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MISSISSIPPI STATE GEOLOGICAL SURVEY

E. N. LOWE, Director

BULLETIN NO. 17



PLANTS OF MISSISSIPPI

A LIST OF FLOWERING
PLANTS AND FERNS

BY E. N. LOWE

February, 1921

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LETTER OF TRANSMITTAL

OFFICE OF STATE GEOLOGICAL SURVEY,
Old Capitol, Jackson, Mississippi,
February 7, 1921.

To His Excellency,

GOVERNOR LEE M. RUSSELL, CHAIRMAN, *and Members of the
Geological Commission.*

Gentlemen:

In the course of my field work on the Geological Survey for several years past, I have found it advisable to make copious notes on the native plants of the State, and to make large collections of the Flowering Plants and Ferns. A close relationship was found to exist between the geological formations, the soils derived from them, and the native plants growing upon those soils, so that it seems to me that a more critical study of our flora in connection with the geology and soils of the State was desirable. I therefore, employed Mr. Thomas L. Bailey, an excellent field botanist, though yet an undergraduate student, to collect during his vacations more fully of summer and early fall plants than I had been permitted to do while burdened with other duties.

To embody in available form the result of the combined work of Mr. Bailey and myself, this Bulletin has been prepared by the writer.

It is presented with the hope that it will prove of value to the citizens of the State, and to students of botanical science generally.

Respectfully submitted,
E. N. LOWE, *Director.*

ERRATA

- Page 5—In line 7 for “seems” read “seemed.”
- Page 11—In line 6 for “Paralellism” read “Parallelism.”
- Page 11—In line 13 for “Equisetaes” read “Equisetales.”
- Page 11—In line 7 from bottom for “Bethulaceae” read “Betulaceae.”
- Page 14—In line 21 from bottom for “Budbeckia” read “Rudbeckia.”
- Page 17—In line 9 from bottom for “casual” read “causal.”
- Page 29—In line 16 from bottom for “floral” read “flora.”
- Page 39—In line 3 from top for “rententive” read “retentive.”
- Page 43—In line 2 from the bottom for “are” read “as”.
- Page 44—In line 1 “*otheca Lamarckii*” should be transferred to the end of line 2 from the bottom of page 43.
- Page 53—In line 22 from the top for “Zygaemus” read “Zygodenus.”
- Page 53—In line 3 from bottom for “*Quercus gertinata*” read “*Quercus geminata*.”
- Page 55—In line 7 from top for “Sensuvium” read “Sesuvium.”
- Page 55—In line 11 from bottom for “Paralallism” read “Parallelism.”
- Page 60—Omit line 13 from the top.
- Page 60—In line 14 for “Loss” read “Loess.”
- Page 60—In line 14 above “Loess bluffs” insert “*Pteris serrulata* L.”
- Page 72—In line 2 from bottom for “taedum” read “tardum.”
- Page 76—In line 1 for “liliiferum” read ciliiferum.”
- Page 88—In line 4 for “uncea” read “juncea.”
- Page 90—In line 6 from bottom for “Etonia” read “Eatonia.”
- Page 96—In line 5 from bottom for “ferax” read “ferox.”
- Page 96—In line 4 from bottom for “Operus” read “Cyperus.”
- Page 121—In line 13 from top for “hexigona” read “hexagona.”
- Page 127—In line 6 from top for “Carya” read “Hicoria.”
- Page 141—In line 13 from bottom for “annus” read “annuus.”
- Page 169—In line 3 from top for “Melilotus” read “Trifolium.”
- Page 176—In line 7 from bottom for “Apois apois” read “*Apios apios*.”
- Page 180—In line 5 from bottom for “teretris” read “terrestris.”
- Page 222—In line 10 from top insert above “*Diospyros* L.” the following:
 “Ebenaceae. Ebony Family.”
- Page 257—In line 5 from top for “*Houstonia rotundifolia* Michx.” read “*Houstonia purpurea* L.”

PREFACE

Mohr's Plant Life of Alabama has been used as a basis for this Bulletin. The arrangement of Engler and Prantl, as adopted in that work has been closely followed here, and the nomenclature used by Mohr has been used in this list, except in a very few instances. No species has been included in the list unless it is found in our herbarium or is mentioned in the notes of the writer or of Mr. T. L. Bailey, or is credited to the State by some reputable author. A few species have been included on the authority of a partial list of plants found with the Hilgard Manuscripts, and presumably made by Mr. Hilgard, though no name was attached to the list.

While work on collecting the state's native plants was in progress the Geological Survey received the gift of a valuable collection of about 450 species from Mr. Andrew Allison, an excellent field botanist, who collected mainly in two counties—Tishomingo and Hancock. Unfortunately for botanical science, Mr. Allison left the state several years ago to take up missionary work in China. On his return, on vacation, in 1918, Mr. Allison very kindly presented to the Geological Survey Herbarium his beautiful collection, which is frequently referred to in the list as "Allison Herbarium" (abbreviated, "A. L. Herb.")

Our list of grasses is taken almost entirely from the splendid Tracy Collection in the Department of Botany of the Mississippi Agricultural and Mechanical College, free access to which was given through the courtesy of Professor J. M. Beal.

During the summer months of 1914, 1915, and 1916, Mr. Thomas L. Bailey, an advanced student of the University of South Carolina, and an accomplished and enthusiastic field botanist, was employed by the Survey, and scoured the state from end to end, taking valuable notes, and making large collections, all of which are deposited with the Geological Survey. These collections, together with notes and collections made by the writer for the past several years, furnish the material for this Bulletin.

We do not claim that a complete list is herewith furnished of the flowering plants and ferns of the state. Doubtless many species will be added as the list is known to be incomplete, and

it is also probable that errors will be discovered by the critical botanist, but we felt that the mass of material brought together by our labors has added some new light on plant distribution in the central Gulf region, and therefore justifies publication.

While in the list the newer terminology has been adhered to, in most instances the name given each species in the third edition of Chapman's Flora has been included in parentheses as a synonymn, because, while it is desirable to encourage the use of the newer nomenclature, to most of the older botanists, including the writer, the nomenclature of Chapman is more familiar, and its insertion will facilitate reference. In fact, we are not sure that an occasional error has not crept into the list in the process of translation from the old to the new language, although special effort has been made to avoid them.

Where our notes will permit we have preferred to refer the station of each species in the List to some definite locality. In many instances, however, the species is listed from some county. This is not entirely satisfactory, and in all future observations exact localities will be noted. The use of place names has necessitated the insertion of names of many places that would be difficult to find on a map of the state. To facilitate the finding of these, an alphabetical list of the places, each referred to the county in which it occurs, has been appended at the end of this volume.

Where the name of a collector, as Allison or Tracy, appears in parenthesis after a given locality, it means that the species under consideration was collected or noted at that locality by the botanist whose name is given. Where several localities are mentioned in the distribution of a species, only the one immediately preceding the collector's name is his locality, the others being stations recorded by members of the Geological Survey Staff.

INDEX

INTRODUCTORY:

Plants -----	15
Plants Universally Distributed -----	16
Ecology -----	17
Ecological Factors -----	18
Water -----	18
Hydrophytes -----	18
Xerophytes -----	19
Mesophytes -----	20
Heat -----	20
Life Zones -----	21
Light -----	22
Soil -----	23
Woodland Formations -----	23
Grassland Formations -----	23
Desert Formations -----	23
Biotic Factors -----	24
Plants -----	24
Animals -----	24
Man -----	24
Plant Succession -----	25
TOPOGRAPHIC AND FLORISTIC REGIONS OF MISSISSIPPI	29
General Considerations -----	29
Tennessee River Hills -----	30
Topography -----	30
Soils -----	30
Trees of the Uplands -----	30
Shrubs of the Uplands -----	31
Herbs of the Uplands -----	31
Herbs of the Rich Lower Slopes -----	31
Herbs of Limestone Ledges -----	32
Trees of the Lowlands -----	32
Northeastern Prairie Belt -----	32
Topography -----	32
Soils -----	32
Herbaceous Species of the Prairies proper -----	33
Growth on the Higher Red Clay Soils -----	33
Growth on the Sand Hill Soils -----	34
Growth on the Stream Bottoms -----	34
Pontotoc Ridge -----	35
Topography -----	35

Soils -----	35
Tree Growth of Uplands -----	35
Herbaceous Species of Uplands -----	36
Herbaceous forms on Limestone Ledges -----	37
Flatwoods -----	37
Topography -----	37
Soils -----	37
Trees and Shrubs -----	37
North Central Plateau -----	38
Topography -----	38
Soils, Upland -----	38
Sandy Hills Soils -----	38
Brown Loam Soils -----	39
Tree Growth of Uplands -----	39
Herbaceous Species of Uplands—in Open Woods -----	40
Herbaceous Species of Uplands—in Open Land -----	40
Soils, Lowland -----	41
Lowland Trees -----	41
Lowland Shrubs -----	41
Lowland Herbs -----	41
Marsh Herbaceous Species -----	42
Loess, or Bluff Region -----	42
Topography -----	42
Soils -----	43
Tree Growth of the Uplands -----	44
Climbers and Shrubs of the Uplands -----	44
Herbaceous Species of the Uplands -----	45
Trees and Shrubs of the Lowlands -----	45
Herbs of the Lowlands -----	45
Yazoo Delta -----	46
Topography -----	46
Soils -----	46
Trees and Shrubs -----	46
Herbaceous Species -----	46
Jackson Prairie Region -----	47
Topography -----	47
Soils -----	47
Western Loam Section -----	47
Typical Prairie Section -----	47
Eastern Sandy Section -----	47
Flora of the Prairies Proper -----	48
Long Leaf Pine Region -----	49
Topography and Extent -----	49
Soils -----	49
Trees of Uplands -----	50
Herbaceous Species of Uplands -----	50
Trees and Shrubs of Lowlands -----	51
Coastal Pine Meadows -----	51
Topography and Extent -----	49
Soils -----	49
Trees and Shrubs of Higher Areas -----	52
Trees and Shrubs of Swamps and Marshes -----	52
Herbaceous Species of Higher Areas -----	52

Herbaceous Species of Low, Wet Areas-----	52
Gulf Strand Flora -----	53
Beach Dune Flora -----	54
Sand Plain Flora -----	54
Salt and Brackish Marsh Flora -----	55
Paralellism of New Jersey Pine Barrens Flora and Northern Bog Flora with the Pine Meadows Flora of Mississippi	55
Sketch Map of Topographic Regions -----	57
PTERIDOPHYTA -----	59
Filicales -----	59
Ophioglossaceae -----	59
Poly podiaceae -----	59
Equisetaes -----	63
Equisetaceae -----	63
Lycopodiales -----	63
Lycopodiaceae -----	63
Selaginellaceae -----	64
SPERMATOPHYTA -----	64
Gymnospermae -----	64
Pinaceae -----	64
Angiospermae -----	65
Typhaceae -----	65
Sparganiaceae -----	66
Niadaceae -----	66
Scheuchzeriaceae -----	66
Alismaceae -----	66
Poaceae -----	67
Cyperaceae -----	96
Palmaceae -----	106
Araceae -----	107
Mayacaceae -----	108
Xyridaceae -----	108
Eriocaulonaceae -----	109
Bromeliaceae -----	110
Commelinaceae -----	110
Pontedericeae -----	111
Juncaceae -----	111
Lilliaceae -----	113
Smilacaceae -----	118
Haemodoraceae -----	119
Amaryllidaceae -----	119
Dioscoraceae -----	121
Iridaceae -----	121
Burmanniaceae -----	123
Orchidaceae -----	123
'aururaceae -----	126
Juglandaceae -----	126
Myricaceae -----	128
Salicaceae -----	128
Bethulaceae -----	129
Fagaceae -----	130
Ulmaceae -----	133
Moraceae -----	134
Urticaceae -----	134
Loranthaceae -----	135
Santalaceae -----	135

Aristolochiaceae -----	136
Polygonaceae -----	136
Chenopodiaceae -----	138
Amarantaceae -----	139
Batidae -----	140
Phytolaccaceae -----	140
Nyctagnaceae -----	140
Aizoaceae -----	140
Portulacaceae -----	141
Alsinaceae -----	141
Nymphaeaceae -----	144
Magnoliaceae -----	144
Anonaceae -----	146
Ranunculaceae -----	146
Berberidaceae -----	150
Menispermaceae -----	150
Butneriaceae -----	150
Lauraceae -----	151
Papaveraceae -----	151
Brassicaceae -----	152
Capparidaceae -----	154
Sarraceniaceae -----	155
Droseraceae -----	155
Podostemaceae -----	156
Crassulaceae -----	156
Saxifragraceae -----	156
Hamamelidaceae -----	158
Platanaceae -----	159
Rosaceae -----	159
Viciaceae -----	165
Geraniaceae -----	179
Oxalidaceae -----	179
Linaceae -----	179
Rutaceae -----	180
Simarubaceae -----	180
Zygophyllaceae -----	180
Meliaceae -----	181
Polygalaceae -----	181
Euphorbiaceae -----	184
Callitrichaceae -----	187
Empetraceae -----	187
Buxaceae -----	187
Anacardiaceae -----	187
Cyrillaceae -----	188
Ilicaceae -----	188
Celastraceae -----	189
Staphyleaceae -----	190
Aceraceae -----	190
Aesculaceae -----	191
Sapindaceae -----	192
Rhamnaceae -----	192
Balsaminaceae -----	193
Vitaceae -----	193
Tiliaceae -----	194
Malvaceae -----	195

Theaceae	197
Sterculiaceae	197
Hypericaceae	197
Cistaceae	200
Violaceae	201
Passifloraceae	203
Cactaceae	204
Thymeleaceae	204
Lythraceae	204
Melastomaceae	205
Onagraceae	206
Haloragidaceae	210
Araliaceae	210
Apiaceae	211
Cornaceae	216
Pyrolaceae	217
Monotropaceae	217
Ericaceae	217
Vacciniaceae	219
Primulaceae	220
Plumbaginaceae	221
Sapotaceae	222
Styracaceae	222
Symplocaceae	223
Oleaceae	223
Loganiaceae	224
Gentianaceae	225
Apocynaceae	227
Asclepiadaceae	228
Convolvulaceae	230
Cuscutaceae	233
Polemoniaceae	233
Hydrophyllaceae	234
Boraginaceae	235
Verbenaceae	236
Nepetaceae	238
Solanaceae	244
Scrophulariaceae	245
Pinguiculaceae	252
Orobanchaceae	253
Bignoniaceae	254
Acanthaceae	254
Plantaginaceae	255
Viburnaceae	259
Rubiaceae	256
Valerianaceae	261
Cucurbitaceae	261
Campanulaceae	261
Cichoriaceae	263
Ambrosiaceae	266
Carduaceae	267

Vernonia	267
Stokesia	267
Elephantopus	267
Ageratum	268
Eupatorium	268
Osmia	270
Willughbaeya	270
Kuhnia	270
Lacinaria	270
Trilisa	271
Carphephorus	272
Grindelia	272
Heterotheca	272
Chrysopsis	272
Chondrophora	273
Brintonia	273
Solidago	273
Chrysoma	275
Euthamia	275
Sericocarpus	276
Boltonia	276
Aster	276
Erigeron	279
Leptilon	279
Ionactis	280
Baccharis	280
Pluchea	280
Antennaria	281
Gnaphalium	281
Silphium	282
Heliopsis	283
Eclipta	283
Melanthera	283
Spilanthes	283
Budbeckia	283
Brauneria	284
Tetragonotheca	284
Borrichia	284
Helianthus	285
Verbesina	286
Actinomeris	286
Coreopsis	286
Bidens	287
Actinospermum	288
Marshallia	288
Helenium	289
Achillea	289
Anthemis	289
Chrysanthemum	290
Erechtites	290
Senecio	290
Mesadenia	290
Arctium	291
Carduus	291
Thyrsanthema	292

INTRODUCTORY.

Plants.—The ordinary conception of a plant is that of a vegetable organism having three easily recognizable parts intimately related and mutually dependent. These parts are: Leaf, Stem (a stalk or trunk), and Root. We visualize a plant as having these three parts, the leaf being a flattened green organ spread out in the light and air, the root, a fibrous or cylindrical branched organ reaching down into the soil, and the stem a more or less stout and often woody vertical shaft connecting the other two organs.

The positions and relations of these three parts are not accidental. The leaf must be spread out in the air and light in order to perform its functions of elaborating food for growth and reproduction of the plant, this being done through the action of the sunlight upon the green coloring matter of the leaf. The root sinks into the soil, gaining a firm support for the rest of the plant, and at the same time, through its myriad ramifications reaches out and absorbs abundant moisture and plant food from the soil in which it is embedded. The stem, which in herbaceous species is often called the stalk, and in trees, the trunk, supports the leaves and lifts them into the air and light, at the same time connecting them directly with the root system through an intricate system of conducting vascular tissue, which makes up the whole of the stem of herbaceous plants, and all except the heart wood and corky bark of trees.

It will thus be seen how each part of the plant has its own specific work to perform, and how they are all interdependent and necessary to carry on the life of the plant.

While the picture drawn is that of the normal plant with which we are familiar, the mass of plant life is so great and the conditions under which plants grow are so diverse, that there are more species which do not answer in full to this description than of those which do. Many desert plants have no functioning leaves, although in such cases some part of the stem per-

forms leaf functions; some water plants have no roots, but in these absorption of food-laden moisture takes place through the whole plant body immersed in water; a considerable number of plants of otherwise high organization, **called parasites**, have adopted the stealthy habit of living entirely, or partly, upon the elaborated food drawn from other plants, and as a consequence they usually skulk in darkened places, like the assassins that they are, and hence are pale spectres that have lost their green tissue, through which other more normal species rejoice in the sunlight, and like diligent housewives, go about their legitimate duties.

Aside from these abnormal developments of higher groups of plants to meet unusual conditions of living, there is a whole horde of lowly organized and imperfectly differentiated forms of plant life which have neither leaf, stem, nor root, properly so-called. These little forms are for the most part aquatic in habit, and by far the greater number are microscopic in size; some of the higher groups, however, as the, **liver-worts** are larger and live attached to damp rocks, tree trunks or to wet soil. While in these low groups no specialization of parts corresponding to those of the higher plants has taken place, they perform all the functions of the higher plants, any part of the plant body being able to assume any function necessary to the plant economy—a condition which may be likened to the conditions of primitive human society, where each man was in turn his own butcher, carpenter, shoemaker, and barber.

Plants Universally Distributed.—That plant life is very unequally distributed over the earth is a matter of common knowledge. The tropical forests of Brazil present a pronounced difference from the pampas of Argentina or the Great Plains of North America, and a still more striking contrast to the barren wastes of the Sahara Desert. The great broad-leafed forests of temperate North America are succeeded to the north by the equally extensive Canadian and Hudsonian pine, fir, and spruce forests; which in their turn, as they approach the pole, give way to the treeless, moss-covered Arctic tundra.

While vegetation is not of equal vigor and variety in the frozen wastes surrounding the poles, it is not entirely absent. In spite of forbidding climatic conditions, lichens encrust the rock surfaces, and the snows are discolored by minute forms called algae.

Temperature is but one of the important factors influencing the distribution of plants. The Sahara Desert and the luxuriant jungles of Central America are both in the tropics, with approximately the same temperatures. The difference is due to absence of moisture in the Sahara and excess of rainfall in Central America. Contrast the abundance and variety of vegetation in Mississippi with the arid conditions in Death Valley, California, both of which are in about the same latitude. The difference here is due to difference of rainfall in the two regions. Hence, we are impressed with the very great importance of moisture as a factor in plant distribution.

Then again, in Mississippi we have the extensive pine forests of the southern counties, the enormously valuable hardwood forests of the Yazoo-Mississippi Delta, and the broad, gently rolling treeless prairies of the northeastern counties. These are natural and marked distributional features of vegetation in our own state. This distribution is not due to differences of temperature or of rain-fall, but to differences of soil conditions. Hence, we have forced upon our notice the importance of soil conditions as a factor in plant distribution.

Ecology.—This brings us to a consideration of Ecology. Plants are not distributed by haphazard, but, as we have seen, certain casual factors operating upon them determine the limits and bounds of their distribution. These are called Ecological Factors, and Ecology may be called plant Sociology, or the association together of plants of one or more species—often of many species—under conditions favoring their development forced upon them by the operation of all the ecological factors to which they are subjected. In other words, the sum of the ecological factors determines both the habitat and the associates of a plant. Groups of plants thus brought together

constitute what are called plant Associations, Societies, and Formations.

Ecological Factors—These are the factors which operate—some one usually predominating—to bring plants together into groups living under similar conditions. Some of the most important of these factors will be briefly noticed.

Water—The water relation of plants varies from complete submergence in some aquatic forms, through medium conditions of soil moisture suitable for the bulk of ordinary vegetation, to extreme desert conditions where the dearth of water precludes the existence of any except a scattered growth of specially organized land plants. According to the water relation of plants, three great Vegetation Types are recognized: Hydrophytes, Xerophytes, and Mesophytes.

Hydrophytes.—Plants of this group live under conditions of abundance of water. Water is undoubtedly one of the most important ecological factors, since plants in the active condition will die within a very short time if entirely deprived of it. To many plants, however, too much water is almost as detrimental as none at all. Even among hydrophytes the amount of exposure to water varies greatly. As already stated, some groups are completely submerged in water, and all their life processes take place under water, except that in a few cases pollination of the flowers takes place upon the surface of the water. Submerged aquatics are usually specially organized to suit the conditions under which they live. Roots may be entirely absent, as in free-floating algae; or may serve merely as holdfasts, for attachment, as in pond-weeds. The leaves are usually pale, and are either narrow and grass-like, or finely divided into thread-like divisions. The stems show little supporting and conducting tissue, but air cells are numerous, buoying up the stem in its watery medium. In all these modifications in which these aquatics differ from ordinary land plants we see exemplified the economy of nature, in the absence of organs not needed in a submerged aquatic but necessary in a plant growing under ordinary conditions on land.

Other groups of hydrophytes are partly submerged in

water, in all degrees between almost total submergence, and cases where only the roots are covered with water or are buried in a water-soaked soil. Water lilies illustrate the first condition: swamp growth, as sedges, willows, and cypress represent the second.

Xerophytes.—These represent the other extreme in water relation of plants. Dry sand flats and sandy beaches, dry open plains, bare rock surfaces, and parched desert areas, all present unfavorable conditions for plant life. Besides lack of water in the soil, the air is parched and dry, and the sunlight is usually intense. Most of the common plants cannot live under these hard conditions, and those that do, acquire specially adapted structures to meet the conditions. In desert areas, characterized by minimum water and maximum heat, so hard becomes the struggle for preservation of the life both of the individual and of the species, that only a relatively few species can subsist, and these become the monstrosities of the vegetable kingdom: as for instance, the Cactus group, the Yuccas and allies, the thorny acacias and greasewoods, and the weird *Tumboa* of African deserts.

The danger to desert plants are threefold: Too great loss of water from the plant tissues into the dry air; insufficient absorption of moisture from the parched soil; and destruction by herbivorous animals. To meet the first of these dangers the leaves of the plant, through which transpiration of water takes place chiefly, are greatly reduced in size or are entirely absent, and the whole plant is very much compacted and covered with a thick cutinized epidermis. The second is met by developing an enlarged root system that penetrates deeply into the soil, assuming often enormous proportions. Also the plant body is often thick and fleshy with a great development of water-storage tissue, which greedily absorbs moisture during a period of plenty to be used in sustaining the plant in time of drought. To escape destruction by desert herbivorous animals to whom these fleshy succulent bodies would be toothsome morsels, a spiny or thorny armature is

usually developed, but for which these plants would become rapidly exterminated.

Mesophytes.—The usual, or what should be properly considered, the normal conditions of plant life, are those of a moist air and soil which is appreciably moist, but not wet—water cannot be squeezed from it if taken into the hand. Such are the normal condition all about us in Mississippi. The great mass of vegetable life grows under these conditions, and the plants which constitute this mass are called **Mesophytes**, because they live in relations to moisture intermediate between the two extremes of Hydrophytes and Xerophytes.

Examples of mesophytes are our familiar oaks, maples, beeches, and elms among trees, and the grasses and herbaceous forms of the fields and woodlands.

Heat.—In a large way Temperature is the most notable factor in distributing plant life over the earth. This is especially observed in traveling from the tropics toward the poles. Temperature Life Zones run in broad belts around the earth roughly following parallels of latitude. Merriam has worked out the law controlling the limitation of these Life Zones. He has found that “plants and animals are limited in their northward distribution by the sum total of heat (above 6° C.) during the period of growth and reproduction,.....but they are limited in their southward distribution by the mean temperature of the hottest part of the year.”¹ Conditions which modify this temperature will cause the limits of the zone to move northward or southward according to circumstances, so that in fact the zonal limits are far from being east and west lines.

Merriam² has recognized the following life zones in North America:

¹Atkinson, George Francis, A Textbook of College Botany, 1905, p. 505.

²Merriam, C. Hart, Life Zones and Crop Zones, Bull. No. 10, U. S. Biological Survey.



In the Boreal Region the Arctic or Arctic-Alpine Zone embraces the treeless tundra from the northern limit of forests to the pole, and the crests of the highest mountain ranges in the United States. The Hudsonian Zone embraces the great northern evergreen forests of spruce, fir, birch, and aspen, extending from Labrador to Alaska; the Canadian Zone, the more southern forests of spruce, fir, balsam, hemlock, and pine, with some oaks and other deciduous trees. The Southern limit of this zone extends into the northernmost parts of the United States.

The Austral and Tropical Regions are divided into an eastern and a western area presenting distinct differences due to difference in rainfall. The Alleghanian Area of the Transition Zone includes the great deciduous forest region of the

northern United States east of the Mississippi River and the grassy plains of the west, and extends south to Virginia and the mountains of Georgia and Alabama.

The Arid Transition Area extends westward from the great plains across the Great Basin of Colorado, Utah and Idaho.

The Carolinian Area embraces the regions south of the Alleghanian down to the Coastal plain of the south Atlantic and Gulf Coast. The Upper Sonoran is the arid western extension of the Carolinian. The Austroriparian embraces the narrow strip corresponding to the Atlantic and Gulf Coastal plain, westward to and beyond the Mississippi River into Louisiana and Texas to 98° of longitude. Its arid counterpart stretching through western Texas, New Mexico, and southern California, and southward into Mexico, is known as the Lower Sonoran Zone.

The Tropical Region reaches the United States only in the lower part of the peninsular of Florida.

All of Mississippi is embraced within the Austroriparian Area of the Lower Austral Zone, though a number of species, which properly belong in the Carolinian Area, reach this state in its extreme northeast corner.

Light.—Light affects plant life very materially. All green plants require light to enable them to manufacture plant tissue out of the inorganic substances which they absorb from the soil and air. But some need more light than others. Grasses as a group are light-loving plants, thriving best and forming a close, carpet-like growth in open treeless areas. In forested areas, the taller trees reach often to great height in order that their leafy canopy may receive sufficient light. This is especially noticed in growths of pine forests where the struggle for light among the individual trees causes many to become overtopped and suppressed, so that they die out, while those remaining develop tall trunks, lifting their crown of leaves to a proper degree of exposure to light.

Most forests in Mississippi are mixed growth of a great

variety of broad-leafed trees. The taller trees receive the direct light from above; beneath this canopy a lower tier of trees receive upon their foliage such light as sifts through the overlapping branches of their taller neighbors; below these a still lower tier of small trees and shrubs receive upon their tender green foliage only the subdued light that reaches the interior of the forest. Barely rising above the ground in cool damp air, tender herbaceous plants and green velvety mosses subsist in the shadows of almost twilight depth. Each group occupies a position and sustains a relation to light and other factors best suited to its needs. Many of these plants of the deep shade, if placed in open, untempered light where grasses thrive best, would soon die.

Many of the lower forms of plant life, as mushrooms, slime-moulds, and saprophytes among flowering plants, thrive best in dark places.

Soil.—In temperate North America the relative amount of annual rainfall has determined three great vegetation formations: (1) Woodland Formation; (2) Grassland Formation; (3) Desert Formation. In all the eastern parts of the continent with a rainfall in excess of 20 inches per annum, woodland or forest growth of some kind, is the dominant feature: in the region of the grasslands and plains west of the Mississippi, with a rainfall between 20 and 10 inches per annum, open grasslands is the vegetational characteristic: in the arid regions still further west with a rainfall of 10 inches or less, Desert types of vegetation prevail and give character to the landscape.

All the region east of the Mississippi River, including Mississippi, lies within a potential Woodland Formation, and yet it is well known that even within our state we not only have woodlands of different kinds, but much of the state does not support a forest growth at all. Nothing is more familiar knowledge than that even within restricted areas vegetation will vary decidedly. A single pasture or meadow will show one plant assemblage in one part and a different one in another part; a forest will show oaks and hickories in one part,

beeches and maples in another, and perhaps pine in still another part. These differences are due to soil variation, which will be noticed more fully in the description of the vegetational regions of Mississippi. While so far as broad climatic influences are concerned, our whole state lies within a woodland formation, diversity of soil conditions has greatly modified the results, giving us a checkered and varied vegetation.

Biotic Factors.—These include the influence of plants upon the growth and distribution of other plants, either of the same species or of different species. Many more seeds begin growth than ever become mature plants; overcrowding brings about a contest among them for space and soil moisture, resulting in a weeding out of the weaker, and a "survival of the fittest." New species sometimes invade an area preoccupied by already established forms, and a struggle begins. If the invader is more virile and better adapted to the conditions, it eventually drives out the previously established forms.

So also, animal influences are important in plant distribution. Many seeds that would otherwise grow, are destroyed by squirrels, seed-eating birds, or by insects; or they may be attacked by moulds and their vitality destroyed; or the mature plants may themselves be destroyed by parasitic fungi. On the other hand many seeds are distributed into new regions by birds, squirrels, or by other hairy animals, to the coats of which many fruits provided with hooklets attach themselves, the cocclebur being a familiar example.

Man, himself, is at present perhaps the most active factor in influencing plant distribution, especially of certain useful species. For his own use he has removed the forests from immense areas of the earth; he has started forest fires which have destroyed the native growth from other areas; he has cultivated the soil in every zone except the Polar Zones, and so disturbed the natural balance of vegetable life that in the cultivated areas hosts of exotic weeds have come in and crowded out the native species, to say nothing of the pampered cultural forms, including cereals, corn, potatoes, fruits, textile crops, and numerous others, which he maintains over vast areas of the best soils, to the exclusion of the native growth.

Plant Succession.—Plant Associations are not fixed but are constantly changing, because of the constant changes in their environmental conditions. The growth of an assemblage of plants, called an **Association**, adapted to a certain habitat and occupying a given area, may be removed by extraneous forces and their habitat profoundly changed. In such a case, when the area comes to be reoccupied it will be by an entirely different assemblage. A familiar example is in the clearing of new lands for farm cultivation. In our state a rich mesophytic upland forest of mixed broad-leaved trees may be removed from an area and the soil cultivated until the humus and other elements of fertility are reduced. If the area is then abandoned to nature it is a well-known fact that the same trees, shrubs and herbaceous vegetation that originally occupied it will not immediately repossess it. For the first two or three years the growth will be almost wholly weeds, none of which, perhaps, occupied the original woodland soil. After these, in our state, a scattered growth of persimmon sprouts is very liable to share the area with the weeds. Very soon, dense patches of seedling loblolly pine spring up, until often large areas are thickly covered with a growth of this pine. Little undergrowth exists beneath these young pine forests, but their needles and twigs, together with decaying trunks, gradually add humus to the soil. After the pine forests become tall and more light is admitted to the ground, young oaks, such as black jack and post oak, begin to invade the pines from the edges, and grow into fringing thickets, that gradually push into the pine forest. Any break in the phalanx of pines is at once occupied by these Xerophytic oaks, until we finally find the oaks replacing the pines. Once the oaks, with their accompanying thickets of undershrubs, occupy a space, the pine seed is no longer able to germinate there, and so, eventually the pine forest becomes a mixed forest of pine and oak, and finally an oak forest with only an occasional pine, the pines being crowded out. The area once occupied by the black jack, post oak, and persimmon, the soil becomes rapidly enriched, and their occupation is shared by all the more mesophytic oaks, elms, hickories and the great horde of forms that originally occupied the area.

Such a progressive and orderly series of changes is called a Forest Succession. But successions are not limited to forests, and may take place under very diverse conditions. One of the most interesting successions to observe is that which takes place in a filling lake, the different plant associations or formations following each other in successive zones from the edges to the centre of the lake basin. In clear lakes the central deep waters are occupied by floating aquatics, such as pondweeds; surrounding this central deep, rooted in somewhat shallower water, with their leaves floating upon the surface, pond lilies and water-shield form a distinct zone; in still shallower water surrounding the lily zone, is a zone of bulrushes; beyond these in water but a few inches deep, is a zone of the tall cattail flag; in the oozy, muddy edges forming a fringe all around the pond, is a zone of sedges and coarse grasses; in the damp rich soil beyond the water's edge, up the slopes, mesophytic herbaceous flowering plants occupy the ground, these followed in turn on higher ground by shrubs and trees of the surrounding lands.

As the lake slowly fills by sedimentation, and the addition of vegetable matter from the zonal growths, these associations gradually encroach upon the lake, the pondweed association disappearing first, being replaced by the lily and water-shield formation; these as the shallowing goes on, are gradually crowded out by the next zone; and so on through the series of changes, until the lake is gradually obliterated, and the mesophytic vegetation of the adjacent lands occupies its site.

In the above examples of successions, the first shows a progressive succession from comparatively xerophytic conditions to mesophytic conditions, since a pine forest is a xerophytic growth and a mixed forest of oak, hickory and other hardwood tree and shrubs is distinctly mesophytic.

In the second example, that seen in the filling lake, the

succession is from extreme hyrophytic conditions to mesophytic. Succession may thus progress along two lines, from hydrophyte societies on the one hand, and xerophyte societies on the other, in either case tending toward mesophyte societies. Undisturbed successions tend always toward mesophytic conditions, and generally terminate in the most mesophytic plant associations permitted by climate. These associations are called **climax associations**, and become static—no further change being possible, except through changes in the factors that influence vegetation.

TOPOGRAPHIC AND FLORISTIC REGIONS OF MISSISSIPPI.

General Considerations.—The surface of Mississippi presents considerable diversity both in elevation and in character of soil. The greatest elevation known in the state, in the extreme northeastern part, is about 800 feet above sea level, while a fringe of flat lands five to twenty-five miles wide bordering the Gulf, is only a few feet above tide water. While this difference in elevation is not considered important as a climatic factor in the state, it undoubtedly has an appreciable effect upon plant distribution, but the extent of this effect has not yet been ascertained.

The north and south length of the state is somewhat more than 300 miles, or nearly five degrees of latitude. This is sufficient to produce a noticeable difference between the flora of the northernmost parts of the state and those parts bordering the Gulf; but when are added to this factor of climatic difference the ameliorating effect of the Gulf in the southern counties, and the greater elevation in the northern, we are prepared to expect important floral differences. Comparison of the floral of the Tennessee River region with that of the Gulf region of the state reveals a marked dissimilarity. Yet this dissimilarity is due very largely to soil differences and other factors as well as to latitude and altitude.

Topographically and geologically Mississippi has been divided into ten more or less distinctly marked regions, and in a previous publication (1) I have regarded these as regions of plant distribution. Geological structure has such a direct influence upon topography and soil, which in turn distinctly influence the distribution of plant species, that the regions given below (See sketch map), will be accepted here to represent the floristic regions of the state. As has already been said, the whole state, excepting possibly a small area in the northeastern corner, lies in the Austroriparian Area; hence the divisions given are not major in importance, but are local and subor-

(1) Miss. Geol. Surv., Bulletin No. 11, "Forest Conditions of Mississippi," 1913. *Notes on Flora* by E. N. Lowe, p. 138.

dinate divisions within the Antitropical Area, based mainly upon soil differences.

The regions recognized are the following: 1, Tennessee River Hills; 2, Northeastern Prairie Belt; 3, Pontotoc Ridge; 4, Flatwoods; 5, North Central Plateau; 6, Jackson Prairie Belt; 7, Loess or Bluff Hills; 8, Yazoo-Mississippi Delta; 9, Long Leaf Pine Belt; 10, Coastal Pine Meadows.

Tennessee River Hills.—Consulting the accompanying sketch map, it will be seen that in the extreme northeast corner of the state a small narrow division, embraced mostly in four counties, is marked off and called the Northeastern or Tennessee River Hills. The area is one of high, broken topography—the highest point being 800 feet above sea level. This was originally a plateau lifted upon the southern flank of the great Appalachian fold, and sloping gently toward the south, but its surface is now much cut up by erosion into steep hills and ridges. The steep slopes and cliffs bordering the valley of the Tennessee River and its tributaries for a few miles south of the river, exhibit everywhere the outcropping limestones, shales and chert beds of the Carboniferous formations, from 50 to 75 feet of the tops of the hills and ridges being capped by Cretaceous gravel deposits. Farther south the gravel deposits are largely covered by sandy soils of Cretaceous age, the old Carboniferous rocks rising to the surface here and there along the larger streams. The soils of this region, as would be expected, are light, sandy, and infertile, except in the stream bottoms. This region in topography and geology represents a transition from the old Appalachian uplift to the Coastal Plain; we would therefore expect to find a similar transitional character in the flora of the region, and such is found to be the case.

The hills and slopes of this region were originally clothed with forests, and in the more broken parts still remain in forest, though the large timber has been mostly removed. The most abundant trees of the hills are short-leaf yellow pine and loblolly pine, much of the latter in thick stands of second growth. Mixed with these, and especially on the lower slopes of the ridges are various species of oak, black jack, post oak, Spanish oak, and white oak. A common oak on the cherty and gravel-

ly hills is the chestnut or mountain oak (*Quercus prinus*), and on the rocky ledges along Bear Creek the red oak (*Quercus rubra*) is very common. Chestnut tan-bark oak (*Quercus velutina*), dogwood and hickory are fairly common on the uplands.

Down on the limestone slopes occur chinquapin oak (*Quercus acuminata*), mulberry, butternut, yellow poplar, magnolia (*Magnolia acuminata*), and occasionally black walnut. Scrub pine (*Pinus Virginiana*) is found on the high cherty hills near the mouth of Bear Creek.

Common shrubs on the upland slopes are several species of the Heath family—the dwarf inedible deerberry, and other species of *vaccinium*; the hazle nut (*Corylus Americana*), the brilliantly colored mountain laurel and bush honeysuckle, witch hazle, trailing arbutus, the sweet-smelling calycanthus and the mountain holly; and on the rich lower shaded slopes the wahoo (*Euonymus atropurpureus*).

Numerous herbaceous forms common under the dry upland woods, are the following:

<i>Hypoxis erecta</i>	<i>Lithospermum hirtum</i>
<i>Hieracium scabrum</i>	<i>Viola palmata</i>
<i>Fragaria Virginica</i>	<i>Silene stellata</i>
<i>Ranunculus fascicularis</i>	<i>Delphinium virescens</i>
<i>Viola pedata</i>	<i>Silene Virginica</i>
<i>Phlox pilosa</i>	<i>Houstonia cerulea</i> .

Many interesting forms occupy the rich shaded soil on the lower limestone slopes, such are:

<i>Chimaphila maculata</i>	<i>Viola pubescens</i>
<i>Hepatica triloba</i>	<i>Hepatica acutiloba</i>
<i>Asarum Canadense</i>	<i>Trillium grandiflorum</i>
<i>Trillium recurvatum</i>	<i>Botrychium ternatum</i>
<i>Solea concolor</i>	<i>Anemonella thalictroides</i>
<i>Pachysandra procumbens</i>	<i>Oenothera linifolia</i>
<i>Zanthorhiza apiifolia</i>	<i>Actaea alba</i>
<i>Cimicifuga racemosa</i>	<i>Porteranthus stipulatus</i>
<i>Thalictrum purpurascens</i>	<i>Phlox reptans</i>
<i>Cheilanthes lanosa</i>	<i>Symphoricarpus symphoricar-</i>
<i>Cystopteris fragilis</i>	<i>pus.</i>

Clinging to limestone ledges are the following:

<i>Saxifraga Virginiensis</i>	<i>Camptosorus rhizophyllus</i>
<i>Heuchera villosa</i>	<i>Asplenium angustifolium</i>
<i>Heuchera Americana</i>	<i>Cardamine Pennsylvania</i>
<i>Sedum ternatum</i>	<i>Iris cristata.</i>

In the larger river bottoms exist remnants of what were once a good growth of white, water, and willow oaks, basket oak, sycamore, beech, river maple, black gum, sweet gum, and cyprses. Hackberry, ash, redbud, great-leaved magnolia, silver-bell, storax, paw-paw, and red birch are less useful, but equally handsome species.

An inspection of this list shows a considerable number of trees, shrubs, and herbaceous species that are distinctly of Appalachian distribution, most of which are not distributed in the state south of this region. A few are found also on Pontotoc Ridge, and occasionally in the northernmost tier of counties to the westward.

Northeastern Prairie Belt.—The boundaries of this region and its relationship to other divisions can best be understood by reference to the sketch map referred to above.

The region has a gently rolling surface, and was originally prairies, having only here and there scattered patches of trees, except on the stream bottoms, which supported heavy growths of timber. This Prairie Belt is now largely in cultivation, but some timber remains in the bottoms. Within the last several years lands formerly in cultivation and now thrown out, show a strong tendency to grow up in trees, in some places the old field pine, in others thickets of shrubby oaks.

The characteristic soil of the prairies, which is residual from the Cretaceous limestone, is a heavy, tenaceous, calcareous loamy clay, dark gray when dry, but almost black when wet. In much of the region a yellowish-brown loam soil prevails. This is a lighter soil than the typical prairie soil, less fertile, and usually supports a tree growth chiefly of post oak, black jack, and Spanish oak. The dark soil is the typical soil of the region and is naturally devoid of trees, except scattered clumps of

crab apple, hackberry, and red cedar, with deciduous holly and honey locust in low depressions.

On the open prairies characteristic and showy species of herbaceous plants are the following:

Coreopsis lanceolata	Coreopsis grandiflora
Silphium laciniatum	Silphium terebinthinaceum
Mellilotus alba	Hartmannia speciosa
Lythrum alatum	Caecalia tuberosa
Oenothera triloba	Aselepiodera viridis
Aselepias tuberosa	Aselepias verticillata
Rudbeckia hirta	Rudbeckia laciniata
Sisyrinchium albidum	Liatris graminifolia
Petalostemon carneus	Petalostemon corymbosus
Otophylla Michauxii,	

Otophylla has been found in the prairies near Seoba, where it is frequent. **Oenothera tribola**, with large handsome lemon-colored flowers, is common around Okolona, especially on open lowland pastures along creeks.

Most of the others mentioned in the above list are very characteristic prairie species and widely distributed over the limestone soils. **Hartmannia** often occurs thickly covering areas that are acres in extent, and in the spring the large pinkish flowers densely massed form a handsome and striking covering to the gently undulating prairie surface.

On the lighter and usually higher reddish soil areas which dot the prairie surface like islands, an entirely different assemblage occurs. This soil is not so rich in plant food as the black soils, lime especially being in much smaller proportions. These areas support a rather dwarfish growth of a few species of trees, chiefly oaks, the commonest being:

Quercus minor	Hicoria Alba
Quercus Marilandica	Diospyros Virginiana
Quercus digitata	Pinus echinata
Quercus velutina	Prunus serotina
Quercus Durandi	

Characteristic herbaceous species associated with these are:

<i>Rosa humilis</i>	<i>Plantago aristata</i> (open ground)
<i>Phlox pilosa</i>	
<i>Tradescantia Virginica</i>	<i>Verbena hastata</i>
<i>Psoralea melilotoides</i>	<i>Oenothera sinuata</i>
<i>Te phrosia Virginiana</i>	<i>Apocynum cannabinum.</i>
<i>Spigelia Marilandica</i>	

The red sandy hills found occasionally in the prairie region, present still another assemblage of plants, the group as a whole resembling very closely the flora of the sandy loam regions of the North Central Plateau. The characteristic trees and shrubs are the following:

<i>Liquidamber styraciflua</i>	<i>Rhus typhina</i>
<i>Diospyros virginiana</i>	<i>Quercus Marilandica</i>
<i>Sassafras officinale</i>	<i>Vaccinium arborem</i>
<i>Ulmus alata</i>	<i>Tecoma radicans</i>
<i>Rhus glabra</i>	<i>Vitis rotundifolia</i>

Hardly less characteristic is the herbaceous growth:

<i>Ceanothus Americana</i>	<i>Trifolium procumbens</i>
<i>Pentstemon laevigatus</i>	<i>Krigia Virginica</i>
<i>Phox pilosa</i>	<i>Plantago aristata</i>
<i>Specularia perfoliata</i>	<i>Gnaphalium purpureum</i>
<i>Opuntia sp.</i>	<i>Shrankia sp.</i>
<i>Aster paludosus</i>	<i>Stylosanthes elatior</i>

The soils on the stream bottoms are generally heavy and rich, with considerable lime. The common trees and shrubs are:

<i>Quercus velutina</i>	<i>Liriodendron tulipifera</i>
<i>Quercus alba</i>	<i>Morus rubra</i>
<i>Quercus Durandi</i>	<i>Negundo aceroides</i>
<i>Quercus nigra</i>	<i>Fraxinus Americanus</i>
<i>Quercus Michauxii</i>	<i>Acer saccharum</i>
<i>Hicoria alba</i>	<i>Acer dasycarpum</i>
<i>Gleditschia triacanthos</i>	<i>Cornus aspera</i>
<i>Cissus bipinnata</i>	<i>Ulmus fulva</i>

<i>Lonicera sempervirens</i>	<i>Asimina triloba</i>
<i>Brunnichia cirrhusa</i>	<i>Aesculus glabra</i>
<i>Kraunia frutescens</i>	

Common herbaceous forms over the river bottoms are :

<i>Clematis crispa</i>	<i>Osmunda cinnamomea</i>
<i>Arisaema quinatum</i>	<i>Dioscorea villosa</i>
<i>Phlox divaricata</i>	<i>Ilysanthes gratiolooides</i>
<i>Ranunculus nitida</i>	<i>Viola cucullata.</i>
<i>Polymnia uvedalia</i>	

Pontotoc Ridge.—This, the next topographic and soil division to be recognized, consists of a broad high ridge intricately eroded into hills and subordinate ridges with intervening valleys of streams whose headwaters begin here. This broken upland, having in places, an elevation of nearly 800 feet above sea level, forms the water-shed of streams flowing east and southeast into the Tombigee, southwest into the Mississippi, and north into the Tennessee.

The soils of the region are red sandy loams derived from the weathering of the glauconitic sandy marls of the basal Tertiary and uppermost Cretaceous beds. These red soils are much richer in plant food than their appearance would indicate, and support a rich growth. The plants of Pontotoc Ridge present decided differences from those of the prairies lying to the east, and the tertiary Flatwoods on the west.

The northern part of the ridge is much broken into precipitous hills and sand ridges about the headwaters of the Hatchie River, and the soil is sandy and rather sterile, so that the growth partakes largely of the character of the red sand hills of the prairie belt. Pines (*Pinus mitis* and *Pinus taeda*) are the principal tree growth, but with considerable admixture of oaks (*Quercus stellata*, *Quercus nigra*, *Quercus falcata*, *Quercus prinus*) and chestnut. From New Albany, in Union County, southward the soil is less sandy, richer, and the hills less broken. In this part the tree growth presents, besides the above species, the following in considerable abundance :

<i>Quercus rubra</i>	<i>Acer rubrum</i>
<i>Quercus acuminata</i>	<i>Fagus ferruginea</i>

<i>Quercus alba</i>	<i>Gleditschia triacanthos</i>
<i>Quercus pagodaefolius</i>	<i>Carya alba</i>
<i>Quercus phellos et aquatica</i>	<i>Acer dasycarpum</i>
<i>Quercus Texana</i>	<i>Liriodendron tulipifera</i>
<i>Juglans nigra et cinerea</i>	<i>Magnolia macrophylla</i> :
<i>Liquidamber styraciflua</i>	

Common shrubs and vines on the upland slopes are:

<i>Hydrangea arborescens</i>	<i>Corylus Americanus</i>
<i>Berchemia volubilis</i> (not common)	<i>Lindera benzoin</i>
<i>Hamamelis Virginiana</i>	<i>Staphylea trifolia</i>
<i>Butneria florida</i>	<i>Aesculus pavia</i>
<i>Smilax herbacea</i>	<i>Euonymus atropurpureus</i>
<i>Smilax bona-nox</i>	<i>Hydrangea quercifolia</i>

Quercus prinus is limited to the high hills about the head waters of Hatchie River. It is nowhere abundant, but grows occasionally to large size. Butternut (*juglans cinerea*) is occasional in this region on upland slopes, but no large specimens have been observed. Wahoo seems not to be distributed farther south in the state than the vicinity of Pontotoc. *Quercus rubra* is common here and in the Tennessee River Hills, but rare elsewhere in the state.

The tree and shrub flora listed above shows an undoubted northern affinity—almost as much so as that of the Tennessee River Hills. The herbaceous forms, perhaps even more than the trees, show their northern affiliation. Some of the more characteristic, mostly spring-flowering species, are given below:

<i>Uvularia grandiflora</i>	<i>Cynoglossum Virginicum</i>
<i>Asarum Canadense</i>	<i>Actaea alba</i>
<i>Silene stellata</i>	<i>Thalictrum purpurascens</i>
<i>Circaea lutea</i>	<i>Cimicifuga racemosa</i>
<i>Geum album</i>	<i>Sanicula Canadensis</i>
<i>Obolaria Virginica</i>	<i>Smilax erichata</i>
<i>Sanguinaria Canadensis</i>	<i>Aristolochia serpentaria</i>
<i>Geranium maculatum</i>	<i>Smilacina racemosa</i>
<i>Botrychium Virginianum</i>	<i>Claytonia Virginica</i>
<i>Polemonium reptans</i>	<i>Erigenia bubosa</i>
<i>Aralia racemosa</i>	<i>Trillium recurvatum</i>

The following are common clinging to limestone bluffs:

Camptosorus rhizophyllus	Saxifraga Virginiensis
Woodsia obtusa	Dentaria laciniata
Iris cristata.	Anemonella thalictroides

Flatwoods.—This region, as the name implies, presents usually a low lying flat topography, though in certain parts the surface becomes rolling and even hilly. The characteristic feature, however, is its flatness, which has caused it to be likened to a broad river valley. This region extends as a belt or zone from three to fifteen miles wide north and south along the west edge of Pontotoc Ridge from the line of Tennessee to the point of the Ridge. South of Houston, Chickasaw County, the Flatwoods skirt the western edge of the Cretaceous prairie region.

The soil of this region is prevailingly a heavy, tenaceous, dark gray clay, with a subsoil of gray joint clay. The drainage is usually not good, so that the soil, except in dry years, is wet and cold, and more or less acid. This heavy type of soil shades in places into a lighter, sandier soil, which lies higher and is better drained. Both types of soil are lacking in lime and are deficient in other elements of plant food. The close texture of the heavy clay soil makes it very tenaceous of moisture, so that it is either too wet to favor plant growth, or when dry becomes too hard and compact. So that the region is not one of rich growth and those species present are usually of xerophytic habit, which fits them for the extreme alternate conditions of sterile, water-logged, acid soil, and dry soil of stony hardness.

These conditions are reflected in the tree and shrub growth of the region, which consists chiefly of pine (*Pinus mitis* and *Pinus taeda*) and of oaks of a few xerophytic species, as black jack, post oak, and Spanish oak. These usually form open forests, with here and there on the lower flats scattered growth of haws (*Crataegus*, several species) and deciduous holly.

Since soil and topographic features of the Flatwoods shade into those of the larger region lying to the west—and next to be considered—the floristic features of the two merge. Hence

further description will be embraced under discussion of the next region.

North Central Plateau.—This region is much larger than any of those so far considered. It occupies all that region of the northern half of the state lying west of the Flatwoods and east of a belt fifteen to twenty miles wide bordering the Yazoo-Mississippi Delta. The boundaries may be traced on the sketch map.

The surface of this region is that of a maturely eroded plateau of varying altitude, from less than 400 to more than 600 feet above sea level, the higher altitudes being in the northern parts of the area. Many streams trench the surface, the larger having broad flats 100 to 200 feet lower than the Plateau surface. Usually two or more terraces fringe the stream valleys. On account of the mature erosion the original plateau has been cut into hills and ridges, the surface being more broken and intricately dissected near the larger streams, while in the wider areas between streams the original plateau presents a gently rolling surface. As may be inferred from the foregoing statements the uplands of the region are well drained. In the stream valleys the first bottoms in many places are badly drained and occupied with swamp growth, which will be described presently.

The upland soils of the region present two very well defined aspects which really constitute two sub-regions, as the species occupying the two differ considerably. A north-south zone occupying about the east one-half of the area shows clay soils similar to those of the Flatwoods, though somewhat sandier and the surface more rolling. Over much of the area the tops of the hills and ridges are capped with yellow and red sandy loam soils: toward the western part of this subdivision the sandy soils very much predominate and the topography becomes more broken. These soils, as are those of the Flatwoods, are derived from weathering of outcropping clay and sand formations of the Eocene Tertiary.

The western subdivision of the North Central Plateau has overlying the eroded surface of the eocene sands a blanket

covering of a tawny or yellowish-brown silt loam, which has been called the Brown Loam. This is a medium light soil, moderately retentive of moisture but is well drained. It is fairly rich in plant food, and a good agricultural soil. This soil is derived from the Loess, being the thin eastward extension of it, varying in thickness from eight or ten feet down to one or two.

As the flora of this region is representative of at least one-third of the entire state, it will be treated somewhat fully. In the sandy eastern half of this region from Grenada County north, and in all the central parts of the state south of Grenada and north of Jackson prairies, the chief tree growth is pine (*Pinus taeda* and *Pinus mitis* being the common species). The forests, however, are not usually pure pine forests, but have a considerable admixture of oaks of several species, and other hardwood trees. The oaks most abundantly mixed with the pines are black jack, post oak, and Spanish oak. The typical forests of the sandy uplands are:

<i>Ulmus alata</i>	<i>Pinus mitis</i>
<i>Ulmus Americana</i>	<i>Pinus taeda</i>
<i>Prunus Americana</i>	<i>Quercus nigra</i>
<i>Sassafras officinale</i>	<i>Quercus stellata</i>
<i>Cornus florida</i>	<i>Quercus falcata</i>
<i>Vaccinium arboreum</i>	<i>Quercus velutina</i>
<i>Diospyros Virginiana</i>	<i>Carya tomentosa</i>
<i>Castanea vesca.</i>	<i>Carya porcina</i>

Of original growth, *Pinus mitis*, the short-leaf yellow pine, is the most common tree of the region, often growing in almost pure stand over large areas. The old field pine (*Pinus taeda*) is everywhere the most abundant second growth tree, in a few years covering with a dense growth of seedlings all old fields thrown out of cultivation.

The shrubby undergrowth is somewhat typical, showing a decided xerophytic character, as will be seen from the following list:

<i>Vitis rotundifolia</i>	<i>Vaccinium stamineum</i>
<i>Rhus radicans</i>	<i>Rhus copallina</i>

<i>Ceanothus Americanus</i>	<i>Hamamelis Virginiana.</i>
<i>Hydrangea quercifolia</i>	<i>Corylus Americana</i>
<i>Hydrangea arborescens</i>	<i>Rhus glabra</i>

All the species, both of trees and of shrubs mentioned as common in this sandy subdivision, occur also in the western subdivision where the silt loam soils prevail, the difference consisting mainly in different proportions of the species. On the silt loam soil pine is not prominent as a part of the original growth and becomes less so as the loess bluffs are approached, while the number of varieties of hardwood species become greater and of more mesophyte character.

