

REVISED LIST OF INDIANA PLANT RUSTS.

BY J. C. ARTHUR.

Five years ago a list of the plant rusts of Indiana was prepared, and printed in the Proceedings for 1898, to show not only how many and what species occur within the State, but the application of the revised nomenclature, to which great attention has been directed within the last decade. At that time the writer had made little study of the basis for the generic names, but accepted largely the conclusions announced by Kuntze in his *Revisio generum plantarum*. Since the presentation of the list, two other papers have been brought before the Academy by the writer, discussing the status of the genus names *Puccinia* and *Gymnosporangium*, the only considerable points in controversy touched by the Indiana list.

In order to embody the latest conclusions and reaffirm those remaining unchanged, as well as to correct a few errors and add the species brought to light since that list was issued, the writer presents herewith a revised list of the Indiana plant rusts. It is given in the latest nomenclature to familiarize the members of the Academy with this phase of scientific movement. It is not a nomenclature that can be generally used at present, for the reason that no standard works of reference are yet available employing the accepted names. But it does not materially detract from the usefulness of a local list, like the present one, and yet gives the reader a chance to see the direction in which the new movement is leading.

The present list, like the preceding one, does not include the unattached accidia and uredo. Some thirteen of these that have been mentioned from time to time in the Proceedings of the Academy have been traced to their teleutosporic connections since the last revised list was published, and are here included as autonomous species. Besides these, eleven species of rusts have been added to the State flora, having never been reported in any form before. The hosts reported in this list for the first time are recorded by month, county and collector. The specimens, on which these data are based, are in the herbarium at Purdue University. The references after the other hosts are to the page and

year of the Proceedings of the Academy, where additional information can be found. The nomenclature for hosts is that of Britton and Brown's "Illustrated Flora of the Northern States and Canada."

The present list contains 165 species of plant rusts under sixteen genera, being an increase of more than 33 per cent. over the previous list of 1898, which contained 89 species under ten genera.

COLEOSPORIACEÆ.

1. COLEOSPORIUM SONCHII-ARVENSIS (*Pers.*) *Wint.*
On Hieracium scabrum Michx. Vigo Co., 5, 1893 (Underwood).
2. COLEOSPORIUM IPOMŒÆ (*Schw.*) *Bur.*
On Ipomœa pandurata (L.) Mey. 1896:171, 218.
3. COLEOSPORIUM SOLIDAGINIS (*Schw.*) *Thum.*
On Aster azureus Lindl. 1893:50.
On Aster cordifolius L. 1893:51.
On Aster Novæ Angliæ L. 1893:51.
On Aster paniculatus Lam. 1893:51.
On Aster puniceus L. 1893:51.
On Aster sagittifolius Willd. 1893:51.
On Aster salicifolius Lam. 1893:51.
On Aster Shortii Hook. 1893:51.
On Aster Tradescanti L. 1893:51.
On Solidago arguta Ait. 1893:51.
On Solidago caesia L. 1893:51.
On Solidago Canadensis L. 1893:51.
On Solidago flexicaulis L. (*S. latifolia* L.) 1893:51.
On Solidago patula Muhl. 1893:51.
On Solidago rugosa Mill. 1893:51.
On Solidago serotina Ait. 1893:51.
4. COLEOSPORIUM VERNONIÆ *B. & C.*
On Vernonia fasciculata Michx. 1893:51.
On Vernonia noveboracensis (L.) Willd. 1893:51.

MELAMPSORACEÆ.

5. CHRYSOMYXA ALBIDA *Kühn.* (*Coleosporium Rubi* *E. & H.*)
On Rubus cuneifolius Pursh. 1893:50.
On Rubus villosus Ait. 1893:50.

