

1948

## Preliminary Report on the Flora of Southeastern Iowa-Part II.

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### Recommended Citation

Gilly, Charles L. and McDonald, Malcolm E. (1948) "Preliminary Report on the Flora of Southeastern Iowa-Part II.," *Proceedings of the Iowa Academy of Science*, 55(1), 115-133.

Available at: <https://scholarworks.uni.edu/pias/vol55/iss1/17>

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## Preliminary Report on the Flora of Southeastern Iowa—Part II.

CHARLES L. GILLY AND MALCOLM E. McDONALD

This paper completes a consideration of the southeastern Iowa specimens in the herbarium of the Parsons College Biology Department. As mentioned in the introductory paragraphs of Part I (Gilly and McDonald 1948), the majority of these specimens were collected by the authors during the years 1933 to 1937; additional collections were made in Jefferson County during the summer of 1946. The Pteridophytes, the single Gymnosperm, the Monocotyledons and the apetalous and polypetalous Dicotyledons were discussed in Part I of this paper. In this second part, a total of 288 species and well-marked varieties of gamopetalous Dicotyledons, representing the families Monotropaceae to Cichoriaceae inclusive, are included. An additional Monocotyledon and eight apetalous or polypetalous Dicotyledons, omitted from Part I, are also included. This brings the number of species and varieties listed in the two parts of this paper to a total of 885; these are distributed among 111 families. Introduced weeds, waifs, and plants escaped from cultivation number 162 (or 18.3% of the total). Specimens from Jefferson County represent 821 species or varieties, and those from Van Buren County represent 314 entries.<sup>1/</sup> A smaller number of species or varieties is also listed for each of six other southeastern Iowa counties, as follows: Davis, 24; Des Moines, 54; Henry, 39; Lee, 13; Wapello, 6; and Washington, 2.

The nomenclature used in both parts of this paper is essentially in agreement with that used in Deam's "Flora of Indiana" (1940) and Jones' "Flora of Illinois" (1945); a few changes of names for species or varieties were necessitated by more recent monographic studies. No attempt has been made to include full synonymy for any species; such synonyms as are included, within brackets, are those names appearing in Cratty's "The Iowa Flora" (1933) or the 7th edition of "Gray's New Manual of Botany" (Robinson and Fernald 1908), when these differ from the names used in the present paper. It is of interest to note that 159 (or 17.9%) of the 885 scientific names used in the two parts of this paper are different from those used for the same species or varieties in the 7th edition of "Gray's New Manual of Botany." Names of the species or varieties which have been introduced as weeds or which have escaped from cultivation are printed in capital letters; names of native species and varieties are printed in italics.

Two additional entities, one species and one hybrid, are reported apparently for the first time in Iowa; these are indicated by means

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<sup>1/</sup> The number of species and varieties listed for each of the eight southeastern Iowa counties mentioned here is an indication of the amount of collecting by the authors in each county, and not an indication of the diversity of the flora in these counties.

of an asterisk in the list below and in the Annotated List of Species and Varieties. Together with the nine new reports included in Part I of this paper, and the new reports in previous publications, these three entities increase the list of species and varieties first reported for Iowa from the Parsons College collections to a total of 23 as follows:

1. *Marsilea quadrifolia* L. (1948).<sup>2/</sup>
2. *Carex crinita* Lam. (1938; on the specimens cited (number 278), however, is *C. lasiocarpa* var. *latifolia* (Böckl.) Gilly.
3. *Carex lurida* Wahl. (1938).
4. *Eleocharis atropurpurea* (Retz.) Kunth (Gilly 1946, although not specifically indicated as a new report).
5. *Lemna minima* Phillipi (1948).
6. *Juncus interior* Wieg. (1938).
7.  $\times$ *Quercus leana* Nutt. (McDonald 1938b, although not specifically indicated as a new report).
- \*8.  $\times$ *Quercus runcinata* Engelm.
9. *Celtis laevigata* Willd. (1948).
10. *Humulus japonicus* Sieb. & Zucc. (1948).
11. *Rumex triangulivalvis* (Danser) Rech. f. (1948).
12. *Lespedeza stipulacea* Maxim. (1948).
13. *Linum medium* (Planch.) Britt. (1938).
14. *Viola fimbriatula* Sm. (1938).
15. *Ludwigia palustris* (L.) Ell. (1948).
16. *Oenothera pilosella* Raf. (1948).
17. *Eulophus americanus* Nutt. (1948).
18. *Convolvulus fraterniflorus* (Mackenz. & Buch) Mackenz. & Bush (1938), as *C. sepium* var. *fraterniflorus* Mackenz. & Bush).
- \*19. *Penstemon tubaeiflorus* Nutt.
20. *Ruellia strepens* var. *cleistantha* A. Gray (1938).
21. *Plantago arenaria* W. & K. (1938).
22. *Iva ciliata* Willd. (1938, although not specifically indicated as a new report).
23.  $\times$ *Veronia illinoensis* Gleason (1938).

A number of other reports of plants allegedly new for Iowa were included in a preliminary paper by Gilly and McDonald (1938); these for the most part should be excluded from the state flora, since they may be disposed of in three categories as follows:

A. BASED ON MISIDENTIFICATIONS: *Cyperus engelmanni* (= *C. strigosus*); *Cyperus refractus* (= *C. esculetus*); *Eleocharis olivacea* (= *E. atropurpurea*); *Scirpus subterminalis* (= *S. americanus*); *Quercus heterophylla* (=  $\times$  *Q. leana*); *Urtica dioica* (= *U. procera*); *Melilotus indica* (= *M. officinalis*); *Euphorbia dictyosperma* (= *Tithymalus obtusatus*); *Elatine triandra* (= *Dianthera americana*).

<sup>2/</sup> Unless otherwise indicated, these reports first appeared in papers published by Gilly and McDonald (1938, 1948) and the date only is given in parentheses after the name of the species.

B. PREVIOUSLY REPORTED: *Strophostyles pauciflora*, first reported by Cratty (1933), is *S. leiosperma* of the present paper; *Aesculus octandra* was reported by Shimek (1896) and, as *Ae. flava*, by Lindly (1905).

C. MINOR VARIANTS, NOT WORTHY OF NOMENCLATORIAL RECOGNITION: *Cyperus erythrorhizos* var. *pumilus*; *C. strigosus* var. *capitatus*; *C. strigosus* var. *compositus*; *C. strigosus* var. *robustior*; *C. filiculmis* var. *macilentus*. For a discussion of these, see a recent paper by Gilly (1946).

In the preparation of Part I of this paper, a few entities were unintentionally omitted; these are listed here in taxonomic sequence:<sup>2/</sup>

11. GRAMINEAE

*HORDEUM VULGARE* L. (J—475, 1806; spontaneous after cultivation).

12. CYPERACEAE

*Scirpus fluviatilis* (Torr.) A. Gray (J—4000).

26. FAGACEAE

*Quercus palustris* Muenchh. (J—3371).

\*×*Q. runcinata* Engelm. [*Q. borealis* × *Q. imbicaria*] (J—3000).

This is apparently the first report of this hybrid oak in Iowa; the specimen came from a tree in the NE¼ of Sec. 19, T71N, R11W.

42. RANUNCULACEAE

*Ranunculus caricetorum* Greene (J—281, 1515).

