

Wildflowers I have seen
Edgar Kennison

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MISSOURI NATIVE PLANT SOCIETY

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Missouriensis is the official publication of the Missouri Native Plant Society. Founded in 1979 as a non-profit corporation, the Society is devoted to the conservation and study of the plants growing wild in Missouri, to the education of the public about the significance of the native flora and its habitat, and to the publication of related information.

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Minutes of the Board Meeting

MISSOURI NATIVE PLANT SOCIETY
Saturday, January 14, 1984
Dept. of Conservation, Jefferson City, MO

CALL TO ORDER

The meeting was called to order by President Melvin Conrad.

MEMBERS PRESENT: President Melvin Conrad, Vice President Nancy Morin, Treasurer John Karel and Secretary Jean Webdell; Paul Redfearn, Ginny Wallace, Paul Nelson, John Molyneaux, Joanna Turner, John Doggett, Jay Raveill, David Castaner, Monte Holder, Ernestine Wagner, Marshall Wagner, Rick Thom, Edgar Denison, Bill Summers, Mervin Wallace, Randal Clark, Martha Daniels, Sherry Morgan, Mary L. Lehmann, Jean Freiling, John Wylie, Jim H. Wilson, Jim and Alberta Shaw, Kathy Nelson, Richard Guyette, Mary Susan Taylor, and Wally Weber.

MINUTES OF THE FALL BOARD MEETING

The minutes were approved with the correction of Wally Weber's address, which was listed as Southeast Mo. State and should be Southwest Mo. State.

MEMBERSHIP

Jim Henry Wilson and John Karel reported that changes in membership policy were decided on and carried out by themselves and Dept. of Natural Resources Staff member Gerry Harris. They acted as follows:

Membership renewal notices and questionnaires were mailed January 10, 1984, to all members, except those who have paid dues between 7/1/83 and 1/10/84. By doing this mailing on an annual basis, the treasurer's responsibilities will be simplified. A follow-up renewal notice will be mailed in mid- to late February to those who have not paid.

Memberships not renewed by March 31, 1984, will be removed from the active membership file.

The 1984 membership will be for the period of July 1, 1983, to September 30, 1984. Renewal notices for 1985 should be mailed in October or November 1984.

During the week of January 16, the questionnaire will be mailed to members who have already paid their dues.

The question of giving a receipt for membership or a membership card was discussed. As no membership cards are known to be in existence, it was decided that membership cards should be printed on the inside of the MISSOURIENSIS cover and this would serve as a receipt for those who join. Responses by letter or post card were felt to be too expensive, but it was discussed that information and/or membership cards, receipts, or whatever could be mailed to new members.

366 renewal notices (and questionnaires) were mailed to members. After a discussion, it was decided that John Karel will summarize the results and pass on appropriate information to members as well as sending the results to MISSOURIENSIS.

Edgar Denison reports that he knows of members who have not received copies of MISSOURIENSIS. Lost members are instructed to contact John Karel, Dept. of Natural Resources, so that they can be found.

TREASURER'S REPORT

Wallace Weber brought up that the Mo. Native Plant Society had agreed to pay half the expenses of the meeting held in conjunction with the North American Prairie Foundation at Missouri Botanical Garden. While MONPS has not received a bill from the Prairie Foundation, it was suggested that Wally Weber ask for a bill to be presented.

Treasurer John Karel did outline the expenditure of \$528.11 already given to the Seventh North American Prairie Conference. The expenses included \$274.78 for copies of MISSOURIENSIS, \$42.48 for other printing, and \$210.85 for postage, totaling \$528.11.

The Operating Statement for 1983 showed a deficit. Income from membership totaled \$524.50, patches and decals brought in \$181.35, for a total of \$705.85 income. Expenses included: postage \$299.11; telephone \$96.51; printing \$635.61; supplies \$41.03; miscellaneous \$40.62 - totaling \$1,112.88. Difference of income over expenses was \$407.03.

From October 7, 1983, to January 13, 1984, the report of the treasurer is as follows: Cash on hand \$2,999.11; income from membership \$64.50; for a total income and cash of \$3,063.61. Disbursements: Jefferson City Postmaster, postage for renewal notices \$73.20, leaving a balance of \$2,990.41.

Paul Redfearn made a motion that the Treasurer's report be approved. It was seconded by Wally Weber and the motion approved by the membership.

Members then introduced themselves.

OLD BUSINESS

John Wylie of the Department of Conservation specially recognized Conservation employee Rich Guyette, who has conducted important research on interpretation of tree rings.

No other old business was brought up.

INVENTORY COMMITTEE

Jay Raveill, who has been appointed chairman of the committee, reported that country records are continuing to be compiled so that the information can be placed on county maps and given to members. He noted that the Inventory Committee must decide technical issues such as things to avoid and what must be done to make the inventory consistent.

ENDANGERED SPECIES LEGISLATION - H.B. 1079

John Wylie reported that this legislation is needed to expand existing laws to include plants, the need is particularly important now because of the expanding collection and exporting of commercial ginseng. Under the legislation, native plants will be protected for the first time in Missouri.

Native Plant members were encouraged to send letters of support for the legislation to the Chairman of the House Agri-Business Committee Rep. Robert L. Dunning, Sr. and to Representative LeRoy D. Braungardt, who introduced the legislation. In addition to letters, it was suggested that members of MONPS appear to testify in favor of the bill; however, the date and time of the hearings were not known.

Letters were sent to Representatives Dunning and Braungardt and included the following resolution:

Be it resolved that the Missouri Native Plant Society supports H.B. 1079 which would repeal Section 252.240 relating to endangered species and replace it with a new section including plants and animals.

We recognize this legislation is important for several reasons:

1. For the first time plants will be given legal status.
2. H.B. 1079 is necessary to provide regulations for the sale and export of ginseng. This is necessary in order for the U.S. Fish and Wildlife Service to approve Missouri's program of licensing ginseng dealers and exporters. Regulation will enable monitoring of populations to ensure harvestable numbers in future years.
3. This bill will not prohibit the sale of native plants. Rather it will control trade through regulations authorized by the Conservation Commission.
4. H.B. 1079 does not affect proprietary rights. Growing plants will remain, as always, the property of the landowner. In fact, this bill will serve to strengthen a landowner's ability to protect native plants growing on his or her property.
5. This bill will enable the Department of Conservation to enter into federal cooperative agreements for native plants, which will lead to better surveys, research and management for endangered plant species.

The Missouri Department of Conservation has been involved in endangered species regulation and study of both plants and animals for a number of years, including publishing RARE AND ENDANGERED SPECIES OF MISSOURI. The Missouri Native Plant Society feels that authority for protection of rare and endangered plants needs to be clarified by statute. We strongly urge passage of H.B. 1079 during the 82nd General Assembly.

MISCELLANEOUS

Mary L. Lehmann suggested that the Mo. Native Plant Society encourage the use of native plants by distributing information about where the plants or seeds could be purchased. After much discussion on the merits and legalities of re-introduction of native species into the landscape, it was decided that a committee should gather information to be put into an article. Material included would be propagation of rare and endangered species, how to grow them, and where to obtain them. Committee members are Edgar Denison, Mary Lehmann, and Nancy Morin.

The spring MONPS meeting will be held in conjunction with the Missouri Academy of Science Meeting at Southeast Missouri State University, Cape Girardeau on April 28, 1984.

MISSOURIENSIS

The next issue, which will come out in March, will include information on the results of the questionnaire if available, if not in a later issue.

An index to the first issues is being prepared for publication.

LOCAL CHAPTERS

Sue Taylor announced efforts to start a local chapter of MONPS in the St. Louis area.

ADJOURNMENT

All business completed, the meeting adjourned. A slide show on the Natural Areas Inventory of Southwest Missouri was presented by Gary Reese.

Respectfully submitted,

Jean Webdell

Jean Webdell
Secretary

MEMBER HIGHLIGHT: Dr. Leland J. Gier

In Memorium

1904 - 1983

Dr. James R. Jackson¹

The Missouri Native Plant Society, higher education, and the fields of botany, biology, and science in general lost a great friend this past summer. Dr. Leland J. Gier passed away on July 11 after a short illness. His philosophy of botany, science, education, and life itself should be a model for us all.

His love of botany was reflected in his research, which he pursued until the time of his death. This research resulted in fifteen papers relating to the ecology, pathology, and taxonomy of Missouri flora. The bryophytes were his major research subject. In addition to the numerous papers on Missouri bryophytes, his most recent publication was a 56-page work on the Thuidiaceae (Muscii) of Latin America published in the JOURNAL OF BRYOLOGY. What is not reflected in his papers is the contagious excitement that he exhibited every time he went into the field or keyed out a plant. This is what made every field trip with him a joyful experience.

Dr. Gier's philosophy of science education artfully bridged the gap between the undergraduate classroom, the professional society, and the scientific meeting. He was a member of The Missouri Native Plant Society, The American Bryological Society, the British Bryological Society, The American Society of Plant Taxonomy, The Torrey Botanical Club, The National Association of Biology Teachers, and the Kansas Academy of Science. He felt not only that his membership in these organizations was crucial, but because of his influence, all of his students recognized them as the vital link in the scientific community. Dr. Gier's relationship with the Missouri Academy of Science is evidence of this influence.

The survival of the Missouri Academy of Science during the 50's and early 60's was due in a large part to the efforts of Dr. Gier and his love for science education. In 1975 he was awarded the only Honorary Life Membership in the Missouri Academy of Science for his work with the Academy, especially with the Collegiate Division, which is devoted to undergraduate research. During this same year, the Leland J. Gier Award for research was created. This award is presented annually to the undergraduate student who presents the most meaningful research in the Biological Section of the Collegiate Division of the Missouri Academy of Science meetings.

¹Missouri Southern State College, Joplin, Missouri

Dr. Gier received his Ph.D. from Duke University, and he also studied at Kansas State College at Pittsburg, the University of Nebraska at Lincoln, Oregon State College in Corvallis, and Iowa State University.

Dr. Gier committed his life to education and research. He taught for 47 years at the secondary and college levels, including Campbell College (North Carolina), William Jewel College for 27 years, and Missouri Southern State College for the four years preceeding his retirement. Dr. Gier was a dynamic, charming, and inspiring person who, until the very end, was most at home in the field with his students and his plants. We all will miss him very much.



SAINT LOUIS CHAPTER FORMED

Thursday night, February 23 marked the official founding of the St Louis Chapter of the Missouri Native Plant Society. Officers were elected and a letter dispatched requesting recognition from the State Board. Dottie Epstein is the new Chapter President, Sue Taylor is Vice President, Naomi Miller, Secretary, and Karen Haller is Treasurer. Meetings are scheduled for the fourth Thursday of each month. The next program, on March 22, will be given by Dorothy Cole on the Interesting World of Trees, with a discussion on the winter identification of Missouri trees. For information on prospective programs, fieldtrips, and other activities, phone Dottie (991-2625), or Sue (664-1382).

NEWS & NOTES

Help Needed

Leonard Blake and Doris Epstein, researchers at Washington University in archaeobotany and ethnobotany, work with specific species of the precontact native flora thought to have been used and cultivated by the native Americans. Information is requested on Chenopodium bushianum Aellen. and Polygonum erectum L. Regional information on sightings of these plants and plant and fruit specimens are needed -- enough fruit, if possible 2-6 tablespoons, to allow experimental charring. They can be contacted at Department of Anthropology, Washington University, Lindell and Skinker, St. Louis, MO 63130.

Note from Missouri Dept. of Natural Resources

This past August, The Nature Conservancy purchased a 58-acre parcel of land near Roaring River State Park and this has since been acquired by the Missouri Department of Natural Resources for state park purposes. It represents a key addition to Roaring River State Park and includes an example of the White River glades feature. Almost half of the tract is glade opening surrounded by cedar and oak forest. Several characteristic plants occur here including Trelease's Larkspur, Ashe's Juniper, and Centaury Plant.

- Greg F. Iffrig
Natural Areas Coordinator

Omission

Central Missouri State University's Herbarium was mistakenly left out of the Missouri Herbaria list in Missouriensis 5(1). It should be inserted as follows:

Central Missouri State University (WARM) 16,000
Biology Dept.
Warrensburg, MO 64093

Curator: Dr. David Castaner; Carex (Cyperaceae).
Assistant: Donna Burchell.

Comments: Emphasis on North American Carex (about 6000 specimens); Missouri flora; various local flora vouchers such as Knob Noster State Park, Taberville, and Schell-Osage.

Note

Contributions on people, upcoming events, etc., of interest to MONPS members are welcomed by the editors.

MISSOURI'S INTERESTING FLORA: Pink Thoroughwort

Art Christ¹

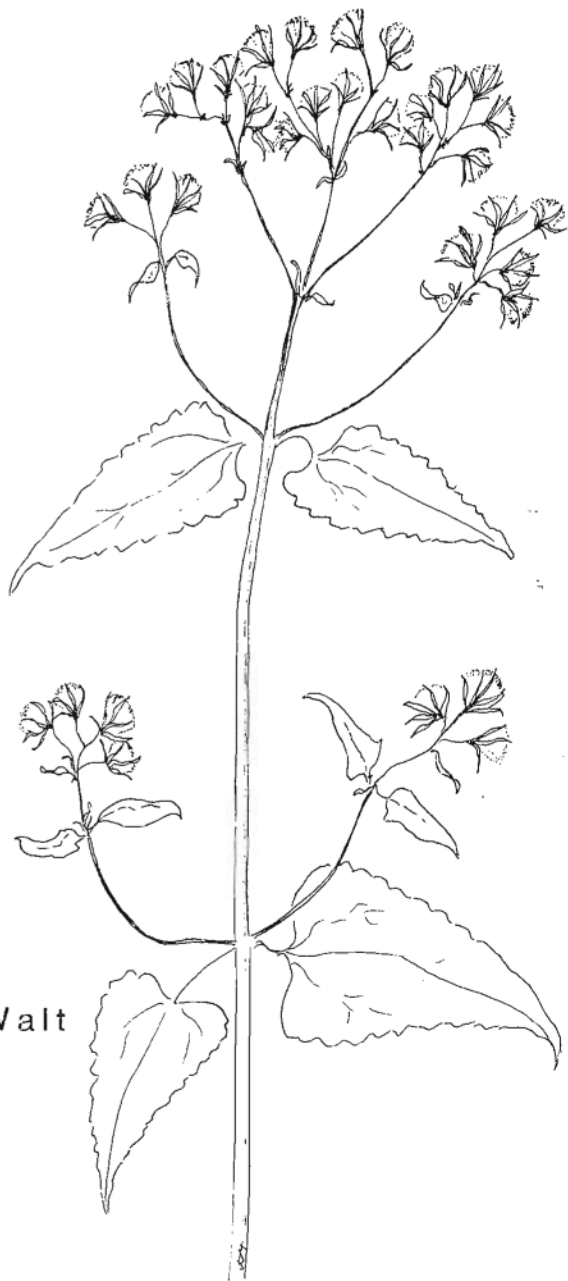
Eupatorium incarnatum Walt. (Pink Thoroughwort) is a rare species of the southeastern Missouri lowlands. We first found this species near the Holly Ridge Preserve area along the St. Louis-Southwestern railroad tracks on September 25, 1980. It resembles Eupatorium coelestinum L. (Mist-flower or Wild Ageratum), but Eupatorium incarnatum Walt. has pink or lilac flowers instead of blue or lavender flowers. The leaves of Eupatorium incarnatum Walt. are thinner, darker green, and generally more heart-shaped at the base than those of Eupatorium coelestinum L.