The upland herbaceous forms of this region present less diversity than its extent and soil differences would lead us to expect. Common open land species are the following:

<i>Plantago aristata</i>	<i>Claytonia Virginica</i>
<i>Houstonia patens</i>	<i>Anemone Caroliniana</i>
<i>Houstonia longifolia</i>	<i>Asclepias tuberosa</i>
<i>Ranunculus fascicularis</i>	<i>Ascyrum Crux-Andréaa</i>
<i>Nothoscordum striatum</i>	<i>Linum Virginianum</i>
<i>Stylosanthes elatior</i>	<i>Oenothera frusticosa</i>
<i>Rudbeckia hirta</i>	<i>Stellaria media</i>
<i>Commelina Virginica</i>	<i>Ipomea pandurata</i>
<i>Draba brachycarpa</i>	<i>Erigeron bellidifolius</i>
<i>Ionaetis linariifolius</i>	<i>Apogon humilis</i>
<i>Geranium Carolinianum</i>	<i>Krigia Virginica</i>
<i>Specularia perfoliata</i>	<i>Krigia dandelion</i>
<i>Cerastium viscosum</i>	<i>Coreopsis lanceolata.</i>
<i>Salvia lyrata</i>	

Herbs that grow chiefly beneath open upland woods are the following:

<i>Tephrosia Virginica</i>	<i>Podophyllum peltatum</i>
<i>Antennaria plantaginifolia</i>	<i>Smilacina racemosa</i>
<i>Ruellia ciliosa</i>	<i>Mitchella repens</i>
<i>Viola palmata</i>	<i>Rosa humilis</i>
<i>Viola pedata</i> (in the pine region)	<i>Potentilla Canadensis</i>
	<i>Geranium maculatum</i>

<i>Viola villosa</i>	<i>Tradescantia Virginica</i>
<i>Cyripedium pubescens</i>	<i>Asclepias variegata</i>
<i>Spiranthes gracilis</i>	<i>Asclepias obtusifolius</i>
<i>Galium pilosum</i>	<i>Lithospermum canescens</i> (in pine region)
<i>Galium circaezans</i>	<i>Pteris aquilina</i>
<i>Dioscorea villosa</i>	<i>Phegopteris hexagonoptera</i>
<i>Heuchera Americana</i>	<i>Spigelia Marilandica</i>
<i>Pedicularis Canadensis</i>	<i>Sanicula Canadensis.</i>

The lowland soils of this region are sandy loams rich in plant food, although usually deficient in lime. A heavy hardwood forest of numerous species originally occupied all the stream bottoms. Some of the common lowland trees are:

<i>Quercus alba</i>	<i>Platanus occidentalis</i>
<i>Quercus Michauxii</i>	<i>Carpinus Carolinianus</i>
<i>Quercus lyrata</i>	<i>Ulmus Americanus</i>
<i>Quercus aquatica</i>	<i>Ulmus fulva</i>
<i>Quercus rubra</i> (not very com- com)	<i>Fagus ferruginea</i>
<i>Acer dasycarpum</i>	<i>Carya alba</i>
<i>Acer rubrum</i>	<i>Liriodendron tulipifera</i>
<i>Ilex opaca</i>	<i>Taxodium distichum</i>
<i>Cercis Canadensis</i>	<i>Betula nigra.</i>

Shrubs and vines of the lowlands are:

<i>Cephalanthus occidentalis</i>	<i>Crataegus apiifolia</i>
<i>Aralia spinosa</i>	<i>Alnus serrulata</i>
<i>Euonymus Americanus</i>	<i>Rosa Carolina</i>
<i>Ilex decidua</i>	<i>Cornus stricta</i>
<i>Vaccinium corymbosum</i>	<i>Lonicera sempervirens</i>
<i>Staphylea trifolia</i>	<i>Vitis rotundifolia</i>
<i>Ampelopsis quinquefolia</i>	<i>Tecoma radicans</i>
<i>Cissus bipinnata</i>	<i>Smilax rotundifolia.</i>
<i>Asimina triloba</i>	

Herbaceous forms of the wooded lowlands, especially in rich shaded soils, are represented by the following:

<i>Phlox divaricata</i>	<i>Trillium sessile</i>
<i>Arisaema triphyllum</i>	<i>Uvularia perfoliata</i>

<i>Arisaema dracontium</i>	<i>Uvularia sessilifolia</i>
<i>Osmunda regalis</i>	<i>Boehmeria cylindrica</i>
<i>Osmunda cinnamomea</i>	<i>Medeola Virginiae</i>
<i>Adiantum pedatum</i>	<i>Thalictrum purpurascens</i>
<i>Habenaria ciliaris</i>	<i>Elodea campanulata</i>
<i>Platanthera bracteata</i>	<i>Galium trifidum</i>
<i>Platanthera psychodes</i>	<i>Dioclea Boykinii.</i>
<i>Microstylis ophioiglossoides</i>	

In open marshy places and bordering or growing in the water of ponds and sluggish streams, the following are representative:

<i>Eupatorium perfoliatum</i>	<i>Zygadenus glaberrimus</i>
<i>Eupatorium rotundifolium</i>	<i>Ranunculus pusillus</i>
<i>Senecio lobatus</i>	<i>Linaria Canadensis</i>
<i>Physostegia Virginiana</i>	<i>Typha latifolia</i>
<i>Dulichium spathaceum</i>	<i>Rhexia Mariana</i>
<i>Sagittaria variabilis</i>	<i>Rhexia Virginiae</i>
<i>Scirpus lacustris</i>	<i>Ludwigia alternifolia</i>
<i>Peltandra undulata</i>	<i>Ludwigia palustris</i>
<i>Hibiscus moscheutos</i>	<i>Acorus calamus.</i>

Loess or Bluff Region.—This region embraces a narrow strip from 15 to 20 miles wide bordering the eastern edge of the Delta lowlands from the northern boundaries of the state to and beyond the line of Louisiana on the south. From Vicksburg south the bluffs lie close in towards the river, and are rather more pronounced than farther north. The bluff hills lie on or somewhat below the general level of the central plateau, which it borders on the west, the characteristic precipitous hills of this region being remnants of the ragged edge of the interior plateau produced by the deep cutting of streams in passing from the plateau level to that of the Delta lowlands.

The marked broken and intricate character of the topography is due to a peculiarity of the material eroded. For 15 or 20 miles back from the Delta edge a thick deposit of calcareous loess silt overlies the surface to a depth of from 30 to 75 feet, and forms the basis for the soil and for the peculiar character of erosion into vertical faces. This loess is a fine

yellowish, calcareous silt, non-stratified, and containing numerous snail shells. It is thickest next to the Delta edge and thins toward its eastern margin.

On account of the lime content the soil derived from this material is more fertile than that of the plateau farther back, and supports a somewhat different vegetation. In this region, the upland flora of the plateau and the lowland flora of the Delta come into competition, with the result that the flora, while of hill type, has some characters derived from the Delta.

The extent of the region from north to south is such that, while the distinctive features of the flora persist, some species appear in the southern part that have not been found in the northern part, and vice versa.

The tree growth of the Loess hills is almost entirely of hardwoods. Pines are not at all a common feature, except as second growth in old thrown out fields or other openings. Red cedar is not uncommon on the slopes, but was probably not a part of the original flora. Magnolias of several species are common and characteristic; several species of lime-loving trees that are common in the lime soils of northeast Mississippi skip the intervening regions and reappear here. Such are Durand's oak, the butternut and hackberry. The gray moss (*Tillandsia usneoides*) drapes the trees, being especially abundant in the southern half of the region, and gradually disappearing before the northern boundary of the state is reached. *Myrica cerifera* has been observed toward the southern end of the region, but has not been seen farther north, though east of Pearl River in sandy loam soils, it is found considerably farther north.

The beautiful white Cherokee rose (*Rosa laevigata*), with its dark, glossy, trifoliate leaves and long trailing stems is very common and striking in the southern half of this region, and in the rich loam soils east of the Bluff region in the same latitudes.

A few herbaceous species have been observed in this region are *Croton Texensis*, *Parthenium hysterophorus* and *Heteras* as far north as Natchez, and nowhere else in the state. These

otheca Larmarkii. *Pteris serrulata* has been noted once clinging to the vertical loess bluffs at Natchez, and only once elsewhere in the state, on the walls of the Old Capitol at Jackson several years ago, before the repair of that building.

The tree growth of the loess hills is rich, both in variety and in quantity. In its original state the forests were heavy and gloomy on account of the luxuriant growth of the gray moss which festooned all the trees, and because of abundance of lianas and creepers that matted the forests. Prominent in these forests were the following trees:

<i>Carpinus Caroliniana</i>	<i>Castanea pumila</i>
<i>Ostrya Virginica</i>	<i>Carya tomentosa</i>
<i>Magnolia grandiflora</i>	<i>Carya myristicaeformis</i>
<i>Magnolia acuminata cordata</i>	<i>Quercus alba</i>
<i>Magnolia macrophylla</i>	<i>Quercus velutina</i>
<i>Liriodendron tulipifera</i>	<i>Quercus Texana</i>
<i>Juglans nigra</i>	<i>Quercus Durandi</i>
<i>Juglans cinerea</i> (north)	<i>Quercus Michauxii</i>
<i>Fagus feruginea</i>	<i>Quercus aquatica</i>
<i>Celtis Mississippensis</i>	<i>Ulmus Americana</i>
<i>Tilia pubescens</i>	<i>Ulmus fulva</i>
<i>Morus rubra</i>	

Climbers and shrubs of the region are represented by the following species:

<i>Ampelopsis quinquefolia</i>	<i>Calyceocarpum Lyoni</i>
<i>Bignonia capreolata</i>	<i>Hydrangea quercifolia</i>
<i>Tecoma radicans</i>	<i>Arundinaria macrosperma</i>
<i>Rhus radicans</i>	<i>Cornus florida</i>
<i>Cissus bipinnata</i>	<i>Cornus stolonifera</i>
<i>Cissus ampelopsis</i>	<i>Hydrangea arborescens</i>
<i>Vitis rotundifolia</i>	<i>Asimina triloba</i>
<i>Vitis riparia</i>	<i>Euonymus Americana</i>
<i>Vitis labrusca</i>	<i>Hamamelis Virginica</i>
<i>Berchemia volubilis</i>	<i>Callicarpa Americana</i>
<i>Vitis cordifolia</i>	<i>Crataegus spathulata</i>
<i>Rosa laevigata</i>	<i>Crataegus viridis</i>
<i>Gelsemium sempervirens</i>	<i>Lindera benzoin</i>
<i>Lonicera sempervirens</i>	<i>Myrica cerifera</i> (south)

Common herbaceous forms growing on the uplands and loess slopes are the following:

<i>Rubus villosus</i>	<i>Aseyrum hypericoides</i>
<i>Rubus trivialis</i>	<i>Ruellia ciliosa</i>
<i>Heterotheca Lamarekii</i>	<i>Epiphegus Viriginiana</i>
<i>Equisetum rubustum</i>	<i>Podophyllum peltatum</i>
<i>Arisaema dracontium</i>	<i>Croton Texensis (south)</i>
<i>Galium pilosum</i>	<i>Aspidium acrostichoides</i>
<i>Aseyrum Crux-Andreae</i>	<i>Aspidium patens (south)</i>
<i>Geum album</i>	<i>Desmodium rotundifolium</i>
<i>Spigelia Marilandica</i>	<i>Actea alba</i>
<i>Eryngium prostratum</i>	<i>Solidago caesia</i>
<i>Amphicarpaea monoica</i>	<i>Thalictrum purpurascens</i>
	<i>Adiantum pedatum (north)</i>

The lowlands of this region present only slight differences from the flora of the adjacent Delta. A brief list of the trees and shrubs of the lowlands is given below:

<i>Quercus alba</i>	<i>Fraxinus quadrangulata</i>
<i>Quercus Michauxii</i>	<i>Fagus ferruginea</i>
<i>Quercus lyrata</i>	<i>Ilex opaca</i>
<i>Quercus acuminata</i>	<i>Carya olivaeformis</i>
<i>Magnolia grandiflora</i>	<i>Carya aquatica</i>
<i>Magnolia acuminata cordata</i>	<i>Planera aquatica</i>
<i>Liquidamber styraciflua</i>	<i>Acer dasycarpum</i>
<i>Nyssa sylvatica</i>	<i>Populus deltoides</i>
<i>Nyssa uniflora</i>	<i>Schizandra coccinea</i>
<i>Taxodium distichum</i>	<i>Brunnichia cirrhosa</i>
<i>Fraxinus Americanus</i>	<i>Arundinaria macrosperma</i>

A few herbaceous forms associated with the above on the lowlands are given below:

<i>Polygonum Virginianum</i>	<i>Tillandsia usenoides</i>
<i>Eclipta alba</i>	<i>Boehmeria cylindrica</i>
<i>Mikania scandens</i>	<i>Uvularia perfoliata</i>
<i>Galium trifidum</i>	<i>Ludwigia alternifolia</i>
<i>Galium circaezans</i>	<i>Jussiaea decurrens</i>
<i>Impatiens fulva</i>	<i>Mimulus alatus</i>
<i>Phryma leptostachya</i>	<i>Lobelia cardinalis</i>

*Pilea pumila**Aspidium thelypteris**Euonymus Americanus**Asclepias perennis*

The Yazoo Delta.—The Delta region embraces all the alluvial lowlands bordering the Mississippi River and the lower courses of its tributaries. It is a narrow strip, from one to a few miles wide in south Mississippi, but north of Vicksburg, Warren County, it widens to a broad nearly level plain 60 miles wide at its widest part, and about 200 miles in length. This plain lies so nearly level that the drainage is poor, and occasionally much of it overflows.

The soil is very rich, but presents two well-marked phases. Along the streams and for a few miles back the soil is a fine sandy loam which lies a little higher and is better drained than the lands within the interstream areas, where owing to their relative lowness and the heavier clay soils, much of the surface is permanently occupied by bayous, lakes and swamps.

These Delta plains were originally covered with heavy hardwood forests, much of which still stands in the low swampy areas. The trees are prevailingly of the moisture and water loving kinds, as would be expected, and differ from the tree flora of the last described region quantitatively rather than qualitatively. While no new species are found in this section, the bulk of the forest growth runs much more largely to a few dominant species. On the higher, better drained soils a fine growth of lowland oaks prevail, with an admixture of ash, hickory, pecan, beech, hackberry, and magnolia, with comparatively little undergrowth except along bayous and stream channels. In the low swamp areas the tree growth becomes predominantly a forest of swamp species, mainly of gum (*Nyssa silvatica*, *N. uniflora* and *N. aquatica*), red gum (*Liquidambar styraciflua*) and cypress, in dense growth. Cane and palmetto palm often form dense undergrowth all but impenetrable.

In open sand flats near the Mississippi River cottonwood is a very common growth, as also is the willow (*Salix nigra*).

The herbaceous flora of the Delta is not very varied. The shade of the forest is such that few species thrive beneath them. A few species not already mentioned as occurring in the adja-

cent region, together with a few others most commonly found in the lowlands, are given here:

<i>Polygonum Virginianum</i>	<i>Hymenocallis lacera</i>
<i>Commelina hirtella</i>	<i>Lythrum alatum</i> (openings)
<i>Penthorum sedoides</i>	<i>Ammannia coccinea</i>
<i>Lippia lanceolata</i>	<i>Spermacoce glabra</i>
<i>Saururus cernuus</i>	<i>Conobea multifida</i>
<i>Asclepias perennis</i>	<i>Spilanthes repens</i>

Jackson Prairie Region.—This region of small prairies extends in a belt varying from 10 to 30 miles wide, in a direction slightly northwest and southeast across the state (boundaries may be seen on the sketch map). Its greatest breadth is in the extreme western part from the longitude of Jackson to the Bluff Hills; eastward it narrows to the Alabama line. The region is one of rolling topography. In parts, as in the southern half of Madison County and the northern part of Hinds, the surface is gently rolling; in other parts where the soil is sandy, the topography is more broken. In the broad western part of the area the surface soil is Brown Loam of loess origin modified somewhat by the underlying calcareous Jackson clays; the sandy, hilly parts have a soil derived from the overlapping of the Jackson clays by red and yellowish sands of the Pliocene beds.

The typical prairie soils are rather heavy dark gray, or, in much of the area, lighter gray clays produced by the weathering of the calcareous clays and marls of the Jackson formation. This character of soil is not found in continuity over wide spaces, but is generally patchy, the patches being surrounded by one of the other types.

As would be expected, the flora of the region presents three rather well-marked phases. The typical soil, that of the true prairie type, supports a characteristic prairie flora: the western loam part supports the flora of the Brown Loam region, modified by invasions from the prairie flora, and the sandy loam parts toward the southeast support the extensions of the flora of the southern long-leaf pine belt, modified by additions from the prairie flora.

In this brief sketch it will be necessary to notice only the flora of the typical prairie, since the flora of the adjacent Brown Loam region, already considered, gives a representative impression of the vegetation of that part of the region overlain by the Brown Loam. The sandy soil division is sufficiently like the region lying immediately south that a discussion of the one will bring out the salient characteristics of both.

Most of the surface of even the prairie soil is now or has been, occupied by a somewhat undersized tree growth, in places quite open, in others rather dense. Further, while the trees in the western part are mostly hardwoods of a few species, in the more eastern parts pine, both long-leaf and short-leaf, is the dominant tree, affording commercial stands. These are probably invasions, the long-leaf pine coming from the sand regions to the south, and shortleaf pine from the sandy hills to the north of the prairie region. That the pine is normally not a tree of the loess soil is evident, though it invades that region as a second growth. Practically all the commercial pine of the state lies east of the Loess and Brown Loam regions.

The trees growing chiefly in the western loam part of the prairie region are hardwoods, consisting of oaks of a few species, as post oak, black jack, Spanish oak, tan-bark oak, and Texas oak. With these, occasional hickories, persimmon, and cedar occur. Along with the pines in the more eastern parts black jack and post oak are common, and occasionally the turkey oak extends into the sandy ridges.

Some characteristic herbaceous species of the prairies proper are given below:

<i>Rhus copallina</i>	<i>Penstemon pubescens</i>
<i>Rhus glabra</i>	<i>Petalostemon candidus</i>
<i>Tephrosia spicata</i>	<i>Petalostemon violaceus</i>
<i>Rhynchosia tomentosa</i>	<i>Baptisia leucantha</i>
<i>Delphinium azureum</i>	<i>Silphium integrifolium</i>
<i>Linum Virginianum</i>	<i>Silphium scaberrimum</i>
<i>Aesculus pavia</i>	<i>Liatris spicata</i>
<i>Polygala Boykinii</i>	<i>Aster virgatus</i>
<i>Desmanthus luteus</i>	<i>Rudbeckia hirta</i>
<i>Desmanthus brachylobus</i>	<i>Rudbeckia triloba</i>

<i>Echinacea purpurea</i>	<i>Rudbeckia laciniata</i>
<i>Solidago rugosa</i>	<i>Buchnera elongata</i>
<i>Onosmodium Carolinianum</i>	<i>Cacalia tuberosa</i>
<i>Helenium angustifolium</i>	<i>Crotalaria Purshii</i>
<i>Helianthus laetiflorus</i>	<i>Agave Virginica</i>
<i>Collinsonia scabriusecula</i>	<i>Asclepias variegata</i>
<i>Acerates paniculata</i>	<i>Asclepias tuberosa</i>
<i>Asclepiodora viridis</i>	

Lowland forms will not be described, as they present no characteristics different from the lowlands of adjacent regions, in connection with which they are sufficiently discussed.

Long Leaf Pine Region.—This division constitutes the whole of the state south of the Jackson prairies and east of the Loess region, except a low flat coastal stretch a few feet above sea level, and extending from five to fifteen miles inland from the beach. The soil here is sandy, and as just stated, the floristic characteristics are noticed in the eastern half of the state extending as far north as Meridian, thus lapping over that end of the Jackson prairie region. Since the red sandy formation that furnishes the soil of the long-leaf pine section extends north of Meridian, the flora of the region has followed the soil northward.

As mentioned above, this is a reddish-brown sandy loam, and is on the whole a more sterile soil than any of those already considered. It is generally poor in all the elements of plant food, and when above drainage is very dry. In the southern parts, however, low swales and flats between ridges are poorly drained, with wet and acid soil. The water-logged condition of the soil induces an acidity simulating the condition of a northern bog, with the result that these places support a flora very suggestive of bog flora.

The upland forests of this region are almost pure long-leaf pine (*Pinus australis*), with a very sparse sprinkling of other trees, though near the northern boundary there is a large admixture of short leaf yellow pine, and on the western border a considerable hardwood growth invades from the loess forests. Along stream valleys the pines are replaced by hardwoods of

numerous species, since the long leaf pine is not usually a low-land tree. Sterile sandy ridges in places support, besides the pine, a considerable shrubby growth of turkey oak and blue jack.

Remembering that over the greater part of this region the long-leaf pine constitutes fully ninety per cent of the tree growth, we append a list of the trees growing on the uplands of the region.

<i>Rhus copallina</i>	<i>Rhus typhina</i>
<i>Rhus toxicodendron</i>	<i>Dicopyros Virginiana</i>
<i>Castanea pumila</i>	<i>Sassafras officinale</i>
<i>Viburnum dentatum</i>	<i>Pinus australis</i>
<i>Pyrus angustifolia</i>	<i>Pinus mitis</i>
<i>Liquidamber styraciflua</i>	<i>Pinus taeda</i>
<i>Quercus stellata</i>	<i>Pinus heterophylla</i>
<i>Cornus florida</i>	<i>Quercus cinerea</i>
<i>Prunus Americana</i>	<i>Quercus nigra</i>
	<i>Quercus Catesbaei</i>

The following is a partial list of herbaceous species which grow beneath the open upland pine forests:

<i>Tephrosia Virginiana</i>	<i>Stylosanthes elatior</i>
<i>Tephrosia spicata</i>	<i>Ruellia ciliosa</i>
<i>Phaseolus pauciflorus</i>	<i>Houstonia purpurea</i>
<i>Coreopsis lanceolata</i>	<i>Eringium yuccaefolium</i>
<i>Aster adnatus</i>	<i>Pycnanthemum linifolium</i>
<i>Aster patens</i>	<i>Asclepias tuberosa</i>
<i>Aster paludosus</i>	<i>Eryngium virgatum</i>
<i>Jatropha stimulosa</i>	<i>Polygala nana</i>
<i>Stillingia salvatica</i>	<i>Polygala lutea</i>
<i>Cassia nictitans</i>	<i>Polygala grandiflora</i>
<i>Cassia chamaecrista</i>	<i>Clitoria mariana</i>
<i>Micrantha fuchsoides</i>	<i>Centrosema Virginiana</i>
<i>Gerardia aphylla</i>	<i>Rhynchosia reniformis</i>
<i>Ascyrum stans</i>	<i>Chrysopsis gramifolia</i>
<i>Ascyrum crux-andreae</i>	<i>Azelia cassioides</i>
<i>Liatris spicata</i>	<i>Dasytoma pectinata</i>
<i>Liatris squarrosa</i>	<i>Rudbeckia hirta</i>

<i>Drosera rotundifolia</i>	<i>Houstonia rotundifolia</i>
<i>Agave Virginiae</i>	<i>Aselepias amplexicaulis</i>
<i>Lupinus villosus</i>	<i>Silphium scaberrimum</i>

Trees and shrubs on stream bottoms and bordering swamps are the following:

<i>Pinus taeda</i>	<i>Quercus phellos</i>
<i>Pinus glabra</i>	<i>Quercus laurifolia</i>
<i>Chamaecyparis thyoides</i>	<i>Quercus aquaticus</i>
<i>Nyssa sylvatica</i>	<i>Quercus Virginiana</i>
<i>Nyssa aquatica</i>	<i>Quercus Michauxii</i>
<i>Liquidambar styraciflua</i>	<i>Magnolia grandiflora</i>
<i>Acer dasycarpum</i>	<i>Magnolia glauca</i>
<i>Symplocos tinctoria</i>	<i>Magnolia macrophylla</i>
<i>Azalea nudiflora</i>	<i>Chionanthus Virginiae</i>
<i>Azalea viscosa</i>	<i>Leucothoe axillaris</i>
<i>Cyrilla racemiflora</i>	<i>Illicium Floridanum</i>
<i>Smilax laurifolia</i>	<i>Gelsemium sempervirens</i>
<i>Stewartia Virginiae</i>	<i>Halesia diptera</i>
<i>Fraxinus Caroliniana</i>	<i>Hex vomitoria</i>
<i>Taxodium distichum</i> .	

The herbaceous forms are sufficiently like those of the Coastal Pine Meadows, the next region to be discussed, that consideration of them will be deferred.

Coastal Pine Meadows.—This is a low-lying region of slight relief. It borders the Gulf like a penumbra five to fifteen miles in width, but occasionally, especially around bay heads, widening to twenty-five or thirty miles. It is nowhere more than twenty to thirty feet above sea level. Ground water lies near the surface over the whole area, coming to the surface in occasional depressions, forming marshes and swamps which tend to follow lines roughly parallel with the coast. Near the coast an occasional sand ridge from ten to twenty feet higher than surrounding parts marks the position of former beach dunes, now fixed and clothed with vegetation, which varies from carpet grass and sand peas to tall pine forests.

The soil is sandy and grayish in the higher parts, and in the intervening low wet meadows, where water usually stands.

is black, peaty and acid. All the streams flowing through this region are sluggish and tortuous, with sandy bottoms and clear, amber-colored, peaty water.

This whole area is clothed with an open growth of pine and on the wet acid soils occurs an undergrowth of characteristic species resembling that of northern bogs. From a floristic point of view it is perhaps the most interesting region in the state, possessing more species peculiar to itself than any other.

The trees and shrubs of the dryer areas are represented by the following species:

<i>Pinus australis</i>	<i>Quercus cinerea</i>
<i>Pinus taeda</i>	<i>Acer dasycarpum</i> (along
<i>Pinus heterophylla</i>	streams)
<i>Quercus Virginiana</i>	<i>Simplocos tinctoria</i>
<i>Quercus laurifolia</i>	<i>Cyrilla racemiflora</i>
<i>Quercus Catesbaei</i>	<i>Cliftonia ligustrina</i>
<i>Quercus nigra</i>	<i>Oxydendrum arboreum</i>
<i>Magnolia grandiflora</i>	

Some of these species are also found along streams and bordering swamps. Others found in the low wet depressions are:

<i>Ilex glabra</i> (in dense thickets)	<i>Chamaecyparis thyoides</i>
<i>Ilex vomitoria</i>	<i>Cliftonia ligustrina</i>
<i>Magnolia glauca</i>	<i>Cyrilla racemiflora</i>
<i>Andromeda nitida</i>	<i>Azalea viscosa</i>
<i>Osmanthus Americana</i>	<i>Azalea nudiflora</i>
<i>Gaylussacia dumosa</i>	<i>Serenoa serrulata</i>
<i>Nyssa aquatica</i>	<i>Persea pubescens</i>
<i>Nyssa uniflora</i>	

Herbaceous species of the higher and drier soils are represented by the following:

<i>Polygala lutea</i>	<i>Hypericum densiflorum</i>
<i>Polygala nana</i>	<i>Viola primulaefolia</i>
<i>Rhexia glabella</i>	<i>Trilisa odoratissima</i>
<i>Rhexia Virginica</i>	<i>Linum Floridanum</i>
<i>Rhexia stricta</i>	<i>Pinguicula lutea</i>

<i>Rhexia serrulata</i>	<i>Aster vernus</i>
<i>Sabbatia gracilis</i>	<i>Sarracenia psittacina</i>
<i>Sabbatia campanulata</i>	<i>Ascyrum pumilum</i>
<i>Oenothera fruticosa</i>	<i>Ascyrum stans</i>
<i>Lobelia glandulosa</i>	<i>Zygadenus glaberrimus</i>
<i>Lycopodium alopecuroides</i>	

On low, acid, marshy depressions and open savannas, and bordering or growing in marshes, are interesting forms, some of the commoner and more characteristic of which are given below:

<i>Sarracenia rubra</i>	<i>Stokesia laevis</i>
<i>Sarracenia flava</i>	<i>Chaptalia tomentosa</i>
<i>Sarracenia Drummondii</i>	<i>Badwinia uniflora</i>
<i>Drosera rotundiflora</i>	<i>Rhexia lutea</i>
<i>Drosera filiformis</i>	<i>Eriocaulon decangulare</i>
<i>Drosera intermedia</i>	<i>Eriocaulon septangulare</i>
<i>Pogonia ophioglossoides</i>	<i>Lophiola aurea</i>
<i>Pogonia divaricata</i>	<i>Polygala ramosa</i>
<i>Calopogon pulchellus</i>	<i>Polygala cymosa</i>
<i>Calopogon parviflorus</i>	<i>Aletris aurea</i>
<i>Hibiscus aculeatus</i>	<i>Aletris farinosa</i>
<i>Xyris torta</i>	<i>Zygadenus glaberrimus</i>
<i>Lycopodium alopecuroides</i>	

The Gulf furnishes a strand flora quite distinct from that of the rest of the state. This is chiefly because of strand conditions, but also partly because of an accession of a number of tropical or subtropical species. In discussing the beach flora the species mentioned will include characteristic forms found on the islands off the coast.

Some of the common species found upon and immediately above the sandy beaches are given here.

Among trees the commonest are the live oak (*Quercus germinata*), pine (*Pinus australis*, *Pinus taeda*, *Pinus heterophylla*), myrica cerifera, and just above tide groves of *Daubentonia longifolia*.

Herbaceous plants common on the sandy beaches are :

<i>Amphistelma filiforme</i>	<i>Cenchrus tribuloides</i>
<i>Cenchrus megacephalus</i>	<i>Physalis angustifolia</i>
<i>Linum Foridanum</i>	<i>Oenothera humifusa</i>
<i>Croton maritimus</i>	<i>Chrysopsis seabrella</i>
<i>Solanum sisymbriifolium</i>	<i>Opuntia pes-corvi</i>
<i>Solanum alaeagnifolium</i>	<i>Panicum amarum</i>
<i>Solanum aculeatissimum</i>	<i>Ipomoea saggitata</i>
<i>Solanum gracile</i>	
<i>Cakile fusiformis</i>	<i>Salsola kali</i>
<i>Dondia linearis</i>	<i>Sesuvium portulacastrum</i>
<i>Strophostyles helvolus</i>	<i>Euphorbia polygonifolia</i>

Of characteristic species on dunes a little back from the beach, a few dune formers and sand binders are given here :

<i>Ilex vomitoria</i>	<i>Myrica cerifera</i>
<i>Serenoa serrulata</i>	<i>Ipomoea pes-caprae</i>
<i>Ceratiola ericoides</i>	<i>Ipomoea acetosaefolia</i>
<i>Uniola paniculata</i>	<i>Panicum halophilum.</i>

On live oak and pine flats immediately back from the beach dunes, especially on the larger islands, a few typical species occur, as given here :

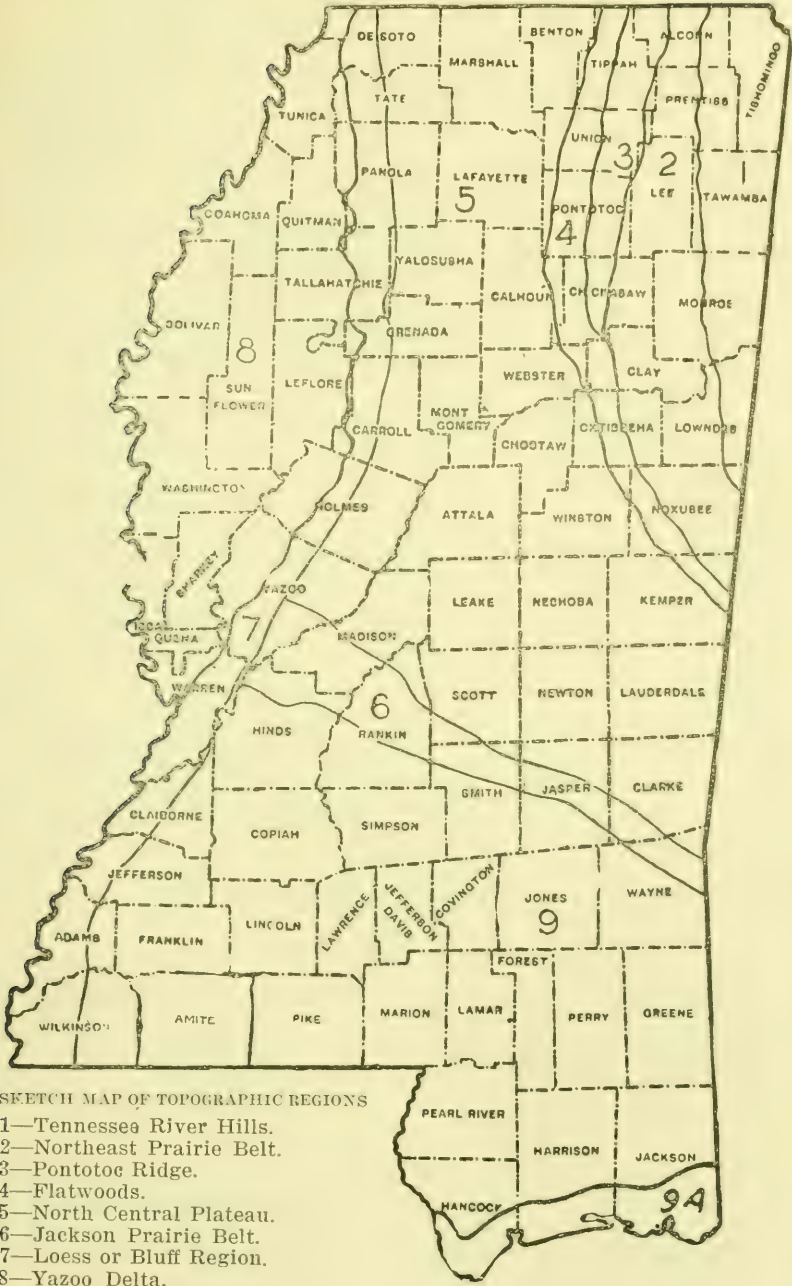
<i>Serenoa serrulata</i>	<i>Smilax auriculata</i>
<i>Myrica cerifera</i>	<i>Quercus geminata</i>
<i>Cenchrus megacephalus</i>	<i>Pinus taeda</i>
<i>Cenchrus tribuloides</i>	<i>Froelechia Floridana</i>
<i>Calamintha coccinea</i>	<i>Polygonella Americana</i>
<i>Erythrina herbacea</i>	<i>Jatropha stimulosa</i>
<i>Eryngium yuccaefolium</i> syn-	<i>Lechea tenuifolia</i>
<i>chatum</i>	<i>Trilisa odoratissima</i>
<i>Cassia chamaechrista</i>	<i>Diodia teres</i>
<i>Cladonia rangiferina.</i>	

Forms that are found in salt marshes along the coast and upon the chain of islands, are the following :

<i>Lycium Carolinianum</i>	<i>Heterotheca Lamarkii</i>
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<i>Avicennia nitida</i> (on muck islands)	<i>Solidago sempervirens</i>
<i>Pluchea camphorata</i>	<i>Borrichia frutescens</i>
<i>Crantzia lineata</i>	<i>Aster tenuifolia</i>
<i>Hydrocotyle ranunculoides</i>	<i>Gerardia maritima</i>
<i>Hydrocotyle interrupta</i>	<i>Seutera maritima</i>
<i>Sensuvium portulacastrum</i>	<i>Batis maritima</i>
<i>Iva frutescens</i>	<i>Salicornia herbacea</i>
<i>Statice Caroliana</i>	<i>Atriplex cristata</i>
<i>Dichromena leucocephala</i> (in brackish marshes)	<i>Utricularia subulata</i>

The species given here are only a small proportion of those occurring in this region of coastal flats. Comparing the flora of these flats and adjacent pine uplands with the pine barrens flora of the Atlantic coastal region—of southern New Jersey, for example—a remarkable parallelism will be noted. In general character the two floras have much in common, and many species are identical, or represented by closely related forms. Both have a comparatively large number of species peculiar to the region, and, as just stated, a good many in common that are not shown by other regions, though the Bog flora of the northern United States approaches closely in character and aspect that of the pine barrens. General similarity of soil conditions may be sufficient to explain the persistence of these peculiar floras in their particular situations, but hardly accounts for their origin in such widely separated areas.



SKETCH MAP OF TOPOGRAPHIC REGIONS

- 1—Tennessee River Hills.
- 2—Northeast Prairie Belt.
- 3—Pontotoc Ridge.
- 4—Flatwoods.
- 5—North Central Plateau.
- 6—Jackson Prairie Belt.
- 7—Loess or Bluff Region.
- 8—Yazoo Delta.
- 9—Coastal Pine Meadows.

Catalogue of Flowering Plants and Ferns

PTERIDOPHYTA.

FERN PLANTS.

Sub-Kingdom **PTERIDOPHYTA**

Fern-like Plants

Order **FILICALES**. Ferns proper.

Family **OPHIOGLOSSACEAE**. Adder's Tongue Family.

Ophioglossum L. Adder's Tongue.

Ophioglossum pusillum Nutt. (*O. nudicaule* Sturm.)

Sandy soil near the coast (Mohr).

BOTRYCHIUM Sw. Grape Fern.

Botrychium ternatum (Thumb) Sw. (*Osmunda ternatum* Thunb.)

Rich shaded soil. Prentiss Co., Itawamba Co., DeKalb, Collins.

Geol. Surv. Herb.

Botrychium Virginianum (L) Sw. (*Osmunda Virginiana* L.)

Damp rich woods. Hattiesburg; Shubuta; New Albany; Ripley; Eastport; Vicksburg.

Geol. Surv. Herb.

Family **POLYPODIACEAE**. Fern Family

POLYPODIUM L. Polypody.

Polypodium polypodioides (L.) Hitchcock (*P. ineanum* Sw.)

Shady rocks and trees; a crevice plant in the sandstone bluffs of Tishomingo Co.; Oxford; Carrollton; Jackson.

Geol. Surv. Herb.

ADIANTUM L. Maidenhair Fern.

Adiantum capillus-veneris L.

Shaded limestone bluffs, Limestone Creek, Wayne Co.

Geol. Surv. Herb.

Adiantum pedatum L.

Rich shaded slopes; Tishomingo, Grenada, Madison, Warren, and Claiborne Counties; Ripley; Eastport; Itawamba Co.; Columbus.

Geol. Surv. Herb. Allison Herb.

PTERIS L. Brake Fern.

Pteris aquilina L.

Dry open upland woods in most parts of the state. Tishomingo Co., Hinds Co.; Lafayette Co.

Geol. Surv. Herb.

Pteris aquilina caudata L.

Coastal regions and islands (Tracy); Collins; Pascagoula.

Geol. Surv. Herb.

Loess bluffs, Natchez; clinging to damp walls of the Old

Loss bluffs, Natchez; clinging to damp walls of the Old Capitol, Jackson.

CHEILANTHES Sw. Lip Fern.

Cheilanthes lanosa (Michaux.) Watt. (*Cheilanthes vestita* Sw.)

Shaded limestone bluffs, Tishomingo Co.

Geol. Surv. Herb.

WOODWARDIA J. E. Smith. Chain Fern.

Woodwardia areolata (L.) Moore (*W. angustifolia* Smith.)

Shaded wet soil and swamps. Lafayette Co.; Hinds Co.; Warren Co.; Newton; Lost Gap; Chunky; Biloxi (Tracy).

Geol. Surv. Herb.

ASPLENIUM L. Spleenwort.

Asplenium playneuron (L.) Oakes (*A. ebenenum* Ait.)

Damp shaded soil; Oxford; Eastport; Utica; New Albany; Hattiesburg.

Geol. Surv. Herb.

Asplenium angustifolium Michx. Narrow-leaved Spleenwort.

Rich moist woods. Eastport along Tennessee River bluffs; Morton; Ripley.

Geol. Surv. Herb.

Asplenium filix-foemina (L.) Bernh. (*Polypodium filix-foemina*.) Lady Fern.

Moist woods. Lafayette Co.; Simpson Co., (Hilg. Ms.); Ripley.

CAMPTOSORUS Link, Walking Fern.

Camptosorus rhizophyllus (L.) Link;

On limestone ledges along Tennessee River Bluffs at Eastport: Pontotoc Ridge, east and northeast of New Albany.

Geol. Surv. Herb.

PHEGOPTERIS Fee. Beech Fern.

Phegopteris hexagonoptera (Michx.) Fee. (*Polyodium hexagonoptera* Michx.)

Rich shaded woods. Lafayette, Hinds, Warren and Tishomingo Counties: Pontotoc, Ripley, Eastport, Grenada, Meadville, Fulton.

Geol. Surv. Herb.

POLYSTICHUM Roth. Christmas Fern.

Folystichum acrostichoides (Michx.) Schott. (*Aspidium acrostichoides* Sw.)

Rather dry wooded slopes over the state. Oxford; Jackson; Carrollton; Charleston; New Albany.

Geol. Surv. Herb

DRYOPTERIS Adans. Shield Fern.

Dryopteris thelypteris (L.) Gray (*Aspidium thelypteris* Sw.)
Swamps. Warren Co.; Tishomingo City; Picayune.

Geol. Survey Herb.

Dryopteris Floridana (Hook.) Kuntze (*Aspidium Florida*na Eaton).

Damp shaded woods. Picayune.

Geol. Survey Herb.

Dryopteris marginalis (L.) Gray (*Aspidium marginale* Sw.)

Damp shaded woods. Southwestern Hinds Co.

Geol. Survey Herb.

Dryopteris patens (Sw.) Kuntze (*Aspidium patens* Sw.)

Shaded woodlands in southern counties. Southern Hinds (T. P. Bailey); Jefferson and Wayne Counties; Smith Co.

Geol. Survey Herb.

CYSTOPTERIS. Bernh. Bladder Fern.

Cystopteris fragilis (L.) Bernh. (*Polypodium fragile* L.)

On limestone ledges in northeast Mississippi. Eastport.

Geol. Survey Herb.

ONOCLEA L. Sensitive Fern.

Onoclea sensibilis L.

Shaded swamps. Lafayette Co.; Hinds Co. (T. P. Bailey); Clarke Co.; Toombsuba; Pontotoc; Ripley; Lost Gap; Grenada; Mich. City; Fulton.

Geol. Survey Herb.

WOODSIA, R. Brown.

Woodsia obtusa (Spring.) Torr. (*Aspidium obtusum* Willd.)

Shaded rocky banks. Eastport; New Albany; southern Hinds Co.

Geol. Survey Herb.

TRICHOMANES L. Bristle Fern.

Trichomanes Petersii, Gray.

Dripping sandstone ledges. "Alabama, Georgia and Mississippi," Small.

OSMUNDA L. Flowering Fern.

Osmunda cinnamomea L. Cinnamon Fern.

Open swamps perhaps throughout the state. Oxford, Landon; Smith Co.; Hinds Co.; Eastport; Lost Gap; Mich. City; Meadville.

Geol. Survey Herb.

Osmunda spectabilis Willd. (*O. regalis* L.) Royal Fern.

Borders of marshes, probably over the state. Oxford; Landon;; Bay St. Louis; Ripley; Eastport; Mich. City; Lost Gap.

Order EQUISETALES... Horsetails.

Family EQUISATACEAE. Horsetail Family.

Equisetum L.**Equisetum hyemale L.**

Wet banks and marshes. New Albany; Charleston.

Geol. Surv. Herb.

Equisetum robustum A. Br.Wet depressions in loess hills. Natchez; Haynes' Bluff,
Warren Co.

Geol. Surv. Herb.

Order LYCOPODIALES. Club Mosses.

Family LYCOPODIACEAE. Club Moss Family.

Lycopodium L. Club Moss.**Lycopodium alopecuroides L.**Low wet pine barrens. Lost Gap; Lauderdale Springs;
Picayune; Landon; Tylertown.

Geol. Surv. Herb.

Lycopodium adpressum (Chapm.) Lloyd & Underw. (Lycopodium alopecuroides adpressum Chapm.)

Pine barren swamps; near the coast. Mohr.

Lycopodium pinnatum (Chapm.) Lloyd & Underwood (L. undatum pinnatum, Chapm.)

Pine barren swamps near the coast. Mohr.

Lycopodium Carolinianum L.Low pine barrens of South Mississippi. Lauderdale
Springs; Picayune; State Line.

Geol. Surv. Herb.

Lycopodium cernuum L.

Wet banks near the coast. Small.

Lycopodium Chapmanii Underw.Wet shaded depressions. Fulton; Winona; Lauderdale
Springs; State Line; Hurley; Lyman.

Geol. Surv. Herb.

Family **SELAGINELLACEAE**. Underw.**SELAGINELLA** Beauv.**Selaginella apus** (L.) Spring. (*Lycopodium apodum* L.)

Wet springy banks, mostly in pine barrens. Jackson; Hattiesburg.

Geo. Surv. Herb.

Subkingdom **SPERMATOPHYTA**. Flowering and Seed-bearing Plants.Class **GYMNOSPERMAE**. Cone-bearing Plants.**PINACEAE**. Pine Family.**Pinus L.** Pine.**Pinus taeda** L. Loblolly, or Old Field Pine.

Mostly an upland tree throughout the state in light sandy soils. Not common originally in the loess bluffs bordering the Mississippi Delta, or in the Delta. As second growth forms dense young forests throughout the state.

Pinus hetrophylla. (Ell.) Sudworth (*P. Elliottii* Englem.) Cuban Pine.

Coast Counties. (Hilg. Rep.) Coastal Islands. Wayne, Perry, Forrest, Lamar Counties.

Pinus palustris Mill. (*P. australis* Michx.) Long Leaf Pine.

Southern counties to the Coast; Coastal Islands. (Tracy.) Lost Gap.

Pinus echinata Mill. (*P. mitis* Michx.) Short Leaf Yellow Pine. Central Pine Belt.

Allison Herbarium

Pinus glabra Walt. Spruce Pine.

First bottoms of streams flowing into the Gulf. Smith, Wayne, Jones, Neshoba, Hinds, Pike, Amite, Forest and Hancock counties; Lauderdale.

Geol. Surv. Herb.

Pinus Virginiana Mill. (*P. inops* Ait.)

Northeastern highlands, Tishomingo Co.; Oktibbeha Co.
(Tracy.)

Geol. Surv. Herb.

TAXODIUM L. C. Rich. Bald Cypress.

Taxodium distichum (L.) L. C. Rich. (*Cupressus disticha* L.)

Throughout the state on river flood plains.

Taxodium distichum imbricaria. (Nutt.) Sudworth. (*Cupressus disticha imbricaria* Nutt.)

Coastal Counties; Fontanbleau (R. M. Harper); Hurley;
Picayune.

Geol. Surv. Herb.

CHAMAECYPARIS. White Cedar.

Chamaecyparis thyoides (L.) B. S. P. (*Cupressus thyoides* L.)

Coastal pine region in sandy swamps. Picayune; Pearl
River Co.; Moss Point (Harper).

JUNIPERUS. Juniper.

Juniperus Virginiana L. Red Cedar.

Throughout the state. Coastal Islands.

Geol. Surv. Herb.

Juniperus Barbadensis L. (*J. Virginiana australis* Carr.)

Sparingly along the Gulf Coast.

Class ANGIOSPERMAE. True Flowering Plants.

Sub-class MONOCOTYLEDONES.

Family TYPHACEAE.

Typha L. Cat-Tail**Typha latifolia** L.

Marshes throughout the state.—June.

Typha angustifolia L.

Marshes near the Coast and Coastal Islands.—June.

Geol. Surv. Herb.

SPARGANIACEAE. Bur-reed Family.

SPARGANIUM. Bur-reed.

Sparganium androchladum (Engelm.) Morong (S. simplex androchladum Engelm.)

Shallow ponds and marshes. Oxford; Iuka.

Geol. Surv. Herb.

NAIADACEAE. Pond Weed Family.

Potamogeton L. Several undetermined species.

RUPPIA L. Ditch grass.

Ruppia maritima L.

Brackish pools along the Coast and Coastal Islands (Tracy). June.

SCHEUCHZERIAACEAE. Arrow-Grass Family.

TRIGLOCHIN. Arrow-grass.

Triglochin striata Ruiz & Pav.

Marshes along the Coast and Coastal Islands. (Tracy). June and July.

ALISMACEAE. Water-Plantain Family.

ALISMA L. Water Plantain

Alisma plantago aquatica L.

Marshes throughout the state.

ECHINODORUS Engelm.

Echinodorus radicans, (Nutt.) Engelm. (*Sagittaria radicans* Nutt.)

Marshes in Coastal Counties, mostly; Tunica. May-July.

Geol. Surv. Herb.

SAGITTARIA L. Arrowhead.

Sagittaria latifolia Willd. (*S. variabilis* Engelm.)

Marshes throughout the State. Jackson; Lumberton. September.

Geol. Surv. Herb.

Sagittaria lancifolia L.

Marshes near the coast; Picayune; Petit Bois Island.

Geol. Surv. Herb.

Sagittaria lancifolia falcata (Pursh.) J. G. Smith. (*S. falcata* Pursh.)

Marshes along the Coast; Hancock Co. (A. Allison), July.

Geol. Surv. Herb.

Sagittaria graminea, Michx.

Ponds and marshes. Chunky; Gulfport. June.

Geol. Surv. Herb.

Sagittaria cycloptera (J. G. Smith) Mohr. (*S. graminea cycloptera*, J. G. Smith).

Coast and Coastal Islands (Tracy). June.

Sagittaria platyphylla (Engelm.) J. G. Smith.

Ponds and ditches. Coast regions, and northward (Mohr).

June-September.

POACEAE. Grass Family**TRIPSACUM** L. Spiked Gama Grass.**Tripsacum dactyloides** L.

Along ditches. Yalobusha Co. (Hilg. Ms.) Oxford; Starkville; Rankin Co.; Wilkinson Co.; Biloxi. July.

Geol. Surv. Herb. and A. & M. College Herb.

ERIANTHUS, Michx. Plume Grass.**Erianthus alopecuroides** L. (Ell.) (*Andropogon alopecuroides* L.)

In swampy lands. Marion Co. (Hlg. Ms.)

Erianthus Tracyi Nash.

Oktibbeha Co. (Tracy.)

Erianthus saccharoides Michx.

Marshes near the coast. Biloxi; Ocean Springs; Starkville. (Tracy.)

A. & M. College Herb.

Erianthus brevibarbis Michx. (*E. alopecuroides brevibarbis* Chapm.)

Lawrence County (Hlg. Ms.); Jackson Co.; Starkville (Tracy). September.

A. & M. College Herb.

Erianthus strictus Bald.

Margins of swamps. Coastal region; Harrison Co.; Coastal Islands (Tracy); Columbus.

A. & M. College Herb.

Erianthus Smallii Nash.

Eastern and Central Prairies. (Mohr.)

Erianthus tripsacoides.

Harrison Co. (Tracy).

Erianthus contortus Ell.

Pine woods (Small.)

MANISURIS L.

Manisuris rugosa Chapm. (*Rottboellia rugosa* Chapm.)

Borders of swamps in coastal region (Tracy) September.

A. & M. College Herb.

Manisuris corrugata (Bald.) Mohr (*Rottboellia corrugata* Bald.)

Wet pine barrens near the coast. Ocean Springs. Aug.

A. & M. College Herb.

Manisuris corrugata areolata (Hackel) Mohr. (*Rottboellia corrugata areolata* Hackel.)

Low pine barrens near the coast (Mohr.)

Manisuris cylindrica (Mchx.) Kuntze.

Eastern part of state. (Mohr.)

HACKELOCHLOA Kuntze.

Hachelochloa granularis (L.) Kuntze (*Manisuris granularis* S. W.) Adv.

Waste grounds. Newton. June.

A. & M. College Herb.

ANDROPOGON L.

Andropogon tener Kunth.

Dry sandy soil. Biloxi; Columbus (Tracy.) August.

A. & M. College Herb.

Andropogon glaucopsis Small.

Dry soil (Small).

Andropogon scoparius Michx.

Occurs over the state in thin sandy soil. Simpson Co. (Hlg. Ms.); Oktibbeha and Harrison counties (Tracy).

Andropogon scoparius villosa.

Saltillo.

A. & M. College Herb.

Andropogon scoparius villosissimus Kearn.

Dry sandy soil (Small).

Andropogon scoparius flexile.

Coastal Counties and Islands (Tracy).

Andropogon glomeratus (Walt.) B. S. P. (*Cinna glomerata* Walt.)

Damp pine barrens. Smith Co. (Hlg. Ms.); Oktibbeha Co.; Coastal Islands (Tracy).

Andropogon macrourus viridis Michx.

Starkville.

A. & M. College Herb.

Andropogon Virginicus L. (*A. dissitiflorum* Michx.)

Dry, sandy soil. Tishomingo Co. (A. Allison); Oktibbeha and Harrison counties; Coastal Islands.

A. & M. College Herb.

Andropogon perangustatus Nash.

Dry soil (Small.)

Andropogon corymbosus (Chapm.) Nash (*A. macrourus corymbosus* Chapm.)

Wet pine barrens (Small). Starkville.

A. & M. College Herb.

Andropogon camphyloracheus Nash.

Dry sandy soil. (Small.)

Andropogon Tennesseeensis Scribn.

Dry soil (Small).

Andropogon Tracyi Nash.

Dry soil. Columbus (Tracy).

Andropogon tetrastachyus Ell.

Starkville and Gulf Coast (Tracy). October.

A. & M. College Herb.

Andropogon Mohrii (Haekel)

Gulf Coast (Tracy). October.

A. & M. College Herb.

Andropogon maritimus (Small)

Gulf Coast and Islands (Tracy).

Andropogon Elliottii Chap.

Saltillo; Sessums; Jackson; Gulf Coast and Islands (Tracy).

A. & M. College Herb.

Andropogon subtenuis Nash.

Sandy soil (Small).

Andropogon argyraeus Schult.

Southern pine belt Biloxi; Oxford. September.

A. & M. College Herb.

Andropogon provincialis Haekel.

Starkville; Ocean Springs.

A. & M. College Herb.

Andropogon sericeus.

Starkville. Cultivated.

A. & M. College Herb.

Andropogon furcatus Muhl

Southern pine region (Hilg. Ms); Starkville; Oxford.

Geol. Surv. Herb. A. & M. College Herb.

CHYRSOPOGON Trin. Indian Grass**Chrysopogon avenaceus** Michx.

Perhaps throughout the state; Biloxi (Tracy).

Chrysopogon serralatus

Starkville. Introduced.

A. & M. College Herb.

Chrysopogon Elliotti Mohr (*Andropogon nutans* Ell.)

Southern pine region; Covington Co. (Hilg. Ms.); Biloxi.

A. & M. College Herb.

Chrysopogon nutans linneanus Doell. (*A. nutans linneanum* Haekel).

Dry sandy soil (Small).

SORGHUM Pers.

Sorghum halapense (Ell.) Pers. (*Holeus halapense* Ell.) Johnson Grass.

(Int.) Over the state, chiefly in the prairies.

PASPALUM Ell.

Paspalum compressum Nees. (P. *platycaulon* Poir.) Carpet Grass.

Hinds and Oktibbeha counties; Crystal Springs; Lake; Starkville; Ocean Springs; Cat Island.

A. & M. College Herb.

Paspalum paspalodes (Michx.) Scribn. (P. *digitaria* Poir.)

Coastal Islands (Tracy). May-June.

Paspalum mucronatum Muhl.

Columbus.

A. & M. College Herb.

Paspalum membranaceum Walt. (P. *Walterianum* Schult.)

Saltillo; Biloxi; Ocean Springs; Horn Island. Aug.-Sept.

A. & M. College Herb.

Paspalum conjugatum Bergius.

Chiefly in Southern counties; Starkville. June.

A. & M. College Herb.

Paspalum distichum L. Joint Grass.

Marshall, Oktibbeha and Hinds counties; Coastal Islands (Tracy). June-August.

Paspalum ciliatifolium Michx.

Coastal Islands (Tracy.)

Paspalum ciliatifolium dasyphyllum (Ell.) Chapm. (P. *dasyphyllum* Ell.).

Pine barrens (Mohr). July-September.

Paspalum setaceum Michx.

Dry sandy soil; Coastal Islands (Tracy).

Paspalum laeve Michx.

Distributed over the state: Starkville; Lake; Holmes Co.; Martin; Biloxi. June-July.

A. & M. College Herb.

Paspalum Muhlenbergii Nash.

Sandy fields (Small).

Paspalum praecox Walt. (*P. lentiferum* Lam.)

Starkville; Biloxi; Ocean Springs. May-June.

A. & M. College Herb.

Paspalum praecox Curtisianum (Steud.) Vasey; (*P. Curtisianum* Steud.)

Low pine barrens and Coastal Islands (Tracy). June.

Paspalum plicatum Michx. (*P. undulatum* Poir.)

Starkville; Coastal regions and Islands (Tracy). June.

A. & M. College Herb.

Paspalum bifidum (A Bertol.) Nash (*P. racemosum* Nutt.)

Starkville; Ocean Springs.

A. & M. College Herb.

Paspalum dilatatum Poir. (*P. ovatum* Nees).

Central and southern counties; Durant. June-August.

A. & M. College Herb.

Paspalum Floridanum Michx.

Smith Co. (Hilg. Ms.); Starkville; Lake; Biloxi; Ocean Springs; Ship Island. June.

A. & M. College Herb.

Paspalum glabratum (Englm.) Mohr (*P. Floridanum glabratum* Englm.).

Low pine barrens near the coast; Biloxi (Tracy).

Paspalum laeviglumis Scribn.

Moist soil. Summer and fall (Small).

Paspalum altissimum Le Conte.

Dry fields. Autumn (Small).

Paspalum boscianum Fluegge (*P. purpurascens* Ell.) Bull Grass.

Starkville; Newton; Ocean Springs; Wilkinson and Harrison counties. August-October.

A. & M. College Herb.

Paspalum amplum Nash.

Wet soil. Summer (Small).

Paspalum taedum Nash.

Summer and fall (Small).

Paspalum Kearneyi Nash.

Dry soil. Autumn (Small).

Paspalum larranagae Arechav.

Warren and Hinds counties.

Geol. Surv. Herb.

ANTHAENANTIA Beauv.

Anthraenania villosa (Michx.) Beauv. (*Phalaris villosa* Michx.)

Sandy pine barrens; Biloxi (Tracy). August.