6. PUCCINIASTRUM AGRIMONLÆ (DC.) Diet. (*Crona Agrimonie* Schw.)
 On *Agrimonia hirsuta* (Muhl.) Bick. (*A. Eupatoria* Am. Auct.)
 1893:50. 1896:218.
 On *Agrimonia parviflora* Sol. 1893:50.
7. THECOPSORA HYDRANGEÆ (B. & C.) Magn. (*Uredo Hydrangeæ* B. & C.)
 On *Hydrangea arborescens* L. 1893:56. 1896:218.
8. HYALOPSORA POLYPODII (Pers.) Magn. (*Uredo Polypodii* DC.)
 On *Cystopus fragilis* (L.) Bernh. 1893:56.
9. MELAMPSORA MEDUSÆ Thuem.
 On *Populus balsamifera* L. 1893:51.
 On *Populus deltoides* Marsh. (*P. monilifera* Ait.) 1893:51.
 1896:218.
 On *Populus grandidentata* Michx. 1893:51.
 On *Populus tremuloides* Michx. 1893:51. 1898:188.
10. MELAMPSORA FARINOSA (Pers.) Schwab.
 On *Salix amygdaloides* Anders. Steuben Co., 8, 1903 (*Kellerman*).
 On *Salix cordata* Muhl. 1893:51.
 On *Salix discolor* Muhl. 1893:51. 1896:218.
 On *Salix fluviatilis* Nutt. (*S. longifolia* Muhl.) 1893:52.
 On *Salix interior* Rowl. Steuben Co., 8, 1903 (*Kellerman*).
 On *Salix nigra* Marsh. 1893:51.
11. MELAMPSORIDIUM BETULINUM (Pers.) Kleb.
 On *Betula lutea* Michx. Steuben Co., 8, 1903 (*Kellerman*).

PUCCINIACEÆ.

12. AREGMA DISCIFLORA (Tode) Arth. (*Phragmidium subcorticium* Wint.)
 On *Rosa Carolina* L. 1893:52.
 On *Rosa humilis* Marsh. (*R. lucida* Am. Auct.) 1893:52.
 On *Rosa setigera* Michx. 1893:52.
13. AREGMA FRAGARILLÆ (DC.) Arth.
 On *Potentilla Canadensis* L. 1893:52. 1896:218.
14. AREGMA SPECIOSA Fr. (*Phragmidium speciosum* Cke.)
 On *Rosa Carolina* L. 1896:219.
 On *Rosa humilis* Marsh. 1898:179.
15. TRIPHAGMIUM ULMARLÆ (Schum.) Lk.
 On *Ulmaria rubra* Hill. Tippecance Co., 6, 1899 (*Arthur*).

16. GYMNOCONIA INTERSTITIALIS (Schl.) Lagh. (*Puccinia Peckiana* Howe and *Eridium nitens* Schw.)
 On *Rubus occidentalis* L. 1893:54.
 On *Rubus villosus* Ait. 1893:54. 1896:220. 1898:188.
17. CÆOMURUS ACUMINATUS (Arth.) Kuntze.
 On *Spartina cynosuroides* Willd. Jasper Co., 5, 1903 (Arthur);
 Steuben Co., 8, 1903 (Kellerman).
18. CÆOMURUS CALADII (Schw.) Kuntze. (*Uromyces Caladii* Farl.)
 On *Arisæma triphyllum* (L.) Torr. 1893:56. 1896:222. 1898:189.
 On *Arisæma Dracontium* (L.) Schott. 1893:56. 1896:222.
19. CÆOMURUS CARYOPHYLLINUS (Schr.) Kuntze.
 On *Dianthus Caryophyllus* L. 1893:56.
20. CÆOMURUS EUPHORBÆ (Schw.) Kuntze.
 On *Euphorbia dentata* Michx. 1893:57. 1896:222.
 On *Euphorbia nutans* Lag. (*E. hypericifolia* Gr.) 1893:57. 1896:222.
 On *Euphorbia humistrata* Engelm. Tippecanoe Co., 6, 1902
 (Arthur).
21. CÆOMURUS SOLIDAGINI-CARICIS (Arth.) nom. nov.
 On *Carex lanuginosa* Michx. Jasper Co., 3, 1903 (Arthur).
 On *Carex varia* Muhl. Jasper Co., 3, 1903 (Arthur).
22. CÆOMURUS GRAMINICOLUS (Burr.) Kuntze.
 On *Panicum virgatum* L. 1893:57.
23. CÆOMURUS HOWEI (Pk.) Kuntze.
 On *Asclepias incarnata* L. 1893:57. 1896:222.
 On *Asclepias purpurascens* L. 1893:57.
 On *Asclepias Syriaca* L. (A. Cornuti Dec.) 1893:57. 1896:222.
 1898:187.
24. CÆOMURUS HEDYSARI-PANICULATI (Schw.) Arth.
 On *Meibomia Canadensis* (L.) Kuntze (*Desmodium C.*). 1896:222.
 On *Meibomia canescens* (L.) Kuntze (*Desmodium c.*). 1893:57.
 On *Meibomia Dillenii* (Darl.) Kuntze (*Desmodium D.*). 1893:57.
 1896:222.
 On *Meibomia laevigata* (Nutt.) Kuntze (*Desmodium l.*). 1893:57.
 On *Meibomia paniculata* (L.) Kuntze (*Desmodium p.*). 1893:57.
 On *Meibomia viridiflora* (L.) Kuntze (*Desmodium v.*). 1893:57.

