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The Flowering Plants of Hardin County

Morton E. Peck

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THE FLOWERING PLANTS OF HARDIN COUNTY.

BY MORTON E. PECK.

The following list of the flowering plants of Hardin county is mainly the result of three seasons of observation and collection. Only a small portion of each season, however, has been allotted to field work, and the greater part of this has been confined to the northern half of the territory, with only occasional visits to other sections; the list, therefore, is doubtless far from complete. Were it not that circumstances render it impossible, another season would be given to its preparation, and the result would be far more satisfactory.

Hardin county has a somewhat diversified topography, with an abundance of morainic hills, a fair proportion of high woodland along the Iowa river, and occasional small tracts of prairie that have never been plowed, on account of the stony and sterile nature of the soil. There is but a scant area of sandy and alluvial land, and no considerable lakes or ponds. The drainage is imperfect, owing to the irregularity of the glacial deposits, so that swampy tracts are common. Most of the foregoing facts might almost be inferred from a perusal of the list with the brief notes on the distribution and habitat of the several species.

Thanks are due to Prof. L. H. Pammel for the determination of several difficult forms.

A LIST OF THE FLOWERING PLANTS OF HARDIN
COUNTY, IOWA.

PINACEÆ.

PINUS.

1. *P. strobus* L. Bluffs along the Iowa river near Steam-boat rock.

JUNIPERUS.

2. *J. virginiana* L. Mostly on high, rocky banks of the Iowa river.

TAXACEÆ.

TAXUS.

3. *T. minor* (Michx.) Brit. (*T. canadensis* Willd.) High, rocky woods and river banks. Common.

TYPHACEÆ.

TYPHA.

4. *T. latifolia* L. Abundant in swamps.

SPARGANIACEÆ.

SPARGANIUM.

5. *S. eurycarpum* Eng. Common in swamps.
6. *S. androcladium* (Eng) Morong. (*S. simplex androcladium* Eng.) Shallow ponds and swamps. Frequent.

NAIADACEÆ.

POTAMOGETON.

7. *P. lonchites* Tuck. (*P. fluitans* Roth.) Common in streams.
8. *P. heterophyllus* Schreb. Frequent in ponds.
9. *P. pusillus* L. Common in swamps and ponds.

NAIAS.

10. *N. flexilis* (Willd.) Rost & Schm. Swamps; apparently not common.

ALISMACEÆ.

ALISMA.

11. *A. plantago-aquatica* L. (*A. plantago* L.) Abundant everywhere in wet ground.

SAGITTARIA.

12. *S. latifolia* Willd. (*S. variabilis* Eng.) Abundant in swamps and wet ground.
13. *S. rigida* Pursh. (*S. heterophylla rigida* Eng.) Frequent near ponds and swamps.

GRAMINEÆ.

ANDROPOGON.

14. *A. scoparius* Michx. Common in dry uncultivated and unpastured ground.
15. *A. furcatus* Muhl. Same habitat as the preceding; common.

CHRYSOPOGON.

16. *C. avenaceus* (Michx.) Benth. Same habitat as the two preceding; common.

SYNTHESISMA.

17. *S. sanguinalis* (L.) Nash. (*Panicum sanguinale* L.) Common, especially in cultivated ground.
18. *S. linearis* (Krock.) Nash. (*Panicum glabrum* Gaudin.) An abundant and troublesome weed in lawns, gardens and waste ground.

PANICUM.

19. *P. crus-galli* L. Abundant in moist ground, especially about buildings.
20. *P. porterianum* Nash. (*P. latifolium* Walt.) Frequent in woods.
21. *P. xanthophysum* A. Gr. Dry, open ground; infrequent.
22. *P. scribnerianum* Nash. (*P. scoparium* Wats.) Dry open ground; frequent.
23. *P. pubescens* Lam. (*P. dichotomum* L.—apparently; which species, as limited by Britton, has the culm and leaves nearly glabrous and does not occur as

far north as our territory.) Prairies and dry woods; abundant.

24. *P. depauperatum* Muhl. Dry prairies; common.
25. *P. virgatum* L. Mostly in dry, uncultivated ground; common.
26. *P. proliferum* Lam. Moist ground; common.
27. *P. capillare* L. Common everywhere.

IXOPHORUS.

28. *I. verticillatus* (L.) Nash. (*Setaria verticillata* Beauv.) Along streets and roads and in cultivated ground; local, but apparently increasing.
29. *I. glaucus* (L.) Nash. (*S. glauca* Beauv.) Abundant everywhere.
30. *I. italicus* (L.) Nash. (*S. italicu* Kunth.) Occasional in waste ground.

CENCHRUS.

31. *C. tribuloides* L. Common in sandy localities, but not generally distributed.

ZIZANIA.

32. *Z. aquatica* L. Shallow water of the Iowa river; not common.

HOMALOCENCHRUS.

33. *H. virginicus* (Willd.) Brit. (*Leersia virginica* Willd.) Common in wet, shady localities.
34. *H. oryzoides* (L.) Poll. (*L. oryzoides* L.) Common in swampy ground.

PHALARIS.

35. *P. arundinacea* L. Frequent in moist soil.

SAVASTINA.

36. *S. odorata* (L.) Scrib. (*Heirochloe borealis* Roem. and Schultes.) Frequent in moist meadows.

ARISTIDA.

37. *A. basiramea* Eng. Dry prairies; infrequent.

STIPA.

38. *S. spartea* Trin. Dry prairies and meadows; common.

MUHLENBERGIA.

39. *M. mexicana* (L.) Trin. Damp, usually shady situations; common.
40. *M. racemosa* (Michx.) B. S. P. (*M. glomerata* Trin.) Moist or sometimes dry, open ground; common.
41. *M. sylvatica* Torr. Shady banks; frequent.
42. *M. diffusa* Schreb. Dry, mostly shady ground; frequent.

PHLEUM.

43. *P. pratense* L. Common.

ALOPÉCURUS.

44. *A. geniculatus* L. Low meadows; infrequent.

SPOROBOLUS.

45. *S. longifolius* (Torr.) Wood. Dry prairies; scarce.
46. *S. vaginæflorus* (Torr.) Wood. (*S. minor* Vasey.) Frequent in dry, waste places.
47. *S. cuspidatus* (Torr.) Wood. Dry, waste or sterile ground; common.
48. *S. heterolepis* A. Gr. Dry prairies; common.

CINNA.

49. *C. arundinacea* L. Frequent in damp woods.

AGROSTIS.

50. *A. alba* L. Abundant in moist meadows.
51. *A. perennans* (Walt.) Tuck. Common in woods and along streams.
52. *A. hyemalis* (Walt.) B. S. P. (*A. scabra* Willd.) Common in fields and waste ground.

CALAMAGROSTIS.

53. *C. canadensis* (Michx.) Beauv. Wet meadows and swamps; common.

SPARTINA.

54. *S. cynosuroides* (L.) Willd. Common in swamps and wet meadows.

BOUTELOUA.

55. *B. hirsuta* Lag. Frequent on dry, sterile knolls.

56. *B. curtipendula* (Michx.) Torr. (*B. racemosa* Lag.)
Common in dry, open ground.

PHRAGMITES.

57. *P. phragmites* (L.) Karst. (*P. communis* Trin.)
Common in swamps.

ERAGROSTIS.

58. *E. purshii* Schrad. Abundant in dry, waste ground
59. *E. major* Host. Cultivated and waste ground
abundant.
60. *E. hypnoides* (Lam.) B. S. P. (*E. reptans* Nees.)
Muddy banks of streams; frequent.

EATONIA.

61. *E. obtusata* (Michx.) Gray. Frequent in dry soil.

KOeleria.

62. *K. cristata* (L.) Pers. Common in dry, sterile soil.

MELICA.

63. *M. mutica* Walt. Frequent in moist, open or shady
ground.

DACTYLIS.

64. *D. glomerata* L. Roadsides and waste ground;
scarce.

POA.

65. *P. annua* L. Abundant in somewhat moist and
shady situations.
66. *P. compressa* L. With the following, but preferring
rather dry ground; common.
67. *P. pratensis* L. Almost universal.

PANICULARIA.

68. *P. nervata* (Willd) Kuntze (*Glyceria nervata* Trin.)
Abundant in wet ground.
69. *P. fluitans* (L) Kuntze (*G. fluitans* R. Br.) Common
in swamps and shallow ponds.

FESTUCA.

70. *F. octoflora* Walt. (*F. tenella* Willd.) Abundant in
dry, sterile ground.

71. *F. elatior* L. Roadsides and waste places; infrequent.
 72. *F. nutans* Willd. Abundant in dry woods.

BROMUS.

73. *B. ciliatus* L. Frequent in woods.
 74. *B. kalmii* Gray. Dry, open woods; scarce.
 75. *B. secalinus* L. Fields and waste ground; infrequent.

