 269 var. radicans 269 typhina 268 venenata 268 Vernix 268 Rib Grass 361 Ribbon Grass 50 Ribes 217, 441 americanum 218 aureum 219 Cvnosbati 217 floridum 218 gracile 217 Grossularia 218 lacustre 218 missouriense 217 nigrum 218, 434 odoratum 210 oxyacanthoides 218 prostratum 219 rotundifolium 218

rubrum 210

vulgare 219

Uva-crispa 218

Ribwort 360 Rice False 58 Indian 58 Mountain 59 Tuscarora 74 Water 58 Wild 58 Richweed 156, 344 Ricinus 265 communis 265, 430 Ring Willow 130 Ripple Grass 361 River Ash 318 Bulrush 86 Weed 213 Family 213 River-bank Grape 277 Willow 139 Roadside Peppergrass 200 Robin Runaway 334 Robinia 251 hispida 251 Pseudo-Acacia 251 viscosa 251 Robin's Plantain 387 Rock Brake 10 Cress 210 Crowfoot 186 Elm 152 Lily 192 Maple 272 Sandwort 175 Woodsia 24 Rockrose 282 Rockrose Family 282 Rocket 206 American Sea 202 Crambling 212 Dame's 206 Dyer's 212 Purple 208 Sand 204 Sea 202 Sweet 206 Wall 204 Yellow 207

Rocket Cress 207 Larkspur 192 Roman Wormwood 391, 402 Roriba Armoracia 207 hispida 207 Nasturtium 206 palustris 207 sylvestris 207 Rosa 242, 441 blanda 242 canina 242 carolina 243 cinnamomea 242 gallica 243 humilis 243 lucida 243. nitida 243 rubiginosa 242 var. micrantha 243 rugosa 242 setigera 242, 422 spinosissima 242, 422 virginiana 243 Rosaceae 220, 437, 440 Rose 242 African 197 Brier 242 Burnet 242 California 324 Canker 197, 242 Cinnamon 242 Climbing 242 Corn 197 Dog 242 Dwarf Wild 243 Early Wild 242

French 243 Hip 242 Japanese 236, 242 Kitchen 242 Large Wild 243 Low Wild 243 Marsh Holy 310 Meadow 242 Musk 279 Northeastern 243 Rose

Pasture Wild 243 Prairie 242 Provence 243 Red 243 Scotch 242 Shining 243 Swamp Wild 243 Thornless 242 Wild 243 Rose Acacia 251 Bay 308

Campion 177 Family 220 Mallow 270 Moss 182 Pink 177 Pogonia 132

Willow 141 Rose of Sharon 279

Rosemary Bog 310 Marsh 310, 314 Rosin-weed 390 Rotala 289 ramosior 280 Rough Avens 235 Bedstraw 362 Bent 64 Boneset 376 Cinquefoil 232 Comfrey 320 Crowfoot 186 Pigweed 169

Round-headed Anemone 190 Round-leaved Anemone 100

Cornel 304 Dogwood 304 Shin Leaf 307 Sundew 213 Violet 287 Rowan Tree 223 Royal Fern 26 Rubiaceae 361, 438, 441 Rubus 236, 441

allegheniensis 237

var. Gravesii 238

Rubus

americanus 237 amnicolus 238

Andrewsianus 239

arqutus

var. Randii 238

arundelanus 238 Baileyanus 240

canadensis 239 cuneifolius 238

Enslenii 240

floricomus 239 frondosus 238

hispidus 239

var. suberectus 239

idaeus 236

var. aculeatissimus 236 " strigosus 236

invisus 426

laciniatus 238 neglectus 236

nigricans 230 nigrobaccus 237

occidentalis 237 forma pallidus 237

odoratus 237 orarius 238

pergratus 238

philadelphicus 238 phoenicolasius 237

procumbens 239 Randii 238

recurvans 238 recurvicaulis 238

semisetosus 230

setosus 239

strigosus 236 subuniflorus 240

triflorus 237 vermontanus 239

villosus 237, 239, 426

var. frondosus 238 " humifusus 240

Rudbeckia 392

hirta 393 laciniata 393

speciosa 393

Rudbeckia

subtomentosa 393 triloba 392

Rue

Common Meadow 188 Early Meadow 188

Goat's 251

Meadow 188

Purple Meadow 188 Tall Meadow 188

Wax-leaved Meadow 188

Rue Anemone 189 Family 262 Spleenwort 20

Rum Cherry 243 Rumex 157, 441

Acetosa 159

Acetosella 159 altissimus 158 Britannica 158

crispus 158

elongatus 158, 420 maritimus 426 mexicanus 158 obtusifolius 159

Patientia 157 persicarioides 426 salicifolius 158 sanguineus 426

verticillatus 158 Runaway Robin 343

Running Blackberry 230 Brier 230 Buttercup 234 Pine 31 Raspberry 237

Swamp Blackberry 239 Ruppia 44

maritima 44 Rush 114 Beak 90

Bog 114, 115 Candle 115

Chair-maker's 86

Club 85 Common 115

Hairy Wood 117

T	C
Rush	Sage
Horned 90	Wood 332
Knotted 116	Sage Willow 140
Nut 91	Sagina 174
Scouring 29	apetala 174
Slender 114	decumbens 174
Soft 115	procumbens 174
Spike 83	Sagittaria 45
Three-square 86	arifolia 46
Toad 114	calycina 47
Twig 91	var. spongiosa 47
	cristata 46
Wood 117	•
Yard 114	cuneata 46
Rush Family 114	Eatoni 46
Grass 63	Engelmanniana 46
Russian Clover 252	gracilis 46
Thistle 169	graminea 46
Rusty Woodsia 24	hastata 46
Rutabaga 203	heterophylla 46
Rutaceae 262, 437, 440	var. elliptica 46
Rye 79	" rigida 46
Nodding Wild 80	latifolia 46
Slender Wild 81	forma diversifolia 46
Wild 8o	" gracilis 46
Rynchospora 90	" hastata 46
alba 90	" obtusa 46
var. macra 418	longirostra 45
·	natans
capillacea 425	var. gracillima 47
corniculata	" lorata 46
var. macrostachya 90	
fusca 90	obtusa 46
glomerata 91	pusilla 46
macrostachya 90	rigida 46
Sabatia 319	subulata 46
campestris 319, 434	var. gracillima 47
chloroides 319	variabilis 46
dodecandra 319	var. diversifolia 46
stellaris 319	" gracilis 46
Sacaline 164	Sailor's Tobacco 401
Sacred Bean 184	St. John's-wort 280
Saddle Tree 194	Common 280
Sage 337	Dwarf 281
	Great 280
Garden 337	Marsh 282
Lyre-leaved 337	Pale 281
Meadow 337	Shrubby 281
Scarlet 338	
Wild 376	St. John's-wort Family 280