Eupatorium incarnatum Walt. has downy, loosely branched, and often reclining or straggling stems that are from two to four feet long. Its opposite leaves are rather triangular in outline, long-pointed at the tips, are three-quarters to two and a quarter inches long, and have slender stalks. The flower clusters are on slender branches that arise from many of the axils of the stems, while the tubular flowers number about twenty in each head.

This species grows in open sandy woods and in swampy places. It flowers between August and October. When the plant dries it has a fragrance resembling vanilla. It is found from Virginia to Ohio, Illinois and Missouri, south to Florida and Arizona.

Eupatorium incarnatum belongs to Compositae or Asteraceae (Composite Family). The generic name "Eupatorium" is dedicated to Mithridates Eupator, 132-63 B.C., who is said to have used a species of the genus in medicine, while the specific name "incarnatum" means flesh-colored.

¹3458 Watson Road, St. Louis, Missouri 63139



Eupatorium incarnatum Walt

Further Notes on Some Missouri Rare & Endangered Plants

Steve L. Orzell¹

While conducting natural area inventories from 1980 through 1983, I encountered several previously unreported stations for Missouri taxa listed by the Missouri Department of Conservation (1984). Many of these also represent new county records and a few were previously reported (Orzell & Wallace, 1983a & b). The following is a listing of some additional discoveries. Specific site locations have been omitted from this paper, but have been forwarded to the Missouri Department of Conservation. Voucher specimens are to be deposited at the Missouri Botanical Garden. Nomenclature follows Steyermark (1963).

Anemone cylindrica A. Gray

Thimbleweed (Ranunculaceae) is reported from loess hill prairies in four northwestern Missouri counties (Steyermark, 1963). A recent natural area inventory of loess hill prairies (Iffrig, 1983) failed to locate any extant populations. A few fruiting plants were located scattered along the ridge crest of a loess hill prairie in Atchison and Holt counties, but no other stations were encountered for this plant, listed as rare (MDC, 1984). 12 September 1983, Orzell & Raveill 1170.

Aralia nudicaulis L.

Wild Sarsaparilla (Araliaceae) is listed as endangered (MDC, 1984). A new station was located in Pike County at the base of a northeast-facing limestone bluff. Plants grew in talus broken loose from the adjoining bluff in bare, partially shaded well-drained soil. Associates included Acer saccharum Marshall, Staphylea trifolia L., Sanguinaria canadensis L., Smilacina racemosa (L.) Desf., Parthenocissus quinquefolia (L.) Planchon, Aquilegia canadensis L., Oxalis stricta L. and Galium sp. No specimen collected, observed on 24 July 1981.

¹Arkansas Natural Heritage Commission, Suite 200, The Heritage Center, 225 East Markham Street, Little Rock, Arkansas 72201

Aster puniceus L. var. firmus (Nees) T. & G. forma lucidulus (A. Gray) Fern.

Glossy-leaf Aster (Asteraceae) is on the watch list (MDC, 1984). Since numerous new stations were located, only one noteworthy collection is reported. A pink flowered form was collected from St. Francois County, 26 September 1981, Orzell 477. Here the plants thrive in a calcareous seep fen.

Campanula aparinoides L.

Marsh Bellflower (Campanulaceae) is listed as endangered (MDC, 1984). Two new stations were located in Reynolds County. C. aparinoides is abundant in a calcareous seep fen associated with Carex lurida Wahlenb., Juncus effusus L., Scirpus atrovirens Willd., Solidago patula Muhlenb., Mimulus ringens L., Viola cucullata Aiton, Cirsium muticum Michaux, Aster puniceus L. and Thelypteris palustris Schott. 31 July 1982, Orzell 800. Another new Reynolds County station was from a prairie fen where C. aparinoides was locally abundant with Glyceria striata (Lam.) A. Hitch., Scirpus atrovirens Willd., Thelypteris palustris Schott, and Carex torta Boott. 22 July 1982, Orzell 769. Both collections are of flowering plants.

Carex bromoides Willd.

This sedge (Cyperaceae) was reported by Christ (1980) as a new state record from Bollinger County. Two new stations, both in Wayne County, were recently discovered. At one station this species is very abundant in a deeply shaded forest, forming dense tussocks, associated with Corylus americana Walter, Osmunda regalis L., Athyrium filix-femina (L.) Roth, Carex crinita Lam., Impatiens capensis Meerb., Solidago patula Muhlenb., and the moss Climacium americanum Brid., 18 June 1983, Orzell 1016. Associates at the other Wayne County station include Acer rubrum L., Fraxinus pennsylvanica Marshall, Alnus serrulata (Aiton) Willd., Carex lurida Wahlenb., Solidago patula Muhlenb., Scirpus polyphyllus Vahl, and Juncus effusus L. 18 June 1983, Orzell 1010. Carex bromoides was observed flowering on April 19, 1983. It is listed as status undetermined (MDC, 1984).

Carex stricta Lam. var. strictior (Dewey) Carey

This sedge (Cyperaceae) is listed as rare (MDC, 1984). Six new stations were located (2 in St. Francois County, 2 in Dent County, 2 in Reynolds County), all in Ozark fen communities. 23 May 1982, Orzell 496, 497; 29 May 1982, Orzell 518; 23 May 1983, Orzell 914; 3 June 1983, Orzell 959; 4 June 1983, Orzell 968; 9 June 1983, Orzell 984; and 29 May 1983, Orzell 940. This sedge is probably more frequent than is presently realized and will probably be discovered from additional fen sites.

Carex trichocarpa Schk.

Listed as rare (MDC, 1984), this species (Cyperaceae) was discovered at a new Reynolds County station in a prairie fen. It is locally abundant, associated with Silphium terebinthinaceum Jacq., Pycnanthemum virginianum (L.) Durand & Jackson, Juncus effusus L., Rudbeckia fulgida Aiton, Aster novae-angliae L., Carex suberecta (Olney) Britton, and Carex stricta Lam. var. strictior (Dewey) Carey. Fruiting occurs from late May to mid-June. 5 August 1982, Orzell & Nelson 843; 29 May 1983, Orzell 942; 3 June 1983, Orzell 960.

Cypripedium reginae Walter

A new station was located for the Showy Lady-slipper (Orchidaceae) in a series of calcareous seep fens in Shannon County. Approximately 96 stems of C. reginae occur with Parnassia grandifolia DC., Rudbeckia fulgida Aiton, Scirpus atrovirens Willd., Satureja arkansana (Nutt.) Briq., Spiranthes lucida (H. Eaton) Ames, and Senecio aureus L. 21 June 1982, Orzell 875. Cypripedium reginae is listed as rare (MDC, 1984).

Eupatorium cuneifolium Wild. var. semisseratum (DC.) Fern. & Griscom

Thoroughwort (Asteraceae) is on the watch list (MDC, 1984). A new station was located in a semi-open bottomland forest in Stoddard County. Associates included Quercus phellos L., Carya tomentosa Nutt., Ilex decidua Walter, Aster vimineus Lam., Hymenocallis occidentalis (Le Conte) Kunth, and Pycnanthemum muticum (Michaux) Pers. 8 August 1983, Orzell & Christ 1083

Filipendula rubra (Hill) Robinson

Queen of the Prairie (Rosaceae) is listed as endangered (MDC, 1984). A new station was located in St. Francois County in a calcareous seep fen. Associates include Carex stipata Willd., Carex stricta Lam. var. strictior (Dewey) Carey, Aster novae-angliae L., Pycnanthemum virginianum (L.) Durand & Jackson, Rudbeckia fulgida Aiton, Salix caroliniana Michaux, Oxypolis rigidior (L.) J. Coutter & Rose, and Glyceria striata (Lam.) A. Hitchc. It should be noted that this station lies east of the St. Francois State Park station located some years ago by the Webster Groves Nature Study Society. 31 July 1983, Orzell 1068.

Habenaria clavellata (Michaux) Sprengel (Platanthera clavellata (Michaux) Luer)

Two new Wayne County stations are reported, both from deep shaded seep forest, for the Green Wood Orchid (Orchidaceae). H. clavellata occurs

on thick mossy hummocks of Thuidium delicatulum (Hedwig) B.S.G. and Climacium americanum Brid. Solidago patula Muhlenb., Impatiens capensis Meerb., and Carex bromoides Willd. are common associates at one Wayne County station. 18 June 1983, Orzell 1021. Hundreds of plants thrive on Sphagnum sp. - Thuidium delicatulum - Climacium americanum hummocks formed around the base of Acer rubrum L. or Alnus serrulata (Aiton) Willd. 28 May 1983, Orzell 925. The majority of plants remained sterile and few produced flowers in 1983. This orchid is listed as endangered (MDC, 1984).

Liparis loeselli (L.) Rich.

Loesel's Twayblade (Orchidaceae) is an endangered orchid (MDC, 1984) reported from Shannon, Carter, and Bollinger counties (Summers, 1981). Four new stations in Carter, Bollinger, Shannon, and Madison counties were discovered.

The newly located Carter County station is in a calcareous seep fen complex in a remote watershed. There are two populations of L. loeselli. One population thrives in full sun along a spring branch with Parnassia grandifolia, DC., Oxypolis rigidior (L.) J. Coulter & Rose, Carex hystericina Willd., Helenium autumnale L., Carex leptalea Wahlenb., and Rudbeckia fulgida Aiton. The other population thrives in partial shade on quaking mucky peat with copious seepage, associated with Impatiens capensis Meerb., Blyeria striata (Lam.) A. Hitchc., Carex laevivaginata (Kük.) Mackenzie., Carex lurida Wahlenb., and Senecio aureus L. 17 June 1983, Orzell 994.

The new station in Bollinger County is in a sedge shrub fen. Associates included Alnus serrulata (Aiton) Willd., Salix sericea Marshall, Cornus obliqua Raf., Carex leptalea Wahlenb., Ludwigia alternifolia L., Carex lurida Wahlenb., Solidago patula Muhlenb., Solidago riddellii Frank, Rudbeckia fulgida Aiton, and Pycnanthemum virginianum (L.) Durand & Jackson. 28 May 1983, Orzell & Wilhelm 924.

At the new Shannon County station L. loeselli occurs on the lower portion of a (hanging) calcareous seep fen. Rudbeckia fulgida Aiton, Carex leptalea Wahlenb., Scirpus atrovirens Willd., Hydrangea arborescens L., Satureja arkansana (Nutt.) Briq., Cypripedium reginae Walter, and Eupatorium perfoliatum L., are associates. No specimen collected, photographed on 19 July 1983.

The Madison County station is a new county record, from a sedge shrub fen. Associates were Salix sericeae Marshall, Carex suberecta (Olney) Britton, Carex interior L. Bailey, Carex lanuginosa Michaux, Carex leptalea Wahlenb., Rudbeckia fulgida Aiton, Senecio aureus L., Eupatorium perfoliatum L., Pedicularis lanceolata Michaux, Boehmeria cylindrica (L.) Sw. var. drummondiana Wedd., Chelone glabra L., Scirpus atrovirens Willd., Oxypolis rigidior (L.) J. Coulter & Rose, Agrimonia parviflora Aiton, Dulichium arundinaceum (L.) Britton, and Onoclea sensibilis L. 28 May 1983, Orzell & Wilhelm 920.

Peltandra virginica (L.) Schott & Endl.

Arrow Arum (Araceae) is listed as rare (MDC, 1984). A single robust plant of P. virginica was located in standing water of a roadside drainage ditch in Stoddard County. Aquatic associates included Lemna valdiviana Philipp, Azolla mexicana Presl, Polygonum hydropiperoides Michaux, and Ludwigia palustris (L.) Elliott. A single leaf and fruit serves as a voucher 3 August 1983. Orzell & Christ 1084.

Phlox maculata L. var. pyramidalis (Smith) Wherry

Seven new stations were located for Meadow Phlox (Polemoniaceae), considered rare (MDC, 1984). Six were in Reynolds County and one in Washington County. Phlox maculata most frequently associates with Carex vulpinoidea Michaux, Rudbeckia fulgida Aiton, and Pycnanthemum virginianum (L.) Durand & Jackson. In Missouri it is entirely restricted to fens in the southeastern Ozarks. Flowering has been recorded from July 11 through September 24, peaking July 15 - August 16 in most fens. Some of the material collected exhibited noteworthy phenotypic variation; a white-flowered form (Orzell 348), pink-flowered form (Orzell 812), and a form with a white inner corolla tube and lacking stem maculation (Orzell 729). None of these forms was previously known in Missouri.

Plantago cordata Lam.

Heart-leaf Plantain (Plantaginaceae) is on the Missouri watch list (MDC, 1984). This plant is a Category II species currently under review for possible federal listing as either a federally threatened or endangered species (U.S. Department of Interior, 1983). Eleven new stations were located (8 in Reynolds County, 2 in Carter County, and 1 in Dent County) along calcareous seep-fed streams or seep springs in fens. The largest population noted was along a remote high-quality calcareous seep-fed stream in Carter County where thousands of robust plants occur in dense stands. Flowering occurs from mid-April to early May. Not all of the sites are represented by vouchered material. 30 June 1982, Orzell 626; 26 April 1983, Orzell 880; 9 June 1983, Orzell 985; 17 June 1983, Orzell 995.

Pycnanthemum muticum (Michaux) Pers.

Mountain Mint (Lamiaceae) is listed as rare (MDC, 1984). Plants were occasional in a semi-open bottomland forest in Stoddard County, with Quercus phellos L., Carya tomentosa Nutt., Ilex decidua Walter, Eupatorium cuneifolium Willd. var. semisseratum (DC.) Fern. & Griscom, Hymenocallis occidentalis (LeConte) Kunth, and Aster vimineus Lam. 8 August 1983, Orzell & Christ 1079.

Scleria verticillata Willd.