47. CRUCIFERAE

*Cardamine arenicola* Britt. [*C. parviflora* of authors, in part, not of L.] (L—1764; J—256, 352, 1653, 2488).

*C. pennsylvanica* Muhl. (J—1642, 2466).

NOTE: Reports of *Cardamine douglasii* and *Radicula obtusa* for Jefferson county (Gilly 1938b) were based on misidentifications of specimens of *C. pennsylvanica* and *R. sessiliflora*.

54. LEGUMINOSAE

*Tephrosia virginiana* (L.) Pers., var. *holosericea* (Nutt.) T. & G. (J—155).

77. ONAGRACEAE

*Ludwigia polycarpa* Short & Peter (J—923, 2464).

80. UMBELLIFERAE

*Zizia aurea* (L.) Koch. (J—38, 150, 480, 768, 1534, 1787; V—2000).

A few references, in which the correct names for certain species

<sup>2/</sup> In the supplementary lists of specimens, as well as in the Annotated List of gamopetalous Dicotyledons, the following letters are used to indicate counties in which specimens were collected: (D) Davis, (DM) Des Moines, (H) Henry, (J) Jefferson, (L) Lee, (V) Van Buren, (W) Wapello, and (WS) Washington. The individual specimens from each county are cited by collection number, regardless of whether collected by one or the other, or both, of the authors. Duplicates of many of the specimens cited in this paper have been deposited in the herbarium of the Iowa State College Department of Botany.

included in Part I are discussed, were accidentally overlooked. In addition, new evidence has been received with regard to *Arisaema*, and other publications have appeared after Part I was in press. The following eight changes in the scientific names of species are, therefore, necessary:

3. POLYPODIACEAE—*Lastrea hexagonoptera* (Michx.) Nieuwl. [*Dryopteris hexagonoptera* (Michx.) C. Chr.; *Phegopteris hexagonoptera* (Michx.) Feé]. In a very stimulating volume, Copeland (1947) has recently presented a revisionary treatment of the ferns of the world. It is of interest, in addition to the name change noted here, to find that he divides the polymorphic family Polypodiaceae into twelve separate families; four of these, the Pteridaceae, Aspidiaceae, Aspleniaceae and the Polypodiaceae (in the restricted sense), occur in Iowa.
13. ARACEAE—*Arisaema triphyllum* (L.) Schott. [incl. *A. atrovirens* (Ait.) Blume]. Recent information, received in a private communication from Mr. Stanley Smith, indicates that Fernald (1940a) was in error when rearranging names in the genus *Arisaema*.
15. COMMELINACEAE—*Tradescantia ohioensis* Raf. [*T. canaliculata* Raf.; *T. reflexa* Raf., in part]. Fernald (1944) has shown that *T. canaliculata* is not the earliest name for this species.
27. ULMACEAE—*Celtis occidentalis* L. [*C. crassifolia* Lam.; *C. occidentalis* var. *crassifolia* (Lam.) A. Gray]. Fernald and Schubert (1948), in a report on the type specimens of Linnaean species, have clarified the problem of the proper name for this species.
34. AMARANTHACEAE—*Amaranthus albus* L. [*A. graecizans* of authors, not of L.] (J—1243, 2020, 2054); and *Amaranthus albus* *A. graecizans* L. [incl. *A. blitoides* S. Wats.] (J—111, 1944). Fernald (1945) has discussed the previous misapplication of names to these two weedy species.
53. ROSACEAE—*Aruncus dioicus* (Walt.) Fern. [*A. sylvester* of authors, not of Kostel.]. Fernald (1939) has shown that the true *A. sylvester* Kostel., a species of Eurasia, is distinct from our American species.
68. BALSAMINACEAE—*Impatiens capinsis* Meerb. [*I. biflora* Walt.] Fernald and Schubert (1948) have discussed this necessary change of name.

A few additional literature references, pertinent to the discussion of a few families or genera included in Part I of this paper, also were omitted; they are: CHENOPODIACEAE—Aellen and Just (1943); CRUCIFERAE—Wheeler (1938), with particular reference to *Brassica kaber*; LEGUMINOSAE—Isely (1948), with particular reference to *Lespedeza stipulacea*; EUPHORBIACEAE—Murley (1945); ONAGRACEAE—Bartlett (1913), with particular reference to *Oenothera pycnocarpa*; and UMBELLIFERAE—Murley (1946).

Certain specimens, which were not available at the time Part I

of this paper was prepared<sup>4/</sup> or which presented some difficulties of identification and which represent additional county reports, are listed below:

11. GRAMINEAE: *Eragrostis cilianensis* (D—3131); *Paspalum ciliatifolium* var. *stramineum* (V—4002); *Setaria viridis* (D—3135).
12. CYPERACEAE: *Eleocharis tenuis* (V—4004).
14. LEMNACEAE: *Wolffia punctata* (L—2444).
18. LILIACEAE: *Smilacina racemosa* (D—3133).
26. FAGACEAE: *Quercus alba* (D—3147); *Q. imbricaria* (D—3144); *Q. velutina* (H—3038).
28. MORACEAE: *Cannabis sativa* (H—3999).
31. ARISTOLOCHACEAE: *Asarum reflexum* (D—3134).
42. RANUNCULACEAE: *Anemone virginiana* (D—3140).
47. CRUCIFERAE: *Lepidium virginicum* (L—1765).
52. PLATANACEAE: *Platanus occidentalis* (J—183).
53. ROSACEAE: *Malus ioensis* (D—3132); *Prunus americana* (V—833); *Rosa suffulta* (V—1574).
54. LEGUMINOSAE: *Amphicarpa bracteota* var. *comosa* (V—2664); *Cassia marilandica* (D—3143); *Gymnocladus dioica* (V—3387); *Lespedeza capitata* var. *stenophylla* (V—1364); *Petalostemum candidum* (J—1365).
55. GERANIACEAE: *Geranium maculatum* (D—3148).
64. CELASTRACEAE: *Euonymus atropurpureus* (D—3151).
75. VIOLACEAE: *Viola cucullata* (D—3145).

Frequently it is difficult to determine whether a given species is native to a particular region or whether it is a well-established adventive; in some cases it seems doubtful whether a definite decision can be made. Nevertheless, the following species, listed in Part I as native to southeastern Iowa, should be more properly considered as introductions from other areas: *Cerastium viscosum* (p. 118), *Froehlichia gracilis* (p. 118), *Lepidium densiflorum* (p. 120), *Ribes odoratum* (p. 120) and *Salsola pestifer* (p. 118). Similarly, the following species, indicated as introduced plants in Part I, should be considered instead as indigenous to southeastern Iowa: *Acorus calamus* (p. 114), *Amaranthus albus* (as *A. graecizans*, p. 118), *Amaranthus graecizans* (as *A. blitoides*, p. 118), *Echinochloa pungens* (p. 111), *Oenothera pycnocarpa* (p. 125), *Populus deltoides* (p. 115), and *Polygonum dumetorum* (p. 117). The total number and the percentage of introduced plants, as given on page 115 of the present paper, have been corrected to correspond with the changes listed in this paragraph.

The following minor corrections for Part I, should also be noted: Page 107, line 3: MALCOLM, not MALCOM; line 44: Keokuk Co. total should be 271, not 171.