St. Lucie Cherry 245
Salad Burnet 241
Salicaceae 137, 436, 439
Salicornia 168
ambigua 168
Bigelovii 168
europaea 168
herbacea 168
mucronata 168
Salix 137, 441
acutidens 139
alba
var. vitellina 138
babylonica 139
Bebbiana 140
candida 140
var. denudata 141
cordata 139
var. angustata 139
" myricoides 139
discolor 139
var. eriocephala 140, 420
" prinoides 140, 420
eriocephala 140
fluviatilis 139
fragilis 138 humilis 140
incana 141, 433 longifolia 139
lucida 138
myrtilloides 139
nigra 137
var. falcata 137
pedicellaris 139
pentandra 138
petiolaris 426
prinoides, 140
purpurea 141
rostrata 140
sericea 140
serissima 138
subsericea 420
tristis 140
Salomonia
biflora 123
commutata: 123
Calaifa .va

Salsify 410

Salsola 169
Kali 169
var. caroliniana 421
" tenuifolia 160
salsa
var. americana 169
Tragus 169
Salt Marsh Grass 68
Meadow Grass 68
Reed Grass 68
Saltwort 169
Common 160
Prickly 169
Salvia 337
lyrata 337
officinalis 337
pratensis 337, 432
splendens 338, 432
Sambucus 369
canadensis 369
pubens 369
racemosa 369
Samolus 315
floribundus 315, 427
Valerandi 427
var. americanus 315
Samphire 168
Woody 168
Sand Bar Willow 139
Blackberry 238
Brier 345
Bur 346
Cherry 245
Grass 70
Jointweed 164
Mustard 204
Rocket 204
Spurrey 173
Sandalwood Family 156
Sandbur 58
Sand-weed 173
Sandwort 173, 174
Blunt-leaved 174
Common 175
Large-leaved 174
Mountain 175
Rock 175

Sandwort	Savastana
Sea Beach 175	Nashii 59
Seaside 173	odorata 59
Showy 174	Savin 38
Thyme-leaved 175	Savory 339
Sanguinaria 196	Saw Brier 125
canadensis 196	Saxifraga 215
Sanguisorba 241	pennsylvanica 215
canadensis 241	virginiensis 215
•	Saxifragaceae 215, 437, 440
minor 241, 434	
Sanguisorba 241	Saxifrage 215
Sanicle 297	Early 215 Golden 216
American 215	
Sanicle-leaved Crowfoot 186	Spring 215
Sanicula 297	Swamp 215
canadensis 297	Saxifrage Family 215
gregaria 297	Saxifrax 195
marilandica 297	Scabiosa
var. canadensis 297	arvensis 371
trifoliata 297	Scabious
Santalaceae 156, 436	Field 371
Sapindaceae 274, 438, 440	Sweet 387
Saponaria 180	Scallop Squash 372
inflata 430	Scarlet Oak 151
officinalis 180	Painted Cup 356
Vaccaria 180	Sage 338
Sarothra	Scheuchzeria 45
gentianoides 282	palustris 45
Sarracenia 213	Schizaeaceae 26, 435
purpurea 213	Schwalbea 357
Sarraceniaceae 213, 437	americana 357
Sarsaparilla	Scirpus 85, 441
American 296	alpinus 86
Bristly 296	americanus 86
	atrocinctus 89
False 296	var. brachypodus 89
Wild 296	
Yellow 194	atrovirens 87, 88, 418
Sassafras 195	campestris 87
officinale 195	var. novae-angliae 87
Sassafras 195	" paludosus 87
variifolium 195	cyperinus 88
Satin-flower 208	var. Andrewsii 88
Satureja 339	" condensatus 88
hortensis 428	" Eriophorum 88
vulgaris 339	" pelius 88, 418
Saururus 137	debilis 86
cernuus 137	Eriophorum 88

Rose 242

0.1	
Scirpus	Scotch
fluviatilis 87	Thistle 407
georgianus 88	Scott's Spleenwort 19
Hallii 425	Scouring Rush 29
hudsonianus 86	Scratch Grass 58, 163
lacustris 86	Scrofula Plant 351
lineatus 88	Scrophularia 351
maritimus 87	leporella 351
nanus 85	marilandica 351
novae-angliae 87	nodosa
Olneyi 86	var. marilandica 351
var. contortus 86	Scrophulariaceae 349, 438, 440
paludosus 87	Scurvy Grass 208
pedicellatus 88	Scutch Grass 69, 79
var. pullus 89	Scutellaria 333
planifolius 85	galericulata 333
polyphyllus 88	integrifolia 333
var. macrostachys 88	lateriflora 333
pungens 86	parvula 333
robustus 87	var. ambigua 333
rubrotinctus 87, 418	saxatilis 428
Smithii 86	Sea Beach Sandwort 175
subterminalis 86	Blite 168
supinus	
var. Hallii 425	Chickweed 175
sylvaticus 87	Cole 202
var. Bissellii 87	Lavender 314
" digynus 87	Parsley 301 Pink 319
Torreyi 86	
validus 86	Purslane 175
Scleranthus 172	Rocket 202
annuus 172	Seaside Crowfoot 185
Scleria 91	Gerardia 356
pauciflora 91	Goosefoot 169
var. caroliniana 91	Jointweed 164
reticularis	Plantain 361
var. pubescens 430	Sandwort 173
triglomerata 91	Spurge 265
verticillata 91	Spurrey 173
Scoke	Secale 79
Common 171	cereale 79, 431
Scorpion Grass 329	Sedge 91
Scotch Broom 248	Sedge Family 81
Fir 35	Sedum 214
Lovage 301	acre 214
Pine 35	purpureum 214
Pink 181	Telephium 214

