BULLETIN

OF THE

STATE HORTICULTURAL SOCIETY

PLANTS OF IOWA

A PRELIMINARY LIST OF THE NATIVE AND INTRODUCED PLANTS OF THE STATE, NOT UNDER CULTIVATION

COMPILED BY WESLEY GREENE, SECRETARY

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PREFACE.

This bulletin is dedicated to the young people of Iowa. Every boy and girl who has commenced the study of botany should have a copy of it. The bulletin will not take the place of the regular text-book on botany, but as soon as the student has become familiar enough with plants to analyze them, it will serve as a check-list to those found growing in this state.

This preliminary list of more than three thousand species includes only the native plants and those that have been introduced from other sections of this country, or other continents, and have escaped from cultivation, and become naturalized and are now a part of the flora of the state. When the list is completed it will contain more than five thousand species. The cultivated plants will receive attention in a later issue.

The limits of this bulletin would not permit extended notes on species, or synonyms; but the habitat of the plant; the frequency of its occurrence, and common name, when known, are given; but, unfortunately, many of the Thallophytes are known only by the professional botanist and have no common names.

The study of plant life is world-wide, and botanists of different languages have accepted a common standard, which is still in use. We hope the day is not far distant when the Department of Agriculture at Washington will take up the matter through its experiment station botanists, in cöoperation with the colleges and universities of the country, and give the American people an English translation of the accepted Latin classification, then the study of plants in the common schools will be as simple as any daily routine in school work. However, until that time arrives, we must accept the situation as it is, and familiarize our tongues with these Latin names as best we can, until a better system is evolved for the use of the millions who will speak of plants only in their mother-tongue.

I have changed the order of arrangement of classes in the

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Thallophytes from that followed by the systematic botanist, who usually begins with the Algæ and then places the degraded forms called Fungi, after the orders to which they are allied. I have given more prominence to their functional differences than to their structural arrangement, and have placed these parasitic and saprophytic plants first, because they do not contain chlorophyll and are unable to convert dioxide of carbon into starch under the action of sunlight, which substance enters so largely into the composition of the cell structures in higher plants, but must secure this organized matter for growth and development from living or dead plants and animals. This order of arrangement does not take into account any theory of evolution or degradation, but is for the convenience of the student who studies plants only from an economic standpoint, to have those of a similar habit grouped near each other. We have placed the slime moulds first, though they are not the least in size, but are certainly low in the scale of organized matter. Botanists have often been in doubt whether they belong to the animal or vegetable kingdom. Next in order are the bacteria; among these are some of the smallest vegetable organism, but with a good microscope we can find them in almost every substance. They live in animals and plants, often causing troublesome diseases, which sometimes prove fatal to the animal or plant attacked. They are in the air we breathe, the water we drink, and the food we eat; they live in us, on us, and about us everywhere. The smuts, rusts and mushrooms are larger and more easily seen. Many of these are, however, quite destructive to our crops and are of special interest to the farmer. What are called Imperfect Fungi are not defective in themselves, but are healthy, active organisms, as every gardener knows, from the attacks they make on his plants. Leaf spot on roses, beets and beans, scab on apples, rot in tomatoes, and mildews, are common in the orchard and garden. Their life histories have not been as thoroughly studied as some of the other classes. After the Fungi come the Algæ. Some of the smaller species of this group can swim as gracefully as a fish. People who have always considered a plant to be something with roots, stem and leaves, that grows out of the ground, will be surprised when they see the gyrations of some of these minute organisms. We have placed the lichens at the end of the group for they

seem to be a happy blending of Algæ and Fungi into a mutual copartnership, each working for the benefit of the other.

I have followed Prof. T. H. Macbride in the arrangement of the Slime Moulds; Prof. F. D. Chester in Bacteria; Ellis and Everhart in Pyrenomycetes; and Britton's Manual in the Pteridophytes and Spermaphytes. We obtained much of the material for the bulletin from "Contributions to the Flora of Iowa," by Dr. J. C. Arthur, published in 1876; "Bulletin of the Agricultural College," by Dr. C. E. Bussey, 1884; "Proceedings of the Iowa Academy of Sciences;" "Proceedings of the Davenport Academy of Natural Sciences;" "Bulletins of the Laboratories of Natural History of the State University;" "Reports of the Iowa Geological Survey," and its "Bulletin on Grasses," and from the "Journal of Micology."

I wish to express my gratitude to the botanists of the state for their pains-taking and unselfish labor in publishing the names of plants they have found growing in the state, and my obligation to them for material used in compiling this bulletin: To Prof. T. H. Macbride for the list of Slime Moulds and Mushrooms; to Harriet Vandivert, Alice W. Hess and Nora Allen for lists of Basidiomycetes; to F. J. Seavers for list of Discomycetes; to Prof. B. Shimek for Liverworts; to Prof. T. E. Savage for Mosses; to Prof. B. Fink and R. E. Buchanan for Algæ; to H. S. Hitchcock for Peronosporeæ; to Dr. Henry Albert and R. E. Buchanan for Bacteria; to Prof. Bruce Fink and Kate Miller for Lichens, and to Prof. L. H. Pammel for list of Grasses and Fungi. For County Floras that have been used, I wish to express my thanks to C. R. Ball, E. M. Olsen, M. P. Somes, M. E. Peck, H. A. Mueller, R. J. Cratty, T. J. Fitzpatrick, M. J. Fitzpatrick, W. D. Barnes, Fred Rupert, A. A. Miller, J. E. Gow, J. P. Anderson, C. M. King, and many others whose work has been examined and checked in preparing this bulletin.

Many changes have been made in classification of species in recent years. I have not always taken kindly to some of these changes. The names learned from Gray's and Wood's Manuals more than thirty years ago still have a warm place in our memory. We will probably continue to say *Ampelopsis* instead of *Parthenocissus,* in speaking of the Virginia creeper, and

Nymphæa sounds better to my ears than *Castalia* for our sweet-scented White Water Lily.

There are many other changes like these in this list, that we do not like to make, but believe it best to do so, rather than follow my opinion, as it makes it easier for the student who is using the manual of one author, to get the synonyms, than to follow different authors on the same subject. We have also abandoned the use of capital letters for species. This I believe is a move in the right direction, for it gives a better form than to use capitals when the name of a person, country or substantive is given to a species.

This bulletin has been written in the hope it might prove helpful to the young people who are anxious to learn the names of the plants, many of which they see daily while working on the farm or strolling through the woodlands of the state.

Wesley Greene

Des Moines, November 30, 1907.

THALLOPHYTES.

MYXOMYCETES. SLIME MOULDS.

PHYTOMYXINE.

PLASMODIPHORA, Woronin.

1. *P. brassica,* Wornin.
   On cabbage, causing the disease known as "Club-root."

EXOSPOREÆ.

CERATIOMYXA, Schroeter.

2. *C. fruticulosa* (Muell.) Macbr.
   On shaded rotten logs in summer; rare.
3. *C. poroides* (Alb. and Schw.) Schroeter.
   On decaying sticks in wet places; common.

MYXOGASTRES.

PHYSARACEÆ ORDER.

FULIGO, (Haller) Pers.

4. *F. ovata,* (Schaeff.) Macbr.
   In summer the yellow plasmodium may be found streaming over rotten straw or other refuse; common.
5. *F. violacea,* Persoon.
   Often mistaken for ovata; frequent.

PHYSARUM, (Persoon) Rost.

6. *P. ellipsosporum,* Rost.
   Found occasionally in shaded situations on rotting straw; not common.
7. *P. sinuosum,* (Bulliard) Weinm.
   Sometimes found on the upper side of leaves close to the ground.
8. *P. serpula,* Morg.
   Not rare.

9. *P. diderma,* Rostafinski.
   Not common.
10. *P. contextum,* Persoon.
    Occurs on bark of fallen twigs, straw or grass stems, lying undisturbed upon the ground.
11. *P. virescens,* Ditmar.
    On moss or dead leaves lying on the ground.
12. *P. cinereum,* (Barsch) Pers.
    Occurs in rich meadows, lawns or open prairie; common.
13. *P. thejoteum,* Fries.
    On rotten oak or fragments of charred logs.
14. *P. cæspitosum,* Schweinitz.
    Rare, on mosses and rotting leaves.
15. *P. auriscalpium,* Cooke.
    On bark of fallen populus.
16. *P. variabile,* Rex.
17. *P. didermoides,* (Acharius) Rost.
    On fallen cottonwood or box-elder bark; not common.
18. *P. nefroideum,* Rostafinski.
    Common.
19. *P. globuliferum,* (Bull.) Pers.
    Rare.
20. *P. leucopus,* Link.
    On rails and stumps; rare.
21. *P. ravenelii,* (Berk. and Curt.) Mass.
    Not rare.
22. *P. pulcherrimum,* Berkeley and Ravensel.
    Not rare.
23. *P. galbeum,* Wingate.
    A delicate plant, with hollow stipe.
24. *P. flavicomum,* Berkeley.
    On decayed elm logs; not common.
25. *P. penetrale,* Rex.
    Readily recognizable by the elongate sporangia and lengthened columella unique among *Physarums.*

TILMADOCHE, (Fries) Rost.

26. *T. viridis,* (Bull.) Saccardo.
The plasmodium is pale yellow, in rotten logs and stumps.

27. *T. compacta,* Wingate.
Common.

BADHAMIA, Rostafinski.

28. *B. panicea,* (Fries) Rost.
Not common.

29. *B. orbiculata,* Rex.
Plasmodium cream colored, or pale yellow.

30. *B. papaveracea,* Berk. and Rav.
Not common.

PHYSARELLA, Peck.

31. *P. oblonga,* (Berk. and Cke.) Morgan.
Not common, in wet places; plasmodium bright yellow.

CRATERIUM, Trentepohl.

32. *C. aureum,* (Schum.) Rost.
Not common.

33. *C. leucocephalum,* (Pers.) Ditmar
Not common.

34. *C. minimum,* Berkeley and Curtis.
Rare.

35. *C. minutum,* (Leers) Fries.
Not common.

CIENKOWSKIA, Rostafinski.

36. *C. reticulata* (Alb. and Schw.) Rost.
On dead leaves; rare.

LEOCARPUS, (Link) Rost.

37. *L. fragilis,* (Dickson) Rost.
They appear like eggs of insects on dead leaves. Common.

MUCILAGO, (Mich.) Adans.

38. *M. spongiosa,* (Leyss.) Morgan.
Plasodium dull white; in decaying leaves; common.

DIDYMIUM, (Schrad.) Fr.

39. *D. crustaceum,* Fries.
Rare.

40. *D. squamulosum,* (Alb. and Schw.) Fries.
Not uncommon in stable manure heaps, and on richly manured lands.

41. *D. melanospermum,* (Pers.) Macbr.
Common.

42. *D. minus,* Lister.
On rotten bark and stems, not common.

43. *D. clavus,* (Alb. and Schw.) Rabenhorst.
Not common.

44. *D. nigripes,* (Link) Fries.
Not common.

45. *D. xanthopus,* (Ditmar) Fries.
On fallen sticks and leaves; rare.

DIDERMA, Persoon.

46. *D. reticulatum,* (Rost.) Morgan.
Found in fallen dead twigs and leaves.

47. *D. globosum,* Persoon.
Rare.

48. *D. crustaceum,* Peck.
Plasmodium develops in forests and orchards, among decaying leaves.

49. *D. testaceum,* (Schrad.) Pers.
On decaying leaves; not common.

50. *D. hemisphericum,* (Bull.) Horne
On fallen leaves of herbaceous plants; rare.

51. *D. stellare,* (Schrad.) Persoon.
Rare; on rotten logs.

52. *D. rugosum,* (Rex.) Macbr.
Plasmodium gray.

53. *D. floriforme,* (Bull.) Pers.
On rotten oak logs; not common.

LEPIDODERMA, De Bary.

54. *L. tigrinum,* (Schrad.) Rost.
On mossey logs; rare.

STEMONITACEÆ ORDER.

BREFELDIA, Rostafinski.

55. *B. maxima,* (Fries) Rost.
A large species, next to *Fuligo* in size. Plasmodium at first white, then bluish; on rotton wood.

STEMONITIS, (Gleditsch) Rost.

56. *S. fusca,* (Roth) Rostafinski.
Not common.

57. *S. maxima,* Schweinitz.
On decaying logs of basswood.

58. *S. morgani,* Peck.
Plasmodium white, on maple stems.

59. *S. webberi,* Rex.
Coarser in appearance, though much the same in color.

60. *S. smithii,* Macbr.
Not common.

COMATRICHA, (Preuss) Rost.

61. *C. longa,* Peck.
On decaying bark of willow and elm, in swampy places.

62. *C. irregularis,* Rex.
On decaying logs; not common.

63. *C. nigra,* (Pers.) Schroeter.
A small species easily recognized by its almost globose sporangia mounted on long slender stalks.

64. *C. pulchella,* (Bab.) Rost.
Not common.

65. *C. stemonitis,* (Scop.) Sheldon.
Common on decaying wood.

66. *C. persoonii,* Rost.
On rotton wood; not common.

DIACHEA, Fries.

67. *D. leucopoda,* (Bull.) Rost.
On fallen sticks and leaves in the orchard or forest; not common.

68. *D. splendens,* Peck.
On dry forest leaves and sticks; and on foliage of living plants; not common.

LAMPRODERMA, Rostafinski.

69. *L. scintillans,* (Berk. and Br.) List.
An early species, in May, on decaying oak leaves in wet places.

70. *L. violaceum,* (Fries) Rost.
A common species on decaying sticks and logs late in fall.

CRIBRARIACEÆ ORDER.

LICEA, (Schrader) Rost.

71. *L. variabilis,* Schrader.
Rare.

72. *L. minima,* Fries.
On decaying wood, in August.

RETICULARIA, (Bull.) Rost.

73. *R. lycoperdon,* Bulliard.
Not common.

ENTERIDIUM, Ehrenberg.

74. *E. splendens,* Morgan.
Common on decaying logs and stumps.

DICTYDIÆTHALIUM, Rostafinski.

75. *D. plumbeum,* (Schum.) Rost.
On decaying basswood logs; not rare.

LINDBLADIA, Fries.

76. *L. effusa,* (Ehr.) Rost.
On rotten logs.

TUBIFERA, Gmelin.

77. *T. ferruginosa,* (Batsch) Macbr.
Not rare on old logs and mosses.

78. *T. stipitata,* (Berk. and Rav.) Macbr
Not infrequent.

79. *T. casparyi,* (Rost.) Macbr.
Not common.

CRIBRARIA, (Pers.) Schrader.

80. *C. argillacea,* Persoon.
On rotten logs; not uncommon.

81. *C. minutissima,* Schweinitz.
A tiny species; rare.

82. *C. splendens,* (Schrader) Pers.
Rare.

83. *C. dictydioides,* Cke. and Balf.
Abundant on rotten logs.

84. *C. tenella,* Schrader.
On weathered surfaces of rotten wood.

85. *C. microcarpa,* (Schrad.) Persoon.
On rotten wood.

86. *C. elegans,* Berk. and Curt.
Found on rotten coniferous wood.

87. *C. cuprea,* Morgan.
Rare.

DICTYDIUM, (Schrad.) Rost.

88. *D. cancellatum,* (Batsch) Macbr.
Common; the first appears in June on decaying logs and stumps.

LYCOGALACEÆ ORDER.

LYCOGALA, Micheli.

89. *L. epidendrum,* (Burb.) Fries.
The most common of all slime-moulds; found on decaying wood of all sorts.

90. *L. flavo-fuscum,* (Ehr.) Rost.
Sometimes mistaken for a puff-ball; not common.

91. *L. exiguum,* Morg.
On decaying wood; in groups of a dozen or more.

TRICHIACEÆ ORDER.

OPHIOTHECA, Currey.

92. *O. vermicularis,* (Schw.) Macbr.
On weathered surfaces of dead herbaceous stems and roots.

93. *O. chrysoperma,* Currey.
On the inner bark of trees, especially oak; not common.

94. *O. wrightii,* Berk. and Curtis.
Common on the inner side of bark of fallen trees.

PERICHÆNA, Fries.

95. *P. depressa,* Libert.
In crevices and on the inside bark of fallen trees.

96. *P. corticalis,* (Batsch) Rost.
Inner side of bark of fallen trees.

LACHNOBOLUS, Fries.

97. *L. occidentalis,* Macbr.
Not common.

ARCYRIA, (Hill) Pers.

98. *A. nutans,* (Bull.) Grev.
On fallen willows.

99. *A. incarnata,* Persoon.
Common.

100. *A. denudata,* (Linn.) Sheldon.
To be found at all seasons on the lower side of fallen sticks.

101. *A. cinerea,* (Bull.) Pers.
A very common little species, easily recognized by its color and habit.

102. *A. digitata,* (Schw.) Rost.
On rotten wood.

102*a*. *A. pomiformis,* (Leers) Rost.
A minute, rare species.

HEMITRICHIA, Rost.

103. *H. vesparium,* (Batsch) Macbr.
A common species on rotten wood.

104. *H. stipata,* (Schw.) Macbr.
Not rare.

105. *H. intorta,* Lister.
Rare.

106. *H. clavata,* (Pers.) Rost.
Common.

107. *H. stipitata,* Mass.
Common.

TRICHIA, (Haller) Rost.

108. *T. inconspicua,* Rostafinski.
On fallen stems of cottonwood.

109. *T. iowensis,* Macbr.
On the bark of Populus.

110. *T. varia,* (Pers.) Rost.
Common.

111. *T. scabra,* Rost.
Not common.

112. *T. favoginea,* (Batsch) Pers.
Not rare.

113. *T. botrytis,* Persoon.
Infrequent.

114. *T. decipiens,* (Pers.) Macbr.

OLIGONEMA.

115. *O. flavidum,* (Peck) Mass.
On decaying wood.

116. *O. brevifila,* Peck.
Rare.

117. *O. nitens,* (Libert) Rost.
Easily recognized by its heaped, shining sporangia.

SCHIZOMYCETES. FISSION FUNGI. BACTERIA.

COCCACEÆ FAMILY.

STREPTOCOCCUS, (Billroth).

118. *S. pneumoniæ,* (Weichselbaum) Gamaleia.
Pneumonia. Frequently associated with bronchopneumonia. Also in saliva of healthy man.

119. *S. erysipelatos,* Fehleisen.
Associated with phlegmonous inflammation and suppurative processes; septicæmia, erysipelas, bronchopneumonia, puerperal septicæmia, angina, etc.

120. *S. giganteus,* (Lustgarten).
From stools in cases of infant diarrhœa.

121. *S. conglomeratus,* (Kurth).
Associated with scarlet fever; etiological relation undetermined.

122. *S. phytophthorus,* (Frank).
Associated with a rot and blight of the potato.

123. *S. proteus.*
Milk.

MICROCOCCUS.

124. *M. gonorrhœæ,* (Bumm.) Flugge.
In gonorrhœal pus.

125. *M. pyogenes,* var. *albus,* Rosenbach.
In pus from abscesses, wound infections, upon skin, etc.

126. *M. tetragenus,* Koch-Saffky.
Nasal secretions and in sputum.

127. *M. pyogenes,* var. *aureus,* Rosenbach.
In pus from abscesses, skin, etc.

128. *M. pyogenes,* var. citrous, Passet.
In pus.

129. *M. coralinus,* Centanni.
From water.

130. *M. cerasinus,* Eisenberg.
Water.

131. *M. cyanogenus,* Pammel and Combs.
In milk.

132. *M. cinnabareus.*
Air and water.

133. *M. albicans,* (Bumm).
Isolated from vaginal secretions.

134. *M. lactis-viscosus,* (Sternberg).
Isolated from cream which had a bitter taste.

135. *M. catarrhalis,* (Frosch-Kolle).
Associated with an infectious bronchitis. Found in the sputum and nasal secretions.

136. *M. tardissimus,* (Bumm).
Found in vaginal secretions, especially those of puerperal women.

137. *M. magnus,* (Rosenthal).
Isolated from the air.

138. *M. cerevisiæ,* (Balcke.)
In beer, air of breweries, water. A common cause of turpidity in beer.

139. *M. conglomeratus,* (Bumm).
From gonorrheal pus, air, dust.

140. *M. aurantiacus,* (Schroter).
Isolated from the air and from water.

141. *M. luteus,* Cohn.
On articles of food (boiled potatoes, etc.), forming yellow patches.

SARCINA, (Goodsir).

142. *S. lutea,* Flugge.
Air and water.

143. *S. aurantcaca,* Flugge.
Air and water.

PLANOSARCINA, (Migula l. c.).

144. *P. mobilis,* (Maurea) Migula.
Water.

BACTERIACEÆ FAMILY.

BACTERIUM, Ehrenberg.

145. *B. influenzæ,* (Pfeiffer) Lehmann-Neumann.
Nasal secretions of man affected with influenza.

146. *B. aceti,* (Kutz.) Lanzi.
The quick vinegar ferment of Pasteur, living on the surface of beech wood shavings in the vinegar vats.

147. *B. viscosum,* Van Laer.
Isolated from beer, yeast and bread; causes a viscous fermentation.

148. *B. ærogenes,* Escherich.
Milk, fæces, air, water, etc.

149. *B. suicida,* Migula.
Associated with swine plague.

150. *B. pneumoniæ,* Zopf.
Sputum of pneumonic individuals, and various inflammatory and purulent conditions.

151. *B. acidi-lactici,* Zopf.
Milk.

152. *B. aromaticum,* (Pammel) Chester.
In cheese.

153. *B. anthracis,* (Cohn) Migula.
Blood, etc., of anthrax subjects.

154. *B. amylovorum,* (Burrill).
In blighted twigs of apple and pear trees.

155. *B. pseudoinfluenzæ,* (Pfeiffer).
From bronchopneumonia, otitismedia; also associated with influenza.

156. *B. cancrosi,* (Ducrey).
Isolated from secretions in soft shanker.

157. *B. ægyptium,* (Koch-Kartulis).
Associated with conjunctival catarrh.

158. *B. gallinarum,* (Kruse).
Associated with chicken cholera, and septicæmia of rabbits.

159. *B. aphthosum,* (Siegel).
Isolated from the liver and kidneys of cattle affected with Murrain.

160. *B. ureæ,* (Miquel).
Isolated from urine.

161. *B. radiatum,* (Chester).
Soil.

162. *B. erythrogenes,* (Grotenfelt).
Red milk, water, fæces of a child.

163. *B. welchii,* (Welch-Nuttall).
Isolated from blood in a case of aneurism of the aorta.

164. *B. mycoides,* (Eisenberg).
Soil, water, etc.

165. *B. panis,* (Orth).
Isolated from stringy bread dough.

166. *B. termo* (Dujard).
In putrid water.

167. *B. lineola,* (Cohn).
In putrid water.

168. *B. pyocaneus,* (Gessard).
In the mouth, intestines, and on the surface of the body; in suppurating wounds; sometimes associated with peritonitis, appendicitis, etc.

169. *B. bovisepticum,* (Kruse).

BACILLUS, Cohn.

170. *B. coli,* Eschrich.
In the intestines of man and animals, fæces, water, milk; associated with a number of pathologic conditions, peritonitis, crystitis, cholera-nostras, etc.

171. *B. salmoni,* (Trevisan) Chester.
Associated with hog cholera.

172. *B. typhosus,* (Eberth).
In the spleen in cases of typhoid fever; also in greater or less numbers in the intestinal lesions, mesentery glands, liver, bile, kidneys, etc., also in the stools of typhoid patients, and in infected water.

173. *B. denitrificans,* Burri-Stutzer.
Soil.

174. *B. cloacæ,* Jordan.
Sewage.

175. *B. vulgaris,* (Hauser).
Soil. Decaying materials.

176. *B. prodigiosus,* Ehrenberg-Flugge
Commonly present on articles of food, particularly starchy materials, also meat, water, etc.

177. *B. violaceus,* Jordan.
Water.

178. *B. pammelii,* Chester.
Cheese.

179. *B. vulgatus,* Trevisan.
Soil.

180. *B. subtilis,* (Ehrenberg) Cohn.
Soil and water.

181. *B. megatherium,* De Barry.
Soil and cabbage infusions.

182. *B. feseri,* (Trevisan) Kitt.
Blackleg.

183. *B. carotovorus,* Jones.
In rotting carrots.

184. *B. secalis.*
Corn.

185. *B. mycoides.*
Soil.

186. *B. tetani,* (Flugge).
Associated with tetanus. In soil.

187. *B. coli-immobilis,* Kruse.
Isolated from fæces.

188. *B. alcaligenes,* (Petruschky)
Fæces.

189. *B. solanacearum,* (Smith).
Associated with a disease of tomato, egg-plant, and the Irish potato.

190. *B. formosus,* (Ravenal).
Water.

191. *B. liquefaciens,* (Frankland)
Water.

192. *B. gasoformans,* (Eisenberg).
Water.

193. *B. nitrificans,* (Burri-Stutzer).
Isolated from the soil.

194. *B. vulgaris,* (Hauser).
Commonly found in putrefying fluids, water, etc.

195. *B. butyricus,* (Hueppe).
Milk.

196. *B. sporogenes,* (Klein).
Widely distributed, sewage, water, horse and cow manure, street dust.

PSEUDOMONAS, Migula.

197. *P. campestris,* (Pammel) Smith.
Causing rot of cabbages and other crucifers.

198. *P. pyocyanea,* (Gessard), Migula.
In pus, gangrene, etc.

199. *P. fluorescens,* (Flugge) Migula.
In water.

SPIRILLACEÆ FAMILY.

SPIRILLUM, Ehrenberg.

200. *S. sputigenum,* (Miller).
Isolated from tartar on teeth and from saliva.

SPIROCHÆTA, Ehrenberg.

201. *S. pallida,* (Schaudinn).
Isolated from lesions of syphilis.

MYCOBACTERIACEÆ FAMILY.

MYCOBACTERIUM, Lehmann-Neumann.

202. *M. leprœ,* (Hansen) Lehmann-Neumann.
Found in large numbers in leprous lesions, in the round cells of granulation tissue of tuberculous nodules, in lymphatic spaces, in endothelial cells, and in the walls of blood vessels.

203. *M. malei,* (Loeffler) Migula.
Secretions and ulcers and tubercles in glanders in men, horses and cats.

204. *M. pseudodiphthericum,* (Kruse).
Isolated by Hoffman, etc., from the healthy mouth and throat; by Neisser-Kuschbert, etc., in xerosis and other affections of the conjunctiva.

205. *M. moelleri.*
Isolated by Moeller from infusions of timothy hay.

206. *M. graminus.*
Hay dust in lofts.

207. *M. tuberculosis,* (Koch).
Associated with tuberculosis in man and lower animals.

208. *M. diphtheriæ,* Krebs.
Associated with diphtheria and present in throats of persons who have been exposed to infection.

STREPTOTHRIX.

209. *S. bovis,* (Harz) Chester.
Associated with actimomycosis of cattle.

CHLAMYCOBACTERIACEÆ FAMILY.

LEPTOTHRIX, Kutzing.

210. *L. buccalis,* Miller.
From saliva and on teeth of man.

CLADOTHRIX, Cohn.

211. *C. ochracea* (Kutzing), Winogradsky.
In iron waters.

211*a*. *C. dichotoma,* Cohn.
Soil and water.

BEGGIATOAEÆ FAMILY.

BEGGIATOA, Levisan.

212. *B. alba,* (Vaucher) Trevisan.
Water. On fish, putrefying material, etc.

PHYCOMYCETES.

ŒPHIDIEÆ FAMILY.

OLPHIDIUM.

213. *O. sapeolegniae,* Braun.
In terminal cells of Achlya.

SYCHYTRIEÆ FAMILY.

SYNCHITRIUM.

214. *S. fulgens,* var. *decipens,* Farlow.
On stems and leaves of Amphicarpaea.

MUCORACEÆ FAMILY. BLACK MOULDS.

MUCOR.

215. *M. stolonifera,* Ehrenb.
The common decaying of apples.

216. *M. syzygites,* D. Bg.
On decaying toad-stools.

217. *M. racemosus,* Fres.
On decaying plums and fermenting liquor.

218. *M. mucedo.*
Common on decaying vegetable matter.

PILOBOLUS.

219. *P. crystallinus,* Tode.
Common on horse dung in mid-summer.

RHIZOPUS.

220. *R. nigricaus.*
Common mould on bread.

EUTOMOPHTHOREA FAMILY. INSECT FUNGI.

EMPUSA.

221. *E. muscea,* Fres.
Common on flies in autumn.

EUTOMPHOTHORA.

222. *E. radicaus.*
On cabbage butterfly.

223. *E. calopteus,* Bessey.
On Rocky Mountain locust.

SAPROLEGNIACEÆ FAMILY. WATER MOULDS.

SAPROLEGNIA, Nees (Esenb.)

224. *S. ferix,* (Gruith) Thuret.
On Algæ and dead fish.

ACHLYA, Nees ab Esenb.

225. *A. americana,* Sp re. *(A. prolefera.)*
On dead insects in water.

LEPTOMITUS, Agardth.

226. *L. lacteus,* (Roth) Ag.
On decaying animal and vegetable matter in water.

PERONOSPOREÆ FAMILY. DOWNY MILDEWS.

PHYTOPHTHORA.

227. *P. infestans,* DeBy
The "potato rot." Destructive in wet seasons.

CYSTOPUS.

228. *C. candidus,* (Pers.) Lev.
Abundant early in the season on *Lepidium intermedium, L. Virginicum, Capsella bursapastoris.* Later, oospores abundant in inflorescene of *Raphanus sativa.*

229. *C. tragopogonis,* (Pers.) Schroet.
Abundant in June and early July

230. *C. portulacæ,* (DC.) Lev.
Abundant on *Portulaca oloracca* from the middle of June to the first of September.

231. *C. bliti,* (Bev.) DeBy.
Abundant July, August and September on *Amaranthus albus, A. retroflexus.* More severe on the latter species.

232. *C. cubicus,* Lev.
On *Ambrosia artemisiæfolia.*

233. *C. impomææ-panduranæ,* Farl.
On sweet potatoes.

SCLEROSPORA.

234. *S. graminicola,* (Sacc.)
Abundant during the latter part of May till middle of June, destroying large numbers of young plants of *Setaria viridis.* In whole patches it prevented the maturing of seeds.

PLASMOPARA.

235. *P viticola,* (B and C.) B. and DeT.
Abundant. Destructive to cultivated grape. *(Vitis labrusca),* affecting leaf, stem and fruit. Also affecting the growing of young shoots of *Vitis reparia,* in some cases killing the young shoots.

236. *P. halstedii* (Farlow) B. and DeT.
On *Helianthus annus, H. tuberosus, Silphium lacinatum, Xanthium canadense,* Centaurea.

BREMEA.

237. *B. lactucæ,* Regel.
On lettuce.

ALBUGO.

238. *A. candida,* (Pres.) Kuntze.
On radishes.

239. *A. portulacca,* (DC.) Kuntze.
On portulacea.

PERONOSPORA.

240. *P. alisnearum,* DeBy.
On *Cerastium nutans.*

241. *P. australis,* Speg.
On *Echinocystis lobata.*

242. *P. calotheca,* DeBy.
On *Galium boreale.*

243. *P. ficariæ,* Tul.
On *Ranunculus repens.*

244. *P. gangliformis,* DeBy.
On *Lactuca ludoviciana.* Lettuce mildew.

245. *P. geranii,* Peck.
On *Geranium carolinianum* and on *G. maculatum.*

246. *P. graminicola,* Schroetor.
On *Setaria viridis.*

247. *P. leptosperma,* DeBy.
On *Artemisia biennis.*

248. *P. halstedii,* Farl.
On *Bidens frondosa, B. chrysanthemoides, B. connata, B. cernua, Ambrosia trifida, A. artemisiæfolia, Helianthus grosse-serratus, H. doronicoides, Silphium perfoliatum, Ambrosia trifida.* On *Rudbeckia laciniata, R. triloba.*

249. *P. lophanthi,* Farl.
On *Lophanthus scrophulariæfolius.*

250. *P. obducens,* Schroeter.
Impatiens pallida.

251. *P. parasitica,* Tul.
On *Brassica nigra, Sisymbrium canescens, Nasturtium palustre, Capsella brusa-pastoris, Lepidium virginicum.* Very common in the spring on *Cruciferæ.*

252. *P. polygoni,* Thuem.
On *Polygonum aviculare* and on *P. dumertorum,* var. *scandens.*

253. *P. potentilla,* DeBy.
On *Potentilla norvegica.*

254. *P. pygmæa,* Unger.
On *Anemone dichotoma.*

255. *P. sordida,* Berk.
On *Scrophularia nodosa.*

256. *P. trifoliorum,* DeBy.
On *vicia americana* and on *Astragalus canadensis.*

257. *P. urticæ,* DeBy.
On *Laportea canadensis.*

258. *P. viticola,* DeBy.
On *Vitis raparia.* On cultivated grapes. Brown rot.

259. *P. viciæ,* (Berk.) DeBy.
Abundant in latter part of May and early June on *Vicia americana.*

260. *P. arthuri,* Farlow.
Abundant on *Œnothera biennis.*

261. *P. effusa,* (Grev.) Rahenh.
Abundant on *Chenopodium album* in May and June.

262. *P. euphorbiæ,* Fuckel.
Abundant on *Euphorbia preslii* and *E. maculata.*

263. *P. alta,* Fuckel.
Abundant on *Plantago major.*

264. *P. cubensis,* B. & C.
Mildew of squash and cucumbers, usually under glass.

PYTHIUM, Pringsh.

265. *P. de baryanum,* Hesse.
Attacks seedling plants, and is called by gardeners "damping-off."

ASCOMYCETES.

SACCHAROMYCETACEÆ FAMILY. YEASTS.

SACCHAROMYCES, Meyen.

266. *S. cerevisiæ,* Hansen.
Cultivated yeast in breweries.

267. *S. pastorianus,* Hansen.
In air and beer of breweries. (1, 2 and 3.)

268. *S. ellipsoidens,* Hansen.
On decaying grapes.

269. *S. apiculatus,* Riess.
In decaying grapes.

270. *S. mycoderma,* Riese.
Mould on the surface of fermented liquor.

EXOASOEÆ FAMILY. WITCHES BROOMS.

EXOASCUS, Fuckel.

271. *E. communis,* Sadebeck.
On *Prunus americana, Prunus cerasus* and *P. domestica.*
Nursery stock sometimes defoliated in August.

272. *E. deformans,* (Berk.)
Curl leaf of peach.

273. *E. mirabilis,* Atkinson.
On plum.

274. *E. pruni,* Fkl.
On plum leaves and twigs.

275. *E. farlowii,* (Sadebeck) Saccardo.
On *Prunus serotina.*

276. *E. cerasi,* (Fuckel.) Sadebeck.
On *Prunus hortulana* and *serotina.*

TAPHRINA, Fries.

277. *T. aurea,* (Pers.) Fries.
On poplars.

278. *T. cœrulescens,* (Mont. and Desm.) Tulasne.
On oaks.

279. *T. johananii,* Sadeb.
On aspen.

280. *T. pruni,* Ful.
Plum-pockets.

PYRENOMYCETES. BLACK FUNGI.

ERYSIPHEÆ FAMILY. POWDERY MILDEWS.

SPHÆROTHECA, Lev.

281. *S. pruinosa,* C. & P.
On *Rhus typhina, R. glabra* and *R. copallina.*

282. *S. pannosa,* (Wallr.) Lev.
On *Rosa blanda, R. arkansana.* Rose mildew.

283. *S. mali,* (Duby.)
On upper parts of the twigs of apple, especially in nurseries of young trees, and upon the suckers from old ones.

284. *S. mors-uvæ,* Schw.
On *Ribes cynosbati, R. gracile.* This is the common "Gooseberry Mildew."

285. *S. castnei,* Lev.
On many plants.

ERYSIPHE, (Hedw.)

286. *E. cichoracearum,* DC.
Very abundant on *Helianthus annuus, H. tuberosus.* Not so common on *H. grosseserratus.* Abundant on *Ambrosia artemisiæfolia, A. trifida.*

287. *E. lamprocarpa,* Lev.
On many *compositæ.*

288. *E. tortilis,* Fr.
On leaves of Virgin's Bower.

289. *E. communis,* Fr.
On leaves and stems of Anemones, also on grass leaves.

290. *E. martii,* Lev.
On cultivated peas.

291. *E. graminis,* DC.
On grass.

PHYLLACTINIA, Lev.

292. *P. suffulta,* (Reb.) Sacc.
Abundant on *Fraxinus americana,* August and September.

UNCINULA, Lev.

293. *U. necator,* (Schw.) Burrill.
Common on *Vitis labrusca,* Concord, Worden and especially Roger hybrids (Agawam).

294. *U. adunca,* Lev.
On willow leaves.

295. *U. ampelopsidis,* Peck.
On virginia creeper leaves. Powder mildew of the grape.

296. *U. americana,* Howe.
On grape leaves and pedicels.

297. *U. circinata,* C. and Pk.
On Silver Maple leaves.

298. *U. clintonii,* Peck.
On *Tilia americana,* not very common.

PERISPORIACEÆ FAMILY.

PODOSPHÆRA, Kunze.

299. *P. oxyacanthæ,* (DC.) DeBy.
Abundant on cultivated *Prunus cerasus* and *P. pumila.* Not common on *U. americana;* also observed on young shoots of *Cratægus punctata,* and *C. mollis;* July, August and September. Powdery mildew of the apple, plum and cherry.

300. *P. tridactyla,* D. By.
Abundant on the leaves of seedling cherries and apples.

MICROSPHÆRA, Lev.

301. *M. alni,* (DC.) Wint.
Abundant on *Syringa vulgaris, S. persica,* August and September.

302. *M. quercinia,* (Schw.) Burrill.
On White, Burr and Pin oaks.

303. *M. russellii,* Clint.
On oxalis leaves.

303*a*. *M. grossulariæ,* Wallr.
On *Ribes* and *Sambucus.*

304. *M. estensa,* C. and Pk.
On Red-oak leaves.

305. *M. friesii,* Lev.
On Lilac leaves.

306. *M. symphoricarpi,* Howe.
On *Symphoricarpus.*

307. *M. menispermi,* Howe.
On Moonseed.

308. *M. diffusa,* C. & P.
On *Desmodium, Vicia* and *Phaseolus.*

DIMEROSPORIUM, Fekl.

309. *D. pulchrum,* Sacc.
On *Cornus, Fraxinus.*

EUROTIUM, Lk.

310. *E. herbariorum,* Wigg.
On moldy books and papers.

HYPOCREACEÆ FAMILY.

CLAVICEPS, Tul.

311. *C. purpurea,* Fr.
Ergot of rye and blue grass.

CORDYCEPS, Fries.

312. *C. ravenelii,* B. & C.
Growing from dead larvæ of the "June beetle."

HYPOMYCES, Fries.

313. *H. van bruntianus,* Ger.
On mushrooms.

HYPOCREA, Fr.

314. *H. citrina,* (Pers.)
Common on dead wood.

315. *H. cubispora,* Ell. & Hol.
On a decaying log.

316. *H. papyracea,* Ell. & Hal.
Under side of an old log.

317. *H. schwenitzii,* Fr.
On bark and wood.

EPICHLŒ, Fr.

317*a*. *E. typhina,* Pres.
On timothy.

NECTRIA, Fr.

318. *N. cinnabarina,* (Tode.)
On dead limbs of deciduous trees.

319. *N. coccinea,* (Pers.)
On bark of deciduous trees.

SARDARIEÆ FAMILY

SORDARIA, Ces. & De Not.

320. *S. fimicola,* (Rob.)
On horse dung.

PODOSPORA, Cesati.

321. *P. coprophila,* (Fries.)
On cow dung, common.

322. *P. curvula,* var. *aloides,* Winter.
On cow dung.

TRICHOSPHÆRIEÆ FAMILY.

VENTURIA, Ces. & De Not.

323. *V. orbicula,* (Schw.)
On fallen leaves of oaks.

LASIOSPHÆRIA, Ces. & De Not.

324. *L. hirsuta,* (Fr.)
On rotten wood.

ACANTHOSTIGMA, De Not.

325. *A. occidentale,* (E. & E.)
On *Cirsium altissimum* and *Artemisia ludoviciana.*

MELANOMMEÆ FAMILY.

ROSELLINIA, Ces. & De Not.

326. *R. pulveracea,* (Ehr.)
Common dead wood of deciduous trees.

BOMBARDIA, Fr.

327. *B. fasciculata,* Fr.
On rotten wood.

MELANOMMA, Fekl.

328. *M. porothelia,* (B. & C.)
On *Stereum bicolor.*

CUCUBITARIEÆ FAMILY.

PLOWRIGHTIA.

329. *P. morbosa,* (Schw.)
Common on limbs of plum and cherry trees. Black knot.

PARODIELLA, Speg.

330. *P. grammodes,* (Kze.)
On living leaves of leguminous plants.

SPHÆRELLOIDEÆ FAMILY.

LAESTADIA, Awd.

331. *L. juniperina,* (Ell.)
On dead leaves of Red cedar.

332. *L. bidwellii,* Sacc.
Black rot of the grape.

SPHÆRELLA, Ces. & De Not.

333. *S. maculiformis,* (Pers.)
On leaves of oak and ash.

334. *S. grossulariae,* (Fr.)
On fallen leaves of *Ribes nigrum.*

335. *S. thalictri,* E. & E.
On leaves of *Thalictrum dioicum.*

336. *S. fragariæ,* Tul.
On strawberries.

PHYSALOSPORA, Niessl.

337. *P. arthuriana,* Sacc.
In leaves of *Iva xanthifolia.*

PLEASPOREÆ FAMILY.

PLEOSPORA, Rabh.

338. *P. herbarum,* Pers.
On dead stems of plants.