Anathraenania rufa (Ell.) Benth. (*Panicum rufus* Kunth).

Low wet pine barrens. Biloxi (Tracy). June-July.

ERIOCHLOA. HBK.

Eriochloa annulata.

Starkville.

A. & M. College Herb.

Eriochloa aristata.

Starkville.

A. & M. College Herb.

Eriochloa punctata (L.) Hamilt.

Starkville.

A. & M. College Herb.

SYNTHERISMA Walt. Finger Grass.

Syntherisma filiforme (L.) Nash (*Panicum filiforme* L.) Slender Crab Grass.

Starkville; Meridian; Biloxi; Coastal Islands. July-Oct.

A. & M. College Herb.

Syntherisma suatina.

Biloxi (Tracy).

Syntherisma barbatum (Willd.) Nash.

Sandy soil (Small).

Syntherisma linearis (Krock.) Nash. (*Panicum lineare* Krock) Smooth Crab Grass.

Starkville; Biloxi (Tracy). September.

A. & M. College Herb.

Syntherisma serotinum Walt. (*Digitaria serotina* Michx.)
Hoary Crab Grass.

Low open ground. Ocean Springs; Horn Island. July-Oct.
A. & M. College Herb.

Syntherisma humifusum (Pers.) Rydb.
Coastal Islands (Tracy).

Syntherisma sanguinale (L.) Nash. (*Panicum sanguinale* L.)
Common Crab Grass.

Distributed over the state. Coast, and Islands (Tracy).
Geol. Sur. Herb. A. & M. College Herb.

Syntherisma fimbriatum (Link.) Nash. (*Digitaria fimbriata*
Link).

Biloxi and Coastal Islands (Tracy). August-Sept.

TRICHOLAENA Schrad.

Tricholaena insularis (L.) Griseb. (*Andropogon insularis* L.)
Starkville. July.

A. & M. College Herb.

ECHINOCHLOA Beauv.

Echinochloa colona (L.) Link.

Starkville; Vicksburg; Coastal Islands; Bay St. Louis.
July-September.

All. Herb. A. & M. College Herb.

PANICUM L.

Panicum Texanum Buck. Texas Millet.
Amite Co.

A. & M. College Herb.

Panicum stenodes Griseb. (*Panicum anceps strictum* Chapm.).
Coastal region (Mohr); Biloxi; Ocean Springs; Horn Is-
land.

A. & M. College Herb.

Panicum repens L. (*P. arenarium* Brot.). Creeping Panicum.

Coastal regions and Islands (Tracy). July-September.

A. & M. College Herb.

- Panicum littorale** Mohr. (*P. repens confertum* Vasey).
Coast and Coast Islands (Tracy).
- Panicum melicarium** Michx. (*P. hians* Ell.) Gaping Panicum.
Jackson; Lake; Enterprise; Coastal Islands (Tracy). June
A. & M. College Herb.
- Panicum depauperatum** Muhl. Impoverished Panicum.
Attala Co. (Hilg. Ms.); Tishomingo Co.; Coast Islands.
All. Herb. A. & M. College Herb.
- Panicum neuranthum** Griseb. Nerved Panicum.
Lake; Ocean Springs. June.
A. & M. College Herb.
- Panicum angustifolium** Ell. (*P. sanguineum* Wats.).
Biloxi and Coastal Islands. May.
A. & M. College Herb.
- Panicum arenicola** Ashe.
Southern pine region. Dry soil. (Small). May-June.
- Panicum brachyanthum** Steud.
Wet soil (Small). Autumn.
- Panicum polycaulon** Nash.
Low pine lands. Summer.
- Panicum curtivaginum** Ashe.
Sandy soil (Small). Spring and summer.
- Panicum laxiflorum** Lam. Loose-flowered Panicum.
Holmes Co.; Starkville; Crystal Springs; Grenada; Lake;
Biloxi; Ocean Springs. July.
A. & M. College Herb.
- Panicum consanguineum** Kunth (*P. villosum* Ell.).
Jackson. March-July.
A. & M. College Herb.
- Panicum pyriforme** Nash.
Damp sandy soil (Mohr). March.
- Panicum ciliatum** Ell. (*P. ciliatifolium* Kunth).
Sandy soil. Starkville. Summer.
A. & M. College Herb.

Panicum liliiferum Nash.

Ocean Spring (Tracy).

Panicum albomarginatum Nash.

Sphagnum bogs near the coast. June.

Panicum ensifolium Baldw. (*P. nitidum ensifolium* (Baldw) Chapm.)**Panicum trifolium** Nash.

Sandy soil (Small). Spring and summer.

Panicum lucidum Ashe.

Wet shaded places (Small). May.

Panicum curtifolium Nash.

Sandy soil Type locality Ocean Springs (Tracy). July.

Panicum paucipilum Nash.

Wet soil (Small). Summer.

Panicum parvispiculum Nash.

Dry open woods (Small). April and May.

Panicum Nashianum Scribn. Nash's Panic Grass.

Avondale; Biloxi; Coastal Island (Tracy). Spring.

A. & M. College Herb.

Panicum neonanthemum (perhaps *P. neuranthum* Griseb.).

Biloxi (Tracy).

Panicum Roanokensis Ashe.

Dry woods near the coast (Mohr). April-May.

Panicum dichotomum L. Forked Panicum.

Starkville; Durant; Meridian; Crystal Springs; Leake Co.;
Lake; Biloxi; Poplarville; Ocean Springs. June.

A. & M. College Herb.

Panicum nitidum Lam.

Starkville; Crystal Springs; Biloxi; Horn Island.

A. & M. College Herb.

Panicum barbulatum Michx. (*P. nitidum barbulatum* Chapm.).
Bearded Panicum.

Open damp woods. Starkville; Morton; Wilkinson and Harrison counties.

Geol. Surv. Herb. A. & M. C. Herb.

Panicum Wrightianum Scribn.

Sandy soil (Small). Summer and fall.

Panicum pubescens Lam. Hairy Panicum. Ocean Springs (Tracy); Grenada. May.

Panicum lanuginosum Ell. Woolly-stemmed Panicum.

Biloxi. April-May.

A. & M. College Herb.

Panicum sphaerocarpon Ell. Round-fruited Panicum.

Oxford; Starkville; Holmes County; Crystal Springs; Lake; Ocean Springs; Gulfport.

Geol. Surv. Herb. A. & M. College Herb.

Panicum polyanthes Schult. (*P. microcarpon* Muhl.) Small-fruited Panicum.

North Mississippi (Hilg. Ms.); Saltillo (Tracy). May.

A. & M. College Herb.

Panicum scoparium Lam. (*P. scoparium major* Vasey).

Over the state in shady banks. Starkville; Coastal Islands (Tracy).

A. & M. College Herb.

Panicum oligosanthes Schult. (*P. pauciflorum* Ell.)

Damp, light soil. Starkville; Madison; Ocean Springs; Horn Island. May-June.

A. & M. College Herb.

Panicum viscidum Ell. (*P. scoparium* Michx.).

Madison Co. (Hilg. Ms.) July-August.

A. & M. College Herb.

Panicum halophilum Nash.

Coast and Coastal Islands (Tracy). Spring and fall.

Panicum scabriusculum Ell.

Ocean Springs. April-May.

A. & M. College Herb.

Panicum commutatum Schult.

Tishomingo Co.; Morton; Starkville; Biloxi; Ocean Springs. April-May.

Geol. Surv. Herb. A. & M. College Herb.

Panicum Joorii Vasey.

Damp woods. August-September.

Panicum latifolium L. (*P. Walteri* Poir.).

Starkville; Coastal Islands (Tracy). June-September.

A. & M. College Herb

Panicum publifolium Nash. (*P. latifolium* Molle Vasey).

Rocky woods (Small). Summer.

Panicum Ashei G. Pearson.

Tishomingo Co.

Ali. Herb.

Panicum clandestinum L.

Durant; Madison Co. (Hilg. Ms.).

A. & M. College Herb.

Panicum xalopense HBK.

Open damp woods. Morton. April.

Geol. Surv. Herb.

Panicum capillare L.

Starkville; Lake.

A. & M. College Herb.

Panicum flexile Scribn. Wiry Panic Grass.

Starkville.

A. & M. College Herb.

Panicum ciliosum Nash.

Dry soil (Small). Summer and fall.

Panicum inflatum Scribn. & Smith.

Sandy soil (Small.) Autumn.

Panicum erectifolium Nash.

Wet soil (Small). Spring and summer.

Panicum proliferum Lam.

Perhaps over the state. Starkville; Biloxi.

A. & M. College Herb

Panicum Atlanticum Nash.

Dry soil (Small).

Panicum mutabile Smith.

Sandy soil (Small). Summer and fall.

Panicum cognatum Schult. Autumnal Panic Grass.

Northeastern prairies; Starkville. August-September.

A. & M. College Herb

Panicum verrucosum Muhl. Warty Panic Grass.

Starkville; Meridian; Biloxi.

A. & M. College Herb.

Panicum rostratum Muhl. Beaked Panicum.

Biloxi; Coastal Islands (Tracy).

Panicum amarum Ell. Seaside Panic Grass.

Coastal Islands (Tracy).

Panicum anceps Michx.

Durant; Martin (Tracy).

Panicum longifolium Torr.

Biloxi (Tracy). July-Oct.

Panicum elongatum ramosior (Pursh., Mohr.

Damp, cultivated ground (Mohr).

Panicum agrostoides Muhl.

Starkville; Biloxi (Tracy). July-August.

A. & M. College Herb.

Panicum virgatum L. Switch Panic Grass.

Starkville; Tupelo; Columbus; Biloxi; Coastal Islands

Panicum crus-galli L. Barnyard Grass; Cockspur Grass.

Over the state. Martin; Horn Is.

A. & M. College Herb.

Panicum stipitatum Nash.

Howells Springs; Lafayette Co. September.

Geol. Surv. Herb

Panicum Walteri Pursh.

Lawrence Co. (Hilg. Ms.); Cat Island (Tracy). July.

Panicum gibbum Ell. (*P. Elliottianum* Schult.). Purple Panicum.

Starkville; Ocean Springs; Leake Co.; Coastal Islands (Tracy). July-September.

A. & M. College Herb.

Panicum sphagnicola Nash.

Ocean Springs; Avondale (Tracy).

OPLISMENUS Beauv.

Oplismenus setarius (Lam.) Roe & Schult. (*Panicum setarium* Lam.).

Warren County; Ocean Springs. July-September.

Geol. Surv. Herb. A. & M. College Herb.

CHAETOCCHLOA Scribn.

Cheateochloa glauca (*Setaria glauca* Beauv.) Pigeon Grass.

Holmes Co.; Lake; Starkville. July-October.

A. & M. College Herb.

Chaetochloa glauca perennis Coit.

Cat Island.

A. & M. College Herb.

Chaetochloa glauca imberbis Chapm.

Artesia; Biloxi.

A. & M. College Herb.

Chaetochloa glauca laevigatum Ell.

Horn Island.

Chaetochloa viridis (L.) Scribn. Green Foxtail.

Throughout the state. Lafayette and Warren counties. June-September.

A. & M. College Herb.

Chaetochloa magna (Griseb.) Scribn. (*Setaria magna* Griseb.).
Large Swamp Millet.

Coastal Islands and Gulf Coast (Tracy). July.

Chaetochloa composita (H.B.K.) Scribn.

Wilkinson Co.

A. & M. College Herb.

CENCHRUS L. Sandbur.

Cenchrus tribuloides L. Common Sandbur.

Oxford; Coastal plains and Islands (Tracy). July-Oct.

A. & M. College Herb.

Cenchrus macrocephalus Scribn. Large Sandbur.

Coast and Islands. July-October.

A. & M. College Herb.

Cenchrus incertus M. A. Curtis. Southern Sandbur.

Coast and Coastal Islands. July-October.

A. & M. College Herb.

PENICILLARIA Beauv.

Penicillaria spicata (L.) Willd.

Waste places. Summer and fall (Small).

STENOTAPHRUM Trin. St. Augustine Grass.

Stenotaphrum secundatum (Walt.) Kuntze. (*Ischaemum secundatum* Walt.).

Starkville and Coastal Islands (Tracy). June.

A. & M. College Herb.

HYDROCHLOA Beauv.

Hydrochloa fluitans (Michx.) Nash (*Zizania fluitans* Michx.).

Coastal pine regions (Mohr).

LUZIOLA Juss.

Luziola Alabamensis Chapm.

Wet soil. Poplarville. Summer and fall.

A. & M. College Herb.

ZIZANIOPSIS Doell. and Aschers.

Zizaniopsis miliacea (Michx.) D. & A. (*Zizania miliacea* Michx.)
Water Millet.

Coastal regions; Ocean Springs. June-July.

A. & M. College Herb.

HOMALOCENCHRUS Mieg.

Homalocenchrus Virginicus (Willd.) Britton. White Grass.

Starkville; Holmes Co. September.

A. & M. College Herb.

Homalocenchrus lenticularis (Michx.) Scribn. Catch-fly Grass.

Marshes, Westfield (Tracy).

Homalocenchrus oryzoides (L.) Pollich. Rice Cutgrass.

Marshes. Throughout the state. Oxford; Columbus;
Starkville. July-September.

Geol. Surv. Herb. A. & M. College Herb.

PHALARIS L.

Phalaris canariensis L. Canary Grass.

Starkville.

A. & M. College Herb.

Phalaris Caroliniana Walt. (*P. Americana* Ell.) Southern
Canary Grass.

Prairies to the Coast; Madison Co. June.

A. & M. College Herb.

ARISTIDA L.

Aristida dichotoma Michx. Poverty Grass.

Holly Springs; Columbus; Artesia; Coast and Coastal
Islands. August-September.

A. & M. College Herb.

Aristida purpurascens glaucissima.

Handsboro (Tracy).

Aristida oligantha Michx.

Dry soil. Lafayette Co.; Tippah Co. Summer and fall.

Geol. Surv. Herb.

Aristida gracilis Ell. Slender Aristida.

Starkville; Durant; Pascagoula; Horn Island. July.

A. & M. College Herb.

Aristida intermedia Scribn. & Ball.

Sandy soil. Summer and fall (Small).

Aristida Chapmaniana Nash.

Dry sandy soil. Fall (Small).

Aristida stricta Michx. Wire Grass.

Starkville (Tracy); Coastal region (Hilg. Ms.).

Aristida spiciformis Ell. Spike-flowered Aristida.

Coast and Coastal Islands (Tracy); Mississippi City. August-September.

Geol. Surv. Herb

Aristida purpurascens Poir.

Biloxi; Coastal Islands (Tracy). August-September.

Aristida lanata Poir. (*A. lanosa* Muhl.) Woolly Aristida.

Coastal Islands (Tracy). August-October.

ANTHOXANTHUM L.

Anthoxanthum puelli.

Starkville (Tracy).

STIPA L.

Stipa avenacea L. (*Stipa barbata* Michx.) Black Oat Grass.

Columbus; Biloxi; Ocean Springs. April-May.

A. & M. College Herb.

MUHLENBERGIA Scrib. Drop-Seed.

Muhlenbergia trichopodes (Ell.) Elliott's Hair Grass.

Biloxi and Coastal region. Fall.

A. & M. College Herb.

Muhlenbergia filipes Curtis.

Sandy soil near the Coast. Fall (Small).

Muhlenbergia capillaris (Lam.) Trin.

Columbus; Biloxi.

A. & M. College Herb

Muhlenbergia diffusa Schreb. Nimble Will.

Starkville; Holly Springs; Durant; Biloxi.

A. & M. College Herb.

BRACHYELYTRUM Beauv.

Brachyelytrum erectum (Schreb.) Beauv. (*Muhlenbergia erecta* Schreb.).

Rich moist soil (Mohr).

PHLEUM L.

Phleum pratense L.

Starkville.

A. & M. College Herb.

ALOPECURUS L.

Alopecurus geniculatus L. (*A. aristulatus* Michx.) Water Fox-tail.

Starkville (Tracy); Oxford. May.

Alopecurus agrestis L.

Waste places. Summer. (Small.)

SPOROBOLUS R.Br. Drop-Seed Grass.

Sporobolus Indicus (L.) R. Br. Smut Grass.

Starkville; Coastal Islands (Tracy). July-September.

A. & M. College Herb.

Sporobolus juncus (Michx.) Kunth. Purple Drop-Seed Grass.

Columbus; Meridian; Black Hawk; Ocean Springs; Coastal Islands. September-October.

A. & M. College Herb

Sporobolus cryptandrus (Torr.) A. Gray.

Starkville.

A. & M. College Herb

Sporobolus Virginicus (L.) Kunth.

Coastal Islands (Tracy).

Sporobolus asper (Michx.) Kunth. Rough Rush Grass.

Holly Springs; Starkville; Columbus; Lake; Coastal Region. September-October.

A. & M. College Herb

Sporobolus attenuatus Nash.

Dry soil (Small). Autumn.

Sporobolus longifolius (Torr.) Wood.

Pine barrens near the coast (Mohr). October.

Sporobolus canovirens Nash.

Dry sandy soil (Small). Summer and fall.

Sporobolus minor Vasey.

Holly Springs. September-October.

A. & M. College Herb.

Sporobolus vaginaeflorus tener Vasey. Sheathed Rush Grass.

Starkville; Horn Island. October.

A. & M. College Herb.

POLYPOGON Desf.

Polypogon monspeliensis (L.) Desf. (*Alopecurus monspeliensis* L.). French Beard Grass.

Starkville. June-July.

A. & M. College Herb.

CINNA L.

Cinna arundinacea L. Wood Reed Grass.

Leake Co. June.

A. & M. College Herb.

CASTRIDIUM Beauv.

Gastridium australe Beauv.

Madison Station.

A. & M. College Herb.

AGROTIS L.

Agrostis alba L. (*Agrostis alba stolonifera* Scribn.). White Bent Grass.

Starkville. April-May.

A. & M. College Herb.

Agrostis vulgaris (A. alba vulgaris (With) Thurber.)

Holmes Co.; Crystal Springs.

A. & M. College Herb.

Agrostis Elliottiana Schult (A. arachnoides Ell.) Elliott's

Bent Grass. Eastern Counties. May.

Agrostis hiemalis (Walt.) B. S. P. (A. scabra Willd.) Rough
Hair Grass.

Starkville; Biloxi; Ocean Springs.

A. & M. College Herb.

Agrostis perennans (Walt.) Tuckerm. (Cormucopiae perennans
Walt). Black Hawk; Starkville; Biloxi. October.

A. & M. College Herb.

Agrostis intermedia Scribn. Upland Bent Grass.

Coastal regions; Biloxi. September-October.

A. & M. College Herb.

Agrostis pulchella (Cult.)

Starkville.

A. & M. College Herb.

Agrostis nebulosa (Cult.).

Starkville.

A. & M. College Herb.

Agrostis minutifolia.

Starkville.

A. & M. College Herb.

HOLCUS L.

Holcus lanatus L. Velvet Grass.

Yalobusha and Carroll Counties (Hilg. Ms.); Starkville
(Tracy). May.

A. & M. College Herb.

Holcus halepensis L.

Oxford. June.

Geol. Surv. Herb.

AIRA L.

Aira capillaris Host.

Oxford; Ripley. June-July.

Geol. Surv. Herb.

TRISETUM Pers.

Trisetum flavescens (L.) R. & S.

Waste places (Small). Summer.

ARRHENATHERUM Beauv.

Arrhenatherum elatius (L.) Beauv. (*Avena elatior* L.) Tall Oat Grass.

Starkville (Tracy).

DANTHONIA DC.

Danthonia sericea Nutt. (*Avena spicata* Ell.). Silky Wild Oat Grass.

Damp, open woods. Columbus; Morton; Ocean Springs.

Geol. Surv. Herb. A. & M. College Herb.

CAPRIOLA Adans.

Capriola dactylon (L.) Kuntze; (*Cynodon dactylon* Pers.). Bermuda Grass.

Throughout the state. Newton; Starkville; Cat Island.

A. & M. College Herb

Capriola dactylon maritimus.

Biloxi; Coastal Islands (Tracy).

A. & M. College Herb.

SPARTINA Schreb. Marsh Grass.

Spartina gracilis Trin.

Biloxi (Tracy).

Spartina polystachya (Michx.) Ell. (*Trachynotia polystachya* Michx.)

Coastal Islands (Tracy). July.

Spartina uncea Ell. (*S. patens* (Ait) Muhl.) Salt Reed Grass.

Coastal Islands (Tracy). July-August.

CAMPULOSUS Desd.

Camulosus aromaticus (Walt.) Scribn. (*Ctenium Americanum* Spreng). Toothache Grass.

Damp sandy soil. Forrest, Jones Cos. (Harper). Lumberton, Biloxi. July.

Geol. Surv. Herb. A. & M. College Herb.

CHLORIS Sw.

Chloris barbata (L.) Nash.

Starkville.

A. & M. College Herb.

Chloris Swartziana Doell. (*Chloris petraea* Sw.).

Starkville; Coast and Coastal Islands.

A. & M. College Herb.

GYMNOPOGON Beauv.

Gymnopogon ambiguus (Michx.) B. S. P. (*Andropogon ambiguus* Michx.).

Starkville. July.

A. & M. College Herb.

Gymnopogon brevifolius Trin. (*G. racemosus filiformis* Chapm.).

Starkville. Summer and fall.

A. & M. College Herb.

SCHIEDONNARDUS Steud.

Schedonnardus paniculatus (Nutt.) Trelease.

Starkville.

A. & M. College Herb.

BOUTELOUA Lag.

Bouteloua curtipendula (Michx.) Torr. (*Chloris curtipendula* Michx.). Grama Grass.

Prairie regions northeast. Starkville. July-August.

ELEUSINE Gaert.

Eleusine Indica (L.) Gaert. Barnyard Grass. (*Cynosurus Indicus* L.).

Oxford; Starkville; Newton; Warren Co.; Ocean Springs.
June-September.

Geol. Surv. Herb. A. & M. College Herb.

Eleusine aegyptia Pers.

Starkville; Meridian.

A. & M. College Herb.

LEPTOCHLOA Beauv.

Leptochloa mucronata (Michx.) Kunth. (*Eleusine mucronata* Michx.). Feather Grass. June.

A. & M. College Herb.

Leptochloa filiformis (Lam.) Beauv.

Lafayette Co.; Warren Co. August-September.

Geol. Surv. Herb

DIPLACHNE Beauv.

Diplachne fascicularis (Lam.) Beauv. (*Festuca fascicularis* Lam.). Many-Spiked Diplachne.

Coastal Islands. June.

A. & M. College Herb.

PHRAGMITES Trin.

Phragmites phragmites (L.) Karst. (*Phragmites communis* Trin.). Reed.

Lafayette Co.; Coastal Islands (Tracy). August-October.

SIEGLINGIA Bernh.

Sieglingia purpurea (Walt.) Kuntze (Triplaris purpurea
Chapm.). Sand Grass.

Coastal Islands (Tracy). July-September.

Sieglingia Americana (Beauv.) Kuntze (Triplaris Americana
Beauv.). Southern Sand Grass.

Coastal Islands (Tracy). July-September.

Sieglingia Drummondii Scribn. & Kern.

Dry soil (Small). Autumn.

Sieglingia stricta (Nutt.) Kuntze (Windsoria stricta Nutt.).
Narrow-spiked Sieglingia.

Moist prairie soil. Starkville. July.

A. & M. College Herb.

Sieglingia ambigua (Ell.) Kuntze (Tricuspis ambigua Chapm.).
Round-Spiked Sieglingia.

Along the coast (Tracy). July-August.

Sieglingia sesleroides (Michx.) Scribn. False Red Top.

Perhaps throughout the state. Starkville. July.

A. & M. College Herb

KOELEREA Pers.

Koeleria cristata (L.) Pers. (Aira crista L.).

Starkville.

A. & M. College Herb.

ETONIA Raf.

Etonia obtusata (Michx.) Gray (Aira obtusata Michx.). Early
Etonia.

Starkville; Biloxi; Ocean Springs. April-May.

A. & M. College Herb

Etonia Pennsylvanica (DC) Gray.

Starkville; Ocean Springs.

A. & M. College Herb.

Eatonia filiformis (Chapm.) Vasey (*E. Pennsylvanica filiformis* Chapm.). Slender Etonia.

Pine barrens. Biloxi. March-April.

A. & M.-College Herb.

Eatonia nitida (Spreng.) Nash (*Aira nitida* Spreng.). Slender Glossy Etonia.

Starkville; Columbus. June.

A. & M. College Herb.

ERAGROSTIS Beauv.

Eragrostis hypnoides (Lam.) B. S. P. (*Poa hypnoides* Lam.). Creeping Meadow Grass.

Starkville; Jackson; Leake Co.; Coastal Region (Tracy); Simpson Co. (Hilg. Ms.).

A. & M. College Herb.

Eragrostis Elliottii S. Wats. (*E. nitida* Ell.)

Ocean Springs; Pascagoula; Horn Island; Cat Island.

A. & M. College Herb.

Eragrostis major (L.) Host (*Briza eragrostis* L.). Candy Grass.

A. & M. College Herb.

Eragrostis pilosa (L.) Beauv. (*Poa pilosa* L.). Slender Meadow Grass.

Starkville.

A. & M. College Herb.

Eragrostis secundiflora Presl. (*Poa interrupta* Nutt.). Purple Love Grass.

Starkville; Coastal region and islands. July.

A. & M. College Herb.

Eragrostis pectinacea (Michx.) Steud. (*Poa pectinata* Michx.).

Starkville; Holmes Co.; Biloxi; Ship Island. July.

A. & M. College Herb.

Eragrostis refracta (Muhl.) Scribn. (*Poa refracta* Muhl.).

Starkville; Ocean Springs; Biloxi. September.

A. & M. College Herb.

Eragrostis Frankii Steud.

Moist soil. Starkville. Fall.

A. & M. College Herb.

Eragrostis lugens Nees.

Dry soil near coast. Spring and summer.

Eragrostis ciliaris (L.) Link (*Poa ciliaris* L.). Fringed Eragrostis.

Waste places. Starkville; Meridian; Coastal region. September.

A. & M. College Herb.

Eragrostis glomerata (Walt.) Dewey (*Poa glomerata* Walt.). Jefferson Co.; Starkville. July-August.

A. & M. College Herb.

Eragrostis hirsuta (Michx.) Nash.

Ocean Springs; Coastal Islands. September.

A. & M. College Herb.

MELICA L.

Melica mutica Walt. (*M. glabra* Michx.). Honey Grass.Damp, rich soil. Jackson; Starkville; Biloxi. April. -
Geol. Surv. Herb. A. & M. College Herb

UNIOLA L.

Uniola paniculata L. (*U. maritima* Michx.) Sea Oats.Littoral in drifting sands. Gulf Coast and Coastal Islands.
July-August.

Geol. Surv. Herb.

Uniola latiflora (Michx.) Broad-leaf Spike Grass.

Damp shaded creek banks. Rankin and Madison Counties (Hilg. Ms.); Tishomingo, Jones and Leake Counties; Starkville; Taylor. June-July.

Geol. Surv. Herb. Allison Herb. A. & M. College Herb.

Uniola laxa (L.) B. S. P. (*U. gracilis* Michx.). Slender Spike Grass.

Damp, open woodlands. Oxford; Starkville; Jackson; Crystal Springs; Martin; Ocean Springs. July-September.

Geol. Surv. Herb. A. & M. College Herb.

Uniola longifolia Scribn. Long-leaf Spike Grass.

Shady wet creek banks. Biloxi; Coastal Islands; Grenada County. July.

A. & M. College Herb.

Uniola nitida Baldw. Smooth Spike Grass.

Sandy creek banks. Biloxi; Ocean Springs.

A. & M. College Herb.

DISTICHLIS Raf.

Distichlis spicata (L.) Greene (*Uniola spicata* L.) Marsh Spike Grass.

Littoral. Ocean Springs; Deer Island, and Coastal Islands.

A. & M. College Herb.

DACTYLIS L. Orchard Grass.

Dactylis glomerata L.

Fields and waste places. Starkville (Tracy).

POA L. Meadow Grass.

Poa laevis.

Starkville.

Poa arachnifera Torr.

Starkville.

A. & M. College Herb.

Poa sylvestris A. Gray.

Starkville.

A. & M. College Herb.

Poa annua L. Spear Grass.

Widely distributed in the state. Starkville.

A. & M. College Herb.

Poa Chapmaniana Scribn. (*P. cristata* Chapm.). Chapman's Spear Grass.

Starkville. May-June.

A. & M. College Herb

Poa compressa L. English Blue Grass.

Northern parts of the state. Dry sandy loam soils.

A. & M. College Herb.

Poa pratensis L. June Grass. Kentucky Blue Grass.(Cultivated chiefly). Limey soils. Starkville (Tracy).
June.**Poa autumnalis** Muhl. (*P. flexuosa* Muhl.). Bending Spear
Grass.

Northern counties (Hilg. Ms.); Starkville. May.

A. & M. College Herb.

PANICULARIA Fabr.

Panicularia Americana (Torr.) McM. (*Poa aquatica* Ameri-
cana Torr.)

Starkville.

A. & M. College Herb.

GLYCERIA R.Br.

Glyceria nervata Trin. (*Poa nervata* Willd.)

FESTUCA L.

Festuca nutans Willd. Nodding Fescue Grass.

Tishomingo Co.; Oktibehha Co.

Allison Herb. A. & M. College Herb.

Festuca capillata Lam.

Waste places (Small). Summer and fall.

Festuca obtusa Spreng.

Woods and thickets (Small). Summer.

Festuca Shortii Kunth.

Tippah Co.; Madison Co. July.

Geol. Surv. Herb. A. & M. College Herb.

Festuca octoflora Walt.Dry, light soil. Tishomingo Co.; Starkville; Holly
Springs; Ocean Springs. March-April.

Allison Herb. A. & M. College Herb.

BROMUS L.

- Bromus ciliatus** L. (*B. pubescens* Muhl.). Wood Chess.
St. Anthony Park.
A. & M. College Herb.
- Bromus madritensis** (Cult.)
Starkville.
A. & M. College Herb.
- Bromus racemosus** L. Erect Chess.
Throughout the state. Starkville; Madison Co. May-June.
- Bromus tectorum** L.
Waste places. Spring and Summer (Small).
A. & M. College Herb.
- Bromus secalinus** L. Cheat or Chess.
A weed throughout the state. Starkville (Tracy); Madison.
A. & M. College Herb.
- Bromus commutatus** Schrad.
Lafayette Co. June-July.
Geol. Surv. Herb.
- Bromus unioloides** (Willd.) H. B. K. (*Festuca unioloides* Willd.)
Over north half of the state. Oxford; Starkville. May-June.
Geol. Surv. Herb. A. & M. College Herb.
- LOLIUM L.
- Lolium italicum** A.Br.
Starkville.
A. & M. College Herb.
- Lolium perenne** L. Perennial Ray Grass.
Starkville.
A. & M. College Herb.
- Lolium temulentum** L. Poison Darnel.
Starkville.
A. & M. College Herb.

ELYMUS L.

Elymus Virginicus L. (*Elymus Carolinianus* Walt.). Terrell Grass.

Starkville; Coastal Islands (Tracy); Oxford (Lowe); Winaona (T. L. Bailey).

Elymus Virginicus Australis (Scribn. & Ball.). Hitchcock. Oxford.

Geol. Surv. Herb.

Elymus striatus Willd. Wild Rye.
Carroll Co. (Hilg. Ms.). May-June.

Elymus Canadensis L.

Madison Co. (Hilg. Ms.) Starkville Ocean Springs (Tracy). July.

ARUNDINARIA Michx. Cane Reed.

Arundinaria gigantea (Walt.) Chapm. (*Arundo gigantea* Walt.). Cane.

River bottoms, especially abundant in the loess bluffs and the Mississippi Delta. May-June.

Arundinaria tecta (Walt.) Muhl. (*Arundinaria macrosperma suffruticosa* Munro). Switch Cane Reed.

Geol. Surv. Herb

Distributed over the state along streams. Okolona; Jackson. April-May.

Geol. Surv. Herb.

CYPERACEAE. Sedge Family.

CYPERUS L.

Cyperus ferax Vahl. Coastal Islands (Tracy).

Operus diandrus Torr. Low Cyperus.
Oxford. August.

Cyperus flavescens L. Yellowish Cyperus.
Lafayette Co. July-August.

Cyperus Nuttallii Eddy. Nuttall's Cyperus.

Salt marshes along the coast (Small). August-October.

Cyperus microdentus Torr. (C. Texensis Steud.). Coast Cyperus.

Biloxi (Traey). July-September.

Cyperus compressus L. Flat Cyperus.

Simpson Co. (Hilg. Ms.). Along the coast (Traey). July-August.

Cyperus vegetus Willd. Thrifty Cyperus.

Carroll Co. (Hilg. Ms.). July-August.

Cyperus virens Michx. Green Cyperus.

Coast and Coastal Islands (Traey). June.

Cyperus haspan L. (C. gracilis Muhl.). Sheathed Cyperus.

Coast and Coastal region and Islands (Traey). August-October.

Cyperus multiradiatus (Torr.) Mohr (C. Le Contii Torr.). Le Conte's Cyperus.

Drifting sands along the Coast and Islands (Traey). June July.

Cyperus articulatus L. Guinea Rush.

Coastal region and Islands (Traey).

Cyperus rotundus L. (C. hydra Michx.). Nut Grass.

More or less over the state, especially abundant in parts of the Mississippi Delta. Lafayette, Warren and Hinds Counties.

Geol. Surv. Herb.

Cyperus strigosus L.

Starkville, west side (Traey). July-September.

Cyperus erythrorhizos Muhl. (C. tenuiflorus Ell.). Red-Rooted Cyperus.

Swamps along the coast, and Islands (Traey). August-September.

Cyperus cylindricus (Ell.) Britton. (*Mariscus cylindricus* Ell.).
Pine Barren Cyperus.

Starkville; Coastal region and Islands (Tracy). June-August.

Cyperus retrofactus (L.) Torr. (*Scirpus retrofactus*).

Dry upland pastures and fields. Liberty; Lafayette Co.; Jasper Co.; Rankin Co. Fall.

Geol. Surv. Herb.

Cyperus filiculmis Vahl. (*C. mariscoides* Ell.).

Dry sandy soil, chiefly southern counties. Lafayette Co. July-August.

Geol. Surv. Herb.

Cyperus echinatus (Ell.) Wood. (*C. Baldwinii* Torr.).

Marion Co. (Hilg. Ms.). Coastal region (Tracy). Sept.-October.

KYLLINGA Rottb.

Kyllinga pumila Michx. Low Kyllinga.

Leake Co. (Hilg. Ms.); Biloxi. August-September.

Kyllinga brevifolia Rottb. (*K. monocephala* L.). Short-Leaved Kyllinga.

Durant. October-November.

A. & M. College Herb.

Kyllinga odorata Vahl. (*K. sesquiflora* Torr.) Fragrant Kyllinga.

Wet soil. Pascagoula. July-August.

A. & M. College Herb.

DULICHIUM Pers.

Dulichium arundinaceum (L.) Britton. (*D. spathaceum* Pers.).

More or less throughout the state. Oxford. July.

Geol. Surv. Herb.

ELEOCHARIS R.Br. Spike Rush.

Eleocharis albida Torr.

Horn Island.

A. & M. College Herb

Eleocharis cellulosa Torr. (Scirpus dictyopermus Wright).
Cellular Spike Rush.

Coastal regions; Ocean Springs; Horn Island. July-Sept.
A. & M. College Herb.

Eleocharis ochreata Nees) Steud. (Eleocharis ochreatus Nees).
Pale Spike Rush.

Wet soil, in the Coastal regions; Ocean Springs
A. & M. College Herb

Eleocharis olivacea Torr. Bright-Green Spike Rush.

Ocean Springs. June-July.
A. & M. College Herb.

Eleocharis ovata (Roth. Roem. & Schult. (E. obtusa Schult.).
Ovoid Spike Rush.

Yalobusha Co. (Hilg. Ms.). June-July.

Eleocharis tortilis (Link.) Schult. (Scirpus tortilis Link.).
Coastal region. Biloxi. June-August.

A. & M. College Herb.

Eleocharis tuberculosa (Michx.) Roem. & Schult. (Scirpus tuberculosa Michx.).

Central Mississippi (Hilg. Ms.); Biloxi; Ocean Springs.
July-September.

A. & M. College Herb.

Eleocharis microcarpa Torr. Small-fruited Spike Rush.
Biloxi. July.

A. & M. College Herb.

DICHROMENA Michx.

Dichromena colorata (L.) A. S. Hitchc. (D. leucocephala Michx.).

Coastal region. Horn Island; Petit Bois Is. July-August.
Geol. Surv. Herb. A. & M. College Herb.

Dichromena latifolia Baldw.

Biloxi; Picayune; Forrest Co. (Harper). July-August.

PSILOCARIA Michx.

Psilocaria corymbiformis Benth.

Horn Island.

A. & M. College Herb.

FIMBRISTYLIS Vahl.

Fimbristylis castanea Michx.) Vahl.

Coastal Islands (Tracy).

Fimbristylis spadicea (L.) Vahl. (*Scirpus spadiceus* L.). Brown Club Rush.

Littoral. Coastal Islands; Dog Key. July-September.

A. & M. College Herb.

Fimbristylis laxa Vahl.

Biloxi; Coastal Islands.

A. & M. College Herb.

Fimbristylis puberula (Michx. Vahl. (*Fimbristylis spadicea puberula* Chapm.).

Along the coast (Mohr). April-July.

Fimbristylis autumnalis (L.) Roem. & Schult. (*Scirpus autumnalis* L.).

Holly Springs; Carrollton; Black Hawk; Ocean Springs; Horn Island. August-September.

Geol. Surv. Herb. A. & M. College Herb.

STENOPHYLLUS Raf.

Stenophyllus ciliatifolius (Ell.) Mohr. (*Isolepis ciliatifolia* Torr.).

Horn Island. September-October.

A. & M. College Herb.

SCIRPUS L. Club Rush.**Scirpus carinatus** (Hooker & Arn.) Gray (*Isolepis carnata* Hook. & Arn.).

Coastal Counties (Mohr).

Scirpus Americanus Pers. (*S. pungens* Vahl.).

Lafayette Co. (Lowe); Coastal Islands (Tracy). July-September.

Scirpus cylindricus (Torr.) Britton (*S. maritimus cylindricus* Torr.).

Pine barren streams near the coast (Mohr). May-July.

Scirpus Olneyi Gray. Olney's Bulrush.

Southern counties to the coast; Clark Co. July-October.

Scirpus lacrustis L. (*Scirpus validus* Vahl.). Large Bulrush.

Throughout the state; Oxford; Newton. July-August.

Geol. Surv. Herb.

Scirpus robustus Pursh. (*S. maritimus macrostachyus* Michx.).

Salt-Marsh Bulrush.

Along the Coast and Coastal Islands (Tracy). July.

FUIRENA Rottb. Umbrella Grass.

Fuirena simplex Vahl. Ocean Springs.

A. & M. College Herb.

Fuirena scirpoidea Michx.

Littoral. Biloxi (Tracy). July-August.

Fuirena squarrosa Michx.

Rankin Co. (Hilg. Ms.); Lafayette Co.; Durant; Lake; Ocean Springs. July.

Geol. Surv. Herb. A. & M. College Herb.

HEMICARPHA Nees. & Arn.

Hemicarpha micrantha (Vahl.) Britton (*Scirpus micranthus* Vahl.).

Rankin Co. (Hilg. Ms.); Belzoni; Coastal Islands. May-June.

A. & M. College Herb.

RYNCHOSPORA Vahl. Beaked Rush.

Rynchospora Tracyi Britton. Tracy's Horned Rush.

Pine barrens ponds (Small). Summer and fall.

- Rynchospora corniculata* (Lam.) Gray. (*R. longirostris* Ell.).
Rankin Co. (Hilg. Ms.); Leak Co.
A. & M. College Herb.
- Rynchospora pusilla* Chapm.
Along the coast; Biloxi. August-September.
A. & M. College Herb.
- Rynchospora divergens* Chapm. (*R. lamprosperma* Sauv.).
Southern pine barrens to the coast; Biloxi. June-Aug.
A. & M. College Herb.
- Rynchospora oligantha* Gray.
Coastal region; Biloxi. May-June.
A. & M. College Herb.
- Rynchospora plumosa* Ell.
Coastal region; Biloxi; Ocean Springs. June.
A. & M. College Herb.
- Rynchospora alba* (L.) Vahl. (*Schoenus albus* L.).
Mississippi City (Tracy). August-September.
- Rhynchospora semiplumosa* A. Gray.
Biloxi; Ocean Springs.
A. & M. College Herb.
- Rhynchospora glomerata* (L.) Vahl. (*Schoenus glomeratus* L.).
Biloxi; Ocean Springs (Tracy). July-September.
- Rynchospora glomerata paniculata* (Gray) Chapm. (*R. paniculata* Gray).
Biloxi (Tracy). July-September.
- Rynchospora axillaris* (Lam.) Britton. (*R. cephalantha* Gray).
Pine barrens to the coast; Ocean Springs. July.
A. & M. College Herb.
- Rynchospora filifolia* Torr.
Harrison Co.
A. & M. College Herb.
- Rynchospora fascicularis* (Michx.) Vahl. (*Schoenus fascicularis* Michx.).
Coastal region and Islands (Tracy); Biloxi. June-July.
A. & M. College Herb.

Rynchospora gracilentia Gray.

Coastal region; Biloxi. August.

A. & M. College Herb.

Rynchospora Baldwinii Gray.

Southern pine region (Mohr.). July-August.

A. & M. College Herb.

Rynchospora ciliaris (Michx.) Mohr.

Damp piney woods; Ocean Springs. July.

A. & M. College Herb.

Rynchospora dodecandra Baldw. (*R. megalocarpa* Gray).

Dry sandy soil near seacoast, and on Coastal Islands (Tracy). May-June.

Rynchospora cymosa (Willd.) Ell. (*Schoenus cymosus* Willd.)

Light sandy soil. Horn Island.

A. & M. College Herb.

Rynchospora Toreyana Gray.

Mississippi City (Tracy). August.

Rynchospora rariflora (Michx.) Ell. (*Schoenus rariflorus* Michx.).

Coastal region; Deer Island. July-September.

A. & M. College Herb

Rynchospora microcarpa Baldw.

Ship Island; Horn Island.

A. & M. College Herb

Rynchospora compressa Carey.

Biloxi (Tracy).

Rynchospora caduca Ell.

Ocean Springs. July.

A. & M. College Herb.

Rynchospora prolifera Small.

Piney woods (Small). Summer.

Rynchospora inexpansa (Michx.) Vahl. (*Schoenus inexpansus* Michx.).

Lake.

A. & M. College Herb.

Rynchospora miliacea (Lam.) Gray. (*Schoenus miliaceus* Lam.).
Wet shady places in the prairies (Mohr). July-August.

CLADIUM P.Br. Twig Rush.

Cladium effusum (Sw.) Torr. (*Schoenus effusus* Sw.). Saw
Grass.

Coastal region and islands (Tracy). July-August.

SCLERIA Berg. Nut Rush.

Scleria hemitaphra Steud.

Sandy swamps (Small). Summer and fall.

Scleria triglomerata Michx.

Coast and Islands (Tracy). June-July.

Scleria Torreyana Walp. (*Scleria laxa* Torr.).

Coastal region (Tracy). August-September.

Scleria pauciflora glabra Chapm.

Dry sands near the seashore. (Mohr). June.

Scleria Caroliniana Willd. (*S. Hirtella* Michx.).

Wet pine barrens (Mohr). June-July.

Scleria gracilis Ell.

Drifting sands along the shore (Tracy). June-July.

CAREX L. Sedge.

Carex riparia Curtis.

Starkville (Tracy).

Carex folliculata australis Bailey (*C. folliculata* Ell.). South-
ern Long Sedge.

Coastal regions along banks of streams (Tracy). May-
June.

Carex intumescens Rudge. (*C. folliculata* Wahl.). Bladder
Sedge.

Damp shady places. North Mississippi (Hilg. Ms.).
April-May.

Carex Elliottii Schw. & Torr. (*C. castenea* Ell.). Elliott's
Sedge.

Wet margins of streams (Mohr). April-May.

- Carex turgescens** Torrey; Pine Barren Sedge.
Wet banks of pine barren streams (Traey). April-May.
- Carex glaucescens** Ell. Pale Sedge.
Borders of pine barren streams; Biloxi (Traey).
- Carex verrucosa** Muhl. Warty-fruited Sedge.
Wet soil (Small). Summer.
- Carex triceps** Michx. (*C. viridula* Schw. & Torr.). Smooth Green Sedge.
North Mississippi (Hilg. Ms.).
- Carex Caroliniana** Schwein. (*C. triceps Smithii* Bailey). Carolina Sedge.
Damp shady borders of woods (Mohr). April.
- Carex Cherokeeensis** Schwein. (*C. recurva* Muhl.). Cherokee Sedge.
Biloxi (Traey). May-June.
- Carex oblita** Steud. (*C. glabra* Boott.). Dark Green Sedge.
Springy bogs (Small). May-June.
- Carex debilis pubera** Gray (*C. venusta* Boott.). Elegant Sedge.
Pine meadows (Mohr). May.
- Carex debilis prolixa** Bailey. (*C. debilis* Boott.).
Swampy banks of pine barren streams. April-May.
- Carex amphibola** Steud. (*C. cryptandra* Schwein.)
In prairie regions (Mohr).
- Carex granularis** Muhl.
Prairie region (Mohr).
- Carex striatula** Michx. (*C. laxiflora* Boott.)
Woods and meadows (Small). Spring and summer.
- Carex digitalis** Willd. (*C. oligocarpa* Muhl.).
Shaded rocky hillsides of northeast counties (Mohr).
- Carex Texensis** (Torr.) Bailey. (*C. rosea Texensis* Torr.).
Texas Sedge.
Dry hills (Mohr).

Carex retroflexa Muhl. (*C. rosea retroflexa* Torr.)

Coast and Islands (Tracy). June.

Carex Muhlenbergii Schk.

Damp soil over the state. Spring.

Carex Leavenworthii Dewey (*C. cephalophora angustifolia* Boott.)

Springs and meadows (Small). June.

Carex Atlantica Bailey. (*C. stellulata conferta* Bailey). Eastern Sedge.

Wet stream banks in southern pine barrens (Mohr). May.

Carex scoparia Schk. (*C. scoparia minor* Boott.) Hilg. Ms.

Pointed Broom Sedge. In moist soil. June.

Carex alata Torr. [*C. straminea alata* (Torr.) Bailey.] Broad-Winged Sedge.

Swamps (Mohr). May.

Carex reinformis (Bailey) Small. (*C. straminea reinformis* Bailey).

Rich alluvial soil (Small). Spring and summer.

Carex tenuis Rudge.

Bayou Graveline (Tracy).

Carex gracillima Schwein.

Meadows (Small). Spring and summer.

Carex triangularis Boekl.

Low prairies (Small). Spring and summer.

PALMAE. Palm Family.

SABAL, Adans. **Palmetto**

Sabal minus (Jacq.) Pers. [*S. Adansonii* Guerns.; *S. glabra* (Mill.) Sarg.] Dwarf Palmetto.

Low ground in coastal region, and along streams; Coastal Is. (Tracy); Ocean Springs; Bay St. Louis; Greenwood. June.

Geol. Surv. Herb.

SERENOA Benth. & Hook.

Serenca serrulata (Michx.) Benth. & Hook. (*Chamaerops serrulata* Michx.) Saw Palmetto.

Coastal regions and Islands; Gulfport; Picayune. June.
Geol. Surv. Herb.

ARACEAE, Arum Family

ACORUS L., Calamus or Sweet Flag.

Acorus calamus L.

In ponds. South Mississippi (Wailes); Lafayette Co.
Geol. Surv. Herb.

ORONTIUM L.

Orontium aquaticum L. Golden Club.

In sluggish streams. Lafayette Co.; Clarke Co.; Amory;
De Kalb. March-April.

Geol. Surv. Herb.

PELTANDRA Raf.

Peltandra sagittaeifolia (Michx.) Morong. (*Calla sagittaeifolia* Michx.). Wild Calla Lily.

Boggy borders of pine barren streams; Gulf Coast (Mohr)
July-August.

Peltandra Virginica (L.) Kunth. (*P. undulata* Raf.). Green Arum.

Marshes and boggy places throughout the state. Oxford;
Lucedale. April-May.

Geol. Surv. Herb.

ARISAEMA Mart.

Arisaema triphyllum (L.) Torr. (*Arum triphyllum* L.). Indian Turnip.

Throughout the state in rich shaded ground. Tishomingo
Co.; Lafayette Co.; Forrest Co.; Carroll Co.; Smith Co.; Sartartia on loess bluffs. New Albany; Ripley; Rosetta; Meadville. May.

Geol. Surv. Herb.

Aresaema quinatum Schott. (*A. polymorphum* Chapm.).

Rich shaded moist slopes. Calhoun Co. (Hilg. Ms.); Okolona; Carroll Co. (bluffs); Smith Co.; Yazoo Co. (loess bluffs). April-May.

Geol. Surv. Herb.

Arisaema Dracontium (L.) Schott. (*Arum Dracontium* L.).
Green Dragon.

Rich shaded slopes of north and central Mississippi. Oxford; Okolona; Starkville (Tracy); New Albany (Pontotoc Ridge); Jackson; Holcomb. (loess bluffs). Ripley; Eastport; West Point.; Meadville. April-May.

Geol. Surv. Herb.

MAYACACEAE. Mayaca Family.**MAYACA** Aubl.**Mayaca Aubletii** Michx. (*M. Michauxii* Schott. & Endl.) Mayaca.

Shallow, sluggish streams and ponds in the pine barrens. Lumberton; Waynesboro; Picayune. June-July.

XYRIDACEAE. Yellow-eyed Grass Family.**XYRIS** L. **Yellow-eyed Grass.****Xyris serotina** Chapm.

Coastal Islands (Tracy). October.

Xyris ambigua Beyr. (*X. stricta* Chapm.)

Pine barren swamps near the coast. Ocean Springs. July-August.

A. & M. College Herb.

Xyris neglecta neglecta Small.

Moist pine lands (Small). Summer and fall.

Xyris flexuosa Muhl. (*X. bulbosa* Kunth.).

Wet sandy soil, chiefly in the southern counties. Leake Co. July-August.

A. & M. College Herb.

Xyris Elliotti Chapm.

Coastal region. Ocean Springs; Biloxi. July-October.

A. & M. College Herb

Xyris Caroliana Walt. (*X. elata* Chapm.).DeKalb; Leake Co. (Hilg. Ms.); Lumberton; Horn Island.
July.

Geol. Surv. Herb. A. & M. College Herb.

Xyris platylepis Chapm.

Ocean Springs; Biloxi.

A. & M. College Herb.

Xyris iridifolia Chapm.

Low pine barrens. Wayne Co. (Lowe). June-July.

Xyris fimbriata Ell.

Low coastal flats (Tracy). July-Sept.

Xyris torta Smith (*X. conocephala* Sauv.).

Biloxi; Ocean Springs; Horn Island. June.

A. & M. College Herb.

Xyris flabelliformis Chapm.

Low pine barrens (Small). Spring.

Xyris Baldwiniana R. & S. (*X. juncea* Bald.).

Borders of pine barrens swamps. Picayune. September.

Geol. Surv. Herb.

ERIOCAULONACEAE, Pipewort Family**ERIOCAULON** L. Pipewort.**Eriocaulon decangulare** L.

Low wet pine barrens and marshes. Rankin Co. (Hilg. Ms.); Iuka; Lost Gap; DeKalb; Back Bay at Biloxi. July-October.

Geol. Surv. Herb.

Eriocaulon septangulare Withering.

Wet pine barrens (Hilg. Rep.); Iuka; Ocean Springs.

Geol. Surv. Herb

Eriocaulon Ravenelii Chapm.

Wet places; common at Walker's Lake, Iuka.

Geol. Surv. Herb.

Eriocaulon compressum Lam. (*E. gnaphalodes* Michx.)

Boggy pine barrens swamps. Landon: Back Bay at Biloxi. May-Aug.

Geol. Surv. Herb.

LACHNOCAULON Kunth.

Lachnocaulon anceps (Walt.) Morong: (*L. Michauxii* Kunth.)

Damp soils in coastal belt. March-June (Mohr).

BROMELIACEAE Pine Apple Family

TILLANDSIA L. Spanish Moss.

Tillandsia usneoides L.

Southern half of the state in deep damp forests, especially of alluvial plains along rivers. June.

Geol. Surv. Herb.

COMMELINACEAE. Spiderwort Family.

COMMELINA L. Day Flower.

Commelina Nashii Small.

Sandy soil (Small). Summer and fall.

Commelina nudiflora L. (*C. communis* Walt.)

Damp soil throughout the state. Lafayette, Hinds and Warren Counties; Woodville; Coastal Islands (Tracy); Simpson County (Hilg. Ms.). Sept.-Nov.

Geol. Surv. Herb.

Commelina erecta L.

Dry sandy soil. Marion Co. (Hilg. Ms.); Lost Gap. Sept.

Geol. Surv. Herb.

Commelina hirtella Vahl. (*C. erecta* Gray).

In wet shaded swamps. Lafayette, Warren and Holmes Counties. August.

Geol. Survey Herb.

Commelina Virginica L. (*C. angustifolia* Michx.)

Common on dry sandy soil. Oxford: Lost Gap: Hinds Co.; Coastal Islands (Tracy).

Geol. Survey Herb.

TRADESCANTIA. Spiderwort.

Tradescantia reflexa Raf. (*T. canaliculata* Raf.)

Jackson (Dr. T. P. Bailey.) March-April.

Tradescantia Virginica L.

Common on dry sandy soil. Oxford; Jackson. May.

Tradescantia incarnata Small.

Sandy soil (Small)). Spring.

Tradescantia pilosa Lehm.

Rich, shaded sandy soil. Chunky; Ripley. May-July.

Geol. Surv. Herb.

PONTEDERIACEAE. Pickerel Weed Family.

PONTEDERIA L. Pickerel Weed.

Pontederia cordata L.

Sluggish streams and ponds. Coastal counties (Hilg. Ms.) April-July.

PIAROPUS Raf. Water Hyacinth.

Piaropus crassipes (Mart.) Britton.

In floating masses on sluggish streams and ponds. Common in southern counties; Jefferson, Wilkinson, Lafayette counties. Coastal Regions.

JUNCACEAE. Rush Family.

JUNCUS L. Rush.

Juncus effusus L.

North Mississippi (Hilg. Ms.) June.

Juncus Roemerianus Scheele (*J. maritimus* Chapm.)

Along the Gulf Coast (Tracy). July.

Juncus tenuis Willd. (*J. bicornis* Michx.).

Distributed over the state in damp soil. May-June.

Juncus setaceus Rostk.

Southern pine barrens to the Coast (Tracy). June.

Juncus marginatus Rostk.

Probably throughout the state. June (Coville).

Juncus aristulatus Michx. [*J. marginatus aristulatus* (Michx.) Coville].

Coastal region and Islands (Tracy). June.

Juncus repens Michx.

Coastal regions and Islands (Tracy). Spring and summer.

Juncus Torreyi Coville (*J. nodosus megacephalus* Torr.).

Perhaps over the state (Mohr.) July

Juncus interior Wiegand.

Dry woods and prairies (Small). Spring and summer.

Juncus brachycarpus Engelm.

Open prairies (Mohr). June-July.

Juncus scirpoides Lam. (*J. echinatus* Ell.)

North Mississippi (Hilg. Ms.) Coastal region and Islands (Tracy). June.

Juncus validus Coville.

Sandy soil (Small). Summer and fall.

Juncus trigonocarpus Steud. (*J. cordatus* Chapm.).

Southern pine regions (Mohr. September-October.

Juncus acuminatus Michx.

Coastal regions (Tracy.)

Juncus acuminatus debilis (Gray) Englm. (*J. debilis* Gray).

Wet swamps (Small). June (Hilg. Ms.).

JUNCOIDES Adans.

Juncoides campestra (L. Kuntze; *J. campestris* L.) Common Wood Rush.

Distributed over the state. Lafayette, Benton, Tishomingo counties. March.

LILLIACEAE. Lily Family.

TOFIELDIA Huds. False Asphodel.

Tofieldia racemosa (Walt.) B. S. P. (*T. pubescens* Pers.)Southern pine barrens. Waynesboro; Gulfport; Pica-
yune. July.

Geol. Survey Herb.

CHAMAELIRIUM Willd. Blazing Star.

Chamaelirium luteum (L.) Gray. (*C. Colinianum* Willd.) Devil's
Bit.Open wooded slopes of North Mississippi. Oxford; Rip-
ley; Fulton; Meadville. May-June.

CHROSPERMA Raf. Fly Poison.

Chrosperma muscaetoxicum (Walt.) Kuntze. (*Amianthium*
muscaetoxicum Gray).

Rich moist woods. Toomsaba. April.

Geol. Survey Herb.

ZYGADENUS Michx.

Zygadenus glaberrimus Michx.Sandy swamps. Oxford; McHenry; Iuka; Lost Gap; Pica-
yune. June.