Nut-rush (Cyperaceae) is on the watch list (MDC, 1984). Four new stations were located (1 in St. Francois County, 1 in Reynolds County, 1 in Shannon County and 1 in Washington County). All collections were from marly (calcareous ooze) areas in Ozark fens. Associates frequently included Satureja arkansana (Nutt.) Briq., Rhynchospora capillacea Torrey, Rudbeckia fulgida Aiton, Parnassia grandifolia DC., Panicum flexile (Gattinger) Scribner, Lysimachia quadriflora Sims, and often Fuirena simplex Vah. 9 August 1981, Orzell 367; 4 August 1981, Orzell 835; 12 August 1982, Orzell 846; 24 September 1983, Orzell 1199.

Sullivantia renifolia Rosend.

S. renifolia (Saxifragaceae) was located at two new stations in Jefferson County and one in Franklin County. The Franklin County station was along a north-facing sandstone bluff of the Roubidoux formation (Ordovician age) near Moselle, several miles from the Franklin County Steyermark station. Jefferson County stations were all on dripping wet St. Peter sandstone formations (Ordovician age): one along the Meramec River; the other from a series of shelter caves near Clubmoss Hollow (a former Steyermark station). 25 June 1980, Orzell 225; 16 July 1980, Orzell 226; 21 July 1980, Orzell 229.

Symphoricarpos occidentalis Hook.

Wolfberry (Caprifoliaceae) is listed as endangered (MDC, 1984). Several plants were located along a railroad right-of-way in Nodaway County. Associates included Solidago graminifolia (L.) Salisb., Helianthus grosseserratus Martens, Setaria faberii Herrm., Asclepias syriaca L., Ambrosia trifida L., and Muhlenbergia sp. 11 September 1983, Orzell & Raveill 1169.

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The Spirit of Wildflower Gardening

Paul Nelson¹

Just less than 200 years ago, Missouri's 44 million acres of land provided habitat for a variety of wildflowers. Our European ancestors were enthralled by the state's scenery and wildflower spectacles. Since the time of settlement, we have witnessed rapid alteration of the fabric of delicate plant communities. Indeed, looking today at what remains, one finds it hard to grasp the concept of the original landscape and its varied wildflowers. One can now drive thousands of miles in Missouri only to see mosaics of fescue, corn, soybeans, weedy depleted pastures, reservoirs, stripped land, and urban sprawl.

The mere cameos of our presettlement wildflower landscapes which still exist are places of special importance to us. So valuable to us are these special remnants of original landscape that they form part of our heritage. We especially recognize the scientific value in preserving the purity of natural areas set aside in state parks, wildlife refuges, forest service property, scenic riverways, and on the properties of private individuals.

We so cherish the value of our wildflower heritage that, in recent years, we have encouraged our members and the general public to capture this beauty in wildflower gardens. As one who appreciates this heritage, and cannot always visit these special places away from home to see wildflowers, I have planted a backyard wildflower garden. In fact, I'm sure its the only one in Loose Creek! With so many new members now considering establishing wildflower gardens, I would like to reinstate several points considered in past years by the Society:

- 1) Do not transplant or seed native wildflowers or plants in natural habitats where the plants can spread uncontrolled. This is especially critical in scientifically valuable natural areas, state parks, or other lands where native assemblages of plants can still be studied or preserved. Remember, these cameos of natural habitat are the purest, most precious remnants of our natural heritage left.
- 2) When considering native plants, be sure to use seed sources or plantings known only from your local area. The seed of bloodroot or blue-eyed Mary collected in Tennessee and planted in

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northern Missouri does not produce the exact genetic plants found locally. You should investigate the source of plant material listed in seed catalogues.

3) Good sources of plant material come from salvage operations. I collected wildflowers from a reservoir construction site where they were to be destroyed.

4) Remember the property rights of others. You must have permission to collect seed or dig plants on the land of other landowners. Wildflowers are protected on most public lands including state parks, wildlife refuges, Forest Service and National Park Service property.

5) Finally, remember good ethics in collecting or transplanting native plants. Our Society has developed policies regarding these ethics which were published in Missouriensis*.

In the spirit of those ancestors first inspired by our wildflower heritage, let's garden with plants "wild" from "Missouri" and protect and appreciate those wild in our Missouri wilderness.

*Reference: Missouriensis; Spring, 1980. Volume 1, Number 4, pp. 2-3.

Wildflowers I Have Grown

Edgar Denison¹

Allium stellatum - Wild Onion. About 1 foot high, free flowering in fall. Seeds readily. Full sun. September - October.

Anemone canadensis - White Anemone. About 20" high, long-flowering, April through June. Spreads aggressively by stolons. Excellent border plant.

Aquilegia canadensis - Wild Columbine. About 2 feet tall, free-flowering in April/May. Aggressive spreader through seeds. Seeds germinate best immediately upon ripening.

Arisaema dracontium - Green Dragon. Light shade, easy from seed. Culture 1. To 3' tall, forms corms. Must be kept in check.

Arisaema triphyllum - Jack in the Pulpit. Similar in every respect to A. dracontium but not as aggressive. Flowers in April. Fruit of both species of Arisaema are brilliant red berries.

Asarum canadense - Wild Ginger. Best started from root cutting. Good ground cover, spreads rapidly. Shiny leaves; roots are a ginger substitute. Needs some shade.

Asclepias incarnata - Swamp Milkweed. To 6' tall, pink (rarely white) flowers, fragrant and showy. Spreads rapidly through seeds. Subject to infestation by yellow aphids. Attracts butterflies. Water during dry spells.

Aster oblongifolius - Oblong-leaf Aster. In contrast to its appearance in nature forms large, wide-spread clumps in garden. Very free-flowering in fall, to 2 1/2' tall. Self-seeds freely.

Aster novaeangliae - New England Aster. To 6 feet tall, in many color variants, free-flowering. Forms clumps which should be staked. Treat like Chrysanthemums and pinch back repeatedly until late August. Full sun. Water when dry.

Campanula americana - Tall Bellflower. To 7' tall, wide branched, with many blue (rarely white) flowers. As in the wild, it needs water. Self-seeds profusely, prefers light shade. Probably a biennial.

Cassia marilandica - Wild Senna. Vigorous perennial to 8' tall, with many branches loaded with yellow, pea-flowers. Grows in the wild in varied habitats: on glades and in moist bottomlands. Seeds germinate readily.

Chelone obliqua - Rose Turtlehead. RARE, to 7' tall with fleshy roots. Does well in good soil when given water in summer. Seeds germinate readily (Culture 1). Even very small, young plants will set flowers.

Cimicifuga racemosa - Black Snakeroot. Shade-loving, to 7' tall. Showy, white racemes are long lasting in summer (June - July). Spreads by root division. Demands humus-rich soil and moisture.

Clematis fremontii - Fremont's Leather Flower. A glade dweller, which appeared on an imitation mini-glade in my garden and has persisted. Drainage paramount requirement, soil secondary. Flowers in April. This is a non-climbing Clematis.

Collinsia verna - Blue-eyed Mary. Annual, about 10" high. Seeds germinate in late fall and stay green through the winter as seed-leaves (cotyledons). Will carpet entire garden if permitted. Excellent companion to tulips and narcissus. Blooms in April.

Dicentra cucullaria - Dutchman's Breeches. To 15" high in shade, with perfect drainage (never on level ground) and humus-rich soil. Flowers in April. Corms can be divided.

Dicentra canadensis - Squirrel Corn. Similar to preceding. Does not tolerate sun. Needs perfect drainage on a hill.

Dodecatheon meadia - Shooting Star. This is a report of a failure. Germinates readily but will not tolerate transplanting. Seed where it is to grow. Being both a prairie and a glade dweller D.C. should not be a difficult subject.

Filipendula rubra - Queen of the Prairie. RARE, found in very moist situations. Does very well under garden conditions with supply of moisture during dry periods. To nearly 7' tall with magnificent clusters of pink flowers from late June to August. Must be divided about every 3 years or will exhaust soil. Full sun or light shade.

Gentiana alba - Pale Gentian (formerly G. pallida). Very RARE. Good germination from seed collected in Warren County. To 2' tall, large white flowers in terminal clusters. Limestone habitat, but protected from afternoon sun by Junipers. Culture 1. Flowers in September.

Gentiana andrewsii - Closed Gentian (formerly G. clausa). Readily grown from seeds and self-seeds. Prefers light shade and moist habitat. Spectacular purple and blue floral clusters in September/October on 18" stems. Subject to a fungal disease, causing withering. Primarily a rock garden species.

Geranium maculatum - Wild Geranium, Crane's Bill. Woodland dweller demanding shade and rich humus. Spreads readily from seeds. Aggressive plant with rose to magenta flowers in April/May.

Heterotheca latifolia - Golden Aster. A composite but NOT an Aster. Easy from seed. Many flowers on much branched plants to 3' tall, yellow, in September. Full sun.

Iris fulva - Copper Iris. Though at home in southern Missouri does very well in central parts. To 3' tall with light brown to copper color blossoms. Rich soil and ample moisture (grows normally in ditches and sloughs). Roots must be divided occasionally.

Iris virginica - Southern Blue Flag. About 3' tall, easy from seed. Needs ample water during dry times. Roots spread. Flower color very variable from palest purple to deep and (very rare) almost white. Short flowering season in June.

Iris cristata - Crested Iris. A low growing Iris of rich valleys and slopes. Tolerates open shade well (may even like it!). Spreads through rhizomes into large groups. Flowers in April.

Iris brevicaulis - Short-stemmed Iris. Quite RARE near sloughs and flowing water, but always with excellent drainage. Flowers low but very large and variable in color light to deep purple. Foliage tall to 2½' hides flowers. Seed germination easy.

Lithospermum latifolium - (no common name). A perennial, shrub-like relative of the Hoary Puccoon. RARE, with insignificant flowers, grown as a curiosity. Has no garden value.

Lobelia cardinalis - Cardinal Flower. Tall dwellers of stream borders do well in rich soil if given water during dry season. To 6' tall with cardinal-red spikes of flowers from July to September. Easy from seed. Forms rosette 1st year and blooms during 2nd.

Lobelia siphilitica - Great Blue Lobelia. Found in creek bottoms and other wet situations. To 2' tall (occasionally much taller!) with blue or purple flowers, rarely white, blooms August - September. Difficult to get started but quite vigorous once established.

Mertensia virginica - Blue bells. In nature only in bottomlands, but an excellent garden subject in rich soil. Flowers light blue and pink in April. As foliage disappears in June their place of growth should be marked. The roots look like old leather very unroot-like. About 2' tall.

Mimulus alatus - Monkey Flower. Habitat: wet places. Much branched plant with lavender flowers during summer. Very aggressive in garden through self-seeding. To 3' tall.

Monarda fistulosa - Wild Bergamot. Of easiest culture, spreading through roots, to 3' tall with pink flowers, which attract butterflies. Highly aromatic foliage. The well-known M. didyma with brilliant red flowers is NOT native to Missouri. Flowers in summer. The earlier flowering M. russeliana is paler.

Nemastylis geminiflora - (Steiermark gives no common name). A beautiful member of the Iris family to 1' tall with lavender flowers. They are incredibly deep rooted, often in sticky clay, and demand excellent drainage. Full sun. Need a dry season in summer. Do not dig, try seeds planted immediately on ripening.

Oenothera macrocarpa - Large-fruited evening Primrose. This glory of our glades (formerly named O. missouriensis) grows well in gardens if near-glade conditions are provided, i.e. lots of rubble, little soil, perfect drainage. It can bloom itself to death. Huge, lemon-yellow flowers open during afternoon in May and June. Do not water in summer. About 1' tall.

Oenothera triloba - Evening Primrose (no specific common name). RARE in Missouri. Needs poor soil with good drainage. Flowers large, but smaller than O. macrocarpa open in 2-3 seconds at dusk and are usually closed by daybreak. Foliage dandelion-like. Full sun. About 9" tall.

Polygonatum canaliculatum - Solomon's Seal. Easy from root division. Tolerant to soil and situation, either sun or open shade. To 3' high with small bells hanging from nodes. Can be very aggressive in garden.

Rudbeckia triloba - Brown-eyed Susan. I have grown selected stock from a plant, found in the wild, which has a deep-red center of the normally yellow ray florets. Makes a very showy "bush" to 4' tall under garden conditions. Many small inflorescences over a long period in fall.

Sanguinaria canadensis - Bloodroot. Easily grown from corms. Flowers short-lived in early spring with irregular number of petals. Shade in rich soil.

Silene regia - Royal Catchfly. FAIRLY RARE in dry situations, often in light shade. Tall, to 3½' with many brilliantly red flowers, which resemble the also native Firepink. Easy from seed when first stratified. Very long-flowering perennial.

Silene virginica - Firepink. Low plants to 18" with brilliantly red flowers in April and sometimes later. Want shade, rich soil and no competition. A plant of woodland borders.

Sisyrinchium campestre - Blue-eyed Grass. A glade dweller, which, however, thrives on better soil. To 1' tall with many small, blue flowers and very narrow leaves. It will take over any rock garden if permitted through copious seeding.

Spigelia marilandica - Pinkroot. A RARE plant of Ozark stream bottoms. Does very well in garden soil if protected from noon and afternoon sun. About 18" high with many tubular flowers in late May, brick red on the outside and yellow on the inside. Has never seeded. The seeds disappear during night and can only be saved by wrapping each stem. Quite showy, divides well after forming large clumps.

Stylophorum diphyllum - Celandine Poppy. Do not confuse with the European Celandine Poppy, which has small, insignificant flowers. Low, dense plants, about 15" high with beautiful, blue-green foliage and large, yellow blossoms in April. Like open shade, but tolerate some sun. Seeds profusely on humus-rich soil. Under garden conditions flowering is extended through mid-summer.

Talinum calycinum - Rock Pink. Not a "Pink" but a member of the Portulaca Family. Plant on raised surface (rock-garden) in rubble and sand. Forms small, fleshy rosettes from which arise pencil-line thin flowering stalks with cherry-pink flowers in June/July. Rhizomatic roots. Flowers open around noon each day. Ca 8" high.

Verbena canadensis - Rose Verbena. Low growing, creeping, an indicator of poor soil. Flowers off and on all through spring and summer in variable shades from pink to purple. Easiest culture.

Viola species - Violets. With exception of V. pedata, Birdsfoot Violet, the other common species are of easiest culture and readily raised from ripe seed. As all violets (with exception of V. pedata) produce seeds all through the season from unfertilized flowers (cryptogamous) the supply of seeds is no problem. Common species are: V. pennsylvanica - yellow; V. striata - white; V. papilionacea, V. sororia, viarum, agittata, triloba - violet.