Page 108, lines 5 and 6: Gilly (1938a, 1938b), not (1937, 1938); Gilly and McDonald (1938), not 1937; McDonald 1938a, 1938b,

<sup>4/</sup> These include, among others, a collection of 24 specimens from northeastern Davis County, collected by Mr. W. D. Klimstra and presented to the Parsons College herbarium.

- not 1938); lines 6 and 7: specimens, not speciments; line 47: 106, not 108 (see corrections listed in paragraph above).  
 PAGE 111, line 7: (1938), not 1937); line 11: *hyemalis*, not *hyenalis*; line 43: *villosus*, not *Villosus*.  
 Page 112, line 12: V, not J (as county designation); line 13: 1938), not (1937; line 23: (1938), not (1937); line 39: 1938), not (1937).  
 Page 115, line 15: V, not J (as county designation).  
 Page 116, line 15: but, not put; line 52: V—2009, not 2009.  
 Page 117, line 30: *lapathifolium*, not *lapothifolium*; line 54: *Polygonum*, not Polygonum.  
 Page 120, line 10: specimen 1766 should be recorded as "L—1766."  
 Page 121, line 4: (1938), not (1937); line 34: Greene, not *Green*.  
 Page 122, line 6: *bracteosum*, not *braceosum*; line 8: 2751, not 2754; line 19: V—1974, 3387, not J—1974; line 21: 3810, not 3310; line 38: (1938), not (1937).  
 Page 123, line 43: (1938), not (1937).

Acknowledgements of courtesies and cooperation have been made in Part I of this paper. The authors, however, again wish to express their thanks to Dr. Floyd W. Von Ohlen, Head of the Parsons College Biology Department, for his permission to move the entire Parsons College herbarium to Ames for study. They also wish to acknowledge the assistance of several other persons in the identification of specimens of certain families or genera. These include: Mr. Louis N. Bass (Labiatae); Dr. Duane Isely (the genus *Cirsium*); Mr. Judson U. Maguire (the genus *Solidago*); Mr. D. D. Millspaugh (the genus *Ruellia*); Miss Margaret Murley (Apocynaceade); and Dr. Lloyd H. Shinnars (the genus *Aster*). All other plants have been checked or identified by the senior author.

#### ANNOTATED LIST OF SPECIES AND VARIETIES

##### Dicotyledonae — Gamopetalae

82. MONOTROPACEAE (Indian-pipe Family)  
*Monotropa uniflora* L. (J—3050; V—2843).
83. PRIMULACEAE (Primrose Family)  
*Androsace occidentalis* Pursh (J—1780, 2468; V—3522).  
*Lysimachia ciliata* L. [*Steironema ciliatum* (L.) Raf.] (J—610, 728, 3957; V—766).  
*L. lanceolata* Walt. [*Steironema lanceolatum* (Walt.) A. Gray] (J—1011, 2766, 3803).  
*L. NUMMULARIA* L. (J—2605).  
*L. terrestris* (L.) B.S.P. (J—2600).
84. OLEACEAE (Olive Family)  
*Fraxinus americana* L. (H—2969; J—167, 247, 1060, 2679).  
*F. lanceolata* Borkh. [*F. pennsylvanica* var. *lanceolata* (Borkh.) Sarg.] (J—450, 2130, 2131).  
*F. pennsylvanica* Marsh. (J—414).

## 85. GENTIANACEAE (Gentian Family)

*Gentiana andrewsii* Griseb. (J—1119, 1276, 1281, 3100).

*G. flavida* A. Gray (J—1288, 3102, 3955).

*G. puberula* Michx. (J—1289, 3097, 3098).

86. APOCYNACEAE (Dogbane Family)<sup>5/</sup>

*Apocynum androsaemifolium* L. (J—9, 1939; V—577)

*A. cannabinum* L., var. *glaberrimum* A. DC. (J—673, 818).

× *A. medium* Greene [*A. cannabinum* × *A. androsaemifolium*; incl. *A. medium* Greene, var. *leuconeuron* (Greene) Woodson] (J—885, 2070).

*A. sibiricum* Jacq. (J—1085; V—1886).

*VINCA MINOR* L. (J—3193, escaped from cultivation).

## 87. ASCLEPIADACEAE (Milkweed Family)

*Acerates hirtella* Pennell [*A. floridana* of authors, not of (Lam.) Hitchc.] (J—840, 1089, 3851).

*Asclepias incarnata* L. (J—813, 1053, 3107).

*A. ovalifolia* Dec. (V—3750).

*A. purpurascens* L. (V—606, 608, 765).

*A. quadrifolia* Jacq. (J—11, 545, 2577, 2995; V—3744).

*A. speciosa* Torr. (J—795).

*A. sullivantii* Engelm. (J—879, 1087, 3909).

*A. syriaca* L. (J—854, 938, 1366, 1851; V—1883).

*A. tuberosa* L., subsp. *interior* Woodson (DM—932; J—613, 856, 1027, 1086, 1482).

*A. verticillata* L. (D—3142; J—855, 1026, 1249, 2103, 2888).

## 88. CONVULVULACEAE (Morning-glory Family)

*CONVOLVULUS ARVENSIS* L. (J—1943, 1962).

*C. fraterniflorus* (Mackenz. & Bush) Mackenz. & Bush [*C. sepium* L., var. *fraterniflorus* Mackenz. & Bush] (J—1856). Rare in Iowa, more common southward and westward.

*C. sepium* L., var. *communis* Tryon [*C. sepium* of authors, but not of L.; *C. sepium* var. *americanus* of authors, but probably not of Sims; *C. americanus* of authors, but probably not of (Sims) Greene] (J—731, 882, 1566, 1958). An extremely variable entity, variously treated by different authors, and perhaps not really separable from the true var. *americanus* of the east. Tryon (1939) has given us the most plausible treatment of the species and its several varieties. This variety is said to be native, and the true *C. sepium* L. of Europe is reported as an introduced weed in only a few localities in the northeastern United States and adjacent Canada.

*Cuscuta coryli* Engelm. (J—1563).

*C. gronovii* Willd. (J—2710, 3889; V—853).

*C. indecora* Choisy, var. *neuropetala* (Engelm.) Hitchc. (J—3391).

<sup>5/</sup> Specimens of this family have been checked or identified by Miss Margaret Murley who has recently discussed (1947) the Iowa representatives of the family.



The previous report of this species for Jefferson County by Gilly and McDonald (1938) was based on a misidentification of a specimen (number 2710) of *C. gronovii* Willd.

- C. pentagona* Engelm. [*C. arvensis* of authors, perhaps not of Beyrich] (J—1015, 2757).  
*C. polygonorum* Engelm. [*C. obtusiflora* of authors, not of H.B.K.] (J—2068, 2926, 3554, 3842; V—1171).  
**IPOMOEA HEDERACEA** Jacq. (J—822, 2773, 3895).  
*I. pandurata* (L.) G. F. W. Mey. (J—778, 3785, 3886; V—1995).  
*I. PURPUREA* (L.) Roth (J—2871, 3300).

89. POLEMONIACEAE (Phlox Family)

- Phlox divaricata* L. (J—87, 230, 267, 324, 684, 1450, 1519, 1535, 2041; V—192, 777, 1744).  
*P. pilosa* L. (J—550; V—3740).  
*Polemonium reptans* L. (J—8, 46, 57, 205, 253, 1428, 1449, 1520).