AGROPYRON.

76. *A. repens* (L.) Beauv. Roadsides and waste grounds; common.
 77. *A. repens glaucum* (Desf.) Scribn. Common, especially along railroads.
 78. *A. tenerum* Vasey. Roadsides; infrequent.

HORDEUM.

79. *H. jubatum* L. An abundant and troublesome weed.

ELYMUS.

80. *E. striatus* Willd. Common in woods.
 81. *E. virginicus* L. Common in low ground along streams and roadsides.
 82. *E. canadensis* L. Abundant in meadows and waste ground. The variety *glaucifolius* Gr. is found infrequently along streams.

HYSTRIX.

83. *H. hystrix* (L.) Millsp. (*Asprella hystrix* Willd.) Common in woods.

CYPERACEÆ.

CYPERUS.

84. *C. flavescens* L. Common in wet ground.
 85. *C. rivularis* Kunth. (*C. diandrus castaneus* Torr.) Along streams; infrequent.
 86. *C. inflexus* Muhl. (*C. aristatus* Rottb.) Wet, sandy ground along streams; frequent.
 87. *C. esculentus* L. Moist fields; abundant.
 88. *C. strigosus* L. Moist, open woods and along streams; common. Our specimens seem to be mostly the variety *robustior* Kunth.

ELEOCHARIS.

89. *E. palustris* (L.) R. & S. Ponds and swamps; frequent.
90. *E. acicularis* (L.) R. & S. Abundant in wet ground.
91. *E. intermedia* (Muhl.) Schultes. Borders of ponds and swamps; abundant.

SCIRPUS.

92. *S. lacustris* L. Swamps and streams; abundant.
93. *S. fluviatilis* (Torr.) Gray. Swamps; common.
94. *S. atrovirens* Muhl. Swamps and along streams; abundant.

ERIOPHORUM.

95. *E. polystachyon* L. Wet meadows; frequent.

HEMICARPHA.

96. *H. micrantha* (Vahl.) Brit. (*H. subsquarrosa* Nees.) Muddy banks of streams; infrequent.

CAREX.

97. *C. lupulina* Muhl. Swampy woods; scarce.
98. *C. lupulina bella-villa* (Dew.) Bail. With the type; the two forms are quite different in appearance, but intergrade perfectly.
99. *C. monile* Tuck. Common in bogs and wet meadows.
100. *C. hystericina* Muhl. Wet ground, meadows or open woods; frequent.
101. *C. pseudo-cyperus* L. Swampy ground; infrequent.
102. *C. comosa* Boott. (*C. pseudo-cyperus americana* Hochst.) Shallow muddy ponds; scarce.
103. *C. trichocarpa* Muhl. Frequent in swamps and wet meadows. The species appears to be exceedingly variable. Our specimens are tall and very slender, with narrow, loosely flowered spikes and large perigynia; very different in every way from the following.
104. *C. aristata* R. Br. (*C. trichocarpa aristata* Bail.) Common in swamps.
105. *C. lanuginosa* Michx. (*C. filiformis latifolia* Boeck.) Frequent in swampy meadows.

106. *C. fusca* All. Low meadows; infrequent.
107. *C. stricta* Lam. Abundant in bogs, low meadows, and along streams.
108. *C. stricta angustata* (Boott.) Bail. Ditches near railroad; frequent.
109. *C. davisii* Schw. & Torr. Moist woods; infrequent.
110. *C. longirostris* Torr. Common in damp woods.
111. *C. assiniboinensis* Boott. A single colony, growing in a moist thicket; apparently quite typical. Culms long, slender and nearly prostrate. Abundantly stoloniferous in late summer, the stolons four feet in length.
112. *C. tetanica* Schk. Frequent in wet woods.
113. *C. meadii* Dew. (*C. tetanica meadii* Bail.) Wet meadows; frequent.
114. *C. laxiflora blanda* (Dew.) Boott. (*C. laxiflora striatula* Carey). Common in wet woods.
115. *C. laxiflora various* Bail. With the preceding; common.
116. *C. albursina* Sheld. (*C. laxiflora latifolia* Boott.) Deep, moist woods; scarce. Wholly unlike any of the forms of *C. laxiflora* found in our territory.
117. *C. laxiculmis* Schwein. Wet ground along streams; frequent. Our material differs from the type in having the pistillate spike linear, three to five times as long as wide, and the perigynia scarcely angled and abruptly tipped with a short but distinct entire beak, which is either straight or slightly curved outward.
118. *C. setifolia* (Dew.) Brit. (*C. eburnea* Boott.) Frequent on dry cliffs along the Iowa river.
119. *C. pennsylvanica* Lam. Dry woods and prairies; abundant.
120. *C. pubescens* Muhl. Common in woods.
121. *C. stipata* Muhl. Swampy ground; frequent.
122. *C. teretiuscula* Gooden. Wet meadows and bogs; frequent.

123. *C. vulpinoidea* Michx. Wet ground; abundant.
124. *C. xanthocarpa* Bick. Meadows; scarce. Not quite typical, as the perigynia are dark brown and distinctly nerved.
125. *C. sartwellii* Dew. Wet meadows and bogs; frequent.
126. *C. rosea* Schk. Common in woods and thickets.
127. *C. sparganioides* Muhl. High woods; infrequent.
128. *C. scoparia* Schk. Dry, open ground; common.
129. *C. cristatella* Brit. (*C. tribuloides cristata* Bail.) Meadows; frequent.
130. *C. festucacea* Willd. (*C. straminea brevior* Dew.) Meadows and thickets; frequent.

ARACEÆ.

ARISÆMA.

131. *A. triphyllum* (L.) Torr. Woods; common.
132. *A. dracontium* (L.) Schott. Moist woods; frequent.

ACORUS.

133. *A. calamus* L. Common in swamps.

LEMNACEÆ.

SPIRODELA.

134. *S. polyrhiza* (L.) Schleid. Common in ponds.

LEMNA.

135. *L. trisulca* L. Common, with the preceding.

COMMELINACEÆ.

TRADESCANTIA.

136. *T. virginica* L. Common in waste ground.

PONTEDERiaceÆ.

PONTEDERIA.

137. *P. cordata* L. Borders of ponds; local.

HETERANTHERA.

138. *H. dubia* (Jacq.) MacM. (*H. graminea* Vahl.) Ponds and muddy shores; infrequent.

JUNCACEÆ.

JUNCUS.

139. *J. tenuis* Willd. Fields and waste ground; abundant.
140. *J. nodosus* L. Moist open ground; frequent.
141. *J. torreyi* Cov. (*J. nodosus megacephalus* Tor.) Moist, open ground; frequent.
142. *J. canadensis* J. Gay. Moist, open ground; common.

MELANTHACEÆ.

ZYGADENUS.

143. *Z. elegans* Pursh. Common in damp meadows; less frequently a form occurs on dry hills.

UVULARIA.

144. *U. grandiflora* Smith. Woods; common.

LILIACEÆ.

ALLIUM.

145. *A. tricoccum* Ait. Deep woods; common.
146. *A. canadense* L. Meadows and waste ground; common.

LILIUM.

147. *L. philadelphicum*. Frequent in meadows.
148. *L. canadense* L. Moist woods and meadows; infrequent.

ERYTHRONIUM.

149. *E. albidum* Nutt. Common in damp woods.

CONVALLARIACEÆ.

ASPARAGUS.

150. *A. officinalis* L. Well established and common in woods, meadows and waste ground.

VAGNERA.

151. *V. racemosa* (L.) Morong. (*Smilacina racemosa* Desf.) Frequent in woods and thickets.
152. *V. stellata* (L.) Morong. (*S. stellata* Desf.) Abundant in woods thickets and along streams.

UNIFOLIUM.

153. *U. canadense* (Desf.) Greene. (*Maianthemum canadense* Desf.) Rocky river banks; infrequent.

POLYGONATUM.

154. *P. biflorum* (Walt.) Ell. Common in woods.
 155. *P. commutatum* (R. & S.) Dietr. (*P. giganteum* Dietr.)
 Common in thickets and meadows.

TRILLIUM.

156. *T. nivale* Ridd. High woods; common locally.
 157. *T. erectum* L. Frequent in rich, damp woods.

SMILACEÆ.

SMILAX.

158. *S. herbacea* L. Common in thickets.
 159. *S. ecirrhata* (Eng.) Wats. Abundant in woods and
 meadows.
 160. *S. hispida* Muhl. Frequent in moist woods.

AMARYLLIDACEÆ.

HYPOXIS.

161. *H. hirsuta* (L.) Cov. (*H. erecta* L.) Moist meadows
 and dry banks; abundant.

DIOSCORIACEÆ.

DIOSCOREA.

162. *D. villosa* L. Common in woods and thickets.

IRIDACEÆ.

IRIS.

163. *I. versicolor* L. Common along streams and about
 swamps.

