

# Some Distributional Records and Floristic Notes for the Illinois Vascular Flora

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## ABSTRACT

Fifty-five county distributional records, including two state records, *Carthamus tinctorius* L. and *Myriophyllum spicatum* L., are reported. The only known extant population of endangered *Viola viarum* is doing well. Alien species are now 21.4% of the submerged species in the Hancock County section of the Mississippi River. Only one live tree and no seedlings remain at the Scotch Pine location planted in the mid-1800's in Hancock County which were perhaps the first self-seeded ones in the state. There are two old, healthy and fruiting planted American Chestnut trees in Dallas City. The Illinois big tree champion, *Acer nigrum* is in serious decline. MWI has received 47 species of an 1894 collection of Macon County plants. *Sorghastrum nutans* with both spikelets of the pair formed, has been collected. Sixteen additions have been made to the Ferster Collection, an early (1928) collection of McDonough County plants. McDonough County now has no extant populations of threatened species and only one of an endangered species (*Tradescantia bracteata*).

## INTRODUCTION

This paper provides some floristic aspects of the spontaneous vascular flora in some Illinois counties based on data accumulated by the Western Illinois University Herbaria. It is divided into two parts: (1) county distributional records, and (2) miscellaneous floristic notes concerning the central Illinois counties of Adams, Fulton, Henderson, Hancock, Macon and McDonough.

## COUNTY DISTRIBUTIONAL RECORDS

These 55 records are arranged alphabetically by the scientific name which is followed by the county, collector, collection number(s) or if s.n. the accession number, and in parenthesis the year collected. The nomenclature follows Mohlenbrock (1986). Henry and Scott collections are abbreviated H&S. Voucher specimens are deposited in the R. M. Myers Herbarium at Western Illinois University (W.I.U.) at Macomb (MWI) or the A. L. Kibbe Herbarium of W.I.U. at Warsaw (WARK). County records were determined by consulting Henry (1987), Jones (1989), Ladd and Mohlenbrock (1983), Mohlenbrock

(1985, 1987, 1990), Mohlenbrock and Ladd (1978) and Mohlenbrock and Thomson (1987).

*Alliaria petiolata*, Hancock, H&S 5844-5846 (1988);

*Angelica atropurpurea*, Knox, H&S 5855-5860 (1988);

*Apocynum cannabinum* var. *pubescens*, McDonough, Ferster s.n. access. no. 30309 (1928);

*Aster ontarionis*, Rock Island, H&S 5955 (1989);

*Aster puniceus*, Rock Island, McKay s.n. access. no. 33511 (1990);

*Carduus nutans*, McDonough, Reese 599 (1978), a potential troublesome alien weed;

*Carthamus tinctorius* L., McDonough, H&S 5817-5819 (1988), spontaneous in waste ground near garden, fruit/seed probably carried by birds, plants flowering, a state record since not in Mohlenbrock (1986);

*Convolvulus arvensis*, Rock Island, Bartels s.n. access. nos. 33512, 33513 (1986);

*Comus obliqua*, Rock Island, H&S 5937, 5974, 6027 (1989);

*Cyperus aristatus*, Rock Island, H&S 5930 (1989);

*Dianthus armeria*, Schuyler, H&S 6056 (1990);

*Diodia teres*, Livingston, Ives s.n. access. no. 25295 (1987);

*Elaeagnus umbellata*, Rock Island, McKay s.n. access. no. 33510 (1990);

*Elodea canadensis*, Rock Island, H&S 5938, 6022 (1989);

*Epilobium coloratum*, Rock Island, McKay s.n. access no. 33509 (1990);

*Erodium cicutarium*, Peoria, H&S 5899-5901 (1989);

*Gaura biennis*, Warren, H&S 6008-6010 (1989);

*Glechoma hederacea* var. *micrantha*, Knox, H&S 5849-5850 (1988);

*Helenium amarum*, Hancock, H&S 5753, 5754 (1987);

*Helenium flexuosum*, Schuyler, H&S 6049-6053 (1990);

*Lysimachia hybrida*, Carroll, Ahles 73238 (1971);