90. HYDROPHYLLACEAE (Waterleaf Family)

- Ellisia nyctelea* L. [*Nyctelea nyctelea* (L.) Britt.] (J—284, 350, 354, 1443, 1542, 1627, 1679).  
*Hydrophyllus appendiculatum* Michx. (D—3155; J—3053; V—776, 1706).  
*H. virginianum* L. (J—6, 401, 423, 1537).

91. BORAGINACEAE (Borage Family)<sup>9/</sup>

- CYNOGLOSSUM OFFICINALE** L. (J—214; V—775, 2661).  
*Hackelia virginiana* (L.) I. M. Johnston [*Lappula virginiana* (L.) Greene] (J—3566).  
*Lithospermum canescens* (Michx.) Lehm. (J—84, 243, 1411, 1441; V—121, 1736).  
*L. croceum* Fern. [*L. carolinense* of authors, not of (Walt.) MacM; *L. gmelini* of authors, not of (Michx.) Hitchc.] (H—2956; J—384, 3301). The leaf pubescence of specimen number 3301 is intermediate between this species and *L. canescens*.  
*L. latifolium* Michx. (V—1158, 1168, 3302).  
*Mertensia virginica* (L.) Pers. ex Link (J—13, 78, 218, 1414, 1463, 1656; V—1719, 3187).  
*Myosotis verna* Nutt. [*M. virginica* of authors, probably not of (L.) B.S.P.] (J—462, 463; V—3520).  
*Onosmodium molle* var. *occidentale* (Mackenz.) I. M. Johnston [incl. *O. molle* var. *sylvestre* Mackenz.] (V—2662). This specimen is referable to the scarcely distinct var. *sylvestre*, which may be only a series of hybrids.

92. VERBENACEAE (Verbena Family)

- Phyla lanceolata* (Michx.) Greene [*Lippia lanceolata* Michx.] (J—691, 977, 2759; V—1994).  
*Verbena bracteata* Lag. & Rodr. [*V. bracteosa* Michx.] (J—1960, 2617)

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<sup>9/</sup> The Iowa members of this family have been discussed recently by Gilly and O'Brian (1949).

- V. hastata* L. (D—3137; J—835, 957, 3790, 3977, 3989). Specimen number 957, with almost white flowers, may be a hybrid between this species and *V. urticaefolia* L.  
*V. stricta* Vent. (J—701, 1938).  
*V. urticaefolia* L. (J—887, 1559, 3766, 3789).

93. LABIATAE (Mint Family)<sup>1/</sup>

- Agastache nepetoides* (L.) Kuntze (V—1151).  
*A. scrophulariaefolia* (Willd.) Kuntze (J—2949, 3797, 3836; V—2860).  
*A. scrophulariaefolia* (Willd.) Kuntze, var. *mollis* (Fern.) Heller (J—3798).  
*Blephilia hirsuta* (Pursh) Benth. (H—555; J—1843, 1849; V—1880).  
**GLECOMA HEDERACEA** L. [*Nepeta hederacea* (L.) Trev.] (J—41, 286, 1610; V—1911, 3189).  
*Hedeoma hispida* Pursh (J—1833, 2576).  
*H. pulegioides* (L.) Pers. (J—2925; V—1195, 2834).  
*Isanthus brachiatus* (L.) B.S.P. (J—2908).  
**LEONURUS CARDIACA** L. (J—544, 1000, 1311).  
*Lycopus americanus* Muhl. (J—955, 1001, 2947).  
*L. virginicus* L. (J—1128, 3809).  
**MARRUBIUM VULGARE** L. (V—1987, escaped from cultivation).  
*Mentha arvensis* L., var. *canadensis* (L.) Briquet (J—737, 3802, 3966).  
*M. PIPERITA* L. (J—2087; naturalized, a native of Europe).  
*Monarda mollis* L. (DM—942; J—864, 2081).  
*M. punctata* L. (J—2750, 3029).  
**NEPETA CATARIA** L. (J—675, 3823).  
*Physostegia parviflora* Nutt. (J—3043).  
*P. virginiana* (L.) Benth. (J—3808, 3858, 3927; V—1136).  
*Prunella vulgaris* L. (J—883, 990, 2017, 2078; V—944).  
*P. Pycnanthemum pilosum* Nutt. (D—3154; DM—2815; J—901, 920, 1032, 3791).  
*P. tenuifolium* Schrader [*P. flexuosum* of authors, not of (Walt.) B.S.P.] (D—3153; J—1129, 2045). Fernald and Schubert (1948) have discussed the reasons for this change of name.  
*P. virginianum* (L.) Dur. & Jacks. (J—863, 1031, 1130, 1237, 3761). The report of *P. torrei* Benth. for Jefferson County by Gilly and McDonald (1938) was based on a misidentification of a specimen of this species.  
*Scutellaria galericulata* L. (J—3938).  
*S. lateriflora* L. (J—982, 1131, 3985).  
*S. leonardi* Epling (J—884).  
*S. ovata* Hill., subsp. *versicolor* (Nutt.) Epling (DM—3486; J—2627; V—774, 1910, 1978).  
*Stachys hispida* Pursh (J—3792).  
*S. palustris* L. (J—956, 1033).

<sup>1/</sup> Specimens of this family were checked or identified by Mr. Louis N. Bass, of the Iowa State College Department of Botany, who recently (1944) has discussed the Iowa members of the family.

- S. palustris* L., var. *homotricha* (L.) Fern. (J—3801, 3911).  
*S. schweinitzii* Rydb. (J—612).  
*S. tenuifolia* Willd. (J—1014, 2036, 2720, 3831, 3993; V—1157, 2830).  
*Teucrium canadense* L. (J—687, 736, 915).  
*T. occidentale* A. Gray (J—656, 865; V—1982).

## 94. SOLANACEAE (Nightshade Family)

- DATURA STRAMONIUM* L. [incl. *D. tatula* L.] (J—1277, 1278, 1332, 2753).  
*LYCIUM HALIMIFOLIUM* Mill. (J—3524).  
*Physalis heterophylla* Nees (J—432, 482, 1940, 3764; V—1879).  
*P. pubescens* L. (V—63).  
*P. subglabrata* Mackenz. & Bush (J—2889, 2898, 3401, 3431, 3765, 3815; V—2660).  
*P. virginiana* Mill. [incl. *P. lanceolata* of authors, not of Michx.] (J—7, 433, 483, 674, 1030, 1371; V—773).  
*Solanum carolinense* L. (J—862).  
*S. DULCAMARA* L. (J—897).  
*S. nigrum* L. (J—1565, 2056, 2620, 2705).  
*S. ROSTRATUM* Dunal (J—1564, 2771).