SISYRINCHIUM.

164. *S. angustifolium* Mill. Common in dry open ground.

ORCHIDACEÆ.

CYPRIPEDIUM.

165. *C. candidum* Willd. Frequent in wet meadows.
 166. *C. hirsutum* Mill. (*C. pubescens* Willd.) Dry woods
 and thickets; infrequent.

ORCHIS.

167. *O. spectabilis* L. Moist woods; scarce.

HABENARIA.

168. *H. bracteata* (Willd.) R. Br. Dry, open ground; infrequent.
169. *H. leucophæa* (Nutt.) Gray. Damp meadows; frequent.

GYROSTACHYS.

170. *G. cernua* (L.) Kuntze. (*Spiranthes cernua* Rich.)
Wet meadows; scarce.

JUGLANDACEÆ.

JUGLANS.

171. *J. nigra* L. Woods; common.
172. *J. cinerea* L. Woods; abundant.

HICORIA.

173. *H. minima* (Marsh.) Brit. (*Carya amara* Nutt.)
Woods; abundant
174. *H. ovata* (Mill.) Brit. (*Carya alba* Nutt.) High woods; common. A hybrid between this and the preceding species occurs.

SALICACEÆ.

POPULUS.

175. *P. alba* L. Occasionally spreading along roadsides.
176. *P. balsamifera candicans* (Ait.) Gr. Sparingly escaped along roads.
177. *P. grandidentata* Michx. Frequent in woods.
178. *P. tremuloides* Michx. Common in woods.
179. *P. deltoides* Marsh. (*P. monilifera* Ait.) Common.

SALIX.

180. *S. nigra* Marsh. Common in wet ground.
181. *S. amygdaloides* Anders. Mostly along streams; frequent.
182. *S. alba vitellina* (L.) Koch. Rarely escaped.
183. *S. fluviatilis* Nutt. (*S. longifolia* Muhl.) Common along streams.

- 184. *S. humilis* Marsh. Frequent in dry open ground.
- 185. *S. discolor* Muhl. Wet meadows and banks of streams; common.
- 186. *S. sericea* Marsh. Along streams; frequent.
- 187. *S. petiolaris* Smith. Wet thickets and meadows; frequent.
- 188. *S. cordata* Muhl. Wet ground; common.

BETULACEÆ.

CARPINUS.

- 189. *C. caroliniana* Walt. Wooded hillsides and ravines; common locally.

OSTRYA.

- 190. *O. virginiana* (Mill.) Willd. High woods; common.

CORYLUS.

- 191. *C. americana* Walt. Abundant in dry, sparsely wooded localities.

BETULA.

- 192. *B. papyrifera* Marsh. Woods along the Iowa river, near Steamboat Rock and Eldora.

FAGACEÆ.

QUERCUS.

- 193. *Q. rubra* L. Woods; abundant.
- 194. *Q. alba* L. Dry woods; common.
- 195. *Q. macrocarpa* Michx. Woods; abundant.

ULMACEÆ.

ULMUS.

- 196. *U. americana* L. Abundant in low woods.
- 197. *U. fulva* Michx. Abundant in woods.

CELTIS.

- 198. *C. occidentalis* L. Common in woods.

MORACEÆ.

HUMULUS.

- 199. *H. lupulus* L. Thickets and waste ground; infrequent.

CANNABIS.

200. *C. sativa* L. Thickets, river banks and waste ground; common.

URTICACEÆ.

URTICA.

201. *U. gracilis* Ait. Damp ground; abundant.

URTICASTRUM.

202. *U. divaricatum* (L.) Kuntze. (*Laportea canadensis* Lindl.) Abundant in damp, shady ground.

ADICEA.

203. *A. pumila* (L.) Raf. (*Pilea pumila* Gray.) Shady places; abundant.

BÆHMERIA.

204. *B. cylindrica* (L.) Willd. Moist ground; frequent.

PARIETARIA.

205. *P. pennsylvanica* Muhl. Moist, shady places; abundant.

SANTALACEÆ.

COMANDRA.

206. *C. umbellata* (L.) Nutt. Dry, open ground; common.

ARISTOLOHIACEÆ.

ASARUM.

207. *A. canadense* L. Common in moist woods.

POLYGONACEÆ.

RUMEX.

208. *R. acetosella* L. Dry, sterile ground; common.
209. *R. verticillatus* L. Swamps and shallow ponds; frequent.
210. *R. altissimus* Wood. Damp, open ground; common.
211. *R. patientia* L. Moist ground; rare.
212. *R. britannica* L. Common in swamps.
213. *R. crispus* L. Waste places, especially in moist ground; abundant.

214. *R. obtusifolius* L. Waste ground; rare.
215. *R. persicarioides* L. Damp fields and along streams; scarce.

FAGOPYRUM.

216. *F. fagopyrum* (L.) Karst. (*F. esculentum* Moench,) Waste ground; infrequent and not long persistent.

POLYGONUM.

217. *P. amphibium* L. Ponds and swamps; frequent.
218. *P. hartwrightii* Gray. Low ground; infrequent.
219. *P. emersum* (Michx.) Brit. (*P. muhlenbergii* Wats.) In swamps and along streams; common.
220. *P. incarnatum* Ell. (*P. lapathifolium incarnatum* Wats.) Damp fields and waste ground; common.
221. *P. pennsylvanicum* L. Abundant in moist, cultivated ground.
222. *P. persicaria* L. Abundant in fields and waste ground.
223. *P. hydropiper* L. Abundant in swampy ground and wet fields.
224. *P. punctatum* Ell. (*P. acre* H. B. K.) With the preceding, but less abundant.
225. *P. orientale* L. Rarely escaped.
226. *P. virginianum* L. Frequent in damp, shady ground.
227. *P. aviculare* L. Abundant about houses and in waste ground.
228. *P. erectum* L. Common in waste ground.
229. *P. tenue* Michx. Dry, sterile ground; scarce.
230. *P. convolvulus* L. Abundant in fields and waste ground.
231. *P. scandens* L. (*P. dumetorum scandens* Gray.) Thickets and low river banks; common.

CHENOPODIACEÆ.

CHENOPODIUM.

232. *C. album* L. Cultivated and waste ground; abundant.

233. *C. boscianum* Moq. Shady places; common.
234. *C. hybridum* L. Common in waste ground.

CYCLOLOMA.

235. *C. atriplicifolium* (Spreng.) Coult. (*C. platyphyllum* Moq.) Wet, sandy ground near railroad; the only locality.

SALSOLA.

236. *S. tragus* L. (*S. kali tragus* Moq.) Waste ground along railroad; scarcely more than holds its own.

AMARANTHACEÆ.

AMARANTHUS.

237. *A. retroflexus* L. Abundant in cultivated and waste ground.
238. *A. hybridus* L. (*A. chlorostachys* L.) Frequent in moist ground; especially along streams.
239. *A. blitoides* Wats. Common in waste and cultivated ground.
240. *A. gracizans* L. (*A. albus* L.) Common in fields and waste ground.

NYCTAGINACEÆ.

ALLONIA.

241. *A. nyctaginea* Michx. (*Oxybaphus nyctagineus* Sweet). Common along railroads.
242. *A. hirsuta* Pursh. (*B. hirsutus* Choisy.) Common on dry prairies.

AIZOACEÆ.

MOLLUGO.

243. *M. verticillata* L. Along railroads and in waste sandy ground; frequent.

PORTULACACEÆ.

CLAYTONIA.

244. *C. virginica* L. Moist woods; common.

PORTULACA.

245. *P. oleracea* L. Abundant in cultivated ground.

CARYOPHYLLACEÆ.

AGROSTEMMA.

246. *A. githago* L. (*Lychnis githago* Scop.) Common in grain fields.

SILENE.

247. *S. stellata* (L.) Art. Common in woods and thickets.
248. *S. antirrhina* L. Common in waste sterile ground.

LYCHNIS.

249. *L. alba* Mill. (*L. vespertina* Sibth.) Becoming frequent along the streets of Iowa Falls.

SAPONARIA.

250. *S. officinalis* L. Common locally.

ALSINE.

251. *A. media* L. (*Stellaria media* Smith). Recently became very abundant about Iowa Falls, often forming a turf in shady lawns.
252. *A. longifolia* (Muhl.) Brit. (*S. longifolia* Muhl.) Swampy ground; frequent.

CERASTIUM.

253. *C. vulgatum* L. Moist, mostly shady ground; abundant during the past few years.

MÖHRINGIA.

254. *M. lateriflora* (L.) Feuzl. (*Arenaria lateriflora* L.) Common in dry woods.

ANYCHIA.

255. *A. canadensis* (L.) B. S. P. (*A. capillacea* DC.) Dry woods; scarce.

NYMPHÆACEÆ.

NYMPHÆA.