V. papilionacea f. albiflora, the so-called Confederate Violet, is a white and violet form much seen in gardens.

V. pedata - Birdsfoot Violet. In many trials I have never been able to keep plants more than 2 years. It demands perfect drainage in a rocky soil with full sun or partial shade.

Note: All plant species mentioned are NATIVES of Missouri. There are, of course, many more native Missouri species which can be grown in gardens. Due to lack of space I have never worked with the large composites (Helianthus, Silphium, Helioopsis, Rudbeckia), many of which would be stunning additions to gardens. Nor have I experimented with the large tribe of Goldenrod (Solidago), of which lately a number appear in catalogues as worthy of garden space.

Culture 1 - Stratify seeds over winter, i.e., spread them on a layer of sand, cover lightly, and expose to freezing and thawing. It is desirable to protect the stratified seed so that heavy rain will not wash out the seeds. Cover seeds with old screening wire or hardware cloth to keep birds and rodents from eating the seeds. Seeds should germinate in spring, though a number of plants have a seed dormancy of 2 (or more) years.

WHAT'S NEW IN MISSOURI? II

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This is the second installment of a regular column designed to rapidly disseminate post-Steyermark Missouri state records. Our first installment (see *Missouriensis* 5(1)) generated welcome feedback; we encourage further comments on content and arrangement of data.

The names presented here are those that we consider currently acceptable. If no consensus exists in the primary literature, opposing viewpoints will be noted. Where nomenclature differs from Steyermarkian usage synonyms are included. Explanatory notes are added as needed.

Albizzia julibrissin Durz. (FABACEAE = LEGUMINOSAE) Thompson 1980: 194.
Arabis glabra L. (BRASSICACEAE = CRUCIFERAE) Mohlenbrock 1980: 14.
Asplenium montanum Willd. (POLYPODIACEAE) Key 1982: 152; Key & Redfearn 1973: 1-2.

Beta vulgaris L. (CHENOPODIACEAE) Mühlenbach 1969: 165.
Brassica napus L. (BRASSICACEAE = CRUCIFERAE) Mühlenbach 1983: 172.
Brassica oleracea L. (BRASSICACEAE = CRUCIFERAE) Mühlenbach 1983: 172.

Carex crawfordii Fern. (CYPERACEAE) Mühlenbach 1983: 171; see also Hermann 1970.

Chasmanthium sessiliflorum (Poir.) Yates (Uniola sessiliflora) (POACEAE = GRAMINEAE) Yates 1966: 428.

Cicuta maculata L. var. bolanderi (S. Wats.) G.A. Mulligan (Cicuta bolanderi) (APIACEAE = UMBELLIFERAE) Mulligan 1980: 1766.

Dichanthelium sabulorum (Lam.) Gould & Clark var. thinium (A.S. Hitchc. & Chase) Gould & Clark (Panicum columbianum) (POACEAE = GRAMINEAE) Weber 1982: 58.

Dodecatheon frenchii (Vasey) Rydb. (PRIMULACEAE) Nelson 1979a: 7-8.

Echinochloa utilis Ohwi & Yabuno (POACEAE = GRAMINEAE) Mühlenbach 1983: 171; Yabuno 1966: 319; Ohwi 1962: 50. Note: new to North America?

Equisetum X ferrissii Clute (EQUISETACEAE) Key 1982: 52. Note: distribution based on collections at MO.

Eragrostis secundiflora Presl. subsp. oxylepis (Torr.) S.D. Koch (Eragrostis oxylepis or E. secundiflora) (POACEAE = GRAMINEAE) Koch 1974: 397; Mühlenbach 1969: 165.

Eschscholtzia californica Cham. (PAPAVERACEAE) Steyermark 1963 (Supplement): 1652.

Galium divaricatum Poir. ex Lamark (RUBIACEAE) Castaner 1983: 111; Dempster 1979: 12. Note: This taxa might eventually be lumped with G. parisiense L.

Galium pedemontanum (Bellardi) Ali. (RUBIACEAE) Sanders 1976: 73-80.

Heliotropium curassavicum L. (BORAGINACEAE) Nelson 1979b: 246-247.

Ipomoea trichocarpa Ell. (CONVOLVULACEAE) Austin 1978: 125. Note: localities were not cited in this reference.

- Lactuca sativa L. (ASTERACEAE = COMPOSITAE) Mühlenbach 1983: 172.
- Parthenocissus tricuspidata (Sieb. & Zucc.) Planch. (VITACEAE) Mühlenbach 1969: 167.
- Pisum sativum L. (FABACEAE = LEGUMINOSAE) Mühlenbach 1969: 167.
- Plantago patagonica Jacq. (PLANTAGINACEAE) Rahn 1978: 149. Note: localities were not cited in this reference.
- Plantago wrightiana Dcne. (PLANTAGINACEAE) Steyermark 1963(Supplement): 1653.
- Salix X rubens Schrank (Salix alba X S. fragilis) (SALICACEAE) Mühlenbach 1983: 171; Kartesz & Kartesz 1980: 427.
- Selaginella eclipses Buck (SELAGINELLACEAE) Buck 1977: 366-371; Redfearn 1982: 16-17. Note: See corrected map for S. apoda.
- Smilax illinoensis Mangaly (SMILACACEAE split from LILIACEAE) Steyermark 1963(1968 Errata): 1727; Mangaly 1968: 263-264.
- Symphoricarpos albus (L.) Blake (CAPRIFOLIACEAE) Mühlenbach 1983: 172.
- Torilis arvensis (Huds.) Link (APIACEAE = UMBELLIFERAE) Mühlenbach 1969: 168.
- Viola arvensis Murray (VIOLACEAE) Mühlenbach 1983: 172.

ERRATA

1. Alliaria officinalis is now Alliaria petiolata (Bieb.) Cavara & Grande Tutin et al., eds. 1964: 267; Patman & Iltis 1961: 42; Smith 1978: 123.
2. Bothriochloa bladhii (Andropogon intermedia) Allred & Gould 1983: 168-184.
3. The following are family names for plants discussed in the previous issue:

<u>Aeschynomene</u> = FABACEAE/GRAMINEAE	<u>Fumaria</u> = FUMARIACEAE
<u>Aira</u> = POACEAE/GRAMINEAE	<u>Gaura</u> = ONAGRACEAE
<u>Alliaria</u> = BRASSICACEAE/CRUCIFERAE	<u>Geum</u> = ROSACEAE
<u>Alyssum</u> = BRASSICACEAE/CRUCIFERAE	<u>Gossypium</u> = MALVACEAE
<u>Artemisia</u> = ASTERACEAE/COMPOSITAE	<u>Gutierrezia</u> = ASTERACEAE
<u>Asclepias</u> = ASCLEPIADACEAE	<u>Ipomoea</u> = CONVULVACEAE
<u>Atriplex</u> = CHENOPODIACEAE	<u>Juncus</u> = JUNCACEAE
<u>Aubrieta</u> = BRASSICACEAE/CRUCIFERAE	<u>Lepidium</u> = BRASSICACEAE
<u>Bothriochloa</u> = POACEAE/GRAMINEAE	<u>Lonicera</u> = CAPRIFOLIACEAE
<u>Bromus</u> = POACEAE/GRAMINEAE	<u>Lychnis</u> = CARYOPHYLLACEAE
<u>Brunnera</u> = BORAGINACEAE	<u>Mentzelia</u> = LOASACEAE
<u>Centaurea</u> = ASTERACEAE/COMPOSITAE	<u>Oenothera</u> = ONAGRACEAE
<u>Ceratostigma</u> = PLUMBAGINACEAE	<u>Ophioglossum</u> = OPHIOGLOSSAC.
<u>Chenopodium</u> = CHENOPODIACEAE	<u>Paspalum</u> = POACEAE
<u>Coreopsis</u> = ASTERACEAE/COMPOSITAE	<u>Pennisetum</u> = POACEAE
<u>Crepis</u> = ASTERACEAE/COMPOSITAE	<u>Philadelphus</u> = SAXIFRAGAC.
<u>Croton</u> = CHENOPODIACEAE	<u>Physalis</u> = SOLANACEAE
<u>Cucumis</u> = CUCURBITACEAE	<u>Prunus</u> = ROSACEAE
<u>Cynosurus</u> = POACEAE/GRAMINEAE	<u>Ratibida</u> = ASTERACEAE
<u>Cyperus</u> = CYPERACEAE	<u>Reseda</u> = RESEDACEAE

<u>Desmodium</u> = FABACEAE/LEGUMINOSAE	<u>Salsola</u> = CHENOPODIACEAE
<u>Dipsacus</u> = DIPSACACEAE	<u>Sclerochloa</u> = POACEAE
<u>Eragrostis</u> = POACEAE/GRAMINEAE	<u>Senecio</u> = ASTERACEAE
<u>Erodium</u> = GERANIACEAE	<u>Thelesperma</u> = ASTERACEAE
<u>Eupatorium</u> = ASTERACEAE/COMPOSITAE	<u>Verbena</u> = ASTERACEAE
<u>Fimbristylis</u> = CYPERACEAE	<u>Veronica</u> = SCROPHULARIAC.

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2471 *Albizzia*
julibrissin



2472 *Arabis glabra*



2473 *Asplenium*
montanum



2474 *Beta vulgaris*



2475 *Brassica napus*
var. *napus*



2476 *Brassica*
oleracea



2477 *Carex*
crawfordii



2478 *Chasmanthium*
sessiliflorum



2479 *Cicuta maculata*
var. *bolanderi*



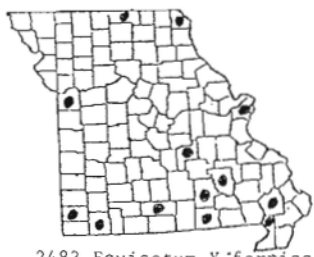
2480 *Dichanthelium*
sabulorum var. *thinium*



2481 *Dodecatheon*
frenchii



2482 *Echinochloa*
utilis



2483 *Equisetum* X *ferrissii*



2484 *Eschscholtzia*
californica



2485 *Eragrostis secundiflora*
ssp. *oxylepis*



2486 *Galium*
divaricatum



2487 *Galium*
pedemontanum



2488 *Heliotropium*
curassavicum



2489 *Ipomoea trichocarpa*



2490 *Lactuca*
sativa



2491 *Parthenocissus*
tricuspidata



2492 *Plantago patagonica*



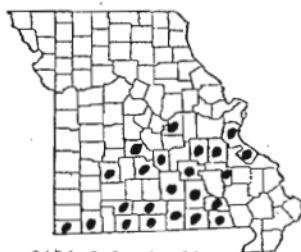
2493 *Plantago wrightiana*



2494 *Salix X rubens*



2495 *Selaginella*
apoda



2496 *Selaginella*
eclipses



2497 *Smilax*
illinoensis



2498 *Symphoricarpos albus*



2499 *Torilis*
arvensis



2500 *Viola arvensis*

MISSOURI BOTANICAL RECORD*

Edited by Wallace R. Weber¹ and Jay Raveill

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Equisetum arvense</i> var. <i>arvense</i>	0010	Adair	Conrad 4365	
<i>Equisetum laevigatum</i>	0012	Adair	Conrad 4872	NEMO
<i>Equisetum hyemale</i> var. <i>pseudohyemale</i>	0013	Macon	Hein	NEMO
<i>Botrychium dissectum</i> var. <i>dissectum</i>	0014	Sullivan	Conrad 5759	NEMO
<i>Botrychium dissectum</i> var. <i>obliquum</i>	0014	Sullivan	Conrad 5757	NEMO
<i>Botrychium dissectum</i> var. <i>obliquum</i>	0014	Randolph	Conrad 8776	NEMO
<i>Matteuccia struthiopteris</i> var. <i>pennsylvanica</i>	0038	Sullivan	Conrad 9014	NEMO
<i>Asplenium platyneuron</i> var. <i>platyneuron</i>				
f. <i>platyneuron</i>	0045	Adair	Conrad 5338	NEMO
<i>Asplenium platyneuron</i> var. <i>platyneuron</i>				
f. <i>platyneuron</i>	0045	Randolph	Conrad 5734	NEMO
<i>Asplenium platyneuron</i> var. <i>platyneuron</i>				
f. <i>platyneuron</i>	0045	Sullivan	Conrad 5761	NEMO
<i>Asplenium platyneuron</i> var. <i>platyneuron</i>				
f. <i>platyneuron</i>	0045	Macon	Hein	NEMO
<i>Camptosorus rhizophyllus</i>	0049	Adair	Conrad 5586	NEMO
<i>Woodsia obtusa</i>	0053	Macon	Hein	NEMO
<i>Dryopteris austriaca</i> var. <i>spinulosa</i>	0058	Adair	Conrad 5662	NEMO
<i>Taxodium distichum</i>	0066	Adair	Conrad 8042	NEMO
<i>Typha angustifolia</i>	0070	Adair	Conrad 5635	NEMO
<i>Typha angustifolia</i>	0070	Clark	Conrad 9349	NEMO
<i>Typha angustifolia</i>	0070	Randolph	Conrad 9539	NEMO
<i>Sparganium eurycarpum</i>	0072	Adair	Conrad 5659	NEMO
<i>Potamogeton foliosus</i> var. <i>macellus</i>	0077	Adair	Conrad 7765	NEMO
<i>Potamogeton diversifolius</i>	0079	Adair	Conrad 4867	NEMO
<i>Potamogeton nodosus</i>	0083	Adair	Conrad 4335	NEMO
<i>Potamogeton illinoensis</i>	0084	Randolph	Conrad 8584	NEMO
<i>Sagittaria graminea</i>	0096	Macon	Conrad 5905	NEMO
<i>Sagittaria graminea</i> var. <i>graminea</i>	0096	Adair	Conrad 4331	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Sagittaria engelmanniana</i> subsp. <i>brevirostra</i>	0098	Randolph	Conrad 8408	NEMO
<i>Anacharis nuttallii</i>	0100	Clark	Conrad 9296	NEMO
<i>Bromus inermis</i>	0106	Adair	Conrad 4755	NEMO
<i>Bromus racemosus</i>	0111	Clark	Conrad 9315A	NEMO
<i>Bromus japonicus</i>	0113	Adair	Conrad 4756	NEMO
<i>Bromus japonicus</i>	0113	Randolph	Conrad 8054	NEMO
<i>Bromus tectorum</i> var. <i>tectorum</i>	0116	Adair	Conrad 4801	NEMO
<i>Bromus tectorum</i> var. <i>tectorum</i>	0116	Randolph	Sanders	NEMO
<i>Festuca elatior</i> var. <i>elatior</i> f. <i>aristata</i>	0120	Randolph	Conrad 8051	NEMO
<i>Festuca elatior</i> var. <i>elatior</i> f. <i>elatior</i>	0120	Randolph	Conrad 8082	NEMO
<i>Festuca elatior</i> var. <i>elatior</i> f. <i>elatior</i>	0120	Lewis	Conrad 9702	NEMO
<i>Poa pratensis</i>	0134	Randolph	Conrad 8056	NEMO
<i>Eragrostis capillaris</i>	0144	Randolph	Conrad 8411	NEMO
<i>Eragrostis pectinacea</i>	0147	Adair	Conrad 7411	NEMO
<i>Eragrostis pectinacea</i>	0147	Randolph	Conrad 8230	NEMO
<i>Agrostis hyemalis</i> var. <i>hyemalis</i>	0215	Adair	Conrad 5609	NEMO
<i>Eragrostis cilianensis</i>	0148	Randolph	Conrad 8729	NEMO
<i>Eragrostis poaeoides</i>	0149	Randolph	Conrad 8286	NEMO
<i>Eragrostis spectabilis</i> var. <i>spectabilis</i>	0154	Randolph	Conrad 8528	NEMO
<i>Uniola latifolia</i>	0162	Randolph	Conrad 8283	NEMO
<i>Dactylis glomerata</i>	0164	Adair	Conrad 5607	NEMO
<i>Dactylis glomerata</i>	0164	Randolph	Conrad 8115	NEMO
<i>Melica nitens</i>	0167	Adair	Conrad 5666	NEMO
<i>Agropyron repens</i> var. <i>subulatum</i> f. <i>subulatum</i>	0174	Adair	Conrad 5716	NEMO
<i>Agropyron smithii</i>	0175	Adair	Conrad 5663	NEMO
<i>Aegilops cylindrica</i>	0178	Adair	Dierker	NEMO
<i>Elymus villosus</i> var. <i>arkansanus</i>	0181	Randolph	Conrad 8277	NEMO
<i>Elymus villosus</i> f. <i>villosus</i>	0181	Randolph	Conrad 8360	NEMO