LEPTOSPHÆRIA, Ces. & De Not.

339. *L. doliolum,* (Pers.)
On dead herbaceous stems.

340. *L. culmicola,* (Fr.)
On culms of *Phragmites.*

PLEOMASSARIA, Speg.

341, *P. siparia,* (B. & Br.)
On birch.

CLYPEOSPHÆRICÆ FAMILY.

THYRIDIUM, Sacc.

342. *T. lividum,* (Pers.)
On decorticated wood, on Red cedar.

VALSEÆ FAMILY.

DIAPORTHE, Nitschke.

343. *D. stictostoma,* (Ell.)
On dead limbs of *Amelanchier canadensis.*

344. *D. decedens,* (Fr.)
On dead limbs of Corylus.

345. *D. taleola,* (Fr.)
On dead oak limbs.

346. *D. tessella,* (Pers.)
On dead willow limbs.

347. *D. tessera,* (Fr.)
On dead limbs of *Corylus.*

348. *D. eburensis,* Sacc.
On some large herbaceous stem.

349. *D. asclepiadis,* E. & E.
On dead stems of*Asclepias tuberosa.*

350. *D. coricola,* Ellis & Holway.
On dead limbs of *Cornus paniculata.*

VALSA, Fr.

351. *V. cerratophora,* Tul.
On *Quercus, Amelanchier,* and *Cratægus.*

352. *V. americana,* B. and C.
On various shrubs and trees.

353. *V. ambiens,* (Pers.)
On dead limbs of various deciduous trees.

354. *V. sordida,* Nits.
On dead *Pupulus.*

355. *V. menispermi,* Ell. and Holway.
On dead stems of Moonseed.

356. *V. apatella,* Ellis and Holway.
On dead limbs of hickory.

EUTYPELLA. Nits.

357. *E stellulata,* (Fr.)
Common on limbs of deciduous trees.

358. *E. cerviculata,* Fr.
On dead limbs of *Carpinus* and *Corylus.*

359. *E. scoparia,* (Schw.)
On dead elm branches.

360. *E. canodisca,* Ell. and Holway.
On dead branches of *Salix.*

EUTYPA, Tul.

361. *E. spinosa,* (Pers.)
On old logs and limbs of deciduous trees.

362. *E. lata,* (Pers.)
On dead limbs of deciduous trees.

CALOSPHÆRIA, Tul.

363. *C. ciliatula,* Fr.
On dead birch limbs.

MELANCONIDEÆ FAMILY.

MELANCONIS, Tul.

364. *M. stilboma,* (Fr.)
On dead limbs of birch.

365. *M. bitorulosa,* (B. and Br.)
On dead limbs of *Carpinus americana* and *Ostrya virginica.*

366. *M. tiliacea,* Ell.
On dead *Tilia americana.*

367. *M. œcorœnsis,* Ell.
On dead limbs of birch.

CRYPTOSPORA, Tul.

368. *C. leutaginis,* Rebm.
On dead *Viburnum lentago.*

369. *C. anomala,* Pk.
On living stems of *Corylus americana.*

370. *C. aculeans,* (Schw.)
On dead *Rhus copallina* and *R. typhina.*

371. *C. pennsylvanica,* (B. and C.)
On dead branches on *Prunus americana.*

372. *C. caryœ,* Pk.
On dead branches of carya.

VALSARIA, Ces and De Not.

373. *V. insitiva,* Ces. and De Not.
On dead limbs of oak and hickory.

DIATRYPE, Fr.

374. *D. radiata,* Ell.
On dead limbs of Ulmus.

ANTHOSTOMA, Nitschke

375. *A. dryophilum.* (Curr.)
On dead white oak limbs.

376. *A. phœcospernum,* Ell.
On dead limbs.

DIATRYPELLA, De Not.

377. *D. populi,* Ell. and Hol.
On dead limbs of poplars.

378. *D. frostii,* Pk.
On dead maple limbs.

DOTHIDEACEÆ FAMILY.

PHYLLACHORA, Nitscheke.

379. *P. graminis,* (Pers.)
On living leaves of grasses.

380. *P. trifolii,* (Pers.) Sacc.
Abundant on red clover, September.

RHOPOGRAPHUS, Nitschke.

381. *R. clavisporus,* (C.and P.)
On dead culms of *Phragmitis communis.*

XYLARIEÆ FAMILY.

HYPOXYLON, Bulliard.

382. *H. howeianum,* Pk.
Ostrya virginica.

383. *H. commutatum,* Nitschbe, var. *Holwayanum,* S. and E.
On bark of dead oak.

384. *H. morsei,* B and C.
On birch.

385. *H. pruinatum,* (Klotszch.)
On the bark of dead poplars.

386. *H. atropurpureum,* Fr.
On bark of Tilia.

387. *H. piceum,* Ell.
On rotten wood.

USTULINA, Tul.

388. *U. vulgaris,* Tul.
On roots of decaying stumps.

XYLARIA, Hill.

389. *X. polymorpha,* (Pers.)
On decaying stumps and logs.

390. *X. Hypoxylon,* (Linn.)
On rotten wood.

HYSTERIACEÆ FAMILY.

GLONIUM.

391. *G. stellatum,* Muhl.
On rotten wood.

352. *G. parvulum.* (Ger.)
On old wood, oak and sycamore.

GLONIELLA, Sacc.

394. *G. ovata,* (Cke.)
On old oak wood.

HYSTERIUM, Tode.

395. *H. pulicare,* Pers.
Common on bark of deciduous trees.

396. *H. spæriaceum,* Ell.
On decaying wood.

397. *H. prostii,* Duby.
On bark of *Pyrus coronaria.*

HYSTEROGRAPHIUM, Corda.

398 *H. fraxini,* (Pers.)
On dead limbs of *Fraxinus.*

399. *H. cinerascens,* Schw.
On rotten wood of *Juglans cinerea.*

400. *H. mori,* (Schw.) Ellis.
On decorticated, exposed wood, also on dead limbs still covered with the bark.

HYPODERMA, DC.

401. *H. commune,* (Fries.)
On *Sambucus canadensis.*

LOPHODERIUM, Chev.

402. *L. juniperinum,* (Fries.)
On dead leaves of *Juniperus communis.*

DICHÆNACEÆ FAMILY.

DICHÆNA, Fr.

403. *D. faginea,* Pers.
On sycamore.

DISCOMYCETES.

PHYACIDIACEÆ FAMILY.

PHACIDIUM.

404. *P. repandum,* Fr.
On leaves of Portuetilla.

RHYTISMA.

405. *R. acrenium,* Fr.
On leaves of Soft Maple.

GEOGLOSSACEÆ FAMILY.

SPATHULARIA, Persoon.

406. *S. clavata* (Schaeff) Sacc.
Rare.

VIBRISSEA.

407. *V. hypogæa.*
Dead grape roots.

LEOTIA, Hill.

408. *L. spitata* (Bosc) Schroeter.
On naked soil in woods.

409. *L. lubrica* (Scop) Pers.
In woods on soil among fallen leaves during the autumn.

HELVELLACEÆ FAMILY.

MORCHELLA, Dillenius

410. *M. esculenta,* (Linn) Pers.
A common species in open woods.

411. *M. conica,* Pers.
Not common in open woods.

412. *M. delicosa,* Fries.
Similar in form to the preceding but much smaller.

413. *M. hybrida* (Sow) Pers.
Common in woods during spring.

414. *M. crassipes,* Pers.
Plants large, pileus yellowish brown, pits large and irregular.

HELVELLA, Fries.

415. *H. lacunosa,* Afz.
Not uncommon in woods.

416. *H. crispa* (Scop) Fries.
Plants snow-white; common on ground in woods among fallen leaves during autumn.

417. *H. elastica,* Bull.
Not uncommon on soil in woods during the summer and autumn.

418. *H. macropus* (Pers.) Karst.
Rather common on naked soil in woods.

GYROMITRA.

419. *G. esculenta, Fries.*
Rare.

RHIZINACEÆ FAMILY.

SPHÆROSOMA.

420. *S. echinulatum,* Seaver.
On damp clay soil. A rare genus.

PYRONEMACEÆ FAMILY.

PYRONEMA, Carus.

421. *P. omphalodes,* (Bull) Fckl.
Common on sandy banks in woods.

422. *P. aurantio-rubrum,* (Fckl.) Sacc.
Similar to preceding but distinguished by smaller sporida. Autumn.

423. *P. melalomum,* (Fries) Fckl.
Very common on burnt places. Summer and autumn.

PEZIZACEÆ FAMILY.

SPHÆROSPORA, Saccardo.

424. *S. confusa* (Cooke) Sacc.
Common on sandy banks in woods.

LACHNEA, Fries.

425. *L hemisherica* (Wigg) Gill.
Common on naked soil in woods.

426. *L. scutellata* (Linn) Sacc.
Very common on decaying wood in moist places, often among moss plants.

427. *L. setosa* (Nees) Sacc.
Rather common on decaying wood. Often very numerous and gregarious.

428. *L. hirta* (Schum) Sacc.
Rather common on the ground in wet places.

429. *L. melaloma,* (A. and S.) Sacc.
Found on burnt wood and the surrounding soil. Not common.

430. *L. abundans,* Karst.
On burnt wood and ashes.

431. *L. albo-spadicea* (Grev) Sacc.
On the ground in shady places.

432. *L. aurantiopsis* (Ellis) Sacc.
On mossy logs.

PEZIZA, Dillenius.

433. *P. aurantia,* Pers.
Not very common.

434. *P. rutilans,* Fries.
Rather common in woods among moss plants.

435. *P. vesiculosa,* Bull.
This species has been found to be very common in strawy manure and soil fertilized with such material.

436. *P. repanda,* Wahl.
On old logs.

437. *P. badia,* Pers.
On naked soil in shady places, moist banks, etc.

438. *P. brunneo-atra,* Desm.
On the ground in shady places.

DETONIA.

439. *D. trachcarpa,* (Curr.) Sacc.
Plants were abundant during the autumn on burnt places.

HUMARIA, Fries.

440. *H. muralis,* Quel.
Not uncommon in shady places, often on mossy banks by the roadsides.

441. *H. tetraspora,* (Fckl.) Sacc.
In damp mossy places.

442. *H. humosa* (Fr.) Sacc.
Common in moist places on naked soil and among moss.

443. *H. leucoloma,* (Hedw) Fries.
Among moss in woods, rather common.

444. *H. granulata* (Bull) Sacc.
On cow dung.

445. *H. fuscocarpa,* E and Hol.
On an old log.

BARÆA.

446. *B. crechqueraultii* (Crouan) Sacc.
Plants very small, orange yellow. Numerous on clay soil.

447. *B. cinnabarina* (Fckl) Sacc.
Rather common in shady places among moss.

448. *B. amethystina,* (Quel) Sacc.
In woods among moss. Not uncommon.

449. *B. miniata,* Crouan.
On rather sandy soil, among moss.

GEOPYXIS, Persoon.

450. *G. nebulosa,* (Cooke) Sacc.
On rotten wood. Not very common.

MACROPODIA, Fuckel.

451. *M. pubida,* (B. & C.)
This species is not uncommon on naked soil in woods.

ACETABULA.

452. *A. vulgaris,* (Fr.) Fckl.
In woods. Rare.

453. *A. sulcata,* (Pers.) Fckl.
On naked soil in woods; rare.

GALACTINIA, Cooke.

454. *G. succosa,* (Berk.) Sacc.
Rather common on naked soil in woods.

OTIDEA, Persoon.

455. *O. leporinia,* (Batsch) Fckl.
In woods.

456. *O. ochracea,* (Fr.) Sacc.
In woods.

ASCOBOLACEÆ FAMILY.

LASIOBOLUS, Saccardo.

457. *L. equinus,* (Mull.) Karst.
On cow dung. Very common.

458. *L. raripilus,* (Phill.) Sacc.
On cow dung. Rare.

ASCOPHANUS, Boudier.

459. *A. microsporus,* (B. & Br.) P.
On cow dung.

460. *A. cinereus,* (Crouan) Boud.
Grown on horse dung in culture.

461. *A. testaceus,* (Moug.) Phill.
Plants small. Orange red. On old rag carpet.

462. *A. granuliformis,* (Cr.) Boud.
On cow dung.

463. *A. carneus,* (Pers.) Sacc.
On cow dung.

RYPATOBIUS, Boudier.

464. *R. pelletieri,* (Cr.) Sacc.
Not uncommon.

465. *R. sexdecimsporus,* (Cr.) Sacc.
On cow dung. Not uncommon.

466. *R. crustaceus,* (Fckl.) Rehm.
On cow dung. Not uncommon.

467. *R. pachyascus,* Rehm.
On cow dung. Not uncommon.

SACCOBOLUS, Boudier.

468. *S. kerverni,* (Crouan) Boud.
On cow dung. Common in moist places.

ASCOBOLUS, Persoon.

469. *A. furfuraceus,* Pers.
On cow dung. Very common.

470. *A. immersus,* Pers.
On cow dung. Not uncommon.

471. *A. glaber,* Pers.
Plants very small. Rare.

472. *A. atro-fucus,* Phil. & Plow.
Common on burnt places.

473. *A. viridis,* Curr.
This species has been found to be very common on rather hard, damp clay soil.

474. *A. brunneus,* Cooke.
On horse dung. Not uncommon.

HELOTIACEÆ FAMILY.

SARCOSCYPHA, Fries.

475. *S. coccinea,* (Jacq.) Cke.
Very common on half buried sticks in the woods. Late autumn and early spring.

476. *S. occidentalis,* (Schw.) Cke.
On decaying sticks in woods.

477. *S. floccosa,* (Sche.) Cke.
On decaying sticks, spring and summer.

SCLEROTINIA.

478. *S. seaveri,* Rehm.
On buried seeds of wild cherry.

CHLOROSPLENIUM.

479. *C. æruginosum,* (Nyl.) Karst.
On wood (Oak).

480. *C. versiforme,* (Pers.) Karst.
On wood.

DASYSCHPHA.

481. *D. nivea,* (Hedw) Sacc.
On decaying wood (oak). Common.

482. *D. pygmaea,* (Fr) Sacc.
On half buried sticks and roots in damp places. Not common.

TRICHOPEZIZA.

483. *T. tiliea,* (Peck) Sacc.
Abundant on decaying branches of Tilia americana.

484. *T. comata,* (Schw.) Sacc.
On decaying oak leaves in wet places.

485. *T. sulphurea,* (Pers.) Fckl.
On dead stems of herbaceous plants.

PHIALEA.

486. *P. fructigena,* (Bull) Gill.
On acorns and hickory nut husks in wet places in woods. Not uncommon.

487. *P. scutula,* (Pers) Gill.
Plants small,yellowish. On Polygonium stems in wet places.

CIBORIA.

488. *C. pseudotuberosa,* Rehm.
On acorns. Not common.

489. *C. sulphurella,* (E. and E.)
This species has been found in moist places on petioles of leaves which are party buried.

HELOTIUM, Fries.

490. *H. citrinum,* (Hedw.) Fr.
On rotten wood. Very common.

491. *H. aciculare,* (Bull.) Pers.
On decaying leaves of *Populus tremuloides.*

492. *H. pallescens,* (Pers.) Fr.
On much decayed wood. Not common.

493. *H. citrinulum seaveri,* Rehm.
On dead stems of *Carex sp.* on hillsides.

CORYNE, Tulasne.

494. *C. sarcoides,* (Jacq.) Tul.
On rotten wood in moist places. Rather common.

495. *C. urnalis,* (Nyl.) Sacc.
On partly decayed wood.

MOLLISIACEÆ FAMILY.

MOLLISIA, Fries.

496. *M. dehnii,* (Rabenh) Karst.
Plants small, parasitic on leaves and stems of *Potentilla norvegica.* Not common.

497. *M. polygonii,* (Laesh) Gill.
On decaying stems of Polygonum. Common.

498. *M. cinerea,* (Batsch) Karst.
Occurs on various kinds of decaying wood.

499. *M. atrata,* (Pers) Fckl.
On dead herbaceous stems *(Ambrosia trifida).*

NIPTERA.

500. *N. saliceti,* (Rehm.) Sacc.
Plants minute, light colored. On wood which is much decayed. Not common.

ORBILIA.

501. *O. chrysocoma,* (Bull.) Sacc.
On rotten wood. This species is very common in woods.

501*a*. *O. vinosa,* (A. and S.) Karst.
Plants small, similar to preceding, but red instead of yellow. On rotten wood. Common.

PATELLARIACEÆ FAMILY.

KARSHIA.

502. *K. lignyota* (Fr.) Sacc.
On decorticated wood. Not common.

DURELLA.

503. *D. clavispora,* (B. and Br.)

HYSTEROPATELLA.

504. *H. prostii,* (Duby) Rehm.
On old bark (elm?)

505. *H. elliptica* (Fr.) Rehm.
On old bark(crab apple?)

PATELLARIA, Fries.

506. *P. melaxantha,* Fries.
On wood. Rare.

507. *P. salvispora,* (Peck) Sacc.
Plants are small. Black. Common on willow.

508. *P. (Mycolecidea) triseptita,* (Karst.)
Plants sessile. On old wood.

LECANIDION.

509. *L. atratum,* (Hedw.) Rabenh.
Rather common.

510. *L. tetraspora,* M. & M.
Plants very small, black in mass, gregarious. Rather common. On decorticated wood.

BLYTRIDIUM.

511. *B. fenestratum,* (C. & P.) Sacc.
On poplar branches.

CENANGIACEÆ FAMILY.

CENANGIUM, Fries.

512. *C. populuem,* (Pers.) Rehm.
Very abundant and common.

513. *C. rubiginosum,* (Fr.) Sacc.
On the dead limbs of *Carpinus americana.*

DERMATEA.

514. *D. cerasi,* (Pers.) Fr.
On rotten wood. Rare.

BULGARIA, Fries.

515. *B. inquinans,* (Pers.) Fr.
Very common on bark of oak.

516. *B. rufa,* Schw.
On dead limbs. Rather common.

HOLWAYA.

517. *H. ophiobolus,* (Ellis) Sacc.
On wood.

URNULA, Fries.

518. *U. craterium,* (Schw.) Fr.
Very common and abundant.

IMPERFECT FUNGI.

SPHÆROPSIDACEÆ FAMILY.

PHYLLOSTICTA.

519. *P. toxica,* (E. & M.) Ellis.
On fading leaves of *Rhus toxicodendron.*

520. *P. cornicola,* (DC.) Rabh.
On *Cornus.*

521. *P. grossulariæ,* Sacc.
Leaf-spot on gooseberries.

522. *P. humuli,* Sacc & Speg. Var. *major,* E. & E.
On hop leaves.

PHOMA.

523. *P. virginiana,* Ell. & Halsted.
On leaves of *Prunus virginiana.*

524. *P. sanguinolenta,* Rostr.
On carrots.

525. *P. solani,* Hals.
On egg-plant.

VERMICULARIA.

526. *V. sanguinea,* Ell. & Halstead.
On leaves of *Panicum* in grass plots and lawns.

MELANCONIACEÆ FAMILY.

GLOCOSPORIUM.

527. *G. frutigenium,* Berke.
Bitter-rot of apple.

528. *G. venetum,* Spreg.
On blackberries and raspberries.

529. *G. ribis,* D. & M.
On currants and gooseberries.

530. *G. potentillae,* Desm.
On strawberries.

531. *G. violae,* B. & Br.
On violets.

COLLETOTRICHIUM.

532. *C. lindemuthianum,* Sacc.
Spot-rot of watermelon and pod-spot of beans.

CYLINDROSPORIUM.

533. *C. iridis,* Ell. & Halsted.
On living leaves of iris.

534. *C. padi,* Karst.
Abundant on cherry. Plum leaf blight.

MARSONIA.

535. *M. juglandis,* Sacc.
Trees of Butter-nut nearly defoliated by middle of August. Not so severe on Black Walnut.

536. *M. martini,* Sacc.
Abundant on English Oak; majority of leaves affected; also occurred on Burr Oak.

SEPTORIA.

537. *S. brunellae,* E. & H.
On leaves of *Brunella vulgaris.*

538. *S. chrysanthemi,* E. & D.
On leaves of chrysanthemums.

539. *S. rubi,* West.
Abundant on *Rubus ordoratus, R. canadensis.* August and September. Leaf spot.

540. *S. ribis,* Desm.
Abundant on *Ribes nigrum,* June and September.

541. *S. pachyspora,* Ell. & Hol.
On leaves of *Zanthoxylum americanum.*

542. *S. silphii,* E. & E.
On *Silphium perfoliatum.*

543. *S. alismatis,* Oudem.
On *Alisma plantago.*

544. *S. besseyi,* Pk.
On ash.

545. *S. equisiti,* Desm.
On *Equisetum.*

546. *S. lobeliae,* Pk.
On *Lobelia spicata.*

547. *S. rudbeckia,* Ellis & Halsted.
On *Rudbeckia triloba* and *laciniata.*

548. *S. dianthi,* Desm.
Leaf-spot on carnations.

549. *S. cerasina,* Peck.
Gun-shot fungus of cherry.

GYMNOSPORIUM.

550. *G. harknessioides,* E. & Hol.
On leaves of *Phyrma leptostachya* and on various other living leaves.

MONILIACEÆ FAMILY.

MONILIA.

551. *M. fructigena,* Pers.
Abundant late in season on fruit of *Prunus americana.* Rot and blight of plum and peach.

RAMULARIA.

552. *R. astragali,* E. & Hol.
On *Astragalus canadensis.*

553. *R. subrufa,* Ell. & Hol.
On leaves of smilax.

554. *R. concomitans,* Ell. & Hol.
On leaves of *Bidens.*

555. *R. urticæ,* Ces.
On *Urtica gracilis.*

556. *R. desmodii,* Cke.
On leaves of Desmodium.

557. *R. filaris,* Fries.
On leaves of asters.

558. *R. didyma,* Unger.
On *Ranunculus pennsylvanicus.*

DEMATIACEÆ FAMILY.

CLADOSPORIUM.

559. *C. carpophilum,* Thum.
Rare on *Prunus americana,* but abundant on *Cratægus mollis* late in August and September. Plum scab.

560. *C. herbarum,* (Pers.) Link.
On wheat and other plants.

561. *C. fulvum,* Cke.
Leaf mould of tomato.

FUSICLADIUM.

562. *F. dentriticum,* Fckl.
Apple scab.

HELMINTHOSPORIUM.

563. *H. graminum,* Rabh.
Not common. On *Hordeum vulgare* in July.

CERCOSPORA. Leaf Spot.

564. *C. ranunculi,* E. & Hol.
On leaves of *Ranunculus repens.*

565. *C. viclae,* E. & Hol.
On leaves of *Vicia sativa.*

566. *C. omphakodes,* E. & Hol.
On leaves of *Phlox divaricata.*

567. *C. antipus,* E. & Hol.
On leaves of *Lonicera flava.*

568. *C. galii,* E. & Hol.
On leaves of *Galium aparine.*

569. *C. granuliformis,* E. & Hol.
On leaves of *Viola culculata.*

570. *C. monoica,* E. & Hol.
On *Amphicapœa monoica.*

571. *C. lateritia,* Ell. & Halsted.
On living leaves of *Sambucus pubens.*

572. *C. lycii,* Ell. & Halsted.
On *Lycium vulgare.*

573. *C. anomala,* Ell. & Halsted.
On living leaves of *Actinomeris squarrosa.*

574. *C. oxybaphi,* Ell. & Halsted.
On living leaves of *Oxybaphus nyctagineus.*

575. *C. resedæ,* Fuckel.
Abundant on *Reseda odorata* in August and September. Leaf spot on Mignonette.

576. *C. beticola,* Sacc.
Abundant on *Beta vulgaris.* (Sugar and mangel beets.) September. In some cases leaves completely covered with cinerous spots. Leaf spot on beets.

577. *C. angulata,* Winter.
Abundant on *Ribes rubrum,* shrubs nearly defoliated latter part of July and early August. Fungus appeared early in May.

578. *C. menispermi,* Ells. & Hol.
On leaves of *Menispermia canadensis.*

579. *C. tabacina,* E. & E.
On *Rudbeckia triloba.*

580. *C. rasaecola,* Pass.
Leaf-spot on roses.

581. *C. violae,* Sacc.
Leaf-spot on violets.

582. *C. persica,* Sacc.
White blight of peach.

583. *C. apii,* Frs.
Carrot and celery rust.

584. *C. cruenta,* Sacc.
Leaf-blight of beans.

MACROSPORIUM.

585. *M. solani,* E. & M.
Leaf-blight of potato and egg-plant.

TUBERCULARIACEÆ FAMILY.

FUSARIUM.

586. *F. culmorum,* W. G. Smith.
On wheat.

587. *F. solani.*
On tomatoes.

PENICILLIUM, Link.

588. *P. glaucum.*
On decaying fruit.

LOW BASIDIOMYCETES.

USTILAGINEÆ FAMILY. SMUTS.

USTILAGO, Pers.

589. *U. bistortarum,* (DC.) Koern.
On *Polygonum incarnatum,* Ell.

590. *U. candollei,* Tul.
On *Polygonum sagittatum,* L.

591. *U. caricis,* (Pers)
On *Carex pennsylvanica,* Lam.

592. *U. destruens,* Duby.
On *Panicum capillare,* L., *P. glabrum,* Gaud.

593. *U. hypodytes,* (Schlecht).
On *Elymus canadensis,* L.

594. *U. junci,* Schw.
On *Juncus tenuis,* Willd.

595. *U. zeæ-mays,* (DC.) Winter.
On corn.

596. *U. minima,* Arthur (n. sp.)
On the inflorescence of *Stipa spartea,* Trin.

597. *U. neglecta,* Niessl.
On *Setaria glauca,* Beauv.

598. *U. rotundata,* Arthur (n. sp.)
In the ovaries of *Panicum virgatum,* L.

599. *U. segetum,* (Bull.). *(U. carbo,* DC.)
On *Arrhenatherum avenaceum,* Beauv.; *Avena sativa,* L.; *Hordeum vulgare,* L.; *Triticum vulgare,* Vill.

600. *U. spermorphorus,* B. & C.
On *Eragrostis poæoides,* Beauv., var. *megastachya,* Gr.

601. *U. syntherismae,* Schw.
On *Cenchrus tribuloides,* L.

602. *U. utriculosa,* (Nees.)
On *Polygonum hydropiper,* L., *P. incarnatum,* Ell.

603. *U. austro-americana,* Speg.
On *Polygonum incarnatum,* Ell.

604. *U. avenæ,* (Pers.) Jens.
On *Avena sativa.*

605. *U. bromivora,* (Tul.)
On *Bromus marginatus.*

606. *U. crameri,* Koern.
On *Setaria italica.*

607. *U. hordei,* (Pers.) K. & S.
On *Hordeum vulgare.*

608. *U. longissima,* (Sow.) Tul.
On *Glyceria,* Sp.

609. *U. nuda,* (Jens.)
On *Hordeum vulgare.*

610. *U. ovalidis,* Ell. & Tracy.
On *Oxalis stricta.*

611. *U. panici-glauci,* (Wallr.) Niessl.
On *Setaria glauca.*

612. *U. perennans,* Rostr.
On *Arrhenatherum avenaceum.*

613. *U. pustulata,* Tracy and Earle.
On *Panicum proliferum.*

614. *U. Rabenhorstiana,* Kuhn.
On *Panicum glabrum* and *Panicum sanguinale.*

615. *U. tritici,* (Pers.) Jensen.
On *Triticum vulgare.*

616. *U. arthurii,* n. sp.
On *Panicularia americana,* (Torr.) MacM.

CINTRACTIA, Cornu.

617. *C. sorghi,* (Sorok.) De Toni.
On Andropgon, sorghum.

618. *C. junci,* (Schw.) Trel.
On *Juncus tenuis.*

619. *C. sphœrogena,* (Burrill).
On *Panicum crus-galli.*

620. *C. reiliana,* (Kuehn.) Clinton.
On sorghum sp. probably vulgare.

SCHIZONELLA, Schroet.

621. *S. melanogramma,* (DC.) Schroet.
On *Carex pennsylvanica,* Lam.

TOLYPOSPORIUM, Woron.

622. *T. bullatum.*
On *Panicum crus-galli,* L.

DOASSANSIA, Cornu.

623. *D. alismatis,* Cornu.
On *Alisma plantago,* L., var. *americanum,* Gr.

THECAPHORA.

624. *T. aterrima,* Tul.
On *Carex adusta,* Boott.

SOROSPORIUM, Rudol.

625. *S. syntherismæ,* (Schw.) Farlow.
Abundant on *Panicum capillare.*

626. *S. bullatum,* Schr.
On *Panicum crus-galli,* L.

TILLETIA, Lulasne.

627. *T. tritici,* (Bjerk) Winter.
On *Triticum vulgare,* Vill.

628. *T. foetens,* Trelease.
On *Triticum vulgare,* L.

629. *T. rotundata,* (Arth.) Massee.
On *Panicum virgatum,* L.

630. *T. striæformis,* (West) Fisch. de Waldh.
On *Poa pratensis,* L.; *Phleum pratense,* L.; *Agrostis alba.*

631. *T. subfusca,* N. Sp.
On *Sporobolus neglectus,* Nash.

NEOVOSSIA, Korn.

632. *N. neovossia iowensis,* Hume and Hodson.
On *Phragmitis communis,* Trin.

ENTYLOMA, De Bary.

633. *E. compositarum,* Earl.
On *Lepachys pinnata,* Torr. & Gray, and *Ambrosia artemisiæfolia,* L.

634. *E. crastphilum,* Sacc.
On *Phleum pratense,* L.

635. *E. linariae,* Schroet.
On *Veronica peregrina,* L.

636. *E. menispermi,* Earl & Trel.
On *Menispermum canadense,* L.

637. *E. miscrosporum,* (Ung.) De Bary.
On *Ranunculus septentrionalis,* Poir.

638. *E. physalidis,* (Kalch. & Che.) Farl.
On *Physalis virginiana, P. lanceolata, P. philadelphica, P. heterophylla.*

639. *E. polysporum,* (Pk.) Farl.
On *Ambrosia trifida,* L.

640. *E. saniculae,* Pk.
On *Sanicula canadensis,* Torr.

641. *E. besseyi,* Farl.
On *Physalis virginiana,* Mill.

642. *E. leuto-maculans,* n. sp.
In Blue-bells.

643. *E. pammelii,* n. sp.
On Wild Rice.

UROCYSTIS, Rabenh.

644. *U. agropyri,* (Preuss.) Schroet.
On *Elymus robustus,* S. & S., *E. canadensis,* and *Bromus ciliatus,* L.

645. *U. anemones,* (Pers.) Schroet.
On *Anemone virginiana,* L., *Hepatica acutiloba,* D. C.

646. *U. colchici,* (Schlecht) Rabenh.
On *Polygonatum giganteum,* Diet.

647. *U. occulta,* (Wallr.) Wint.
On *Elymus canadensis,* L., and rye straw.

UREDINEÆ FAMILY. RUSTS.

MELAMPSORA, Castagne.

648. *M. populina,* (Jacq.)
On *Populus balsamifera,* L., *P. monilifera,* Ait.

649. *M. salicina,* Lev.
On *Salix amygdaloides,* Anders, *S. longifolia,* Muhl.

650. *M. farinosa,* (Pers.) Schroet.
Abundant on willow, August and September.

COLEOSPORIUM, Lev.

651. *C. sonchi-arvensis,* (Pers.)
On *Aster cordifolius,* L., *A. drummondi,* Lindl.

652. *C. viburni,* Arthur (n. sp.)
On *Viburnum lentago,* L.

CHRYSOMYXA, Unger.

653. *C. pirolatum,* (Koern.)
On *Pyrola elliptica,* Nutt.

UROMYCES, Link.

654. *U. acuminatus,* Arth.
On *Spartinia cynosuroides,* Willd.

655. *U. apiculatus,* Lev.
On *Trifolium repens,* L.

656. *U. brandegi,* Pk.
On *Bouteloua racemosa,* Lag.

657. *U. caladii,* (Schw.)
On *Arisaema triphyllum,* Torr.

658. *U. erythronii,* (DC.) Wint.
On *Lilium superbum,* L.

659. *U. euphorbiæ,* (Schw.)
On *Euphorbia glyptosperma,* Englem., *E. heterophylla,* L.

660. *U. euphorblae,* (Schw.) var. *Minor,* Arth.
On *Euphorbia marginata,* Pursh.

661. *U. hedysari-paniculata,* (Schw.)
On *Desmodium sessilofolium,* T. & G.

662. *U. howei,* Peck.
On *Ascelpias cornuti,* Oec., *A. tuberosa,* L., and *A. incarnata,* L.

663. *U. hyperici-frondosi,* (Schw.) Arth.
On *Hypericum pyramidatum,* Ait.

664. *U. junci,* Tul.
On *Juncus tenuis,* Willd.

665. *U. lesperzæ,* (Schw.) Pk.
On *Lespedeza capitata,* Michx., *L. leptostachya,* Engelm.

666. *U. phaseoli,* (Pers.) Wint.
On *Phaseolus diversifolius,* Pers.

667. *U. polygoni,* (Pers.) Wint.
On *Polygonum aviculare,* L., *P. erectum,* L.

668. *U. orobi,* (Pers.) Wint.
On *Vicia americana,* Muhl.; *Lathyrus venesus,* Muhl.

669. *U. pyriformis,* Cke.
On *Acorus calamus,* L.

670. *U. rudbecklæ,* Arthur and Holway.
On *Rudbeckia laciniata,* L.

671. *U. sparganii,* C. & P.
On *Sparganium eurycarpum,* Engelm.

672. *U. toxidendri,* R. & R.
On *Rhus toxicodendron,* L.

673. *U. trifolii,* (Hedw.) Lev.
Abundant in September on *Trifolium pratense.*

674. *U. appendiculatus,* (Pers.) Link.
Abundant on *Strophostyles angulosa.* Bean rust.

675. *U. digitalus,* Halstead.
On leaves of *Leersia virginica.*

676. *U. cephulæ,* Farl.
Smut on onions.

PUCCINIA, Pers.

677. *P. amorphæ,* Curtis.
On *Amorpha fruticosa,* L.; *A. canescens,* Nutt; *A. microphylla,* Pursh.

678. *P. andropogi,* Schw.
On *Andropogon furcatus,* Muhl.; *A. scoparius,* Michx.

679. *P. anemones-virginianæ,* Schw.
On *Anemone cylindrica,* Gr.; *A. virginiana,* L.

680. *P. angustata,* Peefl.
On *Cyperus strigosus,* L.

681. *P. asteris,* Duby.
On *Aster novæ-angliæ,* L.; *A. azureus,* Lind.

682. *P. arundinarlæ,* Schw.
On *Spartina cynosuroides,* Willd.

683. *P. calthae,* Link.
On *Caltha palustris,* L.

684. *P. caricis,* (Schum) Wint.
On *Carex strieta,* Lam,; *C. adusta,* Boott., and *C. straminae,* Schk.

685. *P. circææ,* Pers.
On *Circaea lutetiana,* L.

686. *P. convolvuli,* Pers., Winter.
On *Convolvulus sepium,* L.

687. *P. coronata,* Cda.
On *Avena sativa,* L.; *Phalaris arundinacea,* L.

688. *P. cryptotæniæ,* Peck.
On *Cryptotænia canadensis,* DC.

689. *P. cypripedii,* Arthur and Holway.
On *Cypripedium pubescens,* Willd.

690. *P. dayi,* Clinton.
On *Steironema ciliatum,* Rap.

691. *P. eleocharis,* Arthur.
On *Eleocharis intermedia,* Schul.; *E. palustris,* R. Br.

692. *P. emaculata,* Schw.
On *Panicum capillare,* L.

693. *P. flosculosorum,* (A. & S.) Wint.
On *Taraxacum officinale,* Weber; *Troximon cuspidatum,* Pursh.

694. *P. fusca,* (Rhelh.) Wint.
On *Anemone nemorsa,* L.; *A. patens,* L.; var. *nuttalliana,* Gr.

695. *P. galiorium,* Link.
On *Galium aparine,* L.; *G. boreale,* L.

696. *P. geutiana,* (Strauss) Wint.
On *Gentiana quinqueflora,* Lam.; var. *occidentalis,* Gr.; *puberla,* Michx.

697. *P. gerardii,* Pec.
On *Aster paniculatus,* Lam.

698. *P. graminia,* Pers.
On oats and wheat.

699. *P. hydrophylli,* P. & C.
On *Hydrophyllum virginicum,* L.

700. *P. verrucosa,* (Schultz) Wint.
On *Lophanthus nepetoides,* Benth.

701. *P. lobellae,* Gerard.
On *Lobelia syphilitica,* L.

702. *P. menthæ,* Pers.
On *Monarda fistulosa,* L.; *Pyenanthemum lanceolatum,* Pursh.

703. *P. nolitangeris,* Cda.
On *Impatiens pallida,* Nutt.

704. *P. obscura,* Schroet.
On *Luzula campestris,* DC.

705. *P. obtecta,* Peck.
On *Scirpus validus,* Vahl.

706. *P. phragmitis,* (Schum.) Wint.
On *Phragmites communis,* Trin.

707. *P. pimpinellæ,* (Strauss) Wint.
On *Osmorrhizæ longistylis,* DC.

708. *P. podophylli,* Schw.
On *Podophyllum peltatum.* L.

709. *P. polygoni-amphibii,* Pers.
On *Polygonum hartwrightii,* Gr.

710. *P. proserpinacæ,* Farlow.
On *Prosperpinaca palustris,* L.

711. *P. prunorum,* Link.
On *Prunus serotina,* Ehr.; *P. americana,* Mars.

712. *P. rubigo-vera,* (DC.) Wint.
On *Triticum vulgare,* Vill., Gray. Rust of wheat.

713. *P. silphii,* Schw.
On *Silphium perfoliatum,* L.

714. *P. maydis,* Carrad.
On *Zea mays,* L.

715. *P. sporoboli,* Arthur (n. sp)
On *Sporobolus heterolepis,* Gr.

716. *P. spreta,* Pec.
On *Mitella diphylla,* L.

717. *P. stipæ,* Arthur (n. sp.)
On *Stipa spartea,* Trin.

718. *P. tanaceti,* DC.
On *Helianthus strumosus,* L.; *Vernonia fasciculata,* Michx.; *H. strumosus,* L. & C.

719. *P. thalictri,* Chev.
On *Thalictrum diocum,* L.

720. *P. veronicae,* (Shum.) Wint.
On *Veronica virginica,* L.

721. *P. vexans,* Farlow.
On *Bouteloua racemosa,* Lag.; *Sporobolus cuspidatus,* Torr.

722. *P. violæ,* DC.
On *Viola cucullata,* Ait.

723. *P. xanthii,* Schw.
On *Xanthium canadense,* Mill.

724. *P. zygadeni,* Trelease.
On *Zygadenus elegans,* Pursh.

725. *P. heucherœ,* (Schw.)
On *Mitella diphylla,* L.

726. *P. sorghi,* Schw.
Abundant August and September on corn.

727. *P. helianthi,* Schw.
Abundant on *Helianthus tuberosus* and *H. grosseseratus* July, August and September. In August especially destructive to cultivated sunflower.

PHRAGMIODIUM, Link.

728. *P. gracile,* (Farlow).
On *Rubus strigosus,* Michx.

729. *P. obtusum,* (Strauss) Wint.
On *Potentilla canadensis,* L.

730. *P. speciosum,* (Fr.)
On *Rosa blanda,* Ait.

731. *P. subcorticium,* (Schrank) Wint.
On *Rosa blanda,* Ait.

732. *P. rosae-alpina,* Fr.
On roses, introduced.

GYMNOSPORANGIUM, Hedw.

733. *G. clavarlæformis,* DC.
On Juniper.

734. *G. clavipes,* C. & P.
On Red Cedar.

735. *G. macropus,* Lk.
On Red Cedar, Cedar apple. Rust on apple foliage.

UREDO.

736. *U. agrimonlæ,* DC.
On *Agrimonia eupatoria,* L.

737. *U. bouteloucæ,* Arthur (n. sp.)
On *Bouteloua racemosa,* Lag.

738. *U. iridis,* Duby.
On *Iris versicolor,* L.

739. *U. polypodii,* (Pers.)
On *Pellaea gracilis,* Hook.

740. *U. caeoma-nitens,* Schw.
Abundant on blackberries.

CÆOMA.

741. *C. luminatum,* Schw.
On *Rubus villosus,* Ait.

742. *C. nitens,* S.
Rust on blackberry.

ÆCIDIUM.

743. *A. actææ,* Wallr.
On *Actaæ alba,* L.

744. *A. albescens,* Grev.
On *Adoxa moschatellina,* L.

745. *A. asteratum,* Schw.
On *Aster cordifolius,* L.

746. *A. berberidis,* Gmel.
On English barberry.

747. *A. caladii,* Schw.
On *Arisaema dracontium,* Schott.; *A. triphyllum,* Torr.

748. *A. pentstemonis,* Schw.
On *Castilleia sessiliflora,* Pursh.

749. *A. clematidis,* DC.
On *Clematis virginiana,* L.

750. *A. compositarum,* Mart.
On *Holianthus strumosus,* L.; *Rudbeckia lachiniata,* L.; *Senecio aureus,* L.

751. *A. convallarlæ,* Schw.
On *Polygonatum giganteum,* Diet.

752. *A. crassum,* Pers.
On *Rhamnus alnifolia,* L'Her.

753. *A. cyparisslæ,* DC.
On *Euphorbia commutata,* Englem.

754. *A. epilobii,* DC.
On *Œnothera biennia,* L.

755. *A. erigeronatum,* Schw.
On *Erigeron strigosus,* Muhl.; *E. philadelphicus,* L.

756. *A. euphorblæ,* Schw.
On *Euphorbia heterophylla,* L.; *E. maculata,* L.