ternatum 214

Sedum triphyllum 214 Seedbox 291 Selaginella 32 apus 32 rupestris 32 Selaginellaceae 32, 436 Self-heal 335 Common 335 Sempervivum 215 tectorum 215 Seneca Grass 59 Snakeroot 264 Senecio 403 aureus 404 var. Balsamitae 404 " obovatus 404 Balsamitae var. praelongus 404 obovatus 404 viscosus 404 vulgaris 403 Senega Snakeroot 264 Senna 247 American 247 Wild 247 Sensitive Fern 25 Pea 247 Plant Wild 247 Sericocarpus 388 asteroides 388 convzoides 388 linifolius 388 solidagineus 388 Service Berry 224 Tree 223 Sesame Grass 48 Setaria 57 glauca 57 imberbis 430 var. perennis 57 italica 57 var. germanica 57 verticillata 57

viridis 57

Shad Bush 224

Shad-flower 100 Shade Elm 152 Shag-bark Hickory 145 Shamrock Water 320 Shave Grass 30 Shear Grass 70 Sheep Laurel 309 Sorrel 159 Sheepberry 369 Sheep's Fescue 76 Sheep's-bit 373 Shell-bark Hickory 145 Shepherd's Purse 201 Sprouts 201 Shield Fern 22 Shin Leaf 306, 307 Round-leaved 307 Shining Rose 243 Sumach 268 Willow 138 Shirley Poppy 197 Shore Knotweed 160 Showy Lady's Slipper 129 Orchis 130 Portulaca 182 Sandwort 174 Shrubby Althaea 279 Bitter-sweet 271 Cinquefoil 233 St. John's-wort 281 Trefoil 263 Sibbaldiopsis tridentata 233 Siberian Aster 386 Crab 222 Sickle Grass 163 Sickle-pod 211 Sicvos 372 angulatus 372 Sida 278 spinosa 278, 434 Side-saddle Flower 213 Sideritis 334 montana 334, 434 Sicalingia purpurea 70

Sieglingia

seslerioides 70

Silene 170

antirrhina 179

var. divaricata 179

Armeria 179

. caroliniana 179

Cucubalus 180

dichotoma 179

inflata 430

latifolia 180

nivea 426

noctiflora 179, 421

pennsylvanica 179

stellata 180 vulgaris 180

Silk Grass 64

Silkweed 322

Common 322

Silkworm Mulberry 154

Silky Cornel 305

Willow 140

Silphium 390

perfoliatum 390

Silver Maple 273

Weed 234, 274 Silver-leaf Poplar 141

Silvery Cinquefoil 233

Spleenwort 21

Simarubaceae 263, 437, 440

Sinapis

alba 202

Sisymbrium 205

Alliaria 205

altissimum 205

canescens 205, 433 Loeselii 205

officinale 205

var. leiocarpum 205

Sophia 205, 433

Thalianum 206

Sisyrinchium 128

albidum 128, 431

anceps 128

angustifolium 128

atlanticum 129

gramineum 128

Sisyrinchium

graminoides 128

intermedium 128

mucronatum 128

Sium 300

Carsonii 300

cicutaefolium 300

lineare 300

Skevish 387

Skullcap 333

Mad-dog 333

Marsh 333

Skunk Cabbage 110

Current 219

Grape 276

Spruce 36

Sleepy Catchfly 179

Slender Fescue 76

Knotweed 160

Knotweed 10

Nettle 155

Pigweed 169

Rush 114

Vetch 256

Slippery Elm 152

Sloe 244, 369 Slough Grass 68

Small Agrimony 241

Alyssum 200

Cranberry 314

Green Wood Orchis 131

Nettle 155

Pale Green Orchis 130

Red Morning Glory 324

Snapdragon 351

Solomon's Seal 123

Smaller Bladderwort 358

Small-flowered Cranesbill 262

Crowfoot 186

Geranium 262

Pearlwort 174

Sweetbrier 243

Small-fruited Hickory 145

Smartweed 162

Common 162

Water 162

Smilacina 122

racemosa 122

Smilacina Soapwort Field 180 stellata 122 Soft Agrimony 241 trifolia 123, 419 Chess 77 Smilax 125 Maple 273 glauca 125 Rush 115 herbacea 125 Solanaceae 344, 438, 440 hispida 125 Solanum 344 rotundifolia 125 carolinense 345 Smooth Alder 148 Dulcamara 345 Crowfoot 186 nigrum 345 Gooseberry 218 rostratum 346 Solomon's Seal 123 tuberosum 344, 432 Sumach 268 Soldier's Cap 198 Winterberry 270 Soldiers on the Green 356 Yellow Violet 288 Solidago 378, 441 Smooth-fruited Poppy 197 altissima 380 Snake Grass 71 arguta 379 Mouth 132 Snake-berry 193 aspera 380 asperula 380 Snakehead 352 bicolor 378 Snake-leaf 121 var. concolor 378 Snakeroot 157 caesia 378 Black 192, 297 var. axillaris 378 Button 297, 377 " paniculata 378 Fine 157 canadensis 380 Heart 157 var. glabrata 380 Rattle 192 " scabra 380 Red 193 " scabriuscula 380 Seneca 264 Elliottii 380 Senega 264 flexicaulis 378 Virginia 157 graminifolia White 193, 376, 377 var. Nuttallii 381 Snapdragon 351 hispida 378 Small 351 Snapdragon Catchfly 179 iuncea 379 var. ramosa 379 Snapping Alder 219 lanceolata 381 Snap-weed 274 Snap-wood 196 latifolia 378 neglecta 379 Sneezeweed 398 var. linoides 379 Snowball 367, 368 nemoralis 380 Snowberry 366, 367 odóra 379 Creeping 312 patula 379 Snowdrift 199 Snowdrop 190 puberula 378 rigida 381 Snow-on-the-Mountain 266 rugosa 380 Soapherry Family 274 var. sphagnophila 380 Soapwort 180