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TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Elymus villosus</i> f. <i>villosus</i>	0181	Sullivan	Conrad 9972	NEMO
<i>Elymus canadensis</i>	0183	Randolph	Conrad 8234	NEMO
<i>Elymus virginicus</i> var. <i>jejunus</i>	0185	Lewis	Conrad 9703	NEMO
<i>Elymus virginicus</i> var. <i>glabrifloras</i> f. <i>australis</i>	0185	Randolph	Conrad 8502	NEMO
<i>Elymus virginicus</i> var. <i>glabrifloras</i> f. <i>glabrifloras</i>	0185	Randolph	Conrad 8559	NEMO
<i>Elymus virginicus</i> var. <i>virginicus</i> f. <i>virginicus</i>	0185	Randolph	Conrad 8052	NEMO
<i>Hystrix patula</i> var. <i>patula</i>	0187	Randolph	Gunier	NEMO
<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0195	Adair	Conrad 5610	NEMO
<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	0195	Randolph	Bredehoeft	NEMO
<i>Sphenopholis nitida</i>	0197	Randolph	Conrad 8536	NEMO
<i>Danthonia spicata</i> var. <i>longipila</i>	0205	Adair	Conrad 6254	NEMO
<i>Agrostis stolonifera</i> var. <i>major</i>	0212	Randolph	Collin	NEMO
<i>Agrostis stolonifera</i> var. <i>major</i>	0212	Adair	Conrad 4879	NEMO
<i>Cinna arundinacea</i> var. <i>arundinacea</i>	0217	Randolph	Conrad 8557	NEMO
<i>Phleum pratense</i> var. <i>pratense</i> f. <i>pratense</i>	0221	Randolph	Conrad 8149	NEMO
<i>Phleum pratense</i>	0221	Macon	Hein	NEMO
<i>Muhlenbergia schreberi</i> var. <i>schreberi</i>	0231	Adair	Conrad 9965	NEMO
<i>Rubus pensilvanicus</i> f. <i>pensilvanicus</i>	1235	Adair	Conrad 5869	NEMO
<i>Sporobolus asper</i>	0235	Randolph	Conrad 8789	NEMO
<i>Stipa spartaea</i>	0245	Sullivan	Broyles	NEMO
<i>Aristida oligantha</i>	0248	Randolph	Crane	NEMO
<i>Aristida longespica</i> var. <i>geniculata</i>	0250	Adair	Conrad 4359	NEMO

TAXON	MAPS	COUNTY	COLLECTOR	HERBARIUM
<i>Eleusine indica</i>	0256	Adair	Conrad 5045	NEMO
<i>Spartina pectinata</i>	0260	Randolph	Conrad 8174	NEMO
<i>Phalaris arundinacea</i>	0271	Adair	Conrad 4754	NEMO
<i>Phalaris arundinacea</i>	0271	Knox	Conrad 8601	NEMO
<i>Phalaris arundinacea</i>	0271	Clark	Conrad 9324	NEMO
<i>Phalaris arundinacea</i>	0271	Lewis	Conrad 9658	NEMO
<i>Leersia oryzoides</i> f. <i>oryzoides</i>	0274	Adair	Conrad 4978	NEMO
<i>Leersia oryzoides</i> f. <i>oryzoides</i>	0274	Randolph	Conrad 8271	NEMO
<i>Digitaria sanguinalis</i>	0278	Randolph	Conrad 8429	NEMO
<i>Digitaria sanguinalis</i> var. <i>ciliaris</i>	0278	Adair	Conrad 7766	NEMO
<i>Digitaria ischaemum</i> var. <i>ischaemum</i>	0279	Adair	Conrad 4982	NEMO
<i>Digitaria ischaemum</i> var. <i>ischaemum</i>	0279	Randolph	Conrad 8424	NEMO
<i>Paspalum pubiflorum</i> var. <i>glabrum</i>	0289	Randolph	Conrad 8731	NEMO
<i>Paspalum ciliatifolium</i> var. <i>muhlenbergii</i>	0291	Randolph	Conrad 8053	NEMO
<i>Panicum depauperatum</i> var. <i>depauperatum</i>	296	Adair	Conrad 5623	NEMO
<i>Panicum linearifolium</i>	0298	Adair	Conrad 5627	NEMO
<i>Panicum lanuginosum</i> var. <i>fasciculatum</i>	0308	Randolph	Conrad 9278	NEMO
<i>Panicum lanuginosum</i> var. <i>implicatum</i>	0308	Adair	Conrad 5681	NEMO
<i>Panicum lanuginosum</i> var. <i>implicatum</i>	0308	Randolph	Westfall	NEMO
<i>Panicum lanuginosum</i> var. <i>lindheimeri</i>	0308	Randolph	Conrad 8569A	NEMO
<i>Panicum clandestinum</i>	0320	Randolph	Conrad 8057	NEMO
<i>Panicum philadelphicum</i> var. <i>philadelphicum</i>	0328	Sullivan	Conrad 5767	NEMO
<i>Panicum capillare</i> var. <i>capillare</i>	0329	Randolph	Conrad 8760	NEMO
<i>Panicum virgatum</i> var. <i>virgatum</i>	0331	Randolph	NO coll.	NEMO
<i>Echinochloa crusgalli</i> var. <i>crusgalli</i> f. <i>longiseta</i>	0338	Adair	Conrad 4238	NEMO
<i>Setaria geniculata</i>	0341	Adair	Conrad 4362	NEMO
<i>Setaria viridis</i> var. <i>viridis</i>	0343	Adair	Conrad 5014	NEMO
<i>Setaria viridis</i> var. <i>viridis</i>	0343	Randolph	Conrad 8097	NEMO
<i>Setaria faberii</i>	0344	Randolph	Conrad 8073	NEMO
<i>Cenchrus longispinus</i>	0346	Randolph	Conrad 8732	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Andropogon scoparius</i>	0352	Adair	Conrad 4346	NEMO
<i>Andropogon scoparius</i>	0352	Randolph	Conrad 8757	NEMO
<i>Andropogon scoparius</i>	0352	Macon	Hein	NEMO
<i>Andropogon virginicus</i>	0355	Randolph	Conrad 8599	NEMO
<i>Sorghum sudanense</i>	0359	Randolph	Conrad 8215	NEMO
<i>Zea mays</i>	0363	Adair	Conrad 4355	NEMO
<i>Cyperus aristatus</i>	0368	Adair	Conrad 7759A	NEMO
<i>Cyperus ferruginescens</i>	0375	Adair	Conrad 5037	NEMO
<i>Cyperus esculentus</i> var. <i>esculentus</i>				
f. <i>angustispicatus</i>	0378	Randolph	Conrad 9527	NEMO
<i>Cyperus esculentus</i> var. <i>esculentus</i>				
f. <i>esculentus</i>	0378	Randolph	Conrad 8539	NEMO
<i>Cyperus esculentus</i> var. <i>esculentus</i>				
f. <i>esculentus</i>	0378	Knox	Conrad 5875	NEMO
<i>Cyperus strigosus</i> var. <i>strigosus</i>	0379	Randolph	Conrad 8457	NEMO
<i>Cyperus strigosus</i> var. <i>strigosus</i>	0379	Adair	Conrad 4239	NEMO
<i>Cyperus filiculmis</i> var. <i>filiculmis</i>	0385	Randolph	Conrad 8434	NEMO
<i>Eleocharis engelmanni</i>	0395	Clark	Conrad 9784	NEMO
<i>Eleocharis obtusa</i> var. <i>obtusa</i>	0396	Randolph	Conrad 8080	NEMO
<i>Eleocharis smallii</i>	0398	Clark	Conrad 9370	NEMO
<i>Eleocharis tenuis</i>	0402	Adair	Conrad 5612	NEMO
<i>Scirpus americanus</i> var. <i>americanus</i>	0413	Clark	Conrad 9326	NEMO
<i>Scirpus americanus</i> var. <i>polyphyllus</i>	0413	Macon	Conrad 5914	NEMO
<i>Scirpus validus</i> var. <i>creber</i>	0415	Clark	Conrad 9334	NEMO
<i>Scirpus heterochaetus</i>	0417	Adair	Conrad 5660	NEMO
<i>Scirpus heterochaetus</i>	0417	Randolph	Conrad 9520	NEMO
<i>Scirpus heterochaetus</i>	0417	Clark	Conrad 9730	NEMO
<i>Scirpus fluviatilis</i>	0419	Randolph	Conrad 9519	NEMO
<i>Scirpus fluviatilis</i>	0419	Clark	Conrad 9729	NEMO

TAXON	MAPS	COUNTY	COLLECTOR	HERBARIUM
<i>Scirpus atrovirens</i> var. <i>georgianus</i>	0421	Adair	Conrad 4269	NEMO
<i>Scirpus atrovirens</i> var. <i>georgianus</i>	0421	Randolph	Conrad 8081	NEMO
<i>Scirpus atrovirens</i> var. <i>atrovirens</i> f. <i>atrovirens</i>	0421	Randolph	Walker	NEMO
<i>Scirpus atrovirens</i> var. <i>atrovirens</i> f. <i>stchnocephalus</i>	0421	Adair	Conrad 4880	NEMO
<i>Scirpus lineatus</i>	0424	Randolph	NO coll.	NEMO
<i>Scirpus cyperinus</i> var. <i>cyperinus</i>	0425	Adair	Conrad 4881	NEMO
<i>Carex retroflexa</i> var. <i>retroflexa</i>	0446	Randolph	Conrad 9146	NEMO
<i>Carex rosea</i>	0448	Adair	Conrad 4602	NEMO
<i>Carex cephalophora</i> var. <i>mesochorea</i>	0449	Clark	Conrad 9303	NEMO
<i>Carex leavenworthii</i>	0450	Lewis	Conrad 9708	NEMO
<i>Carex muhlenbergii</i>	0452	Randolph	Conrad 85008	NEMO
<i>Carex muhlenbergii</i> var. <i>australis</i>	0452	Adair	Conrad 5842	NEMO
<i>Carex gravida</i> var. <i>lunelliana</i>	0453	Adair	Conrad 4601	NEMO
<i>Carex vulpinoidea</i>	0456	Randolph	Bredenhoeft	NEMO
<i>Carex vulpinoidea</i>	0456	Lewis	Conrad 9710	NEMO
<i>Carex annectens</i> var. <i>annectens</i>	0457	Marion	Dierker	NEMO
<i>Carex stipata</i> var. <i>stipata</i>	0461	Randolph	Conrad 9261	NEMO
<i>Carex muskinguensis</i>	0466	Randolph	Conrad 8388	NEMO
<i>Carex scoparia</i> var. <i>scoparia</i> f. <i>scoparia</i>	0467	Clark	Conrad 9339	NEMO
<i>Carex scoparia</i> var. <i>scoparia</i> f. <i>scoparia</i>	0467	Lewis	Conrad 9709	NEMO
<i>Carex tribuloides</i>	0468	Randolph	Conrad 8276	NEMO
<i>Carex projecta</i>	0469	Randolph	Conrad 8391	NEMO
<i>Carex cristatella</i>	0470	Adair	Conrad 4762	NEMO
<i>Carex normalis</i>	0471	Adair	Conrad 4764	NEMO
<i>Carex normalis</i> var. <i>normalis</i>	0471	Clark	Conrad 9338	NEMO
<i>Carex brevior</i>	0476	Clark	Conrad 9363	NEMO
<i>Carex pensylvanica</i> var. <i>pensylvanica</i>	0486	Adair	Conrad 4576	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
Carex blanda	0500	Knox	Conrad 5602	NEMO
Carex granularis var. granularis	0502	Randolph	Conrad 9252B	NEMO
Carex oligocarpa	0505	Adair	Conrad 5403	NEMO
Carex amphibola var. amphibola	0508	Randolph	Conrad 9195	NEMO
Carex amphibola var. turgida	0508	Randolph	Conrad 8328	NEMO
Carex davisii f. davisii	0512	Adair	Conrad 4766	NEMO
Carex complanata var. complanata	0517	Randolph	Conrad 8160	NEMO
Carex complanata var. hirsuta	0517	Adair	Conrad 5632	NEMO
Carex lanuginosa	0520	Adair	Conrad 5605	NEMO
Carex shortiana	0522	Lewis	Conrad 9706	NEMO
Carex lurida	0534	Clark	Conrad 9342	NEMO
Carex laeviconica	0539	Adair	Conrad 5387	NEMO
Carex laeviconica	0539	Lewis	Conrad 9708	NEMO
Carex frankii	0541	Randolph	Conrad 8088	NEMO
Carex squarrosa	0542	Randolph	Conrad 8416	NEMO
Carex typhina	0543	Clark	Conrad 9763	NEMO
Carex grayii var. grayii	0545	Randolph	Conrad 8296	NEMO
Carex lupulina var. lupulina	0548	Randolph	Conrad 8389	NEMO
Carex lupulina var. pedunculata	0548	Adair	Conrad 4922	NEMO
Carex lupulina var. pedunculata	0548	Randolph	Conrad 8301	NEMO
Arisaema atrorubens f. viride	0551	Adair	Conrad 4604	NEMO
Arisaema atrorubens f. zebrinum	0551	Adair	Conrad 4597	NEMO
Arisaema atrorubens f. zebrinum	0551	Sullivan	Conrad 9031	NEMO
Arisaema atrorubens f. zebrinum	0551	Randolph	Conrad 9065	NEMO
Arisaema dracontium	0552	Adair	Conrad 5379	NEMO
Acorus calamus	0554	Adair	Collin	NEMO
Lemna minor	0558	Randolph	Conrad 8274	NEMO
Lemna minor	0558	Clark	Conrad 9298	NEMO
Comaelina communis	0575	Adair	Conrad 4975	NEMO