757. *A. fraxini,* Schw.
On green ash.

758. *A. galli,* Pers.
On *Galium concinnum,* T. & G.

759. *A. geranii,* DC.
On *Geranium maculatum,* L.

760. *A. grossularlæ,* DC.
On *Ribes cynosbati,* L.; *R. floridum,* L.; *R. gracile,* Michx.

761. *A. hepaticum,* Schw.
On *Anemone acutiloba,* Law.

762. *A. hydnoideum,* B. & C.
On *Dirca palustris,* L.

763. *A. hydrophylli,* Pk.
On *Ellisia nyctelea,* L., and *Hydrophyllum virginicum,* L.

764. *A. hypericatum,* Schw.
On *Hypericum pyramicatum,* Ait.

765. *A. impatientatum,* Schw.
On *Impatiens fulva,* Nutt.

766. *A. iridis,* Ger.
On *Iris versicolor,* L.

767. *A. jamesianum,* Pk.
On *Asclepias cornuti,* Dec., and *A. tuberosa,* L.

768. *A. leguminosatum,* Lk.
On *Amphicarpaea monoica,* Nutt.; *Apois tuberosa,* Moench.

769. *A. menthæ,* DC.
On *Monarda fistulosa,* L.

770. *A. napææ,* Arthur and Holway (n. sp.)
On *Napaea dioica,* L.

771. *A. Œnotherae,* Pk.
On *Œnothera biennis,* L.; *Œ. serrulata,* Nutt.

772. *A. crobi,* DC.
On *Trifolium repens,* L.

773. *A. oxalidis,* Thm.
On *Oxalis violacea,* L.

774. *A. pericylmeni,* Schum.
On *Louicera sullivantii,* Gr.

775. *A. phrymæ,* Holstead.
On *Phryma lepostchya.*

776. *A. phlogis,* Pk.
On *Phlox divaricata,* L.; var. *laphamii,* Wd., and *P. pilosa,* L.

777. *A. pimpinellæ,* Kirchr.
On *Osmorrhiza longistylis,* DC., and on *Cicuta maculata,* L.

778. *A. podophylli,* Schw.
On *Podophyllum pelatum,* L.

779. *A. polemonii,* Pk.
On *Polemonium reptans,* L.

780. *A. polygalinum,* Pk.
On *Polygala senega,* L.

781. *A. porosum,* Pk.
On *Lathyrus venosus,* Muhl., and *Psoralea argophylla,* Pursh.

782. *A. punctatum,* Pers.
On *Anemone nemorosa,* L.

783. *A. pustulatum,* Curt.
On *Comandra umbellata,* Nutt.

784. *A. ranunculacearum,* DC.
On *Anemone dichotoma,* L.; *A. nemorosa,* L.; *A. virginia,* L.

785. *A. ranunculi,* Schw.
On *Ranunculus abortivus,* L.

786. *A. sambuci,* Schw.
On *Sambucus canadensis,* L.

786*a*. *A. sambuci,* Schw.
On *Sambucus canadensis,* L.

787. *A. tenue,* Schw.
On *Eupatorum perfoliatum,* L., and *E. purpureum,* L.

788. *A. thalictri,* Grev.
On *Thalictrum cornuti,* L.

789. *A. urticæ,* Schum.
On *Urtica gracilis,* Ait.

790. *A. violæ,* Schum.
On *Viola cucullata,* Aia., and *V. delphinifolia,* Nutt.

791. *A. xanthoxyli,* Pk.
On *Xanthoxylum americanum,* Mill.

RŒSTELIA.

792. *R. lacerata,* Fr.
On *Cratægus subvillosa,* Schrad.

793. *R. penicillata,* Fr.
On *Pirus coronaria,* L.

794. *R. pyrata,* Thax.
Rust on apples.

HIGH BASIDIOMYCETES.

BOLETACEÆ FAMILY.

BOLETUS, Dill.

795. *B. luteus,* L.
In grass.

796. *B. flavus,* With.
In grass.

797. *B. flavidus,* Fries.
In grass. A beautiful golden yellow species marked with vermillion.

798. *B. ornatipes,* Peck.
A large species.

STROBILOMYCETES, Berk.

799. *S. strobilaceus,* Berk.
Common in woods.

POLYPORACEÆ FAMILY.

POLYPORUS, Micheli.

800. *P. resinosus,* (Schrader). Fries.
A common species, found everywhere on fallen trunks of *Tilia americana,* especially in moist shades.

801. *P. pubescens,* (Schumacher), Fries.
Rare. On dead birch.

802. *P. obtusus,* Berkeley.
Habitat oak trees, especially standing trunks of young burr-oaks that have been killed by fire.

803. *P. galactinus,* Berkeley.
On rotting logs, usually near the ground; not common.

804. *P. dichrous,* Fries.

805. *P. adustus,* (Willdenow) Fries.
Very common, especially on fallen stems of species of *Populus.*

806. *P. fumosus,* (Persoon) Fries.
Much like *P. dichrous* in color and general shape, but thick, corky, pallid, showing sooty or smoky tints chiefly where bruised or rubbed.

807. *P. frgrans,* Peck.
Very near the preceding, but distinguished by its larger and especially unequal denticulate pores. Rare.

808. *P. gilvus,* Schweinitz.
Very common, chiefly on oak.

809. *P. rutilans,* (Persoon) Fries.
Not common; on oak limbs.

810. *P. dryophilus,* Berkeley.
A large and rather handsome species, on species of oak; not common.

811. *P. chioneus,* Fries.
On birch and willow. Not common.

812. *P. tephrileucus,* Fries.
Not uncommon on rotten logs in marshy places.

813. *P. endocrocinus,* Berkeley.
On old oak logs, not very common.

814. *P. cincinnatus,* Morgan.
Not uncommon in damp woods, growing on the ground at the base of some stump of decaying tree.

815. *P. sulphureus,* (Bulliard) Fries.
Very common on rotten logs of all sorts.

816. *P. distortus,* Schweinitz.
On and in the ground at the bases of stumps, dead apple-trees; not common.

817. *P. frondosus,* Fries.
Not rare; autumn.

818. *P. elegans,* (Bulliard) Fries.
Very handsome, but not common on trunks of various species.

819. *P. varius,* Fries.
Not very common.

820. *P. picipes,* Fries.
Rather common, much larger than the preceding.

821. *P. squamosus,* (Hudson) Fries.
Not rare.

822. *P. radicatus,* Schweinitz.
Rare; on the ground in woods in autumn (September).

823. *P. arcularius,* (Batsch) Fries.
Not rare in early summer in wooded regions.

824. *P. cupuliformis,* Berkeley and Cooke.
On bark of ironwood.

825. *P. brumalis,* (Persoon) Fries.
Rather common about stumps in pasture fields.

826. *P. subsericens,* Peck.
On the ground in the woods.

MERULIUS, Hall.

827. *M. tremellosus,* Schrader.
On various trunks, not uncommon.

828. *M. incarnatus.*
On rotten logs in winter.

829. *M. lacrimans,* (Jacquin) Winter.
The far-famed "Dry rot" of the northern world, found everywhere attacking sills and joists in cellars, or beneath barns, or bridges, affording us the one surprising instance of a domesticated fungus.

830. *M. corium,* Fries.
Our commonest woodland species. Usually found in patches of several inches extent on the under side of fallen sticks and on ranked cord-wood in the forest.

FAVOLUS.

831. *F. europaeus,* Fries.
Common everywhere on fallen twigs and branches, chiefly on hickory and oak.

832. *F. rhipidium,* Berkeley.
It occurs in little densely cespitose tufts.

CYCLOMYCES.

833. *C. greenii,* Berkeley.
Rare. On the ground in mossy woodland.

DÆDALEA.

834. *D. unicolor,* (Bulliard) Fries.
Very common everywhere on all sorts of stumps and logs, railway ties, bridge timbers.

835. *D. pallido-fulva,* Berkeley.
Very common on stumps of various species.

836. *D. confragosa,* Persoon.
On dead stems of *Cratægus,* fallen species of willow and other deciduous trees, common.

837. *D. aurea,* Fries.
Not common.

838. *D. quercina,* Persoon.
On oak, not common.

839. *D. ambigua,* Berkeley.
On maple trunks, not common.

TRAMETES.

840. *T. serpens,* Fries.
Not infrequently on elm logs, especially those dry and decorticate.

841. *T. scutellata,* Schweinitz.
Rare.

842. *T. pini,* Fries.
On the wood of coniferous trees.

843. *T. peckii,* Kalchbrenner.
Rather common; chiefly on stumps of cottonwood and maple.

844. *T. suaveoleus,* Fries.
On decaying wood.

845. *T. sepium,* Berk.
On stumps.

PORIA.

846. *P. xantholoma,* Schweinitz.
Not common.

847. *P. salmonicolor,* Berkeley and Cooke.
On charred surface of wood.

848. *P. barbaeformis,* Berkeley and Cooke.

849. *P. vaporaria,* Fries.
On rotting wood of many sorts, in lumber piles, and even on heaps of rotting leaves.

850. *P. rufa,* Schrader.
Rare on rotten sap-wood of various sorts.

851. *P. vincta,* Berkeley.

852. *P. obducens,* Persoon.
Not common. Found occasionally on old oak rails, where specimens may persist several years, adding stratum after stratum of minute spores.

853. *P. mollusca,* Fries.
Rather common on rotten wood, especially on willows.

POLYSTICTUS.

854. *P. arcticus,* Fries.
On dead standing trunk of oak, not common.

855. *P. hirsutus,* Fries.
On wood of all sorts, perhaps our most common *Polypore.*

856. *P. zonatus,* Fries.
Not common.

857. *P. versicolor,* (Linnæus) Fries.
Very common on stumps and half-buried roots.

858. *P. cinnabarinus,* (Jacquin) Fries.
Very common on soft woods.

859. *P. pergamenus,* Fries.
Common on trunks of all sorts.

860. *P. biformis,* Klotz.

861. *P. conchifer,* Schweinitz.
Very common on dead branches of white elm, but perishing after the twig falls to the ground.

FOMES.

862. *F. reniformis,* Morgan.
Resembles *applanatus.*

863. *F. rimosus,* Berkeley.
Not common. Found mostly on oak.

864. *F. igniarius,* (Linnæus) Fries.
Very common on various trees, especially on oak.

865. *F. formentarius,* (Linnaeus) Fries.
Found on birch in this state.

866. *F. applanatus,* (Persoon) Wallroth.
Everywhere common on trees of all sorts.

867. *F. ulmarius,* Fries.
Seems to be confined to White Elm.

868. *F. conglobatus,* Berkeley.
Not common. On the sides of standing trees.

869. *F. lucidus,* (Leys.) Fries.
Common. On ground about the base of stumps, especially in low, marshy ground.

THELEPBORACEÆ FAMILY.

SOLENIA.

870. *S. ochracea,* Hoffman.
Not uncommon, frequently collected in various quarters as a slime-mould, which the species to the naked eye somewhat resembles. Found on decaying tree-trunks of various sorts.

AGARICAEÆ FAMILY.

SERIES I. LEUCOSPORÆ—THE WHITE-SPORED AGARICS.

AMANITA, Galen.

870*a*. *A. muscarius,* L.
Not rare in our wooded districts, in midsummer, though usually small. August.

871. *A. vernus,* Fries.
Found often in clearings in woods, though rather rare. July and August.

872. *A. virosus,* Fries.
Rare in damp woods. September.

873. *A. phalloides,* Fries.
In deep woods, usually in colonies. August and September.

874. *A. vaginatus,* Bull.
Not common. August.

875. *A. pantherinus,* DC.
Rare. Occurs in June and July in unfrequented woodlands.

LEPIOTA, Fries.

876. *L. procerus,* Scop.
Common in woods and orchards. August and September.

877. *L. acutesquamosus,* Weinm.
Not common; in rich woodland. August and September.

878. *L. americanus,* Pk.
Common. August.

879. *L. naucinoides,* Pk.
Common in its season on lawns and grassy places generally. August and September.

ARMILLARIA, Fries.

880. *A. melleus,* Vahl.
Common; sometimes solitary, sometimes in dense tufts and clusters at the base of stumps. September.

TRICHLOMA, Fries.

881. *T. personatus,* Fries.
August.

882. *T. terreus.*

CLITOCYBE, Fries.

883. *C. infundibuliformis,* Schaeff.
Not common. June.

884. *C. illudens,* Schw.
Very common; growing in clusters at the base of stumps. September.

885. *C. ochropurpureus,* Berk.
Common on wooded hillsides. August and September.

886. *C. laccatus,* Scop.
Rather rare. Found at the base of stumps. August.

887. *C. radicatus,* Relh.
Common in clearings at base of stumps. June and November.

888. *C. dryophilus,* Bull.
Common in woodlands everywhere, often gregarious. June and October.

889. *C. velutipes,* Curt.
Not uncommon; found in damp places springing from crevices of old logs, and dead roots. September.

MYCENA, Fries.

890. *M. galericulatus,* Scop.
Exceedingly common on old stumps, rotten logs and the like in shady places. July to November.

891. *M. purus,* Pers.
Common amongst leaves in moist ravines. September.

OMPHALIS, Fries.

892. *O. umbelliferus,* L.
Not rare in wet places. July to September.

893. *O. fibula,* Bull.
Commonly found on patches of moss in protected situations. June and November.

PLEUROTUS.

894. *P. sapidus,* Kalch.
Very common on all sorts of decaying tree trunks. June to November.

895. *P. ulmarius,* Bull.
Habitat on elm trees, often high above the ground. Rare.

896. *P. applicatus,* Batsch.
Not rare on the bark of trees, chiefly oaks, associated with lichens, some of which the agarics much resemble. Only to be recognized, or at least identified, by the aid of a good lens.

SERIES II. RHODOSPORÆ—PINK-SPORED AGARICS.

PLUTEUS, Fries.

897. *P. cervinus,* Schaff.
Common during the entire season, specimens often frozen with the ground at approach of winter. Frequently seen on the decaying sawdust about ice-houses.

ENTOLOMA, Fries.

898. *E. rhodopolius,* Fries.
Not common; characteristic of moist shades in undisturbed woodlands. August to September.

SERIES III. OCHROSPORÆ—THE BROWN-SPORED AGARICS.

PHOLIOTA, Fries.

899. *P. adiposus,* Fries.
Not rare in all our wooded region. They spring out horizontally from some log or stump. September to October.

900. *P. tuberculosus,* Fries.
Rare. Resembles somewhat the preceding species, but is smaller, not brightly colored, and is never glutinous. June.

901. *P. unicolor,* Vahl.
Very common, found everywhere on rotten logs, in moist ravines.

INOCYBE, Fries.

902. *I. lanuginosus,* Bull.
Rare. Occur in our oak groves and undisturbed woodlands generally.

FLAMMULA, Fries.

903. *F. fusus,* Batsch.
Very common in woodlands on the ground in late summer and fall.

NAUCORIA, Fries.

904. *N. semiorbicularis,* Bull.
Rather common in autumn in pasture fields, woodlands, and by the waysides everywhere.

GALERA, Fries.

905. *G. tener,* Schaff.
Very common in summer on lawns and grassy places.

906. *G. hypnorum,* Batsch.
Common in spring on fresh, green tufts of various mosses, in damp woods.

CREPIDOTUS, Fries.

907. *C. mollis,* Schaeff.
Common on fallen trees and branches, particularly on species of *Populus.*

SERIES IV. PORPHYROSPORÆ—THE PURPLE-SPORED AGARICS.

AGARICUS.

908. *A. arvensis,* Schaeff.
In cultivated grounds; not abundant. September and October.

909. *A. campester,* L.
Common mushroom. Extensively cultivated and used for food in all lands.

910. *A. sylvaticus,* Schaeff.
Wild mushroom. In the woods, but not common.

STROPHARIA.

911. *S. semiglobatus,* Batsch.
Very common on manure in pasture fields and on manured grounds, lawns; from May to late fall.

912. *S. stercorarius,* Fries.
Like the preceding in appearance, habitat and abundance. It is distinguished by the expanded pileus and stuffed stipe.

HYPHOLOMA.

913. *H. sublateritius,* Schaeff.
One of our most common autumnal species, in protected situations fruiting through the winter. Found at the base of stumps, in crowded, cæspitose tufts, but sometimes isolated, when the maximum size is attained.

914. *H. lachrymabundus,* Fries.
Found in autumn on the ground and on rotten trunks, commonly in clusters. Not common.

915. *H. velutinus,* Pers.
Not common. Found in unkept yards and lawns.

916. *H. candolleanus,* Fries.
Very common from May to October about decaying stumps or roots, anywhere on lawns, in pastures and in woods.

PSILOCYBE, Fries.

917. *P. spadiceus,* Fries.
Very common on lawns and in cultivated lands, all summer.

SERIES V. MELANOSPORÆ—THE BLACK-SPORED AGARICS.

COPRINUS, Fries.

918. *C. comatus,* Fries.
Rather common in September and October about hotbeds and manure heaps, or even in rich soil, or in grassy places along the highway.

919. *C. atramentarius,* Bull.
Very common everywhere in dense tufts and masses, rarely solitary. From May to December.

920. *C. niveus,* Fries.
Common about stables, especially after summer showers.

921. *C. micaceus,* Fries.
Very common the year through at the base of stumps and on the ground in dense masses.

922. *C. nycthemerus,* Fries.
Everywhere on manured land, lawns; from May to September.

923. *C. plicatilis,* Fries.
On the moist earth on lawns, fields, woodlands; very short-lived, evanescent.

PANÆOLUS, Fries.

924. *P. campanulatus,* Linn.
Very common all summer on horse dung and richly manured land.

925. *P. fimicola,* Fries.
Very common in similar places and with the preceding.

926. *P. papilionaceus,* Fries.
Common. Occurs in similar places and with the preceding species.

PSATHYRELLA.

927. *P. atomatus,* Fries.
Common on grassy lawns.

GASTEROMYCETES. PUFF-BALLS.

SCLERODERMEÆ FAMILY.

SCLERODERMA.

928. *S. vulgare,* Horneman.
Very common; in pastures, woods and fields. August to October.

TULOSTOMEÆ FAMILY.

TULOSTOMA.

929. *T. mammosum,* (Micheli) Winter.
Common in sandy places by streams and in alluvial soils. September and October.

PODAXINEÆ FAMILY.

SECOTIUM.

930. *S. warnei,* Peck.
A remarkable species, little resembling anything else and yet perhaps sometimes mistaken for some brown-spored agaric which has failed to open or expand. Very common in autumn about drift-wood in low places and alluvial meadows.

LYCOPERDINEÆ FAMILY.

CALVATIA, (Fries) Morgan.

931. *C. bovista,* (Linn.) Macbride.
This is the "giant puff-ball" of all the world. It occurs on meadows, lawns, pastures and sometimes in open woodlands, and might be rather common save for the perversity of some people who take pleasure in destroying natural objects.

932. *C. pachtdermum,* (Peck) Morgan.
Growing on the ground. Rare.

933. *C. cyathiformis,* (Bosc.) Morgan.
Growing on the ground in meadows and pastures, common and widely distributed.

934. *C. caelata,* (Bull.) Morgan.
Growing on the ground chiefly in open woods. Not common.

935. *C. craniformis,* (Schw.) Fries.
Formerly not uncommon in undisturbed woodlands; now much less seldom seen.

LYCOPERDON, (Tourn.) Morgan.

936. *L. pulcherrimum,* B. & C.
Very common everywhere in low grounds.

937. *L. atropurpureum,* Vitt.
Rare. Found occasionally in woods or sandy pastures.

938. *L. asterospermum,* Dur. and Mont.
Not rare on the ground in open woods and orchards.

939. *L. elegans,* Morgan.
This species was described by Mr. Morgan from a specimen collected in Muscatine county, Iowa, several years ago. The locality which furnished the specimen is a peculiar one, its entire flora in many respects unique.

940. *L. molle,* Pers.
On the ground in open woodland.

941. *L. pyriforme,* Schaeff.
Abundant on old logs or stumps, or more rarely on the ground.

942. *L. gemmatum,* Batsch.
A very common species, usually on rotten stumps, logs; in great crowded colonies.

943. *L. pedicellatum,* Peck.
Growing on the ground and decaying wood in the woods. Not uncommon. September.

944. *L. pusillum,* Batsch.
Not common; occurring occasionally in old fields or undisturbed woods in small colonies, half a dozen individuals in a place.

945. *L. peckii,* Morgan.
A common little species on the ground in thinly covered meadows, pastures.

Bovista, Pers.

946. *B. pila,* B. & C.
Exceedingly common everywhere throughout the wooded portion of Iowa and even in planted groves over the prairie.

947. *B. plumbea,* Pers.
Very common on meadows, pastures and lawns.

Catastoma, Morgan.

948. *C. subterraneum,* (Peck) Morgan.
It is an inhabitant of dry prairies.

Bovistella, Morgan.

949. *B. ohiensis,* Ellis & Morgan.
Rare, on the ground in pastures and open woods.

MYCENASTRUM, Desv.

950. *M. spinulosum*, Peck.
In rich ground, around unused cattle-sheds, where the plant is found not rarely in autumn.

GEASTER, Micheli.

951. *G. limbatus*, Fr.
Formerly common about the stumps of our primeval trees, now rare although met with occasionally.

952. *G. fornicatus*, Huds.
Rare. On the ground in woods, especially among pine leaves.

953. *G. triplex*, Jungh.
Rather common. Growing gregariously in loose soil about old logs or stumps in the woods.

954. *G. saccatus*, Fries.
Not common.

955. *G. striatus*, DC.
Not uncommon in undisturbed weeds, at the base of well-rotted stumps or beside rotten oak logs.

956. *G. hygrometricus*, (Pers.) Fries.
Our most common species.

NIDULARIEÆ FAMILY.

CYATHUS, Haller.

957. *C. striatus*, (Huds.) Hoffm.
Common in the woods on old tree-trunks, moss, between fallen leaves, on nut-shells.

958. *C. vernicosus*, (Bull.) DC.
Not uncommon on all sorts of decaying bits of vegetable matter buried, or half-buried in the ground. Not seldom found in corn-fields, on lawns, about wood-yards.

CRUCIBULUM, Tulasne.

959. *C. vulgare*, Tul.
Common everywhere, especially in the crevices of our wooden side-walks.

NIDULARIA, Fries.

960. *N. pulvinata,* (Schw.) Fries.
On rotten oak logs.

PHALLOIDEÆ FAMILY.

PHALLUS.

961. *P. daemonum,* Rumphius.
This is our common species; not abundant, but with us from midsummer to October every year. It comes to fruit often under board walks, steps, and in similar inaccessible localities, where it speedily makes its presence felt to the annoyance of a household or whole neighborhood.

962. *P. duplicatus,* Bosc.
Less common than the preceding species, similar to it but smaller and probably distinct. Found occasionally in the borders of woodlands, hazel-thickets; pungently odorous.

963. *P. impudicus,* Linn.
Rare. Occasionally met with in umbrageous woods where leaves accumulate from year to year. The odor characteristically pungent.

MUTINUS.

964. *M. bovinus,* Morgan.
Rarely, but constantly in all the eastern part of the state.

965. *M. caninus,* (Huds.) Fries.
Very rare.

966. *M. brevis,* B. & C.
Apparently rare. Small objects as they are, they are possibly even more pungently odoriferous than any of the rest. They seem to rise in colonies in fields and gardens, even in cellars.

CYANOPHYREÆ. BLUE-GREEN ALGÆ.

CHROOCOCCACEÆ FAMILY.

CHROOCOCCUS, Naeg.

967. *C. refractus.*

APHANOCAPSA, Naeg.

968. *A. grevillei,* (Hass.) Rabenh.
A form referred to this species has been found once in stagnant water.

GLOEOCAPSA, Naeg.

969. *G. arenaris.*
Forms thin æruginous coating on damp stone.

970. *G. magma.*
On granitic boulders.

MICROCYSTIS, Kg.

971. *M. aeruginosa.*
Very abundant in Lake Okoboji.

GOMPHOSPHÆRIA, Keg.

972. *G. aponina,* Kutz.
Found once only. Should be common in stagnant water.

COELOSPHÆRIUM, Naeg.

973. *C. kuetzingianum.*
A frequent algæ in many permanent ponds, often floating in considerable quantities in the lakes.

MERISMOPEDIA, Meyen.

974. *M. glauca,* (Ehrenb.) Naeg.
This algæ is common floating in the quiet waters of ponds.

975. *M. elegans,* A. Br.
A form agreeing with this species in all essential characteristics has been once collected.

OSCILLARIEÆ FAMILY.

SPIRULINA, Linke.

976. *S. major,* Kutz.
Slough, amid *Lemna trisulca.*

OSCILLARIA, Bosc.

977. *O. angustissima,* (W. & G. S.) West.
In pond with other algæ.

978. *O. tenerrima,* Kuetz.
A common species in stagnant water, and on soil.

979. *O. tenuis,* Ag.
This is the most common of the *Oscillarias*, being almost universally present in stagnant water, and in slow running streams, where water drops upon the soil, on boards, etc., or stone under a water drop, very dense mat.

980. *O. limosa,* Vauch.
Next to the *Tenuis* this is probably the commonest species in the state. On damp earth, forming a thin coating. Moist earth.

981. *O. nigra,* Vauch.
Usually floating free in stagnant water. In stagnant ditch.

982. *O. froelichii,* Kuetz.
Floating among other algæ in ponds.

983. *O. frœlichii,* var. *fusca,* Kirch.
On moist soil in the greenhouse.

984. *O. princeps,* Vauch.
Pond, amid dense growth of *Lemna.*

985. *O. imperator,* Wood.
The largest species of *Oscillaria* that is to be found in the state.

Microcoleus, (Desm.) Thur.

986. *M. vaginatus,* (Vauch.) Comont. *(M. terrestris, Kg.)*
Damp ground. On flower pots in greenhouses.

Phormidium.

987. *P. tenue,* (Menegh.) Gomont.
On pots in greenhouse. Pond. In pond among decaying rushes.

Lynbya, (Ag.) Thur.

988. *L. vulgaris,* (Kuetz.) Kirch.
Damp soil.

989. *L. ochracea,* (Kuetz.) Thur.
In the trough of a flowing well. It is found very commonly in the water in this locality that are laden with iron, the sheath becoming impregnated with this substance.

990. *L. obscura,* Kuetz.
A pond amid bladderwort.

991. *L. subtorulosa,* (Breb.) Wolle. *(Phormidium lacustre,* Naeg.)
On moist ground.

992. *L. cataracta,* (Rabenh.) Wolle. *(Phormidium cataractum,* Rab.)
In water.

993. *L. glutinosa,* Ag. *(Phormidium glutinosum,* A. Br.)

CHAMÆSIPHON, (A. Br.) Grun.

994. *C. incrustans,* Grun.
Small round celled epiphyte. This form has been collected but once, then growing on the surface of some algæ, probably an *Œdogonium.*

NOSTOCACEÆ FAMILY.

NOSTOC, Vauch.

995. *N. muscorum,* Agardh.
On the stem of mosses.

996. *N. commune,* Vaucher.
A very common algæ in the damp margins of marshy places, etc.

997. *N. spæricum,* Vaucher.

998. *N. cæruleum,* Lyngbye.
On mosses.

999. *N. pruniforme.* Agardh.
Often reaching the size of plum.

ANABÆNA, Bary.

1000. *A. cycadacearum,* Reinke.
Occurring as the cause of the nodular thickenings on the roots of the *Cycas revoluta* wherever grown.

1001. *A. flos-aquæ,* Breb.
One of the most common (together with the next) of the constituents of the plant on many of our lakes at some seasons of the year. Occurs frequently in the sloughs in the northern part of the state also.

1002. *A. circinalis,* Rabenh.
Very common in the lakes.

CYLINDROSPERNUM, Kg.

1003. *C. limnicola,* Kg.
Soil on pots in greenhouses.

1004. *C. comatum,* Wood.
Frequent on wet soil along brooks.

1005. *C. macrospernum,* Kg.
In ditches.

SCYTONEMACEÆ FAMILY.

SCYTONEMA, Ag.

1006. *S. tomentosum.*

1007. *S. mychrous,* Keg.
Moist ground.

RIVULARIACEÆ FAMILY.

CALOTHRIX, (Ag.) Thur.

1008. *C. elongatum,* (Wood.)

1009. *C. parietina,* (Naeg.) Thur.
On stem of *Phragmies.*

ISACTIS, Thur.

1010. *I. fluviatilis,* (Rab.) Kirch.
On damp limestone along streams.

GLOEOTRICHA, Ag.

1011. *G. pisum,* Thur.
One of the most abundant of the algæ in some of the lakes at certain seasons of the year. On weeds in shallow water.

DIATOMACAE. DIATOMS.

COSCINODISCACEÆ FAMILY.

STEPHANDISCUS.

1012. *S. niagarae,* Ehrb.
Lakes.

MEDIONACEÆ FAMILY.

MERIDION.

1013. *M. intermedium.*

MELOSIRACEÆ FAMILY.

MELOSIRA.

1014. *M. granulata,* Bail.
In lakes.

SURIRELLOIDEÆ FAMILY.

SURIRELLA.

1015. *S. splendida,* Ehrb.

1016. *S. robusta,* Ehrb.

1017. *S. biseriata.*

CYMATOPLEURA.

1018. *C. solea.*

1019. *C. elliptica.*

NITZSCHIACEÆ FAMILY.

NITZCHIA.

1020. *N. sigmoidea.*

1021. *N. palea.*

TABELLARIACEÆ FAMILY.

TABELLARIA.

1022. *T. fenstrata,* (Lyngb.) Kuetz.

FRAGILARIACEÆ FAMILY.

FRAGILARIA.

1023. *F. virescens,* Ralfs.

DIATOMA.

1024. *D. vulgare,* Bory.
Ponds.

COCCONEIDACEÆ FAMILY.

COCCONEIS.

1025. *C. placentula,* Ehrenb.
Abundant on old bladderwort, in pond.

GONPHONEMACEÆ FAMILY.

GONPHŒMA.

1026. *G. constrictum,* Ehrb.

1026*a*. *G. acuminatum,* Ehrb.

NAVICULACEÆ FAMILY.

NAVICULA.

1027. *N. nobilis,* Kutz.

1027*a*. *N. peregrina,* Kuetz.

1027*b*. *N. viridis, Kutz.*

STAURONEIS.

1028. *S. phœnecenteran,* Ehrb.

PLEUROSIGMA.

1029. *P. attenuatum.*

COCCONEMACEÆ FAMILY.

AMPHORA.

1030. *A. ovalis,* Kuta.
Ponds.

CYMBELLEÆ FAMILY.

CYMBELLA.

1031. *C. ehrenbergii.*

HETEROKONTAE.

TRIBONEMACEÆ FAMILY.

TRIBONEMA.

1032. *T. bombycinum,* (Agardh.) Derb. & Sol.
Very common in stagnant water, and even slow flowing water and springs.

1033. *T. bombycinum tenue,* Hazen.
Slough; in pond amid *Lemna.*

1034. *T. utriculosum,* (Kutz.) Hazen.
In rain barrels and in ponds.

BOTRYDIACEÆ FAMILY.

BOTRYDIUM, Wallr.

1035. *B. granulatum,* (L.) Grev.
Occurs abundantly on mud just drying up, such as that

found on the banks of a stream that has overflowed. On damp earth in autumn, forming a green coating. Universally distributed in the state, common in muddy places.

CHLOROPHYCEÆ. GREEN ALGÆ.

ZYGNEMACEÆ FAMILY.

PLEUROCARPUS, A. Br.

1036. *P. mirabilis,* A. Br.
Common.

MOUGEOTIA, Deby.

1037. *M. genuflexa,* Ag.

1038. *M. scalaris,* Hass.
May be synonym of No. 1036.

1039. *M. sphœrocarpa,* Wolle.
In ponds.

ZYGNEMA, Kg.

1040. *Z, insigne,* Kuetz.

1041. *Z. stellinum,* Ag.
Floating in pond.

1042. *Z. cruciatum,* Ag.
In pond.

1043. *Z. pectinatum,* Ag.

SPIROGYRA, Link.

1044. *S. porticalis,* Cleve. *(S. quinina.)*
In pond.

1045. *S. porticalis,* var. *alpina,* Kuetz.

1046. *S. longata,* Kuetz.
Pond.

1047. *S. varians,* Kuetz.

1048. *S. communis,* Kuetz.
Ponds and ditches.

1049. *S. decimina,* Kuetz.
Pond.

1050. *S. rivularis,* Rabenh.

1051. *S. nitida,* Link.
In pond among lily pads.

1052. *S. jugalis,* Kuetz.
Floating in pond.

1053. *S. setiformis,* Kuetz.
Pond.

1054. *S. majuscula,* Kuetz.

1055. *S. maxima,* Wittr.
In streams and ponds.

1056. *S. crassa,* Kuetz.

1057. *S. intermedia,* Rabenh.

1058. *E. adnata,* Kuetz.

1059. *S. fluviatilis,* Kilse.

1060. *S. tenissima,* Kuetz.
Slough, amid *Utricularia.*

1061. *S. inflata,* Rabenh.

1062. *S. webera,* Kuetz.
In quiet water.

1063. *S. laca,* Kuetz.

1064. *S. grevilleana,* Kuetz.
Floating in pond.

1065. *S. quadrata,* Petit.

1066. *S. insignis,* Kuetz.

1067. *S. calospora,* Cleve. *(S. protecta.)*
Pond.

PALMELLACEÆ FAMILY.

PALMELLA, Lyngb.

1068. *P. mucosa,* Kuetz.
In slow stream.

RHAPHIDIUM, Kg. *(Ankistrodesmus.)*

1069. *R. falcatus,* (Corda.) Ralfs.

1070. *R. falcatus,* var. *acicularis,* (A. Br.) West.
Horse trough, slough.

1071. *R. convolutus,* (Rabenh.) West.
In standing water.

1072. *R. polymorphum,* Fresen.
Common in stagnant water.

1073. *R. polymorphum,* var. *aciculare,* (A. Br.) Rabenh.
In stagnant water.

GLŒOCYSTIS, Naeg.

1074. *G. gigas,* (Kuetz.) Lagorh.

PORPHYRIDIUM, Naeg.

1075. *P. cruentum,* (Ag.) Naeg.
On stone walls.

TETRASPORA, Ag.

1076. *T. lubrica,* Ag.
On wet stones.

1077. *T. gelatinosa,* (Vauch.) Desv.
In springs and pools.

PALMELLOCOCCUS.

1078. *P. miniatus,* (Kuetz.) Chodat.
Under limestone arch, College

TETRÆDON.

1079. *T. longispium,* (Perty) Hausg.
Bed of creek below filter beds.

CHÆTOPELTIDEÆ FAMILY.

CHÆTOSPHÆRIDIUM.

1080. *C. globosum,* (Nordst.) Klenahn.
Pond.

PROTOCOCCACEÆ FAMILY.

SCENEDESMUS, Meyen.

1081. *S. bijugatus,* (Turp.) Kuetz.
Slough, amid *Utricularia.*

1082. *S. quadricauda,* (Turp.) Breb.
Common.

1083. *S. quadricauda,* var. *abundans.*
Very common.

1084. *S. obliquus,* Kuetz.

1085. *S. obliquus,* var. *dimorphus,* Rabenh.
With plant from northern Iowa.

PLEUROCOCCACEÆ FAMILY.

PROTOCOCCUS, Ag.

1086. *P. viridis,* Ag. *(Pluerococcus vulgaris,* Menegh.)
Common everywhere, on moist wood, trees and rocks.

HYDRODICTPACEÆ FAMILY.

HYDRODICTYON, Roth.

1087. *H. retriculatum,* (L.) Lagerh.
In rivers. Rare.

PEDIASTRUM, Meyen.

1088. *P. boryanum,* (Turp.) Menegh.
Slough, amid *Utricularia.*

1089. *P. ehrenbergii,* A. Br.
Slough, several collections.

VOLVOCACEÆ FAMILY.

CHLAMYDOMONAS, Ehrb.

1090. *C. debaryana,* Gorosch.
In a puddle after rain.

GONIUM, Muell.

1091. *G. pectorale,* Muell.
Aquarium; rain water pond.

EUGLENA, Ehrb.

1092. *E. viridis,* (Schrank) Ehrenb.
Common in stagnant water.

1093. *E. spirogyra,* Ehrenb.
In aquarium.

PANDORINA, Ehrb.

1094. *P. morum,* (Muell.) Borry.
Aquarium. In pond.

EUDORINA, Ehrb.

1095. *E. elegans,* Ehrenb.
In ponds.

VOLVOX, Ehrb.

1096. *V. globator,* (L.) Ehrenb.
In ponds; frequent.

DESMIDIACEÆ FAMILY. DESMIDS.

SPIROTÆNIA, Breb.

1097. *S. condensata,* Breb.
Slough.

PENIUM, Breb.

1098. *P. closterioides,* Ralfs.
In stagnant pool by water's edge.

CLOSTERIUM, Nitsch.

1099. *C. lanceolatum,* Kuetz.

1100. *C. acerosum,* Ehrenb.
In ponds.

1101. *C. lunula,* Nitzsch.

1102. *C. jenneri,* Ralfs.
Ponds and slough.

1103. *C. dianæ,* Ehrenb.
Slough, amid *Utricularia.*

1104. *C. acuminatum,* Kuetz.
Slough, amid decaying rushes.

1105. *C. moniliferum,* Reinsch.
Stagnant pool, rain barrel and slough.

DOCIDIUM, Breb.

1106. *D. baculum,* Breb.
Ponds.

PLEUROTÆNIUM.

1107. *P. trabeculæ,* (Ehrenb.) Naeg.
Slough, amid *Utricularia;* amid decaying rushes.

COSMARIUM, Corda.

1108. *C. leve,* Rabenh.

1109. *C. meneghinii,* var. *concinum,* Rabenh.

1110. *C. undulatum,* Corda.

1111. *C. unludatum,* var. *crenulentum.*
Slough.

1112. *C. margaritiferum,* Menegh.

1113. *C. botrytis,* Menegh.

1114. *C. notiabile,* Hansg.

XANTHIDIUM, Ehrb.

1115. *X. antilopæum,* Kuetz.
Slough.

ARTHRODESMUS, Ehrb.

1116. *A. incus,* (Breb.) Hass.
Slough.

EUASTRUM, Ehrb.

1117. *E. binale,* (Turp.) Ralfs.
Slough.

MICRASTERIAS, Ag.

1118. *M. truncata,* (Corda.) Breb.
Slough.

STAURASTRUM, Meyen.

1119. *S. pygmæum,* Breb.
Slough, amid *Utricularia.*

1120. *S. margariaceum,* Menegh.
Slough.

1121. *S. Polymorphum,* Breb.
Slough, amid *Utricularia,* or decaying rushes.

1122. *S. crenulatum,* (Depl.) Naeg.
Slough, amid *Utricularia.*

VAUCHERIACEÆ FAMILY.

VAUCHERIA, DC.

1123. *V. aversa,* Hass.
River bank.

1124. *V. sericea,* Lyngb.
In water, or wet places.

1125. *V. dillwynii,* Ag.
On damp, or wet ground, in shaded places.

1126. *V. sellilis,* DC.
On damp soil.

1127. *V. geminata,* DC.
Not common.

1128. *V. germinata,* var. *racemosa,* Walz.
In stagnant water.

1129. *V. terrestris,* Lungb.
On marsh soil.

MICROSPORACEÆ FAMILY.

MICROSPORA, Thur.

1130. *M. amœna,* Rabenh.

1131. *M. floccosa,* Thur.
In springs, floating.

1132. *M. stagnorum,* Lagerh.
Slough, amid bladderwort.

CONFERVACEÆ FAMILY.

CONFERVA, Lk.

1133. *C. vulgaris,* (Rab.) Wolle.
Common in ponds and ditches.

1134. *C. amœna,* Kg.
Streams, not frequent.

ULOTRICHACEÆ FAMILY.

ULOTHRIX, Kg.

1135. *U. substilis,* var. *tenerrima,* Kutz.
Abundant in many places, slow running water or stagnant pools.

SCHIZOMERIS.

1136. *S. leibleinii,* Lutz.

STICHOCOCCUS.

1137. *S. bacillaris,* Naeg.
Springs.

CHÆTOPHORACEÆ FAMILY.

STIGEOCLONIUM, Kg.

1138. *S. flagelligerum,* (Kutz.) Rabenh.

1139. *S. tenue,* (Ag.) Rebenh.
In effluent filter beds.

1140. *S. crassiusculum,* Kg.
In springs and sluggish streams.

1141. *S. nanum,* (Dillw.) Kg.
Found clinging to limestone rip-rap.

1142. *S. radians,* Kg.
On water plants.

1143. *S. longipilus,* Kg.

CHÆTOPHORA, Schrank.

1144. *C. pisiformis,* (Roth.) Agardh.
Common, ponds.

1145. *C. incrassata,* (Hudson) Hazen. *(Cornu-damæ.)*

1146. *C. monilifera,* Kutz.
On *Cladophora.*

1147. *C. cornudamæ,* (Roth.) Ag.

DRAPARNALDIA, Ag.

1148. *D. plumosa,* (Vauch.) Agardh.
In clear water attached to stones or plants.

1149. *D. glomerata,* (Vauch.) Agardh.
On stones and plants.

CHROOLEPUS, Ag.

1150. *C. umbrina,* Kg.
On oak trees.

CHADOPHORACEÆ FAMILY.

CLADOPHORA.

1151. *C. fracta,* Kuetz.
Common, in ponds.

1152. *C. fracta,* var. *fossypina,* Rabenh.

1153. *C. fracta,* var. *rigidula,* Rabenh.
Floating in ponds.

1154. *C. crispata,* Kuetz.
In quiet waters.