Geol. Survey Herb.

Zygadenus leimanthoides (Gray) Wats. (*Amianthium leiman-*
thoides Gray).Swamps. Landon; Michigan City; Hattiesburg; Boone-
ville.

Geol. Survey Herb.

STENANTHIUM Kunth.

Stenanthium gramineum (Ker-Gawl) Morong. (*S. angustifol-*
ium Kunth.)

North Mississippi (Hilg. Ms.)

UVULARIA L. Bellwort Family.

Uvularia grandiflora, J. E. Smith.

Rich shaded damp soils. Toomsuba; New Albany; Pontotoc; Ripley; Hatchie Hills. April.

Geol. Survey Herb.

Uvularia perfoliata L.

Throughout North Mississippi. Oxford; Tishomingo Co.; Jackson; Southern Hinds. April.

Geol. Survey Herb.

Uvularia sessilifolia L. (*Oakesia sessilifolia* Wats.).

Wet shaded places. North Mississippi; Lafayette, Tishomingo and Hinds Counties; Pontotoc; Ripley; Fulton; Michigan City. April.

Geol. Survey Herb.

ALLIUM L. Onion.

Allium Canadense L. Wild Garlic.

Throughout the state. Jackson. April.

Geol. Survey Herb.

Allium mutabile Michx. Wild Onion.

Hattiesburg. May.

Geol. Survey Herb.

Allium arenicola (Small).

Damp sandy soil (Small). Spring.

.. NOTHOSCORDERUM Kunth.

Nothoscordum bivalve (L.) Britton (*N. straitum* Kunth.). Yellow False Garlic.

Throughout the state. Lafayette, Hinds, Warren and Jones Counties. March-April.

Geol. Survey Herb.

MUSCARI Tourn. Grape Hyacinth.

Muscari botryoides Mill. (Adv.)

North Mississippi, escaped from gardens. Oxford. March-April.

Geol. Survey. Herb.

Muscari racemosa Mill. (Adv.)

Oxford; Carrollton.

Geol. Survey, Herb.

ORNITHOGALUM Tourn. Star of Bethlehem.

Ornithogalum umbellatum L. (Nat.).

North Mississippi. March.

YUCCA L.

Yucca filamentosa L. Bear Grass.

Throughout the state. Oxford; Hinds County; Woodville. June.

Geol. Survey, Herb.

Yucca aloifolia L. Spanish dagger.

Common about old dwellings throughout the state. June-July.

Yucca gloriosa L. Spanish Bayonet.

In sandy soil in the southern counties; Coastal Islands (Tracy); Meadville. May-June.

Geol. Survey, Herb.

Yucca recurvifolia Salisb.

Coastal Islands (Small). Spring and summer.

POLYGONATUM Adans. Solomon's Seal.

Polygonatum biflorum (Walt.) Ell. (*Convallaria biflora* Walt.)Small **Solomon's Seal**.

North Mississippi. Lafayette, and Itawamba counties; New Albany; Ripley. April-May.

Geol. Survey, Herb

Polygonatum commutatum (Roem & Schult.) Dietr. (*P. giganteum* Dietr.).

Rich shaded slopes. North Mississippi. Ripley; Eastport. April-May.

VAGNERA Adans. False Solomon's Seal.

Vagnera racemosa (L.) Morong. (*Smilacina racemosa* Desf.)
Northern half of the state. Lafayette, Tishomingo, Madison Counties. May-June

Allison Herbarbium.

ASPARAGUS Tourn.

Asparagus officinalis L. (Adv.)
Escaped from gardens throughout the state. June.

LILIUM L.

Lilium Carolinianum Michx. (*L. superbum Carolinianum* Chapm.) Southern Spotted Lily.

Dry open woods. Meridian; Utica; Brookhaven; Meadville; Hattiesburg; Laurel; Taylorsville; DeKalb. June-July.

Geol. Survey. Herb.

Lilium Catesbaei Walt. Catesby's Lily.

Low damp pine barrens. Taylorsville; Shubuta; McHenry. July.

Geol. Survey. Herb.

Lilium superbum L. Turks Cap Lily.

Hattiesburg; Laurel.

Geol. Survey. Herb.

QUAMASIA Raf.

Quamasia esculenta (Ker-Gawl) Coville. (*Camassia Fraseri* Torr.). Wild Hyacinth.

Central prairie region. Montrose; Jackson. April.

Geol. Survey. Herb

NOLINA Michx.

Nolina Georgiana Michx.

Dry pine barrens. Wiggins. April-May.

Geol. Survey. Herb.

MEDEOLA L.

Medeola Virginiana L. Indian Cucumber.

Low shaded woods. Northern half of the state. Oxford;
Ackerman; Booneville; Itawamba Co. May.

Geol. Survey. Herb.

TRILLIUM L.

Trillium grandiflorum Salisb.

Rich woods near the Tennessee River. Eastport. May.

Geol. Survey. Herb.

(Found in only one locality, at the base of Tennessee River bluff,—may be specifically distinct from *grandiflora*.)

Trillium sessile L. Wake Robin.

Rich shaded woods. Tishomingo, Lafayette, Union counties; Hinds Co., Pontotoc Co. March.

Geol. Survey. Herb.

Trillium Underwoodii Small.

Rich damp woods. Jackson. April-May.

Geol. Survey. Herb.

Trillium viride Beck. (*T. viridescens* Nutt.)

Rich woods and glades (Small).

Trillium stamenium Harb.

Rocky woods (Small).

Trillium Ludovicianum Harb.

Low rich woods (Small).

Trillium recurvatum Beck. (*T. recurvatum lanceolatum* Wats.)

Low rich woods. Pontotoc; New Albany; Eastport; Charleston; Taylor. March-April.

Geol. Survey Herb.

ALETRIS L.

Aletris farinosa L. (*A. alba* Michx.) White Star Grass.

Low wet ground throughout the state; most abundant in the southern counties. Lost Gap. May.

Geol. Surv. Herb.

Aletris aurea Walt. Golden Star Grass.

Low wet pine barrens. Leake Co.; Tishomingo Co.; Lumberton; Biloxi; Lost Gap; Meadville. June.

Geol. Survey Herb.

Vignera racemosa (L.) Morong (*Smilacina racemosa* Desf.)

Moist open woods and coves north half of the state. Tishomingo Co.; Oxford; Madison (Allison); Ripley; New Albany; Jackson. May-June.

Geol. Surv. Herb.

Allison Herb.

SMILACACEAE Vent. *Smilax* Family.

SMILAX L.

Smilax herbacea L. (*Coprosmanthus peduncularis* Kunth.)
Carrion Plant.

In open woods in the northern counties; Oxford; Ripley; Starkville (Tracy); New Albany. May.

Geol. Survey Herb.

Smilax ecirrhata (Engelm.) Wats. (*Coprosmanthus ecirrhata* Engelm.)

Dry open woods of northern counties. April-May.

Smilax glauca Walt. Glauca Greenbrier. Sarsaparilla.

Found throughout the state. Starkville (Tracy); Oxford; Ripley. May.

Geol. Survey Herb.

Smilax rotundifolia L. (*S. quadrangulata* Willd.) Low Bamboo Brier.

Starkville (Tracy); Tishomingo Co. (Allison); Oxford; Benton Co. May.

Geol. Survey Herb.

Smilax cinnamomifolia Small.

Southern Hinds County.

Geol. Survey Herb.

Smilax pseudo-china L. False China-Root.

Low damp ground. Northern counties. April.

- Smilax bona-nox** L. (*S. hastata* Willd.) Bamboo Brier.
 Dry sandy soil. Ripley; Hinds Co.; Pascagoula; Starkville; Durant; Coastal Islands (Tracy). April-May.
 Geol. Survey Herb.
- Smilax auriculata** Walt. (*S. ovata* Ell.)
 Along the coast; Coastal Islands. April-May.
- Smilax laurifolia** L. Bay-leaf Bamboo.
 Southern pine regions to the coast. Hattiesburg. May.
 Geol. Survey Herb.
- Smilax Walteri** Pursh. (*S. caduea* Ell.) Coral Smilax.
 Pine woods. Oxford. May.
 Geol. Survey Herb.
- Smilax lanceolata** L. (*S. ovata* Pursh.) Sweet-scented Smilax.
 Low wooded lands. May-June.
- Smilax hispida** Muhl.
 Damp thickets. South Mississippi (Wailes' Report); Okolona.
 Geol. Survey Herb

HAEMODORACEAE. Bloodwort Family.

GYROTHECA Salisb.

- Gyrotheca capitata** (Walt.) Morong. (*Lachnanthes tinctoria* Ell.) Red Root.
 Southern pine barrens to the coast. Picayune. Aug.-Sept.
 Geol. Surv. Herb.

AMARYLLIDACEAE. Amaryllis Family.

ATAMOSCO Adans. Atamosco Lily.

- Atamosco atamasco** (L.) Green (*Amaryllis atamasco* L.)
 Central and southern counties to the coast. Shubuta; Nugent; Smith Co. March-April.
 Geol. Survey Herb.

HYMENOCALLIS Salisb. Spider Lily (Le Conte).

Hymenocallis occidentalis Kunth (*Paneratium occidentale* Le Conte.)

Scattered over the state in shaded swamps. Michigan City; Taylorsville. May-June.

Geol. Survey Herb.

Hymenocallis rotatum Kunth. (*Paneratium rotatum* Ker-Gawl.)

Swamps and marshes. Oxford. April-May.

Geol. Survey Herb.

CRINUM L.

Crinum Americanum L.

Southern counties to the coast. Ocean Springs (Tracy); Bay St. Louis; Pascagoula. May.

Geol. Survey Herb.

HYPOXIS L. Star Grass.

Hypoxis hirsuta Coville (*H. erecta* L.)

Open woods throughout the state. Oxford; Tishomingo Co.; Morton. March-April.

Geol. Survey Herb.

Hypoxis juncea Smith.

Damp pine barrens. Landon. Spring.

Geol. Survey Herb.

LOPHIOLA. Ker-Gawl.

Lophiola Americana (Pursh.) Covillei (*Lophiola aurea* Ker-Gawl.)

Low pine barrens near the coast. Leakesville; Landon; Gulfport; Picayune; Back Bay at Biloxi. June-July.

Geol. Survey Herb.

AGAVE L. American Aloe.

Agave Virginica L.

In dry woods throughout the state. Oxford; New Albany; Tishomingo Co.; Okolona; Jackson; Amory; DeKalb. May.

Geol. Survey Herb.

DIOSCOREACEAE. Yam Family.**DIOSCOREA L. Wild Yam.*****Dioscorea villosa* L.**

Throughout the state in open woods. Tishomingo Co.; Okolona; New Albany; Oxford; Jackson. May.

Geol. Survey Herb.

IRIDACEAE. Iris Family.**IRIS L.*****Iris versicola* L. Blue Flag.**

Throughout the state in marshy ground. Tunica. April-May.

Geol. Surv. Herb.

***Iris hexigona* Walt. (I. *Virginica* Michx.) Southern Blue Flag.**
Marshes in the coastal zone. April.***Iris verna* L. Dwarf Iris.**

Very common in southern pine belt. Lost Gap; Collins; Wayne Co.; Jones Co. March-April.

Geol. Survey Herb.

***Iris cristata* Ait. Crested Iris.**

Wet seeps on limestone ledges of the Tennessee River. Tishomingo Co. Pontotoc; Ripley; Fulton; Grenada. April

Geol. Survey Herb.

GEMMINGIA Fabr.***Gemmingia Chinensis* (L.) Kuntze [*Belamcanda Chinensis* (L.) D. C.] Blackberry Lily (Int.)**

Common about homesteads and roadsides. Oxford; Utica. July.

Geol. Survey Herb.

SISYRINCHIUM L. Blue-eyed Grass.***Sisyrinchium flexile* Bicknell.**

Along the coast (Small.) Spring.

- Sisyrinchium graminoides** Bick. (S. anceps Wats.)
Coastal pine belt. Ellis. April-May.
Geol. Survey Herb.
- Sisyrinchium Tracyi** Bick.
Wet sandy lands in the southern counties. (Small).
- Sisyrinchium capillare** Bick.
Coastal pine barrens. Mohr). April.
- Sisyrinchium mucronatum** Michx.
Central prairie regions. Jackson; Morton. April-May.
Geol. Survey Herb.
- Sisyrinchium corymbosum** Bick.
Sandy pine barrens. Gulfport.
Geol. Surv. Herb.
- Sisyrinchium nanum** Bick.
Coastal regions. Landon. April-May.
- Sisyrinchium scoparium** Bick.
Coastal regions. April (Small).
- Sisyrinchium implicatum** Bick.
Wet bottom lands. Calhoun Co. (Small).
- Sisyrinchium capillare** Bick.
Low sandy pine barrens. Pascagoula.
Geol. Surv. Herb.
- Sisyrinchium campestre** Bick.
Damp open woods. Oxford. Spring.
Geol. Surv. Herb.
- Sisyrinchium fuscatum** Bick.
Damp sandy soil. April.
- Sisyrinchium albidum** Raf.
Rich moist shaded hill slopes. Grenada Co.; Okolona; Oxford; Jackson. April.
Geol. Surv. Herb.
- Sisyrinchium fibrosum** Bick.
Moist woods. Spring (Small).

Sisyrinchium tortum Bick.

Sandy soil (Small). Spring.

BURMANNIACEAE. Burmannia Family.

BURMANNIA L.

Burmannia biflora L. (*Tripterella coerulea* Nutt.)

Coastal regions. October-November. (A. Allison).

Burmannia capitata Mart. (*Tripterella capitata* Michx.)

Wet pine barrens along the coast. Bay St. Louis. October-November.

Allison Herb.

ORCHIDACEAE. Orchid Family.

CYPRIPEDIUM L. Lady's Slipper.

Cypripedium hirsutum Mill. (*C. pubescens* Willd.)

Oxford; Ripley; Tishomingo Co; Columbus; Hatchie Hills in Prentiss Co. April-May.

Geol. Surv. Herb.

Cypripedium parviflorum Salish. (*C. calceolus* Michx.)

Open woods. May.

HABENARIA Willd. Wood Orchis.

Habenaria habenaria.

Damp pine barrens. Gulfport.

Geol. Survey Herb.

Habenaria clavellata (Michx.) Spreng. (*H. tridentata* Hook.)

Wet shady woods. Oxford; Rocky Ford; Waynesboro; Tylertown; Wiggins; McHenry; Fulton; DeKalb. July.

Geol. Survey Herb.

Habenaria nivea Spreng. (*Orehis nivea* Nutt.)

Damp pine barrens. Waynesboro; Wiggins. July.

Geol. Survey Herb.

Habenaria cristata R. Br. (*Orehis cristata* Michx.)

Over the state in wet shady places. Fulton; Lumberton; Picayune; Meadville. August.

Geol. Survey Herb.

Habenaria ciliaris (L.) R. Br. (*Orchis ciliaris* L.) Yellow fringed orchis.

Over the state in edges of marshes. Oxford; Taylorsville; Picayune; Fulton; Meadville. June-August.

Geol. Survey Herb.

Habenaria blephariglottis Torr. (*Orchis blephariglottis* Willd.)

Swampy places, central pine region to the coast. Lauderdale Springs; Nugent; Mississippi City. July.

Geol. Survey Herb.

Habenaria peramoena Gray. (*Orchis incisa* Pursh.)

Rankin Co. (Hilg. Ms.); Oxford (Bailey). July.

Geol. Survey Herb.

Habenaria quinqueseta Michx. (*H. Michauxii* Nutt.)

Central pine belt. Decatur.

Geol. Survey Herb.

Habenaria repens Nutt. Creeping Orchis.

Borders of swamps near the coast. (Mohr). October.

POGONIA Juss.

Pogonia ophioglossoides (L.) Ker-Gawl. Snake-mouth.

Scattered over the state bordering open marshes; more common toward the coast. Iuka; Landon. April-May.

Geol. Survey Herb.

Pogonia divaricata (L.) R. Br. (*Arethusa divaricata* L.)

Perhaps throughout the state in open marshes. Chunky; Landon. April-May.

Geol. Survey Herb.

Pogonia verticillata Nutt. (*Arethusa verticillata* Willd.)

Fulton; Rocky Ford; Booneville; Toomsumba; Meadville. March.

Geol. Survey Herb.

Pogonia pendula.

Moist shady places along spring branches. Taylorsville.

Geol. Surv. Herb

GYROSTACHYS Pers. Ladies Tresses.

Gyrostachys gracilis Kuntze. (*Neottia gracilis* Bigelow.)

Perhaps over the state. Jackson; Lost Gap. April-June.

Gyrostachys praecox (Walt.) Kuntze. (*Spiranthes praecox* Gray).

Found sparingly throughout the state. Oxford; Jackson (T. P. Bailey.) May-June.

Geol. Survey Herb.

Gyrostachys odorata Kuntze (*Spiranthes odorata* Lindl.)

Damp woodlands along streams. October.

ACHROANTHES Raf. Adder's Mouth.

Achroanthes unifolia (Michx.) Raf. (*Microstylis ophioglossoides* Nutt.) Green Adder's Mouth.

Low shaded banks along streams. Oxford; Winona; Lost Gap; Luedale; DeKalb; Itawamba Co.; Meadville. July-August.

Geol. Survey Herb.

CORALLORHIZA R. Br. Coral Root.

Corallorhiza wisteriana Conrad.

Upland woods. New Albany. August.

Geol. Survey Herb.

TIPULARIA Nutt. Crane-Fly Orchis.

Tipularia unifolia (Muhl.) B. S. P. (*Tipularia discolor* Nutt.)

Rich shaded woods in northeastern counties. Itawamba Co.; Booneville. June.

Geol. Survey Herb.

LIMODORUM L. Grass Pink.

Limodorum tuberosum L. (*Calopogon pulchellus* R. Br.)

Open springy places or marshes. Lafayette Co.; Tishomingo Co.; Landon; Winona; Lost Gap. June.

Geol. Survey Herb

Limodorum parviflorum (Lindl.) Nash. (*Calopogon parviflorus* Lindl).

Low wet pine barrens. Picayune; Gulfport; Lyman; Landon. March-April.

Geol. Survey Herb.

HEXALECTRIS Raf.

Hexalectris aphyllus (Nutt.) Gray (*Bletia aphylla* Nutt.)

Throughout the state in oak woods. Rocky Ford; Oxford; Utica; Meridian. July-August.

Geol. Survey Herb.

EPIDENDRUM L.

Epidendrum conopseum R. Br.

Epiphytic on large magnolias and live oaks in dense low forests near the coast (Mohr). July.

DICOTYLEDONES

ARCHICHLAMYDEAE.

SAURURACEAE. Lizard's-tail Family.

SAURURUS L. Lizard-tail.

Saururus cernuus L.

Occurs throughout the state in swamps and marshes. Oxford; Jackson; Bay St. Louis. June-Aug.

Allison Herbarium.

JUGLANDACEAE. Walnut Family.

JUGLANS L. Walnut.

Juglans cinera L. Butternut.

On rich upland soils. Not common. Tippah Co.; Union Co.; DeSoto Co.; Booneville; Carrollton.

Geol. Survey Herb.

Juglans nigra L. Black Walnut.

Throughout the state in rich soil. Lafayette Co.; Tishomingo Co.; Grenada Co.; Clarke Co.

HICORIA Raf. Hickory.

Hicoria pecan (Marsh) Britton (*Carya olivaeformis* Nutt.)
Pecan.

Common in the Mississippi Delta and the loess bluffs.
Greenwood. Yazoo Co.; Warren Co.

Carya laciniosa (Michx. F.) Lond. King Nut.
River bottoms (A. B. Hurt).

Geol. Survey Herb.

Hicoria ovata (Mill.) Britton (*Carya alba* Nutt.) Sealy Bark.
Common in northern part of the state. Mostly on low-
lands. Lafayette Co.; New Albany; Pontotoc.

Hicoria alba Britton. (*Carya tomentosa* Nutt.) Mockernut.
Occurs throughout the state. Rare in southern pine belt.

Hicoria glabra (Mill.) Britton. (*Carya porcina* Nutt.) Pig Nut
Hickory.

Lowlands throughout the state. Tishomingo Co.; Hinds
Co.; Amite Co. April.

Geol. Surv. Herb.

Allison Herb.

Hicoria myristicaeformis (Michx.) Britton. (*Carya myris-
ticaeformis* Nutt.)

Rather rare. Most common in the loess bluffs. Yazoo Co.

Hicoria minima Britton. (*Carya amara* Nutt.) Bitternut.

Sparingly over the northern half of the state, on low
ground.

Hicoria pallida (*Carya pallida*)

Not common; mostly on rich uplands. Taylor.

Geol. Survey Herb.

Hicoria aquatica Britton. (*Carya aquatica* Nutt.) Water
Hickory.

Low swamps and overflow lands of the Mississippi and its
larger tributaries. Lafayette Co.; Holmes Co.; West Point.
May.

MYRICACEAE. Wax Myrtle Family.

MYRICA, L. Wax Myrtle. Candle Berry.

Myrica cerifera L. (*Myrica cerifera aborescens* Michx.)

Frequent on low pine barrens near the coast. Pascagoula;
Meadville; Lost Gap; Biloxi. February.

Geol. Surv. Herb.

Myrica pumila Small (*M. cerifera pumila* Michx.)

Damp open pine barrens. Back Bay near Biloxi. March.

Geol. Survey Herb.

Myrica Carolinensis Mill. (*M. cerifera media* Michx.)

Coastal regions in pine barrens swamps. Lyman. March.

Geol. Survey Herb.

Myrica inodora Bartram. Wailes' Report. Feb.-March.

SALICACEAE. Willow Family.

POPULUS L. Poplar, or Cottonwood.

Populus deltoides Marsh. (*P. monilifera* Ait.)

Common over the state on river floodplains.

Populus alba L. White or Silver Poplar.

An introduced tree common in yards, but escaped, and
rather common around settlements.

Populus heterophylla L.

On low lands of southwest counties. Wilkinson Co. Feb.

Geol. Survey Herb.

SALIX L. Willow.

Salix nigra Marsh. Black Willow.

Common throughout the state on river alluvium and about
springs. Lafayette; Hinds. April.

Geol. Survey Herb.

Salix humilis Marsh. (*S. longirostris* Michx.)

On low moist soils. Lafayette Co.; Tishomingo Co. April-
May.

Geol. Survey Herb.

Salix longifolia.

Tishomingo Co. (A. Allison); Starkville (Traey).

BETULACEAE. Birch Family.**CORYLUS L. Hazelnut.****Corylus rostrata** Ait. Beaked Hazelnut.

Rich wooded slopes and copses. Meadville. March-April.

Corylus Americana Walt. Common Hazelnut.

Dry woodland slopes. Tishomingo Co.; Tippah Co.; Lafayette Co.; Itawamba Co.; Michigan City; Meadville. March.
Geol. Survey Herb. Allison Herb.

BETULA L. Birch.**Betula nigra** L. (*B. rubra* Michx.) River Birch.

Common along streams. Lafayette Co.; Tishomingo Co.; Carroll Co.; Chunky; Greenwood; Hattiesburg.

Geol. Survey Herb.

ALNUS Gaertn. Alder.**Alnus rugosa** (Du Roi) Koch. (*A. serrulata* Willd.)

Common on low wet stream banks throughout the state. Lafayette Co.; Tishomingo Co. February.

Geol. Survey Herb. Allison Herb.

CARPINUS L. Ironwood.**Carpinus Caroliniana** Walt. (*C. Americana* Michx.)

Throughout the state on rich lower slopes and alluvial lands. Tishomingo Co.; Grenada Co.; Hinds Co.; Amite Co.; Hattiesburg; New Albany. May.

Geol. Survey Herb. Allison Herb.

OSTRYA Scop. Hop Hornbeam.**Ostrya Virginiana** (Mill.) Willd. (*O. Americana* Michx.)

Rich lower woodland slopes and stream bottoms. Tishomingo Co.; Pontotoc Co.; Grenada Co.; Copiah Co.; Amite Co. April-May.

Geol. Survey Herb. Allison Herb.

FAGACEAE. Beech Family.

FAGUS L. Beech.

Fagus Americana Sweet. (*F. ferruginea* Ait.).

On bottom lands over the state. Hinds Co.; Warren Co.;
Lafayette Co.; Amite Co.

Geol. Survey Herb. Allison Herb.

CASTANEA Adans. Chestnut.

Castanea dentata (Marsh) Borkh. (*C. vesca Americana* Michx.)
American Chestnut.

Light soil on uplands; most common in the northern coun-
ties. Lafayette and Tishomingo Counties. New Albany;
Ripley; Futon. May-June.

Geol. Survey Herb.

Castanea pumila Mill. (*Fagus pumila* L.) Chinquapin.

Rich upland slopes. Most common on loess bluffs of
southwestern counties. Itawamba; Hinds; Warren; Amite
counties; Pascagoula; Grenada; DeKalb; Woodville. May.

Geol. Survey Herb. Allison Herb.

QUERCUS L. Oak.

Quercus alba L. White Oak.

Over the state on low ground. Lafayette, Grenada, Tish-
omingo Counties; Bay St. Louis. April.

Geol. Survey Herb. Allison Herb.

Quercus minor Sarg. (*Q. stellata* Wagenh.) Post Oak.

Over the state on dry uplands. Tishomingo, Lafayette,
Hinds, Amite Counties; Bay St. Louis. April.

Allison Herb.

Quercus lyrata Walt. Overcup Oak.

Low stream bottoms. Lafayette, Tishomingo, Leflore
Counties; Warren Co.; Amory; Rosetta. April-May.

Geol. Surv. Herb.

Quercus prinus L. (*Q. montana* Willd.) Rock Chestnut Oak.

Only found in the extreme northeastern counties. Common on the sandstone bluffs of Bear Creek, Tishomingo Co.; on high rocky divides of Itawamba, Alcorn and Tippah Counties.

Geol. Survey Herb.

Quercus acuminata Sarg. (*Q. Muhlenbergii* Englm.) Chestnut or Yellow Oak.

On rich upland soils, especially where derived from limey formations. Oxford; Grenada; Holcomb, on loess bluffs; Sataria, on loess bluffs; New Albany, on Pontotoc Ridge; Clarke County, on limey soils east of Shubuta; Woodville, on loess bluffs.

Geol. Survey Herb.

Quercus Michauxii Nutt. (*Q. prinus Michauxii* Chapm.)

On low alluvial grounds throughout the state. Lafayette Co.; Hinds Co.; Yazoo Co.; Amite Co.; Hattiesburg on Leaf River; Grenada; Rosetta; Picayune.

Geol. Survey Herb. Allison Herb.

Quercus brevilobata (Torr.) Sarg. (*Q. Durandi* Buckl.) Pin Oak.

Limestone prairie soils; loess bluffs. West Point; Brookville; Roberts; Shubuta; Natchez.

Geol. Survey Herb.

Quercus austrina Small.

Low lands. Central Mississippi (Sargent).

Quercus nigra L. (*Q. aquatica* Walt.) Water Oak.

On alluvial soil and rich moist slopes throughout the state. A very common and beautiful tree. Lafayette Co.; Grenada Co.; Hinds Co.; Hattiesburg; Bay St. Louis.

Geol. Survey Herb. Allison Herb.

Quercus Virginiana Mill. (*Q. virens* Ait.) Live Oak.

Southern counties; more common near the coast.

Allison Herbarium.

Quercus geminata Small.

Sandy soil near the coast and coastal Islands; Cat Island.

Geol. Survey Herb.

Quercus Texana Buckl. Texan Oak.

A common oak on low rich soil. Lafayette, Yazoo, Warren, Hinds and Clarke Counties.

Geol. Survey Herb.

Quercus rubra L. Red Oak.

Common on sandstone bluffs. Bear Creek, Tishomingo County; bluff of Bull Mountain Creek in Itawamba Co.; New Albany; Taylor; Waynesboro; Amite Co.

Geol. Survey Herb. Allison Herb.

Quercus velutina Lam. (*Quercus coccinea tinctoria* Gray.) Black Oak.

Throughout the state. Amite Co.; Bay St. Louis; Oxford; New Albany; Jackson.

Geol. Survey Herb. Allison Herb.

Quercus catesbaei Michx. Turkey Oak.

Sandy soil; long leaf pine region. Moss Point; Bay St. Louis; McHenry; Hattiesburg; Meridian; Jones Co.; Wayne Co.

Quercus digitata Sudworth. (*Q. falcata* Michx.)

Throughout the state. Bay St. Louis.

Allison Herbarium.

Quercus pagodaefolia Ashe. (*Q. pagodaefolia* Ell.) Spanish Oak.

A very common and handsome tree throughout the state. Mostly on uplands. Tishomingo Co.; Oxford; New Albany; Amite Co.; Bay St. Louis.

Geol. Survey Herb. Allison Herb.

Quercus Marylandica Muench. (*Q. nigra* Wangenh.) Black Jack.

Over the state in sterile uplands. Tishomingo Co.; Lafayette Co.; Grenada Co.; Hinds Co.; Lauderdale Co.; Bay St. Louis.

Geol. Survey Herb. Allison Herb.

Quercus laurifolia Michx. (*Q. phellos laurifolia* Chapm.) Laurel Oak.

Southern half of the state on low ground. Okolona; Waynesboro; Hattiesburg.

Quercus phellos L. Willow Oak.

Throughout the state on low ground. Lafayette Co.; Hinds Co.; Amite Co.

Geol. Survey Herb. Allison Herb.

Quercus myrtifolia Willd. (*Q. phellos arenaria* Chapm.) Myrtle Oak.

Littoral, Mississippi City.

Geol. Surv. Herb.

Quercus imbricaria Michx. Shingle Oak.

Starkville (Tracy).

Quercus brevifolia Sarg. (*Q. cinerea* Michx.) Upland Willow Oak.

Dry upland sandy soil in southern pine belt to the coast. Jones Co.; Covington Co.; Wayne Co.; Forrest Co.; Moss Point; Bay St. Louis; Meridian.

Geol. Survey Herb. Allison Herb.

Quercus hybrida (Chapm.) Small.

Sandy upland soils. (Small).

Quercus Comptonae Sarg. Compton's Oak.

Loess bluffs. Natchez; Yazoo City.

ULMACEAE. Elm Family.**ULMUS** L. Elm.**Ulmus crassifolia** Nutt.

Along streams; Not common (Small). Autumn.

Ulmus Americana L. American Elm.

Rather common throughout the state. Lafayette Co.; Tishomingo Co.; Hinds Co.; Chickasaw Co. February.

Ulmus alata Michx. Wahoo. Winged Elm.

Throughout the state. Moist woodlands. Lafayette Co.; Tishomingo Co.; Holmes Co.; Hinds Co. February.

Geol. Survey Herb. Allison Herb.

Ulmus fulva Michx. (*U. pubescens* Walt.) Slippery Elm.

Low rich bottom lands. Lafayette Co.; Chickasaw Co.;
Tippah Co.; Hinds Co.; Warren Co. February.

Geol. Survey Herb.

PLANERA Gmel. The Planer-Tree, or Water Beech.

Planera aquatica (Walt.) Gmel. (*Anonymos aquatica* Walt.)

On low wet flood plains of the larger streams. Taylor.
February.

Geol. Survey Herb.

CELTIS L.

Celtis Mississippensis Bose. (*C. laevigata* Walt.) Southern
Hackberry.

Prairies and river bottoms. Tishomingo Co.; Benton Co.;
Chickasaw Co.; Noxubee Co.; Warren Co.; Clarke Co.;
northern Hinds Co.

Geol. Survey Herb.

Celtis occidentalis L. Hackberry.

Starkville (Tracy).

MORACEAE. Mulberry Family.

TOXYLON Raf.

Toxylon pomiferum Raf. (*Maclura aurantiaca* Nutt.) Osage
Orange. (Int.)

Throughout the state about habitations. April.

MORUS L. Mulberry.

Morus rubra L. Red Mulberry.

Common over the state on low ground. Tishomingo Co.;
Lafayette Co.; Hinds Co. March.

Geol. Survey Herb.

URTICACEAE. Nettle Family.

URTICA L. Nettle.

Urtica gracilis Ait. (*U. procera* Willd.) Common American
Nettle.

Damp shaded places, perhaps throughout the state. Tisho-
mingo Co.

Urtica dioica L. Stinging nettle.

About dwellings and hedgerows throughout the state.
Common. July.

Urtica chamaedryoides Pursh. (*U. purpurascens* Nutt.)

Pascagoula.

Geol. Surv. Herb.

ADICEA Raf. Clear Weed.

Adicea pumila. (*Pilea pumila* Gray.) Clear Weed.

About shaded boggy springs throughout the state. La-
fayette Co.; Hinds Co.; Eastport.

BOEHMERIA Jacq.

Boehmeria cylindrica Willd. (*Urtica cylindrica* L.) False
Nettle.

Throughout the state in damp boggy woods. Tishomingo
Co.; Tippah Co.; Hinds Co.; Copiah Co.; Bay St. Louis. July.

Geol. Survey Herb. Allison Herb.

LORANTHACEAE. Mistletoe Family.

PHORADENDRON Nutt. Mistletoe.

Phoradendron flavescens Nutt. (*Viscum flavescens* Pursh.)

Throughout the state, growing parasitic upon trees, mostly
oaks. February.

Geol. Surv. Herb.

SANTALACEAE. Sandalwood Family.

COMANDRA Nutt.

Comandra umbellata (L.) Nutt. (*Thesium umbellatum* L.)

Rare and local in northern counties. In upland oak woods.
Oxford. June.

Geol. Survey Herb.

ARISTOLOCHIACEAE. Birthwort Family.

ARISTOLOCHIA L.

Aristolochia serpentaria L. Virginia Snakeroot.

In low damp woods. Oxford; West Point; Vicksburg;
Hattiesburg; Madison Co.; Rosetta; Lost Gap; New Albany;
Ripley. (Hilg. Ms.). May.

Geol. Survey Herb.

Aristolochia tomentosa Sims. Dutchman's Pipe.

River bottoms; Pearl River bottom at Jackson. April-May.

Geol. Survey Herb.

ASARUM L. Wild Ginger.

Asarum Virginicum L.

Rich shaded slopes. Fulton; Booneville. March.

Geol. Survey Herb.

Asarum Canadense L.

Rich shaded slopes along the Tennessee River, in Tishomingo Co.; Pontotoc Ridge at Ripley; New Albany. March.

Geol. Survey Herb.

HEXASTYLIS Small. Wild Ginger.

Hexastylis arifolium (Michx.) Small

Rich shaded slopes. Common in the southern counties.
Hattiesburg: March.

Geol. Survey Herb.

Hexastylis Ruthii (Ashe) Small.

Rich low ground. Hattiesburg.

Geol. Survey Herb.

POLYGONACEAE. Buckwheat Family.

RUMEX L. Dock.

Rumex acetosella L.

Dry soil throughout the state. Tishomingo Co.; Oxford;
Jackson; Gulfport. April-May.

Geol. Survey Herb. Allison Herb

Rumex verticillatus L.

Open swamps and ditches. Greenwood. April-May.

Geol. Survey Herb.

Rumex crispus L.

In open pastures throughout the state. May-June.

POLYGONUM L. **Knotweed.****Polygonum aviculare** L.

Yards and gardens; common. May.

Polygonum maritimum L. (P. aviculare littoral Chapm.)

Along the coast. August-September.

Polygonum hydropiperoides Michx. (P. mite Pers.).

Open wet ground throughout the state (Hilg. Ms.) Tracy.
July.

Polygonum erectum L.

Starkville (Tracy). June.

Polygonum punctatum Ell. (P. acre H. B. K.). Smart Weed.

Open wet ground. July-October. Amite Co.; Bay St.
Louis.

Allison Herb.

Polygonum Pennsylvanicum L.

Damp open soil throughout the state. Jackson (T. P.
Bailey); southern Hinds Co.; Lafayette Co.

Geol. Surv. Herb.

Polygonum Virginianum L.

Over the state in low swamps. Copiah Co.; Warren Co.
July-September.

Geol. Surv. Herb.

Polygonum sagittatum L.

Marshes and springs. Oxford.

Geol. Surv. Herb.

Polygonum convolvulus L. Bind Weed.

Waste places. June-August.

Geol. Surv. Herb.

Polygonum persicaria L. Ladies' Thumb.

Open damp pastures and fields. June-October.

Polygonum cristatum Engelm.

Over the state.

POLYGONELLA Michx. **Joint Weed.****Polygonella polygama** Gray (*P. parvifolia* Michx.).

Dry sands along the coast. Cat Island. October.

Geol. Surv. Herb.

Polygonella gracilis Nees. (*Polygonum gracile* Nutt.).

Littoral; Coastal Islands (Tracy).

Polygonella Americana Small (*P. ericoides* Engelm. & Gray.)

Sandy soil. Southern Hinds Co. August.

Geol. Surv. Herb.

BRUNNICHIA. **Banks.****Brunnichia cirrhosa** Banks. Ladies' Ear Drops.

Common on stream banks. Grenada; Winona; Jackson
July-August.

Geol. Surv. Herb.

CHENOPODIACEAE. **Goosefoot Family.**CHENOPODIUM L. **Pigweed.****Chenopodium album** L. Lamb's Quarter.

In gardens and fields throughout the state. A common
weed.

Chenopodium ambrosiodes L.

Ruderal throughout the State. July-September.

ATRIPLEX L. **Orache.****Atriplex cristata** H. B. K.

Coastal Islands, Door Point. Spring to fall.

Geol. Surv. Herb.

Atriplex arenaria Nutt. (*Obione arenaria* Moq.).

Beach or sand Orache. Sand beaches. Petit Bois Island.
July.

Geol. Surv. Herb.

DONDIA Adans. **Sea-blite.**

Dondia linearis (Ell.) Millsp. (*Suaeda linearis* Moq.). Sea
Blight.

Littoral. Sandy beaches along the Gulf Coast and Islands.
July.

SALICORNIA L. **Glasswort.**

Salicornia Bigelovii Torr. (*S. mucronata* Bigel.).

Salt marshes on Coastal Islands (Lloyd & Tracy). July-
August.

Salicornia herbacea L.

Salt marshes of Coastal Islands. Door Point, Chandeleur
Islands. July.

Geol. Surv. Herb.

SALSOLA L. **Saltwort.**

Salsola Kali L. (*S. Caroliniana* Bigelow).

Sandy beaches. Coast and islands; Horn Island.

Geol. Surv. Herb.

AMARANTHACEAE. Amaranth Family.

AMARANTHUS L. **Amaranth.**

Amaranthus retroflexus L. Pig Weed.

Cultivated ground throughout the state. Oxford; Jack-
son. August-September.

Geol. Surv. Herb.

Amaranthus hybridus L. (*A. chlorostachys hybridus* Gray).
(int.).

Common in cultivated ground over the state. July-Oct.

Amaranthus spinosus L.

A common weed in cultivated ground over the state. Ox-
ford; Hinds Co.; Coastal Islands (Tracy). July-October.

Geol. Surv. Herb.

FROELICHIA. **Moench.**

Froelichia Floridana (Nutt.) Moq. (Oplotheca Floridana Nutt.)

Dry sands of beach. Coast and Coastal Islands. Beauvoir (Tracy); Bay St. Louis (A. Allison); Horn Island, Petit Bois Island. Summer.

Geol. Surv. Herb. Allison Herb.

BATIDAE. **Batis Family.**

BATIS P.Br.

Batis maritima L. Saltwort.

Salt marshes along the coast and Islands. July.

Geol. Surv. Herb.

PHYTOLACCACEAE. **Pokeweed Family.**

PHYTOLACCA L. Pokeweed.

Phytolacca decandra L.

Rich damp soil in open ground throughout the state. September-October.

NYCTAGINACEAE. **Four o'Clock Family.**

ALLIONIA Loeffl. Umbrella-wort.

Allionia albida Walt. (Oxybaphus albida Chois.)

Dry hill soils (Mohr). July-September.

Allionia decumbens (Nutt.) Rydb.

Dry sandy soil. (Small). Spring and summer.

AIZOACEAE. **Carpet Weed Family.**

MOLLUGO L. Carpet Weed.

Mollugo verticillata L.

In cultivated grounds around dwellings. Throughout the state. Oxford; Winona; Jackson. June-Oct.

Geol. Surv. Herb.

SESUVIUM L. Purslane.

Sesuvium portulacastrum. Sea Purslane.

Coastal regions and islands. Pascagoula; Door Point, Chandeleur Islands. December.

Geol. Surv. Herb.

Sesuvium maritimum (Walt.) B. S. P. (*S. pentandrum* Ell.).

Salt water pools and marshes along the coast; on sandy beaches (Mohr). August.

PORTULACACEAE. Purslane Family.

PORTULACA L.

Portulaca oleracea L.

In gardens and cultivated grounds throughout the state. May-September.

CLAYTONIA L. Spring Beauty.

Claytonia Virginica L.

In open woods and pastures. Lafayette Co.; Holmes Co.; Oktibbeha Co.; Okolona; New Albany; Shubuta. April-May.

Geol. Surv. Herb.

ALCINACEAE. Pink Family.

SCLERANTHUS.

Scleranthus annus.

Coast Islands (Tracy).

AGROSTEMMA L.

Agrostemma githago L.

Waste lands; not common. Oxford. June.

SILENE L. Campion.

Silene stellata (L.) Ait. Starry Campion. (*Cucubalus stellata* L.).

Rich shaded banks and slopes. More common in the northern part of the state. Tishomingo Co.; Lafayette Co.; New Albany; Ripley; Michigan City; Hatchie Hills; Madison Co.; Waynesboro. July-August.

Geol. Surv. Herb. Allison Herb.

Silene Virginica L. Indian Pink.

Dry sandy uplands. Lafayette Co.; Grenada Co.; New Albany; DeKalb; Ripley. May-June.

Geol. Surv. Herb.

Silene ovata Pursh. Round Leaf Silene.

Rich shaded slopes. Hatchie Hills; Alcorn Co. Spring.

SAPONARIA L.

Saponaria officinalis L. Soapwort. (Adv.).

Escaped from gardens all over the state. July.

VACCARIA L. Cow-herb.

Vaccaria vaccaria (L.) Britton (*Saponaria vaccaria* L.) Adv.

Occasionally found in cultivated ground. Oxford. May.

Geol. Surv. Herb.

SAGINA L. Pearlwort.

Sagina decumbens (Ell.) Torr. & Gray. (*Spergula decumbens* Ell.)

Damp pastures. Oxford and Carrollton. April.

Geol. Surv. Herb.

Sagina decumbens Smithii (Gray) Wats. (*S. subulata Smithii* Gray).

Dry sandy soil. Southern counties (Mohr). April.

ALSINE L. Chickweed.

Alsine media L. Startwort-Chickweed. (*Stellaria media* Smith.)

Found throughout the state in moist open lands. February-April.

Geol. Surv. Herb.

Alsine pubera (Michx.) Britton. Hairy Starwort. (*Stellaria pubera* Michx.).

Rich woods in northeast counties. Tishomingo Co. (Allison). May-June.

ARENARIA L. **Sandwort.**

Arenaria lanuginosa Rohrb. (*Arenaria diffusa* Ell.).

Thickets and moist woods. Most frequent toward the coast (Mohr.) Seen once at West Point.

Arenaria serpyllifolia L.

In moist ground around dwellings. Oxford. May.

TISSA Adans. **Sand Spurry.**

Tissa marina (L.) Britton. (*Arenaria rubra marina* L.).

Sandy beaches along the coast. Petit Bois Island. May.
Geol. Surv. Herb.

CERASTIUM L. **Mouse-ear Chickweed**

Cerastium viscosum L.

Common throughout the state in open lands. Oxford;
New Albany; Jackson. March.

Geol. Surv. Herb.

Cerastium vulgatum L. (*Cerastium triviale* Link.).

Common in open damp soil throughout the state. March.
Geol. Surv. Herb.

STIPULICIDA Michx.

Stipulicida setacea Michx.

Coastal region and islands (Tracy). April-June.

Stipulicida filiformis Nash.

Sandy soil (Small). Spring and summer.

SIPHONYCHIA Torr & Gray. **Whitlow-wort.**

Siphonochia erecta Chapm.

Sands along the coast and islands. July-August.

Geol. Surv. Herb.

Siphonochia corymbosa Small.

Coastal islands (Tracy).

NYMPHAEACEAE. **Water Lily Family.**

NELUMBO Adans. **Sacred Bean.**

Nelumbo lutea (Willd.) Pers. (*Nelumbium luteum* Willd.)

In deep still water throughout the state. May-June.

BRASENIA Schreb. **Water Shield.**

Brasenia purpurea (Michx.) Casp. (*Hydropeltis purpurea* Michx.).

Throughout the state in still water. May-June.

Geol. Surv. Herb.

CASTALIA Silisb. **Pond Lily.**

Castalia odorata Salisb. (*Nymphaea odorata* Dryand.). Sweet scented Water Lily.

Throughout the state in deep still water. April-June.

Geol. Surv. Herb.

Castalia tuberosa.

Deep still water. Coastal Islands (Tracy).

NYMPHAEA L. **Yellow Pond Lily.**

Nymphaea sagittifolia Walt. (*Nuphar sagittifolia* Pursh.).

Southern counties to the coast (Mohr). June-July.

MAGNOLIACEAE. **Magnolia Family.**

MAGNOLIA L.

Magnolia foetida (L.) Sarg. *Magnolia*. (*M. grandiflora* L.).

Common forest tree in lowlands. Rare in northern counties. Hinds Co.; Amite Co.; Port Gibson; Hattiesburg; Woodville; Vicksburg; Picayune.

Geol. Surv. Herb. Allison Herb.

Magnolia Virginica L. (*Magnolia glauca* L.). Swamp Bay, or Sweet Bay.

Common on low marshy ground; not common in the loess region. Bay St. Louis; Landon; Hattiesburg; Tishomingo City; Lost Gap; Woodville; Fulton. May June.

Geol. Surv. Herb. Allison Herb.

Magnolia acuminata L. Cucumber Tree.

Common in the hill region of northeast Mississippi. Eastport; Sartaria; Wayne Co.; Warren Co.; Adams Co.; New Albany. April.

Geol. Surv. Herb.

Magnolia acuminata cordata (Michx.) Sarg. (*M. cordata* Michx.).

On lowlands. Warren Co.; Wayne Co.; Copiah Co.; Wilkinson Co. May.

Geol. Surv. Herb.

Magnolia tripetala L. (*M. umbrella* Lam.). Umbrella Tree.

Hill regions of northern Mississippi. (Mohr). May.

Magnolia Fraseri Walt. (*M. auriculata* Lam.) Fraser's Magnolia.

Pearl River valley (Mohr).

Magnolia macrophylla (Michx.) Large Leaf Magnolia.

A small tree common on rich slopes. Winona; Vaiden; Sartaria; Meridian; Lost Gap; Rosetta; Woodville. April-May.

Geol. Surv. Herb.

LIRIODENDRON L. **Tulip Tree.****Liriodendron tulipifera** L.

Throughout the state on rich slopes and second bottoms. Tishomingo Co.; Pontotoc Co.; Lafayette Co.; Amite Co.; Hancock Co. April-May.

Geol. Surv. Herb. Allison Herb.

ILLICCIUM L. **Star Anise.****Illicium Floridanum** Ellis.

Southern pine region to the coast. Lauderdale Co.; Jones Co.; Hattiesburg; Tylertown; Bay St. Louis; Picayune. March-April.

Geol. Surv. Herb. Allison Herb.

SCHIZANDRA Michx. **Sarsaparilla Vine.**

Schizandra cocinea Michx.

Rich lowland woods in southern half of the state. Hinds Co.; Copiah Co.; Wilkinson Co. June.

ANONACEAE. Custard Apple Family.

ASIMINA Adans. Papaw.

Asimina triloba (L.) Dunal (*Anona triloba* L.).

Throughout the state in rich lowland woods. Tishomingo Co.; Itawamba Co.; Union Co.; Hinds Co.; Warren Co.; Okolona; Bay St. Louis. March-April.

Geol. Surv. Herb. Allison Herb.

Asimina parviflora Dunal.

Low lands in the southern counties. Hinds, Yazoo and Clarke Counties. Fulton; Grenada; Lost Gap; Amory. April.

RANUNCULACEAE. Buttercup Family.

ZANTHORHIZA L'Hert.

Zanthorhiza apiifolia L'Hert. Shrub Yellow Root.

Rich shaded creek banks. Tishomingo City; Itawamba Co.; Booneville; Columbus. March-April.

Geol. Surv. Herb.

ACTAEA L. **Baneberry.**

Actaea alba (L.) Mill. (*A. spicala alba* L.) White Baneberry.

Rich shaded slopes, mostly in limey soil. Ripley; Eastport; Hatchie Hills; Booneville; Pontotoc; Toomsaba; Vicksburg. Not common. April.

Geol. Surv. Herb.

CIMICIFUGA L. **Bugbane.**

Cimicifuga racemosa (L.) Nutt. (*Actaea racemosa* L.) Black Cohosh.

Rich shaded slopes of extreme northeastern counties. Bluffs of Tennessee River near Eastport; Booneville; Columbus; Hatchie Hills. June.

Geol. Surv. Herb.

DELPHINIUM L. Larkspur.

Delphinium Carolinianum Walt. (*D. azureanum* Michx.). Blue Larkspur.

Open pastures and copses on clay soil. Jackson. April-June.

Geol. Surv. Herb.

Delphinium virescens (Nutt.). Green Larkspur.

Dry rocky uplands of Tennessee hills. June.

Geol. Surv. Herb. Allison Herb.

Delphinium consolida L. Common Larkspur.

Escaped from cultivation. Common around Oxford. May-June.

Delphinium urceolatum Jacq. (*D. exaltatum* Ait.). Tall Larkspur.

Edges of woods. Southern counties (Hilg. Ms.). June.

ANEMONE L. Wind Flower.

Anemone Canadensis L. Canada Anemone.

Starkville (Tracy); Tishomingo Co. (A. Allison).

Allison Herb.

Anemone Caroliniana Walt. Prairie Anemone.

In open pastures. Local and infrequent. Has been collected only at Oxford and at Jackson. March-April.

Geol. Surv. Herb.

Anemone Virginiana L. Virginia Anemone.

Edges of thickets and woods. Common in northern half of state. Starkville (Tracy); Oxford; New Albany; Madison; Fulton; Ripley; Pontotoc; DeKalb. April.

Geol. Surv. Herb.

HEPATICA Scop. Liverwort.

Hepatica hepatica (L.) Karst (*H. triloba* Chaix.)

Rich wooded slopes of northeast hills. Limestone bluffs along Tennessee River near Eastport. March.

Geol. Surv. Herb. Allison Herb.

Hepatica acutiloba D. C.

In places similar to the last, but more widely distributed in the state. Eastport; Meridian; Toomsaba. March.

Geol. Surv. Herb.

SYNDESMON. Hoffing.

Syndesmon thalictroides (L.) Hoffing. (*Anemonella thalictroides* (L.) Spach.)

Rich shaded slopes. Eastport; Pontotoc; Itawamba Co.; Oxford; Chunky; DeKalb; Meridian; Taylorsville. April-May.

CLEMATIS L.

Clematis Virginiana L. Virgin Bower.

More or less common on lowlands throughout the state. Lafayette Co.; Hinds Co.; Heidelberg; Rodney (Dr. Perviance). Michigan City. Summer.

Geol. Surv. Herb. Allison Herb.

Clematis Catesbyana Pursh.

Sandy soil (Small). August.

Clematis viorna L. Leather Flower.

Lowlands bordering streams. Lafayette Co.; Chunky. June.

Geol. Surv. Herb.

Clematis crispa L. (*C. cylindrica* Sims). Blue Clematis.

Low swamps along streams. Okolona; West Point; Jackson; Waynesboro. May.

Geol. Surv. Herb.

MYOSURUS L. **Mouse Tail.****Myosurus minimus** L.

Common in damp open pastures and fields. Tishomingo Co.; Oxford. Perhaps throughout the state. May.

Geol. Surv. Herb.

RANUNCULUS L. **Crowfoot** or **Buttercup.**

Ranunculus pusillus Poir. (*R. flammula* Walt.).

Edges of open marshes throughout the state. Oxford; Jackson; Tishomingo Co.; Newton; Pascagoula. April.

Geol. Surv. Herb.

Ranunculus recurvatus Poir.

Damp rich thickets and woods. Lafayette Co.; Tishomingo Co.; Ripley. April-May.

Geol. Surv. Herb.

Ranunculus abortivus L. (*R. nitidus* Walt.).

Damp open grounds and fence rows throughout the state. Lafayette and Tishomingo Counties; New Albany; Taylor; Jackson. April.

Geol. Surv. Herb.

Ranunculus septentrionalis nitidus (Poir) Chapm.

Trailing in low swamp land. Okolona. April-May.

Geol. Surv. Herb.

Ranunculus fascicularis Muhl.

Common in damp open pastures throughout the state. Tishomingo Co.; Oxford; New Albany; Shubuta. April.

Geol. Surv. Herb.

Ranunculus parviflorus L. (*R. trachyspermus* Ell.).

Common in open lands around dwellings. Tishomingo Co.; Lafayette Co.; Hinds Co. April.

Allison Herbarium.

Ranunculus apricus Greene.

Moist pine barrens (Small). Winter and spring.

THALICTRUM L. **Meadow Rue.**

Thalictrum purpurascens L. (*T. rugosum* Pursh.).

On low moist shaded places in the northeastern counties. Tishomingo Co.; Ripley; West Point; Pontotoc; Fentress, in Choctaw Co. May.

Geol. Surv. Herb. Allison Herb

Thalictrum macrostylum (Schutt.) Sm. & Hell.

Leaf River near Hattiesburg. Spring.

Geol. Surv. Herb.

BERBERIDACEAE. Barberry Family.

PODOPHYLLUM. Mandrake or May Apple.

Podophyllum peltatum L.

Low shaded ground throughout the state. Oxford; Tishomingo Co.; Ripley; Pontotoc; Jackson. March-April.

Geol. Surv. Herb. Allison Herb.

MENISPERMACEAE. Moonseed Family.

CEBATHA Forsk.

Cebatha Carolina (L.) Britton (*Menispermum Carolinum* L.).
Carolina Moonseed.

Perhaps throughout the state, climbing over bushes and hedgerows. Oxford; Jackson; Starkville (Tracy); Madison Co. (Hilg. Ms.); Warren Co. July.

Geol. Surv. Herb.

CALYCOCARPUM Nutt. Cup Seed.

Calycoarpum Lyoni (Pursh.) Gray (*Menispermum Lyoni* Pursh.). Cup Seed.

Climbing over bushes along stream banks. Tippah, Attala and Carroll Counties (Hilg. Ms.); Starkville (Tracy); Lafayette Co.; Hinds Co.; Copiah Co. June.

Geol. Surv. Herb. Allison Herb.

BUTNERIACEAE. Calycanthus Family.

BUTNERIA DuRoi. Calycanthus.

Butneria Florida (L.) Kearney (*Calycanthus Floridus* L.).

In open woodlands. Fulton; Booneville; Columbus; Forrest Co. April.

Butneria fertilis (Walt.) Kearney. (*Calycanthus fertilis fertilis* Walt.).

In moist open woods. Ocean Springs (Tracy).

LAURACEAE. Laurel Family.**PERSEA** Gaetn. Red Bay.

Persea borbonia (L.) Spreng. (*P. Carolinensis* Nees.) Red Bay.
Alluvial Swamps. Lawrence Co. (Hilg. Ms.) June.

Persea pubescens (Pursh.) Sarg. (*P. Carolinensis pubescens* Pursh.).

Swamps and ponds in pine barrens to the coast; Coastal Islands (Tracy).

Geol. Surv. Herb.

SASSAFRAS. Nees & Eberm.

Sassafras sassafras (L.) Karst. (*S. officinale* Nees. & Eberm.).
Sassafras.

Light upland soil. Very common throughout the state.
April.

Geol. Surv. Herb.

BENZOIN Fabr. Spice Wood.

Benzoin benzoin (L.) Coulter (*Lindera benzoin* Blume). Spice Bush.

Moist shaded banks and slopes. Tippah, Union, Hinds, Yazoo, Warren and Madison Counties. March-April.

Geol. Surv. Herb. Allison Herb.

PAPAVERACEAE. Poppy Family.**SANGUINARIA** L. Blood Root.

Sanguinaria Canadensis L.

Rich shaded slopes. More common in the northeastern counties. Booneville; Eastport; Fulton; Pontotoc; Columbus; Hatchie Hills; New Albany; Meridian; Prentiss. March.

Geol. Surv. Herb.

ARGEMONE L. Prickly Poppy.

Argemone Mexicana L.

Waste places near the coast. Biloxi (Tracy). April-May.

Argemone alba Lestib. (A. Mexicana albiflora DC.).

Waste places near the coast. April-May.

Geol. Surv. Herb. Allison Herb.

CAPNOIDES Adans. **Corydalis**.

Capnoides aureum.

Loess bluffs in open ground and copses. Natchez. April-May.

Geol. Surv. Herb.

BRASSICACEAE. Mustard Family.

LEPIDIDIUM L. Pepper Grass.