## 95. SCROPHULARIACEAE (Figwort Family)

- Aureolaria grandiflora* (Benth.) Pennell, var. *pulchra* Pennell [*Gerardia grandiflora* Benth. in part] (J—3870; V—1137).  
*Bacopa rotundifolia* (Michx.) Wettst. (J—630, 747).  
*Castilleja coccinea* (L.) Spreng. (J—39, 81, 411; V—3741).  
*Collinsia verna* Nutt. (J—1556).  
*Dasistoma macrophylla* (Nutt.) Raf. [*Seymeria macrophylla* Nutt.] (V—772).  
*Gerardia auriculata* Michx. (J—3569, 3978).  
*G. gattingeri* Small (J—3044). The report of *G. parvifolia* Chapm. for Jefferson County by Gilly and McDonald (1937) was based on a misidentification of a specimen of this species.  
*G. tenuifolia* Vahl (D—3136; J—1485, 2780, 2872, 2927, 2996, 3316, 3838; V—2836).  
*Gratiola virginiana* L. (J—499).  
*LINARIA MINOR* (L.) Desf. (J—727, 821, 2051, 3912).  
*L. VULGARIS* Hill (J—732, perhaps escaped from cultivation).  
*Lindernia anagallidea* (Michx.) Pennell [*Ilysanthes anagallidea* Michx.] (J—986, 1929, 3315).  
*L. dubia* (L.) Pennell [*Ilysanthes dubia* (L.) Barnh.] (J—1499).  
*Mimulus alatus* Ait. (J—975, 1013, 3972, 3984).  
*M. ringens* L. (J—976, 2105, 3786, 3888).  
*Pedicularis canadensis* L. (H—1779; J—143, 453, 1517; V—1298).  
*Penstemon grandiflorus* Nutt. (J—3531).  
*P. hirsutus* (L.) Willd. (J—48, 418, 527, 1797, 3311).  
*P. pallidus* Small (J—1855).  
 \**P. tubaeflorus* Nutt. (J—1351, 3312). This is, apparently, the first report of this species for Iowa.

*Scrophularia lanceolata* Pursh [*S. leporella* Bickn.] (V—3743). This is not, perhaps, really distinct from the next species.

*S. marilandica* L. (J—919, 1571, 2098, 2132; V—2835).

*VERBASCUM BLATTARIA* L. (V—680, 1980).

*V. THAPSUS* L. (J—861, 1632; V—801, 1993). Specimen 801 was white flowered.

*VERONICA ARVENSIS* L. (J—336, 2502, 2567; V—1741).

*V. peregrina* L. (J—323, 335, 353, 1683, 2481, 2546, 3278; L—1767).

*V. PERSICA* Poir. [*V. tournefortii* C. C. Gmel., but not of Schmidt] (J—2772).

*Veronicastrum virginicum* (L.) Farw. [*Veronica virginica* L.] (J—1012, 1484).

96. LENTIBULARIACEAE (Bladderwort Family)

*Utricularia vulgaris* L. (J—358, 637).

97. OROBANCHACEAE (Broomrape Family)

*Orobanche uniflora* L. (J—3200).

98. BIGNONIACEAE (Trumpet-creeper Family)

*CAMPISIS RADICANS* (L.) Seeman [*Tecoma radicans* (L.) Juss.] (J—2760).

*CATALPA SPECIOSA* Warder (J—998).

99. MARTYNIACEAE (Unicorn-plant Family)

*MARTYNIA LOUISIANICA* Mill. (J—3395; occurring as a waif).

100. ACANTHACEAE (Acanthus Family)<sup>8/</sup>

*Dianthera americana* L. (J—3049). The report of *Elatine triandra* Schkuhr for Jefferson County by Gilly and McDonald (1938) was based on a misidentification of the specimen of this species.

*Ruellia humilis* Nutt., var. *expansa* Fern. [*R. ciliosa* Pursh; *R. carolinensis* of authors, not of (Walt.) Steud.] (J—658, 706, 1496, 1508, 1956).

*R. strepens* L. (V—607, 2010).

*R. strepens* L., var. *cleistantha* A. Gray (J—1019, 2033, 3854, 3876).

101. PHRYMACEAE (Lopseed Family).

*Phryma leptostachya* L. (J—781, 2645; V—2831).

102. PLANTAGINACEAE (Plantain Family)

*PLANTAGO ARENARIA* W. & K. (J—900).

*P. aristata* Michx. (J—540, 702, 2575; V—1918).

*P. LANCEOLATA* L. (J—530, 654, 893, 1818).

*P. MAJOR* L. (J—2015, 2674, 3279).

*P. rugelii* Dcne. (J—289, 653, 1018, 3827; V—797).

*P. virginica* L. (J—486; V—341).

103. RUBIACEAE (Madder Family)

*Cephalanthus occidentalis* L. (J—928, 973, 1017, 1390, 3321).

<sup>8/</sup> Specimens of the genus *Ruellia* were identified by Mr. D. D. Mills-paugh, Department of Biology, Iowa Wesleyan College, Mt. Pleasant.

- GALIUM APARINE* L. (J—285, 443, 1539, 1688).  
*G. circaeans* Michx. (H—566; J—406; V—682, 779).  
*G. concinnum* T. & G. (DM—3480; H—554, 568; J—416, 638, 3825).  
*G. tinctorium* L. (J—355).  
*G. triflorum* Michx. (J—456, 934; V—780).

104. CAPRIFOLIACEAE (Honeysuckle Family)

- Lonicera prolifera* (Kirsch.) Rehd. [*L. sullivanii* A. Gray] (J—543, 1536; V—3747).  
*Sambucus canadensis* L. (DM—304; J—1509, 2461, 3114).  
*Symphoricarpos orbiculatus* Moench (J—1078, 1570).  
*Triosteum aurantiacum* Bickn. (J—3860; V—1705).  
*T. perfoliatum* L. (J—484, 1839).  
*Viburnum affine* Bush (J—2553, 2560, 3976; V—1725). Specimen number 2553 is the typical phase of the species, while the others apparently represent the scarcely distinct var. *hypomalacum* Blake, characterized by pubescence over most of the lower leaf surface.  
*V. lentago* L. (J—1016, 1468, 1685, 3991).  
*V. molle* Michx. (H—562; J—3880).  
*V. prunifolium* L. (J—1421).

105. CUCURBITACEAE (Gourd Family)

- Sicyos angulatus* L. (V—1196).

106. CAMPANULACEAE (Bellflower Family)

- Campanula americana* L. (DM—2823; J—1489, 2133, 2691; V—1164, 2832).  
*Triodanis perfoliata* (L.) Nieuwl. [*Specularia perfoliata* (L.) A. DC.] (J—1832, 2527, 2610). The generic status of this and related species has been discussed by McVaugh (1945, 1948) and Fernald (1946).

107. LOBELIACEAE (Lobelia Family)

- Lobelia cardinalis* L. (J—1232).  
*L. inflata* L. (J—999, 2779, 3787; V—1301, 2833).  
*L. siphilitica* L. (D—3129; DM—305; J—3846, 3990! V—1163).  
*L. spicata* Lam. (J—498, 528, 1547).

108. AMBROSIACEAE (Ragweed Family)<sup>9/</sup>

- Ambrosia coronopifolia* T. & G. [*A. psilostachya* of authors, not of DC.] (J—3033, 3115). This weedy species may have been introduced from the western part of the United States.  
*A. elatior* L. [incl. *A. artemisiifolia* L.] (J—2127, 2885, 3109; V—1998; WS—3071).  
*A. trifida* L. (J—2106, 3830, 3891; V—2859).  
*Iva ciliata* Willd. (J—1203, 2891). Apparently rare in Iowa.

<sup>9/</sup> The heterogeneous group of plants, usually placed together in a single family, the Compositae, are here considered under four headings: Ambrosiaceae, Carduaceae, Asteraceae and Cichoriaceae. The Asteraceae, perhaps, should be further subdivided.

*Xanthium commune* Britt. [*X. italicum* of authors, not of Mor.] (J—2924, 3390). This name is used with considerable doubt as to the correctness of application; the discussions of Cronquist (1945b) and Fernald (1946a) do not seem to have clarified the problems in this genus.