1155. *C. glomerata,* var. *rivularis,* Rabenh.
Quiet waters.

1156. *C. glomerata,* var. *pumila,* Bail.
Quiet water, on stone or wood.

1157. *C. glomerata,* Kuetz.
Common in streams, on weeds.

1158. *C. glomerata,* var. *genuina* Kirch.
In rapid streams, on stones.

1159. *C. canalecularis,* Kg.

1159*a*. *C. obligoclona,* Kg.
Stagnant water.

CYLINDROCAPSACEÆ FAMILY.

CLINDROCAPSA. Reinsch.

1160. *C. conferta,* West.
A species has been found which agrees exactly with West's figures. Pond, amid *Glœtricha.*

ŒDOGONIACÆ FAMILY.

ŒDOGONIUM.

1161. *O. cryptoporum,* Wittr.
Ponds.

1162. *O. autumnale,* Wittr.
Ditches.

1163. *O. cataractum,* Wolle.
A species that has been referred to this species provisionally has been found several times in stagnant water. Answers descriptions very well but for the habitat, which Wolle gives as rapids.

1164. *O. capillare,* (L.) Kuetz.
One of the commoner forms. Specimens were often found which were referred here, but were not fruiting. Pond.

1165. *O. franklinianum,* Wittr.
Gar Lake, attached to weeds, very abundant.

1166. *O. pringsheimii,* Gram.

1167. *O. cardiacum,* (Hass.) Kuetz. *(O. inequale.)*

1168. *O. carbonicum,* Wittr.
Wolle in Fresh Water Algæ says "The only specimens of this species identified were from Iowa."

1169. *O. fonticolum,* A. Br.
Ponds.

1170. *O. giganteum,* Kuetz.
Ponds.

1171. *O. longatum,* Kuetz.
In stagnant water.

COLEOCHÆTACEÆ FAMILY.

COLEOTHÆTE, Breb.

1172. *C. soluta,* Pringsh.
Not rare in ponds.

1173. *C. scutata,* Breb.
On aquatic plants, frequent.

1174. *C. orbicularis,* Prinsh.
In aquarium.

CHARACIEÆ FAMILY.

CHARACIUM, A. Br.

1175. *C. nægelii,* A. Br.
Ponds.

LICHENS.

USNEEI FAMILY.

RAMALINA ACH., De Not.

1176. *R. calicaris,* (L.) Fr.
Trees.

1177. *R. calicaris,* (L.) Fr. var. *fraxinea,* Fr.
Trees.

1178. *R. calicaris,* (L.) Fr., var. *fastigiata* Fr.
Trees.

1179. *R. calcaris,* (L.) Fr., var. *farinacea,* Schaer.
Sandstone.

CETRARIA, (Ach.) Fr. Mull.

1180. *C. ciliaris,* (Ach.)
Dead wood.

EVERNIA, Ach. Mann.

1181. *E. prunastri* (L) Ach.
Red Cedar and on old board fence.

USNEA (Dill.) Ach

1182. *U. barbata* (L.) Fr.
Trees and sandstone, infrequent.

1183. *U. barbata,* (L.) Fries, var. *florida,* Fr.
Trees.

1184. *U. barbata* (L.) Fr., var. *hirta* Fr.
Trees.

1185. *U. barbata,* Fr. var. *plicata,* Fr.
Trees.

1186. *U. barbata* L. Fr., var *ceratina,* Schaer.
On trees, rare.

1187. *U. angulata,* Ach.
On Red Cedar, growing along bluffs.

1188. *U. cavernosa,* Tuck.

ALECTORIA, Ach.

1189. *A. jubata,* L., var. *chalybeiformis,* Ach.
On an old board fence; rare.

PARMELIEI FAMILY.

THELOSCHISTES, (Norm.) Emend.

1190. *T. chrysophthalmus,* (L.) Norm.
Trees. This is especially abundant on Red Cedar, growing along bluffs.

1191. *T. parietinus,* (L.) Norm.
Trees.

1192. *T. polycarpus,* Enrh.
Dead trees, rare.

1193. *T. lychneus,* Nyl.
Trees and rocks.

1194. *T. concolor,* Dicks.
Trees and rocks.

1195. *T. concolor,* Dicks., var. *effusa,* Tuck.
On trees, rare.

PARMELIA, (Ach.) De Not.

1196. *P. perlata,* Ach.
Trees.

1197. *P. perforata,* (Jacq.) Ach.
Trees.

1198. *P. cetrata,* Ach.
Trees and rocks.

1199. *P. crinita,* Ach.
Trees and rocks; common.

1200. *P. tiliacea,* (Hoffm.) Floerk.
Trees and rocks; infrequent.

1201. *P. borreri,* Turn.
Trees; frequent.

1202. *P. borreri,* Turn., var. *rudecta,* Tuck.
Trees.

1203. *P. saxatilis,* (L.) Fr.
Trees and rocks.

1204. *P. saxatilis,* L. Fr. var. *sulcata,* Nyl.
On trees, rare.

1205. *P. olivacea,* (L.) Ach.
Trees.

1206. *P. olivacea,* L. Ach., var. *aspinota,* Ach.
On trees, infrequent.

1207. *P. caperata,* (L.) Ach.
Trees and rocks.

1208. *P. conspersa,* (Ehrh.) Ach.
Rocks. Rare.

PHYSCIA, (DC., Fr.) Th. Fr.

1209. *P. speciosa,* (Wulf., Ach.) Nyl.
Trees and mossy rocks.

1210. *P. hypoleuca,* (Muhl.) Tuck.
Trees, frequent.

1211. *P. granulifera,* (Ach.) Tuck.
Trees. Common.

1212. *P. comosa,* (Eschw.) Nyl.
Red Cedar, along bluffs.

1213. *P. aquila,* (Ach.) Nyl.
Rocks. Probably the variety *detonsa* occurs.

1214. *P. pulverulenta,* (Schreb.) Nyl.
Trees and rocks.

1215. *P. stellaris,* L.
Trees and rocks; common.

1216. *P. tribacia,* (Ach.) Tuck.

1217. *P. cæsia,* (Hoffm.) Nyl.
Stones and trees.

1218. *P. obscura,* (Ehrh.) Nyl.
Trees and rocks.

1219. *P. adglutinata,* (Floerk.) Nyl.
Trees.

1220. *P. asteroides,* (Fr.) Nyl.
On trees. Infrequent.

PYXINE, Fr. Tuck.

1221. *P. sorediata,* Ff.
Rocks and trees.

PELTIGEREI FAMILY.

STICTA, (Schreb.) Fr.

1222. *S. pulmonaria,* (L.) Ach.
Trees. A northern species.

PELTIGERA, (Willd., Hoffm.) Fee.

1223. *P. horizontalis,* (L.) Hoffm.

1224. *P. polydactyla,* (Neck.) Hoffm.
Earth along shady hillsides.

1225. *P. pulverulenta,* (Tayl.) Nyl.
Earth along shady hillsides.

1226. *P. rufescens,* (Neck.) Hoffm.
Earth along shady hillsides.

1227. *P. canina,* (L.) Hoffm.
Earth.

1228. *P. canina,* (L.) Hoffm., var. *spuria,* Ach.
Clay banks.

1229. *P. canina,* (L.) Hoffm., var. *sorediata,* Schaer.
Earth in moist shady places.

PANNARIEI FAMILY.

HEPPIA, Naeg.

1230. *H. despreauxii,* (Mont.) Tuck.
Calcareous earth.

PANNARIA, Delis.

1231. *P. languinosa,* (Ach.) Koerb.
Shaded calcareous rocks and sandstone.

1232. *P. microphylla,* (Sw.) Delis.
Sandstone.

1233. *P. petersii,* Tuck.
Calcareous rocks.

1234. *P. nigra,* (Huds.) Nyl.
Calcareous rocks.

1235. *P. nigra,* Nyl., var. *cæsia,* Nyl.
On calcareous rocks, rare.

COLLEMEI FAMILY.

OMPHALARIA, (Dur.) Mont.

1236. *O. pulvinata,* Nyl.
Calcareous rocks.

1237. *O. umbella,* Tuck.
Calcareous rocks.

COLLEMA, (Hoffm.) Fr.

1238. *C. pycnocarpum,* Nyl.
Dead trees in moist wooded ravines.

1239. *C. flaccidum,* Ach.
Trees and calcareous rocks.

1240. *C. pulposum,* (Berhm.) Nyl.
Calcareous earth and rocks.

1241. *C. tenax,* (Sw.) Ach.
Calcareous earth and rocks.

1242. *C. crispum,* Barr.
Earth.

1243. *C. plicatile,* Schaer.
Calcareous rocks.

1244. *C. furvum,* (Ach.) Nyl.
Calcareous rocks.

1245. *C. pustulatum,* Ach.
Calcareous rocks.

1246. *C. nigrescens,* (Huds.) Ach.
On old logs, rare.

LEPTOGIUM, (Fr.) Nyl.

1247. *L. lacerum,* (Sw.) Fr.
Calcareous rocks among mosses, and also on dead wood.

1248. *L. pulchellum,* (Ach.) Nyl.
Dead trees in moist wooded ravines.

1249. *L. tremelloides,* (L.) Fr.
Calcareous rocks. Seems to be rare in this state.

1250. *L. chloromelum,* (Sw.) Nyl.
Calcareous rocks.

1251. *L. myochroum,* (Ehrh., Schaer.) Tuck.
Trees.

LECANOREI FAMILY.

PLACODIUM, (DC.) Naeg. and Hepp.

1252. *P. elegans,* (Link.) DC.
Calcareous rocks.

1253. *P. cinnabarinum,* (Ac.) Anz.
Calcareous rocks.

1254. *P. microphyllinum,* Tuck.
Dead wood.

1255. *P. citrinum,* (Hoffm.) Leight.
Calcareous rocks.

1256. *P. aurantiacum,* (Lightf.) Naeg. and Hepp.
Trees and rocks.

1257. *P. cerinum,* (Hedw.) Naeg and Hepp., var. *pyracea,* Nyl.
Old boards.

1258. *P. cerinum,* (Hedw.) Naeg and Hepp., var. *sideritis,* Tuck.
Granitic rocks.

1259. *P. cerinum,* (Ehrh.) Naeg. and Hepp., var. *ulmorum.*
On elms, rare.

1260. *P. ferrugineum,* (Huds.) Hepp.
On trees, rare.

1261. *P. ferrugineum,* (Huds.) Hepp., var. *pollinii,* Tuck.
Trees.

1262. *P. vitellinum,* (Ehrh.) Naeg. and Hepp.
Dead wood and rocks.

1263. *P. vitellinum,* (Ehrh.) Naeg. and Hepp., var. *aurellum,* Ach.
Calcareous rocks.

1264. *P. murorum,* (Hoffm.) DC.
On rocks.

LECANORA, (Adh.) Tuck.

1265. *L. rubina,* (Vill.) Ach.
Granitic rocks.

1266. *L. rubina,* (Vill.) Ach., var. *heteromorpha,* Ach.
Granitic rocks.

1267. *L. muralis,* (Schreb.) Schaer., var. *saxicola,* Schaer.

1268. *L. muralis,* (Schreb.) Schaer., var. *versicolor,* Fr.
Granitic rocks.

1269. *L. pallida,* (Schreb.) Schaer.
Trees.

1270. *L. pallida,* (Schreb.) Schaer., var. *cancriformis,* Tuck.
On trees, rare.

1271. *L. subfusca,* (L.) Ach.
Trees and rocks.

1272. *L. subfusca,* (L.) Ach., var. *allophana,* Ach.
Trees.

1273. *L. subfusca,* (L.) Ach., var. *argentata,* Ach.
Trees.

1274. *L. subsca,* (L.) Ach., var. *coilocarpa,* Ach.
Trees.

1275. *L. fuscata,* (Schrad.) Th. Fr., var. *rufescens,* Th. Fr.
On granitic rocks, frequent.

1276. *L. hageni,* Ach.
Calcareous rocks.

1277. *L. varia,* (Ehrh.) Nyl.
Trees and dead wood.

1278. *L. varia,* (Ehrh.) Nyl., var *sœpincola,* Fr.
Dead wood.

1279. *L. varia,* (Ehrh.) Nyl., var. *symmicta,* Ach.
On old fences, infrequent.

1280. *L. erysibe,* Nyl.
Calcareous rocks. Apparently rare.

1281. *L. punicea,* Ach.
Trees. This is a southern lichen, and doubtless extremely rare in Iowa.

1282. *L. cinerea,* (L.) Sommerf.
On sandstone, probably common.

1283. *L. cinerea,* (L.) Sommerf., var. *gibbosa,* Nyl.
Granitic rocks.

1284. *L. calcarea,* (L.) Sommerf.
Calcareous rocks.

1285. *L. calcarea,* (L.) Sommerf., var. *contorta,* Fr.
Calcareous rocks.

1286. *L. cervina,* (Pers.) Nyl.
Calcareous rocks.

1287. *L. privigna,* (Ach.) Nyl.
Calcareous rocks.

1288. *L. privigna,* (Ach.) Nyl., var *pruinosa,* Auct.
Calcareous rocks.

1289. *L. privigna,* (Ach.) Nyl., var. *clavus,* Koerb.
On calcareous rocks, rare.

1290. *L. xanthophana,* Nyl.
On granitic rocks, rare.

Rinodina, (Mass., Stizenb.) Tuck.

1291. *R. oreina,* (Ach.) Mass.
Granitic rocks.

1292. *R. sophodes,* (Ach.) Nyl.
Granitic rocks.

1293. *R. sophodes,* (Ach.) Nyl, var. *exigua,* Frees.
Old boards.

1294. *R. sophodes,* (Ach.) Nyl., var. *telphraspis,* Tuck.
On sandstone, rare.

1295. *R. bischoffii,* (Hepp.) Koerb.
Calcareous rocks.

PERTUSARIA, DC.

1296. *P. velata,* (Turn.) Nyl.
Trees.

1297. *P. multipuncta,* (Turn.) Nyl.
Trees.

1298. *P. ambigens,* (Nyl.) Tuck.
Trees.

1299. *P. communis,* DC.
Trees.

1300. *P. leioplaca,* (Ach.) Schaer.
Trees.

1301. *P. pustulata,* (Ach.) Nyl.
Trees.

CONOTREMA, Tuck.

1302. *C. urceolatum,* (Ach.) Tuck.
On trees, rare.

GYALECTA, (Ach.) Anz.

1303. *G. lutea,* (Dicks.) Tuck.
Trees.

URCEOLARIA.

1304. *U. scruposa,* (L.) Nyl.
Sandstone.

1305. *U. scruposa,* (L.) Nyl., var. *gypsacea,* Nyl.
Calcareous earth.

1306. *U. actinostoma,* Pers.
Granitic rocks.

CLADONIEI FAMILY.

CLADONIA, Hoffm.

1307. *C. symphycarpa,* Fr.
Earth.

1308. *C. symphycarpa,* Fr., var. *epiphylla,* (Ach.) Nyl.
Earth.

1309. *C. mitrula,* Tuck.
Earth.

1310. *C. cariosa,* (Ach.) Spreng.
This species is common in Northern Minnesota. In Iowa it seems to be largely replaced by the more southern *C. mitrula,* Tuck.

1311. *C. pyxidata,* (L.) Fr.
Earth.

1312. *C. fimbriata,* (L.) Fr., var. *tubæformis,* Fr.
Earth and old logs.

1313. *C. gracilis,* (L.) Nyl.
Earth.

1314. *C. gracilis,* (L.) Nyl., var. *verticillata,* Fr.
Earth.

1315. *C. gracilis,* (L.) Nyl., var. *hybrida,* Fr.
Earth.

1316. *C. squamosa,* Hoffm.
Rotten logs.

1317. *C. fimbriata,* (L.) Fr., var. *coniocræa,* (Flk.) Wainio.
On old wood, infrequent.

1318. *C. fimbriata,* (L.) Fr., var. *apolepta,* (Ach.) Wainio.
On earth, rare.

1319. *C. cylvatica,* (L.) Hoffm. Deutschl.
On earth, rare.

1320. *C. pyxidata,* (L.) Hoffm., var. *chlorophæa,* Spreng.
On sandstone and earth. Common.

1321. *C. delicata,* (Ehrh.) Fl.
Rotten logs.

1322. *C. cæspiticia,* (Pers.) Fl.

1323. *C. furcata,* (Huds.) Fr.
Earth.

1324. *C. furcata,* (Huds.) Fr., var. *racemosa,* Fr.
Earth.

1325. *C. rangiferina,* (L.) Hoffm.
Earth and dead wood.

1326. *C. rangiferina,* (L.) Hoffm., var. *sylvatica,* L.
Earth.

1327. *C. uncialis,* (L.) Fr.
Earth.

1328. *C. cornucopioides,* (L.) Fr.
Earth. Along the Mississippi river in Clayton county. Another species apparently following the river down from more northern regions where it is common.

1329. *C. macilenta,* (Ehrh.) Hoffm.
Old logs.

1330. *C. pulchella,* Schwein.
Old stumps.

1331. *C. cristatella,* Tuck.
Old logs.

LECIDEEI FAMILY.

BIATORA, Fr.

1332. *B. russellii,* Tuck.
Calcareous rocks.

1333. *B. russellii,* Tuck., var. *dealbata,* Tuck.
On calcareous rocks, rare.

1334. *B. decipiens,* (Ehrh.) Fr.
Calcareous earth.

1335. *B. decipiens,* (Ehrh.) Fr., var. *dealbata,* Tuck.
On calcareous rocks, rare.

1336. *B. granulosa,* (Ehrh.) Poetsch.
Sandy soil.

1337. *B. peliaspis,* Tuck.
Trees.

1338. *B. myriocarpoides,* (Nyl. Tuck.
Old boards.

1339. *B. varians,* Ach.
Trees.

1340. *B. hypnophila,* Turn.
Mosses.

1341. *B. trachon,* Flot.
Granitic rocks.

1342. *B. rubella,* (Ehrh.) Rabenh.
Trees.

1343. *B. fusco-rubella,* Hoffm.
Trees.

1344. *B. suffusa,* Fr.
Trees.

1345. *B. atrogrisea,* (Delis.) Hepp.
Trees.

1346. *B. schweinitzii,* Fr.
Trees.

1347. *B. inundata,* Fr.
Wet or inundated rocks, also on trees.

1348. *B. effusa,* (Sm.) Hepp.
Trees.

1349. *B. muscorum,* Sw.
Earth.

1350. *B. umbrina,* Ach.
Calcareous rocks.

1351. *B. fossarum,* (Duf.) Mont.
On calcareous earth, rare.

1352. *B. carnulenta,* Tuck.
On decoricated wood, rare.

LECIDEA, (Ach.) Fl., Tuck.

1353. *L. enteroleuca,* Fr.
Trees.

1354. *L. enteroleuca,* Fr., var. *theiplaca,* Tuck.

1355. *L. melancheima,* Tuck.
Old boards.

1356. *L. acclinis,* Flot.
On *Populus.*

BUELLIA, (De Not.) Tuck.

1357. *B. spuria,* (Schaer.) Arn.
Granitic rocks.

1358. *B. alboatra,* (Hoffm.) Th. Fr.
On an old elm, rare.

1359. *B. alboatra,* (Hoffm.) Th., Fr., var. *saxicola,* Fr.
Calcareous rocks.

1360. *B. parasema,* (Ach.) Th., Fr.
Trees.

1361. *B. parasema,* (Ach.) Th., Fr., var. *triphragmia,* Nyl.
Trees.

1362. *B. pullata,* Tuck.
Granitic rocks. A California lichen.

1363. *B. myriocarpa,* (DC.) Mudd.

1364. *B. myriocarpa,* (DC.) Mudd., var. *polyspora,* Willey.
On trees.

OPEGRAPHEI FAMILY.

OPEGRAPHA, (Humb.) Ach., Nyl.

1365. *O. demissa,* Tuck.
Trees.

1366. *O. varia,* (Pers.) Fr.
Trees.

1367. *O. varia,* Pers.) Fr., var. *publicaris,* (Hoffm.) Fr.
Trees.

1368. *O. pulvinata,* Rehm.
On *Endocarpon miniatum.*

1369. *O. quaternella,* Nyl.
On thallus of a *Parmela,* rare.

GRAPHIS, (Ach.) Nyl.

1370. *G. scripta,* (L.) Ach.
Trees.

1371. *G. scripta,* (L.) Ach., var. *serpentina,* Ach.
Trees.

1372. *G. eulectra,* Tuck.
Trees.

ARTHONIEI FAMILY.

ARTHONIA, (Ach.) Nyl.

1373. *A. lecideella,* Nyl.
Trees.

1374. *A. dispersa,* (Schrad.) Nyl.
Trees.

1375. *A. radiata,* (Pers.) Th., Fr.
Trees.

1376. *A. punctiformis,* Ach.
Trees.

1377. *A. spectabilis,* Flot.
Trees.

1378. *A. polymorpha,* Ach.
Trees. Usually considered to be a tropical lichen.

CALICIEI FAMILY.

ACOLIUM, (Fee.) DN.

1379. *A. tigillare,* (Ach.) DN.
Old fences.

CALICIUM, Pers.

1380. *C. parietinum,* Ach.
On decoricated wood, especially red cedar, probably frequent.

1381. *C. quercinum,* Pers.
On oaks, rare.

SPHINCTRINA.

1382. *S. tigillaris,* B. and Br.
On *Polyporus versicolor,* L. Fr., rare.

CONIOCYBE, Ach.

1383. *C. pallida,* (Pers.) Fr.
Trees.

ENDOCARPEI FAMILY.

ENDOCARPON, (Hedw.) Fr.

1384. *E. miniatum,* (L.) Schaer.
Calcareous rocks.

1385. *E. miniatum,* (L.) Schaer., var. *muhlenbergh,* Ach.
Calcareous rocks.

1386. *E. miniatum,* (L.) Schaer., var. *complicatum,* Schaer.
Wet calcareous rocks.

1387. *E. arboreum,* Schwein.
Dead trees.

1388. *E. hepaticum,* Ach.
Calcareous earth.

1389. *E. pusillum,* Hedw.
Calcareous rocks.

1390. *E. pusillum,* Hedw., var. *garovaglii,* Kph.
On earth, and calcareous rocks, infrequent.

VERRUCARIEI FAMILY.

STAUROTHELE, Norm.

1391. *S. umbrina,* (Wahl.)
Calcareous rocks.

VERRUCARIA, (Pers.) Tuck.

1392. *V. nigrescens,* Pers.
Calcareous rocks.

1393. *V. fuscella,* Fr.
Calcareous rocks.

1394. *V. rupestris,* Fr.
Calcareous rocks.

1395. *V. muralis,* Ach.
Calcareous rocks.

1396. *V. pyrenophora,* (Ach.) Nyl.
Calcareous rocks.

1397. *V. epigæa,* (Pers.) Ach.
On clay, rare.

1398. *V. viridula,* Ach. Lich.
On granite, rare.

PYRENULA, (Ach.) Naeg. & Hepp.

1399. *P. punctiformis,* (Ach.) Naeg.
Trees.

1400. *P. gemata,* (Ach.) Naeg.
Trees.

1401. *P. hyalospora,* Nyl.
Trees.

1402. *P. leucoplaca,* (Wallr.) Kbr.
Trees.

1403. *P. glabrata,* (Ach.) Mass.
Trees.

1404. *P. nitida,* Ach.
Trees.

1405. *P. thelena,* Ach.
Trees.

1406. *P. lactea,* Mass.
Trees.

1407. *P. cinerella,* Flt., Willey.
On prickly ash, frequent.

1408. *P. quinqueseptata,* (Nyl.) Tuck.
On trees, frequent.

BRYOPHYTES.

HEPATICAE. LIVERWORTS.

JUNGERMANNIACEÆ ORDER.

FRULLANIA, Raddi.

1409. *F. virginica,* Lehm.
On the bark of trees, usually near the base, on low grounds; not common.

1410. *F. eboracensis,* Lehm.
On the bark of trees, near base, and on sandstone; very common.

1411. *F. œolitis,* Ness.
On sandstone; not common.

1412. *F. squarrosa,* Nees.
Common on limestone bluffs.

PORELLA.

1413. *P. pinnata,* L.
Rare.

1414. *P. platyphylla,* Lindb.
Very common on mossy banks.

PTILIDIUM, Nees.

1415. *P. ciliare,* Nees.
On rotten logs; not rare.

LOPHOCOLEA, Nees.

1416. *L. heterophylla,* Nees.
Very common on mossy banks.

CHILOSCYPHUS, Corda.

1417. *C. polyanthos,* Corda.
Common in moss on moist banks, rotten logs.

JUNGERMANNIA, Linn.

1418. *J. ventricosa,* Dicks.
On moist banks; in moss and on *Anthoceros.*

Blasia, Mich.

1419. *B. pusilla,* L.
Abundant on dripping rocks.

ANTHOCEROTACEÆ ORDER.

Anthoceros, Mich.

1420. *A. lævis,* L.
On wet clay-banks; not common.

1421. *A. punctatus,* L.
On low, wet banks.

MARCHANTIACEÆ ORDER.

Marchantia, Linn.

1422. *M. polymorpha,* L.
Usually on rather moist banks and slopes,—sometimes on hard-beaten soil and cinders.

Conocephalus.

1423. *C. conicus,* Dumort.
Very common on moist banks.

Grimaldia, Raddi.

1424. *G. barbifrons,* Bisch.
Common on rocky banks and bluffs; sometimes in very barren places.

Asterella.

1425. *A. hemisphærica,* Beauv.
Not rare on mossy, rocky banks.

Lunularia.

1426. *L. vulgaris,* Raddi.
Introduced. Common in the hot-house.

RICCIACEÆ ORDER.

Riccia, Mic.

1427. *R. frostii,* Aust.
Not common on mud-flats.

1428. *R. lutescens,* Schwein.
Very common on mud-flats.

1429. *R. fluitans,* L.
Common in ponds and on mud.

MUSCI. MOSSES.

SERIES I. ACROCARPI. FRUIT TERMINAL.

PHASCEÆ TRIBE.

PHASCUM, L.

1430. *P. cuspidatum,* Schreb.
Growing on clay hillsides exposed to the sun; common in early spring.

WEISIEÆ TRIBE.

ASTOMUM, Hampe.

1431. *A. nitidulum,* Schimp.
On wet, marshy ground, growing among grass and weeds; rare.

WEISIA, Hedw.

1432. *W. viridula,* Brid.
Very common on wet ground, fruiting throughout the year.

DICRANELLA, Schimp.

1433. *D. varia,* Schimp.
On clay banks in open and exposed places; not common.

1434. *D. heteromalla,* Schimp.
Grows on the ground, often associated with species of *Barbula;* common.

1435. *D. flagellare,* Hedw.
Growing on sandy hillsides, in the shade; not commonly distributed over the state.

1436. *D. scoparium,* Hedw.
Common on low, sandy ground, in shaded places.

FISSIDENS, Hedw.

1437. *F. minutulus,* Sulliv.
Very rare; found only in the deep ravines at Wildcat Den; on the sandstone rocks near the water.

1438. *F. taxifolius,* Hedw.
On damp, shaded banks near streams; not common; found only at one point.

LEUCOBRYUM, Hampe.

1439. *L. vulgare,* Hampe.
Common on low, shaded grounds.

CERATODON, Brid.

1440. *C. purpureus,* Brid.
Common everywhere in exposed places on dry ground.

1441. *C. purpureus aristatus,* Aust.
Not common.

POTTIEÆ TRIBE.

DITRICHUM, Br. & Sch.

1442. *D. pallidum,* Hampe.
Not rare; on the ground in dry places.

1443. *D. tortile,* Muell.
Common on exposed hillsides; often grows associated with *Barbula unguiculata.*

DESMATODON, Brid.

1444. *D. arenaceus,* Sulliv. & Lesq.
Rare, collected only on shaded sandstone rocks.

BARBULA, Hedw.

1445. *B. rigida,* Schultz.
Not common; found only on the dry loess hills of western Iowa.

1446. *B. unguiculata,* Hedw.
Common everywhere; growing on the ground or on limestone rocks in damp places.

1447. *B. fallax,* Hedw.
Rather rare; found along the roadside on dry clay ground.

GRIMMIEÆ TRIBE.

GRIMMIA, Ehrh.

1448. *G. apocarpa,* Hedw.
Common on limestone rocks in early spring.

ORTHOTRICHEÆ TRIBE.

ORTHOTRICHUM, Hedw.

1449. *O. porteri,* Aust.
Not rare; on dry rocks in the spring, associated with the preceding.

1450. *O. brachytrichum,* Schimp.
Common on the bark of trees; fruiting in early spring.

1451. *O. braunii,* Bruch. & Schimp.
Rare; growing on trees.

PHYSCOMITRIEÆ TRIBE.

PYRAMIDULA.

1452. *P. tetragona,* Brid.
A very rare species with a limited distribution in the United States; collected only on ledges on quartzite.

PHYSCOMITRIUM, Brid.

1453. *P. acuminatum,* Bruch. & Schimp.
Not rare in southeastern Iowa; growing on low ground, exposed to the sunshine.

FUNARIA, Schreb.

1454. *F. hygrometrica,* Sibth.
Common throughout the state; growing on the ground in woods and open places.

BARTRAMIEÆ TRIBE.

BARTRAMIA, Hedw.

1455. *B. pomiformis,* Hedw.
Very common on shaded bluffs bordering streams.

BRYEÆ TRIBE.

LEPTOBRYUM.

1456. *L. pyriformis,* Schimp.
Not rare; a very delicate form growing on the ground or damp rocks.

BRYUM, Br. & Sch.

1457. *B. intermedium,* Brid.
Very common everywhere, growing on rocks or on the ground.

1458. *B. argenteum,* Linn.
Common on low, sandy ground near streams, sometimes occurring on rocks.

1459. *B. argenteum,* var. *lanatum,* Bruch. & Schimp.

1460. *B. nutans,* Schreb.
Not common; growing on the sandy hillsides near Wildcat Den.

MINIMUM, Br. & Sch.

1461. *M. cuspidatum,* Hedw.
One of our most common species; growing in shady woods at the base of trees.

1462. *M. affine,* Bland.
Not common; it has been collected at but one point in the state.

AULACOMNIUM, Schwaeger.

1463. *A. heterostichum,* Bruch. & Schimp.
A beautiful species, growing in thick tufts on the shady hillsides.

TIMMIA, Hedw.

1464. *T. megapolitana,* Hedw.
Easily distinguished by its calytra persisting near the top of the pedicel; common; on ground.

POLYTRICHEÆ TRIBE.

CATHARINEA, Brid.

1465. *C. undulata,* Beauv.
Somewhat rare; on damp ground in shady woods.

1466. *C. angustata,* Bruch. & Schimp.
More common than the last; growing on drier banks in the woods.

POGONATUM, Beauv.

1467. *P. brevicaule,* Beauv.
Not common; growing on moist banks.

POLYTRICHUM, Brid.

1468. *P. piliferum,* Schreb.
Rare.

1469. *P. juniperinum,* Willd.
Not rare; growing on the ground in rather dry places.

1470. *P. commune,* Linn.
Common in the woods.

SERIES II. PLEUROCARPI. FRUIT LATERAL.

LESKEACEÆ TRIBE.

THELIA, Sulliv.

1471. *T. asperella,* Sulliv.
A very beautiful moss; common; growing at the base of trees.

LESKEA, Hedw.

1472. *L. polycarpa,* Ehrh.
Common in damp woods along streams; growing on the trunks of trees.

1473. *L. obscura,* Hedw.
Plants smaller than the last, with which it is often associated on trees.

ANOMODON, Hook & Tayl.

1474. *A. rostratus,* Schimp.
A very common moss, growing on stones, on prostrate logs, or at the root of trees, in damp, shady places.

1475. *A. attenuatus,* Hueben.
Not rare; growing in loose, wide tufts on rocks and logs, and roots of trees along streams.

1476. *A. obtusifolius,* Bruch. & Schimp.
Common on the trunks of trees near water.

ORTHOTHECIEÆ TRIBE.

PLATYGYRIUM, Br. Eur.

1477. *P. repens,* Bruch. & Schimp.
Very common in the woods; growing in yellowish green tufts on decayed logs.

PYLAISIA, Br. Eur.

1478. *P. intricata,* Bruch. & Schimp.
Not rare; often growing with the last, on trees and decayed logs in shady woods.

CYLINDROTHECIUM, Br. Eur.

1479. *C. cladorrhizans,* Schimp.
Very common in the woods, on decayed logs or on the ground.

1480. *C. seductrix,* Sulliv.
Habitat the same as the last, with which it often grows; very common.

1481. *C. compressum,* Bruch. & Schimp.
Not common; growing in damp places near streams on the ground.

CLIMACIUM, W. & M.

1482. *C. americanum,* Brid.
A beautiful moss, very common on damp, shady ledges of rock, or on the ground or decayed logs in damp places.

HYPNEÆ TRIBE.

THUIDIUM, Br. Eur.

1483. *T. scitum,* Beauv.
Not uncommon on decayed logs or on the ground in damp places.

1484. *T. gracile,* Bruch. & Schimp.
On decayed logs in swamp woods; less common than the preceding.

1485. *T. recognitum,* Hedw.
Not rare on old logs or on the ground in damp, shady places.

1486. *T. abietinum,* Linn.
Not common; growing on damp, shaded rocks; rarely found in fruit.

BRACHYTHECIUM, Br. Eur.

1487. *B. lætum,* Brid.
Common in woods and shaded places on the ground.

1488. *B. lætum,* Brid.
On the ground, among grasses, a special form occurs; stems longer creeping and leaves longer accuminate than the last.

1489. *B. acuminatum,* Beauv.
Common in damp woods, on decayed logs.

1490. *B. acuminatum,* var. *setosum,* Sulliv. & Lesq.
Habitat same as last.

1491. *B. rivulare,* Bruch.
In swamps and very wet places; not common.

1492. *B. plumosum,* Swartz.
Rare; growing on damp sandstone rocks and on wet ground.

EURHYNCHIUM, Br. Eur.

1493. *E. hians,* Hedw.
Not rarely found on moist, shaded hillsides.

RHYNCHOSTEGIUM, Br. Eur.

1494. *R. serrulatum,* Hedw.
Very common in dry woods on the ground.

PLAGIOTHECIUM, Br. Eur.

1495. *P. sylvaticum,* Huds.
Rare; growing on the ground in deep shade.

AMBLYSTEGIUM, Br. Eur.

1496. *A. serpens,* Linn.
Common on decayed logs or on the ground in damp, shady places.

1497. *A. irriguum,* Hook. & Wils.
Not rare on wet ground.

1498. *A. adnatum,* Hedw.
Commonly found on trees or on stones in damp places; rare.

1499. *A. riparium,* Linn.
Very common on decayed logs in damp woods and along streams; very variable.

1500. *A. riparium,* var. *fluitans,* Lesq. & James.
Not rare; growing in the mud or water on the borders of streams.

CAMPYLIUM, Sulliv.

1501. *C. hispidulum,* Brid.
Common in wet places on logs or roots of trees.

HARPIDIUM, Sulliv.

1502. *H. aduncum,* Hedw.
Rare; growing in water.

HYPNUM, Dill.

1503. *H. imponens,* Hedw.
Not common; growing on decayed logs and roots of trees in damp woods.

1503*a*. *H. curvifolium,* Hedw.
Not rare on decayed logs in damp woods.

1503*b*. *H. haldanianum,* Grev.
Not common; growing on sandy hill-sides.

HYLOCOMIUM, Br. Eur.

1504. *H. schreberi,* Willd.
Not rare on damp, shaded ground.

1505. *H. triquetrum,* Linn.
Common on the ground and on rocks in damp, shady places.

PTERIDOPHYTES.

VASCULAR CRYPTOGRAMS.

OPHIOGLOSSACEÆ. ADDER'S-TONGUE FAMILY.

BOTRYTHIUM, Sw.

1506. *B. virginianum,* (L.) Sw. Moosewort.
In rich woods, frequent.

OSMUNDACEÆ. ROYAL FERN FAMILY.

OSMUDA, L.

1507. *O. regalis,* L. Royal Fern.
Low, marshy ground.

1508. *O. cinnamonea,* L. Cinnamon Fern.
Boggy places.

1509. *O. claytoniana,* L. Clayton's Fern.
Hilly woods, frequent.

POLYPODIACEÆ. FERN FAMILY.

POLYPODIUM, L.

1510. *P. vulgare,* L. Polypody.
Rocky ledges.

ADIANTUM, L.

1511. *A. capillus-veneris,* L. Venus-hair Fern.
In ravines.

1512. *A. pedatum,* L. Maiden-hair Fern.
Shady woods, frequent.

PTERIDIUM, Scop.

1513. *P. aquilium,* (L.) Kuhn. Brake.
Common in open woods and thickets.

CRYPTOGRAMMA, R. Br.

1514. *C. stelleri,* (Gmel.) Prantl. Slender Cliff Brake.
On limestone ledges.

PELLÆA, Link.

1515. *P. atropurpurea,* (L.) Link. Rock Brake.
Common on limestone ledges.

CHEILANTHES, Sw.

1516. *C. feei,* Moore. Lip Fern.
Not common, on exposed rocks.

ASPLENIUM, L.

1517. *A. acrostichoides,* Sw. Silvery Spleenwort.
In moist, rich woods.

1518. *A. filix-fœmina,* (L.) Bernh. Lady-Fern.
Common in woods.

1519. *A. platyneuron,* (L.) Oakes. Ebony Spleenwort.
Open shady woods; rare.

1520. *A. angustifolium,* Michx.
In moist woods.

POLYSTICHUM, Roth.

1521. *P. acrostichoides,* (Michx.) Schott. Christmas Fern.
In woods and rocky places.

CAMPTOSORUS, (L.) Link.

1522. *C. rhigophyllus,* (L.) Link. Walking Fern.
Not common; on marshy ledges.

DRYOPTERIS, Adams.

1523. *D. thelpyteris,* (L.) A. Gray. Shield Fern.
Common in marshes; frequent.

1524. *D. cristola,* (L.) A. Gray. Crested Shield Fern.
In wet woods and swamps; not common.

1525. *D. goldieana,* (Hook.) A. Gray. Goldie's Fern.
In rich woods; not common.

1526. *D. spinulosa,* (Retz) Kuntze. Spinulose Shield Fern.
Not common.

PHEGOPTERIS, Fee.

1527. *P. phegopteris,* (L.) Undern. Long Beech-Fern.
In moist woods; rare.

1528. *P. dryopteris,* (L.) Fee. Oak Fern.
In moist woods and swamps.

Filix, Adams.

1529. *F. bulbifera,* L. Andrew. Bladder Fern.
Moist shaded places.

1530. *F. fragilis,* (L.) Undern. Brittle Fern.
Rocky woods, frequent.

Woodsia, R. Br.

1531. *W. ilvensis,* (L.) R. Br. Rusty Woodsia.
On exposed rocks; rare.

1532. *W. obtusa,* (Spreng.) Lorr. Blunt-lobed Woodsia.
Rocky places; infrequent.

1533. *W. scopulina,* DC., Eaton.
In crevices of rocks.

Marsilea, L.

1534. *M. vestita,* Hook. & Grev.
In wet sand or in shallow ditches.

Mateuccia, Lodaro, 1866.

1535. *M. strutiopteris,* (L.) Lodaro. Ostrich Fern.
In moist places along streams; frequent.

Onoclea, L.

1536. *O. sensibilis,* L. Sensitive Fern.
In moist meadows and ravines.

SALVINIACEÆ. SALVINIA FAMILY.

Azolla, Lam.

1537. *A. caroliniana,* Willd. Carolina Azolla.
Floating on water.

EQUISETACEA. HORSETAIL FAMILY.

Equisetum, L.

1538. *E. arvenses,* L. Field Horsetail.
Common in sandy soil.

1539. *E. pratense,* Ehrh. Thicket Horsetail.
Frequent.

1540. *E. sylvaticum,* L. Wood Horsetail.
Frequent.

1541. *E. fluviatile,* L. Swamp Horsetail.
In wet places.

1542. *E. robustum,* A. Br. Great Scouring Rush.
Common on damp banks.

1543. *E. hyemale,* L. Scouring Rush.
Common in wet soil.

1544. *E. lævigatum,* A. Br. Prairie Scouring Rush.
Quite common.

LYCOPODIACEA. CLUB-MOSS FAMILY.

LYCOPODIUM, L.

1545. *L. complanatum,* L. Trailing Christmas Green.
Not common.

1546. *L. clavatum,* L. Running Pine.
In woods.

1546*a*. *L. lucidulum,* Michx.
In woods, not common.

SELAGINELLACEÆ. SELAGINELLA FAMILY.

SELAGINELLA, Beauv.

1547. *S. rupestris,* (L.) Spring Rock Selaginella.
On rocks, frequent.

SPERMATOPHYTES.

GYMNOSPERMÆ.

PINACEÆ. PINE FAMILY.

PINUS, L.

1548. *P. strobus,* L. White Pine.
Northeast part of state; planted elsewhere.

JUNIPERUS, L.

1549. *J. communis,* L. Juniper.
On dry hills, northeast part of state.

1550. *J. virginiana,* L. Red Cedar.
Widely distributed, on rocky slopes.

ABIES, Juss.

1551. *A. balsamea,* (L.) Mill. Balsam Fir.
In northeastern part of the state only; planted elsewhere.

TAXACEÆ. YEW FAMILY.

TAXUS.

1552. *T. canadensis,* March. American Yew.
On steep shaded slopes, northeast part of state.

ANGIOSPERMÆ.

TYPHACEÆ. CAT-TAIL FAMILY.

TYPHA, L.

1553. *T. latifolia,* L. Broad Leaved Cat-Tail.
Common in swamps.

SPARGINIACEÆ. BUR-REED FAMILY.