256. *N. advena* Soland. (*Nuphar advena* Ait. f.) Frequent in ponds.

CASTALIA.

257. *C. odorata* (Dry.) Woodv. and Wood. (*Nymphaea odorata* Ait.) Frequent in pools and swamps.

CERATOPHYLLACEÆ.

CERATOPHYLLUM.

258. *C. demersum* L. Ponds and swamps; frequent.

RANUNCULACEÆ.

CALTHA.

259. *C. palustris* L. Common in bogs and wet meadows.

ISOPYRUM.

260. *I. biternatum* (Raf.) T. & G. Frequent in moist woods.

ACTÆA.

261. *A. rubra* (Ait.) Willd. (*A. spicata rubra* Willd.) Common in woods.

AQUILEGIA.

262. *A. canadensis* L. Rocky woods and high river banks; common.

DELPHINIUM.

263. *D. carolinianum* Walt. (*D. azureum* Michx.) Dry hills and prairies; common.

ANEMONE.

264. *A. caroliniana* Walt. Prairies; frequent.
265. *A. cylindrica* Gray. Dry, open ground; frequent.
266. *A. virginiana* L. Woods; frequent.
267. *A. canadensis* L. (*A. pennsylvanica* L.) Damp open ground; common.

HEPATICA.

268. *H. acuta* (Pursh.) Brit. (*H. acutiloba* DC.) Cold woods; common.

SYNDESMON.

269. *S. thalictroides* (L.) Hoffmg. (*Ammonilla thalictroides* Spach.) High woods; common locally.

PULSATILLA.

270. *P. hirsutissima* (Pursh.) Brit. (*Anemone patens nuttalliana* Gray.) Still frequent on dry prairies but becoming scarcer each year.

CLEMATIS.

271. *C. virginiana* L. Frequent in thickets and along roads.
272. *C. viorna* L. Borders of fields; scarce.

RANUNCULUS.

273. *R. delphinifolius* Torr. (*R. multifidus* Pursh.) Frequent in swamps and slow streams. The variety *terrestris* Gr. is also found.
274. *R. ovalis* Raf. (*R. rhomboideus* Gold.) Dry prairies; frequent.
275. *R. abortivus* L. Dry or moist ground; abundant.
276. *R. septentrionalis* Poir. Abundant in damp ground.
277. *R. fascicularis* Muhl. Abundant in dry open ground.

THALICTRUM.

278. *T. purpurascens* L. Dry open woods; scarce.
279. *T. polygamum* Muhl. Damp meadows; abundant.

BERBERIDACEÆ.

BERBERIS.

280. *B. vulgaris* L. Open ground; scarce.

CAULOPHYLLUM.

281. *C. thalictroides* (L.) Michx. Rich woods; common.

PODOPHYLLUM.

282. *P. peltatum* L. Rich woods; common.

MENISPERMACEÆ.

MENISPERMUM.

283. *M. canadense* L. Prairies and borders of woods; common.

PAPAVERACEÆ.

SANGUINARIA.

284. *S. canadensis* L. Abundant in rich woods.

BICUCULLA.

285. *B. cucullaria* (L.) Millsp. (*Dicentra cucullaria* DC.)
Common on wooded slopes.

ADLUMIA.

286. *A. fungosa* (Ait.) Greene. (*A. cirrhosa* Raf.)
Escaped from the cemetery at Iowa Falls and
more than holding its own.

CAPNOIDES.

287. *C. aureum* (Willd.) Kuntze. (*Corydalis aurea*
Willd.) Common in waste ground.

CRUCIFERÆ.

THELYPODIUM.

288. *T. integrifolium* (Nutt.) Endl. Low woods; in-
frequent.

LEPIDIUM.

289. *L. virginicum* L. Abundant in waste ground.
290. *L. apetalum* Willd. (*L. intermedium* Gray) With
the preceding, but less common.
291. *L. sativum* L. Rarely escaped.

THLASPI.

292. *T. arvense* L. Along railroads; rare.

SISYMBRIUM.

293. *S. officinale* (L.) Scop. Abundant about houses and
in open woods.
294. *S. altissimum* L. Common along railroads.

SINAPIS.

295. *S. alba* L. (*Brassica alba* Boiss.) Rarely escaped.

BRASSICA.

296. *B. nigra* (L.) Koch. Abundant in waste and culti-
vated ground.
297. *B. arvensis* (L.) B. S. P. (*B. sinapistrum* Boiss).
Abundant; but less so than the preceding.

RAPHANUS.

298. *R. sativus* L. Persisting about gardens for several
years.

RORIPA.

299. *R. palustris* (L.) Bess. (*Nasturtium palustre* DC.).
Abundant in swampy ground and wet fields.
300. *R. nasturtium* (L.) Rusby. (*N. officinale* R. Br.)
In springs; infrequent.
301. *R. armoracia* (L.) Hitch. (*N. armoracia* R. Br.)
Frequently escaped.

CARDAMINE.

302. *C. pennsylvanica* Muhl. Common along streams
and in low ground.
303. *C. bulbosa* (Schreb.) B. S. P. (*C. rhomboidea*
DC.) Abundant in wet meadows and along
streams.

DENTARIA.

304. *D. laciniata* Muhl. Common in rich woods.

BURSA.

305. *B. bursa pastoris* (L.) Brit. (*Capsella bursa pas-
toris* Moench.) Abundant.

DRABA.

306. *D. caroliniana* Walt. Dry and sandy waste places.

SOPHIA.

307. *S. incisa* (Engl.) Greene. Dry ground, especially
along railroads; common.

ARABIS.

308. *A. dentata* T. & G. Wooded ravines; frequent.
309. *A. hirsuta* (L.) Scop. Dry, stony ground; common.
310. *A. laevigata* (Muhl.) Poir. Dry rocks of river
banks; infrequent.
311. *A. canadensis* L. Dry woods; frequent.
312. *A. glabra* (L.) Benth. (*A. perfoliata* Lam.) Along
railroads; scarce.

ERYSIMUM.

313. *E. cheiranthoides* L. On dry rocks of river banks;
frequent.

CAPPARIDACEÆ.

CLEOME.

314. *C. spinosa* L. Waste ground; rarely escaped.

POLANISIA.

315. *P. trachyspermum* T. & G. Waste ground; scarce.

CRASSULACEÆ.

SEDUM.

316. *S. telephium* L. Rarely escaped.

PENTHORUM.

317. *P. sedoides* L. Abundant in wet ground along streams.

SAXIFRAGACEÆ.

SAXIFRAGA.

318. *S. pennsylvanica* L. Wet meadows; scarce.

HEUCHERA.

319. *H. hispida* Pursh. Dry, stony ground; common.

MITELLA.

320. *M. diphylla* M. Wooded ravines and shady banks; frequent.

PARNASSIA.

321. *P. caroliniana* Michx. Wet meadows and along streams; scarce.

GROSSULARIACEÆ.

RIBES.

322. *R. cynosbati* L. Mostly on rocky banks; common.
323. *R. gracile* Michx. Open woods; common.
324. *R. floridum* L'Her. Low ground along streams; common.

ROSACEÆ.

OPULASTER.

325. *O. opulifolius* (L.) Kuntze. (*Physocarpus opulifolius* Michx.) Rocky banks of streams; frequent.

SPIRAEÆ.

326. *S. salicifolia* L. Swampy meadows; common.

RUBUS.

327. *R. strigosus* Michx. Dry woods; frequent.
328. *R. occidentalis* L. Thickets and borders of woods;
common.
329. *R. villosus* L. Woods and roadsides; frequent.
330. *R. canadensis* L. Woods; infrequent.

FRAGARIA.

331. *F. virginiana* Duchesne. Prairies, woods and
waste ground; abundant.
332. *F. americana* (Port.) Brit. (*F. vesca americana*
Port.) Cool, wooded slopes; common.

POTENTILLA.

333. *P. arguta* Pursh. Common in pastures and waste
ground.
334. *P. monspeliensis* L. (*P. norvegica* L.) Cultivated
and waste ground; abundant.
335. *P. anserina* L. A good sized colony in waste
ground near a railroad.
336. *P. canadensis* L. Meadows and pastures; frequent.

GEUM.

337. *G. canadense* Jacq. (*G. album* Gmel.) Moist
woods; abundant.
338. *G. strictum* Ait. Low meadows and roadsides;
infrequent.

AGRIMONIA.

339. *A. mollis* (T. and G.) Brit. (*A. eupatoria* L.)
Woods and thickets; common.

ROSA.

340. *R. arkansana* Port. Abundant.

POMACEÆ.

MALUS.

341. *M. ioensis* (Wood) Brit. Borders of woods and
along streams; common.

AMELANCHIER.