Lepidium Virginicum L.

Waste lands and pastures throughout the state. Oxford; Jackson. Spring and summer.

Geol. Surv. Herb.

CORONOPUS Gaertn. Swine Cress.

Coronopus didymus (L.) J. E. Smith. (Senebiera pinnatifida DC.). Pepper Grass.

Pastures and moist open lands. Common in moist sands along the coast. Jackson; Biloxi. March-May.

Geol. Surv. Herb.

CAKILE Gaert. **Sea Rocket**.

Cakile Chapmanii Millspaugh. (C. maritima aequalis Chapm.).

Sands along the beach. Biloxi. June-August.

Geol. Surv. Herb

Cakile fusiformis.

Coastal Islands (Tracy).

SISYMBRIUM L.

Sisymbrium officinale Scop. (Erysimum officinale L.). Hedge Mustard.

Common in waste places throughout the state. Spring.

BRASSICA L. **Mustard.**

Brassica nigra (L.) Koch (*Sinapis nigra* L.). Black Mustard.
Throughout the state. Not rare. Spring.

Brassica alba L. White Mustard.
Occasional throughout the state. Spring.

RORIPA Scop. **Cress.**

Roripa nasturtium L. Rusby (*Nasturtium officinale* R.Br.).
Water Cress.
Common throughout the state in cool springy places.
Biloxi beach. April.

Geol. Surv. Herb.

Roripa sessiliflora (Nutt.) A. S. Hitchcock (*Nasturtium sessiliflora* Nutt.).
Along the coast (Tracy). March.

CARDIMINE L. **Bitter Cress.**

Cardamine Pennsylvanica Muhl. (*C. hirsuta* Gray).
Found on dripping limestone ledges of the Tennessee Ri. r
near Eastport. February-March.

Geol. Surv. Herb. Allison Herb.

Cardamine bulbosa (Schrieb.) B. S. P. (*C. rhomboidea* DC.).
Boggy ground in the northern counties. Oxford; Taylor;
Okolona; Potts Camp; Jackson.

Geol. Surv. Herb.

DENTARIA L.

Dentaria diphylla Michx. Pepper Root.
Rich shaded slopes. Eastport; Oxford.

Geol. Surv. Herb.

Dentaria laciniata Muhl. (*D. conoatenata* Michx.).
Rich shaded shlopes. Oxford; New Albany.

Geol. Surv. Herb.

Dentaria laciniata multifida (Muhl.) J. F. James (*D. multifida* Muhl.).

Rich slopes in northeastern counties. Eastport. March-April.

Geol. Surv. Herb.

BURSA Weber. **Shepherd's Purse.**

Bursa bursa-pastoris L. Britton (*Capsella bursa-pastoris* Gray).

Waste lands in pastures throughout the state. March-May.

Geol. Surv. Herb.

DRABA L. **Whitlow Grass.**

Draba verna L. Intr.

Open pastures and waste places. Tishomingo Co. Benton Co. March-April.

Geol. Surv. Herb. Allison Herb.

Draba brachycarpa Nutt.

Open grass plots and waste places throughout the state. Oxford. May.

Geol. Surv. Herb.

ARABIS L. **Sand Cress.**

Arabis Virginica (L.) Trelease (*Arabis ludoviciana* C. A. Meyer).

Open grass plots in pastures throughout the state.

Arabis canadensis L.

Northeastern counties (Hilg. Ms.). June.

CAPPARIDACEAE. **Caper Family.**

CLEOME L.

Cleome spinosa L. (*C. pungens* Willd.).

Rather common in open waste places. Copiah Co.; Smith Co.; Meadville. June-July.

Geol. Surv. Herb.

SARRACENIACEAE. Pitcher Plant Family.**SARRACENIA L. Pitcher Plant.****Sarracenia purpurea L.**

Southern pine barrens (Hilg. Rep.). March.

Sarracenia psittacina Michx.

Southern pine barrens. Picayune; Landon; Biloxi. April.
Geol. Surv. Herb.

Sarracenia rubra Walt.

Southern pine barrens. Picayune; Biloxi; State Line;
Leakesville; Waynesboro; McHenry; Landon. April.
Geol. Surv. Herb.

Sarracenia Drummondii Croom.

Pine barrens. State Line. April.
Geol. Survey Herb.

Sarracenia flava L.

Pine barrens meadows. Black Bay at Biloxi; Picayune;
Lumberton. April.
Geol. Surv. Herb.

Sarracenia catesbaei Ell.

Wet pine barrens. Gulfport. (Dr. T. P. Bailey) June.

Sarracenia minor Walt. (S. variolaris Michx.)

Low pine barrens near the coast. (Hilg. Rep.)

DROSERACEAE. Sundew Family.**DROSERA L. Sundew.****Drosera brevifolia Pursh.**

Damp pine barrens near the coast. (Mohr.) April.

Drosera rotundifolia L.

Damp pine barrens near the coast. Waynesboro; Hurley;
Landon; Gulfport; Biloxi; Bay St. Louis; Picayune; Coastal
Islands.

Geol. Survey Herb.

Drosera capillaris Poir. (*D. brevifolia* major Hook.)

Low pine barrens near the coast (Mohr.); Bexley, April.

Drosera intermedia Hayne: (*D. longifolia* Michx.)

Low pine barrens. Mayaguez; Hurley. April-May.

Geol. Survey Herb.

Drosera filiformis Raf. (*D. tenuifolia* Willd.)

Low pine barrens near the coast. Landon; Gulfport. May.

Geol. Survey Herb.

PODOSTEMACEAE. River Weed Family.

PODOSTEMON Michx. River Weed.

Podostemon abrotanoides Nutt.

Gravelly stream bottoms. (Small). June.

CRASSULACEAE. Orpine Family.

SEDUM L. Stone Crop.

Sedum ternatum Michx.

Wet limestone bluffs of Tennessee River, near Eastport. May.

Geol. Survey Herb.

PENTHORUM L.

Penthorum sedoides L. Ditch Stone Crop.

Edges of marshes and ditch sides. Common in north half of the state. Hinds Co.; Oxford; Durant. May.

Geol. Survey Herb.

SAXIFRAGACEAE. Saxifrage Family.

ASTILBE.

Astilbe biternata (Vint.) Britton.

Rich shaded slopes of the northern counties. Eastport; Ripley; Oxford. May.

Geol. Survey Herb.

SAXIFRAGA L. **Saxifrage.****Saxifraga Virginiensis** Michx. Virginia Saxifrage.

Usually on limestone ledges. Confined to the northeastern counties. Eastport; New Albany; Oxford (found only once). April.

Geol. Survey Herb.

TIARELLA L. **False Mitrewort.****Tiarella cordifolia** L.

Northeast counties on rich slopes. April. (Mohr.)

HEUCHERA L. **Alum Root.****Heuchera Americana** L.

Rocky or dry open woods in the northern counties. Tishomingo Co.; Lafayette Co.; Itawamba Co.; Tippah Co.; Clay Co. April-May.

Geol. Survey Herb.

Heuchera villosa. Michx.

Limestone ledges along Tennessee River near Eastport; rare. Summer.

Geol. Survey Herb.

PARNASSIA L. **Grass of Parnassus.****Parnassia grandiflora** DC.

Low wet depressions in lower Pearl River Valley. Poplarville. (Mohr.)

Parnassia Caroliniana Michx.

Wet pine barrens of southeast Mississippi. (Mohr.)

PHILADELPHUS L. **Syringa.****Philadelphus grandiflorus** Willd.

Occasional in the northern counties. Fulton; Chunky. Perhaps escaped from gardens. April-May.

Geol. Surv. Herb.

Philadelphus inodorus L.

Moist woods and river banks. (Small.) April-May.

HYDRANGEA L. **Wild Hydrangea.****Hydrangea arborescens** L. (*H. vulgaris* Michx.)

Common on rich shady slopes and creek banks. Tishomingo, Itawamba and Benton Cos.; Ripley; New Albany; Oxford; Pontotoc; Madison; Jackson. June.

Geol. Survey Herb.

Hydrangea radiata Walt.

Rich shady banks. Southwestern Hinds Co.

Geol. Survey Herb.

Hydrangea quercifolia Bartram. Oak Leaf Hydrangea. Seven Bark.

Very common in the northern counties; less so southward; on shady slopes. Tishomingo, Tippah, Benton, Lafayette, Union, Madison and Hinds Counties. May-June.

Geol. Survey Herb. Allison Herb.

ITEA L.

Itea Virginica L. Virginian Itea.

Borders of swamps and shaded stream banks. Tishomingo Co.; Oxford; Newton; Lost Gap; Hattiesburg; Bay St. Louis. May-June.

Geol. Survey Herb. Allison Herb.

DECUMARIA L.

Decumaria barbara L. (*D. sarmentosa* Ell.) Carolina Decumaria.

Shaded alluvial flats bordering streams. Oxford; Taylor; Monticello; Simpson Co. (Hilg. Ms.); Amite Co.

Geol. Survey Herb. Allison Herb.

HAMAMELIDACEAE. Witch Hazel Family.HAMAMELIS. **Witch Hazel.****Hamamelis Virginiana** L.

Throughout the state on shady slopes. Tippah, Lafayette, Hinds, Amite Counties; Chunky; Bay St. Louis. October-November.

Geol. Survey Herb. Allison Herb.

LIQUIDAMBER L. **Sweet Gum. Red Gum.****Liquidamber styraciflua** L.

Throughout the state, mostly on low lands. The commercial variety known as "Red Gum" is confined to alluvial bottoms of large streams. Especially common in the Mississippi Delta swamps. February-March.

PLATANACEAE. **Sycamore Family.****Platanus occidentalis.** Sycamore.

River bottoms throughout the state. May.

Geol. Survey Herb.

ROSACEAE. **Rose Family.**SPIREAEAE L. **Spirea.****Spiraea salicifolia** L.

In low wet copses. Picayune.

Geol. Survey Herb.

PORTERANTHUS. **Britton.****Porteranthus stipulatus.** (Muhl.) Britton. (*Gillenia stipulacea* Nutt.). Indian Physic.

In low open woods of northeastern counties. West Point; Eastport. On Bull Mountain Creek, Itawamba Co. Summer.

Geol. Survey Herb. Allison Herb.

RUBUS L.

Rubus argutus Link (*R. villosus frondosus* Torr.) Common Blackberry.

Throughout the state bordering lowland thickets and fence rows. May.

Rubus argutus floridus (Tratt.) Bailey. (*R. floridus* Tratt.)

Light sandy soil.

Rubus rhodophyllus Rydb.

Tishomingo County. Spring.

Allison Herbarium.

Rubus persistens Rydb.

Sandy soil. Biloxi (Small). Spring.

Rubus trivialis Michx. Southern Dewberry.

Throughout the state, usually in sandy soil. Coastal Islands (Tracy); New Albany; Oxford; Waynesboro; Smith County.

Rubus Enslenii Tratt.

Tishomingo County.

Allison Herbarium.

Rubus cuneifolius Pursh. (*R. parvifolius* Walt.) Sand Blackberry.

Jackson. (Dr. T. P. Bailey.) April.

Rubus occidentalis L. Wild Black Raspberry.

Thickets on rich limey soil. Pontotoc Ridge in Union County; Tishomingo County (Allison.)

Allison Herbarium.

FRAGARIA L. **Wild Strawberry.****Fragaria Virginiana.** Duchesne.

On open damp soil. Not common; apparently limited to north half of the state. Tishomingo, Hinds, Lafayette counties. April-May.

Allison Herbarium.

DUCHESNEA **Smith.****Duchesnea Indica** (Andr.) Focke. (*Fragaria Indica* Andr.)

Escaped from gardens throughout the state. Common. Oxford; Carrollton; Jackson.

Geol. Survey Herb.

POTENTILLA L.

Potentilla Canadensis L. Five Fingers.

Common to open upland woodlands. Tishomingo Co.; Lafayette Co.; Ripley; Jackson. May.

GEUM L. **Avens.****Geum Canadense** Jacq. (*G. album* Gmel.)

Shady thickets. Eastport; Ripley; Pontotoc; West Point; Michigan City; Oxford; southern Hinds Co. May.

Geol. Survey Herb.

Geum vernum (Raf.) T. & G.

Shady copses. Pontotoc. May.

Geol. Surv. Herb.

Geol. Survey Herb.

AGRIMONIA L. **Agrimony.****Agrimonia parviflora** Soland. (*A. suaveoleus* Pursh.) Sweet - Agrimony.

Borders of woods and thickets; perhaps throughout the state. Warren Co.; Michigan City. July.

Geol. Survey Herb.

Agrimonia incisa T. & G. Cut-Leaf Agrimony.

Edges of woods and copses. Infrequent throughout the state. July.

Geol. Survey Herb.

ROSA L. **Rose.****Rosa humilis** Marsh. (*R. Caroliana* Michx.) Low Wild Rose.

Common in open dry upland woods of the northern counties. Oxford; New Albany; Noxubee County, in sandy ridge soil; West Point; Amory; Woodville; Jackson. May.

Geol. Survey Herb.

Rosa blanda Ait. Early Wild Rose.

Starkville (Traey); spring and early summer.

Geol. Survey Herb. Allison Herb.

Rosa laevigata Michx. (*R. sinica* Ait) Cherokee Rose.

Southern counties in open woods and roadsides; more common in the region of the loess hills. Jackson; Warren Co.; Claiborne Co.; Franklin Co. February-April.

Geol. Survey Herb.

Rosa bracteata Wendl. (Adv.)

Southern pine region to the coast (Small). July-September.

Rosa rubiginosa L. Sweetbrier.

Run wild in open grounds and along fence rows. Common in limey soils. Tishomingo Co.; Jackson. Summer.

Allison Herbarium.

Rosa Carolina L. Swamp Rose.

Low wet ground in swamps and pastures. Northern counties; Benton Co.; Lafayette Co.; Common. June.

Geol. Survey Herb.

PYRUS L.

Pyrus angustifolia Ait. Southern Crab Apple.

Throughout the state. Tishomingo, Hinds, Lafayette, Forrest Counties. April.

Geol. Survey Herb. Allison Herb.

ARONIA. Pers. **Chokeberry.****Aronia arbutifolia** (L.) Ell. (*Mespilus arbutifolia* L.) Red Chokeberry.

Throughout the state along creek banks and edges of ponds. Most common in the southern pine belt. Tishomingo, Jones, Hancock, Amite Counties. March-April.

Allison Herbarium.

Aronia arbutifolia melanocarpa. Black Chokeberry.

Edges of swamps and springy marshes. Lafayette Co.; Simpson Co. (Hilg. Ms.) April.

Geol. Survey Herb.

AMELANCHIER Medic. **Service Berry, or June Berry.**

Amelanchier Canadensis (L.) Medic. (*Mespilus Canadensis* L.)

Edges of ponds and borders of streams. Tishomingo and Lafayette counties. June.

Geol. Survey Herb.

CRATAEGUS L. **Haw.**

Crataegus spathulata Michx.

Damp woods and thickets. Tishomingo and Hinds counties. April.

Geol. Survey Herb. Allison Herb.

Crataegus viridis L. (*C. arborescens* Ell.)

Damp clay uplands. Morton. March-April.

Geol. Survey Herb.

Crataegus apiifolia (Marsh.) Michx. (*Mespilus apiifolius* Marsh.) Red Haw; Parsley Haw.

Low wet clay soil throughout the state. Tishomingo Co. Hinds Co.; Morton; Hattiesburg. April.

Crataegus rotundifolia (Ehrh.) Borek. (*C. glandulosa* Willd.) Glandular Haw.

Dry open woods and thickets. Tishomingo Co.. April May.

Allison Herbarium.

Crataegus mollis (Torr & Gray) Scheele (*C. coccinea mollis* (Torr & Gray). Downy Haw.

Rich upland woods. Starkville (Traey.) April.

Crataegus crus-galli L. Cockspur Thorn.

Open woods and copses in damp rich soil throughout the state. April.

Crataegus denaria Beadle.

Along streams in East Mississippi; Common near Columbus (Sargent).

Crataegus Mohrii Beadle.

Rich damp lowland soil. Tishomingo Co. May.

Allison Herbarium.

Crataegus flava Ait. (*C. flava pubescens* Gray.) Summer Haw.
Sandy soil; more common in the piney woods region, Simpson Co. (Hilg. Ms.)

Crataegus aestivalis Torr & Gray. May Haw.

Low wet borders of streams and ponds in the pine barrens. Bay St. Louis. April.

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Allison Herb.

Crataegus uniflora Meunh. (*C. tomentosa* Michx.) Dwarf Thorn.

Dry open copses throughout the state.

PRUNUS L.

Prunus Americana Marsh. (*P. hyemalis* Michx.) Wild Plum.

Damp wooded slopes and stream banks throughout the state. Benton, Pontotoc, Lafayette, Tishomingo, Hinds, Clarke Counties. March-April.

Geol. Survey Herb. Allison Herb.

Prunus hortulana Bailey. (*P. maritima* Chapm. Wild Goose Plum.

Littoral along Gulf Coast. March.

Geol. Surv. Herb.

Prunus angustifolia Marsh. (*P. Chicasa* Michx.) Old Field Plum; Chickasaw Plum.

Common in old fields and waste lands throughout the state. February-March.

Geol. Surv. Herb.

Prunus umbellata Ell. Southern Sloe; Hog Plum.

Open woods and edges of fields in pine barrens. Enterprise. March.

Prunus mitis Beadle.

Open woods. New Augusta.

Geol. Survey Herb.

Prunus serotina Ehrh. Wild Black Cherry.

Throughout the state on low rich ground. March-April.

Geol. Survey Herb. Allison Herb.

Prunus Caroliniana Ait. Laurel Cherry; Wild Peach.

Low rich creek banks in the southern counties. Hinds Co.; Hattiesburg. February-March.

Geol. Survey Herb.

CHRYSOBALANUS L.

Chrysobalanus oblongifolius Michx. Deer Plum.

Dry pine woods in the southern counties toward the coast. Hurley; McHenry. June.

Geol. Surv. Herb.

VICIACEAE. Vetch Family.

MIMOSA.

Mimosa strigillosa T. & G. Sensitive Plant.

On low damp open ground. Yazoo City; Tehula. May.

ALBIZZIA. Durazz.

Albizzia julibrissin (Willd.) Duraz. (*Mimosa julibrissin* Willd.)

Silk Tree. (Int.)

In yards and about dwellings throughout the state. May.

NEPTUNIA Lour.

Neptunia lutea (Leavenw.) Benth. (*Desmanthus luteus* Benth.)

Open grass lands and limey soils. Rankin Co. (Hilg. Ms.); Jackson; Back Bay opposite Biloxi.

Geol. Surv. Herb.

SHRANKIA Willd. Sensitive Brier.

Shrankia angustata Torr. & Gray.

Dry open woods. Lost Gap. May-July.

Shrankia uncinata Willd.

Open pastures on clay soil. Jackson (T. P. Bailey).

ACUAN Medic.

Acuan Illinoense (Michx.) Kuntze (*Desmanthus brachylobus* Benth.)

Open lands, more commonly on prairie soils. Pontotoc; West Point; Greenwood; Jackson; Warren Co. July.

Geol. Survey Herb.

CERCIS L.

Cercis Canadensis L. Red Bud. Judas Tree.

Throughout the state in rich woods and along streams. Tishomingo, Lafayette, Tunica, Chickasaw, Hinds, Warren, Clarke, Jones, Smith Counties. March.

Geol. Survey Herb. Allison Herb.

CASSIA L.

Cassia occidentalis L. Coffee Senna.

A rather common weed about gardens and barnyards. Starkville; Biloxi (Tracy); Hinds Co. July.

Geol. Survey Herb.

Cassia tora L. (*C. obtusifolia* L.) Low Senna.

A weed found throughout the state in waste places. June-August.

Cassia Marilandica L. Wild Senna.

A weed occurring throughout the state. Marshall Co. July-August.

CHAMAECRISTA Greene. **Sensitive Pea.**

Chamaecrista fascicularis (Michx.) Greene. (*Cassida chamaecrista* L.) Partridge Pea. Large-flowered Sensitive Pea.

Throughout the state in open sunny places. West Point; Oxford; Hinds, Copiah, Jones Counties. August-Sept.

Geol. Surv. Herb.

Chamaecrista Missisippiensis (Pollard) Pollard. (*Cassia Missisippiensis* Pollard.)

Dry sandy edges of fields near the coast. (Mohr.)

Chamaecrista chamaecristoides (Colladon) Greene (*Cassia depressa* Pollard.)

Damp shaded banks. Biloxi (Tracy). August.

Chamaecrista Tracyi Pollard. Sea Beach Sensitive Pea.

Along the coast. (Small.)

Chamaecrista multipinnata (Pollard) Greene. (*Cassia multipinnata* Pollard.) Many-leaved Sensitive Pea.

Shady banks and edges of fields. Biloxi (Tracy.) August.

Chamaecrista robusta (Pollard) Pollard. (*Cassia chamaecrista* Torr. & G.) Sensitive Pea.

Open borders of woods; coastal islands. (Tracy.)

Chamaecrista nictitans (L.) Moench. (*Cassia nictitans* L.) Wild Sensitive Pea.

Throughout the state; edges of woods and old fields; more common southward. July-August.

GLEDITSIA L. Honey Locust.

Gleditsia triacanthos L.

Throughout the state. Tishomingo, Chickasaw, Warren counties. May.

Allison Herbarium.

Gleditsia monosperma Walt. (*G. aquatica* Marsh.) Water Locust.

Low alluvial ground. Tunica; Yazoo City; West Point.

Geol. Survey Herb.

BAPTISIA Vent. False Indigo.

Baptisia alba (L.) R. Br.

Open prairie soil. Jackson (T. P. Bailey). May.

Baptisia leucantha (Torr & Gray).

Rather common on prairies and open lands. Oxford; Tishomingo Co.; Amory; West Point; Hattiesburg. May.

Geol. Surv. Herb.

CROTALARIA L. Rattle Box.

Crotalaria rotundifolia (Walt.) Poir. (*C. ovalis* Pursh.)

Round-Leaf Rattle Box. Dry, sandy open soil. Meadville; Lost Gap; Hurley; Gulfport; Bay St. Louis; Coastal Islands (Tracy). June.

Geol. Survey Herb. Allison Herb.

Crotalaria sagittalis L. Common Rattle-Box.

Sandy soil. Common throughout the state. Lafayette, Montgomery, Hinds, Marion (Hilg. Ms.) and Hancock counties. July.

Geol. Survey Herb. Allison Herb.

Crotalaria Purshii DC. Pursh's Rattle Box.

Damp pine barrens, more common near the coast. Winona, Jackson; McHenry; Landon; Gulfport (T. P. Bailey); Biloxi; Bay; St. Louis; Coastal Islands. April and May.

Geol. Survey Herb. Allison Herb.

LUPINUS L. **Lupine.**

Lupinus gracilis Nutt. (L. perennis gracilis Chapm.) Nuttall's Lupine.

Dry, sandy pine barrens toward the coast. (Mohr.) April.

Lupinus diffusus Nutt. Spreading Lupine.

Sandy pine ridges in the lower counties (Mohr). May and June.

Lupinus villosus Willd. Hairy Lupine.

Lower pine barrens. Wayne County. May.

MEDICAGO L.

Medicago denticulata Willd. Toothed Medick. (Int.)

Naturalized throughout the state, sparingly. Bay St. Louis.

Allison Herbarium.

Medicago maculata Sibth. (M. Arabica L.) All. Spotted Burr Clover. (Int.)

Naturalized, throughout the state; most common on limestone soil. Oxford; Natchez; Starkville (Tracy). March-April.

Geol. Survey Herb.

Medicago sativa L. Lucern. Alfalfa. (Int.)

Escaped from cultivation locally in limey soils. May.

MELILOTUS Juss. **Sweet Clover.**

Melilotus alba Desr. White Melilotus.

Common on white limey prairie soils, especially in northeast Mississippi, along roadsides, ditches, and limestone bluffs. May-June.

Melilotus Indica All. (*M. parviflora* Desf.)

Prairie region (Mohr.) May-June.

MELILOTUS Juss. **Sweet Clover.**

Trifolium reflexum L. Buffalo Clover.

Open woods and pastures; prairies. Tishomingo Co.
April-May.

Allison-Herb.

Trifolium Carolinianum Michx. Wild White Clover.

Open fields and pastures. Starkville (Tracy.) March-
April.

Trifolium pratense L. Red Clover.

(Int.) Escaped from cultivation throughout the state;
more frequent in the limey soil of the prairies. May.

Trifolium arvense L. Rabbit-Foot Clover.

(Int.) Dry light soil along roadsides, in old fields, and
yards. Holly Springs. Summer.

Geol. Survey Herb.

Trifolium repens L. White Clover.

(Int.) Escaped from cultivation commonly throughout
the state, along roadsides, in pastures, and waste places gen-
erally. April-June.

Trifolium procumbens L. Yellow Clover.

Common in the northern counties in pastures and moist
open ground. May-June. Lafayette, Tishomingo counties.

Allison Herb.

PSORALEA L. **Psoralea.**

Psoralea pedunculata Nutt. Vail (*P. melilotoides* Michx.)

Common in open fields and banks throughout the state,
most common northward to Oxford; Newton; Hattiesburg.
June.

Geol. Survey Herb.

Psoralea simplex Nutt.

Wet grassy banks in northern counties (Mohr.) June.

AMORPHA L. **False Indigo.*****Amorpha fruticosa* L.**

Throughout the state on low, shady stream banks. Eastport; Greenwood; Gulfport; Bay St. Louis. April-May.

Geol. Survey Herb. Allison Herb.

KUHNIISTERA Lam. **Prairie Clover.**

Winiwera canbada (Willd.) Kuntze (*Petalostemon candidus* Michx.) White Prairie Clover.

Common in the prairie regions; less so on lighter soils. Jackson; Oxford. June.

Geol. Survey Herb.

Winiwera caerulea (Vent.) MacMillan (*Petalostemon violaceus* Michx.) Purple Prairie Clover.

Usually on prairie soils; not common. Jackson; Greenwood. July-September.

Geol. Survey Herb.

Winiwera pinnaea (Walt.) Kuntze (*Petalostemon corymbosus* Michx.) Pine-Barren Prairie Clover.

Dry, sandy pine barrens near the coast. Mississippi City. July-September.

Geol. Survey Herb.

INDIGOFFERA L.

***Indigofera Caroliniana* Walt.** Wild Indigo.

Coastal Islands (Tracy.) June.

CRACCA L. **Hoary Pea.**

***Cracca Virginiana* L.** (*Tephrosia Virginiana* Pers.)

Over the state in dry open upland woods. Tishomingo County; Lost Gap; Oxford; Jackson. June.

Geol. Survey Herb.

***Cracca spicata* (Walt.) Kuntze** (*Tephrosia spicata* Torr & Gray.) Hairy Devil's Shoestring

Dry, open sandy woods. Throughout the state, but more common southward. Lost Gap; Jackson. June-August.

Geol. Survey Herb.

Cracca ambigua (Curtis) Kuntze.

Dry pine lands in the southern counties (Small).

Cracca hispidula (Michx.) Kuntze (*Tephrosia hispidula* Pers.)

In pine barrens region (Mohr). June-Sept.

Cracca chrysophylla (Pursh.) Kuntze. (*Tephrosia chrysophylla* Pursh.)

Sandy pine barrens, to the coast Bay St. Louis. July.
Allison-Herb.

KRAUNHIA Raf. *Wisteria*.**Kraunhia frutescens** (L.) Greene (*Wisteria frutescens* Poir.)
American *Wisteria*.

Throughout the state along streams. Tishomingo Co.;
Columbus; New Albany; Oxford; Jackson. May-July.

Geol. Survey Herb. Allison Herb.

ROBINIA L. *Locust*.**Robinia pseudacacia** L. Black Locust.

Rich shaded woods and slopes; often forms thickets in old
fields and open grounds. May.

Robinia hispida L. Purple Locust.

Probably escaped from cultivation. Oxford. May.

ASTRAGALUS L. *Milk Vetch*.**Astragalus Carolinianus** L. (*A. Canadensis* L.) Carolina Milk
Vetch.

Rich slopes, edges of woods. Northern counties. Ox-
ford; Yazoo City. May.

Geol. Survey Herb.

Astragalus distortus Torr & Gray.

Dry soil (Small). Spring and Summer.

GLOTTIDIUM Desv.

Glottidium vesicarium (Jacq.) Desc. (*Sisymbrium vesicaria* Ell.)

Low moist ground bordering streams and marshes. July-
August.

-- SESBAN Adans.

Sesban macrocarpum Muhl. Long-Leaf Sesban.

Low, damp, open ground in the southern half of the state; Warren, Hinds, Jasper, Hancock counties; Coastal Island (Tracy). Sept.-October.

Geol. Surv. Herb. Allison Herb.

DAUBENTONIA DC.

Daubentonia longifolia (Cav.) DC. (*Aeschynomene longifolia* Cav.)

Low ground along the coast. Biloxi; Bay St. Louis. June.

Geol. Survey Herb. Allison Herb.

AESCHYNOENE L. Sensitive Jointed Vetch.

Aeschynomene virginica (L.) B. S. P. (*A. hispida* Willd.)

Coastal plain marshes and low grounds. Hancock Co.; Coastal Islands August.

Geol. Survey Herb.

Aeschynomene viscidula Michx.

Coastal Islands (Tracy). July.

STYLOSANTHES Sw. Pencil Flower.

Stylosanthes biflora (L.) B. S. P. (*S. elatior* Sw.)

Over the state in dry light soil. Tippah, Lafayette, Hinds, Newton counties; Bay St. Louis. June July.

Geol. Survey Herb. Allison Herb.

Stylosanthes riparia Kearny.

Along the coast. Biloxi (Tracy). July.

ZORNIA Gmel.

Zornia bracteata (Walt.) Gmel. (*Z. tetraphylla* Michx.) Bracted Zornia.

Dry sands near the coast. Bay St. Louis; Petit Bois Island. July.

Geol. Surv. Herb

MEIBOMIA Adams. **Tick Trefoil; Beggar Tick.**

Meibomia nudiflora (L.) Kuntze. (*Desmodium nudiflorum* DC.)
Naked-Stemmed Beggar Tick.

Throughout the state in shaded uplands. Oxford; Madison; southern Hinds Co.; Bay St. Louis. July-August.

Geol. Survey Herb. Allison Herb.

Meibomia sessilifolia (Torr.) Kuntze (*Desmodium sessilifolia* Torr & Gray.)

In open woods. Oxford. Spring and Summer.

Geol. Survey Herb.

Meibomia grandiflora (Walt.) Kuntze (*Desmodium acuminatum* DC.) Large-Flowered Beggar Tick.

Over the state in rich woods. Oxford; Ripley. July-Aug.

Geol. Survey Herb.

Meibomia pauciflora (Nutt.) Kuntze. (*Desmodium pauciflorum* DC.). Few-flowered Tick Trefoil.

Shaded rich woods. Grenada; Toomsaba. June-July.

Geol. Survey Herb.

Meibomia arenicola Vail (*Desmodium lineatum* DC.) Striped Tick Trefoil.

Dry sandy soil toward the coast. Ocean Springs (Tracy); Ship Island. Sept.-October.

Geol. Survey Herb.

Meibomia Michauxii Vail. (*Desmodium rotundifolium* DC.) Round-Leaf Tick Trefoil.

Dry soil in open woodlands, especially the pine barrens. August-October.

Meibomia stricta (Pursh.) Kuntze (*Desmodium strictum* DC.) Erect Tick Trefoil.

Common in pine barrens to the coast. Biloxi (Tracy).

Meibomia canescens (L.) Kuntze. (*Desmodium canescens* DC.) Hoary Tick Trefoil.

In open shady forests, especially in sandy soil. Lafayette and Hinds counties; Vicksburg (Tracy.) August-Sept.

Geol. Surv. Herb.

Meibomia bractecsa (Michx.) Kuntz, (*Desmodium cuspidatum* Hook.) Bracted Tick Trefoil.

Dry, thin upland soils. Oxford. September.

Meibomia viridiflora (L.) Kuntze, (*Desmodium viridiflorum* Beck.) Green-Flowered Tick Trefoil.

In light, moist woodland soils. Oxford, Bay St. Louis. July-September.

Allison Herb.

Meibomia laevigata (Nutt.) Kuntze, (*Desmodium laevigatum* DC.) Smooth Tick Trefoil.

Southern counties (Hilg. Rep.) August-September.

Meibomia Marylandica (L. Kuntze, (*Desmodium Marylandicum* Boott.)

Central and south Mississippi (Hilg. Rep.) August-Sept.

LESPEDEZA Michx.

Lespedeza repens Hart. (L.) (*L. prostrata* Ell.) Creeping Lespedeza.

Perhaps distributed over the state. Starkville (Tracy.) June.

Lespedeza procumbens Michx. Trailing Lespedeza.

Dry soil on borders of fields. Reported in Hilg. Rep. Sept.

Lespedeza violacea (L.) Pers. (*Hedysarum violaceum* L.)

Open woods and copses. Lawrence Co. (Hilg. Ms.); Starkville (Tracy). September.

Lespedeza stuvei angustifolia Britton.

Probably found in the southern counties. August.

Lespedeza frutescens (L.) Britton (*Hedysarum frutescens* L.) Bush Clover.

Open upland; more common in old fields of light sandy soil. Scooba; Oxford. October.

Geol. Surv. Herb.

Lespedeza Virginica (L.) Britton (*L. reticulata* Pers.) Virginia Bush Clover.

Sandy and gravelly copses. Jones Co. (Allison); Biloxi (Tracy).

Allison-Herb.

Lespedeza hirta (L.) Ell. (*L. polystachya* Michx.) Bristly Bush Clover.

Dry, barren soil, mostly of old fields. Oxford; Bay St. Louis. July.

Lespedeza capitata Michx. (*L. frutescens* Ell.) White Bush Clover.

Old fields and copses in dry soils. Bay St. Louis. June-Sept

Allison-Herb.

Lespedeza striata (Thunb.) Hook. *Lespedeza*. Japanese Clover.

(Int.) Waste lands throughout the state. All summer.

Geol. Surv. Herb.

VICIA L. Vetch.

Vicia Texana (Torr and Gray) Small, (*Vicia Caroliniana* Texana T. & G.) Texas Vetch.

Open lands and prairies (Small). Spring and summer.

Vicia Caroliniana Walt. (*V. parviflora* Michx.) White-flowered Vetch.

Open rich woods. Tishomingo and Lafayette counties; Jackson; Morton. April.

Geol. Survey Herb. Allison Herb.

Vicia micrantha Nutt. Small-Flowered Vetch.

Calcareous soil in open woods and damp fields. Jackson. April.

Geol. Surv. Herb.

Vicia hirsuta (L.) Koch, (*Vicia Mitchellii* Raf.) Hairy Vetch.

Escaped from cultivation. Starkville (Traey.) May.

Vicia Ludoviciana Nutt. Louisiana Vetch. Deer Pea.

Rich damp grassy places (Mohr). April

Vicia sativa L. Common Vetch.

Edges of fields, hedgerows, pastures, and waste places.
 Very common. Oxford; Jackson; Bay St. Louis. April.
 Geol. Surv. Herb.

BRADBURYA Raf. **Butterfly Pea.**

Bradburya virginiana (L.) Kuntze, (*Centrosema Virginiana* Lenth.)

Borders of woods and dry open fields. Oxford; Jackson;
 Bay St. Louis.
 Geol. Survey Herb. Allison Herb.

CLITORIA L. **Butterfly Pea.**

Clitoria Mariana L. Maryland Butterfly Pea.

Open moist lands over the State. Pontotoc; West Point;
 Lost Gap; Oxford; Jackson; Bay St. Louis. Summer.
 Geol. Surv. Herb. Allison Herb.

FALCATA Geml.

Falcata comosa (L.) Kuntze, (*Amphicarpa monoica* Ell.) Hog
 Peanut.

Damp rich soil in thickets and open woods. Oxford;
 Charleston. September.
 Geol. Surv. Herb.

APIOS Moench. **Groundnut.**

Apios apois (L.) McMillan (*A. tuberosa* Moench). Groundnut.
 Oxford; Hinds Co.; Collins; Hattiesburg; Bay St. Louis.
 July-September.

Geol. Surv. Herb.

ERYTHRINA L.

Erythrina herbacea L. Coral Plant.

Southern half of the state in dry open woods. Jackson;
 Oxford; Hattiesburg; Woodville; Meadville; Moss Point. May.
 Geol. Surv. Herb.

VIGNA Savi.

Vigna luteola (Jacq.) Benth. (*V. glabra* Savi). Sand Pea.

Bordering streams and brackish marshes near the coast.
Bay St. Louis (Allison); Petit Bois Island.

Geol. Surv. Herb.

DIOCLEA H. B. K.

Dioclea multiflora (Torr & Gray) (*D. Boykinii* Gray), Boykin's
Dioclea.

Rich shaded lowlands. Oxford; Leakesville; Warren-
ton; Holcomb. June.

Geol. Surv. Herb.

GALACTIA P.Br. Milk Pea.

Galactia regularis B. S. P. (*G. glabella* Michx.) Pine Barrens
Milk Pea.

In sandy pine lands to the coast (Tracy). July-Sept.

Galactia volubilis (L.) Britton (*G. pilosa* Ell.) Twining Milk
Pea.

Sandy and light shady soil. Rocky Ford; Bay St. Louis;
Coastal Islands (Tracy). July.

Geol. Surv. Herb. Allison Herb.

Galactia volubilis intermedia Vail (*G. pilosa angustifolia*
& Gray). Seaside Milk Pea.

Borders of streams and marshes, and marine inlets. Beach
on Petit Bois Islands. August-September.

Geol. Surv. Herb.

Galactia erecta (Wilt.) Vail (*G. sessiliflora* Torr & Gray)
Erect Milk Pea.

Dry sandy pine barrens (Mohr). May-June.

PHASEOLUS L.

Phaseolus Polystachyus (L.) B. S. P. (*P. perennis* Vail)
Wild Bean.

Dry shady woods. Grenada; Bay St. Louis. July-Septem-
ber.

Geol. Surv. Herb. Allison Herb.

Phaseolus pauciflorus Benth. (*Strophostyles pauciflorus* S. Wats.) Small Wild Bean.

Along rivers in Mississippi (Britton & Brown); Coast (Tracy.) July-September.

Phaseolus helvulus L. (*Strophostyles angulosa* Ell.) Trailing Wild Bean. Beach Bean.

Damp thickets of the interior, but most frequent on sand flats of the beach. Oxford; Carrollton on sand flats of Big Sandy; Jackson (T. P. Bailey); Biloxi; Bay St. Louis; Coastal Islands (Tracy.) July.

Geol. Surv. Herb. Allison Herb.

Phaseolus umbellatus (Muhl.) Britton, (*Strophostyles peduncularis* Ell.) Fragrant Wild Bean.

Throughout the state. Lafayette Co.; Hinds Co.; Gulfport; Biloxi (Tracy.) July.

Geol. Surv. Herb.

Phaseolus simulatus Nutt.

Pine regions (Small.) Summer.

RHYNCHOSIA Lour.

Rhynchosia latifolia Nutt. Prairie Rhynchosia.

Dry soil. Oxford; Jackson. May-June.

Rhynchosia erecta (Walt.) DC. (*R. tomentosa erecta* Torr & Gray) Erect Rhynchosia.

Dry open woods, most common in pine regions. Rocky Ford; Meadville; Jones County. June-August.

Geol. Surv. Herb. Allison Herb.

Rhynchosia tomentosa (L.) Hook. & Arn. (*R. difformis* DC.) Trailing Rhynchosia.

Dry open woods. (Madison County Hilg. Rep.) Jackson (T. P. Bailey) Southern Hinds County. September.

Rhynchosia simplicifolia (Walt.) Wood, (*R. reniformis* DC.) Round-Leaf Rhynchosia.

Dry open sandy woodlands, most common in the southern counties. Hinds Co.; Biloxi; Back Bay; Bay St. Louis (Allison). May-June.

Geol. Surv. Herb

Rhynchosia galactioides (Nutt.) Endl. (*Pitcheria galactioides* Nutt.) Pine Barren Rhynchosia.

Dry sandy pine barrens. Leakesville. July-August.

Geol. Surv. Herb.

GERANIACEAE. Geranium Family.

GERANIUM L. Cranesbill, or Geranium.

Geranium Carolinianum L. Common Cranesbill.

In cultivated and waste ground throughout the state; very common. Tishomingo Co. (Allison); Oxford; Jackson. March-April.

Geol. Surv. Herb. Allison Herb.

Geranium maculatum L. Spotted Geranium, or Cranesbill.

Rich shaded slopes in the northern counties. Eastport; Itawamba Co.; Ripley; Booneville; Pontotoc; Grenada; Oxford; Jackson. April-May.

Geol. Surv. Herb.

OXALIDACEAE. Wood-Sorrel Family.

OXALIS L.

Oxalis stricta L. (*O. corniculata stricta* Sav.) Yellow Wood Sorrel.

Very common in open ground throughout the state. Tishomingo Co. (Allison); Oxford; Jackson; Bay St. Louis (Allison). April-May.

Geol. Surv. Herb. Allison Herb.

Oxalis violacea L. Purple Wood Sorrel.

Throughout the state in damp open soil. Oxford; Jackson; Tishomingo Co. (Allison). Very common. April.

Geol. Surv. Herb. Allison Herb.

LINACEAE. Flax Family.

LINUM L. Flax.

Linum Virginianum L. Wild Yellow Flax.

In open old fields, and waste lands. Jackson (T. P. Bailey). April-May.

Linum Floridanum (Planch.) Trelease (L. Virginianum Floridanum Planch.) Southern Yellow Flax.

Low damp pine barrens, and old fields with sandy soil. Oxford; Grenada; Bay St. Louis (Allison); Coastal Islands (Tracy). May.

Geol. Surv. Herb. Allison Herb.

Linum usitatissimum L. Common Flax.

Occasional in waste places. Oxford. May-June.

RUTACEAE. Rue Family.

ZANTHOXYLUM L. Prickly Ash.

Zanthoxylum clava-herculis L. Southern Prickly Ash.

In rich damp soil of edges of woodlands in the southern counties; Lees bluffs at Vicksburg; limestone soils of Clarke and Wayne counties; Bay St. Louis; Pascagoula. April.

Geol. Surv. Herb. Allison Herb.

PTELEA L.

Ptelea trifoliata L. Hop Tree.

Shaded banks of streams. Oxford; Enterprise. (Rare). May.

SIMARUBACEAE. Simbaruba Family.

AILANTHUS Desf.

Ailanthus glandulosus Desf. Tree of Heaven.

(Int. from China) Escaped from cultivation near old settlements. June.

ZYGOPHYLLACEAE. Caltrop, or Bean-Caper Family.

TRIBULUS L.

Tribulus terrestris L. Ground Bur-Nut.

Open waste places, and pastures in the southern counties. In pastures becoming a veritable nuisance within the last few years. Hinds Co.; Warren Co.; (Adv. from Europe.) Summer.

Geol. Surv. Herb.

KALLSTROEMIA Scop. Caltrop.***Kallstroemia parviflora* Norton.**

In dry soil (Small.)

MELIACEAE. Pride of China Family.**MELIA L. Pride of China; Chinaberry Tree*****Melia azedarach* L.**

Throughout the state around dwellings and waste grounds. Once seen growing in deep swamp of Leaf River. March-April.

POLYGALACEAE. Milkwort Family.**POLYGALA L. Milkwort.*****Polygala cymosa* Walt. (*P. corymbosa* Michx.) Pine-barren Milkwort.**

Low wet pine barrens, and ponds near the coast. Leakesville; Bay St. Louis; Picayune; Biloxi Back Bay. June-July. Geol. Surv. Herb. Allison Herb.

***Polygala ramosa* Ell. (*P. corymbosa* Nutt.) Low-branched Milkwort.**

Wet pine barrens toward the coast. Marion and Jones counties; Picayune; Bay St. Louis; Biloxi Back Bay. June. Geol. Surv. Herb. Allison Herb.

***Polygala lutea* L. Yellow Milkwort.**

Long-leaf pine region. Madison Co. (Hilg.Ms.); Wayne Co.; Simpson Co.; Picayune; Biloxi Back Bay (Tracy). June-July.

Geol. Surv. Herb. Allison Herb.

***Polygala paludosa* St. Hil. Swamp Milkwort.**

Sandy soil. Spring and summer (Small.)

***Polygala Baldwinii* Nutt. Baldwin's Milkwort.**

Pine barren swamps (Small). Summer.

Polygana nana (Michx.) DC. (*P. lutea nana* Michx.) Dwarf Milkwort.

Pine barrens in southern counties to the coast. Mendenhall; Waynesboro; Hattiesburg; Gulfport; Back Bay opposite Biloxi; Bay St. Louis; Coastal Islands (Tracy). April-August.
Geol. Surv. Herb. Allison Herb.

Polygala cruciata L. Cross-Leaf Milkwort.

Damp open pine woods. Iuka; Oxford; DeKalb; Columbia; Rankin Co. (Hilg. Ms.); Bay St. Louis June-October.
Geol. Surv. Herb. Allison Herb.

Polygala brevifolia Nutt. Short-Leaf Milkwort.

Damp, shaded soil near the coast. Wiggins. July.
Geol. Surv. Herb.

Polygala Hookerii Torr. & Gray (*P. attenuata* Hook.) Hooker's Milkwort.

Damp pine barrens near the coast. Leakesville; Mississippi City. June.
Geol. Surv. Herb.

Polygala cetacea Michx. Slender Milkwort.

Low, damp, shaded pine barrens. Leakesville; Hurley; Back Bay at Biloxi. Summer.
Geol. Surv. Herb.

Polygala Boykinii Nutt. Boykin's Milkwort.

Damp shaded ground, chiefly in prairies. Columbus; Jackson; Brookhaven; Hurley; Bay Springs in Smith Co. (in limestone soil). June-August.
Geol. Surv. Herb.

Polygala verticillata L. Wheel-Leaf Milkwort.

Damp open soil throughout the state. Lafayette Co.; Hancock Co. July-August.
Allison Herb.

Polygala ambigua Nutt. (*P. verticillata ambigua* Wood) Ambiguous Milkwort.

Dry, sandy, or gravelly thickets. Booneville; Biloxi (Tracy). June-July.
Geol. Surv. Herb.

Polygala incarnata L. Naked-Stemmed Milkwort.

Damp, light sandy soil in open woods throughout the state. Oxford; Yalobusha Co. (Hilg.Ms.); Madison Co.; Hinds Co.; Moss Point; Bay St. Louis. May-September.

Geol. Surv. Herb. Allison Herb.

Polygala viridescens L. (*P. sanguinea* L.) Greenish-Flowered Milkwort.

Dry woods over the state. Iuka; Houston (in Flatwoods); Carroll Co.; Attala Co. (Hilg.Ms.); Coast (Tracy). July.

Geol. Surv. Herb.

Polygala mariana Mill. (*P. fastigiata* Nutt.) Maryland Milkwort.

Damp, grassy ground. Iuka; Grenada; Oxford; Hancock Co. (Allison); Biloxi (Tracy). June.

Geol. Surv. Herb. Allison Herb.

Polygala Nuttallii Torr. & Gray. (*P. sanguinea* Nutt.) Nuttall's Milkwort.

In low, damp pine lands. Winona; Laurel. July.

Geol. Surv. Herb.

Polygala Chapmani Torr. & Gray. Chapman's Milkwort.

Wet pine barrens (Mohr.) May-June.

Polygala polygama Walt. Polygamous Milkwort.

Flat grassy pine barrens. Landon. April-May.

Geol. Surv. Herb.

Polygala grandiflora Walt. (*P. pubescens* Muhl.) Large-Flowered Milkwort.

Dry copses and borders of pine woods of the southern counties. Lost Gap; Vosburg; Jackson; Hancock Co. (Allison); Coastal Islands (Tracy). June-October.

Geol. Surv. Herb. Allison Herb.

Polygala Senega L. Seneca Snakeroot.

Madison County (Hilg.Ms.) Dry open woods. Spring.

Polygala leptostachys Shuttl.

Dry sandy soil. Lyman. Spring.

Geol. Surv. Herb.

EUPHORBIACEAE. Spurge Family.**CROTON L.**

Croton capitatus Michx. Woolly Croton.

A common weed of pastures and waste places. Oxford; Winona; Utica; Bay St. Louis. August-October.

Geol. Surv. Herb. Allison Herb.

Croton maritimus Walt. (*C. punctatus* Jacq.) Silver Leaf, or Seaside Croton.

Dry, drifting sands near the coast. Bay St. Louis (Allison); Coastal Islands. May.

Geol. Surv. Herb. Allison Herb.

Croton glandulosus L. Glandular Croton.

Dry sandy fields and waste places. Marion Co. (Hlg. Ms.); Biloxi (Tracy); Bay St. Louis (Allison). August.

Allison Herb.

CROTONOPSIS Michx.

Crotonopsis linearis Michx.

Dry sandy soil. Lafayette Co.; Lawrence Co. (Hilg. Ms.). August.

Geol. Surv. Herb.

ACALYPHA. Mercury.

Acalypha gracilens Gray (*A. Virginiae gracilens* Muhl.) Slender Three-Seeded Mercury.

Dry sandy soils, woods and waste places. Coast and Coastal Islands (Tracy.)

Allison Herb.

TRAGIA L.

Tragia urens L. (*T. innocua* Walt.) Stinging Tragia.

Dry sandy soil in pine barrens. Bay St. Louis.

RICINUS L.

Ricinus communis L. Palma Christi. Castor Bean.

(Adv.) Scattered throughout the state near old homesteads.

JATROPHA L.

Jatropha stimulosa Michx. (*J. urens stimulosa* Muell.) Spurge
Nettle. Bull Nettle.

Dry sandy pine barrens, southern counties to the coast.

Lost Gap; Jasper Co.; Hattiesburg; Lumberton; Cat Island
(Tracy). May-June.

Geol. Surv. Herb.

STILLINGIA L.

Stillingia aquatica Chapm.

Low pine barrens marshes. Picayune. Summer.

Stillingia sylvatica L. Queen's Delight.

Dry sandy soil, especially in the southern counties. Lost
Gap; Enterprise; Jasper Co. (Hilg.Ms.) April-June.

Geol. Surv. Herb.

SEBASATIANA Spreng.

Sebastiana ligustrina Muell. (*Stillingia ligustrina* Michx.)

Shady stream banks. Jackson; Hattiesburg; Clarke Co.;
Tylertown; Bay St. Louis. May-June.

Geol. Surv. Herb. Allison Herb.

EUPHORBIA L. Spurge.

Euphorbia polygonifolia L. Seaside Spurge.

Drifting sands, and beaches along the coast and Coastal
Islands (Tracy.) July-October.

Euphorbia cordifolia Ell. Heart-Leaf Spurge.

Littoral sands. Gulf Coast and Coastal Islands (Tracy.)
June-August.

Euphorbia humistrata Engelm. Low-Spreading Spurge.

Shady sandy, grassy soil. Oxford; Bay St. Louis; Ocean
Springs (Tracy); Horn Island. August-October.

Geol. Surv. Herb.

Euphorbia maculata L. (*E. thymifolia* Pursh). Spotted Spurge.

Roadsides and waste places throughout the state. July-
Nov.

Euphorbia nutans Lag. (*E. Nutt.* Guss.) Field Spurge.

In fields and cultivated grounds throughout the state. Oxford; Winona; Jackson.

Geol. Surv. Herb.

Euphorbia corollata L. Flowering Spurge.

Throughout the state in open ground. Lafayette Co.;

Tishomingo Co.; Hinds Co.; Bay St. Louis (Allison). June-October.

Geol. Surv. Herb. Allison Herb.

Euphorbia corollata angustifolia Ell. Narrow-Leaf Flowering Spurge.

Dry upland pine woods. Tishomingo Co. July-August.

Euphorbia dictyosperma Fisch & Mey. (*E. Arkansana* Engelm. & Gray). Arkansas Spurge.

Damp open pine lands and fields. Jackson. June.

Geol. Surv. Herb.

Euphorbia prostrata Ait. Prostrate Spurge.

Sandy soil along the coast and Coastal Islands (Tracy.)

Euphorbia marginata Pursh. Large-Flowered Spurge.

Escaped from cultivation. Lafayette Co. June-October.

Geol. Surv. Herb.

CHAMAESYCE S. F. Gray.

Chamaesyce Tracyi Small.

Sandy plains (Small.) Summer.

TITHYMALOPSIS Oel. & Gareke.

Tithymalopsis olivacea Small (*Euphorbia olivacea* Small.) . . .

Sandy soil, northern Mississippi (Small.) Summer.

Tithymalopsis apocynifolia Small. (*Euphorbia apocynifolia* Small).

Sandy soil (Small.) Summer and fall.

CALLITRICHACEAE. Water Starwort Family.**CALLITRICHE L. Water Starwort.**

Callitriche Nuttallii Torr. (*C. pedunculosa* Nutt.) Nuttall's Water Starwort.

Damp open ground in the southern counties (Mohr). Feb.-March.

EMPETRACEAE. Crowberry Family.**CERATIOLA Michx.**

Ceratiola ericoides Michx. Heather-like Ceratiola.

Drifting sands along the coast and islands. Horn Island; Cat Island. August-September.

Geol. Surv. Herb.

BUXACEAE. Box Family.**PACHYSANDRA Michx.**

Pachysandra procumbens Michx. Mountain Spurge.

Rich shaded limestone slopes, northeast Mississippi; slopes of Tennessee River near Eastport. April-May.

Geol. Surv. Herb.

ANACARDIACEAE. Cashew Family.**RHUS L. Sumach.**

Rhus copallina L. Dwarf Sumach.

Throughout the state, on dry sandy or rocky uplands. Tishomingo Co.; Pontotoc; Oxford; Ripley; Jackson. June.

Geol. Surv. Herb. Allison Herb.

Rhus glabra L. Smooth Sumach.

Throughout the state on light soil. Tishomingo Co.; Pontotoc Co.; Lafayette Co.; Hinds Co. June.

Geol. Surv. Herb. Allison Herb.

Rhus vernix L. (*R. venenata* DC.) Poison Sumach.

Perhaps throughout the state in shady swamps; not common. DeKalb; Newton; Bay St. Louis (Allison). May.

Allison Herb

Rhus hirta (L.) (*Rhus typhina* L.) Staghorn Sumach.

Dry upland woods and borders of fields. A small tree
10-14 feet high. Hinds Co.; Martin (Tracy). June.

Rhus radicans L. (*R. toxicodendron vulgare* Michx.) Poison
Ivy. Poison Vine.

Throughout the state, climbing over trees. May.

Geol. Surv. Herb. Allison Herb.

Rhus toxicodendron L. (*R. toxicodendron querifolium* Michx.)
Poison Oak.

On sandy upland soil. Tishomingo Co.; Oxford; Jack-
son; Hattiesburg; Montrose. April.

Geol. Surv. Herb. Allison Herb.

CYRILLACEAE. Cyrilla Family.

CYRILLA L.

Cyrilla racemiflora L. Black Ti-ti. Leatherwood.

Borders of swamps and streams in the pine barrens. Hat-
tiesburg; Bay St. Louis. June.

Geol. Surv. Herb. Allison Herb.

CLIFTONIA Banks.

Cliftonia monophylla (Lam.) Britton (*C. ligustrina* Spreng.)
Ti-ti.

Pine barrens swamps. Biloxi (Tracy); Hancock Co. (Al-
lison); Landon; Hurley. March.

Geol. Surv. Herb.

ILICACEAE. Holly Family.

ILEX L. Holly.

Ilex opaca Ait. Common Holly.

Throughout the state on rich wooded slopes and lowlands.
Tishomingo Co.; Lafayette Co.; Hinds Co.; Warren Co. Apr.

Geol. Surv. Herb. Allison Herb.

Ilex cassine Walt. (*Ilex vomitoria* Ait.) Yaupon.

Bordering low woods and copses in the southern counties. Mattiesburg; McHenry; Bay St. Louis (Allison); Horn Island. April.

Geol. Surv. Herb. Allison Herb.

Ilex decidua Walt. (*Ilex prinoides* Ait.) Deciduous Holly. Possum Haw.

Low wet woods and along streams. Tishomingo (Allison); Benton Co. Hinds Co. March-April.

Geol. Surv. Herb. Allison Herb.

Ilex Caroliniana Walt. (*I. ambigua* Chapm.) Carolina Privet.

Sandy banks of streams of southern counties. Bay St. Louis. April.

Allison Herb.

Ilex monticola Gray (*I. montana* Gray) Mountain Holly.

Damp rocky banks of brooks. Tishomingo Co. (found only once.) April.

Ilex glabra (L.) Gray (*Prinos glaber* L.) Gall Berry. Ink Berry.

Forming thickets on low wet pine barrens toward the coast—the so-called "gall-berry flats." Landon; Biloxi; Bay St. Louis. Marion and Jones Counties (Harper); Newton Co. May.

Geol. Surv. Herb. Allison Herb.

Ilex verticillata (L.) Gray (*Prinos verticillatus* L.) Winter Berry.