25. *CÆOMURUS HYPERICI-FRONDOSI* (Schw.) Arth.
 On *Hypericum Canadense* L. 1893:57.
 On *Hypericum mutilum* L. 1893:57.
 On *Triadenum Virginicum* (L.) Raf. (*Elodea campanulata* Marsh.)
 1893:57.
26. *CÆOMURUS JUNCI* (Schw.) Kuntze.
 On *Juncus tenuis* Willd. 1896:222. 1898:187.
27. *CÆOMURUS LESPEDEZE-PROCUMBENTIS* (Schw.) Arth.
 On *Lespedeza frutescens* (L.) Brit. (*L. reticulata* Pers.) 1893:57.
 On *Lespedeza procumbens* Michx. 1893:57.
 On *Lespedeza repens* (L.) Bart. 1896:222.
 On *Lespedeza capitata* Michx. Jasper Co., 3, 1903 (Arthur).
 On *Lespedeza hirta* (L.) Ell. Marshall Co., 10, 1893 (Underwood).
28. *CÆOMURUS OROBI* (Pers.) nom. nov.
 On *Vicia Americana* Muhl. 1896:222.
29. *CÆOMURUS PERIGYNIUS* (Halst.) Kuntze.
 On *Carex virescens* Muhl. 1893:57.
30. *CÆOMURUS PHASEOLI* (Pers.) Arth.
 On *Strophostyles helvola* (L.) Brit. (*Phaseolus diversifolius* Pers.)
 1893:56. 1896:172, 222.
 On *Vigna Sinensis* (L.) Endl. Tippecanoe Co., 10, 1903 (Arthur).
31. *CÆOMURUS PLUMBARIUS* (Pk.) Kuntze. (*Uredo gawrina* (Pk.) DeT.)
 On *Gaura biennis* L. 1896:222.
32. *CÆOMURUS POLYGONI* (Pers.) Kuntze.
 On *Polygonum aviculare* L. 1893:57. 1896:223.
 On *Polygonum erectum* L. 1893:58.
33. *CÆOMURUS RUDBECKIE* (Arth. & Holw.) Kuntze.
 On *Rudbeckia laciniata* L. 1894:152. 1898:187.
34. *CÆOMURUS TRIFOLII* (Hedw.) Gray.
 On *Trifolium hybridum* L. 1893:58.
 On *Trifolium medium* L. 1893:58.
 On *Trifolium pratense* L. 1893:58. 1896:223. 1898:187, 189.
 On *Trifolium repens* L. 1893:58.
35. *CÆOMURUS RHYNCOSPORÆ* (E. & G.) Kuntze.
 On *Rhyncospora alba* Vahl. Tippecanoe Co., 10, 1894 (King).
36. *DICÆOMA ALBIPERIDIUM* (Arth.) nom. nov.
 On *Carex pubescens* Muhl. Tippecanoe Co., 4, 1901 (Arthur).