	*
Solidago	Sorrel
sempervirens 379	Meadow 159
serotina 381	Red 159
var. gigantea 381	Sheep 159
speciosa 379	Slender Yellow Wood 260
squarrosa 378	Tall Yellow Wood 261
stricta 429	Violet Wood 260
tenuifolia 381	White Wood 260
uliginosa 379	Wood 260
ulmifolia 380	Yellow Wood 260
uniligulata 379	Sorrel Dock 159
Solomon's Seal 123	Sour Cherry 245
False 122	Grass 159
Giant 123	Gum 305
Great 123	Sour-top Blueberry 313
Hairy 123	Southernwood 401
Small 123	Sow Bindweed 163
Smooth 123	Thistle 411
Star-flowered 122	Sowbane 166, 167
Three-leaved 122	Sowna Millet 56
Two-leaved 123	Spanish Bayonet 121
Sonchus 411	Buttons 407
arvensis 411	Needles 397
asper 411	Sparganiaceae 39, 436
oleraceus 411	Sparganium 39
Sophia	americanum 39
pinnata 205	var. androcladum 40
Sophia 205	androcladum 40
Sorbaria 221	var. fluctuans 40
sorbifolia 221	angustifolium 40, 422
Sorbus	diversifolium 40
americana 223	var. acaule 40
Aucuparia 223	eurycarpum 39, 416
Sorghastrum 49	fluctuans 40, 423
avenaceum 49	lucidum 40
nutans 49	minimum 40
Sorghum 49	simplex 40
halepense 49, 416, 433	var. androcladum 40
Sorrel 157	" angustifolium 40
Cock 159	" fluitans 40
	" Nuttallii 39
Common 159 " Wood 260	11 111111111 39
	Spartina 68
Cow 159	cynosuroides 68
Field 159	glabra 68
Garden 159	var. alterniflora 68
House 159	" pilosa 68
Lady's 261	juncea 68

Spider-flower 212 Spartina Michauxiana 68 Spiderwort 113 Spiderwort Family 113 patens Spignet 296 var. caespitosa 69, 417 Spike Grass 72 var. juncea 68 polystachya 68 Rush 83 Spiked Loosestrife 290 stricta var. alterniflora 68 Spikenard 206 " glabra 68 American 296 False 122 Spathyema Wild 122 foetida 110 Spinach Spatter-dock 183 New Zealand 173 Spear Grass 72, 73 Spearmint 342 Strawberry 166 Wild 166 Spearwort 185 Spindle Tree 271 Crawling 185 European 271 Creeping 185 Spiny Amaranth 170 Water Plantain 185 Clotbur 391 Speckled Alder 148 Spiraea 221 Specularia 372 chamaedrifolia 221 perfoliata 372 var. ulmifolia 221 Speedwell 353, 354 Filipendula 235 Common 354 iaponica 221 Corn 354 latifolia 221 Creeping 354 lobata 234 Ivy-leaved 355 Marsh 354 prunifolia 221 salicifolia 221 Purslane 354 sorbifolia 221 Swamp 354 tomentosa 221 Thyme-leaved 354 Ulmaria 235 Spergula 173 arvensis 173 Spiraea Ash-leaved 221 sativa 174 Spiranthes 133 Spergularia 173 Beckii 133 canadensis 421 cernua 134 marina 173 var. ochroleuca 134, 420 rubra 173 Sphenopholis 66 gracilis 133 nitida 66 latifolia 134 lucida 134 obtusata 66 praecox 133 var. pubescens 66 Romanzoffiana 134 pallens 66 simplex 133 var. major 66 vernalis 133 palustris 66 Spice Bush 196 Spires Grass 59 Spirodela 111 Spice-wood 196 polyrhiza III Spider Lily 113

Spleenwort 19 Ebony 20 Maidenhair 20 Mountain 20 Narrow-leaved 20 Pinnatifid 19 Rue 20 Scott's 10 Silvery 21 Spoon-wood 309 Sporobolus 63 asper 63 clandestinus 63 cryptandrus 63 heterolepis 63 longifolius 63 neglectus 63 serotinus 63 uniflorus 63 vaginiflorus 63 Spotted Alder 219 Cowbane 200 Loosestrife 315 Medick 250 Mint 343 Parsley 208 Touch-me-not 274 Wintergreen 306 Spotted-leaf Buttercup 187

Spotted-leaf Buttercup of Crowfoot 187 Spreading Dogbane 321 Globeflower 191 Orach 167 Spring Anemone 190

Beauty 182 Cress 209, 210 Dock 157 Mouse-ear 177 Saxifrage 215 Vetch 255 Spruce 36 Black 36

Bog 36 Cat 36 Norway 36 Red 36 Spruce Skunk 36 White 36 Spurge 265, 267 Caper 267

Cypress 267 Flowering 266 Ipecac 266 Leafy 266 Myrtle 267

Seaside 265 Spurge Family 265

Spurrey 173
Common 173
Corn 173
Field 174
Salt Marsh Sand 173

Petty 267

Sand 173 Seaside 173

Spurrey Pearlwort 174 Squash 372 Canada 372 China 372 Hubbard 372 Marrow 372

Scallop 372 Summer Crookneck 372 Winter Crookneck 372

Squaw Huckleberry 313 Vine 364

Squaw-root 192, 195, 359 Squaw-weed 403, 404 Swamp 404 Squirrel Brier 125

Corn 198 Squirrel-ear 134 Squirrel-tail Grass 80

stachys 337
aspera 337
cordata 428
hyssopifolia 337
palustris 337
var. cordata 428
var. homotricha 337
tenuifolia

var. aspera 337, 428

Stinging Nettle 155 Staff Tree 271 Staff Tree Family 271 Stag-bush 369 Stagger-bush 310 Staggerwort 398 Staghorn Sumach 268 Staphylea 272 trifolia 272 Staphyleaceae 272, 437 Star Cucumber 372 Flower 316 Grass 125, 127 Thistle 407 Star of Bethlehem 121 Star-flowered Solomon's Seal 122 Star-leaved Gum 220 Starry Campion 180 Starwort 175, 382 Greater 176 Lesser 176 Long-leaved 175 Mountain 175 Northern 175 Water 267 Statice Limonium var. caroliniana 314 Steeple Bush 221 Steironema 316 ciliatum 316 lanceolatum 316 Stellaria 175 borealis 175 graminea 176 var. lanceolata 176 Holostea 176 longifolia 175 media 176 pubera 426 Stemless Lady's Slipper 129 Stenophragma Thaliana 206