Marshy springs and stream borders. Tishomingo Co.; Lafayette Co.; Holmes Co. Very conspicuous and common in late fall and winter. April.

Geol. Surv. Herb.

CELASTRACEAE. Staff-Tree Family.**EUONYMUS L. Strawberry Bush.**

Euonymus Americanus L. American Strawberry Bush. Burning Bush.

Low damp thickets along streams, and bordering springs and lakes. Lafayette Co.; Panola Co.; Grenada Co.; Hinds Co.; Warren Co.; Jones Co. April.

Geol. Surv. Herb. Allison Herb.

Euonymus atropurpureus Jacq. Wahoo. Burning Bush.

Rich, shaded slopes. Found only once on Pontotoc Ridge. Pontotoc. April-May.

Geol. Surv. Herb.

STAPHYLEACEAE. Bladder Nut Family.

STAPHYLEA L.

Staphylea trifoliata L. American Bladder Nut.

Moist shady borders of woods and thickets in the northern counties. Lafayette Co.; Pontotoc Ridge near New Albany. April.

Geol. Surv. Herb.

ACERACEAE. Maple Family.

ACER L. Maple.

Acer saccharum barbatum (Michx.) Trelease (*A. barbatum* Michx.) Rock Maple. Sugar Maple.

On river bottoms and rich slopes in the northern counties. Lafayette Co.; Grenada Co.; Pontotoc; Okolona; New Albany; Ripley.

Geol. Surv. Herb.

Acer leucoderme Small. White Bark Maple.

Low lands along streams in the southern counties. Wayne Co.

Acer Floridanum (Chapm.) Pax, (*A. saccharium* Floridanum Chapm.) Florida Maple.

Rich slopes and low woodlands along streams; common on Pontotoc Ridge near New Albany; Clarke Co.; Taylor; Gloster.

Geol. Surv. Herb.

Acer saccharinum L. (*A. dasycarpum* Ehrh.) Silver Maple.

Rich alluvium along streams. Tishomingo Co.; Lafayette Co.; Okolona; Hattiesburg.

Geol. Surv. Herb.

Acer rubrum L. Red Maple.

Throughout the state on low lands bordering streams. Tishomingo Co.; Lafayette Co.; Amite Co.; Bay St. Louis (Allison).

Geol. Surv. Herb. Allison Herb.

Acer Drummondii Hook & Arn. (*A. rubrum Drummondii* Sarg.) Drummond's Red Maple.

River swamps; frequent on Mississippi and Yazoo River bottoms (Mohr.) February.

Acer negundo L. (*Negundo aceroides* Moench.) Box Elder.

Low rich ground throughout the state. Tishomingo Co.; Lafayette Co.; Chickasaw Co.; Hinds Co.; Warren Co. March.

Geol. Surv. Herb

AESCULACEAE. Horse Chestnut Family.

AESCULUS L. Buckeye.

Aesculus pavia L. Red Buckeye.

On rich slopes, edges of woods, and thickets throughout the state. Oxford; Jackson; Clarke Co.; Wayne Co. March-April.

Geol. Surv. Herb.

Aesculus austrina Small.

Rich open woods with above species, low swamps of southern counties. Jackson; common in Leaf River bottoms, of Smith Co.

Geol. Surv. Herb.

Aesculus octandra Marsh. (*A. lutea* Wang) Yellow Buckeye.

Rich wooded hillslopes. (Reported in Hilg. Ms.)

Aesculus glabra Willd. Fetid Buckeye.

Rich lowland limestone soil. Okolona; Starkville (Traey). May.

SAPINDACEAE. **Soapberry Family.**

SAPINDUS L.

Sapindus marginatus Willd. Soapberry. Wild China.

Assigned doubtfully by Mohr to this state.

RHAMNACEAE. **Buckthorn Family.**BERCHEMIA. **Necker.**

Berchemia scandens (Hill) Trelease (*B. volubilis* DC.) Rattan Vine.

Low damp thickets and borders of woods. Not common in the northern counties. Lafayette Co. (rare); Okolona; West Point; New Albany; Hinds Co.; Warren Co.; Adams Co. June.

Geol. Surv. Herb.

RHAMNUS L. **Buckthorn.**

Rhamnus Caroliniana Walt. (*Frangula* Gray). Indian Cherry. Yellow Wood.

Rich shaded hillslopes, especially in limey soils. Pontotoc Ridge at New Albany; Sartartia on loess bluffs; Hinds Co.; Copiah Co.; Clarke Co.; Amite Co.; Forrest Co. May.

Geol. Surv. Herb. Allison Herb.

SAGERETIA. Brongn.

Sageretia minutiflora (Michx.) Trelease (*Rhamnus minutiflorus* Michx.) Michaux's Sageretia.

Gravelly and sandy exposed wooded banks (Mohr). Oct.

CEANOTHUS L.

Ceanothus Americanus L. New Jersey Tea. Red Root.

Dry open woods and copses in the northern counties. Oxford; Pontotoc; Lost Gap; Grenada; Ripley; Jackson; Meadville. May-June.

Geol. Surv. Herb.

Ceanothus Americanus intermedius (Pursh.) Torr. & Gray,
(*C. intermedius* Pursh.) Lesser Ceanothus.

Dry sandy copses in the southern counties. Bay St. Louis.
Allison Herb.

BALSAMINACEAE. **Basalm, or Impatiens Family.**

IMPATIENS L. **Touch-Me-Not. Jewel Weed.**

Impatiens biflora Walt. (*I. fulva* Nutt.) Spotted Touch-me-not.

Common around marshy, shaded springs and brooksides.
Eastport; Ripley; Oxford; Taylor; Vicksburg; Rosetta.
June-July.

Geol. Surv. Herb.

VITACEAE. **Vine Family. Grape Family.**

PARTHENOCISSUS Planch

Parthenocissus quinquefolia (L.) Planch. (*Ampelopsis quinquefolia* Michx.) Virginia Creeper.

Throughout the state on lowlands. Lafayette, Hinds, Tishomingo counties. May-June.

Geol. Surv. Herb. Allison Herb.

AMPELOPSIS Michx.

Ampelopsis arborea (L.) Rusby (*Cissus bipinnata* Nutt.) Pepperidge. Kentucky Vine.

Copses and borders of woods, mostly in the loess region.
Planted for ornament. Okolona; Rankin Co. (Hilg. Ms.);
Hinds Co.; Warren Co.; Jefferson Co.; Ocean Springs
(Tracy). June.

Geol. Surv. Herb. Allison Herb.

Ampelopsis cordata Michx. (*Cissus ampelopsis* Pars.) Heart-Leaf Cissus.

Common in thickets and edges of springs in the southern counties. Hinds Co.; Warren Co.; Claiborne Co.; less common eastward.

Geol. Surv. Herb.

VITIS L. Grape.

Vitis aestivalis Michx. Summer Grape.

Throughout the state on rich wooded slopes and low grounds. Coastal Islands (Tracy).

Vitis cinerea Engelm. Downy Grape.

Low damp thickets on banks of streams. Tishomingo Co.
Allison Herb.

Vitis cordifolia Michx. Winter Grape.

Rich slopes in the more northern counties. Oktibbeha Co.
(Tracy); Warren Co.

Vitis vulpina L. (*Vitis riparia* Michx.) Riverside Grape. Possum Grape.

In rich soil along river banks. Copiah Co.; Ocean Springs
(Tracy). June.

Vitis rotundifolia Michx. (*V. vulpina* Torr. & Gray). Muscadine. Bullace Grape.

In light, especially dry, sandy soil throughout the state. Tishomingo county; Lafayette Co.; Hinds Co.; Franklin Co. May-June.

Geol. Sur. Herb. Allison Herb.

Vitis labrusca L. Fox Grape. Plum Grape.

In thickets on low ground. Oxford; Jackson (T. P. Bailey.)

Geol. Sur. Herb.

TILIACEAE. Linden Family.

Tilia Americana L. Basswood. Linden.

Low rich woods along streams. Waynesboro.

Tilia pubescens Ait.

Low rich woods. Lafayette Co.; Warren Co.; Hattiesburg; Liberty. April-May.

Geol. Sur. Herb. Allison Herb.

(The tiliacs of Mississippi are in confusion. There may be more than two species. Dr. Sargent has lately given them at-

tention, and will, it is hoped, soon publish the results of his studies.)

MALVACEAE. **Mallow Family.**

ABUTILON. **Gaertn.**

Abutilon abutilon (L.) Rusby (*A. avicennae* Gaertn.) Indian Mallow. Velvet Leaf.

Ruderal about farmyards, gardens and waste grounds. Marshall county; Lafayette Co. June-September.

Geol. Sur. Herb.

MODIOLA. **Moench. Mallow.**

Modiola Caroliniana (L.) Don (*M. multifida* Moench.) Carolina Mallow.

A common weed, roadsides, pastures, and waste places. May-July.

CALLIRRHOE. **Nutt. Poppy Mallow.**

Callirrhoe papaver (Cav.) Gray (*Malva papaver* Cav.) Purple Poppy Mallow.

Light sandy soils of the southern counties. Meridian; Ellisville; Hattiesburg; Shubuta; Lumberton. August.

Geol. Sur. Herb. Allison Herb.

Callirrhoe alceoides (Michx.) Gray (*Sida alceoides* Michx.) Pale Poppy Mallow.

Light shaded upland soil. Oxford. August.

Callirrhoe triangulata (Leav.) Gray (*Malva triangulata* Leavenworth) Triangular-Leaf Mallow.

Rich shady sandy soil of southeast Mississippi. Lost Gap. June-July.

Geol. Sur. Herb.

SIDA L.

Sida spinosa L. Spiny Sida.

A common weed in cultivated ground and waste places.

Oxford; Starkville (Tracy); Hinds Co.; Claiborne Co.; Coastal Islands (Tracy). June.

Geol. Sur. Herb.

Sida rhombifolia L. Rhomb-Leaf Sida.

Dry pastures and waste lands. Biloxi (Traey). May.

Sida Elliottii Torr. & Gray (*Sida gracilis* Ell.) Elliott's Sida.

Light dry soil, open coves in the southern counties (Mohr). June-August.

HIBISCUS L. Rose Mallow.**Hibiscus aculeatus Walt.** (*Hibiscus scaber* Michx.) Rough Rose Mallow.

Grassy pine barrens toward the coast. Bay St. Louis (Allison); Picayune; Gulfport. July.

Geol. Sur. Herb. Allison Herb.

Hibiscus moscheutos L. Swamp Rose Mallow.

Borders of swamps and marshes throughout the state. Oxford; Greenwood; Grenada; Vicksburg; Durant; Bay St. Louis (Allison). June-July.

Geol. Sur. Herb. Allison Herb.

Hibiscus grandiflorus Michx. Great-Flowered Rose Mallow.

Marshes, chiefly near the coast (Small). Spring to fall.

Hibiscus militaris Cav. (*H. Virginicus* Walt.) Halbert-Leaf Rose Mallow.

Low banks of streams and shaded depressions. Houston; Tchula; Grenada. June.

Geol. Sur. Herb.

Hibiscus syriacus L. Althea.

Sparingly escaped from cultivation in the southern counties. Hinds Co.; Rankin Co. Summer.

KOSTELETZKYA Presl. Virginia Kosteletzkya.**Kosteletzkya Virginica (L.) Gray** (*Hibiscus Virginicus* L.)

Fresh and brackish marshes along the coast. Bay St. Louis. June-August.

Geol. Surv. Herb. Allison Herb.

Kosteletzkya altheaefolia Gray. Althea-Leaf Kosteletzkya.

Salt marshes along the coast (Mohr).

THEACEAE. **Tea Family.****Gordonia lasianthus** L. Loblolly Bay.

Wooded swamps near the coast. Bay St. Louis. June.

Allison Herb.

STEWARTIA L.

Stewartia malacodendron L. S. Virginia (Cav.) Virginia
Stewartia.Rich wooded slopes and lowlands in the southern counties.
Monticello; Hattiesburg; Meadville; Rosetta. May.

Geol. Sur. Herb.

STERCULIACEAE. **Sterculia Family.**

MELOCHIA L.

Melochia corchorifolia L. (*M. hirsuta* Chapm.) Hirsute Melo-
chia.

Adeventive from the tropics. Biloxi (Tracy). July.

HYPERICACEAE. **St. Johnswort Family.**ASCYRUM. **St. Peterswort.****Ascyrum amplexicaule** Michx. (*A. tetrapilalum* Lam.) Vail.

Damp sands near the coast. Hurley. Summer.

Geol. Sur. Herb.

Ascyrum cuneifolium Chapm. Wedge-Leaf St. Peterswort.

Low pine barrens. Coastal Islands (Tracy). June-Sept.

Ascyrum multicaule Michx. (*A. Crux-Andreae* L.) St. An-
drew's Cross.Open woods and copses. Lafayette Co.; Hinds Co.; War-
ren Co.; Bay St. Louis (Allison). July.

Geol. Sur. Herb. Allison Herb.

Ascyrum stans Michx. (*A. hypericoides* L., in part).Damp open woods in the southern counties Biloxi
(Tracy); Waynesboro; Bay St. Louis (Allison); Madison Co.
(Hilg. Ms.). Summer.

Allison Herb.

Ascyrum hypericoides L. (A. Crux Andreae angustifolium Nutt.) Southern St. Peterswort.
 Sandy pine woods and thickets. Lafayette Co.; Hinds Co.; Bay St. Louis (Allison). July.
 Geol. Surv. Herb. Allison Herb.

Ascyrum pumilum Michx. Dwarf St. Peterswort.
 Light dry soil in the southern pine belt. Back Bay opposite Biloxi. April.
 Geol. Sur. Herb.

HYPERICUM L. **St. Johnswort.**

Hypericum prolificum L. Shrubby St. Johnswort.
 Dry, light rocky soil. Rankin Co. (Hilg. Ms.); Chunky. June.
 Geol. Sur. Herb.

Hypericum myrtifolium Lam. (H. glaucum Michx.) Pale St. Johnswort.
 Low wet pine barrens near the coast Moss Point. June.
 Geol. Surv. Herb.

Hypericum fasciculatum Lam. (H. nitidum Lam.) Tall Narrow-Leaved St. Johnswort.
 Wet margins of pine barren streams. Biloxi (Tracy). July.

Hypericum aspalathoides Willd. Short-Leaf St. Johnswort.
 Wet pine barrens near the coast. Waynesboro; Picayune. August.
 Geol. Sur. Herb.

Hypericum galioides Lam. Glossy St. Johnswort.
 Pine barrens southern counties. Hurley. July.
 Geol. Surv. Herb.

Hypericum galioides pallidum Mohr. (H. galioides ambiguum Chapm.)
 Shaded swamps in the pine barrens (Mohr). June-Sept.

Hypericum cistifolium Lam. (H. nudiflorum Michx.) Cistus-Leaf St. Johnswort.
 Borders of alluvial swamps. Bay St. Louis. June.
 Allison Herb.

Hypericum opacum Torr. & Gray (H. cistifolium Wats.)
Opaque -Leaved St. Johnswort.

Low wet pine barrens bordering swamps. Bay St. Louis.
May.

Hypericum virgatum acutifolium (Ell.) Coulter (H. acutifolium Michx.) Angular-Stemmed St. Johnswort.

Low pine forests (Hilg. Ms.). July.

Hypericum pilosum Walt. (H. simplex Michx.) Hoary St. Johnswort.

Wet sandy soil in the pine barrens. Bay St. Louis. July.
Allison Herb.

Hypericum maculatum Walt. (H. corymbosum Muhl.) Spotted St. Johnswort.

Throughout the state, bordering fields and thickets. Madison Co. (Hilg. Ms.); Oxford; West Point. June.

Geol. Sur. Herb.

Hypericum mutilum L. Smaller St. Johnswort.

Wet shaded places along ditches and brooks throughout the state. Lafayette Co.; Union Co.; Hinds Co.; Madison Co. (Hilg. Ms.); Warren Co.; Bay St. Louis. June.

Geol. Sur. Herb.

Hypericum gymnanthum Engelm. & Gray. Bare-Flowered St. Johnswort.

Exposed wet soil near the coast. Biloxi (Tracy). May.

Hypericum Drummondii Torr. & Gray. Drummond's St. Johnswort.

Dry open soil. Rankin Co. (Hilg. Ms.); Amite Co. (Allison); Cat Island (Tracy). September.

Hypericum gentianoides (L.) B. S. P. (Sarthra genianoides L.) Orange Grass. Pine Weed.

Over the State in sandy open lands. Coastal Islands (Tracy); Waveland; Bay St. Louis (Allison: Siep Island. July-October.

Geol. Surv. Herb. Allison Herb.

Hypercium perforatum L.

Moist shaded ground. Oxford; Hinds Co.

Geol. Sur. Herb.

TRIADENUM Raf.

Triadenum petiolatum Walt. (*Elodes petiolata* Pursh.) Marsh St. Johnswort.

Edges of marshes and swamps. Rankin Co. (Hilg. Ms.). July.

Triadenum Virginicum (L.) Raf. (*Elodes campanulata* Pursh.) Virginia Marsh St. John's Wort.

Low wet places, perhaps throughout the state. Oxford; Taylorsville; Bay St. Louis. July.

Geol. Sur. Herb. Allison Herb.

CISTACEAE. **Rock Rose Family.**

HELIANTHEMUM Pers.

Helianthemum arenicola Chapm. Seaside Rock Rose.

Drifting sand near the seashore (Mohr). April-May.

Helianthemum Georgianum Chapm. Georgia Rock Rose.

Open sandy hillsides. Along the coast (Dr. T. P. Bailey); Coastal Islands (Tracy). May-June.

Helianthemum corymbosum Michx. Corymbed Rock Rose.

Dry sands near the coast. Coastal Islands (Tracy). April.

Helianthemum rosamarinifolium (Pursh).

Dry sandy banks (Mohr). August.

Helianthemum Carolinianum (Walt) Michx. (*Cistus Carolinianus* Walt.) Carolina Rock Rose.

Dry sandy soil. Oxford; Carrollton. March.

Geol. Sur. Herb.

LECHEA L. Pinweed.

Lechea minor L. (*L. thymifolia* Michx.) Thyme-Leaved Lechea.

Light sandy soil in the coastal regions. Coastal Islands (Tracy). August.

Lechea villosa Ell. (*L. major* Michx.) Hairy Pinweed.

Dry thin soil. Hinds Co.; Cat Island (Traey). May.

Geol. Sur. Herb.

Lechea tenuifolia Michx. Narrow-Leaf Pinweed.

Dry, open, sterile soil throughout the state. Oxford;
Hinds Co. September.

Geol. Sur. Herb.

Lechea Torreyi Leggett (*L. racemulosa* Hook.) Torrey's Pinweed.

Dry sands along the coast. Horn Island (Mohr). June.

VIOLACEAE. Violet Family.

VIOLA L. Violet.

Viola pedata L. Bird's Foot Violet.

Dry open copses, mostly in upland regions of sandy soil. Seems never to be found in loess regions. Tishomingo Co.; sandy uplands of Attala Co.; eastern Lafayette Co.; Tippah Co.; in flatwoods near Seoba, Neshoba Co.; dry clay soils of Scott Co. April-May.

Geol. Surv. Herb. Allison Herb.

Viola pedata bicolor Pursh. Bi-Colored Bird's Foot Violet.

This variety has been found in Mississippi only in sandy uplands of northeastern Tippah county. April-May.

Geol. Surv. Herb.

Viola palmata L. Blue Wood-Violet.

In open woods throughout the state. The commonest upland violet in the loess region. Oxford; Hinds Co.; Tishomingo Co.; Carrollton; Woodville; Meadville; Ocean Springs (Traey). May.

Geol. Sur. Herb.

Viola vicinalis Greene. Large-Flowered Violet.

Common in the dry pine barrens. Jones Co.; Bay St. Louis (Allison); Biloxi (Traey). April-May.

Viola Carolina Greene. Carolina Wood Violet.

Dry ground (Small). Oxford (Dr. T. P. Bailey); Vicksburg; Woodville. March.

Allison Herb.

Viola papilionacea Pursh. (*V. cucullata* Le Conte) Common Wood Violet.

Common throughout the state. Lafayette Co.; Benton Co.; Tishomingo Co.; Chickasaw Co.; Hinds Co. March-April.

Geol. Sur. Herb. Allison Herb.

Viola villosa Walt. (*V. cucullata cordata* Gray). Soft Hairy Wood Violet.

Common on damp low shaded soil. Pontotoc Co.; Carroll Co.; Hinds Co.; Wayne Co.; Jones Co.; Forrest Co. March-April.

Geol. Sur. Herb. Allison Herb.

Viola sagittata Ait. Arrow-Leaved Violet.

Dry open woods, usually light soil. Philadelphia; Morton; Forest. April.

Geol. Surv. Herb.

Viola primulaefolia L. Primrose-Leaved Violet.

Damp, sour soil, usually in sandy regions. Calhoun Co. (Hilg. Ms.); Tishomingo Co.; Wayne Co.; Jones Co.; Jackson; Hattiesburg; Landon. April-May.

Geol. Sur. Herb. Allison Herb.

Viola primulaefolia australis Pollard. Southern Primrose-Leaved Violet.

Seems confined mostly to the southern pine belt. Bay St. Louis. April.

Allison Herb.

Viola lanceolata L. Lance-Leaf Violet.

Low wet places in the southern counties. Chunky; Leakesville. April.

Geol. Surv. Herb.

Viola pubescens Ait. (*V. Pennsylvanica* Michx.) Downy Yellow Violet.

Rich, shaded limestone soils in the northeastern counties. Base of limestone bluffs near Eastport; Houston. April.
Geol. Sur. Herb.

Viola multicaulis (Torr. & Gray) Britton (*V. canina multicaulis* Gray). Branched Violet.

Shaded banks Starkville (Tracy). April.

Viola Langloisii Greene. Langlois's Violet.

Moist woods (Small). Oxford (Dr. T. P. Bailey). April.

Viola Rafinesquii Greene (*V. tenella* Raf.) Wild Pansy.

Tishomingo Co. (Allison); Oxford; Old Rockport. March-April.

Geol. Sur. Herb. Allison Herb.

CUBELIUM Raf.

Cubelium concolor (Forst.) Raf. (*Solea concolor* Ging.) Green Violet.

Rich shaded limestone soil in northeastern counties. Eastport; Pontotoc Ridge near New Albany. May.

PASSIFLORACEAE. Passion Flower Family.

PASSAFLORA L. Passion Flower

Passiflora incarnata L. Maypop. Common Passion Flower.

Very Common in old fields and waste places throughout the state. May.

Geol. Sur. Herb.

Passiflora lutea L. Yellow Passion Flower.

In low moist thickets throughout the state. Oxford; Taylor; Hinds Co.; Warren Co.; Forest; Bay St. Louis. June.

Geol. Sur. Herb. Allison Herb.

CACTACEAE. **Cactus Family.**OPUNTIA Mill. **Prickly Pear.**

Opuntia humifusa Raf. (*O. Rafinesquii* Engelm.) Rafinesque's Prickly Pear.

Throughout the state near dwellings and pastures. Not very common. Oxford. April-May.

Opuntia opuntia (L.) Coult. (*O. vulgaris* Mill.) Common Prickly Pear.

In dry sandy soil throughout the state. Coastal Islands (Tracy). May.

Opuntia pes-corvi Le Conte. Crow-Foot Cactus.

Drifting sands along the coast (Mohr); Coastal Islands (Tracy). April-May.

THYMELEACEAE. **Mezereum Family.**DIRCA L. **Moose-Wood.**

Dirca palustris L. Leatherwood.

Rich wooded slopes. Reported in the state by Wailes (Agri. and Geol. of Mississippi. B. L. C. Wailes. 1854).

LYTHRACEAE. **Loosestrife Family.**

ROOTALA L.

Rotala ramosior L. Koehne (*Ammannia ramosior* L.) Branched Rotala.

Lowlands, and bordering ditches. Rankin Co. (Hilg. Ms.). July.

AMANNIA L.

Ammannia coccinea Rottb. (*A. latifolia* Torr. & Gray). Scarlet Ammannia.

Wet lowland fields and waste places. Hinds Co.; Warren Co. August.

LYTHRUM L. **Loosestrife.**

Lythrum alatum Pursh. Wing-Stemmed Loosestrife.

Amory; Scooba; Grenada; Rosetta; Madison Co. (Hil.

Ms.); Bay St. Louis (Allison). August.

Allison Herb.

Lythrum lineare L. Linear-Leaved Loosestrife.

Southern counties to the coast in damp, light soil. West Point; Durant; Jackson; Warrentown; Horn Island. July.

Geol. Surv. Herb.

DECODON J. F. Gmel.

Decodon verticillatus (L.) Ell. *Nesaea verticillata* H. B. K.)
Swamp Loosestrife.

Edges of swamps and springy places; rare. Lauderdale Springs. July-August.

MELASTOMACEAE. **Malastoma Family.**

RHEXIA L. **Meadow Beauty. Deer Grass.**

Rhexia serrulata Nutt. Serrulate-Leaf Deer Grass.

Low damp pine barrens. Picayune. Summer.

Rhexia Mariana L. Maryland Meadow Beauty.

Wet edges of thickets and open marshes. Iuka; Oxford; Lost Gap; Grenada; Jackson; Jones Co. (Allison); Tyler-town; Bay St. Louis; Ocean Springs and Biloxi (Tracy). June.

Geol. Surv. Herb. Allison Herb.

Rhexia lanceolata Walt. (*R. angustifolia* Nutt.). Lance-Leaf Meadow Beauty.

Damp soil in the lower pine barrens. Chunky; Hurley. August.

Geol. Surv. Herb.

Rhexia Floridana Nash. Florida Meadow Beauty.

Damp soils in the southern counties. Bay St. Louis; Ship Island.

Geol. Surv. Herb. Allison Herb.

Rhexia Virginica L. Virginia Meadow Beauty.

Low wet open places throughout the state. Iuka; Lost

Gap; Attala Co. (Hilg Ms); Lafayette Co.; Lake Co. (Hilg. Ms.); Picayune. July.

Geol. Sur. Herb.

Rhexia glabella Michx. Deer Grass.

Low wet pine barrens. Tylertown; Landon; Hancock Co.; (Allison). June-July.

Geol. Sur. Herb.

Rhexia stricta Pursh. Swamp Meadow Beauty.

Borders of pine barrens and swamps. Gulfport (Dr. T. P. Bailey); Lumberton; Iuka; Picayune; DeKalb. July.

Geol. Surv. Herb.

Rhexia ciliosa Michx. Fringed Meadow Beauty.

Low pine barren marshes. Rankin Co. (Hilg. Ms.); Chunky; Tylertown; McHenry; Bay St. Louis (Allison). June.

Geol. Sur. Herb. Allison Herb.

Rhexia lutea Walt. Yellow Meadow Beauty.

Low wet pine barrens near the coast. Waynesboro; Picayune; Landon; Gulfport; Back Bay opposite Biloxi; Bay St. Louis (Allison). May-June.

Geol. Sur. Herb. Allison Herb.

ONAGRACEAE. Evening Primrose Family.

JUSSIAEA L.

Jussiaea diffusa Forsk. (*J. repens* Sw.) Creeping Jussiaea.

Shallow ponds and ditches. Bay St. Louis. June.

Allison Herb

Jussiaea decurrens (Walt.) DC. (*Ludwigia decurrens* Walt.).

Decurrent-Leaf Ludwigia.

Throughout the state in wet places. Oxford; Jackson; Amory; Prentiss; Jefferson Co.; Biloxi (Tracy); Bay St. Louis (Allison). Summer.

Allison Herb.

Jussiaea pilosa H. B. K. (*J. leptocarpa* Nutt.) Hairy Jussiaea.
Edges of swamps and wet spring places. Bay St. Louis
(Allison); Poplarville. August.

Allison Herb.

Jussiaea Peruviana L. Peruvian Jussiaea.

Adventive along the coast. Coastal Islands (Tracy).

LUDWIGIA L.

Ludwigia alternifolia L. Common Ludwigia.

Along ditches and in springy places throughout the state.
Oxford; Bay St. Louis. August.

Geol. Sur. Herb. Allison Herb.

Ludwigia alternifolia linearifolia Britton.

In marshy edges of swamps and thickets. Michigan City;
Copiah Co. August.

Geol. Sur. Herb.

Ludwigia hirtella Raf. (*L. pilosa* Ell.). Hairy Ludwigia.

Low coastal pine belt. Biloxi (Tracy); Bay St. Louis.
June.

Allison Herb.

Ludwigia alata Ell. Winged Ludwigia.

Marshes and brooksides along the coast. Ship Island
(Tracy). Spring.

Ludwigia virgata Michx. Slender-stemmed Ludwigia.

Wet sandy pine barrens. Bay St. Louis. May.

Allison Herb.

Ludwigia linearis Walt. (*L. angustifolia* Michx.). Narrow-
Leaf Ludwigia.

Wet sandy soil, especially in the southern counties. Amory;
Smith Co. (Hilg. Ms.); Bay St. Louis. August.

Geol. Sur. Herb. Allison Herb.

Ludwigia linifolia Poir. Flax-Leaf Ludwigia.

Borders of pine barren marshes and ponds. Gulfport
(Tracy). July.

Ludwigia microcarpa Michx. Small-Fruited Ludwigia.

Boggy, muddy places (Small). Spring-Fall.

Ludwigia pilosa Walt. (*L. mallis* Michx.) Hoary Ludwigia.

Wet, marshy borders of thickets. Bay St. Louis. July.

Allison Herb.

ISNARDIA L.

Isnardia palustris L. (*Ludwigia palustris* Ell.) Water Purslane.

In miry and marshy places throughout the state. Oxford; Jackson; Amite Co. (Allison). June.

Geol. Sur. Herb.

ONAGRA Adans.

Onagra biennis (L.) Scop. (*Oenothera biennis* L.) Common Evening Primrose.

Common in old fields, pastures, and cultivated grounds. Oxford; Jackson; Winona. June.

Geol. Surv. Herb.

OENOTHERA L.

Oenothera humifusa Nutt. (*O. sinuata humifusa* Torr. & Gray). Seaside Evening Primrose.

Sands along the beach and near the coast. Gulfport; Biloxi; Petit Bois Island. April.

Geol. Sur. Herb.

Oenothera sinuata L. Mant. (*O. laciniata* Hill). Sinuate-Leaf Evening Primrose.

Dry sandy soil throughout the state. Oxford; Jackson; Newton; Tishomingo Co.; Amite Co.; Bay St. Louis (Allison). April-May.

Geol. Sur. Herb.

Oenothera laciniata grandis Britton (*O. sinuata grandiflora* Wats.)

Northeastern counties (Mohr). September-October.

Oenothera triloba Nutt. (*Lavauxia triloba* Spach.) Prairie Evening Primrose.

Common locally on the limestone soils of northeast Mississippi. Okolona; Wheeler. April-May.

Geol. Sur. Herb.

KNEIFFIA Spach.

Kneiffia fruticosa (L.) Raim. (*Oenothera fruticosa* L.). Sundrops.

Open woods and dry soils. Ripley; Grenada; Starkville (Tracy); Smith Co.; Chunky; Hattiesburg. May.

Geol. Sur. Herb.

Kneiffia linearis Michx. Spach. (*Oenothera linearis* Michx.). Pine Larrens Sundrops.

Dry pine barrens near the coast. (Reported in Hilgard Manuscript from Rankin county). June.

Kneiffia linifolia (Nutt.) Spach. (*Oenothera linifolia* Nutt.). Flax-Leaf Sundrops.

Dry open woods and pastures. Jackson (T. P. Bailey); Tishomingo Co. (Allison). Spring and summer.

Allison Herb.

HARTMANNIA Spach.

Hartmannia speciosa (Nutt.) Small (*Oenothera speciosa* Nutt.). Prairie Hartmannia.

Open soil, especially in prairies. Oxford; Newton; Artesia; Macon; Jackson. April-June.

Geol. Sur. Herb.

GAURA L.

Gaura angustifolia Michx. Narrow-Leaf Gaura.

Dry sands along the shore. Biloxi (Tracy). August.

Gaura biennis L. Common Gaura.

Dry open soil, usually in edges of fields and pastures. Jackson. Summer.

Geol. Sur. Herb.

Gaura Michauxii Spach. (*G. filipes* Spach.) Michaux's Gaura.

Dry sandy open woods. Oxford; Jackson; Laurel. July-September.

Geol. Sur. Herb.

Gaura longiflora Spach. (*G. biennis* Pitcheri, Torr. & Gray). Pitcher's Gaura.

Dry sandy soil (Small). Spring and summer.

Gaura filiformis Small. Filiform Gaura.

Sandy soil (Small). Summer to fall.

CIRCAEA L.

Circaea lutetiana L. Enchanter's Nightshade.

Rich moist woods, usually in deep shade. Pontotoc Ridge near Ripley; New Albany; Taylor; Pontotoc; Eastport; Booneville; Warren Co. Summer.

Geol. Surv. Herb.

HALORAGIDACEAE. **Water Milfoil Family.**

PROSERPINACA L. Mermaid Weed.

Proserpinaca palustris L. Swamp Mermaid Weed.

Stagnant ponds and ditches throughout the state. Coastal Islands (Tracy). May-June.

Proserpinaca pectinata Lam. Comb Mermaid Weed.

Pine barren swamps near the coast. Hattiesburg. May.

MYRIOPHYLLUM L.

Myriophyllum verticillatum L. Southern Water Milfoil.

Still water and slow-flowing streams. Oxford; Hattiesburg.

Geol. Sur. Herb.

ARALIACEAE. **Ginseng Family.**

ARALIA L.

Aralia rasemosa L. Spikenard.

Rich woodlands on limey soils. Eastport; Itawamba Co.; Hatchie Hills; Ripley; Columbus. June.

Geol. Sur. Herb.

Aralia spinosa L. Angelica Tree.

Borders of woods on rich soils. Itawamba Co.; Michigan City; Copiah Co.; Amite Co. (Allison). June.

Geol. Sur. Herb. Allison Herb.

PANAX L. **Ginseng.**

Panax quinquefolia L. *Aralia quinquefolia* Decaisne).

Rich wooded slopes, mostly on limey soils. Itawamba Co.; Booneville; loess bluffs at Tocowa, Panola Co.; Madison Co. (Allison, oral communication). May.

Geol. Sur. Herb.

APIACEAE... Parsley Family.

DAUCUS L. Carrot.

Daucus pusillus Michx. Wild Carrot.

Dry pastures and old fields throughout the state. Tishomingo Co.; Lafayette Co.; Tupelo (Tracy); Warren Co.; Amite Co. June.

TREPOCARPUS Nutt.

Trepocarpus aethusae Nutt.

Damp shaded borders of fields. Strakville (Tracy). May-June.

ANGELICA L.

Angelica villosa (Walt.) B. S. P. (*A. hirsuta* Muhl.). Hairy Angelica.

Borders of dry wooded hillslopes. Oxford; Waynesboro (Pollard); Lineon Co. May.

Geol. Sur. Herb.

OXYPOLIS Raf.

Oxypolis filiformis (Walt.) Britton (*Tiedemannia teretifolia* DC.) False Dropwort.

Wet borders of swamps, more common in the pine regions toward the coast. Biloxi (Tracy); Ocean Springs (Skehon); Bay St. Louis (Allison).

Allison Herb.

Oxypolis rigidior (L.) Raf. (*Sium rigidius* L.) Cowbane.

Wet banks of pine barren streams. Waynesboro (Pollard); Jones Co.; Bay St. Louis. July.

Allison Herb.

POLYTAENIA DC.

Polytaenia Nuttallii DC. (*Tordylium Americanum* Nutt.) Nuttall's *Polytaenia*.

Prairie region (Mohr). Calhoun Co. (Hilg. Ms.). July.

THASPIUM Nutt. **Meadow Parsnip.**

Thaspium barbinode (Michx.) Nutt. (*Ligusticum barbinode* Michx.). Barbed Meadow Parsnip.

Shaded banks in the prairie region. Okolona. April-May.

Thaspium trifoliatum aureum (Walt.) Britton (*Thaspium aureum* Nutt.) Golden Alexander.

Dry coves on hillslopes. Tishomingo Co. (Allison); Itawamba Co.: Ripley; West Point; New Albany Starkville (Phares); Oxford; Jackson. May.

Geol. Sur. Herb. Allison Herb.

CYNOSCYADIUM DC.

Cynoscycadium pinnatum DC. Dog Parsley.

Dry hillslopes. Meridian. August.

ERYNGIUM L.

Eryngium yuccaefolium Michx. (*E. aquatica* L. Button Snakeroot.

Dry upland old fields, pastures and open woods. Oxford; Taylor; Jackson. July-August.

Eryngium cynchaetum (Gray), Coult. & Rose. (*E. yuccaefolium synchaetum* Gray) Narrow-Leaf Button Snakeroot.

Low damp pine barrens. Landon; Gulfport; Ocean Springs; Biloxi (Tracy); Bay St. Louis (Allison). June.

Geol. Sur. Herb. Allison Herb.

Eryngium Virginianum Lam. Virginia Snakeroot.

Swamps and margins of ponds. Jones Co.

Allison Herb

Eryngium integrifolium Walt. (*E. Virgatum* Lam). Blue-Flowered Eryngo.

Common in damp pine barrens. Rankin Co. (Hilg. Ms.);

Oxford; Winona; Hattiesburg; Prentiss; Liberty; Bay St. Louis (Allison). July.

Geol. Surv. Herb. Allison Herb.

Eryngium prostratum Nutt. (*E. Baldwinii* Torr. & Gray)
Creeping Eringo.

Shaded damp soil throughout the state. Oxford; Lost Gap; Hinds Co.; Warren Co. June.

Geol. Surv. Herb.

SANICULA L. Sanicle.

Sanicula Marylandica L. Maryland Sanicle.

Rich upland woods and coves; apparently more common in the northern counties. Fulton; Lafayette Co.; Hinds Co.; Amite Co.; Bay St. Louis. May.

Geol. Surv. Herb. Allison Herb.

Sanicula Canadensis L. Canada Sanicle.

Rich upland wooded slopes. Tishomingo Co.; West Point; New Albany; Lost Gap; Lafayette Co.; Pontotoc Co.; Tippah Co.; Hinds Co.; Warren Co.; Starkville (Tracy); Bay St. Louis (Allison).

Geol. Surv. Herb. Allison Herb.

Sanicula Floridana Bickn. Florida Sanicle.

Resembles *Canadensis*, but considered by Small as distinct. Sandy wooded slopes (Small.) Spring and summer.

Sanicula Smallii Bickn. Small's Sanicle.

Rich wooded slopes (Small). Summer.

CHAEROPHYLLUM L.

Chaerophyllum procumbens (L.) Crantz (*Scandix procumbens* L.) Wild Chervil.

Open woods and coves (Mohr). April.

Chaerophyllum dasycarpum Nutt.

Prairies and hillsides (Small); Biloxi (Tracy). Spring.

Chaerophyllum Tainturieri Hook. Tainturier's Chervil.

Shaded borders of fields. Starkville (Phares); Jackson (Phares). April.

LILAEOPSIS Greene.

Lilaeopsis lineata (Michx.) Green (*Crantzia lineata* Nutt.)
Crantzia.

Salt and brackish marshes along the coast. Gulfport;
Biloxi. July.

Geol. Sur. Herb.

APIUM L.

Apium ammi (L.) Urban (*Sisson ammi* L.) Marsh Parsley.

Borders of low fields; common toward the coast. Amite
County. May.

Allison Herb.

ERIGENIA Nutt.

Erigenia bulbosa (Michx.) Nutt. (*Sison bulbosum* Michx.)
Harbinger of Spring.

Rich wooded slopes in limestone soil. Pontotoc Ridge near
New Albany. Rare. February-April.

Geol. Sur. Herb.

ZIZIA Koch.

Zizia aurea (L.) Koch. Golden Meadow Parsnip.

Meadows and swamps. Montrose. April-June.

Geol. Sur. Herb.

CICUTA L.

Cicuta maculata L. Water Hemlock.

Swamps and wet meadows. Jackson (Dr. T. P. Bailey);
Michigan City. July.

Geol. Surv. Herb.

Cicuta Curtisii Coult. & Rose. Curtis's Water Hemlock.

Swamps throughout the state, perhaps. Madison Co.
(Phares).

DERINGA Adans.

Derivinga Canadensis (L.) Kuntze (*Sison Canadensis* L.) Horn-
wort.

Damp woodlands. Madison Co. (Hilg. Ms.); Pontotoc. July.

Geol. Surv. Herb.

SPERMOLEPIS Raf.

Spermolepis divaricatus (Walt.) Britton (*Daucus divaricatus* Walt.). Spreading Spermolepis.

Sandy soil in the southern pine belt to the coast. Ocean Springs (Tracy). May.

Spermolepis echinatus (Nutt.) Britton (*Leptolepis echinatus* Nutt.).

Southern pine region to the coast. Cat Island (Tracy). May.

PTILIMNIUM Raf.

Ptilimnium capillaceum (Michx.) Raf. (*Discopleura capillacea* DC.) Moek Bishop's Weed.

Along ditches and marshy places. West Point; Oxford; Madison (Phares); Ocean Springs (Tracy). May.

Geol. Surv. Herb.

Ptilimnium Nuttallii (DC) Nuttall's Bishop's Weed.

Damp sandy and gravelly soils. Oxford. July.

HYDROCOTYLE L. Pennywort.

Hydrocotyle umbellata L. Water Pennywort.

Edges of stagnant pools; marshy places near the coast. Woodville; Pascagoula; Gulfport; Bay St. Louis (Allison); Cat Island (Tracy). May.

Geol. Surv. Herb. Allison Herb.

Hydrocotyle verticillata Thunb. (*H. interrupta* Muhl.) Whorled Pennywort.

Marshes and edges of ponds and stagnant streams. Simpson Co. (Hilg. Ms.); Rodney (Dr. Perviance); Hinds Co.; Coastal region (Tracy). May.

Geol. Surv. Herb.

Hydrocotyle Canbyi Coult. & Rose. Canby's Pennywort.

Marshy and miry borders of ponds. Hinds Co.; Gulfport.

Geol. Surv. Herb.

Hydrocotyle Bonariensis Lam.

Marshes along the coast. Biloxi; Gulfport. May.

Geol. Sur. Herb.

Hydrocotyle ranunculoides L. Crowfoot-like Pennywort.

Stagnant pools and ditches. Greenwood; Bay St. Louis; Deer Island.

CENTELLA L.

Centella Asiatica (L.) Urban (*Hydrocotyle repanda* Pers.). Asiatic Pennywort.

Marshes and borders of pools; abundant along the coast; Biloxi; Gulfport; Bay St. Louis (Allison); Coastal Islands (Tracy). May. Geol. Surv. Herb. Allison Herb.

CORNACEAE. **Dogwood Family**CORNUS L. **Dogwood.****Cornus stricta** Lam. (*C. fastigiata* Michx.). Stiff Dogwood.

Low damp ground along streams. Oxford; Taylor. May.

Geol. Sur. Herb.

Cornus amomum Mill. (*C. sericea*) Silky-Leaf Swamp Dogwood.

Low swamps along streams. Starkville (Tracy). May.

Cornus asperifolium Michx.

Thickets on dry limestone soil. Okolona; Jackson. May

Cornus Florida L. Flowering Dogwood.

Throughout the state in dry upland woods. Oxford; Tishomingo Co. (Allison); Carrollton; Hinds Co.

Geol. Surv. Herb. Allison Herb.

NYSSA L.

Nyssa sylvatica Marsh. (*N. multiflora* L.) Highland Black Gum.

Upland forests throughout the state. April.

Allison Herb

Nyssa biflora Walt. (*N. sylvatica biflora* Sarg.) Southern Black Gum.

Swampy borders of streams, especially in the southern pine belt. Oxford. April.

Nyssa aquatica L. (*N. uniflora* Wang.) Tupelo Gum.

Common in deep swamps of large streams throughout the state. Less common in the northern counties.

SYMPETALAE

PYROLACEAE. **Pyrola Family.**

CHIMAPHILA Pursh. Wintergreen.

Chimaphila maculata (L.) Pursh. (*Pyrola maculata* L.) Spotted Wintergreen.

Rich wooded slopes (Small). Probably limited to the northeast counties. Summer.

MONOTROPACEAE. **Pinesap Family.**

MONOTROPA L.

Monotropa uniflora L. Indian Pipe.

Not common under forests, particularly pine forests. Hinds Co.; Lauderdale Co.; Smith Co.; Bay St. Louis (Allison). September.

Allison Herb.

ERICACEAE. **Heath Family.**

AZALEA L.

Azalea viscosa Pursh. Clammy Azalea.

Swamps and stream banks; more common in the southern counties; middle counties (Hilg. Ms.); Hattiesburg; Woodville; Picayune; Bay St. Louis (Allison). June.

Azalea nudiflora L. Purple Azalea.

Pock ledges and copses throughout the state. Not common in loess region. Eastport; Amory; Lost Gap; Lauderdale Co.; Scott Co.; Hattiesburg; Clarke Co. Wayne Co.; Wilkinson Co. April-May.

Geol. Surv. Herb. Allison Herb.

KALMIA L.

Kalmia latifolia L. Mountain Laurel. Calico Bush.

Rocky woodlands for the most part in eastern part of the state. Seems never to occur in the loess region. Eastport; Hattiesburg; Ocean Springs (Tracy). April-May.

Geol. Sur. Herb.

Kalmia hirsuta Walt. Wicky.

Low sandy pine barrens (Mohr). May.

LEUCOTHOE Don.

Leucothoe axillaris (Lam.) Don (Andromeda axillaris Lam.) Downy Feter-Bush.

Swamp thickets and stream borders (Mohr) Smith Co. (Hilg. Ms.). May.

Leucothoe racemosa (L.) (Andromeda racemosa L.) Racemose Feter-Bush.

Southern pine regions near the coast. April.

Leucothoe platyphylla Small.

Low moist thickets (Small). Spring.

PIERIS Don.

Pieris nitida (Bartr.) Benth. & Hook. (Andromeda nitida Bartr.) Shining Feter-Bush.

Open boggy pine barrens. Smith Co. (Hilg. Ms.); Hattiesburg; Landon; Ocean Springs; Biloxi; Pascagoula. April.

Geol. Sur. Herb.

OXYDENDRUM DC.

Oxydendrum arboreum (L.) (Andromeda arborea L.) Sourwood.

Dry or damp upland woods. Simpson Co. (Hilg. Ms.). Tishomingo Co.; Itawamba Co.; Wilkinson Co.; Hancock Co. (Allison). July.

Geol. Surv. Herb. Allison Herb.

EPIGAEA L.

Epigaea repens L. Trailing Arbutus.

In rocky woods. Found in Tishomingo County (Allison).
February-March.

Allison Herb.

VACCINIACEAE. **Huckleberry Family.**

GAYLUSSACIA H. B. K.

Gaylussacia frondosa (L.) Torr. & Gray. Tangleberry.

Rocky upland ridges. Tishomingo Co

Geol. Sur. Herb.

Gaylussacia dumosa (Andr.) Torr. & Gray (*Vaccinium dumosum* Andr.) Dwarf Huckleberry.

In sandy pine barren swamps. Picayune; Landon; Bay
St. Louis (Allison). April.

Gaylussacia hirtella (Ait. f.) Klotzsch (*G. dumosa hirtella* Gray) Hairy Huckleberry.

Low wet borders of pine barren streams. Biloxi (Tracy).
May.

Gaylussacia resinosa (Ait.) Torr. & Gray (*Vaccinium resinum* Ait.)

Uplands dry open woods near Tennessee river. May.

VACCINIUM L.

Vaccinium arboreum Marsh. Farkleberry.

Dry sandy upland woods throughout the state. Tishomingo Co.; Lafayette Co.; Hinds Co.; Franklin Co.; Cat Island (Tracy). April-May.

Geol. Surv. Herb. Allison Herb.

Vaccinium myrsinites glaucum Gray. Pale Evergreen Blueberry.

Barren rocky hills and dry pine lands (Mohr). April.

Vaccinium Elliottii Chapm. (*V. myrtilloides* Ell.) Elliott's Blueberry.

Low thickets in damp sandy soil.

Vaccinium tenellum Ait. (*V. virgatum tenellum* Gray). Gale-Leaf Blueberry.

Shady copes in sandy soil. Pine regions (Small). April.

Vaccinium vacillans Kalm. Low Blueberry.

Open woodlands on dry sandy or rocky uplands. Tishomingo Co. April.

Allison Herb.

Vaccinium corymbosum L. Common Blueberry.

In low rich ground and springs; more common in the northern counties. Tishomingo Co.; Lafayette Co.; Carrollton; Jackson; Biloxi. April.

Geol. Surv. Herb. Allison Herb.

Vaccinium fuscatum Ait. (*V. corymbosum fuscatum* Gray)

Fuscous Blueberry.

Shaded dry, sandy banks near streams and swamps (Mohr.) March.

POLYCODIUM Raf.

Polycodium stamineum (L.) Greene (*Vaccinium stamineum* L.)

Deer Berry. Squaw Berry.

In dry or damp shaded sandy soil throughout the state. Rare in loess region. Tishomingo Co.; Tippah Co.; Lafayette Co.; Morton; Ocean Springs (Tracy). April.

Geol. Surv. Herb.

Polycodium neglectum Small.

Open woods and thickets (Small).

PRIMULACEAE. Primrose Family.

HOTTONIA L.

Hottonia inflata Ell. Water Violet.

Floating on stagnant or slowly flowing water. Southern counties (Mohr.) May.

SAMOLUS L.

Samolus floribundus H. B. K. (*S. valerandi americana* Gray).

Water Pimpernel.

Wet shady woods throughout the state. Lafayette Co.; Hinds Co. April.

STEIRONEMA Raf.

Steironema ciliatum (L.) Raf. (*Lysimachia ciliata* L.) Fringe-Leaf Loosestrife.

Low damp thickets throughout the state. Ripley; Pontotoc; Oxford; Jackson; Lucedale. June.

Geol. Sur. Herb.

Steironema lanceolatum (Walt.) Gray (*Lysimachia lanceolatum* Walt.). Lance-Leaf Loosestrife.

Damp shaded soil, borders of woods. Coastal pine belt (Mohr); Madison Co. (Hilg. Ms.). Summer.

Steironema heterophyllum (Michx.) Raf.

Woods and meadows (Small). Summer.

Steironema radicans (Hook.) Gray (*Lysimachia radicans* Hook.) Trailing Loosestrife.

Low shaded swamps. Columbia; western Lafayette Co.; Wilkinson Co. June-August.

Geol. Sur. Herb.

ANAGALLIS L.

Anagallis arvensis L. Common Pimpernel.

Damp flats in the pine barrens near the coast; (Adv.) Pascagoula. April.

Geol. Surv. Herb.

DODECATHEON L.

Dodecatheon meadia L. Shooting Star. American Cowslip.

Low moist woods; rare; seen only in the vicinity of the State University. May-June.

PLUMBAGINACEAE. Leadwort Family.

LIMONIUM Adans.

Limonium Carolinianum (Walt.) Britton (*Statice Carolinianum* Walt.) Marsh Rosemary.

Salt marshes along the coast and Coastal Islands. Starkville (Tracy); along the coast (Tracy); Cat Island. Sept.

Geol. Surv. Herb.

Limonium Nashii Small. Nash's Marsh Rosemary.
Salt marshes along the coast (Small).

SAPOTACEAE. **Sapodilla Family.**

BUMELIA Sw.

Bumelia lycioides (L.) Pers. *Sideroxylon lycioides* L.). Southern Buckthorn.

Dry open woods and copses; more common on calcareous soils. Jackson; Yazoo City; Grenada. March.

Geol. Surv. Herb.

DIOSPYROS L.

Diospyros Virginiana L. Persimmon.

Common throughout the state in old fields; occasionally in deep river swamps. Tishomingo Co.; Lafayette Co.; Hinds Co.; Copiah Co. May.

Geol. Surv. Herb. Allison Herb.

STYRACACEAE. **Storax Family.**

Mohrodendron Carolinianum (L.) Britton (*Halesia tetraptera* L.) Carolina Silverbell Tree.

Wooded banks of streams; Hinds Co.; Amite Co.; Wilkinson Co.; Chunky; Newton Co.; perhaps throughout the state. April.

Geol. Surv. Herb. Allison Herb.

Mohrodendron dipterum (L.) Britt. (*Halesia diptera* L.) Southern Silverbell.

Low wooded stream banks. Madison Co. (Hilg. Ms.); Woodville; Rosetta. April.

STYRAX L.

Styrax Americana Lam. (*S. glabrum* Michx.) American Storax.

North Mississippi (Hilgard); Lafayette Co.; Jones Co. (Allison); Hattiesburg; Gulfport. Low wet thickets along streams. March and April.

Geol. Surv. Herb. Allison Herb.

Styrax grandifolia Ait. (*S. grandiflorum* Michx.) Large-Flowered Storax.

Tishomingo Co.; Amite Co.; Waynesboro. Moist, rich lower slopes and stream courses. April-May.

Geol. Surv. Herb. Allison Herb.

SYMPLOCACEAE. Sweetleaf Family.

SYMPLOCOS L.

Symplocos tinctoria (L.) L'Her. (*Hopea tinctoria* L.) Sweetleaf. Horse Sugar.

Low woods and stream bottoms Ocean Springs (Tracy); Carroll Co. (Hilgard); Lowndes Co.; Tishomingo Co.; Hinds Co.; Forrest Co.; Durant; Chunky; Woodville; Bay St. Louis (Allison). April.

Geol. Surv. Herb. Allison Herb.

OLEACEAE. Olive Family.

FRAXINUS L. Ash.

Fraxinus Americana L. (*F. alba* Marsh.) White Ash.

Low, rich grounds throughout the state. Tishomingo Co. (Allison). March-April.

Allison Herb.

Fraxinus Pennsylvanica Marsh (*F. pubescens* Lam.)

Low woods and stream bottoms. Yazoo Delta (A. B. Hurt.)

Fraxinus Caroliniana Mill. (*F. platycarpa* Michx.) Water Ash.

Low shaded swamps. Forrest Co. February.

Geol. Surv. Herb.

Fraxinus quadrangulata Michx. Blue Ash.

In limestone soil of northeast counties. Starkville (Tracy). May.

CHIONANTHUS L.

Chionanthus Virginica L. Fringe Tree. Grandsire Graybeard.

Low rich woods. Scott Co.; Forrest Co.; Jones Co.; Wayne Co.; New Augusta; Montrose; Chunky; Mendenhall; April.

Geol. Surv. Herb.

OSMANTHUS Lour.

Osmanthus Americana (L.) B. & H. (*Olea Americana* L.) American Olive. Devil Wood.

Low wet woods along streams. Biloxi (Tracy); Rodney (Hilg. Ms.); Bay St. Louis (Allison).

Allison Herb.

LOGANIACEAE. **Logania** Family.

GELSEMIUM Juss.

Gelsemium sempervirens (L.) Ait. f. (*Begonia sempervirens* L.) Yellow Jessamine.

Low grounds along streams throughout the state; but rather rare in the northern counties; very common along low pine barrens streams in the southern counties. March.

Geol. Surv. Herb.

SPIGELIA L.

Spigelia Marilandica L. (*Lonicera Marilandica* L.) Pink Root.

Rich, open wooded slopes throughout the state; not common in the low sandy soils of the southern counties. New Albany; West Point; Lafayette Co.; Hinds Co.; Itawamba Co.; Tishomingo Co. (Allison); Hattiesburg; Meadville. May

Geol. Surv. Herb. Allison Herb.

CYNOCTONUM J. C. Gmelin.

Cynoctonum mitreola (L.) Britton (*Mitreola petiolata* Torr. Gray)

Wet springy banks. Ocean Springs (Tracy). July.

Cynoctonum sessilifolium (Walt.) J. G. Gmelin (*Mitreola sessilifolia* Torr. & Gray) Sessile-Leaf Mitrewort.

Low springy places in pine barrens. Biloxi (Tracy); Bay St. Louis (Allison). June.

Allison Herb.

POLYPREMUM L.

Polypremum procumbens L. Procumbent Polypremum.

Sandy pastures and old fields. Bay St. Louis. August.

Allison Herb.

GENTIANACEAE. **Gentian Family.**

SABBATIA Adans. Centaury.

Sabbatia macrophylla Hook. Large-Leaf Centaury.

Open savannas and pine barren swamps. Bay St. Louis (Allison); Waynesboro; Picayune; Landon; Gulfport. May. Geol. Surv. Herb. Allison Herb.

Sabbatia angustifolia (Michx.) Britton (*S. brachiata* Ell.) White-flowered American Centaury.

Dry open pine woods. North Jackson.

Geol. Surv. Herb.

Sabbatia angularis (L.) Pursh. (*Chironia angularis* L.) American Centaury.

Perhaps throughout the state in rich damp woodlands. Starkville (Tracy); Oxford; Jackson; Rodney (Hilg. Ms.); Jones Co.; Amite Co. (Allison). June.

Geol. Surv. Herb

Sabbatia Calycina (Lam.) Heller (*S. Calycosa* Pursh.) Calycine Sabbatia.

Rich swampy bottoms. Madison Co. (Hilg. Ms.). August.