37. DICLEOMA Aletridis (B. & C.) Kuntze.
On Aletris farinosa L. Lake Co., 7, 1884 (Hill).
38. DICLEOMA AMBIGUA (A. & S.) Kuntze.
On Galium Aparine L. 1896:172.
39. DICLEOMA ANDROPOGONIS (Schw.) Kuntze. (*Puccinia Andropogi* Schw.)
On Andropogon furcatus Muhl. 1896:219.
On Andropogon scoparius Michx. 1896:219.
On Pentstemon hirsutus (L.) Willd. 1896:217.
40. DICLEOMA ANEMONES-VIRGINIANÆ (Schw.) Arth. (*Puccinia solida* Schw.)
On Anemone cylindrica Gr. 1896:219.
On Anemone Virginiana L. Tippecanoe Co., 6, 1903 (Arthur);
Steuben Co., 8, 1903 (Kellerman).
41. DICLEOMA ANGUSTATUM (Pk.) Kuntze.
On Eriophorum polystachyon L. Noble Co., 8, 1884 (Van Gorder).
On Eriophorum Virginicum L. Noble Co., 8, 1884 (Van Gorder).
On Scirpus atrovirens Muhl. 1893:52. 1896:219.
On Scirpus cyperinus (L.) Kunth. 1893:52.
On Lycopus Americanus Muhl. (*L. sinuatus* Ell.) 1898:189.
42. DICLEOMA APOCRYPTUM (E. & Tr.) Kuntze.
On Hystrix Hystrix (L.) Millsp. 1893:52.
43. DICLEOMA ARGENTATUM (Schultz) Kuntze.
On Impatiens biflora Walt. (*L. fulva* Nutt.) 1893:52. 1896:220.
44. DICLEOMA ASPARAGI (DC.) Kuntze.
On Asparagus officinalis L. Lake Co., 10, 1899 (*Breyfogle*); Fountain Co., 9, 1900 (*Beatty*); Tippecanoe Co., 3, 1901 (Arthur);
Steuben Co., 8, 1903 (Kellerman).
45. DICLEOMA ASPERIFOLII (Pers.) Kuntze. (*Puccinia Rubigo-vera* (DC.) Wint.)
On Avena sativa L. 1893:55.
On Secale cereale L. 1896:221.
46. DICLEOMA ASTERIS (Duby) Kuntze.
On Aster cordifolius L. 1893:52.
On Aster lateriflorus (L.) Brit. (*A. diffusus* Ait.) 1896:219.
On Aster paniculatus Lam. 1893:52.

47. *DICÆOMA CANALICULATA* (Schw.) Kuntze. (*Puccinia nigroretata* E. & T.
and *P. inclusata* D. & H.)
On *Cyperus strigosus* L. 1893:53, 54. 1894:154, 157. 1896:219, 220.
48. *DICÆOMA CARICIS-ASTERIS* (Arth.) nom. nov.
On *Aster cordifolius* L. 1893:49.
On *Aster Drummondii* Lindl. Tippecanoe Co., 5, 1901 (Arthur).
On *Aster paniculatus* Lam. Tippecanoe Co., 5, 1901 (Arthur).
On *Aster sagittifolius* Willd. 1893:49.
On *Carex cephalophora* Muhl. Tippecanoe Co., 6, 1902 (Arthur).
On *Carex fœnia* Willd. Tippecanoe Co., 4, 1901 (Arthur).
49. *DICÆOMA CARICIS-ERIGERONTIS* (Arth.) nom. nov.
On *Erigeron annuus* L. 1894:151.
On *Erigeron ramosus* (Walt.) B. S. P. Jasper Co., 6, 1903 (Arthur).
On *Leptilon Canadense* (L.) Britt. Jasper Co., 6, 1903 (Arthur).
On *Carex festucacea* Willd. Tippecanoe Co., 4, 1901 (Arthur).
On *Carex straminea* Willd. 1893:52.
50. *DICÆOMA CARICIS-SOLIDAGINIS* (Arth.) nom. nov.
On *Solidago cæsia* L. 1893:49.
On *Solidago Canadensis* L. 1893:49.
On *Solidago flexicanlis* L. (*S. latifolia* L.) 1893:49.
On *Solidago patula* Muhl. Tippecanoe Co., 6, 1902 (Arthur).
On *Carex Jamesii* Schw. Tippecanoe Co., 4, 1902 (Arthur).
On *Carex tetanica* Schk. Tippecanoe Co., 6, 1899 (Arthur).
51. *DICÆOMA CHRYSANTHEMI* (Roze) nom. nov.
On *Chrysanthemum Indicum* L. Tippecanoe Co., 10, 1899 (Dorner).
52. *DICÆOMA CIRCEÆ* (Pers.) Kuntze.
On *Circea Lutetiana* L. 1893:53. 1896:219.
53. *DICÆOMA CONVULVULI* (Pers.) Kuntze.
On *Convolvulus sepium* L. 1893:53. 1896:219.
54. *DICÆOMA DAYI* (Clint.) Kuntze.
On *Steironema ciliatum* (L.) Raf. 1893:53.
55. *DICÆOMA DULICHII* (Syd.) nom. nov.
On *Dulichium arundinacea* (L.) Brit. 1893:52.