109. CARDUACEAE (Thistle Family)<sup>10/</sup>

*Antennaria neglecta* Green (J—49, 206, 1551, 2516, 3334; V—119).

*A. plantaginifolia* (L.) Hook. (DM—2817; J—142, 231, 282, 299, 1239, 1550, 1643, 1671, 2492, 2552, 3335; V—1305, 3190, 3191). Some of the specimens are transitional toward the var. *ambigens* (Greene) Cronquist [incl. *A. fallax* Greene], but there seems to be no clear distinction between these and the typical phase of the species; Cronquist (1945a, 1946) and Fernald (1945b) have discussed the genus with very different conclusions.

*ARCTIUM MINUS* (Hill) Bernh. (J—996, 1650, 2076).

*ARTEMISIA ANNUA* L. (H—3998; J—2983, 3577).

*A. GNAPHALODES* Nutt. [*A. ludoviciana* of authors, not of Nutt.] (J—1279, 2123, 2793). Native to western North America.

*A. VULGARIS* L. (J—3953).

*Cacalia atriplicifolia* L. (J—943, 2649, 3860).

*C. muhlenbergii* (Sch.-Bip.) Fern. [*C. reniformis* Muhl.] (J—1965; V—782).

*C. tuberosa* Nutt. (J—959, 1036, 1510).

*CENTAUREA MACULOSA* L. (J—2998). The report of *Aplopappus spinulosus* (Pursh) DC. for Jefferson County by Gilly and McDonald (1938) was based on a misidentification of this specimen.

*Cirsium altissimum* (L.) Spreng. (J—1275, 2147; V—1165).

*C. ARVENSE* (L.) Scop. (J—1044).

*C. discolor* (Muhl.) Spreng. (J—1054, 1651, 3343). Perhaps not really distinct from *C. altissimum* (L.) Spreng.

*C. VULGARE* (Savi) Airy-Shaw [*C. lanceolatum* (L.) Hill] (J—888, 1613, 2677).

*Erechtites hieracifolia* (L.) Raf. (J—1212, 2438; V—2863).

*Eupatorium altissimum* L. (J—1211, 1260, 2432, 2892, 3036, 3415; V—1153).

*E. perfoliatum* L. (J—3411, 3423, 3563).

*E. purpureum* L. (J—2134, 3814; V—2850).

*E. rugosum* Houtt. [*E. urticaefolium* Reich.] (J—3573, 3829; V—2849).

*E. serotinum* Michx. (J—2125, 2941, 3007).

*Gnaphalium obtusifolium* L. (D—3150; DM—2818; J—59, 3412; V—1302).

*Kuhnia eupatorioides* L., var. *corymbulosa* T. & G. (J—3572). The correct name for this plant has been discussed recently by Shinners (1946).

<sup>10/</sup> Specimens of the genus *Cirsium* were checked or identified by Dr. Duane Isely, of the Department of Botany, Iowa State College.

*Liatrix aspera* Michx. [*L. scariosa* of authors, not of L.] (J—1259, 1269, 2680, 2917, 2940, 3065; V—1152, 1180). Specimen number 2917 consists of portions of two plants, one of them white-flowered. The correct name for this species has been discussed recently by Gaiser (1946).

*L. pycnostachya* Michx. (J—958, 1035).

*L. squarrosa* (L.) Willd., var. *glabrata* (Rydb.) Gaiser (V—1191).

*TANACETUM VULGARE* L. (J—45, 1649; probably escaped from cultivation).

*Vernonia baldwini* Torr., var. *interior* (Small) Schubert. [*V. interior* Small] (D—3141; J—2913, 3008, 3759; V—1983). Schubert (1936) has discussed this species in detail.

*V. fasciculata* Michx. (J—1042, 1567, 2084, 2096, 2139, 2764).

× *V. illinoensis* Gleason [*V. fasciculata* × *V. missurica*] (J—2776, 3327).

*V. missurica* Raf. (V—2867, 2868).

110. ASTERACEAE (Aster Family)<sup>11/</sup>

*Achillea lanulosa* Nutt. [*A. millefolium* of authors, not of L.] (J—471, 525, 1492, 1816, 1817, 2057; V—1303, 2609).

*ANTHEMIS COTULA* L. (J—181, 676, 3339).

*Aster azureus* Lindl. (J—3078, 3094, 3407).

*A. dummondii* Lindl. (J—1252, 2430, 2975, 2986, 3331, 3414, 3416, 3426; V—1300).

*A. ericoides* L., var. *protratus* (Kuntze) Blake [*A. multiflorus* of authors, in part, not of Ait.; *A. exiguus* (Fern.) Rydb., but not *A. multiflorus* var. *exiguus* Fern.] (J—1254, 3096, 3099, 3434).

*A. laevis* L. (J—1286, 2904; V—1182, 1189).

*A. lateriflorus* (L.) Britt., var. *pendulus* (Ait.) Burgess (J—2976, 3003).

*A. lucidulus* (A. Gray) Wieg. (J—3006).

*A. novae-angliae* L. (J—1253, 2938, 3408, 3430).

*A. pilosus* Willd. [*A. ericoides* of authors, not of L.] (J—1132, 1251, 1282, 1290, 1291, 2431, 2441, 3062, 3402; V—1172).

*A. pilosus* Willd., var. *demotus* Blake (J—1283).

*A. praealtus* Poir. [*A. salicifolius* Ait., but probably not of Lam.] (J—1272, 1284, 1285, 3093, 3105, 3418, 3422).

*A. sagittifolius* Wedem. ex Willd. (J—3061; V—1370).

*Bidens aristosa* (Michx.) Britt. (J—1358).

*B. cernua* L. (J—2951, 3101).

*B. comosa* (A. Gray) Wieg. (J—2439, 2922, 2953, 2980).

*B. frondosa* L. (J—2931).

*B. polydepis* Blake *B. involocrata* of authors, not of Phil. (DM—933; J—2145, 2792, 2874, 2981; V—2861).

*B. vulgata* Greene (J—2982).

<sup>11/</sup> The specimens of *Aster* were identified by Dr. Lloyd H. Shinnors of the Department of Botany, Southern Methodist University, Dallas, Texas, and the specimens of *Solidago* were checked or identified by Mr. Judson U. Maguire, formerly of Iowa State College.