*Lythrum salicaria*, Morgan, H&S 6040-6043 (1990), Scott, H&S 5723-5725 (1986);

*Malva moschata*, McDonough, H&S 5903-5905 (1989), edge of alfalfa field;

*Matricaria perforata*, Warren, H&S 5975 (1989);

*Mentha arvensis* var. *villosa*, Rock Island, H&S 5959 (1989);

*Mertensia virginica* (L.) Pers. f. *Berdi* Moldenke, McDonough, Kinney-Martial s.n. access. no. 28474 (1988), edge of path in woods, only white-flowered plant present in a large area of blue ones;

*Myriophyllum spicatum* L., Hancock, H&S 5686-5688 (1986, plants not flowering), 5878-5880 (1988, plants flowering, coll. no. 5880 determined by S. G. Aiken and upon which the determination of the other collections is based, submerged, mouth of Larry Creek, S. of Nauvoo, a state record since not in Mohlenbrock (1986). This species may have wider distribution in Illinois which could be confirmed by examination of specimens of *M. exalbescens* Fern. (= *M. sibiricum* Komarov) with which it can be easily confused;

*Najas minor*, Rock Island, H&S 5943, 6018, 6019 (1989);

*Panicum miliaceum*, Warren, H&S 6003-6004 (1989);

*Pinus virginiana* Mill., McDonough, Thurow s.n. access. nos. 32074-32076 (1989), spontaneous in an old pasture in second growth forest and also near driveway from seed from a planted and now dead row of windbreak trees, perhaps the second Illinois county since first found in Williamson County by Mohlenbrock (1987);

- Polygonum exsertum*, McDonough, H&S 5876, 5877 (1988);  
*Polygonum lapathifolium*, Rock Island, Root s.n. access. no. 30503 (1978);  
*Polygonum persicaria*, Rock Island, McKay s.n. access. no. 33507, 33508  
 (1990);  
*Potamogeton crispus*, Brown, Lang s.n. access. no. 33504 (1990);  
*Potamogeton nodosus*, Brown, Lang s.n. access. no. 33505 (1990);  
*Quercus bicolor*, Brown, Lang s.n. access. no. 33506 (1990);  
*Ranunculus longirostre*, Rock Island, H&S 5908, 5909 (1989);  
*Ranunculus sceleratus*, Rock Island, H&S 5914, 5915 (1989);  
*Rumex altissimus*, Rock Island, Bartels s.n. access. no. 33514 (1986), Hinhede  
 s.n. access. no. 33515 (1986);  
*Rumex maritimus* var. *fueginus*, Rock Island, H&S 5912, 5913 (1989);  
*Sagittaria graminea*, McDonough, Franks s.n. access. no. 22643 (1985);  
*Salvia reflexa*, Warren, H&S 5979, 5980 (1989);  
*Sassafras albidum* var. *molle*, McDonough, H&S 5842, 5843, 5851 (1988);  
*Setaria italica*, Warren, H&S 6001, 6002 (1989);  
*Solanum sarachoides*, McDonough, H&S 5762-5765 (1987), waste ground by  
 path in woods, perhaps the second Illinois county since first found in St. Clair County  
 by Mohlenbrock (1987);  
*Sonchus asper*, Warren, H&S 5989 (1989);  
*Sorghum bicolor*, Warren, H&S 5998 (1989);  
*Sparganium eurycarpum*, Rock Island, Root s.n. access. no. 30477 (1978);  
*Typha angustifolia*, Rock Island, H&S 5921-5924 (1989), Warren, H&S 5983,  
 5984 (1989);  
*Wolffia braziliensis*, McDonough, H&S 5798 (1988);  
*Wolffia columbiana*, Brown, Lang s.n. access. no. 33503 (1990);  
*Wolffia punctata*, McDonough, H&S 5799, 5800 (1988), Rock Island, H&S  
 5942 (1989).

## COUNTY FLORISTIC NOTES

Included in this section are some observations and comments concerning the spontaneous Illinois vascular flora cited alphabetically by county.