TAXON	MAPS	COUNTY	COLLECTOR	HERBARIUM
<i>Commelina communis</i>	0575	Randolph	Conrad 8529	NEMO
<i>Pontederia cordata</i> f. <i>latifolia</i>	0581	Clark	Conrad 9229	NEMO
<i>Pontederia cordata</i> f. <i>latifolia</i>	0581	Randolph	Conrad 9514	NEMO
<i>Juncus effusus</i> var. <i>solutus</i>	0585	Clark	Conrad 9340	NEMO
<i>Juncus secundus</i>	0589	Randolph	Conrad 8762	NEMO
<i>Juncus tenuis</i> f. <i>discretiflorus</i>	0590	Adair	Conrad 4865	NEMO
<i>Juncus tenuis</i> f. <i>discretiflorus</i>	0590	Randolph	Conrad 8538	NEMO
<i>Juncus tenuis</i> f. <i>tenuis</i>	0590	Adair	Conrad 4939	NEMO
<i>Juncus tenuis</i> f. <i>tenuis</i>	0590	Randolph	Conrad 9213A	NEMO
<i>Juncus interior</i>	0591	Adair	Conrad 4767	NEMO
<i>Juncus dudleyi</i>	0592	Clark	Conrad 9355	NEMO
<i>Juncus marginatus</i> var. <i>marginatus</i>	0593	Adair	Conrad 4864	NEMO
<i>Juncus marginatus</i> var. <i>marginatus</i>	0593	Randolph	Conrad 8078	NEMO
<i>Juncus torreyi</i>	0601	Adair	Conrad 4856	NEMO
<i>Juncus acuminatus</i> f. <i>acuminatus</i>	0602	Adair	Conrad 4332	NEMO
<i>Heimerocallis fulva</i>	0626	Randolph	Sanders	NEMO
<i>Erythronium albidum</i> var. <i>mesochoreum</i>	0630	Randolph	Conrad 8995	NEMO
<i>Yucca smalliana</i>	0637	Adair	Conrad 7813	NEMO
<i>Yucca smalliana</i>	0637	Randolph	Conrad 8768	NEMO
<i>Smilacina racemosa</i> var. <i>cylindrata</i>	0640	Randolph	Conrad 9218	NEMO
<i>Smilax rotundifolia</i>	0657	Randolph	Conrad 8102	NEMO
<i>Dioscorea villosa</i> f. <i>villosa</i>	0659	Adair	Conrad 5689	NEMO
<i>Dioscorea villosa</i> f. <i>villosa</i>	0659	Randolph	Conrad 8170	NEMO
<i>Hypoxis hirsuta</i>	0663	Adair	Conrad 4617	NEMO
<i>Sisyrinchium campestre</i> f. <i>campestre</i>	0678	Adair	Conrad 5408	NEMO
<i>Sisyrinchium campestre</i> f. <i>campestre</i>	0678	Sullivan	Conrad 9009	NEMO
<i>Sisyrinchium campestre</i> f. <i>kansanum</i>	0678	Adair	Conrad 5407	NEMO
<i>Spiranthes gracilis</i>	0700	Adair	Conrad 9609	NEMO
<i>Spiranthes cernua</i>	0702	Adair	Conrad 4338	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Spiranthes cernua</i>	0702	Randolph	Conrad 5735	NEMO
<i>Corallorhiza odontorhiza</i> f. <i>odontorhiza</i>	0708	Grundy	Conrad 9930	NEMO
<i>Liparis liliifolia</i>	0710	Macon	Hein	NEMO
<i>Salix nigra</i>	0715	Randolph	Conrad 8178	NEMO
<i>Salix caroliniana</i>	0716	Adair	Conrad 5695	NEMO
<i>Salix alba</i> var. <i>vitellina</i>	0720	Adair	Conrad 5709	NEMO
<i>Salix interior</i> var. <i>interior</i> f. <i>wheeleri</i>	0721	Adair	Conrad 5706	NEMO
<i>Salix eriocephala</i>	0723	Randolph	Conrad 8989	NEMO
<i>Salix humilis</i> var. <i>microphylla</i>	0725	Adair	Conrad 5580	NEMO
<i>Populus grandidentata</i>	0730	Adair	Conrad 7911	NEMO
<i>Populus tremuloides</i>	0732	Schuyler	Brischetto	NEMO
<i>Populus tremuloides</i>	0732	Lewis	Brischetto	NEMO
<i>Populus deltoides</i> var. <i>deltoides</i> f. <i>deltoides</i>	0737	Randolph	Conrad 8404	NEMO
<i>Carya illinoensis</i>	0741	Randolph	Conrad 8522	NEMO
<i>Carya laciniata</i>	0746	Randolph	Conrad 8333	NEMO
<i>Ostrya virginiana</i> var. <i>lasia</i>	0752	Adair	Conrad 4352	NEMO
<i>Quercus prinoides</i> var. <i>acuminata</i> f. <i>alexanderi</i>	0765a	Adair	Bell	NEMO
<i>Ulmus thomasi</i>	0779	Randolph	Conrad 8312	NEMO
<i>Ulmus alata</i>	0780	Adair	Conrad 5830	NEMO
<i>Celtis occidentalis</i> var. <i>occidentalis</i>	0784	Randolph	Conrad 8375	NEMO
<i>Celtis occidentalis</i> var. <i>pumila</i>	0784	Clark	Conrad 9735	NEMO
<i>Celtis laevigata</i> var. <i>laevigata</i>	0786	Lewis	Conrad 9664	NEMO
<i>Celtis laevigata</i> var. <i>smallii</i>	0786	Adair	Conrad 8036	NEMO
<i>Morus alba</i>	0788	Adair	Conrad 4792	NEMO
<i>Morus alba</i>	0788	Monroe	Mitchell	NEMO
<i>Morus alba</i>	0788	Randolph	Conrad 8525	NEMO
<i>Cannabis sativa</i>	0791	Adair	Keith 4973	NEMO

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<i>Cannabis sativa</i>	0791	Schuyler	Conrad 5558	NEMO
<i>Cannabis sativa</i>	0791	Clark	Conrad 9325	NEMO
<i>Humulus japonicus</i>	0793	Adair	Conrad 7335	NEMO
<i>Parietaria pensylvanica</i> var. <i>pensylvanica</i>	0800	Adair	Conrad 4798	NEMO
<i>Rumex acetosella</i> var. <i>acetosella</i>	0807	Randolph	Conrad 9212	NEMO
<i>Rumex altissimus</i>	0811	Randolph	Conrad 8046	NEMO
<i>Rumex crispus</i>	0814	Randolph	Conrad 8427	NEMO
<i>Polygonum achoreum</i>	0822	Adair	Conrad 5852	NEMO
<i>Polygonum aviculare</i>	0823	Randolph	Conrad 8259	NEMO
<i>Polygonum coccineum</i> var. <i>pratense</i>	0826	Adair	Conrad 5043	NEMO
<i>Polygonum coccineum</i> var. <i>coccineum</i> f. <i>coccineum</i>	0826	Randolph	Conrad 9516	NEMO
<i>Polygonum pensylvanicum</i> var. <i>laevigatum</i> f. <i>laevigatum</i>	0829	Scotland	Conrad 5073	NEMO
<i>Polygonum pensylvanicum</i> var. <i>laevigatum</i> f. <i>laevigatum</i>	0829	Adair	Conrad 4249	NEMO
<i>Polygonum pensylvanicum</i> var. <i>laevigatum</i> f. <i>laevigatum</i>	0829	Randolph	Conrad 8302	NEMO
<i>Polygonum lapathifolium</i> var. <i>lapathifolium</i>	0830	Randolph	Conrad 8419	NEMO
<i>Polygonum persicaria</i> var. <i>persicaria</i>	0833	Adair	Conrad 4310	NEMO
<i>Polygonum persicaria</i> var. <i>persicaria</i>	0833	Knox	Conrad 5876	NEMO
<i>Polygonum persicaria</i> var. <i>persicaria</i>	0833	Randolph	Conrad 8425	NEMO
<i>Polygonum punctatum</i> var. <i>confertiflorum</i>	0834	Adair	Conrad 7754	NEMO
<i>Polygonum punctatum</i> var. <i>punctatum</i>	0834	Scotland	Conrad 5077	NEMO
<i>Polygonum sagittatum</i> var. <i>sagittatum</i> f. <i>sagittatum</i>	0836	Adair	Conrad 4289	NEMO
<i>Polygonum convolvulus</i> var. <i>convolvulus</i>	0839	Adair	Conrad 4996	NEMO
<i>Polygonum cuspidatum</i>	0841	Adair	Conrad 7334	NEMO
<i>Chenopodium ambrosioides</i> var. <i>ambrosioides</i>	0849	Adair	Conrad 4311	NEMO
<i>Chenopodium album</i> var. <i>album</i>	0860	Adair	Conrad 4301	NEMO

TAXON	MAPS	COUNTY	COLLECTOR	HERBARIUM
<i>Chenopodium album</i> var. <i>lanceolatum</i>	0860	Adair	Conrad 7760	NEMO
<i>Chenopodium album</i> var. <i>lanceolatum</i>	0860	Randolph	Conrad 8439	NEMO
<i>Atriplex patula</i> var. <i>patula</i>	0865	Adair	Conrad 5068	NEMO
<i>Amaranthus tuberculatus</i>	0876	Adair	Conrad 8904	NEMO
<i>Amaranthus hybridus</i>	0882	Adair	Conrad 4298	NEMO
<i>Amaranthus albus</i> var. <i>pubescens</i>	0885	Adair	Conrad 5042	NEMO
<i>Amaranthus graecizans</i>	0886	Adair	Bell	NEMO
<i>Amaranthus graecizans</i>	0886	Randolph	Conrad 8432	NEMO
<i>Amaranthus tamariscinus</i>	0887	Adair	Conrad 4295A	NEMO
<i>Amaranthus tamariscinus</i>	0887	Randolph	Conrad 8300	NEMO
<i>Mirabilis nyctaginea</i>	0891	Adair	Conrad 5613	NEMO
<i>Mirabilis nyctaginea</i>	0891	Randolph	Conrad 9210A	NEMO
<i>Portulaca oleracea</i>	0900	Adair	Conrad 4816	NEMO
<i>Portulaca oleracea</i>	0900	Randolph	Conrad 8295	NEMO
<i>Stellaria media</i>	0918	Adair	Conrad 5809	NEMO
<i>Stellaria media</i>	0918	Randolph	Conrad 8972	NEMO
<i>Cerastium pumilum</i>	0929	Adair	Conrad 6175	NEMO
<i>Holosteum umbellatum</i>	0930	Adair	Conrad 5807	NEMO
<i>Silene antirrhina</i> f. <i>apetala</i>	0934	Adair	Conrad 4748	NEMO
<i>Silene antirrhina</i> f. <i>apetala</i>	0934	Randolph	Bredehaeft	NEMO
<i>Saponaria officinalis</i>	0945	Adair	Conrad 4834	NEMO
<i>Saponaria officinalis</i>	0945	Randolph	Bredehoeft	NEMO
<i>Dianthus armeria</i>	0949	Adair	Conrad 4710	NEMO
<i>Dianthus armeria</i>	0949	Randolph	Intveld	NEMO
<i>Dianthus armeria</i>	0949	Sullivan	Conrad 10022	NEMO
<i>Ceratophyllum demersum</i>	0951	Clark	Conrad 9297	NEMO
<i>Hydrastis canadensis</i>	0963	Adair	Conrad 5563	NEMO
<i>Thalictrum revolutum</i> f. <i>glabrum</i>	0968	Adair	Conrad 4702	NEMO
<i>Aquilegia canadensis</i> f. <i>canadensis</i>	0970	Randolph	Conrad 8355	NEMO
<i>Delphinium ajacis</i>	0971	Randolph	Walker	NEMO

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<i>Delphinium virescens</i>	0976	Adair	Conrad 4727	NEMO
<i>Delphinium virescens</i>	0976	Sullivan	Broyles	NEMO
<i>Isopyrum biternatum</i>	0977	Adair	Conrad 4544	NEMO
<i>Ranunculus abortivus</i> var. <i>abortivus</i>				
f. <i>abortivus</i>	0982	Adair	Conrad 5573	NEMO
<i>Ranunculus sceleratus</i> var. <i>sceleratus</i>				
f. <i>sceleratus</i>	0986	Lewis	Conrad 9700	NEMO
<i>Myosurus minimus</i>	0997	Adair	Conrad 5344	NEMO
<i>Myosurus minimus</i>	0997	Randolph	Conrad 9189	NEMO
<i>Anemone virginiana</i>	1000	Randolph	Conrad 8346	NEMO
<i>Anemone virginiana</i> f. <i>virginiana</i>	1000	Adair	Conrad 5867	NEMO
<i>Corydalis crystallina</i>	1032	Clark	Conrad 9723	NEMO
<i>Corydalis micrantha</i>	1034	Adair	Conrad 5827	NEMO
<i>Corydalis micrantha</i>	1034	Clark	Conrad 9744	NEMO
<i>Brassica nigra</i>	1040	Adair	Conrad 4774	NEMO
<i>Lepidium virginicum</i> var. <i>virginicum</i>	1051	Adair	Conrad 5370	NEMO
<i>Lepidium densiflorum</i> var. <i>densiflorum</i>	1052	Adair	Conrad 5615	NEMO
<i>Lepidium densiflorum</i> var. <i>densiflorum</i>	1052	Monroe	Conrad 7675	NEMO
<i>Thlaspi arvense</i>	1056	Randolph	Conrad 8983	NEMO
<i>Draba verna</i> var. <i>verna</i>	1062	Monroe	Conrad 7673	NEMO
<i>Draba brachycarpa</i>	1063	Adair	Conrad 5342	NEMO
<i>Draba brachycarpa</i>	1063	Monroe	Conrad 7674	NEMO
<i>Cardamine douglassii</i>	1072	Randolph	Conrad 8981	NEMO
<i>Cardamine hirsuta</i>	1073	Adair	Conrad 8876	NEMO
<i>Cardamine pennsylvanica</i> var. <i>pennsylvanica</i>	1074	Adair	Conrad 4558	NEMO
<i>Arabis canadensis</i>	1084	Randolph	Conrad 8504	NEMO
<i>Nasturtium officinale</i> var. <i>officinale</i>	1085	Clark	Conrad 9321	NEMO
<i>Rorippa islandica</i> var. <i>fernaldiana</i>	1090	Adair	Conrad 4802	NEMO
<i>Rorippa islandica</i> var. <i>fernaldiana</i>	1090	Knox	Conrad 5878	NEMO