342. *A. canadensis* (L.) Medic. Common on high rocky river banks and in dry woods.
343. *A. botryapium* (L. f.) DC. (*A. canadensis oblongifolia* T. & G.) Apparently confined to the margins of steep, rocky river banks, where it is common.
344. *A. rotundifolia* (Michx.) Roem. (*A. canadensis rotundifolia* T. & G.) With the preceding but infrequent. Though the species is of doubtful standing, it appears to be quite distinct in our territory, showing no sign of intergrading with the typical *A. canadensis*.

CRATÆGUS.

345. *C. crus-galli* L. Frequent in open woods.
346. *C. coccinea* L. Common in woods.
347. *C. macracantha* Lodd. (*C. coccinea macracantha* Dud.) Frequent in woods.
348. *C. mollis* (T. & G.) Schule. (*C. coccinea mollis* T. & G.) Abundant in open woods.

DRUPACEÆ.

PRUNUS.

349. *P. americana* Marsh. Common in woods and along roads.
350. *P. pennsylvanica* L. f. Dry open woods and thickets; frequent.
351. *P. virginiana* L. Common in dry woods.
352. *P. serotina* Ehrh. Frequent about the borders of woods and along roads.

CÆSALPINACEÆ.

CASSIA.

353. *C. chamæcrista* L. Dry, sandy soil; common.

GLEDITSIA.

354. *G. triacanthos* L. Woods; infrequent.

GYMNOCLADUS.

355. *G. dioica* (L.) Koch. (*G. canadensis* Lam.) Deep woods; infrequent.

PAPILIONACEÆ.

BAPTISIA.

356. *B. bracteata* Ell. (*B. leucophæa* Nutt.) Prairies and pastures; common.
357. *B. leucantha* T. & G. Borders of fields and roadsides; scarce.

CROTALARIA.

358. *C. sagittalis* L. Along streams; rare.

MEDICAGO.

359. *M. sativa* L. Sparingly escaped and not long persistent.
360. *M. lupulina* L. Becoming abundant in pastures and along roads.

MELILOTUS.

361. *M. alba* Desv. Abundant and troublesome, especially along roads.
362. *M. officinalis* (L.) Lam. With the preceding; frequent.

TRIFOLIUM.

363. *T. procumbens* L. Along roads and in pastures and waste ground; common during the past year or two.
364. *T. pratense* L. Common.
365. *T. hybridum* L. Meadows and roadsides; common.
366. *T. repens* L. Abundant.

PSORALEA.

367. *P. argophylla* Pursh. Prairie; common.

AMORPHA.

368. *A. fruticosa* L. Wet ground along streams; common.
369. *A. canescens* Pursh. Prairies; abundant.

KUHNISTERA.

370. *K. candida* (Willd.) Kuntze. (*Petalostemon candidus* Michx.) Prairies and waste ground; abundant.

371. *K. purpurea* (Nutt.) MacM. (*P. violaceus* Michx.)
With the preceding; abundant.
372. *K. foliosa* (Gray.) Kuntze. (*P. foliosus* Gray.)
An apparently well established colony in waste
ground near a railroad.

ROBINIA.

373. *R. pseudacacia* L. Roadside thickets; frequent.

ASTRAGALUS.

374. *A. crassicus* Nutt. (*A. caryocarpus* Ker.)
Abundant on dry prairies.
375. *A. carolinianus* L. (*A. canadensis* L.) Along
streams and roadsides.

MEIBOMIA.

376. *M. grandiflora* (Walt.) Kuntze. (*Desmodium*
acuminatum DC.) Dry woods; common.
377. *M. pauciflora* (Nutt.) Kuntze. (*D. pauciflorum* DC.)
High woods; rare. Known from only one
locality.
378. *M. illinoensis* (Gray) Kuntze. (*D. illinoensis*
Gray.) Dry, open ground; infrequent.
379. *M. canadensis* (L.) Kuntze. (*D. canadense*
DC.) Meadows and thickets; abundant.

LESPEDEZA.

380. *L. capitata* Michx. Meadows and waste ground;
common.
381. *L. leptostachys* Eng. Meadows; infrequent.

VICIA.

382. *V. americana* Muhl. Meadows; abundant.

LATHYRUS.

383. *L. venosus* Muhl. Roadsides and thickets;
common.
384. *L. palustris* L. Wet meadows; common.
385. *L. ochroleucus* Hook. Dry woods and thickets;
infrequent.

FALCATA.

386. *F. comosa* (L.) Kuntze. (*Amphicarpæa monoica*
Nutt.) Woods and thickets; abundant.

APIOS.

387. *A. apios* (L.) MacM. (*A. tuberosa* Moench.) Thickets along streams; frequent.

STROPHOSTYLES.

388. *S. helvola* (L) Britt. (*S. angulosa* Ell.) Sandy ground; scarce.

GERANIACEÆ.

GERANIUM.

389. *G. maculatum* L. Woods and thickets common.
390. *G. carolinianum* L. Sterile ground; scarce.
391. *G. pusillum* L. About houses; becoming frequent.
392. *G. molle* L. Waste ground; recently introduced.

OXALIDACEÆ.

OXALIS.

393. *O. violacea* L. Fields and open woods; abundant.
394. *O. stricta* L. (*O. corniculata stricta* Sav.) Woods, fields and waste ground; abundant.

LINACEÆ.

LINUM.

395. *L. usitatissimum* L. Occasionally escaped in waste ground.
396. *L. sulcatum* Ridcl. Dry, open ground; common.

RUTACEÆ.

XANTHOXYLUM.

397. *X. americanum* Mill. Common in woods.

POLYGALACEÆ.

POLYGALA.

398. *P. verticillata* L. Fields and waste ground; common.
399. *P. viridescens* L. Damp meadows; scarce.
400. *P. senega* L. Open, stony ground; frequent.

EUPHORBIACEÆ.

ACALYPHA.

401. *A. virginica* L. Abundant in woods and waste ground.

EUPHORBIA.

402. *E. glyptosperma* Eng. Dry, open grounds; frequent.
403. *E. maculata* L. Abundant in waste ground.
404. *E. nutans* Lag. (*E. prestii* Gurs.). Dry, sterile ground; abundant.
405. *E. corollata* L. Sandy fields and waste ground; frequent.
406. *E. marginata* Pursh. Rarely an escape.
407. *E. heterophylla* L. Stony, waste ground; infrequent.
408. *E. peplus* L. Waste ground; rare.
409. *E. cyparissias* L. Rarely escaped.

ANACARDIACEÆ

RHUS.

410. *R. glabra* L. Thickets and borders of woods; common.
411. *R. radicans* L. (*R. toxicodendron* L. ?) Woods thickets and roadsides; common.

CELASTRACEÆ.

EUONYMUS.

412. *E. atropurpureus* Jacq. Frequent in woods.

CELASTRUS.

413. *C. scandens* L. Woods and thickets; common.

STAPHYLEACEÆ.

STAPHYLEA.

414. *S. trifolia* L. Woods frequent.

ACERACEÆ.

ACER.

415. *A. saccharinum* L. (*A. dasycarpum* Ehrh.)
Along streams; frequent.
416. *A. saccharum* Marsh. (*A. saccharinum* Wang.)
High woods; common.
417. *A. negundo* L. (*Negundo aceroides* Moench.)
Borders of woods; common.

BALSAMINACEÆ.

IMPATIENS.

418. *I. biflora* Walt. (*I. fulva* Nutt.) Swampy woods; abundant.
419. *I. aurea* Muhl. (*I. pallida* Nutt.) With the preceding; abundant.

RHAMNACEÆ.

CEANOTHUS.

420. *C. americanus* L. Meadows and thickets; common
421. *C. ovatus* Desf. Dry, stony ground; scarce.

VITACEÆ.

VITIS.

422. *V. labrusca* L. One specimen growing on dry ground.
423. *V. vulpina* L. (*V. riparia* Michx.) Woods and thickets; common.

PARTHENOISSUS.

424. *P. quinquefolia* (L.) Planch. (*Ampelopsis quinquefolia* Michx.) In woods and on steep rocks; abundant.

TILIACEÆ.

TILIA.

425. *T. americana* L. Woods; abundant.

MALVACEÆ.

MALVA.

426. *M. rotundifolia* L. Common about houses and in gardens.

ABUTILON.

427. *A. abutilon* (L.) Rusby. (*A. avicennæ* Gautn.) Fields and waste ground; abundant.

HIBISCUS.

428. *H. trionum* L. Roadsides and about houses; infrequent.

HYPERICACEÆ.

HYPERICUM.

429. *H. ascyran* L. Banks of streams; scarce.
430. *H. sphærocarpum* Michx. Dry ground; infrequent.
431. *H. canadense* L. Wet ground; infrequent.
432. *H. mutilum* L. Wet, sandy ground; infrequent.

CISTACEÆ.

HELIANTHEMUM.

433. *H. canadense* (L.) Michx. Dry, sandy ground; common.

LECHEA.

434. *L. villosa* L. (*L. major* Michx.) With the preceding; common.