SPARGANIUM, L.

1554. *S. eurycarpum,* Engelm. Common Bur-Reed.
Common in marshy places.

1555. *S. androcladum,* (Engelm.) Morong. Branching Bur-Reed.
In wet places; not common.

1556. *S. simplex,* Huds. Simple Stemmed Bur-Reed.
Borders of ponds and streams.

NAIADACEÆ. PONDWEED FAMILY.

POTAMOGETON, L.

1557. *P. natans,* L. Common Floating Pondweed.
In ponds, infrequent.

1558. *P. amplifolius,* Tuckerm.
In ponds, infrequent.

1559. *P. lonchites,* Tuckerm. Long Leaved Pondweed.
Not common.

1560. *P. lonchites,* Tuckerm. Long Leaved Pondweed.
Frequent.

1561. *P. illinœnsis,* Morong. Illinois Pondweed.
Frequent.

1562. *P. prælongus,* Wulf. White Stemmed Pondweed.
Not common.

1563. *P. perfoliatus,* L. Clasping Pondweed.
Infrequent.

1564. *P. perfoliatus richardsonii,* A. Bennett. Richardson's Clasping Pondweed.
Frequent.

1565. *P. zosterœfolius,* Schum. Eel-Grass Pondweed.
Not common.

1566. *P. foliosus,* Raf. Leafy Pondweed.
Common.

1567. *P. foliosus niagarensis,* (Tyckerm.) Morong.
In swift running water; infrequent.

1568. *P. friesii,* Ruprecht. Frie's Pondweed.
Infrequent.

1569. *P. pusillus,* L. Small Pondweed.
Not frequent.

1570. *P. spirillus,* Tuckerm. Spiral Pondweed.
Infrequent.

1571. *P. pectinatus,* L. Fennel Leaved Pondweed.
Not frequent.

1572. *P. nuttallii,* Cham. & Sch. Nuttall's Pondweed.
In ponds and streams.

1573. *P. spathulæformis,* (Robbins) Morong. Spatulate-Leaved Pondweed.
Not frequent.

ZANNICHELLIA, L.

1574. *Z. palustris,* L. Zennichellia.
Frequent.

NAIAS, L.

1575. *N. flexilis,* (Willd.) Bost. & Schmidt. Slender Naias.
Not frequent.

SCHEUCHZERIACEÆ. ARROW-GRASS FAMILY.

TRIGLOCHIN, L.

1576. *T. maritima,* L. Seaside Arrow Grass.
Rare.

SCHENCHZERIA, L.

1577. *S. palustris,* L.
Rare.

ALISMACEÆ. WATER-PLANTAIN FAMILY.

ALISMA, L.

1578. *A. plantago-aquatica,* L. Water-Plantain.
Common in shallow water or mud.

1579. *A. tennellum,* Mart. Dwarf Yater-Plantain.
In mud.

ECHINODORUS, Rich.

1580. *E. cordifolius,* (L.) Griseb. Upright Bur-Head.
Infrequent.

SAGITTARIA, L.

1581. *S. rigidi,* Pursh. Sessile-Fruited Arrowhead.
Not common.

1582. *S. longirostra,* (Micheli) J. G. Smith. Long-Beaked Arrowhead.

1583. *S. engelmanniana,* J. G. Smith. Engelmann's Arrowhead.

1584. *S. latifolia,* Willd. Broad Leaved Arrowhead.
Common in mud and shallow water along ponds and sluggish streams.

1585. *S. arifolia,* Nutt. Arum-Leaved Arrowhead.
Common in bogs.

1586. *S. rigidi,* Pursh. Sessile Fruited Arrowhead.
Infrequent.

1587. *S. cristata,* Engelm. Crested Arrowhead.
Rare.

1588. *S. graminea,* Michx. Grass Leaved Arrowhead.
Frequent in wet places.

VALLISNERIACEÆ. TAPE-GRASS FAMILY.

PHILOTRIA, Michx.

1589. *P. canadensis,* (Michx.) Britton. Ditchmoss.
Common in ponds.

VALLISNERIA, Micheli.

1590. *V. spiralis,* L. Eel-Grass.
Frequent.

GRAMINEÆ. GRASS FAMILY.

TRIPSACUM, L.

1591. *T. dactyloides,* L. Gama Grass.
Infrequent.

ANDROPOGAN, L.

1592. *A. scoparius,* Michx. Broom Bearded Grass.
Dry soils. Common.

1593. *A. frucatus,* Muhl.
Dry soil. Common.

1594. *A. halli,* Hack. Hall's Beard Grass.
Sandy soil. Infrequent.

SORGHASTRUM, Nash.

1595. *S. avenaceum,* (Michx.) Nash. Indian Grass.
Common on prairie.

SORGHUM, Pers.

1596. *S. halepense,* (L.) Pers. Johnson Grass.
Introduced from Southern Europe.

PASPALUM, L.

1597. *P. ciliatifolium,* Michx. Ciliate-Leaved Pasalum.
Sandy soil, not common.

SYNTHERISMA, Walt.

1598. *S. linearis,* (Krock.) Nash. Small Crab-Grass.
Common on banks of lakes and streams.

1599. *S. sanguinalis,* (L.) Dulac. Large Crab-Grass.
Introduced in waste ground.

1600. *S. filiformus,* (L.) Nash. Slender-finger Grass.
Infrequent, dry hillsides.

ECHINOCHLOA, Beauv.

1601. *E. crus-galli,* (L.) Beauv. Barnyard Grass.
Introduced. Common.

1602. *E. walteri,* (Pursh.) Nash. Salt-marsh Cockspur Grass.
Not common.

PANICUM, L.

1603. *P. capillare,* L. Witch Grass.
Common.

1604. *P. cognatum,* Schultes. Diffuse Panicum.
Infrequent, on sandy soil.

1605. *P. miliaceum,* L. Millet.
In waste places, introduced from the Orient as a cultivated grass.

1606. *P. proliferum,* Lam. Spreading Panicum.
Common on road-sides.

1607. *P. virgatum,* L. Tall Smooth Panicum.
Sandy soil, common along streams, and near lakes.

1608. *P. depauperatum,* Muhl. Starved Panicum.
In dry places, woods and gravelly soil; not common.

1609. *P. enslini,* Trin. Linear-Leaved Panicum.
Dry soil, infrequent.

1610. *P. dichotomum,* L. Forked Panicum.
Common in meadows and open woods.

1611. *P. perlongatum,* Nash. Elongated Panic-Grass.
Dry soil, prairies; infrequent.

1612. *P. unciphyllum,* Trin. Hairy Panicum.
Common in dry soil.

1613. *P. scorparium,* Lam. Velvety Panicum.
Moist grass land; not frequent.

1614. *P. tennesseense,* Ashe. Tennessee Panic-Grass.
Common in dry soil.

1615. *P. atlanticum,* Nash. Atlantic Panicum.
In open woods; infrequent.

1616. *P. wilcoxianum,* Vasey. Wilcox's Panicum.
Infrequent.

1617. *P. liebergii,* (Vasey) Scribn. Lieberg's Panicum.
In meadows; not common.

1618. *P. scribnerianum,* Nash. Scribner's Panicum.
On prairies; common.

1619. *P. macrocarpon,* LeConte. Large-Fruited Panicum.
Not frequent in moist places.

1620. *P. porterianum,* Nash. Porter's Panicum.
Open woods and thickets.

CHÆTOCHLOA, Scribn.

1621. *C. verticillata,* (L.) Scribn. Fox-tail Grass.
Common; in waste places.

1622. *C. glauca,* (L.) Scribn. Yellow Fox-tail.
Waste places and cultivated fields; a weed from Europe.

1623. *C. viridis,* (L.) Scribn. Green Fox-tail Grass.
Common in cultivated fields.

1624. *C. italica,* (L.) Scribn. Italian Millet.
Cultivated under name of Hungarian grass.

CENCHRUS, L.

1625. *C. tribuloides,* L. Bur Grass.
Common in sandy soil.

ZIZANIA, L.

1626. *Z. aquatica,* L. Wild Rice.
Common in lakes, northward.

HOMALOCENCHRUS, Mieg.

1627. *H. virginicus,* (Willd.) Britton. White Grass.
Common in moist places.

1628. *H. oryzoides,* (L.) Poll. Rice Cut-grass.
Common along rivers and borders of marshes.

1629. *H. lenticularis,* (Michx.) Scribn. Catch-fly Grass.
Frequent in low ground along river.

PHALARIS, L.

1630. *P. arundinacea,* L. Reed Canary Grass.
Common in wet places.

1631. *P. canariensis,* L. Canary Grass.
In waste places. Introduced from Europe as bird food.

ANTHOXANTHUM, L.

1632. *A. odoratum,* L. Sweet Vernal-grass.
Common on lawns and in fields. From Europe.

SAVASTANA, Schrank.

1633. *S. odorata,* (L.) Scribn. Holy-grass.
Common in low ground.

ARISTIDA, L.

1634. *A. dichotama,* Michx. Poverty-grass.
Infrequent.

1635. *A. basiramea,* Engelm. Forked Aristida.
Not common.

1636. *A. longiseta,* Steud. Long-awned Aristida.
Not common.

1637. *A. oligantha,* Michx. Few-flowered Aristida.
Dry soil, frequent in patches.

1638. *A. gracilis,* Ell. Slender Aristida.
In sandy soil, not common.

1639. *A. intermedia,* Scribn. & Ball. Intermediate Aristida.
Infrequent.

1640. *A. tuberculosa,* Nutt. Sea-beach Aristida.
Not common, sandy soil.

STIPA, L.

1641. *S. viridula,* Trin. Green Stipa.
Infrequent.

1642. *S. comata,* Trin. and Rupr. Western Stipa.
On prairies; rare.

1643. *S. spartea,* Trin. Porcupine-grass.
Common in dry ground.

ORYZOPSIS, Michx.

1644. *O. melanocarpa,* Muhl. Black Fruited Mountain Rice.
In woods; not common.

MUHLENBERGIA, Schreb.

1645. *M. sobolifera,* (Muhl.) Trin. Rock Muhlenbergia.
Rocky woods; infrequent.

1646. *M. mexicana,* (L.) Trin. Meadow Muhlenbergia.
Common in cultivated fields.

1647. *M. racemosa,* (Michx.) B. S. P. Marsh Muhlenbergia.
In low ground; common.

1648. *M. sylvatica,* Torr. Wood Muhlenbergia.
Not common; low, rocky woods.

1649. *M. tenuiflora,* (Willd.) B. S. P. Slender Muhlenbergia.
Not common.

1650. *M. diffusa,* Willd. Nimble Will.
In dry ground and waste places; common.

BRACHYELYTRUM, Beauv.

1651. *B. erectum,* (Schreb.) Beauv. Brachyelytrum.
Open rocky woods, not common.

PHLEUM, L.

1652. *P. pratense,* L. Timothy.
Cultivated for hay.

ALOPECURUS, L.

1653. *A. geniculatus,* L. Marsh Foxtail.
In wet ground along streams.

1654. *A. pratensis,* L. Meadow Foxtail.
In wet ground, rare.

SPOROBOLUS, R. Br.

1655. *S. asper,* (Michx.) Kunth. Rough Rush-grass.
In sandy soil, frequent.

1656. *S. longifolius,* (Torr.) Wood. Long-leaved Rush-grass.
Common on gravelly soil.

1657. *S. vaginæflorus,* (Torr.) Wood. Sheathed Rush-grass.
Dry soil, frequent.

1658. *S. neglectus,* Nash. Small Rush-grass.
Frequent in dry soil.

1659. *S. cuspidatus,* (Torr.) Wood. Prairie Rush-grass.
In dry ground; frequent.

1660. *S. cryptandrus,* (Torr.) A. Gray. Sand Dropseed.
Dry sand; frequent.

1661. *S. heterolepsis,* A. Gray. Northern Dropseed.
In dry soil, common.

1662. *S. asperifolius,* Nees & Meyen. Rough-leaved Dropseed.
Rare (?)

CINNA, L.

1663. *C. arundinaccea,* L. Wood Reed-grass.
Moist woods, frequent.

AGROSTIS, L.

1664. *A. alba,* L. Red-top.
Common on low ground.

1665. *A. perennans,* (Walt.) Tuckerm. This-grass.
Damp shady places, frequent.

1666. *A. hyemalis,* (Walt.) B. S. P. Rough Hair-grass.
Dry soil, frequent.

CALAMAGROSTIS, Adans.

1667. *C. canadensis,* (Michx.) Beauv. Blue Joint-grass.
Common on wet soil.

1668. *C. canadensis acuminata,* Vasey. Sharp-pointed Red-top.
Infrequent.

1669. *C. macouniana,* Vasey. Macoun's Reed-grass.
Rare.

1670. *C. inexpansa,* A. Gray. Bog Reed-grass.
Not common.

CALAMOVILFA, Hack.

1671. *C. longifolia,* (Hook.) Hack. Long-leaved Reed-grass.
Sandy soil, not common.

HOLCUS, L.

1672. *H. lanatus,* L. Velvet-grass.
Introduced, rare.

AVENA, L.

1673. *A. fatua,* L. Wild Oat.
Frequent.

ARRHENATHERUM, Beauv.

1674. *A. elatius,* (L.) Beauv. Oat-grass.

DANTHONIA, DC.

1675. *D. spicata,* (L.) Beauv. Common Wild Oat-grass.
In dry soil.

SPARTINA, Schreb.

1676. *S. cynosuroides,* (L.) Willd. Tall Marsh-grass.
Common in low ground; northward.

SCHEDONNARDUS, Steud.

1677. *S. paniculatus,* (Nutt.) Trelease. Schedonnardus.
Texan Crab-grass, rare.

BOUTELOUA, Lag.

1678. *B. hirsuta,* Lag. Hairy Mesquite-grass.
Frequent in sandy soil.

1679. *B. oligostachya,* (Nutt.) Torr. Grama-grass.
Dry ground; rare.

ATHEROPOGON, Muhl.

1680. *A. curtipendulus,* (Michx.) Fourn. Racemed Bouteloua.
Dry soil, frequent.

BECKMANNIA, Host.

1681. *B. erucæformis,* (L.) Host. Beckmannia.
Rare.

ELEUSINE, Gaertn.

1682. *E. indica,* (L.) Gaertn. Crab-grass.
Common in door-yards; introduced weed.

BULBILUS, Raf.

1683. *B. dactyloides,* (Nutt.) Raf. Buffalo-grass.
Rare, northwestward.

PHRAGMITES, Trin.

1684. *P. phragmites,* (L.) Karst. Reed.
Borders of ponds, infrequent.

TRICUSPIS, Beauv.

1685. *T. sesleriodes,* (Michx.) Torr. Tall Red-top.
On gravelly soil.

TRIPLASIS, Beauv.

1686. *T. purpurea,* (Walt.) Chapm. Sand-grass.
Dry sand; frequent.

DIPLACHNE, Beauv.

1687. *D. fascicularis,* (Lam.) Beauv. Salt Meadow Diplachne.
Rare, southeastward.

ERAGROSTIS, Beauv.

1688. *E. capillaris.* (L.) Nees. Capillary Eragrostis.
On sandstones, infrequent.

1689. *E. frankii,* Steud. Frank's Eragrostis.
Common on banks of streams, and in woods.

1690. *E. purshii,* Shrad. Pursh's Eragrostis.
Common.

1691. *E. eragrostis.* (L.) Karst. Low Eragrostis.
Introduced from Europe, not common.

1692. *E. major,* Host. Strong-scented Eragrostis.
An introduced weed; common.

1693. *E. pectinacea,* (Michx.) Steud. Purple Eragrostis.
In sandy soil, not common.

1694. *E. trichodes,* (Nutt.) Nash. Hair-like Eragrostis.
Sandy soil; rare.

1695. *E. hypnoides,* (Lam.) B. S. P. Creeping Eragrostis.

EATONIA, Raf.

1696. *E. obtusata,* (Michx.) A. Gray. Blunt-scaled Eatonia.
Common on dry soil.

1697. *E. pennsylvanica,* (DC.) A. Gray. Pennsylvania Eatonia.
Common in moist meadows.

1698. *E. pennsylvanica,* var. *major,* Torr.
With type, less common.

KOELERIA, Pers.

1699. *K. cristata* (L.) Pers. Koeleria.
Common on dry sterile soil.

MELICA. L.

1700. *M. diffusa,* Pursh. Tall Melic-grass.
Infrequent.

1701. *M. parviflora,* (Porter) Scribn. Small Melic-grass.
Rare.

1702. *M. mutica,* Walt. Narrow Melic-grass.
Along streams, in rich soil; infrequent.

KORYCARPUS. Zea.

1703. *K. diandrus.* (Michx.) Kuntze. American Korycarpus.
In rich woods; frequent.

UNIOLA, L.

1704. *U. latifolia,* Michx. Broad-leaved Spike-grass.
Infrequent; southward.

BRIZA, L.

1705. *B. media,* L. Quake-grass.
Waste places; introduced from Europe; infrequent.

DACTYLIS, L.

1706. *D. glomerata,* L. Orchard Grass.
From Europe; escaped from cultivation.

POA, L.

1707. *P. annua,* L. Annual Meadow-grass.
Waste places and dooryards; from Europe; infrequent.

1708. *P. chapmaniana,* Scribn. Chapman's Spear-grass.
Dry, sandy soil, not common.

1709. *P. nemoralis,* L. Wood Meadow-grass.
Infrequent.

1710. *P. flava,* L. False Red-top.
Common along streams.

1711. *P. pratensis,* L. Kentucky Blue-grass.
Common pasture grass.

1712. *P. trivialis,* L. Roughish Meadow-grass.
Meadows and roadsides.

1713. *P. debilis,* Torr. Weak Spear-grass.
In woods; rare.

1714. *P. sulvestris,* A. Gray. Sylvan Spear-grass.
In woods, frequent.

1715. *P. wolfii,* Scribn. Wolf's Spear-grass.
Rock woods, infrequent.

1716. *P. compressa,* L. Wire-grass.
Introduced from Europe; common.

1717. *P. arachnifera,* Torr. Texas Blue-grass.
Infrequent.

SCOLOCHLOA, Link.

1718. *S. festucacea,* (Willd.) Link. Fescue Scolochloa.
Wet ground, not common.

PANICULARIA, Fabr.

1719. *P. nervata,* (Willd.) Kuntze Nerved Manna-grass.
Common in moist meadows.

1720. *P. americana,* (Torr.) MacM. Reed Meadow-grass.
Common on moist ground in the central and northern part of the state.

1721. *P. fluitans,* (L.) Kuntze. Floating Manna-grass.
Shallow water, common.

1722. *P. borealis,* Nash. Slender Manna-grass.
Not common.

FESTUCA, L.

1723. *F. octoflora,* Walt. Slender Fescue-grass.
Common in sandy soil.

1724. *F. rubra,* L. Red Fescue-grass.
Not common.

1725. *F. ovina,* L. Sheep's Fescue-grass.
Escaped from cultivation; not common.

1726. *F. elatior,* L. Tall Fescue-grass.
In fields and waste places.

1727. *F. shortii,* Kunth. Short's Fescue-grass.
Open wood; common.

1728. *F. nutans,* Willd. Nodding Fescue-grass.
Rocky wood; common.

BROMUS, L.

1729. *B. inermis,* Leyes. Hungarian Brome-grass.
Introduced from Europe, common.

1730. *B. ciliatus,* L. Fringed Brome-grass.
Moist woods, frequent.

1731. *B. ciliatus purgans,* A. Gray. Brome-grass.
Moist woods, frequent.

1732. *B. tectorum,* L. Downy Brome-grass.
In sandy soil, introduced from Europe.

1733. *B. kalmii,* A Gray, Kalm's Chess.
Not common.

1734. *B. hordeaceus,* L. Soft Chess.
In waste places, not common.

1735. *B. secalinus,* L. Cheat.
In waste places, common, a weed from Europe.

1736. *B. racemosus,* L. Upright Chess.
Not infrequent in central Iowa.

1737. *B. arvensis,* L. Field Chess.
Introduced from Europe, infrequent.

1738. *B. squarrosus,* L. Corn Brome.
From Europe; rare.

1739. *B. breviaristatus,* (Hook.) Buckl. Short-awned Chess.
Not common.

LOLIUM, L.

1740. *L. perenne,* L. Rye-grass.
Lawns, fields and roadsides, not common.

1741. *L. italicum,* A. Br. Awned Ray-grass.
Introduced, but not persistent.

1742. *L. temulentum,* L. Darnel.
In grain fields.

AGROPYRON, J. Gaertn.

1743. *A. richardsonii,* Schrad. Richardson's Wheat-grass.
Dry soil, northward.

1744. *A. caninum,* (L.) R. & S. Awned Wheat-grass.
Northward, not infrequent.

1745. *A. tenerum,* Vassey. Slender Wheat-grass.
Not infrequent northward.

1746. *A. spicatum,* (Pursh.) Scribn. & Sm. Western Wheat-grass.
Common northward.

1747. *A. repens,* (L.) Beauv. Quack Grass.
Common weed from Europe.

HORDEUM, L.

1748. *H. nodosum,* L. Meadow Barley.
Infrequent.

1749. *H. pusillum,* Nutt. Little Barley.
Introduced, not common.

1750. *H. jubatum,* L. Squirrel-tail Grass.
A common weed.

1751. *H. pammeli,* Scribn. & Ball. Pammel's Wild Barley.
Infrequent.

ELYMUS, L.

1752. *E. striatus,* Willd. Slender Wild Rye.
Common in low woods.

1753. *E. virginicus,* L. Virginia Wild Rye.
Waste land; common.

1754. *E. hirsutiglumis,* Scribn. & Sm. Strict Wild Rye.
Infrequent.

1755. *E. canadensis,* L. Nodding Wild Rye.
Common in waste land.

1756. *E. arkansanus,* Scribn. & Ball. Arkansas Wild Rye.
Infrequent, southward.

1757. *E. robustus,* Scribn. & Sm. Stout Wild Rye.
Common.

1758. *E. macounii,* Vasey. Macoun's Wild Rye.
In low ground; northward.

HYSTRIX, Moench.

1759. *H. hystrix,* (L.) Millsp. Bottle-brush Grass.
Moist woods; frequent.

CYPRACEÆ. SEDGE FAMILY.

CYPERUS, L.

1760. *C. flavescene,* L. Yellow Cyperus.
In marshy ground, not common.

1761. *C. diandrus,* Torr. Low Cyperus.
Low ground, infrequent.

1762. *C. rivularis,* Kunth. Shining Cyperus.
Common, banks of lakes and rivers, northward.

1763. *C. inflexus,* Muhl. Awned Cyperus.
Common, banks of lakes and streams.

1764. *C. schweinitzii,* Torr. Schweinitz's Cyperus.
Sandy shores of lakes, northward.

1765. *C. acuminatus,* Torr. & Hook. Short-pointed Cyperus.
Low sandy soil.

1766. *S. esculentus,* L. Yellow Nut-grass.
Cultivated ground, frequent.

1767. *C. erythrorhizos,* Muhl. Red-rooted Cyperus.
River shores; frequent.

1768. *C. speciosus,* Vahl. Michaux's Cyperus.
Along rivers in wet soil.

1769. *C. strigosus,* L. Straw-colored Cyperus.
Common in moist ground.

1770. *C. strigosus capitatus,* Boeckl.
Wet ground; infrequent.

1771. *C. strigosus compositus,* Britton.
In wet places; infrequent.

1772. *C. strigosus robustior,* Knuth.
Infrequent.

1773. *C. filiculmis,* Vahl. Slender Cyperus.
In dry soil.

DULICHIUM, L. C. Richard.

1774. *D. arundinaceum,* (L.) Britton. Dulichium.
In wet places.

ELEOCHARIS, R. Br.

1775. *E. atropurpurea,* (Retz) Kunth. Purple Spike-rush.
In wet sand.

1776. *E. ovata,* (Roth.) R. & S. Ovoid Spike-rush.
In mud and wet sand.

1777. *E. palustris,* (L.) R. & S. Creeping Spike-rush.
Common in low ground.

1778. *E. palustris glaucescens,* (Willd.) A. Gray.
Low wet ground.

1779. *E. acicularis,* (L.) R. & S. Needle Spike-rush.
Common in wet ground.

1780. *E. wolfii,* A. Gray. Wolf's Spike-rush.
Low ground, not common.

1781. *E. intermedia,* (Muhl.) Schultes. Matted Spike-rush.
Not common.

STENOPHYLLUS, Raf.

1782. *S. capillaris,* (L.) Britton. Hair-like Stenophyllus.
Sandy soil, not common.

FIMBRISTYLIS, Vahl.

1783. *F. autumnalis,* (L.) R. & S. Slender Fimbristylis.
In frequent.

SCIRPUS, L.

1784. *S. halli,* A. Gray. Hall's Club-rush.
In wet soil; infrequent.

1785. *S. americanus,* Pers. Three-square Rush.
Infrequent.

1786. *S. lacustris,* L. Great Bulrush.
Common in wet places.

1787. *S. fluviatillis,* (Torr.) A. Gray. River Bulrush.
In shallow water, common.

1788. *S. atrovirens,* Muhl. Dark Green Bulrush.
Common in wet places.

1789. *S. lineatus,* Michx. Reddish Bulrush.
Not common.

1790. *S. cyperinus,* (L.) Kunth. Wool-grass.
Infrequent.

ERIOPHORUM, L.

1791. *E. polystachyon,* L. Tall Cotton-grass.
Boggy soil, infrequent.

1792. *E. gracile,* Koch. Slender Cotton-grass.
In bogs.

HEMICARPHA, Nees & Arn.

1793. *H. micrantha,* (Vahl) Britton. Hemicarpha.
In moist, sandy soil; infrequent.

SCLERIA, Berg.

1794. *S. triglomerata,* Michx. Tall Nut-rush
In sandy soil along rivers; frequent.

CAREX, L.

1795. *C. intumescens,* Rudge. Bladder Sedge.
Wet soil, not common.

1796. *C. asa-grayi,* Bailey. Gray's Sedge.
River banks; frequent.

1797. *C. lupulina,* Muhl. Hop Sedge.
Ponds and rivers; frequent.

1798. *C. lupuliformis,* Sartwell. Hop-like Sedge.
Swamps; not common.

1799. *C. monile,* Tuckerm. Necklace Sedge.
Swales; infrequent.

1800. *C. tuckermanii,* Dewey. Tuckerman's Sedge.
In wet places; not common.

1801. *C. retrorsa,* Schwein. Retrorse Sedge.
In woods, rare.

1802. *C. lurida parvula,* (Paine) Bailey.
Infrequent.

1803. *C. schweinitzii,* Dewey. Schweinitz's Sedge.
Low places, infrequent.

1804. *C. hystricina,* Muhl. Porcupine Sedge.
Common in sloughs.

1805. *C. pseudo-cyperus,* L. Cyperus-like Sedge.
Borders of ponds, infrequent.

1806. *C. comosa,* Boott. Bristly Sedge.
Marshes, infrequent.

1807. *C. squarrosa,* L. Squarrose Sedge.
Swamps; not common.

1808. *C. typhinoides,* Schwein. Cat-tail Sedge.
Infrequent.

1809. *C. trichocarpa,* Muhl. Hairy-fruited Sedge.
Margin of ponds, frequent.

1810. *C. aristata,* R. Br. Awned Sedge.
Marshes; rare.

1811. *C. riparia,* Curtis. River-bank Sedge.
Frequent in marshes.

1812. *C. shortiana,* Dewey. Short's Sedge.
In marshes.

1813. *C. lanuginosa,* Michx. Wooly Sedge.
Frequent in low ground.

1814. *C. filiformis,* L. Slender Sedge.
Common.

1815. *C. fusca,* All. Brown Sedge.
Swales; rare.

1816. *C. stricta,* Lam. Tussock Sedge.
Infrequent.

1817. *C. stricta angustata,* (Boott.) Bailey.
Swales; frequent.

1818. *C. haydeni,* Dewel. Hayden's Sedge.
Marshes; frequent.

1819. *C. aquatilus,* Wahl. Water Sedge.
Infrequent.

1820. *C. limosa,* L. Mud Sedge.
Rare.

1821. *C. davisii,* Schwein. & Torr. Davis' Sedge.
Moist meadows.

1822. *C. longirostris,* Torr. Long-beaked Sedge.
Common in woods.

1823. *C. grisea,* Wahl. Gray Sedge.
Infrequent.

1824. *C. amphibola,* Steud. Narrow-leaved Sedge.
Moist soil, frequent.

1825. *C. granularis,* Muhl. Meadow Sedge.
Not common.

1826. *C. crawei,* Dewey. Crawe's Sedge.
Rare.

1827. *C. conoidea,* Schk. Field Sedge.
Low ground, rare.

1828. *C. oligocarpa,* Schk. Few-fruited Sedge.
Frequent in rich woods.

1829. *C. hitchcockiana,* Dewey. Hitchcock's Sedge.
In woods, infrequent.

1830. *C. tetanica,* Schk. Wood's Sedge.
In woods and meadows.

1831. *C. meadii,* Dewey. Mead's Sedge.
Grass lands and meadows; not common.

1832. *C. laxiflora,* Lam. Loose-flowered Sedge.
Common in rich woods.

1833. *C. laxiflora blanda,* (Dewey) Boott.
Common.

1834. *C. digitalis copulata,* Bailey.
Rare.

1835. *C. albursina,* Sheldon. White Bear Sedge.
In moist rich woods.

1836. *C. laxiculmis,* Schwein. Spreading Sedge.
In woods, not common.

1837. *C. setifolia,* (Dewey) Britton. Bristle-leaved Sedge.
Dry hills, in woods; rare.

1838. *C. richardsoni,* R. Br. Richardson's Sedge.
Not common.

1839. *C. pedunculata,* Muhl. Long-stalked Sedge.
Infrequent.

1840. *C. pedicellata,* (Dewey) Britton. Fibrous-rooted Sedge.
Not common.

1841. *C. pennsylvanica,* Lam. Pennsylvania Sedge.
Dry woodlands, common.

1842. *C. varia,* Muhl. Emmons' Sedge.
Infrequent.

1843. *C. pubescens,* Muhl. Pubescent Sedge.
Rich woods, infrequent.

1844. *C. jamesii,* Schwein. James' Sedge.
Rich woods, rare.

1845. *C. chordorhiza,* L. F. Creeping Sedge.
In bogs, northward, rare.

1846. *C. stenophylla,* Wahl. Involute-leaved Sedge.
Dry ground, northward; rare.

1847. *C. conjuncta,* Boott. Soft Fox Sedge.
Not common.

1848. *C. stipata,* Muhl. Awl-fruited Sedge.
Low wet ground; not common.

1849. *C. crus-corvi,* Shuttlw. Raven's-foot Sedge.
In swamps; rare.

1850. *C. teretiuscula,* Gooden. Lesser Panicled Sedge.
Frequent in marshes.

1851. *S. teretiuscula prairea,* (Dewey) Britton.
Frequent in bogs.

1852. *C. alopecoidea,* Tueckerm. Foxtail Sedge.
Not common.

1853. *C. gravida,* Bailey. Heavy Sedge.
Dry soil; frequent.

1854. *C. vulpinoidea,* Michx. Fox Sedge.
Common in low ground.

1855. *C. xanthocarpa,* Bicknell. Yellow-fruited Sedge.
Dry meadows.

1856. *C. sartfellii,* Dewey. Sartwell's Sedge.
Low places; infrequent.

1857. *C. rosea,* Schk. Stellate Sedge.
Rich woods; frequent.

1858. *C. rosea radiata,* Dewey.
Rare, in rich woods.

1859. *C. sparganioides,* Muhl. Bur-reed Sedge.
Rich woods; infrequent.

1860. *C. cephaloidea,* Dewey. Thin-leaved Sedge.
In low ground.

1861. *C. cephalophora,* Muhl. Oval-shaped Sedge.
Frequent in dry, sterile soil.

1862. *C. leavenworthii,* Dewey. Leavenworth's Sedge.
Infrequent.

1863. *C. sterilis,* Willd. Little Prickly Sedge.
Low grassland, common.

1864. *C. interior,* Bailey. Inland Sedge.
Swales; common.

1865. *C. deweyana,* Schwein. Dewey's Sedge.
Not common.

1866. *C. muskingumensis,* Schwein. Muskingum Sedge.
Infrequent in woods.

1867. *C. tribuloides,* Wahl. Blunt Broom Sedge.
Low ground; frequent.

1868. *C. tribuloides bebbii,* Bailey.
In marshes; infrequent.

1869. *C. tribuloides moniliformis,* (Tuckerm.) Britton.
Not common.

1870. *C. scorparia,* Schk. Pointed Broom Sedge.
Low ground; frequent.

1871. *C. cristatella,* Britton. Crested Sedge
Frequent in low woods.

1872. *C. fœnea,* Willd. Hay Sedge.
Not common.

1873. *C. fœnea perplexa,* Bailey.
Infrequent.

1874. *C. straminea,* Willd. Straw Sedge.
Open woods; infrequent.

1875. *C. straminea miramilis,* (Dewey) Tuckerm.
Not common.

1876. *C. tenera,* Dewey. Marsh Straw Sedge.
Not common.

1877. *C. festucacea,* Willd. Fescue Sedge.
Not common.

1878. *C. alata,* Torr. Broal-winged Sedge.
Not common.

1879. *C. bicknellii,* Britton. Bicknell's Sedge.
Common on upland prairies.

1880. *C. sychnocephala,* Carey. Dense Long-beaked Sedge.
In marshes; infrequent.

ARACEÆ. ARUM FAMILY.

ARISÆMA, Mart.

1881. *A. triphyllum.* Indian Turnip.
Rich, moist woods. Frequent.

1882. *A. dracontium,* (L.) Schott. Dragon-root.
In low moist ground; frequent.

SPATHYEMA, Raf.

1883. *S. fœtida,* L. Skunk Cabbage.
Swampy ground. Infrequent.

ACORUS, L.

1884. *A. calamus,* L. Calamus-root.
Swampy ground; infrequent.

LEMNACEÆ. DUCKWEED FAMILY.

SPIRODELA, Schleid.

1885. *S. polyrhiza,* (L.) Schleid. Great Duckweed.
Ponds. Common.

LEMNA, L.

1886. *L. trisulca,* L. Ivy Leaved Duckweed.
Common.

1887. *L. minor,* L. Lesser Duckweed.
Frequent, in ponds.

WOLFFIA, Horkel.

1888. *W. columbiana,* Karst. Columbia Wolffia.
Frequent.

1889. *W. punctata,* Griseb. Punctate Wolffia.
Common in ponds.

COMMELINACÆ. SPIDERWORT FAMILY.

COMMELINA, L.

1889*a*. *C. crispa,* Wooton.
Rare, found in garden.

TRADESCANTIA, L.

1890. *T. virginiana,* L. Spiderwort.
Common; open woods and prairies.

1891. *T. reflexa,* Raf. Reflexed Spiderwort.
Not common.

1892. *T. brevicanlis,* Raf. Short-stemmed Spiderwort.
Not common.

PONTEDERIACEÆ. PICKEREL-WEED FAMILY.

PONTEDERIA, L.

1893. *P. cordata,* L. Pickerel Weed.
Ponds and slowly flowing streams; frequent.

HETERANTHERA, R. & P.

1894. *H. dubia,* (Jacq.) MacM. Water Star Grass.
In still water.

JUNCACEÆ. RUSH FAMILY.

JUNCUS, L.

1895. *J. effusus,* L. Common Rush.
Common in moist places.

1896. *J. balticus,* Willd. Ballic Rush.
Rare.

1897. *J. tenuis,* Willd. Slender Rush.
Common.

1898. *J. vaseyi,* Engelm. Vasey's Rush.
Not common.

1899. *J. marginatus,* Rostk. Grass Leaved Rush.
Infrequent.

1900. *J. nodusus,* L. Knotted Rush.
Common in wet ground.

1901. *J. torreyi,* Coville. Torrey's Rush.
Frequent in low ground.

1902. *J. megacephalus,* M. A. Curtis. Carolina Rush.
Not common.

1903. *J. canadensis,* J. Gay. Canada Rush.
Infrequent.

1904. *J. acuminatus,* Michx. Sharp Fruited Rush.
Infrequent.

JUNCOIDEA, Adams

1905. *J. pilosum,* L. Kuntze. Hairy Wood Rush.
Infrequent.

1906. *J. campestre,* (L.) Kuntze. Common Wood Rush.
Infrequent.

MELANTHACEÆ. BUNCH FLOWER FAMILY.

ZYGADENUS, Machx.

1907. *Z. elegans,* Pursh. Glaucous Zygadenus.
Common on prairies.

MELANTHIUM, L.

1908. *M. virginicum,* L. Bunch Flower.
In wet soil.

VERATRUM, L.

1909. *V. woodii,* Robbins. Wood's False Hellebore.
On dry hills.

UVULARIA, L.

1910. *U. perfoliata,* L. Perfoliated Bellwort.
Not common.

1911. *U. grandiflora,* J. E. Smith. Large Flowered Bellwort.
Frequent in rich woods.

1912. *U. sessilifolia,* L. Sessile Leaved Bellwort.
Not common.

LILIACÆ. LILY FAMILY.

HEMEROCALLIS, L.

1913. *H. fulva,* L. Day Lily.
Introduced; infrequent. Common in yards.

ALLIUM, L.

1914. *A. tricoccum,* Ait. Wild Leek.
Common in rich woods.

1915. *A. cernuum,* Roth. Nodding Wild Onion.
On shady banks, not rare.

1916. *A. stellatum,* Ker. Prairie Wild Onion.
Common on rocky banks and slopes.

1917. *A. canadensis,* L. Meadow Garlic.
Frequent on low prairies.

LILIUM, L.

1918. *L. philadelphicum,* L. Wood Lily.

1920. *L. umbellatum,* Pursh. Western Red Lily.
Common on prairie.

1921. *L. canadense,* L. Wild Yellow Lily.
Common in moist ground on prairies.

1922. *L. superbum,* L. Turk's Cap Lily.
On low ground; infrequent.

1923. *L. triginum,* Andr. Tiger Lily.
Introduced, escaped from gardens.

ERYTHRONIUM, L.

1924. *E. americanum,* Ker. Yellow Adder's Tongue.
In rich woods.

1925. *E. albidum,* Nutt. White Adder's Tongue.
Frequent in rich woods.

1926. *E. mesochoreum,* Knerr. Midland Adder's Tongue.
Infrequent.

QUAMASIA, Raf.

1927. *Q. hyacinthina,* (Raf.) Britton. Wild Hyacinth.
Infrequent.

YUCCA, L.

1928. *Y. glauca,* Nutt. Bear Grass.
Not common. Western part only.

CONVALLARIACEÆ. LILY-OF-THE-VALLEY FAMILY.

ASPARAGUS, L.

1929. *A. officinalis,* L. Asparagus.
Escaped from cultivation.

VIGNERA, Adams.

1930. *V. racemosa,* (L.) Morong. Wild Spikenard.
Common in woods.

1931. *V. stellata,* (L.) Morong. Star-flowered Solomon's Seal.
Common.

UNIFOLIUM, Adams.

1932. *U. canadensis,* (Desf.) Greene. Two-leaved Solomon's Seal.
In moist woods.

SALOMONICA, Heist.

1933. *S. biflora,* (Walt.) Britton. Hairy Solomon's Seal.
Unfrequent.

1934. *S. commutata,* (R. & S.) Britton. Smooth Solomon's Seal.
Common.

TRILLIUM, L.

1935. *T. sessile,* L. Sessile-flowered Wake-Robin.
Common in rich woods.

1936. *T. recurvatum,* Beck. Prairie Wake Robin.
Infrequent.

1937. *T. nivale,* Riddell. Early Wake Robin.
Not rare.

1938. *T. grandiflorum,* (Michx.) Salisb. Large Flowered Wake Robin.
Not rare.

1939. *T. erectum,* L. Ill Scented Wake Robin.
Common in woods.

1940. *T. cernuum,* L. Nodding Wake Robin.
Infrequent.

SMILACEÆ. SMILAX FAMILY.

SMILAX, L.

1941. *S. herbacea,* L. Carrion-flower.
Common in thickets.

1942. *S. ecirrhata,* (Engelm.) S. Wats. Upright Smilax.
Frequent in woods.

1943. *S. rotundifolia,* L. Greenbriar.
Common.

1944. *S. hispida,* Muhl. Hispid Greenbriar.
Freqeunt in moist woods.

1945. *S. pseudo-china,* L. Long Stalked Greenbriar.
Not common.

AMARYLLIDACEÆ. AMARYLLIS FAMILY.

HYPOXIS, L.

1946. *H. hirsuta,* (L.) Coville. Star Grass.
Grassy places, common.

DIOSCOREACEÆ. YAM FAMILY.

DIOSCOREA, L.

1947. *D. villosa,* L. Wild Yam-root.
Woods, common.

IRIDACEÆ. IRIS FAMILY.

IRIS, L.

1948. *I. versicolor,* L. Large Blue Flag.
Common in wet ground.

GEMMINGIA, Frbr.

1949. *G. chinensis,* (L.) Kuntze. Blackberry Lily.
Escaped from gardens.

SISYRINCHIUM, L.

1950. *S. augustifolium,* Miller. Northern Blue Eyed Grass.
Common, meadows.

1951. *S. graminoides,* Bicknell. Common Blue Eyed Grass.
Not common.

ORCHIDADEÆ. ORCHID FAMILY.

CYPRIPEDIUM, L.

1952. *C. reginæ,* Walt. Showy Ladies' Slipper.
In swamps and wet hillsides. Not common.

1953. *C. candidum,* Willd. Small White Ladies' Slipper.
Frequent in low ground.

1954. *C. hirsutum,* Will. Large Yellow Ladies' Slipper.
Not frequent in deep woods.