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Rorippa islandica var. fernaldiana	1090	Randolph	Conrad 8044	NEMO
Iodanthus pinnatifidus	1092	Randolph	Conrad 9248	NEMO
Hesperis matronalis	1094	Adair	Conrad 5636	NEMO
Erysimum repandum	1097	Adair	Conrad 5432	NEMO
Sisymbrium officinale var. leiocarpum	1099	Adair	Conrad 4740	NEMO
Camelina microcarpa	1103	Randolph	Conrad 9281	NEMO
Penthorum sedoides	1116	Randolph	Conrad 8402	NEMO
Crataegus phaenopyrum	1154	Adair	Conrad 6220	NEMO
Crataegus crus-galli var. crus-galli	1167	Randolph	Conrad 8493	NEMO
Crataegus mollis	1185	Randolph	Conrad 9198	NEMO
Potentilla recta	1215	Randolph	Wenhoff	NEMO
Geum canadense var. camporum	1219	Randolph	Conrad 9263	NEMO
Geum canadense var. canadense	1219	Adair	Conrad 4906	NEMO
Geum canadense var. canadense	1219	Randolph	Sanders	NEMO
Rubus flagellaris var. flagellaris	1227	Randolph	Conrad 8150	NEMO
Rubus flagellaris var. occidentalis	1227	Randolph	Gunier	NEMO
Agrimonia gryposepala	1238	Adair	Conrad 4851	NEMO
Agrimonia parviflora	1239	Randolph	Conrad 8256	NEMO
Rosa multiflora	1242	Adair	Conrad 6237	NEMO
Rosa multiflora	1242	Lewis	Conrad 9657	NEMO
Rosa multiflora	1242	Randolph	Conrad 9083	NEMO
Rosa carolina var. carolina f. glandulosa	1251	Randolph	Thunburg	NEMO
Rosa blanda f. blanda	1255	Randolph	Conrad 9532	NEMO
Prunus mexicana	1258	Randolph	Conrad 8262	NEMO
Prunus hortulana	1260	Randolph	Conrad 8991	NEMO
Prunus munsoniana	1261	Clark	Conrad 9789	NEMO

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<i>Prunus munsoniana</i>	1261	Randolph	Conrad 8291	NEMO
<i>Desmanthus illinoensis</i>	1269	Macon	Conrad 5906	NEMO
<i>Schrankia uncinata</i>	1271	Randolph	Bredehoeft	NEMO
<i>Cassia marilandica</i>	1276	Adair	Conrad 4947	NEMO
<i>Trifolium pratense</i> var. <i>pratense</i> f. <i>pratense</i>	1289	Adair	Conrad 5621	NEMO
<i>Trifolium repens</i> f. <i>repens</i>	1293	Adair	Conrad 5619	NEMO
<i>Trifolium hybridum</i> var. <i>pratense</i>	1294	Adair	Conrad 5638	NEMO
<i>Trifolium hybridum</i> var. <i>pratense</i>	1294	Randolph	Conrad 8546	NEMO
<i>Trifolium reflexum</i> var. <i>glabrum</i>	1297	Adair	Conrad 5670	NEMO
<i>Trifolium reflexum</i> var. <i>glabrum</i>	1297	Clark	Conrad 9776	NEMO
<i>Trifolium campestre</i>	1299	Adair	Conrad 5699	NEMO
<i>Trifolium campestre</i>	1299	Randolph	Intveld	NEMO
<i>Medicago lupulina</i> var. <i>glandulosa</i>	1302	Adair	Conrad 7798	NEMO
<i>Melilotus officinalis</i>	1305	Adair	Conrad 4751	NEMO
<i>Lotus corniculatus</i>	1308	Adair	Gates	NEMO
<i>Petalostemon candidum</i>	1318	Randolph	Bagby	NEMO
<i>Amorpha fruticosa</i> var. <i>angustifolia</i>	1322	Lewis	Conrad 9659	NEMO
<i>Robinia pseudo-acacia</i>	1326	Adair	Conrad 5419	NEMO
<i>Robinia pseudo-acacia</i>	1326	Clark	Conrad 9748	NEMO
<i>Robinia pseudo-acacia</i>	1326	Randolph	Conrad 8279	NEMO
<i>Astragalus distortus</i>	1328	Knox	Conrad 5600	NEMO
<i>Astragalus canadensis</i> var. <i>canadensis</i>	1330	Adair	Conrad 4848	NEMO
<i>Coronilla varia</i>	1335	Macon	Meyer	NEMO
<i>Desmodium sessilifolium</i>	1343	Adair	Conrad 4985	NEMO
<i>Desmodium rigidum</i>	1344	Adair	Conrad 4965	NEMO
<i>Desmodium rigidum</i>	1344	Randolph	Conrad 9231	NEMO
<i>Desmodium canadense</i>	1347	Adair	Conrad 4364	NEMO
<i>Lespedeza procumbens</i>	1355	Adair	Peterson	NEMO
<i>Lespedeza capitata</i> var. <i>vulgaris</i>	1364	Adair	Conrad 4958	NEMO

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<i>Lespedeza capitata</i> var. <i>vulgaris</i>	1364	Randolph	Conrad 8152	NEMO
<i>Lespedeza cuneata</i>	1366	Randolph	Conrad 8775	NEMO
<i>Lespedeza cuneata</i>	1366	Chariton	Jackson	NEMO
<i>Lathyrus latifolius</i>	1385	Adair	Dimit	NEMO
<i>Apios americana</i> var. <i>americana</i> f. <i>pilosa</i>	1388	Randolph	Conrad 8110	NEMO
<i>Strophostyles helvola</i> var. <i>helvola</i>	1393	Randolph	Conrad 8451	NEMO
<i>Strophostyles leiosperma</i>	1395	Randolph	Conrad 8446	NEMO
<i>Glycine max</i>	1396	Randolph	Conrad 8524	NEMO
<i>Oxalis corniculata</i>	1409	Adair	Conrad 7458	NEMO
<i>Oxalis dillenii</i>	1410	Adair	Conrad 6255	NEMO
<i>Oxalis stricta</i>	1411	Randolph	Conrad 8049	NEMO
<i>Geranium carolinianum</i> var. <i>carolinianum</i>	1413	Randolph	Conrad 9275	NEMO
<i>Ptelea trifoliata</i> var. <i>trifoliata</i>				
f. <i>trifoliata</i>	1421	Adair	Conrad 5719	NEMO
<i>Ailanthus altissima</i>	1423	Adair	Conrad 4813A	NEMO
<i>Polygala sanguinea</i> f. <i>sanguinea</i>	1426	Randolph	Gunier	NEMO
<i>Croton capitatus</i> var. <i>capitatus</i>	1432	Adair	Conrad 6030	NEMO
<i>Croton capitatus</i> var. <i>capitatus</i>	1432	Randolph	Conrad 8059	NEMO
<i>Acalypha gracilens</i> var. <i>gracilens</i>	1440	Randolph	Conrad 8448	NEMO
<i>Euphorbia dentata</i> f. <i>dentata</i>	1444	Adair	Conrad 4302	NEMO
<i>Euphorbia dentata</i> f. <i>dentata</i>	1444	Randolph	Conrad 8157	NEMO
<i>Euphorbia marginata</i>	1452	Adair	Conrad 4305	NEMO
<i>Euphorbia marginata</i>	1452	Monroe	Morgan	NEMO
<i>Euphorbia serpens</i>	1456	Macon	Conrad 5916	NEMO
<i>Euphorbia supina</i>	1458	Randolph	Conrad 8428	NEMO
<i>Callitriche terrestris</i>	1464	Knox	Conrad 5884	NEMO
<i>Rhus copallina</i> var. <i>latifolia</i>	1470	Randolph	Conrad 8123	NEMO
<i>Acer negundo</i> <i>interius</i>	1486	Randolph	Conrad 8966	NEMO
<i>Acer negundo</i> <i>negundo</i>	1486	Clark	Conrad 9354	NEMO

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<i>Impatiens pallida</i> f. <i>pallida</i>	1491	Adair	Conrad 4921	NEMO
<i>Vitis aestivalis</i> var. <i>aestivalis</i>	1506	Randolph	Conrad 8084	NEMO
<i>Tilia heterophylla</i>	1514	Adair	Conrad 5080	NEMO
<i>Malva neglecta</i>	1518	Adair	Conrad 7391	NEMO
<i>Hypericum perforatum</i>	1537	Adair	Conrad 4808	NEMO
<i>Hypericum perforatum</i>	1537	Randolph	Collier	NEMO
<i>Hypericum mutilum</i> var. <i>mutilum</i>	1542	Adair	Conrad 4333	NEMO
<i>Hypericum mutilum</i> var. <i>parviflorum</i>	1542	Adair	Conrad 5082	NEMO
<i>Viola missouriensis</i>	1560	Randolph	Conrad 8319	NEMO
<i>Viola viarum</i> f. <i>pilifera</i>	1564	Adair	Conrad 5567	NEMO
<i>Viola pennsylvanica</i> var. <i>pennsylvanica</i>	1568	Randolph	Conrad 9207	NEMO
<i>Viola kitaibeliana</i> var. <i>rafinesquii</i>	1571	Adair	Dimit	NEMO
<i>Viola kitaibeliana</i> var. <i>rafinesquii</i>	1571	Clark	Conrad 9761	NEMO
<i>Opuntia macrorhiza</i>	1576	Adair	Conrad 5704	NEMO
<i>Amorimia coccinea</i>	1582	Randolph	Conrad 9509	NEMO
<i>Duphea petiolata</i>	1586	Adair	Conrad 4340	NEMO
<i>Jussiaea repens</i> var. <i>glabrescens</i>	1591	Adair	Conrad 4329	NEMO
<i>Oenothera laciniata</i> var. <i>laciniata</i>	1605	Clark	Conrad 9305	NEMO
<i>Circaea quadrisulcata</i> var. <i>canadensis</i>	1620	Adair	Conrad 5692	NEMO
<i>Sanicula canadensis</i> var. <i>canadensis</i>	1632	Randolph	Conrad 8209	NEMO
<i>Chaerophyllum procumbens</i> var. <i>procumbens</i>	1636	Adair	Conrad 5367	NEMO
<i>Osmorhiza longistylis</i> var. <i>villicaulis</i>	1641	Adair	Conrad 4600	NEMO
<i>Torilis japonica</i>	1642	Adair	Conrad 5853	NEMO
<i>Torilis japonica</i>	1642	Randolph	Conrad 8530	NEMO
<i>Torilis japonica</i>	1642	Macon	Hein	NEMO
<i>Conium maculatum</i>	1646	Adair	Conrad 4739	NEMO
<i>Conium maculatum</i>	1646	Clark	Conrad 9720	NEMO
<i>Sium suave</i> f. <i>suave</i>	1661	Randolph	Conrad 9515	NEMO

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<i>Thaspium barbinode</i> var. <i>barbinode</i>	1671	Adair	Conrad 4616	NEMO
<i>Thaspium barbinode</i> var. <i>barbinode</i>	1671	Randolph	Conrad 9220	NEMO
<i>Daucus carota</i> f. <i>epurpuratus</i>	1679	Adair	Conrad 4773	NEMO
<i>Cornus drummondii</i>	1683	Randolph	Conrad 9277	NEMO
<i>Cornus obliqua</i>	1684	Macon	Conrad 5909	NEMO
<i>Cornus racemosa</i>	1685	Macon	Hein	NEMO
<i>Monotropa uniflora</i>	1689	Adair	Conrad 5335	NEMO
<i>Monotropa uniflora</i>	1689	Grundy	Conrad 9929	NEMO
<i>Monotropa hypopithys</i>	1690	Macon	Hein	NEMO
<i>Lysimachia nummularia</i>	1700	Adair	Conrad 5574	NEMO
<i>Fraxinus pennsylvanica</i> var. <i>subintegerrima</i>	1717	Randolph	Conrad 8182	NEMO
<i>Gentiana clausa</i>	1735	Sullivan	Conrad 9991	NEMO
<i>Vinca minor</i>	1745	Adair	Conrad 5810	NEMO
<i>Apocynum medium</i>	1748	Adair	Conrad 4729	NEMO
<i>Apocynum cannabinum</i>	1749	Randolph	Conrad 8103	NEMO
<i>Apocynum sibericum</i> var. <i>sibericum</i>	1750	Adair	Conrad 5654	NEMO
<i>Asclepias purpurascens</i>	1754	Adair	Conrad 5671	NEMO
<i>Asclepias incarnata</i> var. <i>incarnata</i> f. <i>incarnata</i>	1755	Adair	Conrad 4877	NEMO
<i>Asclepias incarnata</i> var. <i>incarnata</i> f. <i>incarnata</i>	1755	Randolph	Conrad 8109	NEMO
<i>Asclepias amplexicaulis</i>	1761	Adair	Conrad 8039	NEMO
<i>Cynanchum laeve</i>	1766	Randolph	Conrad 8597	NEMO
<i>Ipomoea hederacea</i> var. <i>hederacea</i>	1775	Adair	Conrad 4997	NEMO
<i>Ipomoea pandurata</i> var. <i>leviuscula</i>	1777	Randolph	Gunier	NEMO
<i>Ipomoea pandurata</i> var. <i>pandurata</i>	1777	Adair	Conrad 4845	NEMO
<i>Ipomoea lacunosa</i>	1778	Adair	Conrad 4976	NEMO
<i>Convolvulus sepium</i> var. <i>sepium</i> f. <i>sepium</i>	1780	Randolph	Conrad 8112	NEMO
<i>Convolvulus sepium</i> var. <i>fraterniflorus</i>	1780	Adair	Conrad 4771	NEMO
<i>Convolvulus pellitus</i> f. <i>anestius</i>	1781	Linn	Coulson	NEMO