Stenophyllus 85

capillaris 85 Stickseed 240, 328

Stick-tight 396

Stiff Water Crowfoot 184

Stingless Nettle 156 Stink Grass 71 Stipa 60 avenacea 60 Stitchwort Greater 176 Lesser 176 Long-leaved 175 Northern 175 Stone Clover 248 Stonecrop 214 Biting 214 Ditch 214 Mossy 214 Virginia 214 Wild 214 Stone-root 344 Stone-seed 329 Storksbill 262 Musk 262 Stramonium 347 Purple 348 Strawberry 231 American Wood 232 Barren 232 Bog 233 Dry 232 European Wood 231 Field 231 Indian 232 Mock 232 Wild 231, 232 Yellow 232, 234 Yellow-flowered 232 Strawberry Blite 166 Spinach 166 Tomato 346 Streptopus 123 amplexifolius 123 roseus 123 Striped Maple 272 Strophostyles 258 angulosa 258 helvola 258 Stubbleberry 345 Suaeda 168

Suaeda

linearis 169 maritima 168

Succory 408

Sugar Maple 272

Pear 224

Sugarberry 153

Sumach 268

Black 268

Dwarf 268

Mountain 223

Poison 268

Shining 268

Smooth 268

Staghorn 268

Sweet-scented 269

Summer Anemone 100

Grape 276, 277

Lilac 206

Snowflake 126

Sundew 213

Long-leaved 213

Round-leaved 213 Sundew Family 213

Sundial 248

Sunflower 394

Common 394

Tickseed 307

Wild 305

Sun-plant 182

Swallow-wort 196

Black 323 Swamp Ash 318

Beggar-ticks 396

Bilberry 313

Birch 148

Blueberry 313

Buttercup 187

Crowfoot 187

Dock 158

Dogwood 305 Elm 152

Globeflower 191

Gooseberry 218

Hickory 145 Laurel 300

Loosestrife 280

Swamp

Lousewort 357

Maple 273

Milkweed 322

Poplar 142

Saxifrage 215

Spanish Oak 151 Speedwell 354

Squaw-weed 404

Thistle 406

White Oak 150

Sweatweed 278

Swedish Clover 249

Sweet Allison 199

Alyssum 199

Birch 147

Cherry 245 Chervil 298

Cicely 298 Clover 240

Coltsfoot 157, 402

Currant 210

Elm 152

Everlasting 390

Fern 144 Flag III

Gale 143

" Family 143

Golden-rod 379

Gum 220

" Tree 220

Pepperbush 306

Pigweed 165

Rocket 206

Scabious 387

Susan 179

Vernal Grass 59

Viburnum 369

Violet 287

White Violet 287

William 181, 326

Sweetbrier 242

Small-flowered 243

Sweet-scented Bedstraw 363

Sumach 269

Switch Grass 52

Sword Grass 59, 98

Sycamore 220 American 220 False 220 Sycamore Maple 272 Symphoricarpos 366 orbiculatus 366 racemosus 367 var. laevigatus 367 Symphoricarpos 366 vulgaris 366 Symphytum 328 asperrimum 329 officinale 328 tuberosum 328 Symplocarpus 110 foetidus 110 Syndesmon thalictroides 189 Synosma suaveolens 403 Syntherisma filiformis 49 fimbriata 50 linearis 49 sanguinalis 50 Syringa 318 vulgaris 318 Syringa 217 Large-flowered 217 Tacamahac 142 Taenidia 301 integerrima 301 Tag Alder 148 Talinum teretifolium 426 Tall Anemone 190 Blueberry 313

Buttercup 188 Cinquefoil 232 Cone-flower 303 Crowfoot 188 Dock 158 Leafy Green Orchis 130 Meadow Rue 188

Red Top 70

Thistle 406 White Bog Orchis 130

Tall Wild Nettle 155 Taller Fescue 76 Tamarack 35 Tanacetum 400 vulgare 400 var. crispum 400

Tansy 400 Common 400 Wild 234 Tansy Mustard 205 Tape Grass 47 Taraxacum 410 erythrospermum 410 officinale 410 var. palustre 410

Taraxacum 410 Tare 255 Common 255 Hairy 256

Tares 173 Tarragon 401 Tartarian Honeysuckle 365 Tar-weed 377 Tassel Tree 278 Tawny Elm 152 Taxaceae 34, 436

Taxus 34 canadensis 34 minor 34 Tea Labrador 307 Mexican 165 New Jersey 275 Oswego 338 Teaberry 218, 311 White 312 Tear-thumb Arrow-leaved 163 Halberd-leaved 163 Teasel 370 Wild 370 Teasel Family 370

Tecoma 359 radicans 350 Tephrosia 251 virginiana 251

Scotch 407

Spiny-leaved Sow 411

Sow 411

Star 407

Terrell Grass 80 Thistle Tetragonia 173 Swamp 406 expansa 173, 433 Tall 406 Tetter-wort 196 Yellow 197, 405 Teucrium 332 Thlaspi 200 canadense 332 arvense 200 var. littorale 332 Thorn littorale 332 Cockspur 225 Thale Cress 206 Hedge 225 Thalesia Newcastle 225 uniflora 359 White 225 Thorn Apple 347 Thalictrum 188 Thornless Rose 242 clavatum 426 dioicum 188 Thorny Amaranth 170 polygamum 188 Thoroughwort 375, 376 purpurascens 188 Thread-and-Needle 121 revolutum 188 Thread-foot 213 Thaspium Three-leaved Solomon's Seal 123 aureum 427 Three-seeded Mercury 265 barbinode 427 Three-square Rush 86 trifoliatum 427 Three-toothed Cinquefoil 233 Thatch Grass 68 Five-finger 233 Thelypodium Throw-wort 336 pinnatifidum 208 Thuja 37 Thicket Bindweed 163 occidentalis 37 Thyme 341 Buckwheat 163 Thimbleberry 237 Creeping 341 Thimbleweed 190, 393 Wild 341 Thin Grass 64 Thymelaeaceae 289, 438 Thistle Thyme-leaved Sandwort 175 Bull 405, 406 Speedwell 354 Canada 406 Thymus 341 Common 405 Serpyllum 341 Sow 411 Tiarella 215 Cotton 407 cordifolia 215 Tick Trefoil 252 Curled 405 Field 405 Tickle Grass 51 " Sow 411 Tickseed 305 Flowering 197 Tickseed Sunflower 397 Pasture 406 Tiger Lily 120 Plumed 405 Tilia 277 Plumeless 405 americana 277 Russian 169