- Boltonia asteroides* (L.) L'Her., var. *recognita* (Fern. & Griscom) Cronquist [*B. asteroides* of many authors, not of (L.) L'Her.; *B. latisquama* var. *recognita* Fern. & Griscom;? incl. *B. latisquama* var. *microcephala* Fern. & Griscom] (J—1133). Fernald (1940b) and Cronquist (1947) have recently discussed this and related species.
- CHRYSANTHEMUM LEUCANTHEMUM** L. (J—609, 1963, 2592; V—599, 1889, 3340). Some of the specimens may be referable to the var. *pinnatifidum* Lecoq. & Lamotte, although there seems to be no clear separation between that variety and the typical phase of the species.
- Conyza canadensis* (L.) Cronquist [*Erigeron canadensis* L.; *Leptilon canadense* (L.) Britt.] (D—3149; J—703, 1041, 1560, 2884). Cronquist (1943) has discussed the generic status and proper names for this and the following species.
- C. ramosissima* Cronquist [*Erigeron divaricatus* Michx., not *Conyza divaricata* Spreng.; *Leptilon divaricatum* (Michx.) Raf.] (DM—3481; J—726, 3332).
- COREOPSIS GRANDIFLORA** Hogg. (J—909).
- C. palmata* Nutt. (J—616; V—591).
- C. TINCTORIA** Nutt. (J—2795). Introduced from farther west in the United States.
- C. tripteris* L. (J—1082, 2882).
- Dyssodia papposa* (Vent.) Hitchc. (J—2972).
- Echinacea pallida* (Nutt.) Britt. [*Brauneria pallida* (Nutt.) Britt.] (J—738, 2619).
- Eclipta alba* (L.) Hassk. (J—2032, 3925; W—1216).
- Erigeron annuus* (L.) Pers. (DM—3482; J—677; L—1770).
- E. philadelphicus* L. (H—553; J—130, 302; V—3333, 3739).
- E. pulchellus* Michx. (H—1778; J—420).
- E. strigosus* Muhl. [*E. ramosus* (Walt.) B.S.P., not of Raf.] (J—877, 899, 989).
- GALINSOGA CILIATA** (Raf.) Blake [*G. parviflora* Cav., var. *hispida* DC.] (J—403).
- Helenium autumnale* L. (J—47, 1280, 2440).
- HELIANTHUS ANNUUS** L. (J—868, 3943).
- H. divaricatus* L. (J—2121, 337, 3757).
- H. grosseserratus* Martens (J—871, 1049, 1262, 2942, 3406).
- H. PETIOLARIS** Nutt. (J—1101, 2146).
- H. rigidus* (Cass.) Desf. [*H. scaberrimus* Ell.] (J—1102, 1219, 3928, 3929).
- H. strumosus* L. (J—1231; V—783).
- H. tuberosus* L. (J—3338, 3355).
- Heliopsis helianthoides* (L.) Sweet [incl. *H. scabra* Dunal] (J—743, 1005, 1957, 2635, 2686, 2703, 3755, 3847; V—1154).
- Parthenium integrifolium* L. (J—873).
- RATIBIDA COLUMNIFERA** (Nutt.) Woot. & Standl. [*R. columnaris* (Sims) D. Don; *Lepachys columnaris* (Sims) T. & G.] (J—823;



- introduced, on ballast, from the western part of the United States).
- R. pinnata* (Vent.) Barnh. [*Lepachys pinnata* (Vent.) T. & G.] (J—485, 721, 869, 1045, 1557, 3892).
- Rudbeckia laciniata* L. (J—1118).
- R. serotina* Nutt. [*R. hirta* of many authors, not of L.] (J—870, 1048, 2079; V—681). Fernald and Schubert (1948) have discussed this species in detail; the true *R. hirta* L. is an eastern plant.
- R. subtomentosa* Pursh (J—1038, 2901, 3920).
- R. triloba* L. (D—3139; J—60, 2679, 3019, 3336, 3837; V—1142).
- Senecio pauperculus* Michx., var. *balsamitae* (Muhl.) Fern. [*S. balsamitae* Muhl.] (J—300, 328, 362, 1689, 1795).
- Silphium integrifolium* Michx. (J—875, 1046).
- S. laciniatum* L. (J—874, 1040, 1785).
- S. perfoliatum* L. (D—3138; J—876; V—1166, 1917).
- Solidago altissima* L. [*S. canadensis* of many Iowa authors, not of L.] (J—1256, 1268, 2148, 3019, 3432).
- S. altissima* L., var. *hargeri* (Fern.) Fern. [*S. canadensis* var. *hargeri* Fern.] (DM—308; J—3429; V—1159).
- S. flexicaulis* L. [*S. latifolia* L.] (J—3068; V—1161).
- S. gigantea* Ait. (J—2129, 3011, 3021, 3561).
- S. gigantea* Ait., var. *leiophylla* Fern. [*S. serotina* Ait., not of Retz.] (J—2877, 3020, 3405, 3930; V—1160).
- S. glaberrima* Martens [*S. missouriensis* of many authors, not of Michx.] (J—1034, 1050, 1110, 1511, 1512, 3931).
- S. graminifolia* (L.) Salisb. [*Euthamia graminifolia* (L.) Nutt.] (J—1293, 3918).
- S. gymnospermoides* Greene (J—1352, 3410).
- S. hispida* Muhl. (V—1374).
- S. nemoralis* Ait. (J—1376, 3574; V—1162, 1174, 1175).
- S. nemoralis* Ait., var. *longipetiolata* (Mackenz & Bush) Palmer & Steyererm. [*S. nemoralis* var. *decemflora* (DC.) Fern.] (J—1238, 1261, 1267, 3014, 3015, 3016, 3017, 3013, 3055, 3425, 3869; V—1173, 1190; WS—3091).
- S. rigida* L. [*Oligoneuron rigidum* (L.) Small] (J—1257, 3023).
- S. speciosa* Nutt. [incl. *S. speciosa* var. *angustata* T. & G.] (V—1176, 1181).
- S. ulmifolia* Muhl. (J—2433, 2979, 3010, 3022, 3067, 3330, 3417, 3863; V—1177, 1178, 1179).
- Verbesina alternifolia* (L.) Britt. [*Actinomeris alternifolia* (L.) DC.] (J—3983). Cronquist (1945b) has discussed the correct name for this species.
111. CICHORIACEAE (Chicory Family)
- CICHORIUM INTYBUS* L. (J—908, 1215, 2144, 2791).
- CREPIS TECTORUM* L. (J—2080).
- Hieracium longipilum* Torr. (J—2702, 3935).
- H. scabrum* Michx. (DM—2813; J—2655, 2900, 3012, 3799, 3871).
- Krigia biflora* (Walt.) Blake [*K. amplexicaulis* Nutt.] (J—26, 327, 417, 457; V—337, 1892).

- Lactuca canadensis* L. (J—1568, 2086, 2684, 2933, 3874, 3913, 3914; V—898, 2857). An extremely variable species, variously subdivided into subspecies, varieties and forms by different authors; none of the infraspecific entities appear to be constant or clearly separable.
- L. floridana* (L.) Gaertn. (J—3995; V—2856, 2858).
- L. SCARIOLA* L. (J—866, 2058).
- L. SCARIOLA* L., var. *INTEGRATA* Gren. & Godr. (J—1487, 1488, 2120). Perhaps not completely separable from the typical phase of the species.
- Prenanthes alba* L. [*Nabulus albus* (L.) Hook.] (J—1230, 3578).
- P. aspera* Michx. [*Nabulus asperus* (Michx.) T. & G.] (J—1294, 3570, 3934).
- SONCHUS ARVENSIS* L. (J—802). The specimen is referable to the doubtfully distinct var. *glabrescens* Guenth., Graeb. & Wimm.
- S. OLERACEUS* L. (J—43, 735, 1952).
- TARAXACUM LAEVIGATUM* (Willd.) DC. [*T. erythrospermum* Andr.] (J—1759, 2526).
- T. OFFICINALE* Weber [*T. vulgare* (Lam.) Scrank] (J—115, 116, 867, 2037). Fernald (1948) has given adequate reasons for continuing to use the old familiar name for this plant.
- TRAGOPOGON MAJOR* Jacq. [incl. *T. dubius* Scop.] (J—730). Shinners (1948) has recently discussed the name for this species.
- T. PORRIFOLIUS* L. (J—1809).
- T. PRATENSIS* L. (J—504).