**Adams**--The only known extant population of the endangered *Viola viarum* (Bowles, et al. 1991) consists of about 30 small flowering clumps around the old foundation at Meyer. Thanks to Ronald Wiese and Brian Seals, who do not mow them, they have survived and increased in number. Their future depends on the fate of the privately owned location.

**Fulton**--Henry and Scott (1986, p. 167) cite collection number 4588 as the record for *Triticum aestivum* whereas the numbers should be 5803, 5804, 5805.

**Hancock**--With the appearance of *Myriophyllum spicatum*, the three alien (=non-native) species make up 13% of the 23 floating and submerged species and 21.4% of the 14 submerged species in the Mississippi River in Hancock County. Before 1952, there were no aliens reported (Kibbe 1952) but since then three [*Potamogeton crispus* in 1966, *Najas minor* in 1977 (Henry (1984) states the first collection in 1978 but there is a 1977 Steffek & Paveligo s.n. collection in WARK), and *Myriophyllum spicatum* in 1986] have been found. Their abundance can vary annually; *N. minor* in 1986 was probably the

most abundant submerged plant at the Mississippi River-Larry Creek junction. Two wetland alien plants that are increasing along the county shoreline are *Lythrum salicaria* and *Lysimachia vulgaris*. *L. salicaria* is now in the mouth area of most streams from Hamilton to Nauvoo with the largest expanding colonies in Cheney, Waggoner and Larry Creeks and smaller clumps at Grays Point. *L. vulgaris* exploded in population in 1990 resulting in an extensive area coverage at Nauvoo and for the first time being present at Larry Creek and Grays Point.

As indicated above, alien species are now a regular and increasing component of this aquatic-wetland flora. They can grow rapidly and out-compete native species causing their decline and a disturbance/disruption in this ecosystem. Aiken et al. (1979) writing about *Myriophyllum spicatum* documents this scenario stating "Eurasian watermilfoil invades communities of submerged aquatic plants and within 2-3 yr competitively displaces most other plants, ...." Pyle (1986) commenting on another alien species of *Myriophyllum* states "... water milfoil, waterway hog, inspires panic in officials when it appears and should do the same for native plants" and he refers to another alien as "an international terrorist." Hopefully, the alien component of the Mississippi River ecosystem will not be detrimental.

The year 1990 was very wet and much sedimentation occurred in the Mississippi River and at the mouths of its tributaries. All species of the usually abundant floating and submerged vascular plant flora decreased dramatically. For example, at the Larry Creek-Mississippi River junction, the only plants present in the fall were two three-to four-inch shoots of *Myriophyllum spicatum* and one one-inch shoot of *Ceratophyllum*.

On Wildcat Bluff in Wildcat Springs Park in Hamilton, Homer D. Brown, Sr., a local nurseryman, planted apparently around the mid 1800's a group of Scotch pines. These pines self-seeded and produced seedlings/saplings about which Dr. H. C. Cowles states he recalled having seen no other self-seeded Scotch pines in Illinois (Kibbe 1952). In 1987 during a visit to the rocky, dry exposed bluff, I found eight living and two large dead trees as well as seven small seedlings. Since there were no intermediate sized saplings/trees, apparently the self-seeded seedlings only survive for a couple years. A herbarium specimen was collected of a seven-inch tall, two-three year old seedling (H&S 5760) and from a mature large tree (H&S 5761). During a 1989 visit only one live tree and no seedlings were found. Two of the nine dead trees apparently died in 1989 since dried dead leaves (needles) were on them whereas the other seven had no leaves. There was a severe drought during 1988-89 which probably caused the death of seven trees since 1987. In 1990 there was the one live tree and no seedlings.

In Dallas City, there are two large American Chestnut (*Castanea dentata*) trees about six feet five inches DBH which were probably planted by a tree fancier about 90 years ago. Other than having some somewhat severe branch trimming in the upper part for power line clearance, they are quite healthy and yearly produce many fruits. There are spontaneous self-seeded seedlings (H&S 5670) and saplings produced in the yard but the homeowner finds them (as well as the fruits) objectionable and removes them. Hopefully these magnificent trees will not be destroyed.