Michauxii 277
pubescens 277
vulgaris 277
Tiliaceae 277, 438, 440
Tillaea 214

Tillaea

aquatica 214

simplex 214

Timothy 62

Tinker's Weed 367

Tissa

canadensis 173 marina 173

rubra 173

Toad Grass 114

Rush 114

Toad-flax 350 Bastard 156

Blue 350

Tobacco 348

Indian 374, 389

Ladies' 388

Sailor's 401 Wild 348

Tomato 344

Strawberry 346

Tongue Grass 176, 200

Toothache Tree 262

Toothed Medick 250

Tooth-root 208

Toothwort 208 Cut-leaved 200

Large 209

Toper's-plant 241

Touch-me-not

Pale 274

Spotted 274

Touch-me-not Family 274

Tower Cress 210 Mustard 210

Toxylon

pomiferum 154

Trachynotia juncea 68

Tradescantia 113

virginiana 113

Tragopogon 410

porrifolius 410

pratensis 410 Trailing Arbutus 311

Traveler's Joy 100

Treacle Mustard 200, 206

Tree of Heaven 263

Trefoil 189, 248

Bird's-foot 250

Marsh 320

Showy Tick 253

Shrubby 263

Tick 252

Trembling Poplar 141

Triadenum

virginicum 282

Trichostema 332

dichotomum 332 lineare 332, 423

Tricuspis

seslerioides 70

Tridens 70

flavus 70

Trientalis 316

Trifolium 248

agrarium 240

arvense 248

aureum 249 hybridum 249

incarnatum 248, 431

medium 426 pratense 248

procumbens 249

repens 249

Triglochin 45

maritima 45 palustris 425

Trillium 124

cernuum 124

erectum 124
erythrocarpum 125

grandiflorum 124

undulatum 125

Trillium

Large-flowered White 124

Nodding 124 Painted 125

Purple 124

Red 124 White 124

Trinity 113

	dia

cuprea 70

purpurea 70

Triosteum 367

angustifolium 367 aurantiacum 367

perfoliatum 367

Triphora

trianthophora 132

Triplasis 70 purpurea 70

Triple-awned Grass 60

Tripsacum 48

dactyloides 48 Trisetum 66

palustre 66

pennsylvanicum 66

spicatum 66, 417

var. molle 66

Triticum 79

sativum 79, 431

vulgare 79

Trollius 191 laxus 191

Trout Lily 121

Trumpet Creeper 359 Honeysuckle 366

Weed 375

Trumpet-flower 359

Tsuga 37

canadensis 37

Tufted Buttercup 187

Crowfoot 187 Loosestrife 316

Vetch 256 Tulip Poplar 194

Tree 194

Tumble Mustard 205

Weed 51, 170 Tupelo 305

Turkey Corn 198

Turkey-foot 48

Turkey-pod 211 Turk's-cap Lily 120

Turmeric

Indian 193

Turmeric-root 193

Turnip 202, 204

Indian 109

Wild 109 Turtlehead 352

Tuscarora Rice 74

Tussilago 402 Farfara 402

Twayblade 136

Large 136 Twig Rush 91

Twin-flower 367 Twisted-stalk 123

Twitch Grass 57 Two-leaved Solomon's Seal 123

Typha 39

angustifolia 39 latifolia 39

Typhaceae 39, 436 Ulmaria

palustris 234

rubra 234 Ulmaria 235

Ulmus 152 alata 153

> americana 152 campestris 152 fulva 152

Umbelliferae 297, 438, 440

Umbrellawort 172 Unicorn-plant 360

Unicorn-root 118 False 125

True 118 Unifolium

canadense 123 Upland Boneset 376

Upright Goosefoot 167

Mignonette 212 Urtica 155

dioica 155 gracilis 155

Lyallii 155

Lyallii 155 urens 155

Urticaceae 152, 436, 439

Urticastrum

divaricatum 155

Utricularia 357 biflora 358 clandestina 357 cornuta 358 fibrosa 429 gibba 358 inflata 357 intermedia 358 minor 358 purpurea 358 resupinata 358 striata 429 vulgaris 358 var. americana 358 Uva-ursi 311 Uvularia 118 perfoliata 118 sessilifolia 119 Vaccaria Vaccaria 180 Vaccinium 313 arboreum 427 atrococcum 314 canadense 313 corymbosum 313 var. amoenum 313 " atrococcum 314 " pallidum 427 macrocarpon 314 nigrum 313 Oxycoccos 314 var. intermedium 314 pennsylvanicum 313 var. angustifolium 313 " nigrum 313 stamineum 313 vacillans 313 Vagnera racemosa 122 stellata 122 trifolia 123 Valerian 370 American 129 Garden 370 Greek 327 Wild 129 Valerian Family 370

Valeriana 370 edulis 429 officinalis 370 Valerianaceae 370, 438, 441 Valerianella 370 Locusta 370, 435 olitoria 370 radiata 370 Vallisneria 47 spiralis 47 Vanilla Grass 59 Vegetable Mercury 127 Velvet Dock 349 Grass 66 Leaf 278 Velvet-leaf Blueberry 313 Venus' Looking-glass 372, 373 Veratrum 118 viride 118 Verbascum 349 Blattaria 349 var. albiflorum 349 phlomoides 349, 434 Pseudo-Lychnitis 350, 434 Thapsus 349 Verbena 330, 331 angustifolia 331 Aubletia 331 bracteosa 331 canadensis 331, 434 Drummondi 331 hastata 331 var. pinnatifida 331 officinalis 330, 432 stricta 331 urticaefolia 331 Verbenaceae 330, 438, 440 Vernonia 375 noveboracensis 375 Veronica 353, 441 agrestis 429 americana 353, 429 Anagallis 429 arvensis 354 Beccabunga 429 Buxbaumii 355