1955. *C. parviflorum,* Salish. Small Yellow Ladies' Slipper.
Not frequent.

GALEORCHIS, Rydb.

1956. *G. spectabile,* (L.) Dydb. Showy Orchis.
In rich woods, not common.

CŒLOGOSSUM, Hartman.

1957. *C. bracteatum,* (Willd.) Parl. Long Bracted Orchis.
In moist soil.

GYMNADNIOPSIS, Rydb.

1958. *G. clavellata,* (Michx.) Rydb. Small Green Wood Orchis.
Infrequent.

LIMNORCHIS, Rydb.

1959. *L. hyperberea,* (L.) Rydb. Tall Leafy Green Orchis.
Rare, in deep upland woods.

LYSIAS, Salisb.

1960. *L. hookeriana,* (A. Gray) Rydb. Hooker's Orchis.
In upland woods.

BLEPHARIGLOTTIS, Raf.

1961. *B. leucophæa,* (Nutt.) Rydb. Prairie White Fringed Orchis.
Moist prairies.

TRIPHORA, Nutt.

1962. *T. trianthophora,* (Sw.) Rydb. Nodding Pogonia.
Infrequent.

LIMADORUM, L.

1963. *L. tuberosum,* L. Grass Pink.
In wet meadows.

GYRORTACHYS, Pers.

1964. *G. cernua,* (L.) Kuntze. Nodding Ladies' Tresses.
Wet meadows and boggy places; infrequent.

1965. *G. gracilis,* (Bigel.) Kuntze. Slender Ladies' Tresses.
Dry soil. Infrequent.

PERAMIUM, Salisb.

1966. *P. pubescens,* (Willd.) MacM. Downy Rattlesnake Plaintain.
In woods, not rare.

ACHROANTHES, Raf.

1967. *A. unifolia,* (Michx.) Raf. Green Adder's Mouth.
In deep woods.

LEPTORCHIS, Thouars.

1968. *L. liliifolia,* (L.) Kuntze. Large Twayblade.
In upland woods, not rare.

1969. *L. læselii,* (L.) MacM. Fen Orchis.
Boggy places, rare.

APLECTRUM, Nutt.

1970. *A. spicatum,* (Walt.) P. S. P. Putty Root.
In woods.

CORALLORHIZA, R. Br.

1971. *C. odontorhiza,* (Willd.) Nutt. Small Flowered Coral Root.
Infrequent.

1972. *C. multiflora,* Nutt. Large Coral Root.
Common in woods. Northward.

SALICACEÆ. WILLOW FAMILY.

POPULUS, L.

1973. *P. alba,* L. Abele or White Poplar.
Introduced from Europe.

1974. *P. candicans,* Ait. Balm of Gilead.
In northern part of state; planted elsewhere.

1975. *P. deltoides,* Marsh. Cottonwood.
Common.

1976. *P. grandidentata,* Michx. Large Toothed Aspen.
Frequent.

1977. *P. tremuloides,* Michx. American Aspen.
Common in thickets, northward.

SALIX, L.

1978. *S. nigra,* Marsh. Black Willow.
Not rare; in low ground.

1979. *S. amygdaloides,* Anders. Peach Leaved Willow.
Along streams, common.

1980. *S. lucida,* Muhl. Shining Willow.
Common in wet ground.

1981. *S. fragilis,* L. Brittle Willow.
Infrequent.

1982. *S. alba,* L. White Willow.
Introduced from Europe.

1983. *S. alba vitellina,* (L.) Koch. Golden Osier.
Frequent.

1984. *S. cordata,* Muhl. Heart Leaved Willow.
Common in wet places.

1985. *S. missouriensis,* Bebb. Missouri Willow.
In low ground, not rare.

1986. *S. myrtilloides,* L. Bog Willow.
Northern, rare.

1987. *S. fluviatilis,* Nutt. Sandbar Willow.
Along streams.

1989. *S. petiolaris,* J. E. Smith. Slender Willow.
Low, wet ground. Frequent.

1990. *S. discolor,* Muhl. Glaucous Willow.
Banks of creeks, common.

1991. *S. bebbiana,* Sarg. Bebb's Willow.
Not common.

1992. *S. humilis,* Marsh. Prairie Willow.
Dry prairies, frequent.

1993. *S. tristis,* Ait. Dwarf Gray Willow.
Not common.

1994. *S. candida,* Fluegge. Hoary Willow.
Not common.

1995. *S. sericea,* Marsh. Silky Willow.
Not common.

JUGLANDACEÆ. WALNUT FAMILY.

JUGLANS, L.

1996. *J. nigra,* L. Black Walnut
Common in woods in rich ground.

1997. *J. cinerea,* L. Butternut.
Woods, frequent.

HICORIA, Raf.

1998. *H. pecan,* (Marsh) Britton. Pecan.
Southeast in moist soil along streams.

1999. *H. minima,* (Marsh) Britton. Bitter-nut.
In rich soil, common.

2000. *H. ovata,* (Will.) Britton. Shell Bark.
Common in rich soil.

2001. *H. laciniosa,* (Michx.) Sarg. Big Shag Bark.
Not common.

2002. *H. alba,* (L.) Britton. Mocker-nut.
Common.

2003. *H. glabra,* (Will.) Britton. Pignut Hickory.
Common.

BETULACEÆ. BIRCH FAMILY.

CARPINUS, L.

2004. *C. caroliniana,* Walt. American Hornbeam.
Along creeks, infrequent.

OSTRYA, Scop.

2005. *O. virginiana,* (Will.) Willd. Ironwood.
Frequent.

CORYLUS, L.

2006. *C. americana,* Walt. Hazel-nut.
Common.

BETULA, L.

2007. *B. papyrifera,* Marsh. Paper or Canoe Birch.
Common on rocky slopes, northeast.

2008. *B. nigra,* L. River Birch.
Not common.

2009. *B. lenta,* L. Cherry Birch.
Infrequent.

2010. *B. leutes,* Michx. Gray Birch.
Along rivers. Common.

ALNUS, Gaertn.

2011. *A. incana,* (L.) Willd. Hoary Alder.
On rocky banks, not abundant.

FAGACEÆ. BEECH FAMILY.

QUERCUS, L.

2012. *Q. rubra,* L. Red Oak.
Common.

2013. *Q. palustris,* Du Boi. Pin Oak.
Common in moist ground.

2014. *Q. schneckii,* Britton. Schneck's Oak.
Not common.

2015. *Q. coccinea,* Wang. Scarlet Oak.
Frequent.

2016. *Q. ellipsoidalis,* E. J. Hill. Hill's Oak.
Infrequent.

2017. *Q. velutina,* Lam. Yellow Oak.
Frequent.

2018. *Q. marylandica,* Muench. Black Jack.
On hills, south.

2019. *Q. nigra,* L. Water Oak.
Along streams.

2020. *Q. imbricaria,* Michx. Shingle Oak.
Infrequent.

2021. *Q. alba,* L. White Oak.
Common.

2022. *Q. minor,* (Marsh) Sarg. Post Oak.
Infrequent.

2023. *Q. macrocarpa,* Michx. Bur Oak.
Common.

2024. *Q. platanoides,* (Lam.) Sudw. Swamp White Oak.
Frequent.

2025. *Q. acuminata,* (Michx.) Hauda. Chestnut Oak.
Infrequent.

2026. *Q. prinoides,* Willd. Scrub Chestnut Oak.
Not common.

ULMACEÆ. ELM FAMILY.

ULMUS, L.

2027. *U. americana,* L. White Elm.
Common in alluvial woods.

2028. *U. racemosa,* Thomas. Cork Elm.
Rather common on rocky slopes.

2029. *U. fulva,* Michx. Red Elm; Slippery Elm.
Common in upland woods.

CELTIS, Tourn.

2030. *C. crassifolia,* Lam. Hackberry.
Rather common, often on higher grounds.

MORACEÆ. MULBERRY FAMILY.

CANNABIS.

2031. *C. sativa,* L. Hemp.
Common in wet places. Introduced.

MORUS, L.

2032. *M. rubra,* L. Red Mulberry.
Infrequent.

TOXYLON, Raf.

2033. *T. pomifera,* Ref. Osage Orange.
South; introduced as a hedge plant.

HUMULUS, L.

2034. *H. lupulus,* L. Hop.
Near dwellings, introduced.

URTICACEÆ. NETTLE FAMILY.

URTICA, Ait.

2035. *U. gracilis,* Ait. Slender Nettle.
Common in rather dry places.

2036. *U. dioica,* L. Stinging Nettle.
Infrequent.

URTICASTRUM, L.

2037. *U. divaricatum,* (L.) Kuntze. Wood Nettle.
In rich woods. Common.

ADICEA, Raf.

2038. *A. pumila,* (L.) Ref. Richweed.
Low places, quite common.

PARIETARIA, L.

2039. *P. pennsylvanica,* Muhl. Pennsylvania Pellitory.
Dry rocky banks. Common.

BOEHMERIA, Jacq.

2040. *B. cylindrica,* (L.) Willd. False Nettle.
Moist shady places; common.

SANTALACEÆ. SANDALWOOD FAMILY.

COMANDRA, Nutt.

2041. *C. umbellata,* (L.) Nutt. Bastard Toadflax.
Common on dry hills and prairies.

ARISTOLOCHIACEÆ. BIRTHWORT FAMILY.

ASARUM, L.

2042. *A. acuminatum,* (Ashe.) Bick. Longtipped Wild Ginger.
Common on shady mossy (rocky) banks.

2043. *A. reflexum,* Bick. Short-lobed Wild Ginger.
Common in alluvial woods.

2044. *A. canadensis,* L. Wild Ginger.
Rich woods; not rare.

POLYGONACEÆ. BUCKWHEAT FAMILY.

RUMEX, L.

2045. *R. acetosella,* L. Sheep Sorrel.
Common in dry fields and waste places

2046. *R. salicifolius,* Wein. Willow Leaved Dock.
Not Common.

2047. *R. verticillatus,* L. Swamp Dock.
In moist places.

2048. *R. patientia,* L. Patience Dock.
Common in waste places.

2049. *R. britanica,* L. Great Water Dock.
Common in wet places.

2050. *R. occidentalis,* S. Wats. Western Dock.
Infrequent.

2051. *R. crispus,* L. Curled Dock.
Introduced from Europe. Common.

2052. *R. sanguineus,* L. Red Veined Dock.
Infrequent.

2053. *R. obtusifolius,* L. Broad Leaved Dock.
Introduced from Europe; common.

2054. *R. pericariodes,* L. Golden Dock.
In shady soil, not common.

FAGOPHRUM, Gaertn.

2055. *F. fagopyrum,* (L.) Karst. Buckwheat.
Not uncommonly naturalized in waste places.

POLYGONUM, L.

2056. *P. amphibium,* L. Water Persicaria.
In water and mud, infrequent.

2057. *P. hartwrightii,* A. Gray. Hart Wright's Periscaria.
Margin of ponds, not common.

2058. *P. emersum,* (Michx.) Britt. Swamp Persicaria.
Common in ponds.

2059. *P. incarnatum,* Ell. Pink Persicaria.
Common in wet soils.

2060. *P. lapathifolium,* L. Pale Persicaria.
Common in waste places. Introduced.

2061. *P. lapathifolium nodosum,* Pers.
Introduced from Europe.

2062. *P. pennsylvanicum,* L. Pennsylvania Smartweed.
Common in moist soil.

2063. *P. persicaria,* L. Lady's Thumb.
Introduced weed. Waste places, common.

2064. *P. hydropiper,* L. Smartweed.
In moist places, common.

2065. *P. virginianum,* L. Virginia Knotwood.
Common in woods.

2066. *P. aviculare,* L. Doorweed.
A common door yard weed.

2067. *P. littorale,* Link. Shore Knotweed.
Not common.

2068. *P. camporum,* Meisn. Prairie Knotwood.
In dry sandy soil.

2069. *P. tenue,* Michx. Slender Knotweed.
Common in dry sandy soil.

2070. *P. douglasii,* Greene. Douglas' Knotweed.
Common north.

2071. *P. persicarioides,* H. B. K. Southwestern Persicaria.
Not common.

2072. *P. opelousanum,* Riddell. Opelousus Persicaria.
Not common.

2073. *P. hydropiperoides,* Michx. Mild Water Pepper.
Infrequent.

2074. *P. punctatum,* Ell. Water Smart Weed.
Common.

2075. *P. orientale,* L. Princess Feather.
Introduced from India; in waste places near gardens.

2076. *P. rayi,* Babingt. Ray's Knotweed.
Introduced from Europe.

2077. *P. erectum,* L. Erect Knotweed.
Not common.

2078. *P. exsertum,* Small. Long Fruited Knotweed.
Not common.

2079. *P. ramoissimum,* Michx. Bushy Knotweed.
West, infrequent.

2080. *P. convolvalus,* L. Black Bindweed.
A common introduced weed.

2081. *P. scandens,* L. Climbing False Buckwheat.
Not common.

2082. *P. sagittatum,* L. Arrow Leaved Tear Thumb.
In low grounds.

2083. *P. dumetorum,* L. Hedge Buckwheat.
Frequent in thickets.

2084. *P. cuspidatum,* Engelm. and Gray. Crested False Buckwheat.
Escaped from gardens.

CHENOPODIACEÆ. GOOSEFOOT FAMILY.

CHENOPODIUM, L.

2085. *C. album,* L. Lamb's Quarters.
A common introduced weed.

2086. *C. glaucum,* L. Oak-leaved Goosefoot.
A common introduced weed.

2087. *C. boscianum,* Moq. Bosc's Goosefoot.
In woods and thickets.

2088. *C. urbicum,* L. Upright Goosefoot.
Introduced weed, in cities.

2089. *C. murale,* L. Nettle-leaved Goosefoot.
In cities.

2090. *C. bonus-henricus,* L. Good King Henry.
Introduced from Europe.

2091. *C. botrys,* L. Jerusalem Oak.
Introduced from Europe.

2092. *C. ambrosiodes,* L. Mexican Tea.
Introduced.

2093. *C. hybridum,* L. Maple Leaved Goosefoot.
Common in woods.

CYLOLOMA, Moq.

2094. *C. atrilicifolium,* (Speng) Coult. Cycloloma.
Along streams on sandy banks; not common.

ATRIPLEX, L.

2095. *A. patula,* L. Spreading Aranche.
In waste places.

2096. *A. hastata,* L. Halberd Leaved Arache.
In waste places near cities.

SALSOLA, L.

2097. *S. kali,* L. Saltwort.
Introduced weed.

2098. *S. tagus,* L. Russian Thistle.
Introduced weed.

AMARANTHACEÆ. AMARANTH FAMILY.

AMARANTHUS, L.

2099. *A. retroflexus,* L. Rough Pigweed.
A very common introduced weed.

2100. *A. blitoides,* S. Wats. Prostrate Pigweed.
Introduced from the west. A common weed.

2101. *A. hybridus,* L. Slender Pigweed.
Introduced from tropical America. Common weed.

2102. *A. hybridus paniculatus,* (L.) Arline & Br.
Frequent in waste places.

2103. *A. græcizans,* L. Tumble Weed.
Common.

2104. *A. torreyi,* (A. Gray) Reuth. Torrey's Amaranth.
Introduced from southwest. Frequent.

ACNIDA, L.

2105. *A. tamariscina,* (Nutt) Wood. Western Water Hemp.
In wet places.

2106. *A. tamariscina tuberculata,* (Moq.) Uline & Bray.
River banks, frequent.

FRŒLICHIA, Moench.

2107. *F. floridana,* (Nutt) Moq. Florida Frœlicha.
Dry sandy soil, frequent.

PHYTOLACCACEÆ. POKEWEED FAMILY.

PHYTOLACCA, L.

2108. *P. decandra,* L. Pokeweed.
Introduced, from Europe.

NYCTAGINACEÆ. FOUR O'CLOCK FAMILY.

ALLIONIA.

2109. *A. nyctaginea,* Michx. Wild Four O'clock.
Common in dry places.

2110. *A. hirsuta,* Pursh. Hairy Umbrella-wort.
In dry soil. Infrequent.

AIZOACEÆ. CARPETWEED FAMILY.

MOLLUGO, L.

2111. *M. verticillata,* L. Carpet Weed.
Common in sandy and waste grounds.

PORTULACACEÆ. PURSLANE FAMILY.

TALINUM, Adams.

2112. *T. terctifolium,* Flame Flower.
Not common.

CLAYTONIA, L.

2113. *C. virginica,* L. Spring Beauty.
In rich alluvial woods.

PORTULACA, L.

2114. *P. oleracea,* L. Purslane.
A common introduced weed.

2115. *P. retusa,* Engelm. Notched Purslane.
Infrequent.

CARYOPHYLLACEÆ. PINK FAMILY.

AGROSTEMMA, L.

2116. *A. githago,* L. Corn Cockle.
Introduced weed.

SILENA, L.

2117. *S. stellata,* L. Ait. Starry Champion.
Along borders of thickets. Common.

2118. *S. alba,* Muhl. Western White Champion.
In moist grounds, along borders of thickets. Not rare.

2119. *S. antirrhina,* L. Sleepy Catchfly.
In dry places.

2120. *S. noctiflora,* L. Night Flowering Catchfly.
In waste places.

LYCHNIS, L.

2121. *L. alba,* Mill. White Champion.
Introduced weed.

GYPSOPHILA, L.

2122. *G. paniculata,* L. Tall Gypsophyll.
Escaped from gardens.

SAPONARIA, L.

2123. *S. officinalis,* L. Soapwort.
Introduced; common in waste places.

VACCARIA, L.

2124. *V. vaccaria,* (L.) Britt. Cowherb.
Introduced from Europe; frequent.

DIANTHUS, L.

2125. *D. armeria,* L. Deptford Pink.
Introduced.

ALSINE, L.

2126. *A. media,* L. Common Chickweed.
Common weed in waste places. Introduced.

2127. *A. longifolia,* Muhl. Long-leaved Stitchwort.
Common in wet meadows.

CERASTIUM, L.

2128. *C. viscosum,* L. Mouse-ear Chickweed.
Introduced from Europe.

2129. *C. vulgatum,* L. Large Mouse-ear Chickweed.
Frequent.

2130. *C. longipedunculatum,* Muhl. Nodding Chickweed.
Common in moist woods.

2131. *C. arvense,* L. Field Chickweed.
Frequent.

2132. *C. arvense oblongifolium,* (Torr.) Holl. & Britt.
In rocky places.

ARENARIA, L.

2133. *A. michauxii,* (Fenzl.) Hook. Rock Sandwort.
Not common.

MŒHRINGIA, Ehrh.

2134. *M. lateriflora,* L. Blunt Leaved Sandwort.
In moist shaded places.

ANYCHIA, Michx.

2135. *A. canadensis,* (L.) B. S. P. Slender Forked Chickweed.
In dry places.

NYMPHÆCEÆ. WATER-LILY FAMILY.

BRASENIA, Schred.

2136. *B. purpurea,* (Michx.) Casp. Water-shield.
Infrequent.

NYMPHÆA.

2137. *N. advena,* Sol. Yellow Pond Lily.
In permanent ponds; common.

CASTALIA.

2138. *C. odorata,* (Dry.) W. & W. Sweet Scented White Water Lily.
In permanent ponds.

2139. *C. tuberosa,* (Paine) Greene. Tuberous White Water Lily.
Common.

2140. *C. reniformis,* Walt.
Frequent; scarcely regard it as a distinct variety; only a form of *Tuberosa.*

NELUMBO, Adams.

2141. *N. lutea,* (Willd.) Pers. American Lotus.
Common.

CERATOPHYLLACEÆ. HORNWORT FAMILY.

CERATOPHYLLUM, L.

2142. *C. demersum.* L. Hornwort.
Not common.

ANONACEÆ. CUSTARD APPLE FAMILY.

ASIMINA, Adams.

2143. *A. triloba,* (L.) Dunal. Papaw.
Not common.

RANUNCULACEÆ. CROWFOOT FAMILY.

HYDRASTIS, Ellis.

2144. *H. canadensis,* L. Orange Root; Golden Seal.
Rare, in deep woods.

CALTHA, L.

2145. *C. palustria,* L. Marsh Marigold.
In bogs and wet meadows, common.

ISOPYRUM, L.

2146. *I. biternatum,* (Raf.) T. & G. False Rue-anemone.
In rich alluvial woods.

ACTÆA, L.

2147. *A. rubra,* (Ait.) Willd. Red Baneberry.
Not rare, in deep woods.

2148. *A. alba,* (L.) Mill. White Baneberry.
Rich woods.

AQUILEGIA, L. Wild Columbine.
Common on shaded rocks.

DELPHINIUM, L.

2150. *D. carolinianum,* Walt. Prairie Larkspur.
Common.

2151. *D. albescens,* Rydb. Prairie Larkspur.
Not frequent.

2152. *D. urceolatum,* Jacq. Tall Larkspur.
In woods, infrequent.

2153. *D. tricorne,* Michx. Dwarf Larkspur.
Not common.

2154. *D. consolida,* L. Field Larkspur.
Introduced, not common.

ANEMONE, L.

2155. *A. caroliniana,* Walt. Caroline Anemone.
Frequent.

2156. *A. cylindrica,* A. Gray. Long Fruited Anemone.
Common on prairie and in open places.

2157. *A. virginiana,* L. Tall Anemone.
Common in open woods.

2158. *A. canadensis,* L. Canada Anemone.
In moist grounds; common.

2159. *A. quinquefolia,* L. Wood Anemone.
In woods, infrequent.

HEPATICA, Scop.

2160. *H. acuta,* (Pursh.) Britt. Heart Liverleaf.
Common on wooded banks and slopes.

SYNDESMON, Hoffing.

2161. *S. thalictroides,* (L.) Hoffm. Rue-anemone.
In open woods. Frequent.

PULSATILLA.

2162. *P. hirsutissima,* (Pursh.) Britt. Pasque Flower.
On prairies and dry ridges; not rare.

CLEMATIS, L.

2163. *C. virginiana,* L. Virgin's Bower.
Common along borders of thickets.

2164. *C. viorna,* L. Leather Flower.
Frequent.

2165. *C. simsii,* Sweet. Sims' Clematis.
Southern part of state; infrequent.

ATRAGENE, L.

2166. *A. americana,* Sims. Purple Virgin's Bower.
Shaded rocky banks; infrequent.

MYOSURUS, L.

2167. *M. minimus,* L. Mouse-tail.
In moist places, not common.

RANUNCULUS, L.

2168. *R. ovalis,* Raf. Prairie Crowfoot.
In open places; frequent.

2169. *R. delphinifolius,* Torr. Yellow Water Crowfoot.

2170. *R. abortivus,* L. Kidney Leaved Crowfoot.
In moist shaded ground. Common.

2172. *R. recurvatus,* Poir. Hooked Crowfoot.
In rich woods, frequent.

2173. *R. acris,* L. Tall Buttercup.
Not common.

2174. *R. pennsylvanicus,* L. F. Bristly Crowfoot.
In wet ground, not common.

2175. *R. repens,* L. Creeping Buttercup.
Infrequent.

2176. *R. septentrionalis,* Poir. Marsh Buttercup.
Common in low grounds.

2177. *R. hispidis,* Michx. Muhl. Early Buttercup.
Common in open woods.

BATRACHIUM, S. F. Gray.

2178. *B. trichopyllum,* (Chaix.) Bossch. Common White Water Crowfoot.
Abundant in Bear Creek.

2179. *B. divaricatum,* (Schrank) Wimm. Circinate White Water Crowfoot.
Rare.

OXYGRAPHIS.

2180. *O. cymbalaria,* (Pursh.) Prantl. Seaside Crowfoot.
On sandy shores, not common.

THALICTRUM, L.

2181. *T. dioicum,* L. Early Meadow-rue.
Common on wooded slopes.

2182. *T. purpurascens,* L. Purplish Meadow-rue.
Common in open places.

2183. *T. polygamum,* Muhl. Tall Meadow-rue.
Not common.

BERBERIDACEÆ. BARBERRY FAMILY.

BERBERIS, L.

2184. *B. vulgaris,* L. Common Barberry.
Introduced from Europe.

CAULOPHYLLUM, Michx.

2185. *C. thalictroides,* (L.) Michx. Blue Cohosh.
Rather common, in deep woods.

PODOPHYLLUM, L.

2186. *P. peltatum,* L. May Apple.
In deep woods, common.

MENISPERMACEÆ. MOONSEED FAMILY.

MENISPERMUM, L.

2187. *M. canadense,* L. Moodseed.
Quite common in woods.

LAURACEÆ. LAUREL FAMILY.

SASSAFRAS, Nees. & Eberm.

2187*a*. *S. sassafras,* (L.) Karst. Sassafras.
Not common.

PAPAVERACEÆ. POPPY FAMILY.

AGERMONE, L.

2188. *A. mexicana,* L. Mexican Poppy.
Escaped from gardens.

Bicuculia, Adams.

2189. *B. cucullaria,* (L.) Millsp. Dutchman's Breeches.
In rich woods.

2190. *B. canadensis,* (Goldie) Millsp. Squirrel Corn.
Hilly woods, not common.

Sanguinaria, L.

2192. *S. canadensis,* L. Bloodroot.
On well wooded slopes and banks. Common.

Capnoides, Adams.

2193. *C. flavulum,* (Raf.) Kuntze. Pale Corydalis.
Not common.

2194. *C. micranthum,* (Engelm.) Britt. Small Flowered Corydalis.
In woods.

2195. *C. aureum,* (Willd.) Kuntze. Golden Corydalis.
Infrequent.

2196. *C. curvisiliqum,* (Engelm.) Kuntze. Vesicular Corydalis.
Common.

Adlumia, Raf.

2197. *A. fungosa,* (Ait.) Greene. Climbing Fumitory.
Infrequent.

CRUCIFERÆ. MUSTARD FAMILY.

Thelypodium, Endl.

2198. *T. integrifolium,* (Nutt.) Endl. Entire-leaved Thelypodium.
Not common.

Lepidium, L.

2199. *L. virginicum,* L. Wild Pepper Grass.
A common weed.

2200. *L. apetalum,* L. Apetalous Pepper Grass.
A weed.

2201. *L. sativum,* L. Garden Pepper Grass.
Escaped from gardens.

THLASPI, L.

2202. *T. arvense,* L. Field Penny Cress.
In waste places.

SISYMBRIUM, L.

2203. *S. officinale,* L. Scop. Hedge Mustard.
A common naturalized weed.

2204. *S. altissimum,* L. Tall Sisybrium.
Common in waste places.

SINAPIS.

2205. *S. alba,* L. White Mustard.
On introduced weed; not common.

BRASSICA.

2206. *B. nigra* (L.) Koch. Black Mustard.
A common introduced weed.

2207. *B. arvensis,* (L.) B. S. P.
More common than the preceding.

2208. *B. campestris,* L. Turnip.
Escaped from gardens; not persistent.

RAPHANUS, L.

2209. *R. raphanistrum,* L. Wild Radish.
Waste places, from Europe.

2209*a*. *R. sativus,* L. Garden Radish.
Escaped from gardens.

IODANTHUS, T. & G.

2210. *I. pinnatifidus,* (Michx.) Steud. Purple Rocket.
Not common.

BARBAREA, R. Br.

2211. *B. barbarea,* L. Yellow Rocket.
In waste fields.

RORIPA, Scop.

2212. *R. sinuata,* (Nutt.) A. S. Spreading Yellow Cress.
Not common.

2213. *R. obtusa,* (Nutt.) Britton. Blunt Leaved Cress.
Not common.

2214. *R. palustris,* (L.) Bess. Marsh Cress.
In low grounds.

2215. *R. hispida,* (Desv.) Britton. Hispid Yellow Cress.
Frequent.

2216. *R. nasturtium,* (L.) Rusby. Water Cress.
In clear streams.

2217. *R. sessiliflora,* (Nutt.) A. S. H. Sessile Flowered Cress.
Infrequent.

2218. *R. armoricia,* L. Horse Radish.
Escaped from gardens.

CARDAMINE, L.

2219. *C. hirsuta,* L. Hairy Bitter Cress.
Wet places, frequent.

2220. *C. pennsylvanica,* Muhl. Pennsylvania Bitter Cress.
Frequent.

2221. *C. parviflora,* L. Small Flowered Bitter Cress.
Not common.

2222. *C. flexuosa,* With. Wood Bitter Cress.
Not common.

2223. *C. purpurea,* (Torr.) Britton. Purple Cress.
Not frequent.

2224. *C. bulbosa,* (Schreb.) B. S. P. Spring Cress.
In bogs.

DENTARIA, L.

2225. *D. laciniata,* Muhl. Pepper Root.
Rich woods.

2225*a*. *D. diphylla,* Michx. Two-leaved Toothwort.
In rich soil, not common.

BURSA, Weber.

2226. *B. bursa-pastoris,* (L.) Britt. Shepherd's Purse.
A very common introduced weed.

CAMELINA, Crantz.

2227. *C. sativa,* L. False Flax.
An introduced weed.

DRABA, L.

2228. *D. caroliniana,* Walt. Carolina Whitlow Grass.
In sandy places.

SOPHIA, Adams.

2229. *S. sophia,* (L.) Britton. Flixweed.
In waste places.

2230. *S. pinnata,* (Walt.) Britton. Tansy Mustard.
In dry soil.

2231. *S. intermedia,* Rydb. Western Tansy Mustard.
In dry soil.

2232. *S. thaliana,* (L.) Celak. Mouse Ear Cress.
In sandy soil.

ARABIS, L.

2233. *A. lyrata,* L. Lyre-leaved Rock-cress.
On rocks.

2234. *A. dentata,* T. & G. Toothed Rock-cress.
In rocky places.

2235. *A. hisuta,* (L.) Scop. Hairy Rock-cress.
In rocky places.

2236. *A. lævigata,* (Muhl.) Poir. Smooth Rock-cress.
On rocky slopes.

2237. *A. canadensis,* L. Sickle-pod.
In woods.

2238. *A. brachycarpa,* (T. & C.) Britt. Purple Rock-cress.
In rocky places.

2239. *A. glabra,* (L.) Bernh. Tower Mustard.
Rocky places.

ERYSIMUM, L.

2240. *E. cheiranthoides,* L. Worm-seed Mustard.
Along borders and on banks; not rare.

BERTEROA, DC.

2241. *B. incana,* (L.) DC. Hoary Alyssum.
Not common.

HESPERIS, L.

2242. *H. matronolis,* L. Dame's Rocket.
Fields and roadsides, from Europe.

CAPPARIDACEÆ. CAPER FAMILY.

CLEOME, L.

2243. *C. serrulata,* Pursh. Pink Cleone.
Not common.

2244. *C. spinosa,* L. Spider Flower.
In waste places; introduced.

CRISTALETTA, Nutt.

2245. *C. jamesii,* T. & G. James' Cristatella.
In dry soil.

POLANISIA, Raf.

2246. *P. graveolens,* Raf. Clammy Weed.
Sandy soil; infrequent.

2247. *P. trachysperma,* T. & G. Large Flowered Clammy Weed.
Sandy soil, frequent.

RESEDACEÆ. MIGNONETTE FAMILY.

RESEDA, L.

2248. *R. luteola,* L. Dyer's Rocket.
Introduced from Europe.

CRASSULACEÆ. ORPINE FAMILY.

SEDUM, L.

2249. *S. telephinum,* L. Orpine.
From Europe.

2250. *S. telephioides,* Michx. American Orpine.
In rocky places.

PENTHORACEÆ. STONECROP FAMILY.

PENTHORUM, L.

2251. *P. sedoides,* L. Ditch Stonecrop.
In low wet places.

PARNASSIACEÆ. GRASS-OF-PARNASSUS FAMILY.

PARNASSIA, L.

2252. *P. caroliniana,* Michx. Grass of Parnassus.
Quite rare.

SAXIFRAGACEÆ. SAXIFRAGE FAMILY.

SAXIFRAGE, L.

2253. *S. pennsylvanica*, L. Swamp Saxifrage.
Not rare, in bogs.

SULLIVANTIA, T. & G.

2254. *S. sullivantii*, T. & G., Britt. Sullivantia.
Common, on faces of cliffs.

HEUCHERA, L.

2255. *H. hispida*, Pursh. Rough Heuchera; Alum-root.
Common, on prairie.

MITELLA, L.

2256. *M. diphylla*, L. Two Leaved Bishop's Cap.
Common on shaded banks.

CHRYSOSPLENIUM, L.

2257. *C. iowensis*, Rydb. Iowa Golden Saxifrage.
Rare on shaded mossy banks.

HYDRANGEACEÆ. HYDRANGEA FAMILY.

HYDRANGEA, L.

2257*a*. *H. arborescens*, L. Wild Hydrangea.
Not common.

GROSSULARIACEÆ. GOOSEBERRY FAMILY.

RIBES, L.

2258. *R. cynosbati*, L. Wild Gooseberry.
Locally common, on rocky banks.

2259. *R. uva-crispa*, L. Garden Gooseberry.
Escaped from gardens.

2260. *R. gracile*, Michx. Slender Gooseberry.
In dry soil.

2261. *R. missouriensis*, Nutt. (*R. gracile*, Michx., in part.)
Missouri Gooseberry.
Common on banks and in open thickets.

2262. *R. floridum*, L'Her. Wild Black Currant.
Not rare, in low rich woods.

2263. *R. rubrum*, L. Red Currant.
Rare, in deep woods.

2264. *R. oxyacanthoides,* L. Northern Gooseberry.
In moist places.

2265. *R. aureum,* Pursh. Buffalo Currant.
Along streams; not common.

HEMAMELIDACEÆ. WITCH HAZEL FAMILY.

HEMAMELIS, L.

2265*a*. *H. virginiana,* L. Witch-Hazel.
In low woods; not common.

PLATANACEÆ. PLANE FAMILY.

PLATANUS, L.

2266. *P. occidentalis,* L. Sycamore; Plane Tree.
In low woods.

ROSACEÆ. ROSE FAMILY.

OPULASTER, Medic.

2267. *O. intermedius,* Rydb. Prairie Nine Bark.
Common on wooded banks and in thickets.

2268. *O. opulifolius,* (L.) Kuntze. Eastern Nine Bark.

SPIRÆA, L.

2269. *S. salicifolia,* L. American Meadow-sweet.
In swamps.

ARUNCUS, Adams.

2270. *A. aruncus,* (L.) Karst. Goat's Beard.
Not common.

RUBUS, L.

2271. *A. americanus,* (Pers.) Britt. Dwarf Raspberry.
Swamps.

2272. *R. strigosus,* Michx. Wild Red Raspberry.
Rather common, on rocky banks.

2273. *R. occidentalis,* L. Black Raspberry.
On wooded banks and in thickets.

2274. *R. cuneifolius,* Pursh. Sand Raspberry.
On dry hillsides.

2274*a*. *R. canadensis,* L. Millspaugh's Blackberry.
In woods and thickets.

2275. *R. nigrobaccus,* Bailey. Blackberry.
Common in thickets.

2276. *R. procumbens,* Muhl. Dewberry.
In sandy or rocky soil, not common.

DRYMOCALLIS, Raf.

2277. *D. arguta,* (Pursh.) Ryd. Tall Cinquefoil.
On dry prairie and hills, common.

DASPHORA, Raf.

2278. *D. fruticosa,* (L.) Rydb. Shrubby Cinquefoil.
Rare.

SIBBALDIOPSIS.

2279. *S. tridentate,* (Soland.) Rydb. Three-toothed Cinquefoil.
Very common on the St. Peter sandstone exposures.

FRAGARIA, L.

2280. *F. virginiana,* Duches. Wild Strawberry.
In open places.

2281. *F. virginiana,* var. *grayana,* (Vilm.) Rydb. Scarlet Strawberry.
Common. This variety is also known under the name of *F. illinoensis.*

2282. *F. americana,* (Port.) Britt. Wood Strawberry.

2283. *F. visca,* L. European Wood Strawberry.
Escaped from gardens.

COMARUM, L.

2284. *C. palustra,* L. Marsh Cinquefoil.
Not common.

POTENTILLA, L.

2285. *P. monspeliensis,* L. Rough Cinquefoil.
Rather common, on banks and in thickets.

2286. *P. argentea,* L. Silvery Cinquefoil.
In dry soil, not common.

2287. *P. pentandra,* Engelm. Five Stamened Cinquefoil.
Not common.

2288. *P. leucocarpa,* Rydb. Diffuse Cinquefoil.
Infrequent.

2289. *P. rivalis,* Nutt.
Not common.

2290. *P. paradoxa,* Nutt. Bushy Cinquefoil.
Frequent on shores of lakes.

2291. *P. canadensis,* L. Five Finger.
Common on dry soils.

2292. *P. pennsylvanica,* L. Prairie Cinquefoil.
Common in open ground.

GEUM, L.

2293. *G. virginianum,* L. Rough Avens.
Moist woods. Common.

2293*a*. *G. canadensis,* Jacq. White Avens.
Common in shaded places.

2294. *G. macrophyllum,* Willd. Large Leaved Avens.
In moist woods.

2294*a*. *G. strictum,* Ait. Yellow Avens.
Common in moist ground.

SIEVERSIA, R. Br.

2295. *S. ciliata,* (Pursh.) Rydb. Long Plumed Purple Avens.
Not common.

ULMARIA, Hill.

2296. *U. rubra,* Hill. Queen-of-the-Prairie.
Not common.

AGRIMONIA.

2297. *A. hirsuta,* (Muhl.) Bick. Tall Hairy Agrimony.
Common in woods.

2298. *A. mollis,* (T. & G.) Britton. Soft Agrimony.
Common in dry woods.

2299. *A. parviflora,* Soland. Many-flowered Agrimony.
In moist woods.

ROSA, L.

2300. *R. setigera,* Michx. Climbing Rose.
In thickets.

2301. *R. blanda,* Ait. Smooth Wild Rose.
Not rare, on shaded banks, etc.

2302. *R. sayi,* Schwein. Prickly Rose.
Common on banks and in thickets.

2303. *R. woodsii,* Lindl. Wood's Rose.
Not common, in open places.

2304. *R. humilis,* Marsh. Pasture Rose.
Not common.

2305. *R. arkansana,* Porter. Arkansas Rose.
Common in dry soil.

2306. *R. rubiginosa,* L. Sweetbriar.
Introduced from Europe; in waste places.

POMACEÆ. APPLE FAMILY.

MALUS, Hill.

2307. *M. coronaria,* (L.) Mill. American Crab Apple.
Infrequent; probably the next species.

2308. *M. iœnsis,* (Wood) Britton. Western Crab Apple.
Common in thickets.

ARONIA, Medic.

2309. *A. nigra,* (Willd.) Britton. Black Chokeberry.
Very rare.

AMELANCHIER, Medic.

2310. *A. canadensis,* (L.) Medic. June-berry.
Rather common, along river bluffs.

2311. *A. botryapium,* (L. F.) DC. Shad-bush.
On shaded rocky banks.

2312. *A. rotundifolia,* (Michx.) Roem. Round-leaved June-berry.
On wooded banks and slopes. Rather common.

2313. *A. alnifolia,* Nutt. Northwestern June-berry.
Frequent on dry slopes.

CRATÆGUS, L.

2314. *C. crus-galli,* L. Cockspur Thorn.
Common in woods.

2315. *C. punctata,* Jacq. Large-fruited Thorn.
Very common in thickets.

2316. *C. flabellata,* (Spach.) Rydb. Fan-leaved Thorn.
Common in open woods.

2317. *C. coccinea,* L. Scarlet Haw.
Infrequent.

2318. *C. macracantha,* Lodd. Long-spined Thorn.
Rather common in thickets.

2319. *C. mollis,* (T. & G.) Scheele. Red-fruited Thorn.
Rich woods.

2320. *C. tomentosa,* L. Pear Haw.
Quite common in thickets.

2321. *C. rotundifolia,* (Ehrh.) Borck. Grandular Thorn.
Uplands; infrequent.

DRUPACEÆ. PLUM FAMILY.

PRUNUS, L.

2322. *P. americana,* Marsh. Wild Plum.
Common in thickets.

2323. *P. augustifolia,* Michx. Chickasaw Plum.
Not common.

2324. *P. pumila,* L. Dwarf Cherry.
Very rare.

2325. *P. pennsylvanica,* L. f. Wild Red Cherry.
Common along borders and in thickets.

2326. *P. virginiana,* L. Choke Cherry.
Common, on rocky banks, etc.

2327. *P. demissa,* (Nutt.) Walp. Western Wild Cherry.

2328. *P. serotina,* Ehrh. Wild Black Cherry
Common in upland woods.

AMYGDALUS, L.

2329. *A. persica,* L. Peach.
Escaped from cultivation.

MIMOSACEÆ. MIMOSA FAMILY.

ACUAN, Medic.

2330. *A. illinoensis,* (Michx.) Kuntze. Illinois Mimosa.
Prairies, not infrequent.

CÆSALPINIACEÆ. SENNA FAMILY.

CERCIS, L.

2331. *C. canadensis,* L. Red Bud.
Common on bluffs, along the Mississippi; south.

CASSIA, L.

2332. *C. chamæcrista,* L. Partridge Pea.
A common weed, in dry soils.

2333. *C. marylandica,* L. Wild Senna.
Common in damp soil.

2334. *C. tora,* L. Low Senna.
Introduced; rare.

GLEDITSIA, L.

2335. *G. triacanthos,* L. Honey Locust.
Frequent in rich woods.

GYMNOCLADUS, Lam.

2336. *G. dioica,* (L.) Koch. Kentucky Coffee-tree.
Not common, in rich woods.

PAPILIONACEÆ. PEA FAMILY.

BAPTISIA, Vent.

2337. *B. tinctoria,* (L.) R. Br. Wild Indigo.
In dry soil, infrequent.

2338. *B. bracteata,* Ell. Large-bracted Wild Indigo.
Open places.