VIOLACEÆ

VIOLA.

435. *V. palmata* L. Open woods; infrequent.
436. *V. pedatifida* Don. Meadows and thickets; common.
437. *V. obliqua* Hill. (*V. palmata cucullata* Gray.) Abundant in woods and meadows.
438. *V. pedata* L. Dry prairies; common.
439. *V. pubescens* Ait. Abundant in moist woods.

LYTHRACEÆ.

LYTHRUM.

440. *L. alatum* Pursh. Abundant in wet ground.

ONOGRACEÆ.

LUDWIGIA.

441. *L. polycarpa* Short & Peter. Frequent in swampy ground.

EPILOBIUM.

442. *E. lineare* Muhl. Swampy ground; frequent
443. *E. coloratum* Muhl. Swampy ground and along streams; abundant.
444. *E. adenocaulon* Haussk. Wet ground; rare.

ONAGRA.

445. *O. biennis* (L.) Scop. (*Oenothera biennis* L.)
Meadows and waste ground; abundant.

ŒNOTHERA.

446. *Oe. laciniata* Hill. (*Oe. sinuata* L.) Dry, sandy
ground. Two specimens obtained from different
localities.

MERIOLOX.

447. *M. serrulata* (Nutt.) Walp. (*Oe. serrulata* Nutt.)
Dry prairies; abundant.

GAURA.

448. *G. coccinea* Pursh. Dry, open ground; scarce.

CIRCÆA.

449. *C. luteiana* L. Common in cool, damp woods.

HALORAGIDACEÆ.

MYRIOPHYLLUM.

450. *M. verticillatum* L. Ponds; infrequent.

ARALIACEÆ.

ARALIA.

451. *A. racemosa* L. High banks of streams; frequent
452. *A. nudicaulis* L. Rich woods; common.

PANAX.

453. *P. quinquefolium* L. (*Aralia quinquefolia* Decsne
& Planch.) Rich woods; becoming scarce.

UMBELLIFERÆ.

OXYPOLIS.

454. *O. rigidus* (L.) Brit. (*Tiedemannia rigida* Coult. &
Rose.) Swamps; common.

HERACLEUM.

455. *H. lanatum* Michx. Damp woods and thickets;
common.

PASTINACA.

456. *P. sativa* L. Moist, open ground; common.

POLYTÆNIA.

457. *P. nuttallii* DC. Prairies; frequent.

THASPIUM.

458. *T. barbinode* (Michx.) Nutt. Damp woods.
Infrequent.

AETHUSA.

459. *A. cynapium* L. Roadsides; infrequent.

ERYNGIUM.

460. *E. aquaticum* L. (*E. yuccæfolium* Michx.)
Meadows; common.

SANICULA.

461. *S. marylandica* L. Woods; abundant.

PIMPINELLA.

462. *P. integerrima* (L.) Gray. Dry or stony ground;
common.

WASHINGTONIA.

463. *W. claytoni* (Michx.) Brit. (*Osmorrhiza brevistyli-*
stylis D C.) Abundant in woods.

SIUM.

464. *S. cicutæfolium* Gmel. Swamps; infrequent.

APIUM.

465. *A. petroselinum* L. Rarely escaped.

ZIZIA.

466. *Z. aurea* (L.) Koch. Woods and meadows; abundant.

CICUTA.

467. *C. maculata* L. Wet meadows and swamps;
abundant.

DERINGA.

468. *D. canadensis* (L.) Kuntze. (*Cryptotenia canadensis* DC.) Abundant in woods.

CORNACEÆ.

CORNUS.

469. *C. circinata* L'Her. Rocky river banks; common.

470. *C. stolonifera* Michx. Low ground; frequent.
471. *C. candidissima* Marsb. (*C. paniculata* L'Her.)
Thickets and roadsides; common.
472. *C. alternifolia* L. f. Rocky banks; frequent.

PYROLACEÆ.

PYROLA.

473. *P. elliptica* Nutt. High woods; infrequent.

MONOTROPACEÆ.

MONOTROPA.

474. *M. uniflora* L. Rich woods; infrequent.

PRIMULACEÆ.

PRIMULA.

475. *P. farinosa* L. Growing in moss a few feet above
the water on a perpendicular cliff along the
Iowa river at Iowa Falls.

ANDROSACE.

476. *A. occidentalis* Pursh. Common in waste, sterile
ground.

STEIRONEMA.

477. *S. ciliatum* (L.) Raf. Damp woods and along
streams; common.
478. *S. quadriflorum* (Sims.) Hitch. (*S. longifolium*
Gray.) Common in wet meadows.

NAUMBURGIA.

479. *N. thyrsiflora* (L.) Duby. (*Lysimachia thyrsiflora*
L.) Frequent in swamps.

DODECATHÉON.

480. *D. meadia* L. Prairies; becoming scarce.

OLEACEÆ.

FRAXINUS.

481. *F. americana* L. Woods; common.
482. *F. lanceolatu* Borck. (*F. viridis* Michx. f.) Damp
woods; common.
483. *F. nigra* Marsh. (*F. sambucifolia* Lam.) Woods;
abundant.

GENTIANACEÆ.

GENTIANA.

484. *G. quinquefolia occidentalis* (Gray) Hitch. (*G. quinqueflora occidentalis* Gray.) Borders of woods and thickets, mostly on dry ground; common.
485. *G. puberula* Michx. Prairie; frequent.
486. *G. andrewsii* Griseb. Wet meadows and along streams; infrequent.
487. *G. flavida* Gray. (*G. alba* Muhl.) Thickets and roadsides in moist ground; infrequent.

APOCYNACEÆ.

APOCYNUM.

488. *A. androsceifolium* L. Dry thickets and roadsides, especially sandy ground; common.
489. *A. cannabinum* L. Moist fields and along streams; common.

ASCLEPIADACEÆ.

ASCLEPIAS.

490. *A. tuberosa* L. Dry, open ground; common.
491. *A. purpurascens* L. Thickets; scarce.
492. *A. incarnata* L. Swampy ground; common.
493. *A. sullivantii* Eng. Dry, sandy, open ground; scarce.
494. *A. syriaca* L. (*A. cornuti* Dec.) Fields and meadows; abundant.
495. *A. ovalifolia* Dec. Dry, stony or sandy ground; scarce.
496. *A. verticillata* L. Sandy, open ground; frequent.

ACERATES.

497. *A. viridiflora* (Raf.) Eat. Dry, open ground; frequent.
498. *A. lanuginosa* (Nutt.) Dec. Dry, sterile ground; rare.

CONVOLVULACEÆ.

IPOMŒA.

499. *I. purpurea* (L.) Roth. Sparingly escaped along roads.

CONVOLVULUS.

500. *C. sepium* L. Abundant in fields and meadows.

CUSCUTACEÆ.

CUSCUTA.

501. *C. arvensis* Bryrich. On species of *Leguminosæ*; infrequent.
502. *C. polygonorum* Eng. (*C. chlorocarpa* Eng.) Frequent on Polygonum and other weeds in low ground.
503. *C. cephalanthi* Eng. (*C. tenuiflora* Eng.) Common on various coarse weeds.
504. *C. paradoxa* Raf. (*C. glomerata* Choisy). Frequent on various coarse weeds and shrubs.

POLEMONIACEÆ.

PHLOX.

505. *P. paniculata* L. Rarely escaped.
506. *P. maculata* L. Frequent in swampy meadows.
507. *P. pilosa* L. Abundant in meadows.
508. *P. divaricata* L. Abundant in damp woods.

POLEMONIUM.

509. *P. reptans* L. Abundant in woods.

HYDROPHYLLACEÆ.

HYDROPHYLLUM.

510. *H. virginicum* L. Woods; abundant.
511. *H. appendiculatum* Michx. Woods; rare.

MACROCALYX.

512. *M. nyctelea* (L.) Kuntze. (*Ellisia nyctelea* L.) Moist, shady places; abundant.

BORAGINACEÆ.

LAPPULA.

513. *L. lappula* (L.) Karst. (*Echinosperrum lappula* Lehm.) Becoming common in open woods and waste ground.
514. *L. virginiana* (L.) Greene. (*E. virginicum* Lehm.) Abundant in moist woods.

MERTENSIA.

515. *M. virginica* (L.) D C. Woods; scarce.

LITHOSPERMUM.

516. *L. latifolium* Michx. Woods; frequent.
517. *L. canescens* (Michx.) Lehm. Dry, open ground; common.
518. *L. angustifolium* Michx. Dry prairies; common.

ONOSMODIUM.

519. *O. molle* Michx. (*O. carolinianum molle* Gray.) Dry prairies and open woods; common.

VERBENACEÆ.

VERBENA.

520. *V. urticifolia* L. Abundant in open woods, pastures and waste ground.
521. *V. hastata* L. With the preceding; abundant.
522. *V. stricta* Vent. With the two preceding; abundant.
523. *V. bracteosa* Michx. Abundant in waste ground.