byzantina 355

Sweet 369

Veronica	Vicia 255
Chamaedrys 354	angusti
hederaefolia 355, 434	var. s
longifolia 353	Cracca
officinalis 354	Faba 2
peregrina 354	hirsuta
scutellata 354	sativa 2
serpyllifolia 354	tetraspe
Teucrium 354	villosa
Tournefortii 355	Vinca 321
virginica 353	minor (
Vervain 330	Vincetoxi
Blue 331	nigrum
European 330	Vine Fan
Hoary 331	Viola 284
White 331	affinis 2
Vervain Family 330	атоєна
Vetch 255	arvensi
Blue 256	atlantic
Common 255	blanda
Cow 256	var.
Crown 252	Britton
Hairy 256	canader
Slender 256	ϵ anina
Spring 255	var.
Tufted 256	"
Winter 256	consper
Vetchling 257	cuculla
Yellow 257	fimbria
Viburnum 368	incogni
acerifolium 368	labrado
alnifolium 368	lanceol
americanum 368	latiuscu
cassinoides 369	Muhler
dentatum 368	nephro
lantanoides 368	obliqua
Lentago 369	odorata
var. sphaerocarpum 369	ovata 2
nudum 369	pallens
Opulus 368	palmat
var. americanum 368	var.
prunifolium 369	44
var. globosum 369	"
pubescens 368	papilio
Viburnum	pectina
Maple-leaved 368	nedata

folia 255 segetalis 255 256 56, 430 256, 434 255 erma 256 256 321 icum 323 nily 276 , 441 285 287 s 288 a 286 287 palustriformis 287 iana 286 nsis 288 427 Muhlenbergii 288 sylvestris 427 rsa 288, 427 ta 284 tula 286 ita 287 rica 288 ata 287 ıla 285 ibergii 288 phylla 285 285 a 287 286 287 a 285 cucullata 284, 285 dilatata 285 sororia 286 nacea 285 ta 286 284 var. bicolor 284