2339. *B. alba,* (L.) R. Br. White Wild Indigo.
Rare; south.

2340. *B. leucantha,* T. & G. Wild Indigo.
Common on rich prairies.

CROTALARIA, L.

2341. *C. sagittalis,* L. Rattle-box
In dry soil, frequent.

LUPINUS, L.

2342. *L. perennis,* L. Wild Lupine.
Not common.

MEDICAGO, L.

2343. *M. sativa,* L. Alfalfa.
Introduced from Europe.

2344. *M. lupulina,* L. Blackseed Hop Clover.
Introduced from Europe; not infrequent.

MELILOTUS, Juss.

2345. *M. alba,* Desv. White Sweet-clover.
A common introduced weed.

2346. *M. officinalis,* (L.) Lam. Yellow Sweet-clover.
Introduced. Less common than the preceding.

TRIFOLIUM, L.

2347. *T. aureum,* Poll. Yellow Clover.
Introduced from Europe.

2348. *T. procumbens,* L. Small Hop Clover.
Introduced; not common.

2349. *T. arvense,* L. Stone Clover.
Introduced.

2350. *T. pratense,* L. Red Clover.
Everywhere escaped from cultivation.

2351. *T. reflexum,* L. Buffalo Clover.
In sandy soil.

2352. *T. hybridum,* L. Alsike Clover.
Becoming quite common in waste places.

2353. *T. repens,* L. White Clover.
Common everywhere.

2354. *T. stoloniferum,* Muhl. Running Buffalo Clover.
Western part of state; not common.

LOTUS, L.

2355. *L. americanus,* (Nutt.) Bish. Prairie Bird's-foot Trefoil.
In dry soil; not common.

PSORALEA, L.

2356. *P. tenuiflora,* Pursh. Few-flowered Psoralea.
On prairie.

2357. *P. argophylia,* Pursh. Silver-leaf Psoralea.
Common; on prairie.

2358. *P. esculenta,* Pursh. Prairie Turnip.
Frequent on high prairies.

AMORPHA, L.

2359. *A. fruticosa,* L. False Indigo.
Common in prairie and open woods.

2360. *A. nana,* Nutt. Fragrant False Indigo.
Frequent on prairies.

2361. *A. canescens,* Pursh. Shoe-strings.
Common on prairies.

PAROSELA, Cav.

2362. *P. enneandra,* (Nutt.) Britton. Slender Parosela.
Not common.

2363. *P. dalea,* (L.) Britton. Pink Parosela.
On prairies; infrequent.

KUHNISTERA, Lam.

2364. *K. candida,* (Willd.) Kuntze. White Prairie-Clover.
Common on prairies and dry ridges.

2365. *K. purpurea,* (Vent.) MacM. Purple Prairie-clover.
Common on prairies and dry ridges.

2366. *K. tenuifolia,* (A. Gray) Kuntze. Silky Prairie-clover.
On dry soil, infrequent.

2367. *K. foliosa,* (A. Gray) Kuntze. Leafy Prairie-clover.
Along streams.

CRACCA, L.

2368. *C. virginiana,* L. Goat's Rue.
In dry soil.

ROBINA, L.

2369. *R. pseudacacia,* L. Black Locust.
Common, probably introduced.

ASTRAGALUS, L.

2370. *A. crassicarpus,* Nutt. Ground Plum.
Common on dry prairies.

2371. *A. carolinianus,* L. Milk Vetch.
On open banks and slopes; not rare.

2372. *A. lotiflorus,* Hook. Low Milk Vetch.
Not common.

2373. *A. distortus,* T. & G. Bent Milk Vetch
Common on dry soil.

2374. *A. plattensis,* Nutt. Platte Milk Vetch.
Prairies, not common.

PHACA, L.

2375. *P. neglecta,* T. & G. Cooper's Milk Vetch.
Infrequent, on banks.

ARAGULLUS, Neck.

2376. *A. lambertii,* (Pursh.) Greene. Stemless Loco Weed.
Infrequent.

GLYCYRRHIZA, L.

2377. *G. lepidota,* Pursh. Wild Liquorice.
Frequent on dry prairies.

MEIBOMIA, Heist.

2378. *M. nudiflora,* (L.) Kuntze. Naked-flowered Tick-trefoil.
In dry woods.

2379. *M. grandiflora,* (Walt.) Kuntze. Pointed-leaved Tick-trefoil.
Common in deep woods.

2380. *M. pauciflora,* (Nutt.) Kuntze. Few-flowered Tick-trefoil.
Rare. In deep woods.

2381. *M. sessilifolia,* (Torr.) Kuntze. Sessile-leaved Tick-trefoil.
On dry soil.

2382. *M. longiflora,* (T. & G.) Vail. Long-leaved Tick-trefoil.
In thickets.

2383. *M. paniculata,* (L.) Kuntze. Panicled Tick-trefoil.
In dry soil.

2384. *M. dillenii,* (Darl.) Kuntze. Dillen's Tick-trefoil.
Infrequent.

2385. *M. illinoensis,* (A. Gray) Kuntze. Illinois Tick-trefoil.
Prairies and dry sandy soil, infrequent.

2386. *M. canadensis,* (L.) Kuntze. Canadian Tick-trefoil.
Common in borders of woods.

2387. *M. rigida,* (Ell.) Kuntze. Rigid Tick-trefoil.
Infrequent; on dry soil.

2388. *M. canescens,* (L.) Kuntze. Hoary Tick-trefoil.
Banks of streams.

LESPEDEZA, Michx.

2389. *L. violacea,* (L.) Pers. Bush-clover.
Dry soil; border of woods and banks; frequent.

2390. *L. frutescens,* (L.) Britton. Wand-like Bush-clover.
Dry soil, frequent.

2391. *L. capitata,* Michx. Tall Bush-clover.
Common on dry prairies and ridges.

2392. *L. virginica,* (L.) Britton. Slender Bush-clover.
Not common.

2393. *L. leptostachya,* Engelm. Prairie Clover.
Infrequent.

2394. *L. hirta,* (L.) Ell. Hairy Bush-clover.
Not common.

VICIA, L.

2395. *V. cracca,* L. Cow Vetch.
In dry soil.

2396. *V. americana,* Muhl. American Vetch.
Common in rather moist, open grounds.

2397. *V. lincaris,* (Nutt.) Greene. Narrow-leaved American Vetch.
In dry soil, not common.

2398. *V. caroliniana,* Walt. Carolina Vetch.
Infrequent.

2399. *V. sativa,* L. Common Vetch.
Introduced; in waste places.

2400. *V. angustifolia,* Roth. Smaller Common Vetch.
Introduced; not common.

LATHYRUS, L.

2401. *L. venosus,* Muhl. Veiny Pea.
In rich, rather moist, open places; not frequent.

2402. *L. palustris,* L. Marsh Vetchling.
Moist places, frequent.

2403. *L. decaphyllus,* Pursh. Prairie Vetchling.
Infrequent, western part of state.

2404. *L. ochroleucus,* Hook. Cream-colored Vetchling.
On hillsides; not common.

Falcata, Gmel.

2405. *F. comosa,* (L.) Kuntze. Hog Peanut.
Not rare, in woods.

2406. *F. pitcheri,* (T. & G.) Kuntze. Pitcher's Hog Peanut.
More common than the preceding, and in similar places.

Apios, Moench.

2407. *A. apios,* (L.) MacM. Ground-nut.
Not rare, in rather moist grounds.

Galactia, P. Br.

2408. *G. volubilis,* (L.) Britton. Downy Milk Pea.
Infrequent.

Strophostyles, Ell.

2409. *S. helvola,* (L.) Britton. Trailing Wild Rose.
Common on river banks.

2410. *S. pauciflora,* (Benth.) S. Wata. Small Wild Bean.
Along streams.

GERANIACEÆ. GERANIUM FAMILY.

Geranium, L.

2411. *G. maculatum,* L. Wild Crane's-bill.
In upland woods.

2412. *G. rotundifolium,* L. Round-leaved Crane's-bill.
Introduced from Europe; infrequent.

2413. *G. carolinianum,* L. Carolina Crane's-bill.
In sandy soil.

2414. *G. pusillum,* Burmf. Small-leaved Crane's-bill.
Introduced from Europe; in waste places.

2415. *G. molle,* L. Dove's-foot Crane's-bill.
From Europe; in waste places.

OXALIDACEÆ. WOOD-SORREL FAMILY.

Oxalis, L.

2416. *O. violacea.* L. Violet Wood-sorrel.
Not rare, in sandy and rocky places.

2417. *O. corniculata,* L. Yellow Procumbent Wood-sorrel.
Infrequent; tropical species, about greenhouses.

2418. *O. stricta,* L. Upright Yellow Wood-sorrel.
A common weed, in open places.

2419. *O. cymosa,* Small. Tall Yellow Wood-sorrel.
In woods and fields, not common.

LINACEÆ. FLAX FAMILY.

LINUM, L.

2420. *L. usitatissimum,* L. Flax.
Escaped from cultivation, chiefly along railway right-of-way.

2421. *L. sulcatum,* Riddell. Grooved Yellow Flax.
Common, in dry places.

2422. *L. rigidum,* Pursh. Large-flowered Yellow Flax.
Infrequent.

ZYGOPHYLLACEÆ. CALTROP FAMILY.

TRIBULUS, L.

2423. *T. terrestris,* L. Ground Bur-nut.
Introduced from Europe; infrequent.

RUTACEÆ. RUE FAMILY.

XANTHOXYLUM, L.

2424. *X. americanum,* Mill. Prickly Ash.
Common, in thickets and on rocky banks.

PTELEA, L.

2425. *P. trifoliata,* L. Three-leaved Hop-tree.
Dry woods, along streams; frequent.

SIMARUBACEÆ. AILANTHUS FAMILY.

AILANTHUS, Desf.

2426. *A. glandulosa,* Desf. Tree-of-Heaven.
Introduced from China.

POLYGALACEÆ. MILKWORT FAMILY.

POLYGALA, L.

2427. *P. cruciata,* L. Cross-leaved Milkwort.
In wet places, not common.

2428. *P. verticillata,* L. Whorled Milkwort.
In dry open places; not common.

2429. *P. ambigua,* Nutt. Loose-spiked Milkwort.
Dry soil, infrequent.

2430. *P. incarnata,* L. Pink Milkwort.
In dry soil, scarce.

2431. *P. viridescens,* L. Field Milkwort.
Rather common, on prairies and in meadows.

2432. *P. nuttallii,* T. & G. Nuttall's Milkwort.
Infrequent.

2433. *P. senega,* L. Senca Snakeroot.
On rocky slopes. Not common.

EUPHOBIACEÆ. SPURGE FAMILY.

CROTON, L.

2434. *C. glandulosus,* L. Glandular Croton.
Common in sandy soil.

2435. *C. capitatus,* Michx. Hogwort.
Dry soil, infrequent.

2436. *C. texensis,* (Klotzsch) Muell. Arg. Texas Croton.
Dry soil, infrequent.

ACALYPHA, L.

2437. *A. virginica,* L. Virginia Three-seeded Mercury.
Woods and thickets; common.

2438. *A. gracilens,* A. Gray. Slender Three-seeded Mercury.
Sandy soil, frequent.

EUPHORBIA, L.

2439. *E. geyeri,* Engelm. & Gray. Geyer's Spurge.
Common in sandy soil.

2440. *E. serpens,* H. B. K. Round-leaved Spreading Spurge.
Not common.

2441. *E. serpyllifolia,* Pers. Thyme-leaved Spurge.
Not common.

2442. *E. glyptosperma,* Engelm. Ridge-seeded Spurge.
Not infrequent.

2443. *E. maculata,* L. Milk Purslane.
A common weed.

2444. *E. untans,* Lag. Upright Spurge.
A common weed.

2445. *E. corollata,* L. Flowering Spurge.
Common in dry, open places.

2446. *E. marginata,* Pursh. White-margined Spurge.
In dry soil, escaped from cultivation.

2447. *E. dentata,* Michx. Toothed Spurge.
Common in sandy soil.

2448. *E. heterophylla,* L. Various-leaved Spurge.
Common in sandy soil.

2449. *E. obtusata,* Pursh. Blunt-leaved Spurge.
Infrequent, sandy soil.

2450. *E. missouriensis,* (Norton) Small. Reticulate-seeded Spurge.
Not common.

2451. *E. peplus,* L. Petty Spurge.
In waste places, from Europe.

2452. *E. commutata,* Engelm. Tinted Spurge.
Not common.

2453. *E. cyparissias,* L. Cypress Spurge.
From gardens, infrequent.

CALLITRIFHACEÆ. WATER-STARWORT FAMILY.

CALLITRICHE, L.

2454. *C. paustris,* L. Vernal Water-starwort.
Not common.

ANACARDICEÆ. SUMAC FAMILY.

RHUS, L.

2455. *R. hirta,* (L.) Sudw. Staghorn Sumac.
Common, on rocky slopes.

2456. *R. glabra,* L. Smooth Sumac.
Very common in thickets and along borders, chiefly in dry places.

2457. *R. aromatica,* Ait. Sweet-scented Sumac.
Frequent.

2458. *R. radicans,* L. Poison Ivy.
Common along borders, and in low grounds.

ILEX, L.

2459. *I. verticillata,* (L.) A. Fray. Black Alder.
Northern part of state; rare.

CELASTRACEÆ. STAFF-TREE FAMILY.

EUONYMUS, L.

2460. *E. atropurpureus,* Jacq. Burning Bush; Wahoo.
In alluvial grounds, and on banks; not rare.

CELASTRUS, L.

2461. *C. scandens,* L. Climbing Bittersweet.
Rather common, in woods and along borders.

STAPHYLEACÆ. BLADDER-NUT FAMILY.

STAPHYLEA, L.

2462. *S. trifolia,* L. American Bladder-nut.
Not rare, on rocky banks.

ACERACEÆ. MAPLE FAMILY.

ACER, L.

2463. *A. saccharinum,* L. Soft Maple.
Common on alluvial grounds.

2464. *A. rubrum,* L. Red or Swamp Maple.
In low ground, not common.

2465. *A. saccharum,* Marsh. Hard Maple.
Very common in upland woods, and on bluffs.

2466. *A. nigrum,* Michx. Black Sugar Maple.

2467. *A. spicatum,* Lam. Mountain Maple.
Rocky bluffs; rare.

2468. *A. negundo,* L. Box Elder.
Common, especially in alluvial soils.

HIPPOCASTANACEÆ. BUCKEYE FAMILY.

ÆSCULUS, L.

2469. *A. glabra,* Willd. Ohio Buckeye.
Not common.

2470. *A. octandra,* Marsh. Sweet Buckeye.
Not common.

BALSAMINACEÆ. JEWEL-WEED FAMILY.

IMPATIENS, L.

2471. *I. biflora*, Walt. Spotted Touch-me-not.
In moist grounds. Common.

2472. *I. aurea*, Muhl. Pale Touch-me-not.
In moist places, but rather less common than the preceding.

RHAMNACEÆ. BUCKTHORN FAMILY.

RHAMNUS, L.

2473. *R. lanceolata*, Pursh. Lance-leaved Buckthorn.
In moist soil, infrequent.

2474. *R. olnifolia*, L'Her. Alder-leaved Buckthorn.
In moist ground.

CEANOTHUS, L.

2475. *C. americanus*, L. New Jersey Tea.
Common on dry prairies and ridges.

2476. *C. ovatus*, Desf. Small Red-root.
Not infrequent.

2477. *C. ovatus pubescens*, T. & G. Downy Red-root.
Rare. On dry prairie ridges.

VITACEÆ. GRAPE FAMILY.

VITIS, L.

2478. *V. labrusca*, L. Northern Fox Grape.
Not common.

2479. *C. cinerea*, Engelm. Downy Grape.
Frequent.

2780. *V. vulpina*, L. Riverside or Sweet-scented Grape.
Common wild grape. Very common along streams and ascending slopes.

2481. *V. palmata*, Vahl. Missouri Grape.
Not common.

2482. *V. æstivalis*, Michx. Summer Grape.
In thickets, east part of state.

2482*a*. *V. cordifolia*, Michx. Frost Grape.
Along streams southward; not common.

AMPELOPSIS, Michx.

2483. *A. cordata,* Michx. Simple-leaved Ampelopsis.
Infrequent.

PARTHENOCISSUS, Planch.

2484. *P. quinquefolia,* (L.) Planch. Virginia Creeper.
Very common in thickets and deep woods.

TILIACEÆ. LINDEN FAMILY.

TILIA, L.

2485. *T. americana,* L. Bass-wood.
Common in rich woods, especially on lower slopes.

MALVACEÆ. MALLOW FAMILY.

MALVA, L.

2486. *M. sylvestris,* L. High Mallow.
Escaped from gardens. From Europe.

2487. *M. rotundifolia,* L. Round-leaved Mallow.
A common introduced weed, in waste places.

2488. *M. crispa,* L. Curled Mallow.
An introduced weed.

CALLIRRHOE, Nutt.

2489. *C. triangulata,* (Leavenw.) A. Gray. Clustered Poppy Mallow.
Sandy soil, not common.

2490. *C. involucrata,* (T. & G.) A. Gray. Purple Poppy Mallow.
Infrequent.

NAPÆA, L.

2491. *N. dioica,* L. Glade Mallow.
In moist grounds. Not common.

MALVASTRUM, A. Gray.

2452. *M. angustum,* A. Gray. Yellow False Mallow.
In dry ground, not common.

SIDA, L.

2493. *S. spinosa,* L. Prickly Sida.
Frequent in dry soil.

ABUTILON, Gaertn.

2494. *A. abutilon,* (L.) Rusby. Velvet Leaf.
An introduced weed, common in waste places, etc.

HIBISCUS, L.

2495. *H. militaria,* Cav. Halberd-leaved Rose-mallow.
Frequent in wet ground.

2496. *H. trionum,* L. Bladder Ketmia.
In waste places; from Europe.

HYPERICACEÆ. ST. JOHN'S-WORT FAMILY.

HYPERICUM, L.

2497. *H. ascyron,* L. Great St. John's-wort.
Common in rather quiet, open places.

2498. *H. prolificum,* L. Shrubby St. John's-wort.
On rocky soil; infrequent.

2499. *H. sphærocarpum,* Michx. Round-fruited St. John's-wort.
Common on dry slopes.

2500. *H. perforatum,* L. Common St. John's-wort.
Introduced; infrequent.

2501. *H. maculatum,* Walt. Spotted St. John's-wort.
Common, in rather moist soil.

2502. *H. mutilum,* L. Dwarf St. John's-wort.
In low ground; frequent.

2503. *H. gymnanthum,* Engelm. & Gray. Clasping-leaved St. John's-wort.
Frequent in low ground.

2504. *H. canadense,* L. Canadian St. John's-wort.
On moist, sandy banks, etc. Not abundant.

2505. *H. drummondii,* (Grev. & Hook.) T. & G. Drummond's St. John's-wort.
In dry soil, not common.

SAROTHRA, L.

2506. *S. gentianoides,* L. Orange-grass.
In sandy soil.

TRIADENUM, Raf.

2507. *T. virginicum,* (L.) Raf. Marsh St. John's-wort.
In wet soil.

CISTACEÆ. ROCK-ROSE FAMILY.

HELIANTHEMUM, Pers.

2508. *H. majus,* (L.) B. S. P. Hoary Frostweed.
Quite common, on dry ridges.

2509. *H. canadense,* (L.) Michx. Frost-wort.
Frequent in dry soil.

LECHA, L.

2510. *L. minor,* L. Thyme-leaved Pin-weed.
Not common.

2511. *L. villosa,* Ell. Hairy Pin-weed.
Infrequent.

2512. *L. tenuifolia,* Michx. Narrow-leaved Pin-weed.
Dry soil; infrequent.

2513. *L. stricta,* Leggett. Prairie Pin-weed.
Common on dry, sandy or rocky ridges.

VIOLACEÆ. VIOLET FAMILY.

VIOLA, L.

2514. *V. palmata,* L. Early Blue Violet.
Not common.

2515. *V. pedatifida,* Don. Prairie Violet.
Common on prairies.

2516. *V. pedata,* L. Bird's-foot Violet.
On dry, sandy slopes and ridges. Not rare.

2517. *V. obliqua,* Hill. Thin-leaved Wood-violet.

2518. *V. papilionacea,* Pursh. Common Blue Violet.
Common, usually in thickets or along borders, sometimes in open places.

2519. *V. papilionacea domestica,* (Bicknell) Pollard.
Cultivated soil, around dwellings.

2520. *V. cucullata,* Ait. Marsh Blue Violet.
In wet meadows.

2521. *V. sagittata,* Ait. Arrow-leaved Violet.
In meadows.

2522. *V. blanda,* Willd. Sweet White Violet.
In wet places.

2523. *V. primulæfolia,* L. Primrose-leaved Violet.
Damp ground.

2524. *V. lanceolata,* L. Lance-leaved Violet.
In wet places.

2525. *V. pubescens,* Ait. Hairy Yellow Violet.
Common in woods.

2526. *V. scabriuscula,* (T. & G.) Schwein. Common Yellow Violet.
Common in rich alluvial woods.

2527. *V. canadensis,* L. Canada Violet.
Common in rich woods, especially on lower banks and slopes.

2528. *V. tricolor,* L. Pansy.
Escaped from cultivation; infrequent.

CACTACEÆ. CACTUS FAMILY.

OPUNTIA, Mill.

2529. *O. humifusa,* Raf. Western Prickly Pear.
Infrequent, western part of state.

THYMELEACEÆ. MEZEREON FAMILY.

DIRCA, L.

2530. *D. palustris,* L. Leather-wood.
Not common.

ELÆGNACEÆ. OLEASTER FAMILY.

LEPARGYRÆA, Raf.

2531. *L. argentea,* (Nutt.) Greene. Buffalo-berry.
Not common.

LYTHRACEÆ. LOOSESTRIFE FAMILY.

AMMANNIA, L.

2532. *A. coccinea,* Rottb. Long-leaved Ammannia.
Frequent.

DIDIPLUS, Raf.

2533. *D. diandra,* (Nutt.) Wood. Water Purslane.
Infrequent.

ROTALA, L.

2534. *R. ramosior,* (L.) Koehne. Rotala.
In wet soil, common.

LYTHRUM, L.

2535. *L. alatum,* Pursh. Wing-angled Loosestrife.
Common in low ground.

MELASTOMACEÆ. MEADOW-BEAUTY FAMILY.

RHEXIA, L.

2536. *R. virginica,* L. Meadow Beauty.
In sandy swamps.

ONAGRACEÆ. EVENING-PRIMROSE FAMILY.

ISNARDIA, L.

2537. *I. palustris,* L. Marsh Purslane.
In muddy places.

LUDWIGIA, L.

2538. *L. polycarpa,* Short & Peter. Many-fruited Ludwigia.
Locally common in wet grounds, often in water.

2539. *L. alternifolia,* L. Seed-box.
In swamps.

CHAMÆNERION, Adans.

2540. *C. angustifolium,* (L.) Scop. Great Willow-herb.
Common in dry places.

EPILOBIUM, L.

2541. *E. lineare,* Muhl. Linear-leaved Willow-herb.
In swamps.

2542. *E. coloratum,* Muhl. Purple-leaved Willow-herb.
Common in swampy grounds.

2543. *E. adenocaulon,* Haussk. Northern Willow-herb.
In wet grounds; common.

ONAGRA, Adans.

2544. *O. biennis,* (L.) Scop. Common Evening-primrose.
In dry soils and waste places; common, often a weed.

ŒNOTHERA, L.

2545. *O. laciniata,* Hill. Sinuate-leaved Evening Primrose.
In sandy soil.

2546. *O. rhombipetala,* Nutt. Rhombic Evening Primrose.
Common in sandy soil.

KNEIFFIA, Spach.

2547. *K. fruticosa,* (L.) Raimann. Common Sundrops.
Common.

MERIOLIX, Raf.

2548. *M. serrulata,* (Nutt.) Walp. Tooth-leaved Primrose.
In dry places.

GAURA, L.

2549. *G. parviflora,* Dougl. Small-flowered Gaura.
Not rare, in dry soils.

2550. *G. coccinea,* Pursh. Scarlet Gaura.
Infrequent.

2551. *G. biennis,* L. Biennial Gaura.
Dry soil.

CIRCÆA, L.

2552. *C. lutetiana,* L. Enchanter's Nightshade.
Common in deep woods.

2553. *C. alpina,* L. Smaller Enchanter's Nightshade.
In deep woods. Not common.

HALORAGIDACEÆ. WATER-MILFOIL FAMILY.

PROSERPINACA, L.

2554. *P. palustris,* L. Mermaid-weed.
Not common; in wet places.

MYRIOPHYLLUM, L.

2555. *M. spicatum,* L. Spiked Water-milfoil.
In ponds.

2556. *M. verticillatum,* L. Whorled Water-milfoil.
Not common.

2557. *M. heterophyllum,* Michx. Various-leaved Water-milfoil.
Infrequent.

2558. *M. pinnatum,* (Walt.) B. S. P. Pinnate Water-milfoil.
Not infrequent.

ARALIACEÆ. GINSENG FAMILY.

ARALIA, L.

2559. *A. racemosa,* L. American Spikehead.
Not rare, in deep upland woods.

2560. *A. nudicaulis,* L. Wild Sarsaparilla.
Common on rocky, well-shaded banks.

PANAX, L.

2561. *P. quinquefolium,* L. Ginseng.
Becoming rare. In deep rich woods.

UMBELLIFERÆ. CARROT FAMILY.

SANICULA, L.

2562. *S. marylandica,* L. Sanicle.
Common in rich woods.

2563. *S. gregaria,* Bicknell. Clustered Snake-root.
In wood, not common.

2564. *S. canadensis,* L. Short-styled Snake-root.
Infrequent.

2565. *S. trifoliata,* Bicknell. Large-fruited Snake-root.
Not common.

ERYNGIUM, L.

2566. *E. aquaticum,* L. Button Snake-root.
Not rare, on dry prairies, but also occurring in moist grounds.

CHÆROPHYLLUM, L.

2567. *C. procumbens,* (L.) Crantz. Spreading Chervil.
Infrequent.

WASHINGTONIA, Raf.

2568. *W. claytoni,* (Michx.) Britton. Woolly Sweet Cicely.
Common in deep woods.

2569. *W. longistylis,* (Torr.) Britton. Smoother Sweet Cicely.
Common.

CONIUM, L.

2570. *C. maculatum,* L. Poison Hemlock.
In waste places; introduced.

ZIZIA, Koch.

2571. *Z. aurea,* (L.) Koch. Golden Meadow Parsnip.
In rather moist, open places.

2572. *Z. cordata,* (Walt.) DC. Heart-leaved Alexanders.
In woods.

CICUTA, L.

2573. *C. maculata,* L. Water Hemlock.
In rather moist, open places.

2573*a*. *C. bulbifera,* L. Bulb-bearing Water Hemlock.
In wet places.

DERINGA, Adans.

2574. *D. canadensis,* (L.) Kuntze. Honewort.
Very common in woods.

CARUM, L.

2575. *C. carui,* L. Caraway.
In waste places, from Europe.

TÆNIDIA, Drude.

2576. *T. integerrima,* (L.) Drude. Yellow Pimpernel.
Common on rocky slopes.

SIUM, L.

2577. *S. cicutæfolium,* Gmel. Hemlock Water-parsnip.
Common in swamps.

LILÆOPSIS, Greene.

2578. *L. lineata,* (Michx.) Greene. Lilæopsis.
Infrequent.

ÆTHUSA, L.

2579. *A. cynapium,* L. Fool's Parsley.
Introduced from Europe.

FŒNICULUM, Adans.

2580. *F. fœniculum,* (L.) Karst. Fennel.
Introduced from Europe.

THASPIUM, Nutt.

2581. *T. barbinode,* (Michx.) Nutt. Hairy-jointed Meadow-parsnip.
Not common.

POLYTÆNIA, DC.

2582. *P. nuttallii,* DC. Polytænia.
Dry soil, infrequent.

OXYPOLIS, Raf.

2583. *O. rigidus,* (L.) Raf. Cowbane.
Swampy ground; infrequent.

PASTINACA, L.

2584. *P. sativa,* L. Wild Parsnip.
A common weed in waste places. Introduced from Europe.

HERACLEUM, L.

2585. *H. lanatum,* Michx. Cow-parsnip.
In rather moist soil, not rare.

DAUCUS, L.

2586. *D. pusillus,* Michx. American Carrot.
Infrequent.

2587. *D. carota,* L. Wild Carrot.
Introduced from Europe.

CORNACEÆ. DOGWOOD FAMILY.

CORNUS, L.

2588. *C. circinata,* L'Her. Round-leaved Dogwood.
Common on shaded rocky slopes.

2589. *C. amomum,* Mill. Kinnikinnik.
In dry soil.

2590. *C. asperifolia,* Michx. Rough-leaved Cornel.
Frequent.

2591. *C. stolonifera,* Michx. Red-osier Dogwood.
Common, in wet places.

2592. *C. candidissima,* Marsh. Panicled Dogwood.
Common on shaded banks.

2593. *C. alternifolia,* L. f. Alternate-leaved Dogwood.
Common on wooded slopes and banks.

PYROLACEÆ. WINTERGREEN FAMILY.

PYROLA, L.

2594. *P. elliptica,* Nutt. Shin-leaf.
Common in deep upland woods.

2595. *P. secunda,* L. One-sided Wintergreen.
Rare, in deep woods.

CHIMAPHILLA, Pursh.

2596. *C. umbellata,* (L.) Nutt. Pipissewa.
Rare, in upland woods.

MONOTROPACEÆ. INDIAN-PIPE FAMILY.

MONOTROPA, L.

2597. *M. uniflora,* L. Indian Pipe.
Very abundant in deep upland woods.

HYPOPITYS, Hill.

2598. *H. hypopitys,* (L.) Small. Pine-sap.
Very abundant in deep upland woods at Hesper.

VACCINIACEÆ. HUCKLEBERRY FAMILY.

GAYLUSSACIA, H. B. K.

2599. *G. resinosa,* (Ait.) T. & G. Black or Highland Huckleberry.

VACCINIUM, L.

2599*a*. *V. nigrum,* (Wood.) Britton. Low Black Blueberry.
In dry soil; not common.

PRIMULACEÆ. PRIMROSE FAMILY.

PRIMULA, L.

2600. *P. farinosa,* L. Bird's-eye Primrose.
In moist places, infrequent.

ANDROSACE, L.

2601. *A. occidentalis,* Pursh. Androsace.
Common on dry soil.

LYSIMACHIA, L.

2602. *L. quadrifolia,* L. Whorled Loosestrife.
In thickets.

2603. *L. terrestris,* (L.) B. S. P. Bulb-bearing Loosestrife.
In low ground.

2604. *L. nummularia,* L. Moneywort.
Introduced from Europe.

STEIRONEMA, Raf.

2605. *S. ciliatum,* (L.) Raf. Fringed Loosestrife.
Common in wet prairies.

2606. *S. lanceolatum,* (Walt.) A. Gray. Lance-leaved Loosestrife.
Low grounds, frequent.

2607. *S. quadriflorum,* (Sims) Hitchc. Prairie Loosestrife.
In moist low places.

NAUMBURGIA, Moench.

2608. *N. thyrsiflora,* (L.) Duby. Tufted Loosestrife.
In swampy ground.

ANAGALLIS, L.

2609. *A. avensis,* L. Scarlet Pimpernel.
Waste places; infrequent.

DODECATHEON, L.

2610. *D. meadia,* L. Shooting Star.
On prairies and treeless ridges. Not rare.

EBENACEÆ. EBONY FAMILY.

DIOSPYROS, L.

2611. *D. virginiana,* L. Persimmon.
Not common.

OLEACEÆ. OLIVE FAMILY.

FRAXINUS, L.

2612. *F. americana,* L. White Ash.
Frequent.

2613. *F. lanceolata,* Borck. Green Ash.
Common on alluvial grounds, but also extending into upland forests.

2614. *F. pennsylvanica,* Marsh. Red Ash.
In moist soils, not common.

2615. *F. nigra,* Marsh. Black Ash.
Quite common in upland woods.

2616. *F. quadrangulata,* Michx. Blue Ash.
Infrequent.

GENTIANACEÆ. GENTIAN FAMILY.

GENTIANA, L.

2617. *G. crinata,* Froel. Fringed Gentian.
Common in shaded, boggy places.

2618. *G. detonsa,* Rottb. Small Fringed Gentian.
In wet places, infrequent.

2619. *G. quinquefolia,* L. Stiff Gentian.
Moist hillsides, common.

2620. *G. quinquefolia occidentalis,* (A. Gray) A. S. H.
Chiefly on dry, rocky slopes.

2621. *G. puberula,* Michx. Prairie Gentian.
In moist woods.

2622. *G. andrewii,* Griseb. Closed Gentian.
On dry prairies.

2623. *G. flavida,* A. Gray. Yellowish Gentian.
Not common. In deep woods.

2624. *G. rubricaulis,* Schwein. Red-stemmed Gentian.

MENYANTHACEÆ. BUCKBEAN FAMILY.

MENYANTHES, L.

2625. *M. trifoliata,* L. Buckbean.
In wet ground, not common.

APOCYNACEÆ. DOGBANE FAMILY.

APOCYNUM, L.

2626. *A. androsæmifolium,* L. Spreading Dogbane.
In thickets, common.

2627. *A. cannabinum,* L. Indian Hemp.
On prairies and in open places. Not rare.

2628. *A. hypericifolium,* Ait. Clasping-leaved Dogbane.
Not common.

2629. *A. pubescens,* R. Br. Velvet Dogbane.
Infrequent.

ASCLEPIADACEÆ. MILKWEED FAMILY.

ASCLEPIAS, L.

2630. *A. tuberosa,* L. Pleurisy-root.
On dry prairies and ridges; common.

2631. *A. purpurascens,* L. Purple Milkweed.
Not common.

2632. *A. incarnata,* L. Swamp Milkweed.
Common in swamps and wet meadows.

2633. *A. sullivantii,* Engelm. Sullivant's Milkweed.
Prairies, infrequent.

2634. *A. emplexicaulis,* J. E. Smith. Blunt-leaved Milkweed.
Sandy soil, frequent.

2635. *A. meadii,* Torr. Mead's Milkweed.
Infrequent.

2636. *A. exalta,* (L.) Muhl. Tall Milkweed.
In thickets; not common.

2637. *A. quadrifolia,* Jacq. Four-leaved Milkweed.
Dry woods, not common.

2638. *A. syriaca,* L. Common Milkweed.
In open and waste places. Common.

2639. *A. speciosa,* Torr. Showy Milkweed.
Not common.

2640. *A. ovalifolia,* Dec. Oval-leaved Milkweed.
Infrequent.

2641. *A. verticillata,* L. Whorled Milkweed.
Common on dry prairies.

2642. *A. decumbens,* L. Decumbent Butterfly-weed.
Dry fields, not common.

ACERATES, Ell.

2643. *A. viridiflora,* (Raf.) Eaton. Green Milkweed.
Dry prairies, common.

2644. *A. floridana,* (Lam.) Hitchc. Florida Milkweed.
Common.

2645. *A. lanuginosa,* (Nutt.) Dec. Wooly Milkweed.
Not infrequent.

CONVOLVULACEÆ. MORNING-GLORY FAMILY.

BREWERIA, R. Br.

2646. *B. pickeringii,* (M. A. Curtis) A. Gray. Pickering's Breweria.
In sandy soil.

IPOMŒA, L.

2647. *I. pandurata,* (L.) Meyer. Wild Potato Vine.
Infrequent, in dry ground.

2648. *I. lacunosa,* L. Small-flowered White Morning-glory.
Frequent.

2649. *I. purpurea,* (L.) Roth. Morning-glory.
Escaped from gardens.

2650. *I. hederacea,* Jacq. Ivy-leaved Morning-glory.
Probably introduced from tropical America.

CONVOLVULUS, L.

2651. *C. sepium,* L. Hedge Bindweed
Common in fields and waste places.

2652. *C. repens,* L. Trailing Bindweed.
Infrequent.

2653. *C. spithamæus,* L. Upright Bindweed.
Dry soil, infrequent.

2654. *C. arvensis,* L. Small Bindweed.
In fields and waste places. Introduced from Europe.

CUSCUTACEÆ. DODDER FAMILY.

CUSCUTA, L.

2655. *C. arvensis,* Beyrich. Field Dodder.
Infrequent.

2656. *C. polygonorum,* Engelm. Smart-weed Dodder.
Common.

2657. *C. coryii,* Engelm. Hazel Dodder.
Infrequent.

2658. *C. cephalianthi,* Engelm. Button-bush Dodder.
On coarse herbs. Common.

2659. *C. gronovii,* Willd. Gronovius' Dodder.
Low ground, infrequent.

2660. *C. cuspidata,* Engelm. Cuspidate Dodder.
In sandy soil.

2661. *C. paradoxa,* Raf. Glomerate Dodder.
Reported by Fitzpatrick.

POLEMONIACEÆ. PHLOX FAMILY.

PHLOX, L.

2662. *P. paniculata,* L. Garden Phlox.
Escaped from gardens.

2663. *P. maculata,* L. Wild Sweet-william.
Common.

2664. *P. glaberrima,* L. Smooth Phlox.
Woods and prairies.

2665. *P. pilosa,* L. Prairie Phlox.
Common on prairies, and open ridges.

2666. *P. divaticata,* L. Wild Blue Phlox.
Common in alluvial woods.

2667. *P. subulata,* L. Moss Pink.
Escaped from cultivation.

2667*a*. *P. bifida,* Beck. Crawling phlox.
Dry, sandy soil; infrequent.

POLEMONIUM, L.

2668. *P. reptans,* L. Greek Valerian.
Common.

HYDROPHYLLACEÆ. WATER-LEAF FAMILY.

HYDROPOHYLLUM, L.

2669. *H. virginicum,* L. Virginia Water-leaf.
Common, in rich woods.

2670. *H. appendiculatum,* Michx. Appendaged Water-leaf.
In rich woods.

2671. *H. macrophyllum,* Nutt. Large-leaved Water-leaf.
In rich woods.

MACROCALYX, Trew.

2672. *M. nycteles,* (L.) Kuntze. Nyctelea.
Common in moist, shaded places; becoming a weed.

BORAGINACEÆ. BORAGE FAMILY.

CYNOGLOSSUM, L.

2673. *C. officinale,* L. Hound's-tongue.
Dry soil, infrequent.

LAPPULA, Moench.

2674. *L. lappula,* (L.) Karst. Burseed.
Introduced from Europe. In waste places.

2675. *L. texana,* (Scheele) Britton. Hairy Stickseed.
On dry ridges and slopes. Common.

2676. *L. virginiana,* (L.) Greene. Virginia Stickseed.
Along borders, in open woods.

2677. *L. americana,* (A. Gray)Rydberg. Nodding Stickseed.

MERTENSIA, Roth.

2678. *M. virginica,* (L.) DC. Virginia Cowslip.
In alluvial woods. Common.

2679. *M. paniculata,* (Ait.) G. Don. Tall Lungwort.
In woods.

MYOSOTIS, L.

2680. *M. virginica,* (L.) B. S. P. Spring Scorpion-grass.
Sandy soil, infrequent.

LITHOSPERMUM, L.

2681. *L. arvense,* L. Corn Gromwell.
In waste places; introduced from Europe.

2682. *L. latifolium,* Michx. American Gromwell.
In dry thickets, etc.

2683. *L. canescens,* (Michx.) Lehm. Hoary Puccoon.
In dry, usually open places.

2684. *L. linearifolium,* Goldie. Narrow-leaved Puccoon.
In dry soil.

2685. *L. officinale,* L. Gromwell.
Introduced from Europe.

ONOSMODIUM, Michx.

2686. *O. carolinianum,* (Lam.) DC. Shaggy False Gromwell.
Sandy soil, infrequent.

2687. *O. molle,* Michx. Soft-hairy False Gromwell.
On dry prairie.

ECHIUM, L.

2688. *E. vulgare,* L. Viper's Bugoss.
In fields; introduced from Europe.

VERBENACEÆ. VERVAIN FAMILY.

VERBENA, L.

2689. *V. urticifolia,* L. White Vervain.
Common introduced weed.

2690. *V. hastata,* L. Blue Vervain.
Common in moist places.

2691. *V. hastata pinnatifida,* (Lam.) Britton. Pinnate Vervain.
With *hastata.*

2692. *V. angustifolia,* Michx. Narrow-leaved Vervain.
Common in sandy soil.

2693. *V. stricta,* Vent. Hoary Vervain.
Common on dry prairie.

2694. *V. bracteosa,* Michx. Large-bracted Vervain.
In dry and waste places.

2695. *V. canadensis,* (L.) Britton. Large-flowered Verbena.
In dry soil, not common.

LIPPIA, L.

2696. *L. lanceolata,* Michx. Fog-fruit.
River banks, common.

LABIATÆ. MINT FAMILY.

TEUCRIUM, L.

2697. *T. canadense,* L. Wood Sage.
Common in moist grounds.

2698. *T. occidentale,* A. Gray. Hairy Germander.

ISANTHUS, Michx.

2699. *I. brachiatus,* (L.) B. S. P. False Pennyroyal.
Frequent on sandy soil or rocky slopes.

SCUTELLARIA, L.

2700. *S. lateriflora,* L. Mad-dog Skull-cap.
In low places. Not rare.

2701. *S. incana,* Muhl. Downy Skull-cap.
In moist woods.

2702. *S. cordifolia,* Muhl. Heart-leaved Skull-cap.
On wooded banks.

2703. *S. parvula,* Michx. Small Skull-cap.
On sandy and rocky slopes.

2704. *S. galericulata,* L. Marsh Skull-cap.
In swamps.