LABIATÆ.

TEUCRIUM.

524. *T. canadense* L. Abundant in wet ground.

ISANTHUS.

525. *I. brachiatus* (L.) B. S. P. (*I. coeruleus* Michx.) Dry, sterile ground; frequent.

SCUTELLARIA.

526. *S. lateriflora* L. Damp ground along streams; common.
527. *S. parvula* Michx. Dry prairies and woods; common.

528. *S.^ggalericulata* L. Wet ground; frequent.

AGASTACHE.

529. *A. scrophulariæfolia* (Willd.) Kuntze. (*Lophanthus scrophulariæfolius* Benth.) Common in woods.

NEPETA.

530. *N. cataria* L. Waste ground and open woods; common.

GLECOMA.

531. *G. hederacea* L. (*Nepeta glechoma* Benth.) Moist ground along streams and about houses; common.

PRUNELLA.

532. *P. vulgaris* L. Damp ground everywhere.

PHYSOSTEGIA.

533. *P. virginiana* (L.) Benth. Wet, ground; common.

LEONURUS.

534. *L. cardiaca* L. Waste ground and open woods; common.

STACHYS.

535. *S. palustris* L. Damp ground; abundant.

MONARDA.

536. *M. fistulosa* L. Meadows and open woods; abundant.

HEDEOMA.

537. *H. pulegioides* (L.) Pers. Dry woods; frequent.

538. *H. hispida* Pursh. Abundant on dry prairies.

KÆLLIA.

539. *K. virginiana* (L.) MacM. (*Pycnanthemum lanceolatum* Pursh). Moist meadows, or sometimes in dry ground; abundant.

LYCOPUS.

540. *L. virginicus* L. Wet ground; frequent.

541. *L. americanus* Muhl. (*L. sinuatus* Ell.) Wet ground; abundant.

MENTHA.

542. *M. canadensis* L. Damp ground; abundant.

SOLANACEÆ.

PHYSALIS.

543. *P. virginiana* Mill. (*P. lanceolata* Michx.) Fields and waste ground; abundant.
544. *P. heterophylla* Nees. (*P. virginiana* Gray.) Abundant in cultivated ground.

SOLANUM.

545. *S. nigrum* L. Abundant in cultivated ground.
546. *S. rostratum* Dunal. Locally a troublesome weed, but not generally distributed.

DATURA.

547. *D. stramonium* L. Rich ground, especially about buildings; frequent.
548. *D. tatula* L. With the preceding.

SCROPHULARIACEÆ.

VERBASCUM.

549. *V. thapsus* L. Dry, open woods and pastures; abundant.

LINARIA.

550. *L. linaria* (L.) Karst. (*L. vulgaris* Mill.) In streets and about houses; locally abundant.

SCROPHULARIA.

551. *S. marylandica* L. (*S. nodosa marylandica* Gray.) Waste ground and along streams; common.
552. *S. leporella* Bick. With the preceding. It seems difficult to separate these two forms.

CHELONE.

553. *C. glabra* L. Swampy ground; frequent.

PENTSTEMON.

554. *P. grandiflorus* Nutt. Dry, sandy ground; rare.

MIMULUS.

555. *M. ringens* L. Wet ground; abundant.

556. *M. jamesii* T. & G. In seepage springs along the Iowa river; scarce.

GRATIOLA.

557. *G. virginiana* L. Wet ground; frequent.

ILYSANTHES.

558. *I. attenuata* (Muhl.) Small. Muddy ground, about ponds and swamps; common.

VERONICA.

559. *V. anagallis-aquatica* L. (*V. anagallis* L.) Frequent in streams and on muddy shores.
560. *V. serpyllifolia* L. Moist ground; scarce.
561. *V. peregrina* L. Moist fields and waste ground; abundant.

LEPTANDRA.

562. *L. virginica* (L.) Nutt. (*Veronica virginica* L.) Meadows and borders of woods; common.

GERARDIA.

563. *G. aspera* Dougl. Moist prairies; frequent.
564. *G. tenuifolia* Vahl. Dry ground; common.
565. *G. besseyana* Brit. (*G. tenuifolia macrophylla* Benth.) With the preceding, but often on low ground; common.
566. *G. auriculata* Michx. Wet meadows; common.

CASTILLEJA.

567. *C. coccinea* (L.) Spreng. Open woods and meadows, dry or wet ground; frequent. The yellow phase, which is by far the more plentiful, seems always to occur in low meadows, the red on dry, semi-wooded hills; no intermediate form has been noted.

568. *C. sessiliflora* Pursh. Frequent in low prairies.

PEDICULARIS.

569. *P. lanceolata* Michx. Wet meadows; common.
570. *P. canadensis* L. Meadows and wooded slopes; common.

LENTIBULARIACEÆ.

UTRICULARIA.

571. *U. vulgaris* L. Swamps and ponds; common.

PHRYMACEÆ.

PHRYMA.

572. *P. leptostachya* L. Woods and thickets; common.

PLANTAGINACEÆ.

PLANTAGO.

573. *P. major* L. Abundant everywhere.
574. *P. rugelii* Dec. Abundant.
575. *P. lanceolata* L. Local but rapidly spreading.
576. *P. purshii* R. & S. (*P. patagonica gnaphaloides* Gray.) Sandy ground; infrequent.

RUBIACEÆ.

HOUSTONIA.

577. *H. minima* Beck. Local. Several years ago it suddenly appeared in abundance on a dry hill at Iowa Falls, but after two or three seasons vanished as suddenly.

CEPHALANTHUS.

578. *C. occidentalis* L. Swampy thickets; infrequent.

GALIUM.

579. *G. aparine* L. Damp woods; common.
580. *G. boreale* L. Dry, stony ground, mostly on river banks, or sometimes in meadows; locally very abundant.
581. *G. triflorum* Michx. Moist woods; frequent.
582. *G. palustre* L. Common in damp meadows.
583. *G. concinnum* T. & G. Abundant in dry woods.

CAPRIFOLIACEÆ.

SAMBUCUS.

584. *S. canadensis* L. Common in thickets.

VIBURNUM.

585. *V. dentatum* L. Dry thickets; frequent.
586. *V. lentago* L. Frequent in thickets.

TRIOSTEUM.

587. *T. perfoliatum* L. Open woods; common.

SYMPHORICARPOS.

588. *S. occidentalis* Hook. Stony ground in thickets; infrequent.

LONICERA.

589. *L. dioica* L. (*L. glauca* Hill). High rocky banks of streams; common.
590. *L. sullivantii* Gray. Frequent in thickets.

CUCURBITACEÆ.

MICRAMPELIS.

591. *M. lobata* (Michx.) Greene. (*Echinocystis lobata* T. & G.) Moist thickets along streams; abundant.

CAMPANULACEÆ.

COMPANULA.

592. *C. rotundifolia* L. Crevices of perpendicular rocks overhanging streams; common.
593. *C. aparinoides* Pursh. Wet meadows and bogs; frequent.
594. *C. americana* L. Moist woods; common.

LEGOUZIA.

595. *L. perfoliata* (L.) Brit. (*Specularia perfoliata* A. D C.) Dry woods; common.

LOBELIA.

596. *L. cardinalis* L. Swampy ground in woods and thickets; scarce.
597. *L. syphilitica* L. Damp ground in meadows and along streams; common.
598. *L. spicata* Lam. Mostly in dry, open ground, sometimes in moist meadows; common.

CICHORIACEÆ.

TRAGOPOGON.

599. *T. pratensis* L. Waste ground; frequent.

TARAXACUM.

600. *T. taraxacum* (L.) Karst. (*T. officinale* Weber.)
Abundant everywhere.
601. *T. erythrospermum* Andrz. With the preceding.

SONCHUS.

602. *S. oleraceus* L. Frequent in waste ground.
603. *S. asper* (L.) All. With the preceding, but more
common.

LACTUCA.

604. *L. scariola* L. Nearly everywhere in cultivated
and waste ground.
605. *L. canadensis* L. Thickets and fields; common.
606. *L. hirsuta* Muhl. Fields and waste ground; com-
mon.

HIERACIUM.

607. *H. canadense* Michx. Dry banks and woods or
along streams; common.

NABALUS.

608. *N. albus* (L.) Hook. (*Prenanthes alba* L.) Woods
and thickets; common.
609. *N. asper* (Michx.) T. and G. (*P. aspera* Michx.)
meadows; frequent.
610. *N. racemosus* (Michx.) DC. (*P. racemosa* Michx.)
Moist ground in meadows and along railroads;
infrequent. Our specimens are very large,
eight or nine feet high, with the upper stem,
pedicels and bracts shaggy, hirsute, and the lower
leaves sessile or nearly so and deeply pinnatifid.