LITERATURE CITED<sup>12/</sup>

- Aellen, P. and T. Just. 1943. Key and synopsis of the American species of the genus *Chenopodium* L. Am. Midl. Nat. 30:47-76.
- Anderson, E. 1928. The problem of species in the northern blue flags, *Iris versicolor* L. and *Iris virginica* L. Ann. Mo. Bot. Gard. 15:248-332.
- ..... and R. E. Woodson, Jr. 1935. The species of *Tradecantia* indigenous to the United States. Contr. Arnold Arb. 9:1-32.
- Bartlett, H. H. 1913. Systematic studies on *Oenothera*—III. New species from Ithaca, New York. Rhodora 15:81-85.
- Bass, L. N. 1944. The Labiatae of Iowa. Proc. Iowa Acad. Sci. 50(1943); 209-219.
- Copeland, E. B. 1947. Genera Filicum: The genera of ferns. Ann. Crypt. et Phytopath. 5:xii-xiv, 1-247. Waltham (Mass.)
- Cratty, R. I. 1933. The Iowa flora. Iowa State Coll. Jour. Sci. 7:177-252.
- Croizat, L. 1947. *Euphorbia maculata* L. Bull. Torr. Club 74:153-155.
- Cronquist, A. 1943. The separation of *Erigeron* from *Conyza*. Bull. Torr. Club 70:629-632.
- ..... 1945a. Notes on the Compositae of the northeastern United States. I. Inuleae. Rhodora 47:182-184.
- ..... 1945b. Notes on the Compositae of the northeastern United States. II. Heliantheae and Helenieae. Rhodora 47:396-403.

<sup>12/</sup> The publications cited in Part I of this paper (Gilly and McDonald 1948) are included here.

- ..... 1946. Notes on the Compositae of the northeastern United States. III. Inuleae and Senecioneae. *Rhodora* 48:116-125.
- ..... 1947. Notes on the Compositae of the northeastern United States—V. Astereae. *Bull. Torr. Club* 74:142-150.
- Deam, C. C. 1940. *Flora of Indiana*. pp. 1-1236. Indianapolis (Ind.).
- Fernald, M. L. 1939. New species, varieties and transfers. *Rhodora* 41:423-461.
- ..... 1940a. Some spermatophytes of eastern North America. *Rhodora* 42:239-276, 281-302.
- ..... 1940b. A century of additions to the flora of Virginia. *Rhodora* 42:355-416, 419-498, 503-521.
- ..... 1944. Two of Rafinesque's species of *Tradescantia*. *Rhodora* 46: 310-311.
- ..... 1945a. Botanical specialties of the Seward Forest and adjacent areas of southeastern Virginia. *Rhodora* 47:1-142, 149-182, 191-204.
- ..... 1945b. Key to *Antennaria* of the "manual range." *Rhodora* 47:221-235, 239-247.
- ..... 1946a. Technical studies on North American plants. *Rhodora* 48:5-16, 27-60, 65-81.
- ..... 1946b. Identifications and reidentifications of North American plants. *Rhodora* 48:137-162, 184-197, 207-216.
- ..... 1948. The name *Taraxacum officinale*. *Rhodora* 50:216.
- ..... and B. G. Schubert. 1948. Studies of American types in British herbaria. *Rhodora* 50:149-176, 181-208, 217-233.
- Fox, W. B. 1945. The Leguminosae of Iowa. *Am. Midl. Nat.* 34:207-230.
- Gaiser, L. O. 1946. The genus *Liatris*. *Rhodora* 48:165-183, 216-263, 273-326, 331-382, 393-412.
- Gilly, C. L. 1938a. A preliminary report on a study of floral societies in a railroad switchyard. *Proc. Iowa Acad. Sci.* 43(1936):151-156.
- ..... 1938b. A provisional list of the Cruciferae of Henry Jefferson and Van Buren Counties, Iowa. *Proc. Iowa Acad. Sci.* 44(1937):75-77.
- ..... 1946. The Cyperaceae of Iowa. *Iowa State Coll. Jour. Sci.* 21:55-151.
- ..... and M. E. McDonald. 1938a. Rare and unusual plants from southeastern Iowa. *Proc. Iowa Acad. Sci.* 43(1936):143-149.
- ..... and ..... 1948. A preliminary report on the flora of southeastern Iowa—Part I. *Proc. Iowa Acad. Sci.* 54(1947): 107-126.
- ..... and E. K. O'Brian. 1949. The family Boraginaceae in Iowa—a preliminary report. *Proc. Iowa Acad. Sci.* 55:000-000.
- Hitchcock, A. S. 1935. *Manual of the Grasses of the United States*. U. S. D. A. Misc. Publ. 200. pp. 1-1040. Washington (D. C.).
- Isely, D. 1948. *Lespedeza striata* and *L. stipulacea*. *Rhodora* 50:21-27.
- Jones, G. N. 1945. *Flora of Illinois*. *Am. Midl. Nat. Monogr.* 2. pp. 1-317. Notre Dame (Ind.).
- Lindly, J. M. 1905. Flowering plants of Henry County. *Proc. Iowa Acad. Sci.* 12:157-164.
- McDonald, M. 1938a. A study of drouth recovery, and seasonal succession in a pond (preliminary report). *Proc., Iowa Acad. Sci.* 43(1936):373-382.
- ..... 1938b. The woody plants of southeastern Iowa. *Proc. Iowa Acad. Sci.* 44(1937):65-74.
- McVaugh, R. 1945. The genus *Triodanis* Rafinesque, and its relationships to *Specularia* and *Campanula*. *Wrightia* 1:13-52.
- ..... 1948. Generic status of *Triodanis* and *Specularia*. *Rhodora* 50:38-49.

- Murley, M. R. 1945. Distribution of Euphorbiaceae in Iowa, with seed keys. Iowa State Coll. Jour. Sci. 19:415-427.
- ..... 1946. Fruit key to the Umbelliferae in Iowa, with plant distribution records. Iowa State Coll. Jour. Sci. 20:349-364.
- ..... 1947. *Apocynum* in Iowa. Iowa State Coll. Jour. Sci. 21: 229-235.
- Rickett, H. W. 1945. Cornales. N. Am. Flora 28B:297-316.
- Robinson, B. L. and M. L. Fernald. 1908. Gray's New Manual of Botany. ed. 7. pp. 1-926. New York.
- Schubert, B. G. 1936. Notes on *Vernonia*. Rhodora 38:369-372.
- Shimek, B. 1896. Notes on the flora of Iowa. Bull. Lab. Nat. Hist. (State Univ. Iowa) 3(4):195-215.
- Shinners, L. H. 1946. Revision of the genus *Kuhnia* L. Wrightia 1: 122-144.
- ..... 1948. Geographic limits of some alien weeds in Texas. Tex. Geogr. Mag. 1948:16-25.
- Svenson, H. K. 1940. Plants of southern United States. III. Woody species of *Hypericum*. Rhodora 42:8-19.
- Tryon, R. M., Jr. 1939. The varieties of *Convolvulus spithameus* and of *C. sepium*. Rhodora 41:415-423.
- Wheeler, L. C. 1938. The names of three species of *Brassica*. Rhodora 40:306-309.

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