56. DICHOMA EATONIE (*Arth.*) *nom. nov.*
 On *Eatonia Pennsylvanica* (DC.) Gray. Tippecanoe Co., 5,
 1903 (*Arthur*).
 On *Ranunculus abortivus* L. 1893:50.
57. DICHOMA ELEOCHARIDIS (*Arth.*) *Kuntze.*
 On *Eleocharis palustris* (L.) R. & S. 1893:53. 1896:219.
58. DICHOMA ELLISIANUM (*Thurm.*) *Kuntze.*
 On *Andropogon scoparius* Michx. Tippecanoe Co., 11, 1898 (*Stu-*
 art).
59. DICHOMA EMACULATUM (*Schw.*) *Kuntze.*
 On *Panicum capillare* L. 1893:53. 1896:220.
60. DICHOMA EPIPHYLLUM (*L.*) *Kuntze.* (*Puccinia Poarum* Niels.)
 On *Poa pratensis* L. 1893:57. 1898:189.
61. DICHOMA FUSCUM (*Pers.*) *Kuntze.*
 On *Anemone quinquefolia* L. (*A. nemorosa* Mx.) 1894:151.
62. DICHOMA HELIANTHI (*Schw.*) *Kuntze.*
 On *Helianthus annuus* L. 1893:55.
 On *Helianthus divaricatus* L. 1893:55.
 On *Helianthus giganteus* L. Steuben Co., 8, 1903 (*Kellerman*).
 On *Helianthus grosse-serratus* Mart. 1893:55. 1896:221.
 On *Helianthus mollis* Lam. Jasper Co., 3, 1903 (*Arthur*).
 On *Helianthus strumosus* L. 1893:55.
 On *Helianthus trachelioifolius* Mill. 1893:55.
63. DICHOMA HELIOPSISIDIS (*Schw.*) *Kuntze.*
 On *Heliopsis scabra* Dunal. 1893:54.
64. DICHOMA MUHLENBERGIE (*A. d. H.*) *nom. nov.*
65. DICHOMA WINDSORIE (*Schw.*) *Kuntze.*
 On *Sieglingia seslerioides* (Mx.) Scrib. (*Triodia cuprea* Jacq.)
 1894:154. 1896:221.
 On *Ptelea trifoliata* L. 1893:50. 1896:217.
 On *Muhlenbergia diffusa* Schreb. 1893:53, 55.
 On *Muhlenbergia sylvatica* Torr. 1896:221.
66. DICHOMA IMPATIENTIS (*Schw.*) *nom. nov.*
 On *Elymus Virginicus* L. 1893:55. 1896:221.
 On *Impatiens biflora* Walt. (*I. fulva* Nutt.) 1893:50.
 On *Impatiens aurea* Muhl. 1896:217.

67. DICAËOMA KUHNLE (*Schur.*) *Kuntze.*
On *Kuhnia eupatorioides* L. 1893:54. 1896:220.
68. DICAËOMA LATERIPES (*B. & R.*) *Kuntze.*
On *Ruellia strepens* L. 1893:54. 1896:218.
69. DICAËOMA LOBELLE (*Ger.*) *nom. nov.*
On *Lobelia syphilitica* L. 1893:54. 1896:220.
70. DICAËOMA LUDIBUNDUM (*E. & E.*) *Kuntze.*
On *Carex sparganioides* Muhl. 1896:220.
71. DICAËOMA MAJANTHÆ (*Schum.*) *nom. nov.*
On *Phalaris arundinacea* L. Tippecanoe Co., 10, 1889 (*Stuart*).
72. DICAËOMA MELICÆ (*Syd.*) *nom. nov.*
On *Melica diffusa* Pursh. Tippecanoe Co., 10, 1899 (*Stuart*).
73. DICAËOMA MENTILÆ (*Pers.*) *Gray.*
On *Blephilia hirsuta* (Pursh.) Torr. 1893:54. 1896:220.
On *Cunila origanoides* (L.) Brit. 1893:54.
On *Mentha Canadensis* L. 1893:54.
On *Monarda fistulosa* L. 1893:54. 1896:220.
On *Koellia pilosa* (Nutt.) Brit. 1893:54.
On *Koellia Virginiana* (L.) MacM. 1893:54. 1896:220.
74. DICAËOMA OBTECTUM (*Pk.*) *Kuntze.*
On *Scirpus lacustris* L. 1894:151.
75. DICAËOMA PAMMELII (*Trel.*) *nom. nov.* (*Puccinia Panici* Diet. and *Æcidium Pammelii* Trel.)
On *Panicum virgatum* L. 1901:283.
On *Euphorbia corollata* L. 1893:49. 1901:284.
76. DICAËOMA PECKII (*De T.*) *nom. nov.*
On *Carex cephalophora* Muhl. Tippecanoe Co., 6, 1902 (*Arthur*).
On *Carex stipata* Muhl. Tippecanoe Co., 6, 1902 (*Arthur*).
On *Carex trichocarpa* Muhl. Tippecanoe Co., 11, 1901 (*Arthur*).
On *Onagra biennis* (L.) Scop. 1893:50. 1896:217.
77. DICAËOMA PHYSOSTEGLÆ (*P. & C.*) *Kuntze.*
On *Physostegia Virginiana* (L.) Benth. 1894:151. 1896:220.