Viola

var. lineariloba 284 primulifolia 287

pubescens 288

var. scabriuscula 288

rostrata 288

rotundifolia 287

sagittata 286

scabriuscula 288

septemloba 286

septentrionalis 286

sororia 286

striata 427 subsagittata 286

tricolor 288

triloba 285

vagula 285

venustula 285 Violaceae 284, 438, 440

Violet 284

Bird-foot 284

Canada 288

Damask 206

Dame's 206 Dog 288

Dog's-tooth 121

Downy Yellow 288 Early Yellow 287

English 287

Lance-leaved 287

Long-spurred 288

Marsh Blue 284

Primrose-leaved 287

Round-leaved 287 Smooth Yellow 288

Sweet 287

" White 287 Water 315

Woolly Blue 286

Violet Bloom 345 Violet Family 284

Violet Family 284

Viper's Bugloss 330

Virginia Creeper 276 Snakeroot 157

Stonecrop 214

Virgin's Bower 190

Mountain 190

Virgin's Bower

Purple 190

Vitaceae 276, 438

Vitis 276

aestivalis 276

bicolor 277

bipinnata 427

cordifolia 427

indivisa 427

labrusca 276

riparia 277

vulpina 277, 427

Waahoo 271

Wahoo Elm 153

Wake Robin 124

Waldsteinia 232

fragarioides 232

Walking Fern 21

Leaf 21

Wall Cress 206, 210, 211

Mustard 204

Rocket 204

Wallweed 380

Walnut 144, 145 Black 144

White 144

Walnut Family 144

Washingtonia Claytoni 298

longistylis 298

Water Arum 110

Avens 235

Beech 146 Carpet 216

Celery 186

Chinquapin 184

Cress 206 Crowfoot 184, 185

Crowfoot 184, 185

Elm 152

Foxtail 62

Hemlock 299

Hemp 171 Horehound 341

Hyacinth 114

Lily 183

" Family 183

Water

Lobelia 374 Marigold 397 Milfoil 185, 294

Family 294

Mint 342 Nymph 183 Oats 58 Parsnip 300 Pennywort 297 Persicaria 161

Pimpernel 315 Plantain 47

Family 45 Purslane 291

Rice 58 Shamrock 320 Shield 184 Smartweed 162

Star Grass 114 Starwort 267

Family 267

Target 184 Violet 315

Willow 280 Water-blobs 191 Waterleaf 184, 327 Waterleaf Family 327

Watermelon 371 Water-weed 47 Waterwort 282

Waterwort Family 282

Wax Myrtle 143 Pinks 182 Waxberry 143

Wax-leaved Meadow Rue 188

Waxwork 271 Way Grass 160 Weeping Elm 152 Willow 139

Weld Dyer's 212 Wheat 79 Cow 356

Whip-cord Willow 141 Whip-poor-will's Shoe 129

Whiskey Cherry 243

White Adder's Mouth 136

Alder 306 Amaranth 170 Ash 317

Avens 235 Baneberry 193

Birch 147, 148 Bird's-eye 176

Campion 178 Cedar 37

Chadlock 202 Charlock 202

Clover 249 Cohosh 193 Daisy 400

Ear-drops 198 Elm 152

Golden-rod 378 Goosefoot 166

Grass 58 Hearts 198

Hellebore 118 Lettuce 413 Maple 273 Melilot 249

Mignonette 212 Mulberry 154 Mustard 202 Oak 140

Petunia 349 Pigweed 170 Pine 34

Poplar 141 Puccoon 196 Robin 178

Snakeroot 193, 376, 377

Spruce 36 Teaberry 312

Swamp Honeysuckle 307

Thorn 225 Trillium 124 Vervain 331 Walnut 144

Water Crowfoot 184

Willow 138 White-bark 141 White-beads 103 White-heart Hickory 145

White-topped Aster 388

White-weed 400

Whitewood 194, 277

Whitlow Grass 199

Whorled Milkweed 323

Mint 343

Pogonia 132

Polygala 264

Wicky 309

Wicopy 289

Wild Allspice 196

Apple 222

Asparagus 125

Azalea 308

Balsam-apple 372

Bean 258

Bergamot 338 Black Currant 218

Blue Lettuce 412

Broom Corn 70

Buckwheat 163

Burnet 241

Calla 110

Carrot 303

Celery 47

Chamomile 399

Cherry 243

Chess 78

Clematis 190

Coffee 367

Columbine 192

Comfrey 328

Cranesbill 261

Cucumber 372

Elder 296

Forget-me-not 329

Garlic 119

Ginger 157

Ginger-root 157

Globeflower 101

Goose Plum 246

Gooseberry 218

Hazelnut 146 Honeysuckle 308, 366

Indigo 247

Ipecac 266

Wild

Isaac 340

Job's Tears 330

Lady's Slipper 129

Leek 119 Lemon 194

Lettuce 411

Lily of the Valley 123

Liquorice 252, 362

Lupine 248

Madder 362

Marjoram 340

Mint 344

Morning Glory 325

Mustard 203

Onion 119

Orange-red Lily 120

Pansy 288

Parsnip 302

Peanut 259

Pear 222

Peppergrass 200

Pink 179

Plum 246

Potato-vine 324

Radish 202

Raisin 360

Rice 58 Rose 243

Rye 8o

Sage 376

Sarsaparilla 296

Senna 247

Sensitive Plant 247

Spikenard 122

Spinach 166

Stonecrop 214

Strawberry 231, 232

Sunflower 395

Sweet William 326

Tansy 234

Teasel 370

Thyme 341

Tobacco 348

Turnip 109

Valerian 129

Yam 126

Wild

Yam-root 126

Yellow Flax 260

" Lily 120

Willoughbya

scandens 377

Willow 137

Autumn 138

Bay-leaved 138 Beaked 140

Bitter 141

Black 137

Bog 139

Brittle 138

Crack 138

Dwarf Gray 140

Glaucous 139

Glossy 138

Gray 141

Heart-leaved 139

Hoary 140

Laurel-leaved 138 Lavender 141

Prairie 140

Purple 141

Pussy 139

Ring 130

River Bank 139

Rose 141

Sage 140

Sand Bar 139

Shining 138

Silky 140

Water 289

Weeping 139

Whip-cord 141

White 138

Willow Family 137

Persicaria 160

Willow-herb 201

Great 201

Wind-flower 189, 190

Wine Currant 210

Wineberry 237

Winged Elm 153

Pigweed 165

Winter Cherry 346

Winter

Chickweed 176

Cress 207, 208

Crookneck Squash 372

Vetch 256

Winterberry 270

Smooth 270

Wintergreen 306, 311

Aromatic 311

Chickweed 316

Flowering 263

One-flowered 306

Spotted 306

Wire Grass 48, 69, 73, 160

Witch Alder 210

Elm 153

Hobble 368

Witches' Money-bags 214

Witches' Pouches 201

Witch-hazel 210

Witch-hazel Family 210

Withe-rod 360

Wolf Grape 345 Wolffia 112

columbiana 112, 419

Wood Anemone 100

Betony 357

Buttercup 187

Chess 77

Crowfoot 187

Fern 22

Fringe 107

Grass 49

Lily 120

Mint 338, 339

Nettle 155

Reed Grass 65

Rush 117 Sage 332

Sorrel 260

Family 260

Woodbine 276

Woodland Agrimony 241

Woodruff 361

Woodsia 24

ilvensis 24

obtusa 24

Woodsia Yellow Adder's Tongue 121 Blunt 24 Rock 24 Rusty 24 Woodwardia 19 angustifolia 19 areolata 19 virginica 19, 416 Woody Glasswort 168 Nightshade 345 Samphire 168 Wool Grass 88 Woolly Blue Violet 286 Wormseed 165 Wormseed Mustard 206 Wormwood 400, 402 Beach 401 Roman 391, 402 Woundwort 337 Xanthium 391 canadense 392 var. echinatum 392 commune 392 echinatum 392 glabratum 392 pungens 392 spinosum 391 strumarium 392 Xolisma foliosiflora 310 ligustrina 310 Xvridaceae 112, 436 Xyris 112 caroliniana 112 Congdoni 113 flexuosa 112 montana 410 Smalliana 113 Yam 126 Wild 126 Yam Family 126 Yam-root Wild 126 Yard Grass 69 Rush 114 Yarrow 398

Common 398

Avens 235 Bedstraw 362 Birch 147 Chamomile 399 Clintonia 122 Clover 240 Cress 207 Daisy 393 Dock 158 Dog's Tooth Lily 121 Iris 127 Lotus 184 Melilot 249 Moccasin Flower 129 Monkey Flower 352 Myrtle 316 Nelumbo 184 Oak 150 Parilla 194 Pimpernel 301 Pine 34 Poplar 194 Puccoon 193 Rattle 357 Rocket 207 Sarsaparilla 194 Strawberry 232, 234 Thistle 107, 405 Vetchling 257 Water Crowfoot 185 Yellow-barked Oak 152 Yellow-eyed Grass 113, 127 Yellow-eved Grass Family 113 Yellow-flowered Strawberry 232 Yellow-root 191, 193 Yellow-weed 212 Yew 34 American 34 Yew Family 34 Yucca 121 filamentosa 121 Zannichellia 44 palustris 44 Zanthoxylum 262 americanum 262 Zea 48

Zea

Mays 48, 430 Zizania 58 aquatica 58 palustris 58 Zizia 300

Zizia

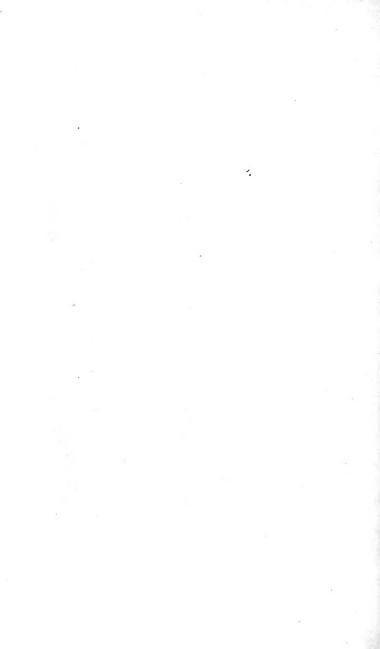
aurea 300, 427 var. obtusifolia 300 cordata 301 - Zostera 45 marina 45











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