AMBROSIACEÆ.

AMBROSIA.

611. *A. trifida* L. Moist fields and roadsides; too
abundant.
612. *A. artemisiæfolia* L. Fields and waste ground;
abundant.
613. *A. psilostachya* D C. With the preceding, but
scarce.

XANTHIUM.

- 614 *X. canadense* Mill. Moist fields and along streams; abundant.

COMPOSITÆ.

VERNONIA.

615. *V. fasciculata* Michx. Damp ground; abundant.

EUPATORIUM.

616. *E. maculatum* L. Bogs and wet meadows; common.
617. *E. purpureum* L. Moist woods; common.
618. *E. altissimum* L. Dry, open ground; common.
619. *E. perfoliatum* L. Wet ground; abundant.
620. *E. ageratoides* L. f. Woods; abundant.

KUHNTIA.

621. *K. eupatorioides* L. Dry, open ground; abundant

LACINARIA.

622. *L. cylindracea* (Michx.) Kuntze. (*Liatris cylindracea* Michx.) Dry, open ground; common.
623. *L. pycnostachya* (Michx.) Kuntze. (*Liatris pycnostachya* Michx.) Moist meadows; common.
624. *L. scariosa* (L.) Hill. (*Liatris scariosa* Willd.) Dry prairies. Common.

GRINDELIA.

625. *G. squarrosa* (Pursh.) Dunal. Dry hills; scarce.

SOLIDAGO.

626. *S. flexicaulis* L. (*S. latifolia* L.) Stony banks in woods; common.
627. *S. rigidiuscula* (T. & G.) Port. (*S. speciosa angustata* Gray.) Dry, open ground; frequent.
628. *S. ulmifolia* Muhl. Common in woods.
629. *S. serotina* Ait. Moist or sometimes dry ground; abundant.
630. *S. serotina gigantea* Gray. Thickets; scarce.
631. *S. missouriensis* Nutt. Dry, open ground; frequent;
632. *S. gattinger* Chapm. On dry river bank near Iowa Falls.

633. *S. canadensis* L. Open ground; very abundant.
 634. *S. nemoralis* Ait. Dry, open ground; abundant.
 A strongly marked variety with stems a foot long or less, spreading or nearly prostrate, and inflorescence large in proportion, is common in stony or sterile ground on dry hills; it appears to approach the variety *arenicola* Burgess.
 635. *S. rigida* L. Dry ground; abundant.
 636. *S. riddellii* Frank. Wet meadows; frequent.

EUTHAMIA.

637. *E. graminifolia* (L.) Nutt. (*Solidago lanceolata* L.)
 Meadows and roadsides; common.

BOLTONIA.

638. *B. asteroides* (L.) L'Her. Common in swamps.

ASTER.

639. *A. azureus* Lindl. Dry, open ground, or sometimes in moist meadows; common.
 640. *A. cordifolius* L. Woods; abundant.
 641. *A. patens* Ait. Dry, open ground; common.
 642. *A. novæ-angliæ* L. Along streams and roadsides; common.
 643. *A. lævis* L. Dry, open ground; common.
 644. *A. sericeus* Vent. Dry, open ground; frequent.
 645. *A. salicifolius* Lam. Along streams; frequent.
 646. *A. paniculatus* Lam. Moist ground along streams; common.
 647. *A. paniculatus bellidiflorus* (Willd.) Burgess. With the type.
 648. *A. lateriflorus* (L.) Brit. (*A. diffusus* Ait.) Damp, shady or open ground; abundant. Numerous forms occur, probably representing several of the described varieties.
 649. *A. multiflorus* Ait. Dry, open ground; abundant.

ERIGERON.

650. *E. philadelphicus* L. River banks; common.
 651. *E. annuus* (L.) Pers. Fields and open woods; abundant.

652. *E. ramosus* (Walt.) B. S. P. (*E. strigosus* Muhl.)
With the preceding.

LEPTILON.

653. *L. canadense* (L.) Brit. (*Erigeron canadensis* L.)
Abundant in fields and waste ground.
654. *L. divaricatum* (Michx.) Raf. (*E. divaricatus* Michx.)
Sandy ground; common, locally.

DÆLLINGERIA.

655. *D. umbellata* (Mill.) Nees. (*Aster umbellatus* Mill.)
Swampy ground; frequent.

ANTENNARIA.

656. *A. plantaginifolia* (L.) Rich. Dry prairies; abundant.

POLYMNIA.

657. *P. canadensis* L. Damp woods; scarce.

SILPHIUM.

658. *S. perfoliatum* L. Along streams and in thickets;
common.
659. *S. integrifolium* Michx. Roadsides; infrequent.
660. *S. laciniatum* L. Prairies; common.

PARTHENIUM.

661. *P. integrifolium* L. Meadows; common.

HELIOPSIS.

662. *H. scabra* Dunal. Roadsides and thickets; abundant.

RUDBECKIA.

663. *R. triloba* L. Woods and thickets; common.
664. *R. subtomentosa* Pursh. Along streams; infrequent.
665. *R. hirta* L. Open woods and meadows; abundant.
666. *R. laciniata* L. Damp ground along streams; common.

RATIBIDA.

667. *R. pinnata* (Vent.) Barnh. (*Lepachys pinnata* T. & G.)
Dry prairies and roadsides; abundant.
668. *R. columnaris* (Sims) D. Don. (*L. columnaris* T. & G.)
With the preceding, but rare.

BRAUNERIA.

669. *B. pallida* (Nutt.) Brit. (*Echinacea angustifolia* D C.) Dry, open ground; common.

HELIANTHUS.

670. *H. annuus* L. Occasionally escaped.
671. *H. petiolaris* Nutt. Waste ground; rare.
672. *H. scaberrimus* Ell. (*H. rigidus* Desf.) Prairies and roadsides; abundant.
673. *H. grosse-serratus* Martens. Moist meadows and fields; common.
674. *H. strumosus* L. Dry banks and thickets; abundant.
675. *H. tuberosus* L. Borders of fields and woods; common.

COREOPSIS.

676. *C. tinctoria* Nutt. Near railroads; scarce.
677. *C. palmata* Nutt. Dry banks and prairies; common.

BIDENS.

678. *B. laevis* (L.) B. S. P. (*B. chrysanthemoides* Michx.) About swamps and along streams; abundant.
679. *B. connata* Muhl. With the preceding; common.
680. *B. frondosa* L. Moist, cultivated or waste ground; abundant.
681. *B. trichosperma* (Michx.) Brit. var. *tenuiloba* (Gray) Brit. (*Coreopsis trichosperma* Michx. var. *tenuiloba* Gray). Swampy meadows; locally, abundant.

HELENIUM.

682. *H. autumnale* L. Wet meadows and along streams; abundant.
683. *H. tenuifolium* Nutt. One specimen, in moist, sandy ground.

DYSODIA.

684. *D. papposa* (Nutt.) Hitch. Roadsides; not generally distributed.

ACHILLEA.

685. *A. millefolium* L. Prairies and pastures; abundant.

ANTHEMIS.

686. *A. cotula* L. Waste ground about buildings; abundant.

CHRYSANTHEMUM.

687. *C. leucanthemum* L. Waste ground; rare.

TANACETUM.

688. *T. vulgare* L. Sometimes escaped to roadsides.

ARTEMISIA.

689. *A. caudata* Michx. Dry, sandy or rocky soil common.
690. *A. dracunculoides* Pursh. Waste, sandy ground one specimen.
691. *A. biennis* Willd. Waste ground, especially about houses; common.
692. *A. serrata* Nutt. Borders of fields and meadows; common.
693. *A. gnaphalodes* Nutt. (*A. ludoviciana* Nutt.) Prairies; common.

ERECHTITES.

694. *E. hieracifolia* (L.) Raf. Woods; abundant locally.

MESADENIA.

695. *M. atriplicifolia* (L.) Raf. (*Cacalia atriplicifolia* L.) Moist woods; scarce.
696. *M. tuberosa* (Nutt.) Brit. (*C. tuberosa* Nutt.) Moist or sometimes dry open ground; common.

SENECIO.

697. *S. aureus* L. Wet meadows or dry, sterile hills; common.
698. *S. palustris* (L.) Hook. Swamps and wet fields; frequent.

ARCTIUM.

699. *A. lappa* L. Abundant; especially about houses.

CARDUUS.

700. *C. lanceolatus* L. (*Cnicus lanceolatus* Hoffm.)
Abundant in open ground.
701. *C. altissimus* L. (*C. altissimus* Willd.) Fields and
roadsides; common.
702. *C. canescens canescens* Nutt. (*C. undulatus* var.
canescens Gr.
703. *C. discolor* (Muhl.) Nutt. (*C. altissimus discolor*
Gray.) With the preceding; common.
704. *C. arvensis* L. (*C. arvensis* Hoffm.) Becoming
quite common.