78. *DICÆOMA POCULIFORME* (Jacq.) Kuntze. (*Puccinia graminis* Pers. and *Æcidium Berberidis* Pers.)
 On *Agrostos alba* L. Steuben Co., 8, 1903 (*Kellerman*).
 On *Avena sativa* L. 1893:53. 1896:220.
 On *Berberis vulgaris* L. 1893:49.
 On *Cinna arundinacea* L. Tippecanoe Co., 4, 1901 (*Arthur*).
 On *Dactylis glomerata* L. 1896:220, 223.
 On *Hordeum jubatum* L. 1896:220, 224.
 On *Poa compressa* L. 1893:53.
 On *Poa pratensis* L. 1893:53.
 On *Triticum vulgare* L. 1893:54. 1898:188.
79. *DICÆOMA PODOPHYLLI* (Schw.) Kuntze.
 On *Podophyllum peltatum* L. 1893:54. 1896:221. 1898:189.
80. *DICÆOMA POLYGONI-AMPHIBII* (Pers.) Arth.
 On *Geranium maculatum* L. 1893:49. 1896:217. 1898:188.
 On *Polygonum emersum* (Mx.) Brit. (*P. Muhlenbergii* Wats.) 1893:55.
 On *Polygonum hydropiperoides* Michx. 1898:184. 1898:189.
 On *Polygonum lapathifolium* L. 1898:184.
 On *Polygonum pennsylvanicum* L. 1898:184.
 On *Polygonum punctatum* Ell. (*P. acre* H. B. K.) 1893:55, 57.
81. *DICÆOMA POLYGONI-CONVOLVULI* (Hedw.) Arth.
 On *Polygonum Convolvulus* L. 1898:184.
 On *Polygonum scandens* L. 1896:223.
 On *Polygonum Hartwrightii* Gray. Steuben Co., 8, 1903 (*Kellerman*).
82. *DICÆOMA PRENANTHIS*. (Pers.) Kuntze.
 On *Nabalus albus* (L.) Hook. 1893:55. 1896:221.
83. *DICÆOMA PUNCTATUM* (Str.) nom. nov.
 On *Galium asprellum* Michx. 1893:53.
 On *Galium concinnum* T. & G. 1893:53.
 On *Galium triflorum* Michx. 1893:53.
84. *DICÆOMA PUSTULATUM* (Curt.) nom. nov.
 On *Andropogon furcatus* Muhl. Jasper Co., 6, 1903 (*Arthur*).
 On *Andropogon scoparius* Michx. Jasper Co., 3, 1903 (*Arthur*).
 On *Comandra umbellata* (L.) Nutt. 1893:50.