Sabbatia stellaris Pursh. (*S. gracilis* Ell.) Seaside Sabbatia.

Seaside meadows occasionally overflowed by tides. Coastal Islands (Tracy); Bay St. Louis (Allison). July-August. Allison Herb.

Sabbatia campanulata (L.) Torr. (*S. gracilis* Michx.) Slender Sabbatia.

Low rich banks, especially southward. Bay St. Louis (Allison); Gulfport; Tylertown. June.

Geol. Surv. Herb. Allison Herb.

Sabbatia dodecandra (L.) B. S. P. (*S. chloroides* Pursh.) Large-flowered Sabbatia.

Pine barren swamps and pond borders. State Line. June.

Geol. Surv. Herb.

Sabbatia gentianoides Ell. Gentian-like Sabbatia.

Low damp pine barrens. Hancock Co. (Allison); Gulfport;
Hurley; Picayune. July.

Geol. Surv. Herb. Allison Herb.

GENTIANA L. Gentian.

Gentiana saponaria L. (*G. catesbaei* Walt.) Soapwort Gentian.

Rich shaded slopes. Lafayette Co. November.

Geol. Surv. Herb.

Gentiana Elliottii Chapm. (*G. Catesbaei* Ell.) Blue Sampson's
Snake Root.

Rich wooded slopes. Jones Co. (Allison); Brookhaven.

Allison Herb.

Gentiana villosa L. (*G. ochroleuca* Froel.) Sampson's Snake
Root.

Rather dry wooded slopes. Oxford; Decatur. November.

Geol. Surv. Herb.

Gentiana Andrewsii Griseb. Closed Gentian.

Damp upland woods. Northern Lafayette and Tippah
Counties. November.

FRASERA Walt.

Frasera Carolinensis Walt. American Colombo.

Rich upland forests. Eubank's Creek, north of Asylum at
Jackson. May.

Geol. Surv. Herb.

OBOLARIA L.

Obolaria Virginica (L.) Pennywort.

Moist open wooded slopes. Pontotoe Ridge, near New Al-
bany. May.

Geol. Surv. Herb.

BARTONIA Muhl.

Bartonia Virginica (L.) B. S. P. (*B. tenella* Muhl.) Autumnal
Bartonia.

Wet springy places in pine barrens swamps. Hurley. Oct.

Geol. Surv. Herb.

Bartonia verna (Michx.) (Centaurella verna Michx.) Vernal
Bartonia.

Low wet pine barrens under low bushes. South Missis-
sippi (Mohr). February.

LIMNANTHEMUM S. G: Gmel.

Limnanthemum lacunosum (Vent.) Griseb. (Villarsia cordata
Ell.) Pitted Floating Heart.

Ponds in the lower pine barrens (Mohr). March-April.

APOCYNACEAE. Dogbane Family.

AMSONIA Walt.

Amsonia amsonia (L.) Britt. (Amsonia Tabernaemontana
Walt.)

Rich, shady limestone slopes. Tishomingo Co.; Okolona;
Ripley; Columbus. April.

Geol. Surv. Herb. Allison Herb.

APOCYNUM L.

Apocynum cannabinum L. Indian Hemp.

Damp open places, often along railroad tracks. Ripley;
Oxford; Jackson. June.

Geol. Surv. Herb.

TRACHELOSPERMUM Lemair.

Trachelospermum difforme (Walt.) Gray (Echites difformis
Walt.) Climbing Dogbane.

Damp slopes and alluvial lands, climbing over bushes. La-
fayette Co.; Leake Co. (Hilg. Ms.); Canton; Hattiesburg.
June-July.

Geol. Surv. Herb.

VINCA L.

Vinca minor L. Periwinkle.

Introduced, but growing wild about old gardens, fences
and graveyards. All spring and summer. Oxford; Carroll-
ton; Jackson.

Geol. Surv. Herb.

ASCLEPIDIADACEAE. Milkweed Family.

ASCELPIAS L. Milkweed.

Asclepias tuberosa L. Butterfly Weed. Pleurisy Root.

Open uplands and pastures over the state. Eastport; Ripley; West Point; Lafayette Co.; Hinds Co.; Madison Co.; Bay St. Louis (Allison). May-June.

Geol. Surv. Herb.

Asclepias phytolaccoides Pursh. Poke Milkweed.

Moist shady woods. (Doubtful here) Hilg. Ms.

Asclepias cinerea Walt. Hoary Milkweed.

Dry open pine lands. Chunky; Slate Line; Picayune. Summer.

Geol. Surv. Herb.

Asclepias angustifolia Ell. (*A. Michauxii* Deesne.) Fragrant Milkweed.

Low sandy pine barrens. Back Bay, Biloxi. April-May.

Geol. Surv. Herb.

Asclepias lanceolata Walt. (*A. paupercula* Michx.) Marsh Milkweed.

Boggy pine barrens; salt marshes. Pascagoula Bay; Bay St. Louis (Allison); Picayune. May-June.

Geol. Surv. Herb. Allison Herb.

Asclepias purpurascens L. Purple Milkweed.

Thickets and borders of woods. Horn Lake. June-July.

Geol. Surv. Herb.

Asclepias obtusifolia Michx. (*A. purpurascens* Walt.) Obtuse-leaved Milkweed.

Dry, open upland woods. Lafayette Co.; Jones Co. (Allison). June.

Allison Herb.

Asclepias humistrata Walt. (*A. amplexicaulis* Michx.) Rabbit's Milkweed.

Dry sandy soil in pine barrens. Coastal Islands (Tracy); Chunky; Hattiesburg. April-May.

Geol. Surv. Herb.

Asclepias variegata L. Variegated Milkweed.

Dry open woods and borders of fields; Oxford; Jackson; Morton; DeKalb; Brookhaven; Meadville. May.

Asclepias rubra L. Tall Milkweed.

Wet sandy marshes. Very tall, 5-6 feet. Lost gap; McHenry. June-July.

Geol. Surv. Herb.

Asclepias perennis Walt. (*A. parviflora* Ait.) Swamp Milkweed.

Low wet river swamps. Hinds Co.; Warren Co.; Jackson Co. Miss.; Taylor; Canton; Grenada; Roxey. Summer.

Geol. Surv. Herb.

Asclepias verticillata L. Whorled Milkweed.

Dry sandy upland soil. Philadelphia; Laurel. June.

Geol. Surv. Herb.

Asclepias verticillata linearis (Scheele) Pollard (*A. linearis* Scheele). Narrow-Leaf Whorled Milkweed.

Damp woods in prairies (Mohr). July.

ACERATES Ell.

Acerates Florida (Lam.) A. S. Hitchcock (*A. longifolia* Ell.) Florida Green Milkweed.

Damp open pastures and fields. Jackson; Bay St. Louis (Allison). April-May.

Geol. Surv. Herb. Allison Herb.

Acerates viridiflora Raf. (Eaton; Broad-leaf Green Milkweed.)

Dry, sterile soil. Jackson; Winona. June.

Geol. Surv. Herb.

ASCLEPIODORA Gray.

Asclepiodora viridis (Walt.) Gray (*Asclepias viridis* Walt.)

Dry open fields and pastures on calcareous prairie soils. Jackson; Columbus. April-May.

Geol. Surv. Herb.

ANATHERIX Nutt.

Anantherix connivens Gray.

Wet pine barrens. Hattiesburg. **June-July.**

Geol. Surv. Herb.

AMPELANUS Raf.

Ampelanus albidus (Nutt.) Britton (*Enslenia albida* Nutt.)
Sand Vine.

River banks, climbing over shrubs. Greenwood. July.

Geol. Surv. Herb.

CYNANCHUM L.

Cynanchum palustre (Pursh) Heller (*Seutera maritima*
Deesne.) Seaside Winding Milkweed.

Borders of salt marshes. Cat Island. Very common. June.

AMPHISTELMA Griseb.

Amphistelma filiforme Griseb.

Dry soil near the coast. Biloxi.

Geol. Surv. Herb.

VINCETOXICUM Walt.

Vincetoxicum gonocarpus Walt. (*Gonolobus macrophyllus*
Michx.) Smooth Angle-Pod.

Along wooded river banks and side hill slopes. Spring to
Summer.

Vincetoxicum hirsutum (Michx.) Britt. (*Gonolobus flavidulus*
Chapm.) Hirsute Angle-Pod.

On rich wooded slopes, climbing on bushes. Pontotoc;
West Point; Jackson; Starkville (Tracy); Clinton (Dr. T. P.
Bailey). May-June.

Geol. Surv. Herb.

Vincetoxicum Baldwinianum (Sweet) Britt.

Thickets and rich copsés. Carroll Co. (Hilg. Ms.; Star-
kville (Tracy); Spring and summer.

Hedge rowe and cultivated fields. Simpson Co. (Hilg.).

CONVOLVULACEAE. Morning Glory Family.

IPOMEOEA L.

Ipomoea coccinea L. Scarlet Morning Glory.

Hedge rows and cultivated fields. Simpson Co. (Hilg. Ms.) Lafayette Co. August-Sept.

Geol. Surv. Herb.

Ipomoea barbigera Sweet. Bind-weed. Tie Vine.

Mississippi (Mohr) August.

Ipomoea hederacea Jacq. Ivy-leaf Morning Glory.

In cultivated fields throughout the state, and in thickets. Oxford. August.

Geol. Surv. Herb.

Ipomoea purpurea (L.) Roth. (*Convolvus purpureus* L.) Common Purple Morning Glory.

Cultivated ground throughout the state, especially on lowlands. August-October.

Geol. Surv. Herb.

Ipomoea pres-caprae (L.) Sweet (*Convolvulus pres-caprae* L.) Goat's-foot Seaside Ipomoea.

Littoral, especially on damp lower slopes of sand dunes. Coastal Islands. July-October.

Geol. Surv. Herb.

Ipomoea acetosaefolia (Vahl.) Roem. & Schult. (*Convolvulus acetosaefolius* Vahl.) White-blooming Seaside Ipomoea.

Littoral sand plains. Coastal Islands. July-Aug.

Geol. Surv. Herb.

Ipomoea pandurata (L.) Meyer (*Convolvulus panduratus* L.) Wild Potato.

Throughout the state in light rich soil in fields and open woods. Pontotoc; Grenada; Lost Gap; Oxford; Jackson. July-August.

Geol. Surv. Herb.

Ipomoea sagittata Poir. (*Convolvulus speciosus* Walt.) Arrow-leaf Morning Glory.

Littoral, in brackish and salt marshes. Coastal Islands (Petit Bois Island); Biloxi; Bay St. Louis. July-August.

Geol. Surv. Herb.

Ipomoea Carolina (L.) Pursh. (*Convolvulus Carolinus* L.)
Carolina Morning Glory.

Thickets and fields, in rich moist soil. Coastal Islands
(Tracy). October.

JACQUEMONTIA Choisy.

Jacquemontia tamnifolia (L.) Griseb. (*Ipomoea tamnifolia*
L.) Blue-flowered Bind-weed.

Cultivated fields in rich moist soil. Lawrence Co. (Hilg.).
Perhaps throughout the state. July.

BREWERIA R. Brown

Breweria humistrata (Walt.) Gray (*Stylisma humistrata*
Chapm., 1st edition) Low Breweria.

Dry light soil: more common southward in the pine regions.
Lowndes Co. (Tracy); West Point; Wayne Co.; Bay St.
Louis (Allison). June.

Geol. Surv. Herb. Allison Herb.

Breweria acutica (Walt.) Gray (*Stylisma aquatica* Chapm.,
1st Ed.) Aquatic Breweria.

Low damp soil in pine woods. Lost Gap; Chunky. July.
Geol. Surv. Herb.

CONVOLVULUS L.

Convolvulus repens L. (*C. sepium* var. *repens* Gray) Creeping
Bindweed.

Damp shaded thickets. Oxford (Dr. T. P. Bailey); Bay
St. Louis (Allison). April-May.

Allison Herb.

DICHONDRA Forst.

Dichondra evolvulacea (L. f.) Britton (*D. repens* Forst.) Caro-
lina Dichondra.

Open, damp grassy plats throughout the state. Oxford;
Jackson; Morton; Hattiesburg. April.

Geol. Surv. Herb.

CUSCUTACEAE. **Dodder Family.**

CUSCUTA L. Dodder, or Love Vine.

Cuscuta arvensis Beyrich, Field Dodder.

Light sandy soil in fields and openings. Coastal Islands (Tracy). June-August.

Cuscuta Gronovii Willd. Large Love Vine.

Throughout the state in low damp thickets. Coastal Islands (Tracy). July-September.

Cuscuta compacta Juss. Compact-flowered Love Vine.

Low damp thickets throughout the state. Jackson (T. P. Bailey); Oxford. Autumn.

Cuscuta glomerata Chois.

Low rich ground in open fields. Lafayette Co.

POLEMONIACEAE. **Phlox Family**

PHLOX L.

Phlox paniculata L. Sweet William.

Thickets and rich woods. Starkville (Tracy); Bay St. Louis (Allison); Ripley; Booneville; Batesville; Yazoo City. July-September.

Geol. Surv. Herb. Allison Herb.

Phlox maculata L. (*P. pyramidalis* Smith) Spotted Phlox.

Low wet woods. Ripley; Oxford; Jackson. June-July.

Geol. Surv. Herb.

Phlox glaberrima L. Smooth Phlox.

Dry open woods. Lafayette Co. (Hilg.); Iuka; Grenada; Canton; Shubuta; Gulfport. May-July.

Geol. Surv. Herb.

Phlox pilosa L. (*P. aristata* Michx.) Hairy Phlox.

Dry thickets and open woods. Oxford; Scott Co.; Tippah Co.; Tishomingo Co.; Grenada; Montrose; Hattiesburg; Meadville; Bay St. Louis (Allison). May-July.

Geol. Surv. Herb. Allison Herb.

Phlox reptans Michx. Creeping Purple Phlox.

Damp shaded woods. Tishomingo Co. (Allison); Michigan City. May-June.

Geol. Surv. Herb. Allison Herb.

Phlox amoena Sims (P. Walteri Chapm.) Early Phlox.

Dry open sandy soils. Tishomingo Co. (Allison); Biloxi; March-May.

Geol. Surv. Herb. Allison Herb.

Phlox divaricata L. Blue Phlox; Sweet William.

Rich open woods. Lafayette Co.; Tishomingo Co.; Okolona; West Point; Jackson. April-May.

Geol. Surv. Herb.

POLEMONIUM L.

Polemonium reptans L. Jacob's Ladder.

Rich shaded slopes with limestone soils. Lafayette Co.; Pontotoc Ridge near New Albany; slopes of Owl Creek near Ripley; Booneville. April-May.

Geol. Surv. Herb.

HYDROPHYLLACEAE. Water-Leaf Family

HYDROPHYLLUM L.

Hydrophyllum macrophyllum Nutt.

Rich woods. North Mississippi (Mohr). April.

NEMOPHILA Nutt.

Nemophila microcalyx (Nutt.) Fisch. & Mey.

Damp borders of woods. Natchez. March.

Geol. Surv. Herb.

NAMA L.

Nama affine (A. Gray) Kuntze.

Borders of ponds. Hinds Co.; Amory; Monticello. Summer.

Geol. Surv. Herb. Allison Herb.

***Nama ovata* (Nutt.) Britton.**

Borders of ponds. Eastern prairie region. Bay St. Louis (Allison); Lumberton; Picayune.

Geol. Surv. Herb.

BORAGINACEAE. **Borage Family.**

HELIOTROPIUM L. Heliotrope.

***Heliotropium curassavicum* L.** Seaside Heliotrope.

Salt marshes. Coast and Coastal Islands (Tracy).

***Heliotropium Indicum* L.**

A weed in waste and cultivated ground. Coast and Coastal Islands (Tracy); Hinds Co.

Geol. Surv. Herb.

***Heliotropium anchusaefolium* Poir.**

In waste places. Hancock Co. (Allison).

Geol. Surv. Herb.

MYOSOTIS L. Forget-me-not.

***Myosotis verna macrosperma* Nutt.**

Dry open fields. Lafayette Co.; Hinds Co.; Starkville (Tracy); Tishomingo Co. (Allison). April.

Allison Herb

LITHOSPERMUM L. Gromwell.

***Lithospermum arvense* L.**

Edges of fields. Montrose. June-July.

Geol. Surv. Herb.

***Lithospermum canescens* (Michx.) Lehm.** Puccoon.

Dry pine woods. Tishomingo Co.; Lafayette Co. April-May.

Geol. Surv. Herb.

***Lithospermum tuberosum* Regel.** Tuberos-Rooted Gromwell.

Light gravelly and sandy soil. Oxford (Dr. Bailey). Apr.

CYNOGLOSSUM Tourn. Hound's Tongue.

***Cynoglossum Virginianum* L. (*C. amplexicaule* Michx.) Wild Comfrey.**

Dry open woods. Lafayette Co. (Hilg.); Eastport; New Albany; Ripley; Grenada; Vicksburg. **Spring.**

Geol. Surv. Herb

COCHRANEA Miers.

Cochranea anchusaefolia (Poir.) Gurke.

Waste places (Small). **Spring-Fall.**

ONOSMODIUM Michx.

Onosmodium Carolinianum (Lam.) A. DC. Carolina False Gromwell.

Rich limy prairie soil at Jackson (rare); Starkville; Satartia on Jackson clay. **May.**

Geol. Surv. Herb.

Onosmodium Virginianum (L.) DC. Virginia False Gromwell.

Rich upland woods and dry sandy fields. Oxford; Hattiesburg; Lost Gap.

Geol. Surv. Herb.

VERBENACEAE. **Verbena or Vervain Family**

VERBENA L. Vervain.

Verbena aubletia Jacq. Aublet's Verbena.

Dry sandy soil. Hattiesburg.

Geol. Surv. Herb.

Verbena xutha Lehm.

Waste places, especially near the coast. Oxford; Jackson; Gulfport. **August.**

Geol. Surv. Herb.

Verbena urticaefolia L. White Vervain.

A common weed in waste places. Oxford; Hinds Co.; Warren Co.; Starkville; New Albany (Tracy). **July.**

Verbena Carolina L. Carolina Vervain.

Usually in dry pine lands. Lowndes Co. (Tracy); Jones Co. (Allison); Hattiesburg. **June.**

Geol. Surv. Herb. Allison Herb.

Verbena bracteosa Michx. (*Verbena canescens* Chap.)

Dry open waste places. Oxford; Grenada. July.

Verbena hastata L. (*V. paniculata* Lam.) Blue Vervain.

Low damp open pastures. Benton Co.; Pontotoc Co. Summer.

Verbena stricta Vent.

Damp open ground. Bluffs below Satartia; Eastport.

Geol. Surv. Herb.

Verbena angustifolia Michx. Narrow-leaf Vervain.

Calcareous clay soils. Starkville (Tracy). July.

Verbena Canadensis (L.) Britton (*Buchnera Canadensis* L.)

Dry prairie regions. Lawrence Co. (Hilg.). March-April.

Verbena bonariensis L.

Open waste lands. Jackson (T. P. Bailey); Woodville. July.

Geol. Surv. Herb.

LIPPIA L. Frog Fruit.

Lippia nodiflora (L.) Michx. (*Verbena nodiflora* L.) Spatulate-Leaved Frog-fruit.

Damp sandy soil. Pontotoc; Seoba; Coastal Islands; Moss Point; Biloxi; Bay St. Louis (Allison); Jackson Co.; Warren Co. May-November.

Geol. Surv. Herb. Allison Herb.

Lippia lanceolata Michx. Lance-leaf Frog Fruit.

Low wet soil. Taylor; West Point; Warren Co.; Southern Hinds Co.; Pascagoula.

Geol. Surv. Herb.

CALLICARPA L. French Mulberry.

Callicarpa Americana L.

Dry upland woods. Coastal regions; Hancock Co. (Hilg. Rep.); Bay St. Louis; Hinds Co.; Grenada; Tippah Co. June.

Allison Herb.

AVICENNIA L.

Avicennia nitida Jacq. Black Mangrove.

Wet littoral, sandy soil (Small). Door Point (Coastal Islands).

Geol. Surv. Herb.

PHYRMA L. Lopseed.

Phyrma leptostachya L.

Damp rich shaded soils. Ripley; Grenada Co.; Charleston; Warren Co.; Copiah Co. June.

Geol. Surv. Herb.

NEPETACEAE. Mint Family.

MESOSPHAERUM L. Swamp Basil.

Mesosphaerum rugosum L. Pollard (*Hyptis radiata* Willd.)

Margins of pine barrens ponds. South Mississippi (Hilg.); Rankin Co. (Hilg.); Biloxi (Tracy); Bay St. Louis (Allison); Jones Co. (Allison); Tylertown. July.

Geol. Surv. Herb. Allison Herb.

COLLINSONIA L. Horse Balm.

Collinsonia scabriuscula Ait. Purple Horse Balm.

Damp thickets. Clinton (T. P. Bailey). Sept.

Collinsonia Canadensis L. Canadian Horse Balm.

Rich woodlands. Northern part of state (Mohr). July.

Collinsonia anisata Sims. Citronella

Dry shaded slopes. Southern part of state (Mohr). Sept.

Collinsonia verticillata Baldw.

Rich shaded woods (Small). Spring and summer.

MENTHA L. Mint.

Mentha spicata L. (*Mentha viridis* L.) Spearmint.

Low damp soil perhaps throughout the state. West Point; July-August.

Geol. Surv. Herb.

LYCOPUS L. Water Hoarhound.

Lycopus Europaeus

On the beach. Cat Island. (Lloyd & Tracy).

Lycopus pubens Britton.

Pine swamps (Small). South Mississippi. Summer and Fall.

Lycopus rubellus Moench. Reddish Bugleweed.

Low swampy land. Southern pine region to the coast. Bay St. Louis (Allison). August.

Allison Herb.

Lycopus velutinus Rydb.

Low grounds and swamps (Small). Summer and fall.

CUNILA L. Dittany.

Cunila origanoides (L.) Britton (*Cunila mariana* L.)

Cherty, gravelly hillslopes near Eastport. Northern part of the state. July-August.

KOELLIA Moench.

Koellia flexuosa Walt. McMillan (*Pycnanthemum linifolium* Pursh.) Virginia Thyme.

Low wet ground; prairies. Amory; southern part of state (Hilg.); Carroll Co. (Hilg.); Oxford; Jones Co.; Jackson Co. June.

Geol. Surv. Herb.

Koellia Virginiana (L.) Britt. (*Pycnanthemum lanceolatum* Pursh.)

Dry soil and thickets. Oxford; Jackson. June.

Koellia aristata Michx. Kuntze. Aristate Thyme.

Pine regions in southern part of state. Horn Lake. June.

Geol. Surv. Herb.

Koellia albescens (Torr. & Gray) Kuntze (*Pycnanthemum albescens* Torr. & Gray). Whitish Basil.

In sandy soil, often in dry woods (Small). Chiefly in southern pine regions of the state. Bay St. Louis (Allison); Hinds Co.; Lafayette Co. July.

Geol. Surv. Herb. Allison Herb.

CLINOPODIUM L.

Clinopodium nepeta (L.) Kuntze (Calamintha nepeta Savi.)
European Basil Thyme.

Dry uplands and roadsides. Oxford. July-Sept.

Clinopodium Carolinianum (Walt.) Kuntze (Thymbra Caroliniana Walt.) Carolina Thyme.

Dry open woods (Mohr). August and September.

Clinopodium coccineum (Nutt.) Kuntze (Calamintha Coccinea (Nutt.) Benth.) Scarlet Balm.

Sandy pine ridges; Coastal Islands (Tracy); Cat Island; Gulfport. September.

Geol. Surv. Herb.

SALVIA L. Sage.

Salvia cocinea Juss. Scarlet-flowered Salvia.

Sandy soil; waste places; southern part of state. Bay St. Louis (Allison) June-Oct.

Allison Herb.

Salvia azurea Lam. Azure Salvia.

Dry sandy soil. Marion Co. (Hilg.); Ocean Springs (Tracy); Jones Co. (Allison); Bay St. Louis (Allison). Spring-Fall.

Allison Herb

Salvia urticifolia L. Nettle-Leaf Salvia.

Open rich woods or thickets. Northeast Mississippi (Hilg.) Spring and summer.

Salvia lyrata L. Meadow Sage.

Open grassland throughout the state. Oxford; Tishomingo Co. (Allison); Jackson; Bay St. Louis (Allison). Spring and Summer.

Geol. Surv. Herb.

MONARDA L. Horsemint.

Monarda fistulosa L. Wild Bergamot.

Fence rows and thickets; dry woods. Oxford; Iuka;

Ripley; Lost Gap; Starkville (Tracy); Jones Co.; Jackson. June.

Geol. Surv. Herb. Allison Herb.

Monarda punctata L. Dotted Horsemint.

Dry sandy soil, borders of fields, pastures and waysides. Oxford; Shubuta; South Mississippi (Hilg.); Simpson Co.; Bay St. Louis (Allison); Coastal Islands. July-October.

Geol. Surv. Herb. Allison Herb.

BLEPHILIA Raf.

Blephilia ciliata (L.) Raf. (*Monarda ciliata* L.)

Dry woods and thickets, especially limey soils. North Mississippi; Ripley; Oxford; Smith Co. June-August.

NEPETA L.

Nepeta cataria L. Catnip.

In waste ground. Oxford; Hinds Co. Summer-fall.

GLECOMA L.

Glecoma hederacea L. (*Nepeta glecoma* Benth.)

Around buildings and waste lands. Oxford. Spring.

SCUTELLARIA L. Skulleap.

Scutellaria laterifolia L. Mad-dog Skulleap.

Wet thickets; along streams. Over the state. Oxford; Fulton; Heidelberg; Rosetta; Hinds Co.

Geol. Surv. Herb.

Scutellaria cordifolia Muhl. (*Scutellaria versicolor* Nutt.)

Shady borders of woods; moist banks. Oxford; West Point; Lost Gap; Bay St. Louis (Allison). Spring-summer.

Geol. Surv. Herb. Allison Herb.

Scutellaria incana Muhl. (*S. canescens* Nutt.) Hoary Skulleap.

Open coves and borders of woods. Oxford; Tishomingo City. June.

Geol. Surv. Herb.

Scutellaria pilosa Michx.

Dry soil; open woods and thickets. Central pine uplands to the coast. Oxford; Brookhaven.

Geol. Surv. Herb.

Scutellaria integrifolia L. (*S. hyssopifolia* L.)

Dry woods and thickets. Iuka; Oxford; Carroll Co. (Hilg.). Summer.

Geol. Surv. Herb.

Scutellaria parvula Michx.

Dry open soil, sand or clay. Oxford; Tishomingo Co.; Morton. May-June.

Geol. Surv. Herb. Allison Herb.

PRUNELLA L.

Prunella vulgaris L. (*Prunella vulgaris* Tour.) Self-Heal. (Introduced)

Damp pastures and open woods; perhaps throughout the state. Tishomingo Co. (Allison); Michigan City; Oxford; Jackson. Spring-fall.

Geol. Surv. Herb. Allison Herb.

PHYSOSTEGIA (L.) Benth.

Physostegia Virginiana (L.) Benth. (*Dracocephalum Virginianum* L.) False Dragon's Head.

Borders of swamps and ditches. Oxford; Tippah Co.; West Point; Taylor.

Geol. Surv. Herb

STACHYS L. Woundwort.

Stachys aspera Michx. Hispid Woundwort.

Shaded wet borders of ditches and streams. Durant. Summer.

Stachys tenuifolia Willd.

In copses and open fields. Taylor; Warren Co.; Hinds Co. Summer.

Geol. Surv. Herb.

LEONURUS L. Motherwort.

Leonurus cardiaca L.

Waste places; Tishomingo Co. (Allison). Summer.

Allison Herb

LAMIUM L. Dead Nettle.

Lamium album (Introduced). White Dead Nettle.

Old gardens. Oxford (one locality). Early spring.

Lamium amplexicaule L. Common Garden Dead Nettle.

In waste and cultivated ground; over the state. Oxford Jackson. February-May.

Geol. Surv. Herb.

TRICHOSTEMA L. Blue Curls.

Trichostema dichotomum L. Common Blue Curls.

Throughout the state in dry sandy soil. Lawrence Co. (Hilg.); Biloxi (Traey); Clinton (T. P. Bailey); Jackson. July.

Geol. Surv. Herb. Allison Herb.

Trichostema lineare Nutt. (*Trichostema brachiatum* Lam.).

Linear-leaved Blue Curls.

Dry open soil. Central pine region to the coast. Bay St. Louis (Allison). July.

Allison Herb

TEUCRIUM L. Germander.

Teucrium Canadense L. Wood Sage.

Over the state; damp thickets and low banks. Rodney; Holmes Co.; Bay St. Louis (Allison). July.

Geol. Surv. Herb. Allison Herb.

Teucrium Nashii Kearney, Nash's Germander.

Littoral (Small); shaded thickets and hammocks. Biloxi; Coastal Islands (Traey). Spring and summer.

MACBRIDEA Ell.

Macbridea pulchra Ell.

Pine barren swamps. McHenry. Summer and fall.
Geol. Surv. Herb.

SOLANACEAE. **Nightshade Family.**

LYCIUM L.

Lycium Carolinianum Walt. Carolina Box Thorn.

Littoral, swampy beaches. Coastal Islands (Tracy); Door
Point. June.

Geol. Surv. Herb.

PHYSALODES Boehm.

Physalodes physalodes (L.) Britton. (*Nicandra physalodes*
Goert.)

Apple of Peru.

Waste places near dwellings. Hudsonville. July-August.

Geol. Surv. Herb.

PHYSALIS L. Ground Cherry. Jerusalem Cherry.

Physalis angulata L. (*P. angulata* var. *linkiana* Gray.)

Over the state, pastures, borders of fields and waste
ground. Hinds Co. July.

Physalis Virginiana intermedia Rydberg. Virginia Ground
Cherry.

Shaded thickets (Mohr). April-June.

Physalis viscosa L. (*Physalis tomentosa* Walt.) Stellate
Ground Cherry.

Pine barrens region; sandy banks of streams. Oxford.
June-October.

Physalis angustifolia Nutt. Narrow-leaf Seaside Ground
Cherry.

Low sandy beaches along the coast. Coastal Island (Tra-
cy); Horn Island; Gulfport. July.

Geol. Surv. Herb.

SOLANUM L. Nightshade.

Solanum nigrum L. Common Nightshade.

Throughout the state, in waste or cultivate ground. Oxford; Hinds Co.; Smith Co.; Bay St. Louis. June-October.
Geol. Surv. Herb.

Solanum gracile Dunal. Slender Nightshade.

In sandy soil of the coast region; coastal islands (Tracy); Summer and fall.

Solanum aculeatissimum Jacq. (*Solanum mammosum* Ell.) Spiny Nightshade.

Dry sandy soil. Coastal region. Pascagoula. Spring.

Solanum elaeagnifolium Cav. Silverleaf Nightshade.

Dry sandy soil. Bay St. Louis (Allison). June.
Allison Herb.

Solanum sisymbriifolium Lam. (*Solanum balbisii* Dunal).

Southern prairie region to the coast. Biloxi beach. Spring and summer.

Geol. Surv. Herb.

Solanum Carolinense L. Horse Nettle.

Over the state; dry sandy open ground, fields and waste places. Oxford; Hinds Co. June-Oct.

Geol. Surv. Herb.

Solanum rostratum Dunal.

Waste places and prairies (Small). Lafayette Co. Spring and summer.

DATURA L. Thorn Apple. Jamestown or Jimson Weed.

Datura tatula L. Purple Thorn Apple.

Rich waste places over the state. Very common. Summer.

Datura stramonium L. Common Thorn Apple. Jamestown or Jimson Weed.

Much less common than **D. tatula** in this state. Waste places and cultivated ground. Summer.

SCROPIIULARIACEAE. Figwort Family.

VERBASCUM L. Mullein.

Verbascum thapsus L. Common Mulein.

Dry open fields and pastures; over the state. April-May.

Verbascum blattaria L. Moth Mullein.

Over the state; in fields and waste places. July.

LINARIA Jus. Toad Flax.

Linaria Canadensis (L.) Dumort (Antirrhinum Canadense L.).
Wild Toad Flax.

Over the state, in cultivated and waste ground. Oxford;
Jackson; Gulfport; Bay St. Louis; Hattiesburg; Newton.
March-April.

Geol. Surv. Herb. Allison Herb.

Linaria Floridana Chapm. Florida Toad Flax.

Littoral region; drifting sands near the coast (Mohr).
Bay St. Louis (Allison). April-May.

Linaria linaria (L.) Karst. (*Linaria vulgaris* Mill.) Common
Toad Flax.

Field and waste places. Not very common. May-June.

SCROPHULARIA L. Figwort.

Scrophularia Marilandica L. Maryland Figwort.

Chiefly in northeastern part of the state. Michigan City;
Carlisle. August-September.

Geol. Surv. Herb.

CHELONE (L.) Tour.

Chelone glabra L. Turtlehead.

Damp shaded banks, thickets and swampy places. North-
ern and eastern parts of the state. Smith Co. (Hilg. Rep.);
Lafayette Co. September.

PENTSTEMON. (L'Herit.) Soland.

Pentstemon hirsuta L. (*P. pubescens* Soland) Pubescent
Beard-tongue.

Dry sandy soil; borders of thickets and woods (Mohr).
Oxford; Tishomingo Co. (Allison); Jackson (T. P. Bailey).
May.

Pentstemon digitalis Nutt. (*P. laevigatus digitalis* Gray). Fox-
glove Beard-tongue.

In fields and wet woods. Jackson (T. P. Bailey). May.
Geol. Surv. Herb.

Pentstemon pentstemon (L.) Britt. *P. laevigatus multiflorus* Chapm.). Smooth Beard-Tongue.

Damp woods and thickets. Hattiesburg; Back Bay of Biloxi. May.

Geol. Surv. Herb.

Pentstemon tubiflorus Nutt.

On low prairies (Small). Oxford; West Point; Lost Gap; Jackson. Spring-summer.

Geol. Surv. Herb.

PAULOWNIA Sieb. & Zucc. Paulownia.

Paulownia tomentosa (Tunb.) Baill.

Waste places and thickets. Oxford; Hinds Co.; Copiah Co. March-April.

MIMULUS L. Monkey Flower.

Mimulus alatus Soland.

Swamps, meadows and damp grassy banks. Oxford; Durant; Hinds Co.; Copiah Co. Summer.

Geol. Surv. Herb.

GRATIOLA L. Hedge Hyssop.

Gratiola Florida Nutt. Florida Hedge Hyssop.

Wet places in the woods; muddy banks of streams. Amite Co. (Allison.) April-May.

Allison Herb.

Gratiola spaerocarpa Ell. *Gratiola acuminata* Vahl.) Round-Fruited Hedge Hyssop.

Over the state; low grounds, springs and branches. Oxford; Hattiesburg. April-May.

Geol. Surv. Herb.

Gratiola pilosa Michx. (*Gratiola Peruviana* Walt.) Pilose Hedge Hyssop.

Most common in the low, sandy pine region of the coast plain. Bay St. Louis (Allison.)

Allison Herb.

Gratiola hispida (Benth.) Pollard; (*Sophranthe hispida* Benth.) Rough Hedge Hyssop.

Dry Sands on the Gulf Coast (Mohr); Coastal Islands (Tracy.) June-July.

MONNIERA P. Br.

Monniera acuminata (Walt.) Kuntze, (*Gratiola acuminata* Walt.) Blackening Hedge Hyssop.

Southern part of the state (Hilg. Rep.) Low damp places, thickets and pastures. April-May.

Monniera monniera (L.) Britt. (*Herpestis monniera* H. B. K.) Creeping Monniera.

Coastal plain and Islands (Tracy); Bay St. Louis (Allison); Moss Point. May-October.

Geol. Surv. Herb.

Allison Herb.

Monniera rotundifolia Michx.

Wet muddy flats bordering ponds. Hinds Co.

Geol. Surv. Herb.

SEPTILIA Raf.

Septilia crenulata Small; (*Monniera crenulata* Small).

In ditches and low wet places. Picayune.

Geol. Surv. Herb.

MICRANTHEMUM Michx.

Michranthemum orbiculatum Michx.

Muddy banks and ponds. Northern part of the State. (Hilg. Rep.) Amite Co. (Allison); Bay St. Louis (Allison.) May-August.

Allison Herb.

ILYSANTHES Raf.

Ilysanthes gratiolooides (L.) Benth. (*Ilysanthes riparia* Raf.) Hedge Hyssop-like Ilysanthes.

Muddy borders of streams and springs. Oxford; Leake Co. (Hilg. Rep.) May.

Ilysanthes refracta (Ell.) Benth. (*Lindernia refracta* Ell.)

Wet pine lands (Small) Spring and summer.

SCOPARIA L.

Scoparia dulcis L.

In sandy soil of the Coastal plain. July.

VERONICA L. Neckweed.

Veronica peregrina L. (*V. Caroliniana* Walt.)

Open pastures over the state. Oxford; Tishomingo Co. (Allison); Carrollton. March.

Geol. Surv. Herb.

Allison Herb.

Veronica arvensis L. Corn Speedwell.

Cultivated ground. Coastal region. Oxford; Tishomingo Co. (Allison). Feb.-March.

Allison Herb.

Veronica agrestis L.

In fields and waste places; near the coast.

LEPTANDRA Nutt. Culver's Root.

Leptandra Virginica (L.) Nutt. (*Veronica Virginica* L.)

Meadows and moist thickets Northern and central parts of the state. Oxford; Horn Lake; Madison Co. (Allison.) Summer.

Geol. Surv. Herb.

Allison Herb.

AFZELIA J. G. GMELIN.

Azelia cassinoides J. G. Gmelin. (*Seymeria tenuifolia* Pursh.)

Thin-leaved Afzelia.

Dry sandy pine forests (Mohr). Fontanbleau (Tracy). September.

MACRANTHERA Torr.

Macranthera fuchsoides (Nutt.) Torr. (*Conradia fuchsoides* Nutt.) Fuchsia-like Macranthera.

Damp pine lands, Southern counties, to the coast. Mc-
Henry; Nugent. August.

Geol. Surv. Herb.

DASYTOMA Raf. False Foxglove.

Dasytoma pedicularia (L.) Benth.

Rich shaded slopes. Mich. City; Oxford. Summer-fall.

Geol. Surv. Herb.

Dasytoma pectinata (Nutt) Benth. (*Gerardia pedicularia*
Pectinata Nutt.) Pectinate False Foxglove.

Dry sandy soil. Southern part of State (Hilg. Rep.)
Tishomingo Co.; Lyman; Rankin Co.; Lost Gap. August.

Geol. Surv. Herb.

Dasytoma flava (L.) Wood. (*Gerardia flava* L.) Downy False
Fox-glove.

In woods and thickets. Booneville, West Point. Sum-
mer.

Geol. Surv. Herb.

Dasytoma Virginia (L.) Britton. (*Gerardia quercifolia*
Pursh.) Virginia False Foxglove.

Dry woods and thickets; Northeastern part of State
(Small.) Starkville, (Tracy); Winona; Oxford. Summer
and fall.

Geol. Surv. Herb.

Dasytoma dispersa Small.

Dry pine woods and on hillsides. (Small). Summer and
fall.

Dasytoma laevigata (Raf.) Chapm. (*Gerardia laevigata* Raf.)
Smooth False Foxglove.

Central pine belt. Bay St. Louis. (Allison. Summer.

Allison Herb.

Gerardia Auriculata Michx. (*Otophylla Michauxii*. Benth.)
Auriculate False Foxglove.

Limestone prairies, frequent. Seoba

Geol. Surv. Herb.

Gerardia linifolia Nutt. Flax-leaf Gerardia.

Low pine bowers. Rankin Co.; Bay St. Louis. August.

Geol. Surv. Herb.

Allison Herb.

Gerardia Purpurea (L.) Purple Gerardia.

Low and swampy open ground in northern and central parts of the state. Marion Co. (Hilg. Rep.); Jackson (T. P. B.); Oxford. August.

Geol. Surv. Herb.

Gerardia flava L.

Northern and eastern parts of the state. Lauderdale Co. (Hilg.) Aug.-Sept.

Gerardia maritima Raf. (*G. purpurea* Var. *crassifolia* Pursh.)

Seaside Gerardia.

Littoral; Salt Marshes. Coastal Island (Traey.); Cat Island; Back Bay of Biloxi. June-July.

Geol. Surv. Herb.

Gerardia Plukenetti Ell. (*G. setacea* Chapm. (=Plukenet's Gerardia).

Dry open pine barrens of lower pine region (Mohr.) Sept.-Oct.

Gerardia fasciculata Ell. (*G. purpurea* Var. *fasciculata* Chapm.)

Fascieled Gerardia.

Low damp pine barrens near the coast. Biloxi (Traey.) Sept.-Oct.

Gerardia setacea Walt.

Dry open uplands. Claiborne Co. October.

Gerardia divaricata Chapm.

Dry open upland woods. Claiborne Co. October.

Gerardia tenuifolia Vahl. (*Anonymos erecta* Walt.) Thin-leaved Gerardia.

Dry open woods. Oxford; Heidelberg; Jackson; Fall.

Geol. Surv. Herb.

Gerardia tenuifolia filiformis Vahl.

Light open soil. Lyman.

Geol. Surv. Herb.

Gerardia Skinneriana Wood, (*Gerardia ponifolia* Chapm.)Small-leaved *Gerardia*.

Damp sandy pine woods of the coastal region. Gulfport (Tracy); Bay St. Louis (Allison); Lyman; McHenry. Oct.

Geol. Survey Herb. Allison Herb.

Gerardia aphylla Nutt. Leafless *Gerardia*.

Pine barrens near the coast. Lyman; Lumberton. Oct.

Geol. Surv. Herb.

BUCHNERA L.

Buchnera Americana L. Blue Hearts.

Dry open woods. Madison Co. (Hilg. Rep.) May-July.

Buchnera elongata Sw. Southern Blue Hearts.

Most frequent in dry woods of the Southern Counties. Jackson (T. P. Bailey); Ripley; Jones Co. (Allison); Wiggins; Landon; Bay St. Louis (Allison). May.

Geol. Survey Herb. Allison Herb.

CASTILLEJA Mutis

Castilleja Coccinea (L.) Spreng. (*Bartsia Coccinea* L.) Painted Cup.

Reported at Oxford by Hilgard; North Miss. (Mohr) perhaps after Hilgard. July.

PEDICULARIS L.

Pedicularis Canadensis L. Wood Betony.

In damp open woods and moist banks, throughout the state. Oxford; Hinds Co.; Itawamba Co.; Tishomingo Co. (Allison). April.

Geol. Surv. Herb.

PINGUICULACEAE. Butterwort Family.

PINGUICULA L. Butterwort.

Pinguicula lutea Walt. Yellow Butterwort.

Low wet pine barrens near the coast. Biloxi (Tracy); Gulfport; Landon; Lyman; Bay St. Louis (Allison). March-April.

Geol. Survey Herb. Allison Herb

Pinguicula planifolia Chapm. (*P. australis* Chapm.)

Low wet pine barrens near the coast. Lyman; Picayune; Hurley. April-May.

Geol. Surv. Herb.

Pinguicula pumila Michx. (*P. australis* Nutt.) Pigmy Butterwort.

With other species on low pine barrens near coast (Hilg. Rep.) Spring.

UTRICULARIA Bladderwort

Utricularia biflora Lam. (*U. fibrosa* Chapm.)

Ditches and shallow stagnant ponds, mostly near the coast. (Hilg. Rep.) July-Sept.

Utricularia fibrosa Walt. (*U. striata* Leconte.) Fibrous Bladderwort.

Open, shallow sphagnous ponds near the coast (Mohr.) Aug.

Utricularia juncea Vahl. (*U. personata* Leconte.) Rush-like Bladderwort.

Low wet pine barrens near the coast. Greene Co.; Hurley; Picayune. Sept.

Geol. Surv. Herb.

Utricularia subulata L. (*U. setacea* Michx.) Setaceous Bladderwort.

Low wet pine barrens near the coast. Biloxi and Coastal Islands (Tracy.) April.

OROBANCHACEAE. Broom-rape Family.

LEPTAMNIUM Raf.

Leptamnium Virginianum (L.) Raf. (*Epiphegus Americanus* Nutt.) Beech-Drops.

Parasitic on roots of beech trees throughout the state. Warren Co.; Hinds Co.; Amite Co. (Allison.) Oct.
Geol. Survey Herb. Allison Herb.

BIGNONIACEAE. Bignonia Family.

BIGNONIA L.

Bignonia crucigera L. (*B. capreolata* L.) Cross-vine.

Throughout the state climbing over large forest trees. Benton Co.; Tishomingo Co.; Hinds Co.; Copiah Co.; Hancock Co. (Allison.) April.

Geol. Survey Herb. Allison Herb.

TECOMA Juss.

Tecoma radicans (L.) D. C. (*Bignonia radicans* L.) Trumpet-Creeper. Sometimes called by farmers Poor Land Vine.

Throughout the state climbing over trees and bushes, mostly on low grounds. Often becomes troublesome in cultivated ground. Lafayette Co.; Hinds Co.; Okalona; Bay St. Louis (Allison.) June-July.

CATALPA, Scop.

Catalpa catalpa (L.) Karst. (*C. bignonioides* Walt.) Catalpa tree.

Throughout the state mostly on low ground. Common around dwellings where it has been used as a shade tree. April-May.

ACANTHACEAE. Acanthus Family.

RUELLIA L.

Ruellia noctiflora (Nutt.) Gray. (*Dipteracanthus noctiflorus* Nutt.)

Night-blooming Ruellia. Savannas near the coast. (Mohr. Small.) Sept.-Oct.

Ruellia ciliosa Pursh. Ciliated Ruellia.

Throughout the state in dry open upland woods. Ripley; Pontotoc; West Point; Oxford; Starkville (Tracy); Hinds Co.;

Warren Co.; Lost Gap; Amite Co.; (Allison); Biloxi (Tracy).
Summer.

Geol. Survey Herb. Allison Herb.

Ruellia ciliosa *humilis* (Nutt.) Britton (*R. humilis* Nutt.) Low
ciliated Ruellia.

Dry open upland woods. Mostly in the Southern counties.
Bay St. Louis (Allison.) Summer.

Allison Herb.

Ruellia ciliosa *parviflora* (Nutt.) Britt. *Dipteracanthus cil-*
iosus var. *parviflorus* Nees.) Small-flowered ciliated Ruel-
lia.

Open upland dry woods. (Mohr.) July.

Ruellia strepens L. (*Dipteracanthus strepens* Nees.)

Open woods and copses. Tishomingo Co.; Simpson Co.;
(Hilg.) Rodney (Dr. Perviance); Tunica, June-July.

Geol. Surv. Herb.

DIANTHERA L. Water Willow.

Dianthera lanceolata (Chapm.) Small (*D. ovata lanceolata*
Chapm.)

Low wet stream banks and ditches. Taylor; Warren-
town; Hattiesburg. Summer to fall.

Geol. Surv. Herb.

Dianthera ovata Walt.

Wet muddy brook sides and banks. Leake Co. (Hilg. M.
S.); Jackson (Dr. T. P. Bailey.) Late summer.

PLANTAGINACEAE. Plantain Family.

PLANTAGO L. Plantain.

Plantago major L. Greater Plantain.

Low moist waste places throughout the state. Oxford;
May.

Plantago lanceolata L. English Plantain, or Rib Grass.

Open waste lands around dwellings and pastures. Through-
out the state. Oxford; Jackson; Tishomingo Co. (Allison);
Bay St. Louis. (Allison.) May.

Geol. Survey Herb. Allison Herb.

Plantago aristata Michx. (*P. patagonica aristata* Gray.) Awned Plantain.

Dry upland sandy soil. Throughout the State. Oxford; Jackson. Summer.

Geol. Surv. Herb.

Plantago Virginica L. Common Plantain.

Dry upland fields and pastures throughout the State. Oxford; Carrollton; Tishomingo Co. (Allison); Bay St. Louis (Allison). Spring and Summer.

Geol. Survey Herb. Allison Herb.

Plantago heterophylla Nutt.

Low damp fields and pastures. Oxford; Scott Co. Spring.

Plantago pusilla Nutt. Marsh Plantain.

Found abundantly in edges of marshes growing in several inches of water. Oxford; Scott Co.; Tishomingo Co.; (Allison) Pascagoula. April-May.

Geol. Survey Herb. Allison Herb.

RUBIACEAE. Madder Family.

OLDENLANDIA L.

Oldenlandia boscii (DC.) Chapm. (*Hedyotis boscii* DC.)

Damp soil edges of ponds and ditches. Bay St. Louis. July.

Oldenlandia uniflora L. (*O. glomerata* Michx.)

Damp sandy soil. Coastal Islands (Tracy.) July.

Oldenlandia littoralis Mohr.

Muddy banks near tide level. (Mohr.) Tishomingo Co. (Allison). Sept.

HOUSTONIA L.

Houstonia coerulea L. (*Hedyotis coerulea* Hook.) Bluet.

Damp rich banks, edges of copses. Only in northern counties; Tishomingo Co.; Lowndes Co. April-May.

Geol. Survey Herb. Allison Herb.

Houstonia minor (Michx.) Britt. (*H. patens* Ell.) Southern Bluet.

Damp open pastures and waste lands. Throughout the state. Oxford; Jackson; Tishomingo Co. (Allison); Bay St. Louis (Allison). March.

Geol. Survey Herb. Allison Herb.

Houstonia rotundifolia Michx. (Oldenlandia purpurea Gray.)

Open woods and copses. Tishomingo Co. (Allison) Montrose; Hattiesburg; Fernwood; Wayne Co. April-May.

Geol. Survey Herb. Allison Herb.

Houstonia lanceolata (Poir.) Britt.

Open copses and woodlands. Oxford. May-June.

Geol. Surv. Herb.

Houstonia angustifolia Michx. (Oldenlandia angustifolia Gray.)

Dry open upland woods. Oxford. May-June.

CEPHALANTHUS. L.

Cephalanthus occidentalis L. Buttonbush. Button Willow.

Low marshy banks and pastures. Throughout the state. Oxford; Grenada; Hinds Co.; Carroll Co. July-Aug.

Geol. Surv. Herb.

MITCHELLA L.

Mitchella repens L. Partridge Berry.

Dry open shaded woods throughout the state. Lafayette Co.; Tishomingo Co.; Carroll Co.; Hinds Co.; Forrest Co.; Hancock Co. (Allison). April-June.

Geol. Survey Herb. Allison Herb.

SPERMACOCE L.

Spermacoce glabra Michx. Smooth Buttonweed.

Low wet open fields and pastures. Eastport; Oxford; Rodney (Dr. Perviance); Warren Co.; Hinds Co. Summer.

Geol. Surv. Herb.

Spermacoce parviflora (Meyer) Gray (Borveria parviflora Meyer.)

Low bottom lands in the coastal pine regions. Biloxi (Tracy). June.-Aug.

RICHARDIA L.

Richardia scabra L. (*Richardsonia scabra* St. Hilg.) Mexican Clover.

Dry sandy soil. On Tennessee River bottoms in Tishomingo County. Summer and fall.

DIODIA L.

Diodia Virginiana L. (*D. tetragona* Walt.) White Button Flower.

Low damp fields and pastures. Throughout the state. Oxford; Hinds Co. June.

Geol. Surv. Herb.

Diodia teres Walt. (*Spermacoce diodina* Michx.) Purple Button Flower.

Dry sandy or sterile soil throughout the State. Lafayette, Benton, Carroll, and Hinds Counties. Summer.

Geol. Surv. Herb.

GALIUM L. **Bedstraw, Cleavers.**

Galium Aparine L. Climbing Bedstraw.

Damp thickets and banks, climbing over objects perhaps throughout the state. Tishomingo Co.; Hinds Co. April-May.

Geol. Survey Herb. Allison Herb.

Galium pilosum Ait. Hairy Bedstraw.

Dry open woods. Tishomingo Co. (Allison); Oxford; Ripley; West Point; Lost Gap. Summer.

Geol. Survey Herb. Allison Herb.

Galium pilosum punctulosum (Michx.) Torr and Gray (*G. punctulosum* Michx.)

Dry sandy soil in the southern counties. Hinds Co.; Bay St Louis (Allison.) Summer.

Allison Herb.

Galium circaezans Michx. Wild Licorice.

Damp shaded soils. Ripley; Pontotoc; Oxford. May-July.

Geol. Surv. Herb.

Galium trifidum L. Small Bedstraw.

Wet, marshy soil. Tishomingo Co.; Hinds Co. Summer.
Allison Herb.

Galium triflorum Michx. Sweet-scented Bedstraw.

Rich shady upland woods. New Albany; Oxford; Grenada; Winona; Hinds Co.; Wilkinson Co. April-May.
Geol. Surv. Herb.

Galium tinctorium L.

Low shaded swamps. Oxford. Summer.
Geol. Surv. Herb.

Galium hispidulum Michx. (*Rubia peregrina* Walt.) Scarlet-fruited Bedstraw.

Dry shaded upland soil. Bay St. Louis (Allison); Biloxi and coastal islands (Tracy.) May-June.
Allison Herb.

VIBURNACEAE. Honeysuckle Family.**SAMBUCUS** L. Elder.**Sambucus Canadensis** L. American Elder.

Low damp stream banks and thickets. Throughout the state. Oxford; Hinds Co. May-June.

VIBURUM L.**Viburnum molle** Michx. (*V. dentatum scabrellum* T. & G.) Hairy Arrowwood.

Rich moist stream banks. Chunky. Summer.

Viburnum prunifolium L. Black Haw.

Upland open woods. Clarke Co. Spring.

Viburnum rufotomentosum Small. (*V. prunifolium ferrugineum* Small.) Southern Black Haw.

Open upland woods and thickets. Hinds Co. Tishomingo Co.; Meridian; Okolona; Satartia, on bluffs; Shubuta. April-May.

Geol. Survey Herb. Allison Herb.

Viburnum cassinoides L. (*V. nudum cassinoides* Torr & Gray.)
White Rod.

Thickets along stream banks. South Mississippi. (Hilg. Rep.) May-June.

Viburnum nudum L. (*V. nudum claytonii* Torr & Gray.) Possum Haw.

Low swampy thickets. Biloxi (Tracy.) Jackson (Dr. T. P. Bailey.) Bay St. Louis (Allison); Lost Gap. Spring.
Allison Herb.

Viburnum nitidum Ait. (*V. nudum angustifolium* Torr & Gray.)

Low wet banks of pine barrens, streams (Mohr.) Amite Co. (Allison.) May.

Allison Herb.

TRIOSTEUM L. **Fever-Root.**

Triosteum angustifolium L. (*T. minus* Michx.) Narrow-leaf Fever-Root.

Low rich shaded thickets. New Albany; Hatchie Hills west of Booneville; Oxford. May.

Geol. Surv. Herb.

SYMPHORICARPUS. **Juss.**

Symphoricarpus symphoricarpus L. *McMillan*. (*Lonicera symphoricarpus* L.) Coral Berry.

Limy wooded hillslopes. Tishomingo Co. (Allison.)

Allison Herb.

LONICERA L. **Honeysuckle.**

Lonicera sempervirens L. (*Caprifolium sempervirens* Michx.) Trumpet Honeysuckle. Coral Honeysuckle.

Rich moist banks of streams. Throughout the State. Tishomingo Co. (Allison); Lafayette Co.; Iiinds Co.; Carroll Co. April-May.

Geol. Survey Herb. Allison Herb.

Lonicera Japonica Thunb. Japanese Honeysuckle.

Run wild throughout the state, climbing in thick profusion over trees and banks. April-May.

VALERIANACEAE. Valerian Family.**VALERIANELLA** Pollic.

Valerinella chenopodifolia (Pursh.) DC. (*Fedia chenopodifolia* Pursh). Goose-foot Corn Salad.

Low damp limey clay. Jackson. Summer.

Geol. Surv. Herb

Valerianella radiata (L.) Durr. (*V. locusta radiata* L.) Lamb Salad.

Low damp soil borders of fields and pastures. Lafayette Co.; Tishomingo Co.; Lowndes Co.; Hinds Co. Montrose. April-May.

Geol. Surv. Herb. Allison Herb.

CUCURBITACEAE. Gourd Family**LAGENARIA** Seringe.

Lagenaria vulgaris (L.) Seringe (*Cucurbita lagenaria* L.) Common Gourd.

Naturalized in waste lands around dwellings. Summer.

MELOTHRIA L.

Melothria pendula L. Grape Melon.

Common on low moist shaded ground, edges of thickets and stream banks. Lafayette Co.; Hinds Co.; Copiah Co.; Forrest Co. Summer.

Geol. Surv. Herb.

SICYOS L.

Cicyos angulatus L. Bur Cucumber.

Thickets and low ground bordering streams. Oxford; Vicksburg. September.

Geol. Surv. Herb.

CAMPANULACEAE. Bluebell Family.**CAMPANULA** L.

Campanula Americana L. (*C. acuminata* Michx.) Tall Bluebell.

Rich shaded soil edges of woods and copses. Houston.
July.

Geol. Surv. Herb.