2705. *S. nervosa,* Pursh. Veined Skull-cap.

MARRUBIUM, L.

2706. *M. vulgare,* L. White Hoarhound.
In waste places; introduced from Europe.

AGASTACHE, Clayt.

2707. *A. nepetoides,* (L.) Kuntze. Catnip Giant Hyssop.
Along borders and in thickets, not common.

2708. *A. scrophulariæfolia,* (Willd.) Kuntze. Giant Hyssop.
In thickets and woods, common.

2709. *A. anethiodora,* (Nutt.) Britton. Fragrant Giant-hyssop.
On prairies.

NEPETA, L.

2710. *N. cataria,* L. Catnip.
In waste places. Introduced. Common.

GLECOMA, L.

2711. *G. hederacea,* L. Ground Ivy.
A common introduced weed.

DRACOCEPHALUM, L.

2712. *D. parviflorum,* Nutt. American Dragon-head.
In sterile soil.

PRUNELLA, L.

2713. *P. vulgaris,* L. Heal-all.
Moist woods, waste places. Native, or thoroughly naturalized.

PHYSOSTEGIA, Benth.

2714. *P. virginiana,* (L.) Benth. False Dragon-head.
On alluvial banks, infrequent.

2715. *P. parviflora,* Uutt. Purple Lion's Heart.
In moist places; not abundant.

GALEOPSIS, L.

2716. *G. tetrahit,* L. Hemp-nettle.
Not rare.

LEONURUS, L.

2717. *L. cardiaca,* L. Motherwort.
Introduced weed, in waste places.

LAMIUM, L.

2718. *L. amplexicaule,* L. Henbit.
Introduced from Europe; fields and waste places.

STACHYS, L.

2719. *S. ambigua,* (A. Gray) Britton. Dense-flowered Hedge Nettle.
In moist soil.

2720. *S. tenuifolia,* Willd. Smooth Hedge Nettle.
Moist fields and thickets.

2721. *S. palustris,* L. Hedge Nettle.
Wet places. Especially common on borders of prairie ponds or swamps.

2722. *S. aspera,* Michx. Rough Hedge Nettle.
In wet places; frequent.

SALVIA, L.

2723. *S. pitcheri,* Torr. Pitcher's Sage.
In dry soil; infrequent.

2724. *S. lanceolata,* Willd. Lance-leaved Sage.
Infrequent.

MONARDA, L.

2725. *M. fistulosa,* L. Wild Bergamot.
Common.

2726. *M. scabra,* Beck. Pale Wild Bergamot.
Prairie and borders; common.

2727. *M. punctata,* L. Horse-mint.
In dry fields.

BLEPHILIA, Raf.

2728. *B. hirsuta,* (Pursh.) Torr. Hairy Blephilia.
In woods.

2729. *B. ciliata,* (L.) Raf. Downy Blephilia.
Woods and thickets.

HEDEOMA, Pers.

2730. *H. pulegioides,* (L.) Pers. American Pennyroyal.
Dry soil; frequent.

2731. *H. hispida,* Pursh. Rough Pennyroyal.
Dry grounds; common.

KŒLLIA, Moench.

2732. *K. flexuosa,* (Walt.) MacM. Narrow-leaved Mountain Mint.
In thickets, along borders.

2733. *K. virginiana,* (L.) MacM. Virginia Mountain Mint.
Dry borders and thickets.

LYCOPUS, L.

2734. *L. virginicus,* L. Purple Bugle-weed.
In wet places; not rare.

2735. *L. americanus,* Muhl. Cut-leaved Water Hoarhound.
In swamps and bogs. Common.

2736. *L. lucidus,* Turcz. Western Water Hoarhound.
In wet places.

2737. *L. rubellus,* Moench. Stalked Water Hoarhound.
Wet soil.

MENTHA, L.

2738. *M. spicata,* L. Spear-mint.
Low grounds, not frequent.

2729. *B. ciliata,* (L.) Raf. Downy Blephilia.
In waste places.

2740. *M. canadensis,* L. American Wild Mint.
Common in wet places.

PERILLA, Ard.

2741. *P. frutescens,* (L.) Britton. Perilla.
In waste places, escaped from gardens.

SOLANACEÆ. POTATO FAMILY.

PHYSALIS, L.

2742. *P. pubescens,* L. Low Hairy Ground-cherry.
Rich soil, common.

2743. *P. pruinosa,* L. Tall Hairy Ground-cherry.
In cultivated soil.

2744. *P. angulata,* L. Cut-leaved Ground-cherry.
In rich soil.

2745. *P. philadelphica,* Lam. Philadelphia Ground-cherry.
In rich soil.

2746. *P. lanceolata,* Michx. Prairie Ground-cherry.
Dry places.

2747. *P. virginiana,* Mill. Virginia Ground-cherry.
In open places, fields. Common.

2748. *P. heterophylla,* Nees. Clammy Ground-cherry.
In rich soil.

2749. *P. comata,* Rydberg. Hillside Ground-cherry.
Hillsides, in dry soil.

2750. *P. longifolia,* Nutt. Long-leaved Ground-cherry.
Rich soil.

SOLANUM, L.

2751. *S. nigrum,* L. Black Nightshade.
In waste places; common.

2752. *S. carolinense,* L. Horse-nettle.
In dry, sandy soil; frequent.

2753. *S. rostratum,* Dunal. Sand Bur.
In waste places.

2754. *S. dulcamara,* L. Nightshade.
In waste places; introduced from Europe.

2755. *S. triflorum,* Nutt. Cut-leaved Nightshade.
Prairies and waste places.

2756. *S. torreyi,* A. Gray. Torrey's Nightshade.
Dry ground.

2757. *S. heterodoxum,* Dunal. Melon-leaved Nightshade.
Annual; not common.

LYCIUM, L.

2758. *L. vulgare,* (Ait. f.) Dunal. Matrimony Vine.
In waste places; introduced from Europe.

DATURA, L.

2759. *D. stramonium,* L. Jimson-weed.
In waste places; from tropical regions.

2760. *D. tatula,* L. Purple Thorn-apple.
In waste places; from tropical America.

SCROPHULARIACEÆ. FIGWORT FAMILY.

VERBASCUM, L.

2761. *V. thapsus,* L. Great Mullen.
Common introduced weed, in waste places.

2762. *V. blattaria,* L. Moth Mullen.
Waste places; from Europe.

LINARIA, Hill.

2763. *L. linaria,* (L.) Karst. Butter-and-Eggs.
Introduced from Europe; in waste places.

2764. *L. canadensis,* (L.) Dumont. Blue Toad-flax.
In dry soil.

SCROPHULARIA, L.

2765. *S. marylandica,* L. Maryland Fig-wort.
In woods and thickets; common.

2766. *S. leporella,* Bicknell. Hare Figwort.
Along borders and on prairies; common.

CHELONE, L.

2767. *C. glabra,* L. Snake-head.
In bogs; infrequent.

2768. *C. obliqua,* L. Red Turtle-head.
Infrequent.

PENTSTEMON, Soland.

2769. *P. hirsutus,* (L.) Willd. Hairy Beard-tongue.
Dry sandy soil; frequent.

2770. *P. canescens,* Britton. Gray Beard-tongue.
Infrequent.

2771. *D. digitalis,* (Sweet) Nutt. Foxglove Beard-tongue.
Escaped from gardens.

2772. *P. pentestmon,* (L.) Britton. Smooth Beard-tongue.
In woods, infrequent.

2773. *P. grandiflorus,* Nutt. Large-flowered Beard-tongue.
Sandy soil; not rare.

2774. *P. gracilis,* Nutt. Slender Beard-tongue.
In moist places.

Collinsia, Nutt.

2775. *C. verna,* Nutt. Blue-eyed Mary.
In moist woods; infrequent.

Mimulus, L.

2776. *M. ringens,* L. Monkey-flower.
Borders of streams, common.

2777. *M. alatus,* Soland. Sharp-winged Monkey-flower.
In wet places.

2778. *M. jamesii,* T. & G. James' Mimulus.
Moist grounds.

Conobea, Aubl.

2779. *C. multifida,* (Michx.) Beuth. Conobea.
Along rivers.

Monniera, P. Br.

2780. *M. rotundifolia,* Michx. Round-leaved Hedge-hyssop.
In hallow ponds or mud.

Gratiola, L.

2781. *G. virginiana,* L. Clammy Hedge-hyssop.
In upland woods.

2782. *G. sphærocarpa,* Ell. Round-fruited Hedge-hyssop.
Wet places.

Ilysanthes, Raf.

2783. *I. dubia,* (L.) Barnhart. Long-stalked False Pimpernel.
Common in wet places.

2784. *I. attenuata,* (Muhl.) Small. Short-stalked False Pimpernel.
In wet places.

Synthris, Benth.

2785. *S. bullii,* (Eaton) Barnhart. Bull's Synthyris.
Sandy soil, in open woods.

Veronica, L.

2786. *V. anagallis acquatica,* L. Water Speedwell.
Edges of streams and ponds; not rare.

2787. *V. scutellata,* L. Skullcap Speedwell.
Low wet ground.

2788. *V. serpyllifolia,* L. Thyme-leaved Speedwell.
In thickets.

2789. *V. peregrina,* L. Purslane Speedwell.
A common weed, in fields.

2790. *V. arvensis,* L. Corn Speedwell.
An introduced weed.

LEPTANDRA, Nutt.

2791. *L. virginica,* (L.) Nutt. Culver's Root.
Moist prairies, thickets and borders; common.

AFZELIA, J. G. Gmel.

2792. *A. macrophulla,* (Nutt.) Kuntze. Mullen Foxglove.
In moist places.

DASYSTOMA, Raf.

2793. *D. grandiflora,* (Benth.) Wood. Western False Foxglove.
In dry woods.

2794. D. *flava,* (L.) Wood. Downy False Foxglove.
Woods and thickets.

GERARDIA, L.

2795. *G. linifolia,* Nutt. Flax-leaved Gerardia.
In moist ground.

2796. *G. aspera,* Dougl. Rough Purple Gerardia.
Rare, on dry ridges.

2797. *G. purpurea,* L. Large Purple Gerardia.
In moist places. Quite common.

2798. *G. paupercula,* (A. Gray) Britton. Small-flowered Gerardia.
In low ground.

2799. *G. tenuifolia,* Vahl. Slender Gerardia.
In dry woods.

2800. *G. besseyana,* Britton. Bessey's Gerardia.
Dry prairies.

2801. *G. auriculata,* Michx. Auricled Gerardia.

CASTILLEJA, Mutis.

2802. *C. coccinea,* (L.) Spreng. Scarlet Painted-cup.
In open thickets.

2803. *C. sessiliflora,* Pursh. Downy Painted-cup.
On prairie.

PEDICULARIS, L.

2804. *P. lanceolata,* Michx. Swamp Lousewort.
Common, in swamps.

2805. *P. canadensis,* L. Common Lousewort.
Dry ridges and prairies. Common.

LENTIBULARIACEÆ. BLADDERWORT FAMILY.

UTRICULARIA, L.

2806. *U. vulfaris,* L. Greater Bladderwort.
In ponds.

2807. *U. intermedia,* Hayne. Flat-leaved Bladderwort.
In shallow water.

2808. *U. minor,* L. Lesser Bladderwort.
In shallow ponds.

2809. *U. biflora,* Lam. Two-flowered Bladderwort.
In ponds.

OROBANCHACEÆ. BROOM-RAPE FAMILY.

THALESIA, Raf.

2810. *T. uniflora,* (L.) Britton. Pale Broom-rape.
Infrequent; in woods and thickets.

OROBANCHE, L.

2811. *O. ludoviciana,* Nutt. Louisiana Broom-rape.
In sandy soil.

BIGNONICEÆ. TRUMPET-CREEPER FAMILY.

TECOMA, Juss.

2812. *T. radicans,* (L.) DC. Trumpet-creeper.
In moist woods; south.

CATALPA, Scop.

2813. *C. speciosa,* Warder. Larger Indian Bean.
Escaped from cultivation.

2814. *C. catalpa,* (L.) Karst. Indian Bean-tree.
Escaped from cultivation.

MARTYNIACEÆ. UNICORN-PLANT FAMILY.

MARTYNIA, L.

2815. *M. louisiana,* Mill. Unicorn-plant.
In waste places; south.

ACANTHACEÆ. ANACANTHUS FAMILY.

RUELLIA, L.

2816. *R. strepens,* L. Smooth Reullia.
In dry woods.

2817. *R. ciliosa,* Pursh. Hairy Ruellia.
Dry soils; frequent.

DIANTHERA, L.

2818. *D. americana,* L. Dense-flowered Waterwillow.
In wet places.

PHRYMACEÆ. LOPSEED FAMILY.

PHRYMA, L.

2819. *P. leptostachya,* L. Lopseed.
Common in upland woods, and in thickets.

PLANTAGINACEÆ. PLANTAIN FAMILY.

PLANTAGO, L.

2820. *P. major,* L. Common Plantain.
Common; introduced weed from Europe.

2821. *P. rugelii,* Dec. Rugel's Plantain.
In waste ground; common.

2822. *P. lanceolata,* L. Rib-grass.
Introduced from Europe; not infrequent.

2823. *P. purshii,* R. & S. Pursh's Plantain.
Dry prairies; westward.

2824. *P. aristata,* Michx. Large-bracted Plantain.
Dry prairies.

2825. *P. virginica,* L. Dwarf Plantain.
Sandy soil.

RUBIACEÆ. MADDER FAMILY.

HOUSTONIA, L.

2826. *H. minima,* Beck. Least Bluets.
Dry sandy soil; common.

2827. *H. angustifolia,* Michx. Narrow-leaved Houstonia.
In dry soil.

CEPHALANTHUS, L.

2829. *C. occidentalis,* L. Button-rush.
Common on low ground, along streams.

MITCHELLA, L.

2830. *M. repens,* L. Partridge-berry.
Rare, in deep upland woods.

GALIUM, L.

2831. *G. mollugo,* L. Wild Madder.
Introduced from Europe.

2832. *G. aparine,* L. Cleavers.
Common, chiefly in moist places.

2833. *G. circæzans,* Michx. Cross-cleavers.
Rich woods. Not common.

2834. *G. boreala,* L. Northern Bedstraw.
Common on rocky slopes.

2835. *G. triflorum,* Michx. Fragrant Bedstraw.
Moist woods. Not common.

2836. *G. tinctorium,* L. Stiff Marsh Bedstraw.
In damp shady places.

2837. *G. trifidum,* L. Small Bedstraw.

2838. *G. palustre,* L. Marsh Bedstraw.
In wet places.

2839. *G. concinnum,* Torr. & Gray. Shining Bedstraw.
Not rare, in upland dry woods.

2840. *G. asprellum,* Michx. Rough Bedstraw.
Common in moist places.

CAPRIFOLIACEÆ. HONEYSUCKLE FAMILY.

SAMBUCUS, L.

2841. *S. canadensis,* L. American Elder.
Common in alluvial soils.

2842. *S. pubens,* Michx. Red-berried Elder.
Not common; on rocky banks.

VIBURNUM, L.

2843. *V. opulus,* L. Cranberry-tree.
Not common; on rocky slopes.

2844. *V. pubescens,* (Ait.) Pursh. Downy-leaved Arrow-wood.
On rocky slopes; not common.

2845. *V. dentatum,* L. Arrow-wood.
On moist banks; not common.

2846. *V. lentago,* L. Sheep-berry.
Common in alluvial soils, and on lower slopes.

2847. *V. prunifolium,* L. Black Haw.
In dry soil.

TRIOSTREUM, L.

2848. *T. perfoliatum,* L. Horse-gentian.
Frequent in woods.

2849. *T. aurantiacum,* Bicknell. Red-fruited Horse-gentian.
Common in upland woods.

2850. *T. angustifolium,* L. Yellow Horse-gentian.

LINNÆA, L.

2851. *L. americanus,* Forbes. Twin-flower.
In upland woods, not common.

2852. *L. boralis,* L. Grand Vine.
Introduced from Europe, infrequent.

SYMPHORICARPOS, Juss.

2853. *S. racemosus,* Michx. Snowberry.
Not common; on rocky slopes.

2854. *S. occidentalis,* Hook. Wolfberry.
Common in dry places.

2855. *S. symphoricarpos,* (L.) MacM. Coral-berry.
In rocky places; not infrequent.

LONICERA, L.

2856. *L. glaucescens,* Rydb. Douglas' Honeysuckle.
Woods, infrequent.

2857. *L. dioica,* L. Glaucous Honeysuckle.
Common, on rocky slopes and banks.

2858. *L. sullivantii,* A. Gray. Sullivan's Honeysuckle.
On wooded slopes and along borders. Not rare.

2859. *L. tartarica,* L. Tartarian Bush-honeysuckle.
On rocky wooded slopes; introduced from Asia.

DIERVILLA, Moench.

2860. *D. diervilla,* (L.) MacM. Bush Honeysuckle.
In dry woods; infrequent.

ADOXACEÆ. MOSCHATEL FAMILY.

ADOXA, L.

2861. *A. moschatellina,* L. Musk-root.
Rocky woods. Rare.

VALERIANACEÆ. VALERIAN FAMILY.

VALERIANA, L.

2862. *V. edulis,* Nutt. Edible Valerian.
Wet prairies; rare.

VALERIANELLA, Poll.

2863. *V. chenopodifolia,* (Pursh.) DC. Goose-foot Corn Salad.
In moist ground.

CUCURBITACEÆ. GOURD FAMILY.

CUCURBITA, L.

2864. *C. fœtidissima,* H. B. K. Missouri Gourd.
Dry soil; infrequent.

MICRAMPELIS, Raf.

2865. *M. lobata,* (Michx.) Greene. Wild Balsam Apple.
Chiefly in low woods; common.

SICYOS, L.

2866. *A. angulatus,* L. One-seeded Bur Cucumber.
River banks; common.

CAMPANULACEÆ. BELL-FLOWER FAMILY.

CAMPANULA, L.

2867. *C. totundifolia,* L. Harebell.
Common on rocks and rocky slopes.

2867*a*. *C. aparinoides,* Pursh. Marsh Belleflower.
In grassy swamps; not common.

2867*b*. *C. americana,* L. Tall Belleflower.
On moist wooded banks and slopes. Common.

SPECULARA, Heist.

2868. *S. perfoliata,* (L.) A. DC. Venus' Looking-glass.
On dry slopes.

LOBELIA, L.

2869. *L. cardinalis,* L. Cardinal-flower.
Low ground; frequent.

2870. *L. syphilitica,* L. Great Lobelia.
Common in moist soil.

2871. *L. spicata,* Lam. Pale Spiked Lobelia.
In dry open places.

2872. *L. spicata hirtella,* A. Gray. Rough Lobelia.
Infrequent.

2873. *L. leptostachys,* A. DC. Spiked Lobelia.
In dry prairie; not common.

2874. *L. inflata,* L. Indian Tobacco.
Common in dry and waste places.

2875. *L. pubula,* Michx. Downy Lobelia.
Moist soil.

CICHORIACEÆ. CHICORY FAMILY.

CICHORIUM, L.

2876. *C. intybus,* L. Chicory.
A roadside weed; common.

ADOPOGON, Neck.

2877. *A. virginicum,* (L.) Kuntze. Cynthia.
Common in upland woods.

2877*a*. *A. dandelion,* (L.) Kuntze. Dwarf Dandelion.

TRAGOPOGON, L.

2878. *T. pratensis,* L. Yellow Goat's Beard.
In fields and waste places; from Europe.

2878*a*. *T. porrifolius,* L. Oyster-plant.
Escaped from gardens.

TARAXACUM, Hall.

2879. *T. taraxacum,* (L.) Karst. Dandelion.
A common introduced weed.

2880. *T. erythrospermum,* Andrz. Red-seeded Dandelion.
Introduced from Europe, infrequent.

SONCHUS, L.

2881. *S. oleraceus,* L. Annual Sow-thistle.
Waste places; introduced from Europe.

2882. *S. asper,* (L.) All. Spiny Sow-thistle.
A common introduced weed.

LACTUCA, L.

2883. *L. scariola,* L. Prickly Lettuce.
An introduced weed, spreading rapidly.

2884. *L. ludoviciana,* (Nutt.) DC. Western Lettuce.
Rich soil; infrequent.

2885. *L. canadensis,* L. Wild Lettuce.
On moist prairies.

2886. *L. hirsuta,* Muhl. Hairy Wood-lettuce.
In dry soil.

2887. *L. sagittifolia,* Ell. Arrow-leaved Lettuce.
In moist soil.

2888. *L. pulchella,* (Pursh.) DC. Large-flowered Blue Lettuce.
In moist soil.

2889. *L. villosa,* Jacq. Hairy-veined Blue Lettuce.
In thickets, southward.

2890. *L. floridana,* (L.) Gaertn. Florida Lettuce.
Borders of woods. Frequent.

2891. *L. spicata,* (Lam.) Hitchc. Tall Blue Lettuce.
Rich soil, borders of woods.

LYGODESMIA, D. Don.

2892. *L. juncea,* (Pursh.) D. Don. Rush-like Lygodesmia.
Prairies; infrequent.

NOTHOCALAIS, Greene.

2893. *N. cuspidata,* (Pursh.) Greene. False Calais.
Dry soil; prairies.

HIERACIUM, L.

2894. *H. canadense,* Michx. Canada Hawkweed.
Common in dry woods.

2894*a*. *H. scabrum,* Michx. Rough Hawkweed.
On rather open wooded slopes.

2894*b*. *H. longipilum,* Torr. Long-bearded Hawkweed.
Sandy prairies.

NABALUS, Cass.

2895. *N. albus,* (L.) Hook. Rattlesnake-root.
Common in rocky woods.

2895*a*. *N. asper,* (Michx.) T. & G. Rough White-lettuce.
Frequent on prairies.

2895*b*. *N. racemosus,* (Michx.) DC. Glaucous White-lettuce.
On moist prairies.

AMBROSIACEÆ. RAGWEED FAMILY.

IVA, L.

2896. *I. xanthiifolia,* (Fresn.) Nutt. Burweed Marsh Elder.
In moist prairie soils, becoming a common weed.

AMBROSIA, L.

2897. *A. trifida,* L. Great Ragweed.
A common weed in low places and along roadsides.

2898. *A. trifida integrifolia,* (Muhl.) T. & G. Entire-leaved Ragweed.
This variety is found in dry places.

2899. *A. artemisiæfolia,* L. Ragweed.
A common weed, along roads, and in fields.

2900. *A. psilostachya,* DC. Western Ragweed.
Common in dry sandy soil.

XANTHIUM, L.

2901. *X. glabratum,* (DC.) Britton. Burweed.
Banks of rivers, frequent.

2902. *X. canadense,* Mill. American Cocklebur.
A common weed.

2903. *X. echinatum,* Murr. Beach Clotbur.
Infrequent.

COMPOSITÆ. THISTLE FAMILY.

VERONIA, Schreb.

2904. *V. noveboracensis,* (L.) Willd. Flat Top.
In moist soil.

2905. *V. baldwinii,* Torr. Baldwin's Iron-weed.
In dry soil.

2906. *V. fasciculata,* Michx. Western Iron-weed.
A common weed in alluvial pastures.

EUPATORIUM, L.

2907. *E. maculatum,* L. Spotted Joe-pye Weed.
In moist places, rather common.

2908. *E. rydbergi,* Britton, n. sp. Rydberg's Joe-pye Weed.
In moist soils, not rare.

2909. *E. purpureum,* L. Joe-pye Weed.
Low ground; common.

2910. *E. serotinum,* Michx. Late-flowering Thoroughwort.
Common in low ground.

2911. *E. altissimum,* L. Tall Boneset.
In bogs, quite common.

2912. *E. perfoliatum,* L. Boneset.
Common in moist land.

2913. *E. ageratoides,* L. f. White Sanicle.
In rich woods; common.

KUHNIA, L.

2914. *K. eupatorioides,* L. False Boneset.
Common in dry soil.

2915. *K. glutinosa,* Ell. Prairie False Boneset.
In dry open places.

LACINATIA, Hill.

2916. *L. squarrosa,* (L.) Hill. Scaly Blazing Star.
Common in dry soil.

2917. *L. cylindracea,* (Michx.) Kuntze. Cylindric Blazing Star.
On dry prairies and ridges.

2918. *L. punctata,* (Hook) Kuntze. Dotted Button-snakeroot.
In dry soil, frequent.

2919. *L. acidota,* (Engelm. & Gray) Kuntze. Slender Button-snakeroot.
Prairie; southward.

2920. *L. pycnostachya,* (Michx.) Kuntze. Prairie Blazing Star.
Common on moist prairies and in meadows.

2921. *L. scariosa,* (L.) Hill. Large Blazing Star.
Common on drier prairies.

2922. *L. scariosa squarrulosa,* (Michx.) Small.
Dry woods, southward.

GRINDELIA, Willd.

2923. *G. squarrosa,* (Pursh.) Dunal. Broad-leaved Gumplant.
Not common.

CHRYOPSIS, Nutt.

2924. *C. villosa,* (Pursh.) Nutt. Hairy Golden Aster.
Dry soil.

SOLIDAGO, L.

2925. *S. cæsia,* L. Blue-stemmed Goldenrod.
In woods.

2926. *S. flexicaulia,* L. Zig-zag Goldenrod.
Common in rich woods.

2927. *S. hispida,* Muhl. Hairy Goldenrod.
In dry places.

2928. *S. erecta,* Pursh. Slender Goldenrod.
In dry places.

2929. *S. uliginosa,* Nutt. Bog Goldenrod.
In bogs, not common.

2930. *S. speciosa,* Nutt. Showy Goldenrod.
Common in upland woods.

2931. *S. rigidiuscula,* (T. & G.) Porter. Slender Showy Goldenrod.
In dry open places. Not common.

2932. *S. rugosa,* Mill. Tall Hairy Goldenrod
Field and roadsides.

2933. *S. patula,* Muhl. Rough-leaved Goldenrod.
Boggy places, infrequent.

2934. *S. ulmifolia,* Muhl. Elm-leaved Goldenrod.
Common in dry woods and thickets.

2935. *S. rupestris,* Raf. Rock Goldenrod.
On rocky banks.

2936. *S. serotina,* Ait. Late Goldenrod.
In moist grounds, common.

2937. *S. serotina gigantea,* (Ait.) A. Gray. Giant Goldenrod.
In moist grounds; not rare.

2938. *S. missouriensis,* Nutt. Missouri Goldenrod.
Common on dry prairies.

2939. *S. gattingeri,* Chapm. Gattinger's Goldenrod.
On dry river banks.

2940. *S. canadensis,* L. Canada Goldenrod.
In rather dry places, not rare.

2941. *S. nemoralis,* Ait. Field Goldenrod.
Common in dry places.

2942. *S. mollis,* Bartl. Velvety Goldenrod.
Dry prairies.

2943. *S. rigida,* L. Stiff Goldenrod.
Common on dry prairies and ridges.

2944. *S. riddellii,* Frank. Riddell's Goldenrod.
Wet prairies.

EUTHAMIA, Nutt.

2945. *E. graminifolia,* (L.) Nutt. Bushy Goldenrod.
In moist open places; not rare.

2946. *E. caroliniana,* (L.) Greene. Slender Fragrant Goldenrod.
On dry prairies.

BOLTONIA, L'Her.

2947. *B. asteroides,* (L.) L'Her. Aster-like Boltonia.
Abundant in low, wet places.

ASTER, L.

2948. *A. divaricatus,* L. White Wood Aster.
In open woodlands, infrequent.

2949. *A. macrophyllus,* L. Large-leaved Aster.
Moist woodlands, not infrequent.

2950. *A. shortii,* Hook. Short's Aster.
On banks in edge of woods, not common.

2951. *A. azureus,* Lindl. Sky-blue Aster.
On prairies, frequent.

2952. *A. cordifolius,* L. Common Blue Wood Aster.
Frequent in hilly woods.

2953. *A. lowrieanus,* Porter. Lowrie's Aster.
In woods, not common.

2954. *A. drummondii,* Lindl. Drummond's Aster.
In dry woods and thickets; common.

2955. *A. sagittifolius,* Willd. Arrow-leaved Aster.
In dry woods; not common.

2956. *A. patens,* Ait. Late Purple Aster.
Common in dry open places.

2957. *A. phlogifolius,* Muhl. Thin-leaved Purple Aster.
Woods and thickets.

2958. *A. novæ-angliæ,* L. New England Aster.
Common on prairies, etc.

2959. *A. oblongifolius,* Nutt. Aromatic Aster.
On prairies.

2960. *A. amethystinus,* Nutt. Amethyst Aster.
In moist soil; infrequent.

2961. *A. puniceus,* L. Purple-stem Aster.
Common in bogs.

2962. *A. puniceus lucidulus,* A. Gray.
In damp places, infrequent.

2963. *A. prenanthoides,* Muhl. Crooked-stem Aster.
Common along moist borders.

2964. *A. lævis,* L. Smooth Aster.
Common on dry prairies.

2965. *A. concinnus,* Willd. Narrow-leaved Smooth Aster.
Rare; southward.

2966. *A. novi-belgii,* L. New York Aster.
In wet places.

2967. *A. longifolius,* Lam. Long-leaved Aster.
In moist ground.

2968. *A. sericeus,* Vent. Silky Aster.
On dry banks and slopes.

2969. *A. ptarmicoides,* (Nes.) T. & G. Upland White Aster.
Rare, on rocky ridges.

2970. *A. dumosus,* L. Bushy Aster.
In sandy soil.

2971. *A. salicifolius,* Lam. Willow Aster.
In moist open places, common.

2972. *A. salicifolius subasper,* (Lindl.) A. Gray.
Infrequent.

2973. *A. paniculatus,* Lam. Panicled Aster.
In moist places, not rare.

2974. *A. paniculatus bellidiflorus,* (Willd.) Burgess.
In open moist places.

2975. *A. paniculatus simplex,* (Willd.) Burgess.
In shady, moist places.

2976. *A. tradescanti,* L. Michaelmas Daisy.
In moist and open places, not rare.

2977. *A. ericoides,* L. White Heath Aster.
Dry soil, frequent.

2978. *A. ericoides pilosus,* (Willd.) Porter. Hairy Stemmed Aster.
Infrequent.

2979. *A. lateriflorus,* (L.) Britton. Starved Aster.
In open places, along borders.

2980. *A. lateriflorus thyrsoideus,* (A. Gray) Sheldon.
In dry deep woods.

2981. *A. lateriflorus grandis,* Porter.
In shady places.

2982. *A. hirsuticaulis,* Lindl. Hairy-stemmed Aster.
In woods and thickets.

2983. *A. vimineus,* Lam. Small White Aster.
Frequent in damp open soil.

2984. *A. multiflorus,* Ait. Dense-flowered Aster.
Common in dry soil and waste places.

2985. *A. exiguus,* (Fernald) Rudb. Ciliate-leaved Aster.
Common on dry prairies, etc.

ERIGERON, L.

2986. *E. pulchellus,* Michx. Robin's Plantain.
On dry slopes.

2987. *E. philadelphicus,* L. Philadelphia Fleabane.
Common in woods and along borders.

2988. *E. annus,* (L.) Pers. Larger Daisy Fleabane.
In fields and open places; common.

2989. *E. ramosus,* (Walt.) B. S. P. Daisy Fleabane.
Very common in meadows and fields; a troublesome weed.

LEPTILON, Raf.

2990. *L. canadense,* (L.) Britton. Horse-weed.
A very common weed in waste places and fields.

2991. *L. divaricatum,* (Michx.) Raf. Low Horse-weed.

DŒLLINGERIA, Nees.

2992. *D. umbellata,* (Mill.) Nees. Tall Flat-top White Aster.
In moist prairie.

2993. *D. humilis,* (Willd.) Britton. Broad-leaved Flat-top White Aster.
In moist places.

ANTENNARIA, Gaertn.

2994. *A. campestris,* Rydb. Prairie Cat's-foot.
Common on prairies.

2995. *A. plantaginifolia,* (L.) Richards. Plantain-leaf Everlasting.
Common on dry ridges.

ANAPHALIS, DC.

2996. *A. margaritacea,* (L.) Benth. & Hook. Large-flowered Everlasting.
Dry soil.

GNAPHALIUM, L.

2997. *G. obtusifolium,* L. White Balsam.
In dry open places; common.

INULA, L.

2998. *I. helenium,* L. Elecampane.
Introduced. Along roadsides; not common.

POLYMNIA, L.

2999. *P. uvedalia,* L. Yellow Leaf-cup.
In rich soil; not common.

3000. *P. canadensis,* L. Small-flowered Leaf-cup.
Common on shaded rocky slopes. Not infrequent.

SILPHIUM, L.

3001. *S. perfoliatum,* L. Cup-plant.
Common in wet places.

3002. *S. integrifolium,* Michx. Entire-leaved Rosin Weed.
Common on prairies.

3003. *S. laciniatum,* L. Compass-plant.
Common on prairies.

3004. *S. trifoliatum,* L. Whorled Rosin-weed.
In woods.

3005. *S. terebinthinaceum,* Jacq. Prairie Dock.
Prairies and woods.

PARTHENIUM, L.

3006. *P. integrifolium,* L. American Fever-few.
In dry places; not rare.

HELIOPSIS, Pers.

3007. *H. scabra,* Dunal. Rough Ox-eye.
Common on dry prairies.

ECLIPTA, L.

3008. *E. alba,* (L.) Hassk. Eclipta.
A weed introduced from tropical America.

RUDBECKIA, L.

3009. *R. triloba,* L. Thin-leaved Cone-flower.
In thickets; common.

3010. *R. subtomentosa,* Pursh. Sweet Cone-flower.
Frequent in low prairies.

3011. *R. hirta,* L. Black-eyed Susan.
Common in rather dry open grounds.

3012. *R. laciniata,* L. Tall Cone-flower.
Common on moist ground.

RATIBIDA, Raf.

3013. *R. pinnata,* (Vent.) Barnhart. Gray-headed Cone-flower.
Common on dry prairies.

3014. *R. columnaris,* (Sims) D. Don. Long-headed Cone-flower.
Infrequent.

BRAUNERIA, Neck.

3015. *B. angustifolia,* (DC.) Heller. Narrow-leaved Purple Cone-flower.
In dry soil, common.

3016. *B. pallida,* (Nutt.) Boynton & Beadle. Pale Purple Cone-flower.
Dry soil, common.

3017. *B. purpurea,* (L.) Britton. Purple Cone-flower.
In rich, moist soil.

BORRICHIA, Adans.

3018. *B. frutescens,* (L.) DC. Sea Ox-eye.
Infrequent.

HELIANTHUS, L.

3019. *H. annus,* L. Common Sunflower.
Introduced. In waste places, frequent.

3020. *H. petiolaris,* Nutt. Prairie Sunflower.
Frequent.

3021. *H. scaberrimus,* Ell. Stiff Sunflower.
On dry prairies and ridges; common.

3022. *H. occidentalis,* Riddell. Few-leaved Sunflower.
In dry open places; common.

3023. *H. giganteus,* L. Giant Sunflower.
In open woodlands.

3024. *H. ambiguus,* (T. & G.) Britton. Ambiguous Sunflower.
In moist soil.

3025. *H. maximiliani,* Schrad. Maximillian's Sunflower.
Common on prairies.

3026. *H. grosseserratus,* Martens. Saw-tooth Sunflower.
In moist open places; common.

3027. *H. divaricatus,* L. Woodland Sunflower.
In dry woods.

3028. *H. decapetalus,* L. Wild Sunflower.
In moist shaded places; not common.

3029. *H. trachelifolius,* Mill. Throatwort Sunflower.
Borders of woods, in sandy soil; infrequent.

3030. *H. strumosus,* L. Pale-leaved Wood Sunflower.
Borders of woods.

3031. *H. strumosus macrophyllus,* (Willd.) Britton. Wood Sunflower.
Common in open woods.

3032. *H. hirsutus,* Raf. Stiff-haired Sunflower.
In dry soil.

3033. *H. lætiflorus,* Pers. Showy Sunflower.
On prairies.

3034. *H. tuberosus,* L. Jerusalem Artichoke.
Common in dry ground and fence rows

3035. *H. tuberosus subcanescens,* A. Gray.
In dry soil.

3036. *H. mollis,* Lam. Hairy Sunflower.
In dry soil.

VERBESINA, L.

3037. *V. alternifolia,* (L.) Britton. Actinomeris.
In rich soil.

COREOPSIS, L.

3038. *C. tinctoria,* Nutt. Garden Tickseed.
Escaped from gardens.

3039. *C. palmata,* Nutt. Stiff Tickseed.
On dry prairies and ridges; common.

3040. *C. tripteris,* L. Tall Tickseed.
In sandy soil; not common.

BIDENS, L.

3041. *B. lævis,* (L.) B. S. P. Large Bur-marigold.
Frequent near margins of lakes.

3042. *B. cernua,* L. Nodding Bur-marigold.
Common in wet places.

3043. *B. connata,* Muhl. Swamp Beggar-ticks.
Common in moist soil.

3044. *B. comosa,* (A. Gray) Wiegand. Leafy-bracted Tickseed.
Common in wet soil.

3045. *B. discoidea,* (T. & G.) Britton. Small Beggar-ticks.
In wet and waste places.

3046. *B. frondosa,* L. Spanish Needles.
In moist soil, waste places; common.

3047. *B. coronata,* (L.) Fisch. Southern Tickseed-sunflower.
Swampy ground; infrequent.

3048. *B. trichosperma,* (Michx.) Britton. Tall Tickseed-sunflower.
In low ground.

3049. *B. involucrata,* (Nutt.) Britton. Long-bracted Tickseed-sunflower.
In wet places.

3050. *B. aristosa,* (Michx.) Britton.
In wet soil.

GALINSOGA, R. & P.

3051. *B. parviflora,* Cav. Galinsoga.
Waste places; native of tropical America.

HELENIUM, L.

3052. *H. autumnale,* L. Sneezeweed.
In moist places. A common weed in low pastures.

3053. *H. tenuifolium,* Nutt. Fine-leaved Sneezeweed.
In moist soil.

BŒBERA, Willd.

3054. *B. papposa,* (Vent.) Rudb. Fetid Marigold.
Common in waste places.

ACHILLEA, L.

3055. *A. lanulosa,* Nutt. Western Yarrow.
Infrequent.

3056. *A. millefolium,* L. Yarrow.
In dry open places; a common weed.

ANTHEMIS, L.

3057. *A. cotula,* L. Mayweed; Dog-fennel.
A common introduced weed.

3058. *A. arvensis,* L. Field Camomile.
A weed from Europe.

CRYSANTHEMUM, L.

3059. *C. leucanthemum,* L. Ox-eye Daisy.
An introduced weed, from Europe; not yet abundant.

TANACETUM, L.

3060. *T. vulgare,* L. Tansy.
Escaped from gardens.

ARTEMISIA, L.

3061. *A. caudata,* Michx. Tall Wormwood.
In dry open places; quite common.

3062. *A. canadensis,* Michx. Canada Wormwood.
Dry soil.

3063. *A. dracunculoides,* Pursh. Linear-leaved Wormwood.

3064. *A. absinthium,* L. Common Wormwood.
From Europe.

3065. *A. abrotanum,* L. Southern Wormwood.
In waste places; infrequent.

3066. *A. annua,* L. Annual Wormwood.
Introduced weed from Asia.

3067. *A. biennis,* Willd. Biennial Wormwood.
Moist banks.

3068. *A. serrata,* Nutt. Saw-leaf Mugwort.
On prairies; quite common.

3069. *A. longifolia,* Nutt. Long-leaved Mugwort.
In dry soil; not common.

3070. *A. gnaphalodes,* Nutt. Prairie Mugwort.
In dry soils.

3071. *A. ludoviciana,* Nutt. Lobed Cud-weed.
Common in dry soil.

ERECHTITES, Raf.

3072. *E. hieracifolia,* (L.) Raf. Fire-weed.
Common in waste places and clearings.

MESADENIS, Raf.

3073. *M. reniformis,* (Muhl.) Raf. Great Indian Plantain.
Quite common, in woods.

3074. *M. atriplicifolia,* (L.) Raf. Pale Indian Plantain.
In rich soil; rare.

3075. *M. tuberosa,* (Nutt.) Britton. Tuberous Indian Plantain.
In moist places; not common.

SYNOSMA, Raf.

3076. *S. suaveolens,* (L.) Raf. Sweet-scented Indian Plantain.
In rich woods; rare.

SENECIO, L.

3077. *S. atriapiculatus,* Rydb. Black-seeded Groundsel.
In moist soil.

3078. *S. balsamitæ,* Muhl. Balsam Groundsel.
In dry places; common.

3079. *S. aureus,* L. Swamp Squaw-weed.
In bogs; not rare.

3080. *S. palustris,* (L.) Hook. Marsh Fleawort.
In wet ground.

3081. *S. obovatus,* Muhl. Round-leaf Squaw-weed.
On wet banks.

ARCTIUM, L.

3082. *A. lappa,* L. Great Burdock.
Introduced weed from Europe.

3083. *A. minus,* Schk. Common Burdock.
Common introduced weed.

CARDUUS, L.

3084. *C. lanceolatus,* L. Common Field Thistle.
Introduced weed; common.

3085. *C. altissimus,* L. Tall Thistle.
Common in thickets.

3086. *C. discolor,* Muhl. Field Thistle.
Common along borders.

3087. *C. undulatus,* Nutt. Wavy-leaved Thistle.
On prairies.

3088. *C. hillii,* (Canby) Porter. Hill's Thistle.
On rich prairies; not common.

3089. *C. muticus,* (Michx.) Pers. Swamp Thistle.
Common in bogs.

3090. *C. arvensis,* (L.) Robs. Canada Thistle.
An introduced weed; fortunately not common.

Twenty-five species added under letters. Total number species mentioned 3,115.

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