85. *DICÆOMA RANUNCULI* (*Seym.*) *Kuntze.*
On *Ranunculus septentrionalis* Poir. 1893:55.
86. *DICÆOMA RHAMNI* (*Gmel.*) *Kuntze.* (*Puccinia coronata* Cda. and *Æcidium Rhamni* Gmel.)
On *Avena sativa* L. 1896:219. 1898:189.
On *Calamagrostis Canadensis* (Mx.) Beauv. 1893:53.
On *Rhamnus lanceolata* Pursh. 1898:184.
87. *DICÆOMA SAMBUCI* (*Schw.*) *nom. nov.* (*Puccinia Bolleyana* Sacc.)
On *Carex lurida* Wahl. 1893:52.
On *Carex Frankii* Kunth. 1893:55. 1898:187.
On *Carex trichocarpa* Muhl. 1893:52. 1896:219.
On *Sambucus Canadensis* L. 1893:50.
88. *DICÆOMA SANICULÆ* (*Greer.*) *Kuntze.*
On *Sanicula Canadensis* L. 1893:55.
89. *DICÆOMA SILPHII* (*Schw.*) *Kuntze.*
On *Silphium* sp. 1893:55.
On *Silphium integrifolium* Michx. Tippecanoe Co., 8, 1901
(*Dorner*).
90. *DICÆOMA SORGHII* (*Schw.*) *Kuntze.*
On *Zea Mays* L. 1893:54. 1898:188.
91. *DICÆOMA TARAXACI* (*Plowr.*) *Kuntze.*
On *Taraxacum Taraxacum* (L.) Karst. 1893:53. 1896:219. 1898:188.
92. *DICÆOMA TENUE* (*Burr.*) *Kuntze.*
On *Eupatorium ageratoides* L. 1893:55. 1896:221.
93. *DICÆOMA THALICTRI* (*Cher.*) *Kuntze.*
On *Thalictrum dioicum* L. 1893:55.
94. *DICÆOMA URTICÆ* (*Schum.*) *Kuntze.* (*Puccinia Caricis* Reb. and *Æcidium Urticæ* Schum.)
On *Carex riparia* Curt. Steuben Co., 8, 1903 (*Kellerman*).
On *Carex stricta* Lam. Tippecanoe Co., 4, 1901 (*Arthur*); Steuben Co., 8, 1903 (*Kellerman*).
On *Urtica gracilis* Ait. 1898:185.
95. *DICÆOMA VERBENICOLA* (*E. & K.*) *nom. nov.* (*Puccinia Vilfæ* A. & H.)
On *Sporobolus longifolius* (Torr.) Wood. 1896:221.
On *Verbena stricta* Vent. 1896:218.

96. *DICÆOMA VERNONIÆ* (Schw.) Kuntze.
On *Vernonia fasciculata* Michx. 1893:55.
97. *DICÆOMA VEXANS* (Farl.) Kuntze.
On *Bouteloua curtipendula* (Michx.) Torr. 1901:283
98. *DICÆOMA VIOLE* (Schum.) Kuntze.
On *Viola obliqua* Hill (*V. cucullata* Ait.). 1893:56.
On *Viola striata* Ait. 1893:56.
On *Viola pubescens* Ait. Decatur Co., 5, 1889 (*Arthur*); Tippecanoe Co., 4, 1898 (*Arthur*).
99. *DICÆOMA VULPINOIDIS* (D. & H.) Kuntze.
On *Carex vulpinoidea* Michx. 1893:56. 1896:221.
100. *DICÆOMA XANTHII* (Schw.) Kuntze.
On *Ambrosia trifida* L. 1893:56. 1896:222.
On *Xanthium Canadense* Mill. 1893:56. 1896:222.
On *Xanthium strumarium* L. 1893:56.
101. *GYMNOSPORANGIUM GLOBOSUM* Farl. (*Ræstelia lacerata* Fr.)
On *Cratægus coccinia* L. 1893:56.
On *Cratægus Crus-Galli* L. 1894:153.
On *Cratægus mollis* (T. & G.) Scheele. (*C. subbrillosa* T. & G.) 1898:186. 1898:188.
On *Cratægus punctata* Jacq. 1893:56.
On *Juniperus Virginiana* L. 1893:51.
102. *GYMNOSPORANGIUM JUNIPERI-VIRGINIANÆ* Schw. (*Ræstelia pyrata* Thax.)
On *Malus coronaria* (L.) Mill. (*Pyrus coronaria* L.) 1893:56. 1896:218.
On *Malus Malus* (L.) Brit. (*Pyrus Malus* L.) 1898:186. 1901:255.
On *Pyrus communis* L. 1893:56.
On *Juniperus Virginiana* L. 1893:51. 1896:218. 1901:255.
103. *JACKYA CNICI* (Mart.) nom. nov. (*Puccinia Cirsii-lanceolati* Schroet.)
On *Carduus lanceolatus* L. 1893:53.
104. *PILEOLARIA BREVIPES* B. & Br.
On *Rhus radicans* L. (*R. Toxicodendron* Am. Auct.) 1893:58 1896:223.
105. *UROPYXIS AMORPHÆ* (Curt.) Schroet.
On *Amorpha canescens* Pursh. 1893:58.