LEGOUZIA Durand. **Venus Looking Glass**

Legouzia biflora (R. & P.) Britt (Specularia biflora Gray.)
Two-flowered Venus looking glass.

Light soil in open fields and pastures Tishomingo Co. (Allison); Lafayette Co. Spring

Geol. Surv. Herb. Allison Herb.

Legouzia perfoliata (L.) Britt. (Specularia perfoliata A. DC.)
Perfoliate Venus Looking Glass.

Open soil of cultivated fields and waste places around dwellings. Tishomingo Co.; Bay St. Louis (Allison); Oxford; Starkville (Tracy); Hinds Co. May-June.

Geol. Surv. Herb. Allison Herb.

LOBELIA L. **Lobelia.**

Lobelia cardinalis L. Cardinal Flower.

Wet shady places bordering streams and swamps throughout the State. Lafayette Co.; Holmes Co.; Warren Co; Rankin Co.; Amite Co.; Scooba. Aug.-Sept.

Geol. Surv. Herb. Allison Herb.

Lobelia brevifolia Nutt. Short Leaf Lobelia.

Low wet pine barrens in the Southern Counties. Lumberton; Bay St. Louis (Allison). Sept.-Oct.

Geol. Surv. Herb. Allison Herb.

Lobelia puberula Michx. Downy Lobelia.

Damp sandy soil along borders of thickets. Oxford; Hinds Co.; Simpson Co. (Hilg. Ms.); Bay St. Louis (Allison). Aug.-Oct.

Geol. Surv. Herb. Allison Herb.

Lobelia amoena Michx. Southern Lobelia.

Low shaded swamps. Bay St. Louis (Allison). July-Sept.
Allison Herb.

Lobelia amoena glandulifera Gray. Pretty Lobelia.

Low moist open sandy soil. South Mississippi (Hilg. Rep.); Oxford. Sept.

Lobelia glandulosa Walt. Glandular Lobelia.

In swamps and low shaded creek banks. Hinds Co.; Bay St. Louis (Allison.) Aug.-Sept.

Geol. Surv. Herb. Allison Herb.

Lobelia Florida Chapm. Florida Lobelia.

Wet pine barrens (Small.) Spring and summer.

Lobelia leptostachys DC. Slender-Spiked Lobelia.

Dry open woods and copses. Oxford; Tupelo. Summer.

Geol. Surv. Herb.

Lobelia spicata Lam. (L. Claytoniana Michx.) Spiked Lobelia.

Dry sandy meadows. Jackson; Jones Co. (Allison); Bay St. Louis (Allison). June-Aug.

Allison Herb.

Lobelia inflata L. Indian Tobacco.

Dry fields and thickets. Lafayette; Hinds; Amite (Allison) Co. Summer.

Geol. Surv. Herb. Allison Herb.

Lobelia canbyi A. Gray. Canby's Lobelia.

Swamps and wet meadows. Picayune. July-Sept.

Geol. Surv. Herb.

CICHORIACEAE Chicory Family.**Cichorium intybus** L. Common Chicory.

Occasional in waste places. Tupelo. July.

Geol. Surv. Herb.

ADOPOGON Nee. Dandelion.**Adopogon Carolinianum** (Walt.) Britt. (Krigia Virginia Willd.)

Dry open sandy soil throughout the state. Tishomingo Co. (Allison); Oxford; Newton; Bay St. Louis (Allison). April May.

Geol. Surv. Herb.

Adopogon Virginicum (L.) Kuntze (Krigia dandelion Nutt.)

Dry sandy soil of open woods and pastures. Tishomingo Co. (Allison); Oxford; Montrose. April-May.

Geol. Surv. Herb. Allison Herb.

SERINEA Raf.

Serinea oppositifolia (Raf.) Kuntze (*Apogon humilis* Ell.) Little Humility.

Dry sandy soils in open fields and wastelands. Throughout the state. Oxford; Jackson; Montrose. April-May.
Geol. Surv. Herb.

HIERACIUM L. Hawkweed.

Hieracium Gronovii L. Common Hawkweed.

Light soil in dry open woods throughout the state. Tishomingo Co.; Carrollton; Oxford; Morton; Clinton (Dr. T. P. Bailey); Amite and Hancock Counties (Allison). April-May.
Geol. Surv. Herb. Allison Herb.

Hieracium Marianum Willd. Maryland Hawkweed.

Dry open woods and thickets. Jackson.
Geol. Surv. Herb.

Hieracium scabrum Michx. Rough Hawkweed

Dry open woods and clearings. Hinds Co. Summer.
Geol. Surv. Herb.

TARAXACUM Haller.

Taraxacum taraxacum (L.) Karst. (*T. officinale* Weber.) Common Dandelion.

Open pastures and wastelands everywhere. March-May.

SITILIAS Raf.

Sitilias Caroliniana (Walt.) Raf. (*Pyrrhopappus Carolinianus* DC.)

Open fields and pastures throughout the state. April-June.

LACTUCA L.

Lactuca Canadensis L. (*L. elongata* Muhl.) Wild Lettuce.

Damp rich soil, borders of fields and copses. Perhaps throughout the state. Lafayette Co.; Hinds Co. August.

Lactuca graminifolia Michx. (*L. elongata graminifolia* Chapm.) Narrow-Leaf Wild Lettuce.

Borders of fields and pastures. Bay St. Louis (Allison.)
Allison Herb.

Lactuca Floridana (L.) Gaert. (*Mulgedium Floridanum* DC.)
Blue-flowered Wild Lettuce.

Rich moist soil, borders of ditches and thickets throughout
the state. Lafayette Co.; Hinds Co.; Rankin Co.; Amite Co.
(Allison). May-June.

Allison Herb.

Lactuca villosa Jacq. (*Mulgedium acuminatum* DC.) Hairy-
veined Blue Lettuce.

Damp rich soil of shaded copses and thickets. Aug.

Lactuca scariola L. Prickley Lettuce.

Dry open banks, especially along railroad tracks. Grena-
da; Jackson Aug.-Sept.

NABALUS CASS.

Nabalus serpentaria (Pursh) Hook. (*Prenanthes serpentaria*
Pursh). Gall of Earth.

Light dry soil of open woods. (Wailles). Summer.

Nabalus altissimus (L.) Hook. (*Prenanthes altissima* L.)
Tall White Lettuce.

Rich woods and thickets. Smith and Jasper Counties
(Hilg. Ms.); Lafayette Co.; Tippah Co. August.

Geol. Surv. Herb.

Nabalus virgatus (Michx.) DC. (*Prenanthes virgata* Michx.)
Slender Snake Root.

Damp sandy soil. Lost Gap. Sept.-Oct.

Geol. Surv. Herb.

SONCHUS L. Sow Thistle.

Sonchus asper (L.) All. (*S. oleraceus asper* L.) Prickly Sow
Thistle.

Cultivated and waste ground throughout the State. Jasper
Co. (Hilg. Ms.); Lafayette Co. Summer.

Cenichus oleraceus L. Common Sow Thistle.

Occurs with the last throughout the State. Hattiesburg.
Spring

Geol. Surv. Herb.

AMBROSIACEAE. Ragweed Family.

AMBROSIA L. Ragweed.

Ambrosia bidentata Michx. Lance-leaved Ragweed.

Dry open pasture and edges of copses. Oxford. Summer.

Ambrosia trifida L. Tall Ragweed.

Rich moist soil, borders of lowland fields throughout the state. Lafayette Co.; Chickasaw Co. July-Sept.

Ambrosia artemisiaefolia L. Hogweed. Ragweed.

Edges of dry upland cultivated fields throughout the state. Oxford ; May St. Louis (Allison). July-Sept.

Allison Herb.

IVA L.

Iva imbricata Walt. Seaside Marsh Elder.

Damp low beaches along the Gulf Coast. Coastal Islands (Tracy.) Summer and Fall.

Iva frutescens L. Shrubby Marsh Elder.

Low muddy beaches and brackish marshes along the coast. Horn Island. Summer and fall.

Geol. Surv. Herb.

Iva caudata Small.

Low wet ground and swamps. (Small.) Fall.

XANTHIUM L.

Xanthium strumarium L. Cocklebur

Cultivated and low open ground. Summer.

Xanthium canadense Mill (echinatum Murr.) Common Cocklebur.

Throughout the state in cultivated ground, especially low rich fields.

CARDUACEAE. Thistle Family.**VERNONIA Schreb. Iron-weed.**

Vernonia maxima Small. Great Iron Weed.

Dry copses and borders of woods. (Mohr.) Summer.

Vernonia fasciculata Michx. Fascicled Vernonia.

Shady thickets and woods. Starkville (Tracy.) Aug.

Vernonia graminifolia (Walt.) (*V. angustifolia* Michx.) Narrow-leaf Vernonia.

Upland pine forests toward the coast. (Small.) Hurley. Aug.

Vernonia Texana (A. Gray) Small. Texas Vernonia.

Sandy soil. Meadville. Summer and fall.

Geol. Surv. Herb

STOKESIA L'Her.

Stokesia laevis (Hill) Green (*S. cyanea* L'Her.) Azure-flowered Stokesia.

Low damp pine barrens near the coast. Biloxi (Tracy); Bay St. Louis (Allison); Pass Christian; Landon; Picayune; McHenry; Lumberton. May-June.

Geol. Surv. Herb.

ELEPHANTOPUS L. Elephant's Foot.

Elephantopus Carolinianus Willd. (*E. Scaber* Walt.) Carolina Elephant's Foot.

Open dry woods. Oxford; Starkville; (Tracy); Holmes Co.; Hinds and Warren Counties; Hancock Co. (Allison). July-Aug.

Geol. Surv. Herb. Allison Herb.

Elephantopus tomentosus L. Hoary Elephant's Foot.

Dry light soil in open woods. Biloxi (Tracy); Bay St. Louis (Allison); Oxford; Amory; Hinds Co.; Jones Co. (Allison). Sept.

Geol. Surv. Herb. Allison Herb.

Elephantopus nudatus Gray. Naked-Stemmed Elephant's Foot.

Low rich shaded soil. Biloxi (Tracy); Copiah Co. Oct.
Geol. Surv. Herb.

AGERATUM L.

Ageratum conyzoides L. (*A. Mexicana* Sims). Mexican Ageratum.

Open waste grounds and fields. Oxford; Winona; Carroll Co.; Warren Co.; Adams Co.; Star. July-Aug.

EUPATORIUM L. **Thoroughwort.**

Eupatorium capillifolium (Lam.) Small. (*E. foeniculaceum* Willd.)

Low moist ground in fields and pastures. Biloxi (Tracy); Utica (Dr. T. P. Bailey). Becoming troublesome weed in pastures of the Southern Counties. Fall.

Eupatorium leptophyllum DC.

Old sandy fields and dry open woods (Mohr.) Fall.

Eupatorium purpureum L. (*E. ternifolium* Ell.) Purple Boneset.

Rich damp soil edges of woods and thickets. Ripley; Oxford; Hinds Co.; Bay St. Louis (Allison). Summer.
Geol. Surv. Herb. Allison Herb.

Eupatorium trifoliatum L. Joe Pye Weed.

Low rich moist soil, borders of fields (Small). Summer and fall.

Eupatorium leucolepis. Torr and Gray.

Low pine lands McHenry. Summer and fall.

Eupatorium album L. (*E. glandulosum* Michx.) White Flowered Boneset.

Dry sandy soil in open woods throughout the state. Oxford; Jackson; Simpson Co. (Hilg. Ms.) Summer and fall.

Eupatorium Mohrii Greene.

Damp open pine lands toward the coast. Biloxi (Tracy); Woodland (Allison.)

Eupatorium serotinum Michx.

Rich soil borders of low woods and thickets. Lafayette Co.; Winona; Jackson. October.

Geol. Surv. Herb.

Eupatorium hyssopifolium L. (*E. hyssopifolium laciniatum* Gray.)

Edges of fields and pastures. Lafayette Co.; Hinds Co. August.

Geol. Surv. Herb.

Eupatorium semiserratum DC. (*E. parviflorum* Ell.)

Low lands, edges of fields and pastures. Biloxi (Tracy); Rankin Co. (Hilg. Ms.); Covington Co. Sept.

Eupatorium altissimum L.

Dry sandy soil. Bay St. Louis (Allison). Fall.

Eupatorium tortifolium Chapm. Twisted-leaf Boneset.

Dry ridges in pine lands. Biloxi (Tracy). Summer.

Eupatorium rotundifolium L. False Hoar-hound.

Dry open low grounds throughout the state. Biloxi (Tracy); Tishomingo Co.; Winona; Lost Gap; Silvarena; Bay St. Louis (Allison.) Summer.

Geol. Surv. Herb. Allison Herb.

Eupatorium pubescens Muhl. (*E. rotundifolium pubescens* B. S. P.) Pubescent False Hoar-hound.

Damp open places (Mohr.) August.

Eupatorium perfoliatum L. Common Boneset.

Low damp thickets and edges of marshes throughout the state. Oxford; Jackson; Bay St. Louis (Allison.) Late summer.

Geol. Surv. Herb. Allison Herb.

Eupatorium ageratoides L.

Low shaded ravines. Amite Co. (Allison); Waynesboro. Summer.

Geol. Surv. Herb. Allison Herb.

Eupatorium aromaticum L. (*E. ceanothifolium* Muhl) Wild Hoar-hound.

Dry openings in the pine forests. Smith Co. (Hilg. Ms.);
Bay St. Louis (Allison). September and October.

Allison Herb.

Eupatorium incarnatum Walt. Bushy Eupatorium.

Damp edges of woods and thickets. Clinton (Dr. T. P. Bailey.) June.

Eupatorium coelestinum L. (Conoclinium coelestinum DC.)
Mist Flower.

Along ditches and damp thickets. Starkville (Tracy);
Biloxi (Tracy); Jackson; Jones Co.; Amite Co. (Allison.)

Allison Herb

OSMIA Sch. Bip.

Osmia ivaefolia (L.) Small, (Eupatorium ivaefolium L.)

Old fields and pastures. Amite Co. (Allison.) Fall.

Allison Herb

WILLUGHBAEYA Neck.

Willughbaeya scandens (L.) Kuntze, (Eupatorium scandens L.) Climbing Boneset.

Climbing over bushes in low, damp lands throughout the
state. Tupelo; Holmes Co.; Hinds Co.; Jones Co.; Coast and
Coastal Islands (Tracy.) August.

Geol. Surv. Herb.

KUHNIA L.

Kuhnia kuhnia (Gaert.) Mohr, (K. eupatoroides gracilis Torr. & Gray). Southern False Boneset.

Dry pine barrens (Mohr.) Sept.-October.

LACINARIA Hill.

Lacinaria elegans (Walt.) Kuntze, (Liatris elegans Willd.)
Handsome Blazing Star.

Dry open pine barrens. Lumberton; Picayune. August.

Geol. Surv. Herb.

Lacinaria squarrosa (L.) Hill, (Liatris squarrosa Willd.) Scaly
Blazing Star. Colic Root.

Dry light soil in open woods or fields. Oxford; Madison

(Hilg. Ms.); Brookhaven; Hattiesburg; Wiggins; Waveland
(Allison.) August-September

Geol. Surv. Herb. Allison Herb.

Lacinaria scariosa (L.) Hill, (*Liatris scariosa* Willd.) Common Blazing Star.

Dry open woods and grasslands. Lawrence Co. (Hilg. Ms.); Jackson; Heidelberg; Bay St. Louis (Allison.) August-September.

Geol. Surv. Herb. Allison Herb.

Lacinaria vittata Greene.

Woods and meadows of south Mississippi (Small). Fall.

Lacinaria spicata (L.) Kuntze (*Liatris spicata* Willd.) Spiked Button Snakeroot.

Low pine barrens of southern counties. Jackson; Collins; Lumberton; Taylorsville; Bay St. Louis (Allison.) September.

Geol. Surv. Herb. Allison Herb.

Lacinaria pilosa (Ait.) Heller (*Liatris graminifolia dubia* Gray.) Hairy Blazing Star.

Damp open sandy soil of the pine barrens. Biloxi (Traey.) September.

Lacinaria elegantula Greene.

Open pine barrens (Small). Summer.

Lacinaria elongata Green.

Low open pine lands (Small). Summer and fall.

Lacinaria gracilis Pursh. (*Liatris pauciflosculosa* Nutt.) Slender Blazing Star.

Dry open pine barrens (Hilg Ms.). September-October.

TRILISA. Cass.

Trilisa odoratissima (Walt.) Cass. (*Liatris odoratissima* Michx.) Vanilla Plant. Sweet-scented Deertongue.

Low wet pine barrens. Lincoln Co.; Lumberton; New Augusta; Taylorsville; Picayune; Coastal Islands (Traey). August.

Geol. Surv. Herb.

CARPHEPHORUS. Cass.

Carphephorus pseudo-liatris Cass.

Low damp pine barrens. McHenry; Bay St. Louis (Allison). September.

Geol. Surv. Herb. Allison Herb.

GRINDELIA Willd. **Gum Plant.****Grindelia lanceolata** Nutt.

South Mississippi (Mohr). August.

HETEROTHECA Cass.

Heterotheca subaxillaris (Lam.) Britton & Rusby. (H. Lamarekii Cass.) Seaside Heterotheca.

Loose drifting sands along the coast. Gulf Coast and Islands (Tracy); Cat Island; once noted in Adams Co., near the River. August.

Geol. Surv. Herb.

CHRYSOPSIS Nutt. **Golden Aster.**

Chrysopsis graminifolia (Michx.) Silver Leaf Golden Aster.

Light sandy soil in old fields and copses. Biloxi (Tracy); Claiborne Co.; Tishomingo Co.; Lost Gap; Bay St. Louis (Allison). August-September.

Allison Herb

Chrysopsis trichophylla Nutt. Hoary-leaf Golden Aster.

Open damp pine swamps. Biloxi (Tracy). October.

Chrysopsis scabrella Torr & Gray. Beach Golden Aster

Dry sands along the beach. Bay St. Louis (Allison); Gulfport. Fall.

Geol. Surv. Herb. Allison Herb.

Chrysopsis mariana (L.) Nutt. (*Inula mariana* L.) Maryland Golden Aster.

Dry open pine forests. Lauderdale Co.; Jones Co.; Clinton (T. P. Bailey); McHenry; Bay St. Louis (Allison); Claiborne Co.; Coastal Islands (Tracy). August-September

Geol. Surv. Herb. Allison Herb.

Chrysopsis villosa (Pursh.) Nutt. (*Amellus villosus* Pursh.)
Western Golden Aster.

Dry soil. Assigned to Mississippi by Mohr; late summer.

CHONDROPHORA Raf.

Chondrophora nudata (Michx.) Britt. (*Bigelovia nudata* DC.)
Rayless Golden Rod.

Low pine barrens near the coast. Biloxi (Tracy); Bay
St. Louis (Allison). August-October.

Allison Herb

BRINTONIA Greene.

Brintonia discoides Greene. (*Solidago discoides* Torr. & Gray.)

Borders of woods and copses. Ocean Springs (Tracy);
Bay St. Louis (Allison). September.

Allison Herb

SOLIDAGO L. Golden Rod.

Solidago petiolaris Ait. (*S. elata* Ell.) Bushy Golden Rod.

Dry open woods (Mohr.). October.

Solidago caesia L. Blue-Stem Golden Rod.

Damp rich open woods. Tishomingo Co.; Lafayette Co.;
Ripley; New Albany; Hinds Co.; Warren Co.; Amite Co.
(Allison). Summer.

Geol. Surv. Herb. Allison Herb.

Solidago caesia paniculata Gray. (*S. gracilis* Poir.) South-
ern Blue-Stem Golden Rod.

Dry cherty hills. Northeast Mississippi (Mohr.).

Solidago bicolor L. Silver Rod.

Dry open woods. Simpson Co. (Hilg Ms.) July Septem-
ber.

Solidago sempervirens L. Evergreen Golden Rod.

Littoral, bordering brackish marshes along the coast. Cat
Island. Summer and fall.

Solidago puberula Nutt. Downy Golden Rod.

Dry soil (Small). Summer and fall.

Solidago erecta Pursh. (*S. speciosa angustata* Torr. & Gray).
Erect Golden Rod.

Dry upland rocky ridges. Jasper Co. (Hilg Ms.) July-August.

Solidago odora Ait. (*S. retrorsa* Michx.) Sweet-scented Golden Rod.

Light dry soil in open woods. Tishomingo Co.; Amory; Houston; Jackson; Lost Gap; Bay St. Louis (Allison). July-August.

Geol. Surv. Herb. Allison Herb.

Solidago tortifolia Ell. (*S. retrorsa* Pursh.) Twisted-leaf Golden Rod.

Dry sandy or clay soil. Scooba. Fall.

Geol. Surv. Herb.

Solidago fistulosa Mill. (*S. villosa* Ell.) Villous Golden Rod.

Borders of woods and swamps. Bay St. Louis (Allison). Fall.

Allison Herb

Solidago arguta Ait. (*S. Muhlenbergii* Torr. & Gray). Short Serrate Golden Rod.

Northeast counties, in grassy open ground (Hilg. Ms.). Summer.

Solidago serotina Ait. (*S. gigantia* Willd.) Late Golden Rod.

Damp edges of woods. Lafayette Co. September-October.

Geol. Surv. Herb.

Solidago rugosa Mill. (*S. altissima* Ait.) High Golden Rod.

Damp low ground, bordering thickets and fields. Tishomingo Co.; Oxford; Jackson; Amite Co. (Allison); Biloxi (Tracy). September.

Geol. Surv. Herb. Allison Herb.

Solidago Bootii Hook. Boot's Golden Rod.

Dry open woods. Horn Lake; Mississippi City (Tracy); Bay St. Louis (Allison). August-October.

Geol. Surv. Herb. Allison Herb.

Solidago brachyphylla Chapm. (*S. Bootii brachyphylla* Gray).
Dry open pine barrens (Mohr). October.

Solidago Canadensis L. (*S. altissima* L.) Common Golden Rod,
A common weed along ditches and fence rows of old fields
throughout the state. Fulton; Oxford; Winona; Hinds Co.;
Smith Co. (Hilg. Ms.); Amite Co. (Allison). September-October.

Allison Herb

Solidago Canadensis scabriuscula Porter.
Smith Co. (Hilg. Ms.) October.

Solidago nemoralis Ait.

Dry open woods and fields. Lafayette Co. September-October.

Geol. Surv. Herb.

CHRYSOMA Nutt.

Chrysoma pauciflosculosa Greene. (*Solidago pauciflosculosa*
Michx.) New-flowered Golden Rod.

Loose sands along the coast. Littoral belt (Mohr); Coastal
Islands (Tracy). October.

EUTHAMIA Nutt.

Euthamia Caroliniana (L.) Greene. (*Solidago tenuifolia*
Pursh). Narrow-leaf Euthamia.

Lawrence Co. (Hilg. Rep.); Biloxi (Tracy); McHenry; Bay
St. Louis (Allison). September-October.

Geol. Surv. Herb. Allison Herb.

Euthamia graminifolia (L.) Nutt. (*Solidago lanciolata* L.)
Lance-leaf Euthamia.

Damp soil, borders of fields and open places. Pi-rayune;
Rankin. Summer and fall.

Geol. Surv. Herb.

Euthamia leptcephala (Torr. & Gray) Greene. (*Solidago lep-*
tocephala T. & G.) Western Bushy Golden Rod.

Moist sandy soil. Biloxi (Tracy). August-October.

SERICOCARPUS Ness. **White-Topped Aster**

Sericocarpus linifolius (L.) B. S. P. (S. solidagineus Nees.)
Narrow-leaf White-topped Aster.

Low damp open woods. Philadelphia. Summer.
Geol. Surv. Herb.

Sericocarpus asteroides (L.) B. S. P. (S. conyzoides Nees.)
Large-flowered White-topped Aster.

Dry rocky, gravelly or sandy soil. Canton. August.
Geol. Surv. Herb.

Sericocarpus bifoliatus (Walt.) Porter. (S. tortifolius Nees.)
Mouse Ears.

Dry sandy pine barrens. Bay St. Louis (Allison). July-
August.

Allison Herb

BOLTONIA L'Her.

Boltonia diffusa Ell. Spreading Boltonia.

Damp rich soil of low pastures and fields. Simpson Co.
(Hilg. Rep.); Biloxi (Tracy); Jones Co.; Hancock Co.; (Alli-
son; Jackson; Oxford. August-October.

Geol. Surv. Herb. Allison Herb.

ASTER L.

Aster paludosus Ait. Swamp Aster.

Nearly always found on dry sandy uplands; rarely seen on
low wet soil. Lafayette Co.; Hinds Co.; Simpson Co. (Hilg.
Rep.); Tippah Co.; Tishomingo Co.; Winona; Jackson; Clai-
borne Co.; Jones Co. (Allison); Bay St. Louis (Allison).
August-October.

Geol. Surv. Herb. Allison Herb.

Aster sagittifolius dissitiflorus Burgess. Arrow-leaf Aster.

Dry soil in open woods (Small.) Summer and fall.

Aster concolor L. Southern Silky Aster.

Dry sandy soil of open woods and fields. Tishomingo Co.;
Lafayette Co.; Hinds Co.; Jasper Co. (Hilg. Rep.); Bay St.
Louis (Allison). October-November.

Geol. Surv. Herb. Allison Herb.

Aster adnatus Nutt. Small Leaf Aster.

Upland pine barrens. Covington Co.; Jones Co. (Allison);
Smith Co.; Marion Co. October-November.

Geol. Surv. Herb. Allison Herb.

Aster Novae-Angliae L. New England Aster.

Rich damp soil, edges of thickets and fields. Jackson.
October.

Geol. Surv. Herb.

Aster patens Ait. (*A. amplexicaulis* Michx.) Spreading Aster.

Dry soil of open woods and old fields. Lafayette Co.;
Smith Co. (Hilg. Rep.); Tishomingo Co.; Ripley; Jackson;
Claiborne Co.; Jones Co. (Allison). August-September.

Geol. Surv. Herb. Allison Herb.

Aster patens tenuicaulis Mohr. Slender spreading Aster.

Dry open soil. This variety is perhaps the prevailing form
throughout the state.

Aster patentissimus Lindl.

Dry soil (Small). Summer and fall.

Aster camptosorus Small. Walking-leaf Aster.

Probably found once before flowering on Pontotoe Ridge
near New Albany. Fall.

Geol. Surv. Herb.

Aster azureus Lindl. Sky-blue Aster.

Dry open woods. Smith Co. (Hilg. Ms.); Lafayette Co.;
Claiborne Co.; Jackson. October.

Geol. Surv. Herb.

Aster undulatus L. Wavy-leaf Aster.

Dry open woods and thickets. Smith Co. (Hilg. Ms.);
Clinton (Dr. T. P. Bailey); Jackson. September-October.

Geol. Surv. Herb.

Aster cordifolius L. Heart-leaf Aster.

Dry open woods and thickets. Smith Co. (Hilg. Ms.);
Beauvoir (Tracy). September-October.

Aster purpuratus Nees. (*A. virgatus* Ell.) Wand-like Aster.

Shady banks of pine barrens streams. Jackson (Dr. T. P. Bailey). Fall.

Aster laevis L. Smooth Aster.

Dry open upland woods. Jasper Co. (Hilg. Ms.)

Aster ericoides L. Heath-like Aster.

Light dry soil, borders of fields and open woods (Mohr).
October-November.

Aster ericoides pilosus (Willd.) Porter

with the last (Small). Fall.

Aster proteus Burgess.

Dry soil near the coast (Small) Summer and fall.

Aster multiflorus Ait. Many-flowered Aster.

Dry fields and prairies (Mohr). October.

Aster dumosus L. Bushy Aster.

Dry shaded sandy soil. Smith Co. (Hilg. Ms.); Jackson.
Fall.

Geol. Surv. Herb.

Aster lateriflorus (L.) Britton. (*A. diffusus* Ait.) Diffuse Aster.

Moist banks. Smith Co. (Hilg. Ms.); Amite Co. (Allison).
August-October.

Allison Herb

Aster Tradescanti L. Tradescant's Aster.

Open fields and swamps. Clinton (Dr. T. P. Bailey). Summer and fall.

Aster salicifolius Lam. (*A. carneus* Torr. & Gray). Willow-leaf Aster.

Damp grassy banks of streams; prairies (Hilg. Ms.); Jasper Co. (Hilg. Ms.). October.

Aster paniculatus Lam. Panicle Aster.

Low open ground. Oxford. Fall.

Aster tenuifolius L. (*A. flexuosus* Nutt.) Salt Marsh Aster.

Brackish and salt marshes along the coast. Biloxi (Tracy);
Cat Island. September-October.

Aster exilis Ell. (*A. divaricatus* Torr. & Gray). Seaside Aster.

Borders of ditches and marshes along the coast. Reported at Clinton by Dr. T. P. Bailey. Possible error in diagnosis).
October

ERIGERON L. **Fleabane.**

Erigeron annuus (L.) Pers. (*Aster annuus* L.) Sweet Scabious.

Open fields and waste places throughout the state. Summer.

Erigeron ramosus (Walt.) B. S. P. (*E. strigosus* Muhl.). Daisy Fleabane.

Dry open old fields throughout the state. Oxford; Hinds Co.; Yalobusha (Hilg. Ms.); Amite Co.; Bay St. Louis (Allison). May-July.

Geol. Surv. Herb. Allison Herb.

Erigeron pulchellus Michx. (*E. bellidifolius* Muhl.) Lilac Fleabane.

Open woods and edges of fields. Oxford; Tishomingo Co. (Allison); Jackson April-May.

Allison Herb.

Erigeron Philadelphicus L. Philadelphia Daisy Fleabane.

Moist rich borders of fields and woods. Oxford; Jackson. April-May.

Erigeron repens A. Gray. Creeping Fleabane.

Sandy coasts. Coastal Islands (Tracy). Spring and Summer.

Erigeron vernus (L.) Torr. & Gray. (*E. nudicaule* Michx.) Vernal Fleabane.

Low wet pine barrens near the coast. Gulfport; Landon; Picayune; Bay St. Louis (Allison). March-May.

Geol. Surv. Herb. Allison Herb.

LEPTILON Raf.

Leptilon Canadense (L.) Britton. (*Erigeron Canadensis* L.) Canada Fleabane.

A common weed in old fields throughout the state. Oxford: Hinds Co.; Coastal Islands (Tracy); Bay St. Louis (Allison). July-October.

Geol. Surv. Herb. Allison Herb.

Leptilon divaricatum (Michx.) Raf. (*Erigeron divaricatus* Michx.)

Pastures and waste places. Carroll Co. (Hilg. Ms.). Summer.

Leptilon linifolium (Willd.) Small. (*Erigeron linifolius* Willd.) Narrow-leaf Fleabane.

Old fields and waste places. Cat Island (Tracy). Spring and fall.

IONACTIS Greene.

Ionactis linariifolius (L.) Greene. (*Aster linariifolius* L.) Pine Starwort.

Dry sandy open woods. Tishomingo Co.; Lafayette Co.; Claiborne Co.; Jones Co. (Allison); Biloxi (Tracy). October-November.

Geol. Surv. Herb. Allison Herb.

BACCHARIS L.

Baccharis halimifolia Michx. Groundsel Tree.

Fresh and salt marshes along the coast. Cat Island.-October.

PLUCHEA Cass.

Pluchea camphorata (L.) DC. (*Erigeron camphoratum* L.) Salt Marsh Fleabane.

Littoral zone, in brackish and salt marshes. Biloxi (Tracy); Bay St. Louis (Allison); Horn Island. October.

Geol. Surv. Herb. Allison Herb.

Pluchea petiata Cass. (*P. foetida* DC.) Strong-scented Pluchea.

Low damp streams and ditch banks (Mohr). Fall

Pluchea foetida (L.) B. S. P. (*P. bifrons* DC.). Viscid Pluchea.

Borders of pine barrens ponds and ditches. Smith Co. (Hilg. Ms.); Biloxi and Coastal Islands (Tracy); Bay St. Louis (Allison). August-October.

Allison Herb.

ANTENNARIA Gaert.

Antennaria plantaginifolia (L.) Richards. (*Gnaphalium plantaginifolium* L.) Plantain-leaf Cudweed.

Dry thin soil in open woods. Tishomingo Co. (Allison); Oxford; Morton. March-April.

Geol. Surv. Herb.

GNAPHALIUM L. **Everlasting.**

Gnaphalium Helleri Britton. Heller's Everlasting.

Open woods and copses. Jones Co. and Amite Co. (Allison) September.

Allison Herb.

Gnaphalium obtusifolium L. (*G. polycephalum* Michx.) Sweet Everlasting.

Dry soil of old fields and borders of woods. Oxford; Hinds Co.; Jasper Co. (Hilg. Ms.). July-October.

Geol. Surv. Herb.

Gnaphalium purpureum L. Purple Cudweed.

Open old fields and waste lands throughout the state. April-June.

Gnaphalium spathulatum Lam.

Open waste grounds and pastures. Bay St. Louis (Allison). Summer.

Allison Herb.

Gnaphalium undulatum Walt.

Sandy pine lands (Small). Spring and summer.

POLYMNIA L.

Polymnia uvedalia L. Bear Foot.

Low rich shaded borders of woods and copses. Itawamba Co.; Tippah Co.; Union Co.; Pontotoc Co.; Chickasaw Co.; Hinds Co. April-May.

Geol. Surv. Herb.

SILPHIUM L.

Silphium laciniatum L. (S. gummiferum Ell.) Compass Plant.

Dry open prairies. Tupelo; Scooba; seen once near Oxford. Summer.

Silphium terebinthinaceum Jacq. Prairie Dock.

Grassy openings and prairies. Tishomingo Co.; Tupelo; Noxubee Co. August.

Geol. Surv. Herb.

Silphium perfoliatum L. Cup Plant.

Rich moist soil on stream banks. Collins. Summer.

Geol. Surv. Herb.

Silphium scaberrimum Ell. Seabrous Rosin Weed.

Prairies and edges of fields. Oxford; Lost Gap; Jackson. July.

Geol. Surv. Herb.

Silphium asperimum Hook. (S. radula Nutt.) Rough Rosin Weed.

Dry open pastures and borders of fields. Lumberton. Summer.

Silphium integrifolium Michx. Entire-leaved Rosin Weed.

Open prairies and upland fields. Houston; West Point; Durant. Summer and fall.

Geol. Surv. Herb.

Silphium asteriscus L. Common Rosin Weed.

Dry open sandy or rocky soil. Meridian; Batesville. Summer and fall.

Silphium glabrum Eggert. Smooth Rosin Weed.

Dry open pastures and fields. Rocky Ford; West Point; Heidelberg. Summer and fall.

Geol. Surv. Herb.

Silphium gracile A. Gray. Slender Rosin Weed.

Prairies and dry open fields and pastures. Amory. Summer.

Geol. Surv. Herb.

HELIOPSIS. Pers.

Heliopsis helianthoides (L.) B. S. P. (H. laevis Pers.) Sunflower-like Oxeye.

Dry open woods. Yazoo City. July.

Geol. Surv. Herb.

ECLIPTA L.

Eclipta alba (L.) Hassk. (Verbesina alba L.) White-flowered Eclipta

In moist soil along streams and in waste places. Oxford; Jackson; Claiborne Co. June-September.

Geol. Surv. Herb.

MELANTHERA Rohr.

Melanthera deltoidea Michx.

Rich moist sandy soil. Waynesboro; Chunky; Rosetta. Summer.

Geol. Surv. Herb.

SPILANTHES Jacq.

Spilanthes repens (Walt.) Michx. (Anthemis repens Walt.) Creeping Spilanthes.

Low damp pastures and fields. Vicksburg August-October.

Geol. Surv. Herb.

RUDBECKIA L.

Rudbeckia triloba L. Three-lobed Cone Flower.

Thickets and fence rows, often in prairies. Jackson; Batesville. August-September.

Geol. Surv. Herb.

Rudbeckia hirta L. Black-eyed Susan.

Dry upland pastures and old fields. Oxford; Pontotoc; West Point; Jackson; Bay St. Louis (Allison.) Summer and fall.

Geol. Surv. Herb. Allison Herb.

Rudbeckia longipes Moore. Hispid Cone Flower.

Fields and open woods. Vicksburg. Summer and fall.

Geol. Surv. Herb.

Rudbeckia laciniata L. Prairie Cone Flower.

Rich moist prairie soils. Jackson; Tupelo; Scooba. August-September.

Geol. Surv. Herb.

Rudbeckia amplexicaulis Vahl. (*Dracopis amplexicaulis* Cass.)
Clasping-leaved Cone Flower.

Low damp fields and pastures. Grenada; Tehula; Vicksburg; Rodney (Dr. Perviance); Bay St. Louis (Allison); common along Illinois Central tracks from Jackson to Durant. Summer.

Geol. Surv. Herb. Allison Herb.

Rudbeckia fulgida Ait. (*R. discolor* Ell.) Golden Cone Flower.
Dry open woods. Vicksburg. Summer.

Geol. Surv. Herb.

Rudbeckia subtomentosus Pursh. Sweet Cone Flower.

Prairies; open ground along streams. Horn Lake. July-September

Geol. Surv. Herb.

BRAUNERIA Neck.

Brauneria purpurea (L.) Britton. (*Echinacea purpurea* Moench.) Purple Hedge Hog Flower.

Dry open woods and prairies. Oxford; Jackson; Brookhaven. Summer.

Geol. Surv. Herb.

TETRAGONOTHECA L.

Tetragonotheca helianthoides L. False Sunflower.

Dry sandy soil of southern pine regions. Bay St. Louis (Allison.)

Allison Herb.

BORRICHIA Adans.

Borrichia frutescens (L.) DC. (*Bupthalmum frutescens* L.)
Sea-Oxeye.

Salt marshes along the coast. Biloxi; Gulfport; Bay St.

Louis (Allison): marshy borders of Cat Island. August-October.

Geol. Surv. Herb.

HELIANTHUS L. Sunflower.

Helianthus angustifolius L. Narrow-leaf Sunflower.

Very common in edges of lowland fields and waste lands. Ripley; Lafayette Co.; Panola Co.; Carroll Co.; Grenada; Winona; Hinds Co.; Warren Co.; Jones Co.; Tylertown; Ocean Springs (Tracy). September-October.

Geol. Surv. Herb. Allison Herb.

Helianthus heterophyllus Nutt. Naked-stemmed Sunflower.

Low damp pine barrens. Biloxi; Bay St. Louis (Allison). October-November.

Geol. Surv. Herb.

Helianthus laetiflorus Pers. Showy Sunflower.

On dry prairies and pine barrens. Jackson; Jones Co. (Allison). August-September.

Geol. Surv. Herb.

Helianthus divaricatus L. (*H. truncatus* Schwein.) Woodland Sunflower.

Dry open woods. Oxford; Lost Gap. July-August.

Geol. Surv. Herb.

Helianthus giganteus L. Giant Sun-flower.

Along ditches and creek banks in low open ground. Jackson; Bogue Chitto bottoms near Brookhaven. Forest; Grenada Co. September-October.

Geol. Surv. Herb.

Helianthus hirsutus stenophyllus T. & G.

Dry open woods in the southern pine region (Mohr.) August-September.

Helianthus strumosus L. Pale-leaved Wood Sunflower.

Dry open woods. Jackson; Brookhaven. July-August.

Geol. Surv. Herb.

Helianthus glaucus Small. Southern Smooth Sunflower.

Dry sandy open woods. Oxford August-September.

VERBESINA L.

Verbesina occidentalis (L.) Walt. (*Siegesbeckia occidentalis* L.) Wayside Crownbeard.

Low damp borders of fields and thickets. Southern counties (Hilg. Rep.). September.

Verbesina Virginica L. White Crownbeard

Rich soil in open woods. Bay St. Louis (Allison). Sept.
Geol. Surv. Herb. Allison Herb.

ACTINOMERIS Nutt.

Actinomeris squarrosa Nutt. (*Verbesina alternifolia* (L.) Benth.) Crownbeard.

Rich moist soil, borders of fields. Oxford; Ripley; West Point; Simpson Co. (Hilg. Ms.) Summer.

Allison Herb.

Actinomeris paniculata (Walt.) Small.

Rich damp shaded soil edges of woods and creek banks. Tishominga Co.; Claiborne Co.; Amite Co. (Allison) September.

Geol. Surv. Herb. Allison Herb.

COREOPSIS L.

Coreopsis gladiata Walt. Smooth Coreopsis.

Low damp pine barrens (Mohr.) September-October.

Coreopsis angustifolia Ait. Narrow-leaf Coreopsis.

Low flat pine barrens. Bay St. Louis (Allison). September-October.

Allison Herb.

Coreopsis tinctoria Nutt. Garden Coreopsis.

Old fields and waste places; escaped from cultivation. Oxford. May.

Coreopsis Drummondii (D. Don) Torr & Gray; (*Calliopsis Drummondii* D. Don). Drummond's Coreopsis.

Grassy glades on shore of Mississippi Sound. Pascagoula (Mohr.) Summer.

Coreopsis grandiflora Hogg. Great-flowered Coreopsis.

Dry light soil. Oxford; Jackson (Dr. T. P. Bailey). June-August.

Coreopsis lanceolata L. Lance-leaf Coreopsis.

Dry light soil in open woods and old fields. Oxford; Grenada; Jackson; Brookhaven; Landon; Bay St. Louis (Allison). May.

Geol. Surv. Herb. Allison Herb.

Coreopsis crassifolia Ait. (*C. lanceolata villosa* Michx.) Hairy Coreopsis.

Dry open pine forests. Jackson (Dr. T. P. Bailey). June.

Coreopsis Leavenworthii Torr. & Gray.

Moist pine lands. Lucedale; Hurley. Summer.

Geol. Surv. Herb.

Coreopsis pubescens Ell. Star Tickseed.

Moist rich soil, banks of streams. Brookhaven. July.

Geol. Surv. Herb.

Coreopsis auriculata L. Meadow Coreopsis.

Moist open woods. Tishomingo Co.; Jackson; Jones Co. (Allison). May.

Geol. Surv. Herb. Allison Herb.

Coreopsis major Walt. (*C. senifolia* Michx.) Wood Coreopsis.

Dry open sandy upland woods. Tishomingo Co.; Benton Co.; Newton Co.; Ripley; Hattiesburg. July-August.

Coreopsis cardaminefolia (DC.) T. & G. (*Calliopsis cardaminefolia* DC.) Cross-leaved Tickseed.

Moist open soil. Biloxi. May-September.

Geol. Surv. Herb.

Coreopsis tripteris L. Tall Coreopsis.

Damp rich soil in edges of woods and thickets. Oxford; Itawamba Co.; Ripley; Clinton (Dr. T. P. Bailey); Lost Gap. July-October.

Geol. Surv. Herb.

BIDENS L. Beggar Ticks. Bur Marigold.

Bidens frondosa L. Stick Tight. Common Beggar Tick.

Low rich soils; edges of fields and thickets. Oxford; Carroll Co.; Starkville (Tracy); Jackson (Dr. T. P. Bailey). Summer.

Geol. Surv. Herb.

Bidens bipennata L. Spanish Needles.

Low rich soil; borders of fields and waste places. Lafayette Co.; Carroll Co. September-October.

Bidens aristosa nutica. (A. Gray) Weigand.

Swamps (Small). Summer and fall.

Bidens coronata (L.) Fisch. (*Coreopsis aurea* Ait.) Golden Flowered Coreopsis.

Moist rich soil in pine regions. Jackson (Dr. T. P. Bailey); Bay St. Louis (Allison); Gulfport. September-October.

Geol. Surv. Herb. Allison Herb.

Bidens trichosperma (Michx.) Britt. (*Coreopsis trichosperma* Michx.)

Swamps and wet meadows. Oxford; Picayune. August-October.

Geol. Surv. Herb.

ACTINOSPERMUM ELL.

Actinospermum uniflorum (Nutt.) Barnh. (*Baldwinia uniflora* Nutt.) One flowered Baldwinia.

Open damp pine barrens near the coast. McHenry; Picayune; Landon; Gulfport; Biloxi (Tracy); Ocean Springs; Woodland. August.

MARSHALLIA Schreb

Marshallia graminifolia (Walt.) Small; (*Marshallia angustifolia* Pursh.) Narrow-leaf Marshallia.

Low wet pine barrens. Picayune; Jackson Co. August-September.

Marshallia trinervia (Walt.) Porter; (*Marshallia latifolia* Pursh.) Broad Leaf Marshallia.

Light sandy soil, edges of ponds and ditches. Iuka; Leakesville. Spring and summer.

Geol. Surv. Herb.

HELENIUM L.

Helenium tenuifolium Nutt. Bitter Weed.

A troublesome weed in pastures and waste places. Oxford; Hinds Co.; Rankin Co.; Grenada Co.; Jefferson Co.; Bay St. Louis (Allison); Coastal Islands (Tracy). Summer and fall.

Geol. Surv. Herb. Allison Herb.

Helenium nudiflorum Nutt. (Leptopoda brachypoda T. & G.)

Low Sneezeweed.

Dry open soil, pastures and waste places. Oxford; Grenada; Bay St. Louis (Allison.) June-July.

Geol. Surv. Herb. Allison Herb.

Helenium autumnale L. Common Sneezeweed.

Damp pastures and borders of ditches. Jackson; Rankin Co.; Jones Co. (Allison); Tippah Co. - August-September.

Geol. Surv. Herb. Allison Herb.

Helenium vernale Walt. (Leptopoda puberula McBride) Vernal Sneezeweed.

Low banks along pine barren streams (Mohr.) Spring.

Helenium brevifolium (Nutt.) Gray, (Leptopoda brevifolia Nutt.) Short Leaf Helenium.

Wet sandy soil, edges of woods and thickets (Mohr.) Spring.

ACHILLEA L. Yarrow.

Achillea millefolium L. Common Yarrow.

Open waste ground throughout the state. Summer and fall.

Geol. Surv. Herb.

ANTHEMIS L.

Anthemis cotula L. (Maruta cotula DC.) May Weed. Dog Fennel.

An offensive weed in waste lands around dwellings. Lafayette Co.; Hinds Co. April-June.

Geol. Surv. Herb.

CHRYSANTHEMUM L.

Chrysanthemum leucanthemum L. (*Leucanthemum vulgare* Lam.) Oxeye Daisy.

Pastures and open waste lands. Not very common anywhere. Oxford. May-July.

ERECHTITES Raf.

Erechtites hieracifolia (L.) Raf. (*Senecio hieracifolius* L.) Fire Weed.

In woodlands and thickets, common after fires. Bay St. Louis (Allison); Coastal Islands (Tracy.) Summer.

Allison Herb.

SENECIO L. Groundsel. Ragwort.

Senecio obovatus Nutt. (*S. aureus obovatus* Torr. & Gray) Ovate Leaf Ragwort.

Dry open upland woods. Tishomingo Co. (Allison). May.

Allison Herb.

Senecio lobatus Pers. (*S. lyratus* Michx.) Butter Weed. Yellow top.

Low rich freshly cleared fields throughout the State. Tishomingo Co.; Lafayette Co.; Hinds Co. April-May.

Geol. Surv. Herb. Allison Herb.

Senecio Smallii Britt. (*S. aureus angustifolius* Britt.) Small's Groundsel.

Dry pastures, old fields and open woods (Small.) Spring.

MESADENIA Raf. Indian Plantain.

Mesadenia atriplicifolia (L.) Raf. (*Cacalia atriplicifolia* L.) Pale Indian Plantain.

Rich moist woodlands and thickets. Ackerman; Hatchie Hills of Tippah Co.; Fulton. June-July.

Geol. Surv. Herb.

Mesadenia ovata (Walt.) Raf. (*Cacalia ovata* Walt.) Ovate Leaf Indian Plantain.

Low rich soil of thickets and open woods; prairies (Hilg. Ms.) Bay St. Louis (Allison); Booneville; Tylertown; Meadville; Picayune. Summer and fall.

Geol. Surv. Herb. Allison Herb.

Mesdenia lanceolata (Nutt.) Raf. (*Cacalia lanceolata* Nutt.) Lance Leaf Indian Plantain.

Wet banks of pine barrens streams. Lyman. August-September.

Geol. Surv. Herb.

Mesadenia tuberosa (Nutt.) Britt. (*Cacalia tuberosa* Nutt.) Tuberosus Indian Plantain. Indian Potato.

Low prairies and damp meadows. Tishomingo Co.; Lafayette Co.; Carroll Co. (Hilg. Rep.) Summer.

ARCTIUM L.

Arctium minus Schk. (*Lappa minor* DC.) Smaller Burdock. Open waste lands. Oxford. July-August.

CARDUUS L. Thistle.

Caruus spinosissimus Walt. (*Cnicus horridulus* Pursh.) Yellow Thistle.

Low moist sandy soil. Gulfport (Dr. T. P. Bailey). April.

Carduus Virginianus L. (*Cnicus Virginianus* Pursh.) Virginia Thistle.

Dry open upland woods. Jackson; Gulfport; Oxford; Amite Co. (Allison); Bay St. Louis (Allison). August-October.

Geol. Surv. Herb.

Carduus altissimus L. (*Cnicus altissimus* Willd.) Tall Thistle.

Moist rich soil in fields and thickets. Amite Co. (Allison). September-October.

Allison Herb.

Carduus discolor (Muhl.) Nutt. (*Cnicus altissimus discolor* A. Gray). Field Thistle.

In fields, pastures and along roadsides. Warren Co. Summer and fall.

Geol. Surv. Herb.

Carduus glaber Nutt. (*Cnicus glaber* Ell.) Smooth Thistle.

Dry pine woods. Littoral region (Mohr.); Coastal Islands (Tracy.) Spring and summer.

THYRSANTHEMA Neck.

Thyrsanthema semisflosculare (Walt.) Kuntze. (*Chaptalia tomentosa* Vent.) Vernal Chaptalia.

Low wet pine barrens. Wayne Co.; Hattiesburg; Wiggins; Picayune; Back Bay at Biloxi; Bay St. Louis (Allison). February-March.

Geol. Surv. Herb. Allison Herb.

ADDENDA:

The following should be added to their respective groups in the List:

- Pellaea atropurpurea* (L.) Link. Cliff Brake.
 Crevice plant in rock ledges of Tishomingo County.
- Trichomanes radicans* Sw. Alabama Bristle Fern.
 Dripping sandstone rocks of Cave Spring, near Mingo Post Office, Tishomingo County.
- Andropogon ternarius* Michx.
 Dry open grounds. Oxford. Sept.-Oct
- Sorghastrum nutans* (L.) Nash.
 Dry open soil. Oxford. Late autumn and fall.
- Paspalum longepedunculatum* Le Conte.
 Sandy soil. Horn island.
 A. & M. College Herb.
- Aristida palustris* (Chapm.) Vasey.
 Wet sandy swamps. Pascagoula (Tracy); Oxford Late summer and fall.
- Spartina stricta maritima* (Walt.) Scribn. Salt marsh Grass.
 Salt marshes; Coast and Coastal Islands (Tracy.) Summer and fall.
- Eragrostis cilianensis* (All.) Link.
 Oxford. July.
- Eragrostis nitida* (Ell.) Chapm. Glossy Eragrostis.
 Light sandy soil. Starkville; Columbus
 A. & M. College Herb.
- Festuca sciurea* Nutt.
 Dry soil. Starkville (Tracy).
- Hordeum pusillum* Nutt. Dwarf Barley.
 Waste places; roadside (Mohr.) Summer.
- Cyperus ovularis* (Michx) Torr. Round-Headed Cyperus.
 Damp open ground. Yalobusha Co. (Hilg. Ms.); Coast (Tracy). Summer
- Stenophyllus stenophyllus* (Ell.) Britton. Tufted Stenophyllus.
 Dry sandy soil, near the Coast. Autumn.
- Nymphaea advena* Soland. Yellow Pond Lily.
 Slow-moving streams, and ponds. Lampton; Tylertown; Brookhaven. Summer.
- Ranunculus muricatus* L. Prickly-Fruited Buttercup.
 Along ditches and creeks. Jackson. April - May.
- Chamaecrista littoralis* Pollard. Seaside Chamaecrista.
 Sandy soil near the coast (Small).
- Kuhnistera gracilis* (Nutt.) Kuntze. Slender Prairie Clover.
 Grassy open pine barrens. Biloxi (Tracy); McHenry. Fall.
- Canavalia obtusifolia* (Lam.) DC.
 Sandy soil. Coastal Islands (Tracy).
- Hibiscus lasiocarpus* Cav.
 Swampy soil. Greenwood. Summer and fall.
- Houstonia rotundifolia* Michx. Round-Leaf Houstonia.
 Dry sandy soil. Hattiesburg; Bay St. Louis (Allison); Coastal Islands (Tracy); Biloxi. March - April.
- Adopogon dandelion* (L.) Kuntze. Dwarf Dandelion.
 Dry open sandy soil. Tishomingo Co. ((Allison); Oxford; Jackson. Spring.
- Helianthus mollis* Lam.
 Dry soil. Grenada.
- Actinospermum angustifolium* (Pers.) T. & G.
 Sandy coasts; Coastal Islands (Tracy). Summer.

NAMES OF PLACES MENTIONED IN THE TEXT

Ackerman	Choctaw Co.	McHenry	Harrison Co.
Amory	Monroe Co.	Meadville	Franklin Co.
Artesia	Lowndes Co.	Mendenhall	Simpson Co.
Avondale		Michigan City	Benton Co.
Batesville	Panola Co.	Mississippi City	Harrison Co.
Bayou Graveline		Monticella	Lawrence Co.
Bay St. Louis	Hancock Co.	Montrose	Jasper Co.
Belzoni	Humphreys Co.	Morton	Scott Co.
Biloxi	Harrison Co.	Moss Point	Jackson Co.
Black Hawk	Carroll Co.	Natchez	Adams Co.
Booneville	Prentiss Co.	Newton	Newton Co.
Brookhaven	Lincoln Co.	New Albany	Unnion Co.
Canton	Madison Co.	New Augusta	Perry Co.
Carrollton	Carroll Co.	Nugent	Harrison Co.
Charleston	Tallahatchie Co.	Ocean Springs	Jackson Co.
Chunkey	Newton Co.	Okolona	Chickasaw Co.
Clinton	Hinds Co.	Oxford	Lafayette Co.
Collins	Covington Co.	Pascagoula	Jackson Co.
Columbia	Marion Co.	Pass Christian	Harrison Co.
Columbus	Lauderdale Co.	Philadelphia	Neshoba Co.
Crystal Springs	Copiah Co.	Picayune	Pearl River Co.
Decatur	Newton Co.	Pontotoc	Pontotoc Co.
Dekalb	Kemper Co.	Poplarville	Pearl River Co.
Durant	Holmes Co.	Port Gibson	Claiborne Co.
Eastport	Tishomingo Co.	Potts Camp	Marshall Co.
Enterprise	Clarke Co.	Prentiss	Jefferson Davis Co.
Fentress	Choctaw Co.	Ripley	Tippah Co.
Fernwood	Pike Co.	Roberts	Newton Co.
Fontanbleau	Jackson Co.	Rockport (Old)	Holmes Co.
Fulton	Itawamba Co.	Rodney	Jefferson Co.
Gloster	Amite Co.	Rosetta	Wilkinson Co.
Grenada	Grenada Co.	Roxey	Franklin Co.
Greenwood	Leflore Co.	Saltillo	Lee Co.
Gulfport	Harrison Co.	Sartartia	Yazoo Co.
Hatchie Hills	Prentiss Co.	Scooba	Kemper Co.
Hattiesburg	Forrest Co.	Sessums	Oktibbeha Co.
Haynes Bluff	Warren Co.	Shubuta	Clarke Co.
Heidelberg	Jasper Co.	Silvarena	Smith Co.
Holcomb	Grenada Co.	Star	Rankin Co.
Holly Springs	Marshall Co.	Starkville	Oktibbeha Co.
Horn Lake	DeSoto Co.	State Line	Wayne Co.
Houston	Chickasaw Co.	Taylor	Lafayette Co.
Howell Spring	Lafayette Co.	Taylorville	Smith Co.
Hurley	Jackson Co.	Tchula	Holmes Co.
Iuka	Tishomingo Co.	Tishomingo City	Tishomingo Co.
Jackson	Hinds Co.	Toomsaba	Lauderdale Co.
Lake	Scott Co.	Tunica	Coahoma Co.
Landon	Harrison Co.	Tupelo	Lee Co.
Lauderdale Springs	Lafayette Co.	ylertown	Walthall Co.
Laurel	Jones Co.	Utica	Hinds Co.
Leakesville	Greene Co.	Vaiden	Carroll Co.
Liberty	Amite Co.	Vicksburg	Warren Co.
Lost Gap	Lauderdale Co.	Vosburg	Jasper Co.
Lucedale	George Co.	Warrenton	Warren Co.
Lyman	Lamar Co.	Waveland	Hancock Co.
Macon	Harrison Co.	West Point	Clay Co.
Madison	Noxubee Co.	Wheeler	Prentiss Co.
Madison	Madison Co.	Wiggins	Harrison Co.
Martin (now called Patterson)	Claiborne Co.	Winona	Montgomery Co.
		Woodland	Chickasaw Co.
		Woodville	Wilkinson Co.



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