The Illinois big tree champion, *Acer nigrum*, in Graham cemetery, Bear Creek Township about 8 miles south of Carthage (H&S 5781, 5782) is alive but in a serious state of decline with dead limbs, lost branches and rot in branch stubs and at the base of the trunk.

**Henderson**—*Delphinium carolinianum* var. *crispum* was collected with white (H&S 5780) as well as the usual blue (H&S 5779) flowers.

**Macon**—Thanks to Jan Prater, a Cuba, Illinois biology teacher, a collection of 47 specimens (=species) collected mostly in spring at Oreana in 1894 was given to MWI in 1987. The species listed alphabetically are: *Anemone canadensis* L. (as *A. pennsylvanica*); *Aquilegia canadensis* L.; *Arisaema triphyllum* (L.) Schott; *Asarum canadense* L.; *Baptisia leucophaea* Nutt.; *Camassia scilloides* (Raf.) Cory (as *Scilla fraseri*); *Capsella bursa-pastoris* (L.) Medic.; *Claytonia virginica* L.; *Comandra umbellata* (L.) Nutt.; *Cypripedium parviflorum* Salisb.; *Delphinium tricornem* Michx.; *Denaria laciniata* Muhl.; *Erythronium albidum* Nutt.; *Euphorbia cyparissias* L.; *Fragaria virginiana* Duchesne; *Geranium maculatum* L.; *Hedyotis purpurea* (L.) Torr. & Gray var. *calycosa* (Gray) Fosberg (as *Houstonia angustifolia*); *Hypoxis hirsuta* (L.) Coville (as *Hypoxys erecta*); *Isopyrum biternatum* (Raf.) Torr. & Gray; *Krigia biflora* (Walt.) Blake (as *Cynthia virginica*); *Lithospermum canescens* (Michx.) Lehm.; *Malus ioensis* (Wood) Britt. (as *Pyrus angustifolia*); *Mertensia virginica* (L.) Pers.; *Nothoscordum bivalve* (L.) Britt. (as *Allium striatum*); *Oxalis violacea* L.; *Penstemon pallidus* Small (as *Pentstemon (pubescens?)*); *Phlox divaricata* L. ssp. *laphamii* (Wood) Wherry (as *P. divaricata*); *Phlox pilosa* L.; *Podophyllum peltatum* L.; *Polygonatum commutatum* (Schult.) A. Dietr. (as *P. biflorum*); *Potentilla simplex* Michx. (as *P. canadensis*); *Prunus serotina* Ehrh.; *Ranunculus abortivus* L.; *Ranunculus fascicularis* Muhl.; *Robinia pseudoacacia* L. (as *R. pseudacacia*); *Rubus flagellaris* Willd. (as *R. canadensis*); *Sanguinaria canadensis* L.; *Smilacina racemosa* (L.) Desf.; *Staphylea trifolia* L.; *Taraxacum officinale* Weber (as *T. dens-lionis*); *Thalictrum thalictroides* (L.) Eaves & Boivin (as *T. anemonoides*); *Tradescantia virginiana* L. (as *T. virginicae*); *Trillium nivale* Riddell; *Trillium recurvatum* Beck; *Uvularia grandiflora* Sm.; *Viola pubescens* Ait. var. *eriocarpa* (Schwein.) Russell (as *V. pubescens*); and *Viola sororia* Willd. (as *V. cucullata*). These specimens were found in an old school file cabinet that was being cleaned out. Unfortunately, the collector is unknown but it is speculated that he/she may have been a teacher or student at the school at one time.

**McDonough**—*Aesculus flava*, cited as *A. octandra*, is attributed to the county by McClure Engineering Associates, Inc. (1988), but this unvouchered, rare southern Illinois species is not confirmed and is probably a misidentification for *A. glabra*. A viviparous specimen of *Tradescantia ohioensis* (H&S 5705) was collected in 1986. In 1989 in a planted prairie among many typical plants (H&S 5893-5895), there was a small clump of *Sorghastrum nutans* plants with both spikelets of the pair being formed (H&S 5890-5892). The plants drew attention since the inflorescence was shorter, denser and darker. The flowering clumps were present again in 1990.