TAXON	MAPS	COUNTY	COLLECTOR	HERBARIUM
<i>Cuscuta pentagona</i>	1786	Randolph	Conrad 8453	NEMO
<i>Cuscuta campestris</i>	1787	Adair	Conrad 5050	NEMO
<i>Phlox divaricata</i> var. <i>laphamii</i> f. <i>candida</i>	1796	Adair	Conrad 5381	NEMO
<i>Phlox paniculata</i> f. <i>paniculata</i>	1801	Adair	Conrad 4314	NEMO
<i>Phacelia gilliioides</i>	1809	Randolph	Conrad 9210	NEMO
<i>Lithospermum arvense</i>	1823	Adair	Conrad 4553	NEMO
<i>Verbena stricta</i> f. <i>stricta</i>	1842	Adair	Conrad 4846	NEMO
<i>Verbena stricta</i> f. <i>stricta</i>	1842	Randolph	Conrad 8437	NEMO
<i>Lippia lanceolata</i>	1847	Randolph	Collier	NEMO
<i>Scutellaria ovata</i> var. <i>versicolor</i>	1854	Adair	Conrad 4826	NEMO
<i>Scutellaria ovata</i> var. <i>versicolor</i>	1854	Randolph	Conrad 8387	NEMO
<i>Scutellaria nervosa</i>	1861	Randolph	Conrad 8376	NEMO
<i>Agastache nepetoides</i>	1864	Adair	Conrad 5002	NEMO
<i>Glechoma hederacea</i> var. <i>micrantha</i>	1867	Adair	Conrad 4573	NEMO
<i>Physostegia virginiana</i> var. <i>virginiana</i> f. <i>virginiana</i>	1870	Adair	Conrad 4980	NEMO
<i>Lamium amplexicaule</i> f. <i>amplexicaule</i>	1877	Adair	Conrad 5808	NEMO
<i>Lamium amplexicaule</i> f. <i>amplexicaule</i>	1877	Randolph	Conrad 8971	NEMO
<i>Lamium purpureum</i>	1878	Adair	Conrad 7569	NEMO
<i>Lamium purpureum</i>	1878	Randolph	Conrad 8969	NEMO
<i>Lycopus virginicus</i>	1907	Randolph	Conrad 8324	NEMO
<i>Lycopus americanus</i> var. <i>americanus</i>	1908	Randolph	Conrad 8048	NEMO
<i>Solanum americanum</i>	1921	Randolph	Conrad 8726	NEMO
<i>Solanum rostratum</i>	1927	Randolph	Bredehoeft	NEMO
<i>Physalis heterophylla</i> var. <i>heterophylla</i>	1931	Randolph	Conrad 8062	NEMO
<i>Physalis virginiana</i>	1932	Randolph	Conrad 9142	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Physalis longifolia</i> var. <i>longifolia</i>	1933	Adair	Conrad 5718	NEMO
<i>Physalis longifolia</i> var. <i>longifolia</i>	1933	Randolph	Gunier	NEMO
<i>Datura stramonium</i>	1941	Randolph	Conrad 8727	NEMO
<i>Datura stramonium</i>	1941	Clark	Conrad 9816	NEMO
<i>Datura stramonium</i> var. <i>tatula</i>	1941	Adair	Conrad 4306	NEMO
<i>Bacopa rotundifolia</i>	1948	Chariton	Conrad 5697	NEMO
<i>Bacopa rotundifolia</i>	1948	Adair	Conrad 7421	NEMO
<i>Mimulus alatus</i> f. <i>alatus</i>	1955	Randolph	Conrad 8203	NEMO
<i>Penstemon digitalis</i>	1967	Lewis	Conrad 9654	NEMO
<i>Scrophularia marilandica</i> f. <i>neglecta</i>	1971	Randolph	Conrad 9525	NEMO
<i>Linaria vulgaris</i> f. <i>vulgaris</i>	1975	Randolph	Collier	NEMO
<i>Linaria vulgaris</i> f. <i>vulgaris</i>	1975	Adair	Dimit	NEMO
<i>Veronica peregrina</i> var. <i>xalapensis</i>	1987	Adair	Conrad 5340	NEMO
<i>Veronica arvensis</i>	1988	Adair	Conrad 5341	NEMO
<i>Gerardia tenuifolia</i> var. <i>tenuifolia</i>	1995	Randolph	Conrad 8742	NEMO
<i>Castilleja coccinea</i> f. <i>lutescens</i>	2006	Adair	Conrad 5575	NEMO
<i>Catalpa speciosa</i>	2012	Adair	Conrad 4712	NEMO
<i>Orobancha uniflora</i>	2015	Adair	Conrad 4588	NEMO
<i>Utricularia vulgaris</i>	2018	Clark	Conrad 9721	NEMO
<i>Ruellia humilis</i> var. <i>expansa</i>	2021	Adair	Conrad 4829	NEMO
<i>Ruellia humilis</i> var. <i>expansa</i>	2021	Macon	Hein	NEMO
<i>Plantago cordata</i>	2026	Clark	Conrad 9347	NEMO
<i>Plantago rugelii</i> var. <i>rugelii</i>	2028	Adair	Conrad 4888	NEMO
<i>Plantago rugelii</i> var. <i>rugelii</i>	2028	Randolph	Conrad 8090	NEMO
<i>Plantago aristata</i>	2030	Randolph	Conrad 8058	NEMO
<i>Plantago virginica</i> var. <i>virginica</i>	2033	Adair	Conrad 9819	NEMO
<i>Galium triflorum</i> var. <i>triflorum</i>	2040	Randolph	Conrad 8310	NEMO
<i>Diodia teres</i> var. <i>teres</i>	2051	Adair	Conrad 6029	NEMO
<i>Diodia teres</i> var. <i>teres</i>	2051	Randolph	Conrad 8076	NEMO
<i>Cephalanthus occidentalis</i> var. <i>occidentalis</i> f. <i>occidentalis</i>	2053	Randolph	Conrad 8386	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Vernonia baldwini</i> var. <i>interior</i>	2114	Randolph	Conrad 8704	NEMO
<i>Eupatorium fistulosum</i>	2117	Adair	Conrad 5703	NEMO
<i>Eupatorium purpureum</i>	2118	Randolph	Conrad 8374	NEMO
<i>Eupatorium altissimum</i>	2119	Monroe	Morgan	NEMO
<i>Eupatorium rugosum</i> var. <i>tomentellum</i>	2125	Sullivan	Conrad 5772	NEMO
<i>Eupatorium rugosum</i> var. <i>tomentellum</i>	2125	Randolph	Conrad 8705	NEMO
<i>Solidago missouriensis</i> var. <i>missouriensis</i>	2152	Adair	Conrad 4955	NEMO
<i>Solidago ulmifolia</i> var. <i>palmeri</i>	2160	Adair	Conrad 4348	NEMO
<i>Solidago ulmifolia</i> var. <i>palmeri</i>	2160	Randolph	Conrad 8503	NEMO
<i>Solidago rugosa</i> var. <i>rugosa</i>	2161	Adair	Conrad 4348	NEMO
<i>Solidago canadensis</i>	2163	Adair	Conrad 5005	NEMO
<i>Solidago gigantea</i> var. <i>gigantea</i>	2164	Randolph	Conrad 8452	NEMO
<i>Solidago gymnospermoides</i>	2168	Randolph	Conrad 8405	NEMO
<i>Solidago graminifolia</i> var. <i>media</i>	2169	Randolph	Conrad 8139	NEMO
<i>Aster cordifolius</i>	2179	Sullivan	Conrad 5765	NEMO
<i>Aster sagittifolius</i> f. <i>hirtellus</i>	2180	Randolph	Conrad 9094	NEMO
<i>Aster sagittifolius</i> f. <i>hirtellus</i>	2180	Sullivan	Conrad 5773	NEMO
<i>Aster drummondii</i>	2181	Adair	Conrad 4320	NEMO
<i>Aster pilosus</i> var. <i>platyphyllus</i>	2189	Randolph	Conrad 8542	NEMO
<i>Aster pilosus</i> var. <i>platyphyllus</i>	2189	Adair	Conrad 5063	NEMO
<i>Aster pilosus</i> var. <i>pilosus</i> f. <i>pilosus</i>	2189	Adair	Conrad 4283	NEMO
<i>Vernonia baldwini</i> var. <i>baldwini</i> f. <i>baldwini</i>	2114	Randolph	Conrad 8135	NEMO
<i>Houstonia missouriensis</i>	2056	Adair	Conrad 7302	NEMO
<i>Valerianella radiata</i> var. <i>missouriensis</i>	2084	Randolph	Conrad 9267	NEMO
<i>Specularia perfoliata</i> f. <i>perfoliata</i>	2103	Adair	Conrad 5682	NEMO
<i>Lobelia spicata</i> var. <i>hirtella</i>	2107	Sullivan	Broyles	NEMO
<i>Lobelia spicata</i> var. <i>spicata</i>	2107	Randolph	Collier	NEMO
<i>Lobelia cardinalis</i> f. <i>cardinalis</i>	2110	Randolph	Conrad 8383	NEMO
<i>Vernonia baldwini</i>	2114	Adair	Conrad 4962	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
Aster pilosus var. pilosus f. pilosus	2189	Randolph	Conrad 8588	NEMO
Aster pilosus var. pilosus f. pilosus	2189	Sullivan	Conrad 10014	NEMO
Aster ontarionis	2197	Adair	Conrad 4273	NEMO
Aster ontarionis	2197	Randolph	Conrad 8299	NEMO
Aster praealtus var. praealtus	2198	Adair	Conrad 5064	NEMO
Aster praealtus var. praealtus	2198	Sullivan	Conrad 9987	NEMO
Aster simplex	2200	Adair	Conrad 5059	NEMO
Erigeron strigosus var. beyrichii	2208	Randolph	Conrad 8133	NEMO
Erigeron strigosus var. strigosus f. strigosus	2208	Adair	Conrad 4267	NEMO
Gnaphalium obtusifolium var. obtusifolium	2218	Randolph	Conrad 8718	NEMO
Ambrosia trifida var. trifida f. integrifolia	2224	Adair	Conrad 7339	NEMO
Echinacea pallida f. albida	2262	Adair	Conrad 6240	NEMO
Ratibida pinnata	2265	Macon	Conrad 5920	NEMO
Helianthus laetiflorus var. laetiflorus	2273	Adair	Conrad 4795	NEMO
Helianthus hirsutus var. hirsutus	2277	Randolph	Conrad 8398	NEMO
Helianthus hirsutus var. trachyphyllus	2277	Adair	Conrad 4961	NEMO
Helianthus hirsutus var. trachyphyllus	2277	Randolph	Conrad 8069	NEMO
Helianthus hirsutus var. trachyphyllus	2277	Macon	Hein	NEMO
Helianthus tuberosus var. subcanescens	2283	Adair	Conrad 4262	NEMO
Verbesina alternifolia	2287	Randolph	Conrad 8548	NEMO
Coreopsis palmata	2295	Randolph	Sanders	NEMO
Coreopsis tripteris var. deamii	2296	Adair	Conrad 4956	NEMO
Coreopsis tripteris var. deamii	2296	Randolph	Walker	NEMO
Bidens frondosa var. frondosa f. frondosa	2302	Randolph	Conrad 8746	NEMO
Bidens aristosa var. mutica	2304	Adair	Conrad 4251	NEMO
Bidens aristosa var. mutica	2304	Sullivan	Conrad 9982	NEMO
Bidens polylepis var. polylepis	2305	Randolph	Conrad 8700	NEMO
Bidens bipinnata	2306	Adair	Conrad 7784	NEMO
Galinsoga ciliata	2312	Adair	Conrad 4368	NEMO

TAXON	MAP#	COUNTY	COLLECTOR	HERBARIUM
<i>Helenium flexuosum</i>	2317	Adair	Conrad 4817	NEMO
<i>Helenium flexuosum</i>	2317	Randolph	Conrad 8304	NEMO
<i>Dyssodia papposa</i>	2321	Randolph	Conrad 8769	NEMO
<i>Achillea millefolium</i> f. <i>roseum</i>	2323	Adair	Conrad 5620	NEMO
<i>Achillea millefolium</i> var. <i>millefolium</i> f. <i>millefolium</i>	2323	Adair	Conrad 4744	NEMO
<i>Prenanthes aspera</i>	2404	Adair	Conrad 4265	NEMO
<i>Hieracium longipilum</i> var. <i>longipilum</i>	2409	Adair	Conrad 4946	NEMO
<i>Hieracium longipilum</i> var. <i>longipilum</i>	2409	Randolph	Conrad 8070	NEMO
<i>Anthesis cotula</i>	2326	Knox	Conrad 5874	NEMO
<i>Chrysanthemum leucanthemum</i> var. <i>leucanthemum</i>	2330	Adair	Conrad 4327	NEMO
<i>Chrysanthemum leucanthemum</i> var. <i>pinnatifidum</i> f. <i>pinnatifidum</i>	2330	Adair	Conrad 4735	NEMO
<i>Cacalia atriplicifolia</i>	2344	Adair	Conrad 7364	NEMO
<i>Senecio aureus</i> var. <i>semicordatus</i>	2350	Adair	Conrad 5611	NEMO
<i>Senecio aureus</i> var. <i>semicordatus</i>	2350	Randolph	Conrad 9221	NEMO
<i>Arctium minus</i> f. <i>minus</i>	2352	Adair	Conrad 4309	NEMO
<i>Cirsium discolor</i> f. <i>albiflorum</i>	2358	Adair	Conrad 4277	NEMO
<i>Cirsium discolor</i> f. <i>discolor</i>	2358	Adair	Conrad 4276	NEMO
<i>Serinia oppositifolia</i>	2373	Randolph	Conrad 9266	NEMO
<i>Tragopogon dubius</i>	2382	Randolph	Conrad 8098	NEMO
<i>Taraxacum erythrospermum</i>	2384	Adair	Conrad 5339	NEMO
<i>Taraxacum officinale</i>	2385	Adair	Conrad 5569	NEMO
<i>Taraxacum officinale</i>	2385	Randolph	Conrad 8970	NEMO
<i>Sonchus oleraceus</i>	2387	Adair	Conrad 5078	NEMO
<i>Lactuca scariola</i> f. <i>scariola</i>	2389	Randolph	Conrad 8107	NEMO
<i>Lactuca scariola</i> f. <i>integrifolia</i>	2389	Adair	Conrad 4234	NEMO
<i>Lactuca saligna</i> f. <i>ruppiana</i>	2390	Randolph	Conrad 8560	NEMO
<i>Lactuca saligna</i> f. <i>saligna</i>	2390	Randolph	Conrad 8171	NEMO
<i>Lactuca floridana</i> var. <i>floridana</i> f. <i>floridana</i>	2395	Randolph	Conrad 8370	NEMO

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