With the revision of Illinois endangered and threatened species (Illinois Endangered Species Protection Board, 1989), McDonough County now has known to be extant no threatened and only one endangered species, *Tradescantia bracteata*. The only site left for this species is about a 25 square foot area on a degraded prairie remnant in Lamoine Township which thanks to the cooperation of the owner, Harold Daniels, is being preserved. The other site along an abandoned railroad in Walnut Grove Township was plowed up in 1988.

Henry (1986) noting the status of *Marsilea quadrifolia*, stated that at its only known county location, Spring Lake, recent observations showed that it was decreasing and in 1986 there was none below the dam. That there was much of it present in 1988 and only scattered small patches in 1990 indicate that its population is variable.

Henry (1987) discusses an early collection of McDonough County vascular plants, the Teresa Ferster plant collection, and lists 118 taxa donated to MWI in 1983. In 1987 she donated 15 additional specimens which she did not donate in 1983 because she wanted to keep some of the collection herself but in 1987 decided she had no use for them at her home: *Achillea millefolium*, *Amaranthus blitoides* = *A. graecizans*, *Baptisia leucantha*, *Delphinium ajacis*, *Equisetum (laevigatum)*, *Leonurus cardiaca*, *Malva rotundifolia*, *Medicago lupulina*, *Medicago sativa*, *Melilotus alba*, *Potentilla canadensis* = *P. simplex*, *Tilia americana*, *Tilia cordata*, *Tradescantia reflexa* = *T. ohioensis*, *Trifolium pratense*. Inadvertently omitted from the original list was *Betula pendula* (perhaps *B. papyrifera*). These 16 additions result in a total of 134 taxa in her collection. *Tilia americana* and *Potentilla simplex* (as *P. canadensis*) should be added to the plants collected by her in 1928 in Ferster Woods listed in Henry & Scott (1985, p. 67).

### SUMMARY

1. Fifty-five new Illinois vascular plant county records are presented of which *Carthamus tinctorius* L. and *Myriophyllum spicatum* L. are state records.
2. The only known extant population of the endangered *Viola viarum* is doing well in Adams County.
3. The *Triticum aestivum* record for Fulton County is Henry & Scott collection numbers 5803, 5804, and 5805.
4. A white-flowered *Delphinium carolinianum* var. *crispum* was collected in Henderson County.
5. Alien species are now 13% of the floating and submerged aquatic vascular species and 21.4% of only the submerged species in the Hancock County section of the Mississippi River. The increasing population of aquatic and wetland aliens could be a threat to the well-being of this ecosystem. During the wet year of 1990, accompanied by much sedimentation, the Mississippi River aquatic vascular flora was drastically reduced.
6. Only one live tree and no seedlings remain at the Wildcat Springs Park, Hancock County site of the Scotch Pines planted in the mid-1800's by H. D. Brown, Sr. and which self-seeded.
7. There are two old, seemingly healthy and fruit producing *Castanea dentata* trees in Dallas City, Hancock County.
8. The Illinois big tree champion *Acer nigrum* in Hancock County is in a serious state of decline.
9. MWI has received 47 species of an 1894 collection of Macon County plants made by an unknown collector.
10. An unvouchered citation for *Aesculus flava* in McDonough County is probably a misidentification of *A. glabra*.
11. A viviparous *Tradescantia ohioensis* was collected in McDonough County.
12. *Sorghastrum nutans* with both spikelets of the pair being formed was collected in McDonough County.
13. *Marsilea quadrifolia* population varies annually in Spring Lake, McDonough County.

14. Sixteen additions have been made to the Ferster collection, an early (1928) collection of McDonough County vascular plants making a total of 134 taxa.
15. With the 1989 revision of Illinois endangered and threatened species, McDonough County now has no known extant threatened and only one endangered species, a small population of *Tradescantia bracteata*.

### ACKNOWLEDGMENTS

Thanks and appreciation are extended to the two anonymous reviewers for their helpful and constructive comments, to Alice Scott for her support and field assistance and Carolyn Prueter for invaluable assistance with manuscript preparation.

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