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Additions to the Flora of Cedar County, Iowa

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Additions to the Flora of Cedar County, Iowa

By M. J. FAY and R. F. THORNE

A survey of the vascular plants of Cedar County, Iowa, was made by the senior author during the growing season of 1950. A previous paper (Fay, 1952) presented an annotated list of 775 species found in the area studied. Subsequent collecting trips by the authors of this paper have resulted in the discovery of additional species. Several misidentifications caused errors in the previous account; these are corrected here. Introduced species are marked by an asterisk. The present paper brings up to date the number of species known to occur in Cedar County. It also describes the various ecological habitats of the county by listing characteristic species found in each.

ALISMACEAE

Sagittaria montevidensis Cham. & Schlecht.

(*Lophocarpus calycinus* (Engelm.) J. G. Sm.)

Marshy bottomland pasture near Sugar Creek, Sect. 10, Sugar Creek Twp.; rare.

HYDROCHARITACEAE

Elodea nuttallii (Planch.) St. John.

Originally misidentified as *E. canadensis* Michx.

GRAMINEAE

Eragrostis spectabilis (Pursh) Steud.

Frequent in dry sandy soil near the Cedar River. Unintentionally omitted from the first report.

Glyceria grandis S. Wats.

Marshes and sandy lowlands along the Cedar River; infrequent.

Glyceria septentrionalis Hitchc.

Moist sandy lowland near the Cedar River, four miles south of Rochester, Sect. 36, Rochester Twp.; rare.

**Miscanthus sacchariflorus* (Maxim.) Hack.

Originally misidentified as *M. sinensis* Anderss.

Panicum linearifolium Scribn.

Relict prairie two miles west of Durant, in Farmington Twp.

CYPERACEAE

Carex gracillima Schwein.

Rich woods three miles southwest of Tipton, in Center Twp.; rare.

Carex laeviconica Dew.

Open bottomland along Cedar River, Sect. 35, Iowa Twp.

Scleria triglomerata Michx.

Moist sandy lowland four miles south of Rochester, one mile east of Cedar River, Sect. 36, Rochester Twp.; rare.

JUNCACEAE

Juncus acuminatus Michx.

Originally misidentified as *J. nodosus* L.

ORCHIDACEAE

Habenaria flava (L.) R. Br.

Sandy bog four miles south of Rochester, Sect. 36, Rochester Twp.; rare.

Habenaria viridis (L.) R. Br.

Woods on the west bank of Rock Creek, Sect. 23, Center Twp.; rare.

SALICACEAE

Salix petiolaris Smith.

Sandy bog near the Cedar River, four miles south of Rochester, Sect. 36, Rochester Twp.; rare.

Salix rigida Muhl.

Originally listed as *S. cordata* Muhl. from alluvial woods; also shrubby area along railroad, two miles west of Durant; frequent.

RANUNCULACEAE

Ranunculus recurvatus Poir.

Rich woods along Rock Creek, Sect. 23, Center Twp.; rare.

BERBERIDACEAE

**Berberis thunbergii* DC.

Pastured slope above Cedar River, Sect. 36, Iowa Twp.; rare.

PAPAVERACEAE

Dicentra canadensis (Goldie) Walp.

Rich, loamy, wooded bank along Cedar River, Sect. 36, Iowa Twp.; rare.

CRUCIFERAE

Rorippa sessiliflora (Nutt.) Greene.

Moist grassy bottoms along Cedar River, Sect. 35, Iowa Twp.

ROSACEAE

Fragaria vesca L. var. *americana* Porter.

Rocky woods along Rock Creek, Sect. 23, Center Twp.

LEGUMINOSAE

Lathyrus palustris L.

Border of woods, near Rock Creek, Sect. 23, Center Twp.

**Medicago lupulina* L.

Originally misidentified as *Trifolium dubium* Sibth.

Trifolium reflexum L. var. *glabrum* Lojacono.

Sandy prairie knoll in Rochester Cemetery, Sect. 12, Rochester Twp.; rare.

GUTTIFERAE

Hypericum pyramidatum Ait.

Swale along railroad in relict prairie two miles west of Durant, Sect. 34, Farmington Twp.; rare.

LYTHRACEAE

Rotala ramosior (L.) Koehne.

Rare in moist sandy lowlands near the Cedar River.

ONAGRACEAE

Epilobium coloratum Biehler.

Originally misidentified as *E. glandulosum* Lehm.

UMBELLIFERAE

Thaspium barbinode (Michx.) Nutt.

Originally misidentified as *T. trifoliatum* (L.) Britt., which is not known to occur in Iowa.

ASCLEPIADACEAE

Asclepias purpurascens L.

Sandy prairie soil, Sect. 12, Rochester Twp.; rare.

HYDROPHYLLACEAE

Hydrophyllum appendiculatum Michx.

Rich woods along Cedar River, Sect. 36, Iowa Twp.; rare.

LABIATAE

Pycnanthemum virginianum (L.) Durand and Jackson.

Relict prairie along railroad two miles west of Durant, Sect. 34, Farmington Twp.

SCROPHULARIACEAE

Chaenorrhinum minus (L.) Lange.

Along railroad, Sect. 14, Pioneer Twp.

Pedicularis lanceolata Michx.

Sandy bog near the Cedar River, four miles south of Rochester, Sect. 36, Rochester Twp.

COMPOSITAE

Artemisia caudata Michx.

Dry, sandy soil, Sect. 22, Cass Twp. Unintentionally omitted from the previous paper.

Cacalia tuberosa Nutt.

Lowland pasture four miles south of Rochester, Sect. 31, Rochester Twp.

**Centaurea maculosa* Lam.

Rocky, dry pastures. Specimen cited by Davidson (1952).

Cirsium hillii (Canby) Fern.

Sandy upland prairie, Sect. 12, Rochester Twp.; rare.

Lactuca biennis (Moench.) Fern.

Wooded areas and low ground. Specimen cited by Davidson (1952).

Lactuca pulchella (Pursh.) DC.

Moist prairie near Mechanicsville; unintentionally omitted from the first report.

Taraxacum erythrospermum Andr.

Clearing in upland woods; unintentionally omitted from the previous paper.

Since *Eloдея canadensis* Michx., *Eragrostis capillaris* L., *Miscanthus sinensis* Anderss., *Juncus nodosus* L., *Salix cordata* Muhl., *Trifolium dubium* Sibth., *Epilobium glandulosum* Lehm., *Sium suave* Walt., and *Thaspium trifoliatum* (L.) Britt. were based on erroneous identifications, they should be deleted from the known flora of Cedar County.

PLANT COMMUNITIES OF CEDAR COUNTY

1. Small sphagnum bog near the Cedar River, four miles south of Rochester. Sect. 36, Rochester Twp.

<i>Sphagnum palustre</i>	<i>Salix petiolaris</i>
<i>Osmunda regalis</i>	<i>Polygala sanguinea</i>
<i>Dryopteris thelypteris</i>	<i>Ludwigia alternifolia</i>
<i>Glyceria septentrionalis</i>	<i>Ludwigia palustris</i>
<i>Eleocharis engelmannii</i>	<i>Ludwigia polycarpa</i>
<i>Eleocharis macrostachya</i>	<i>Rhexia virginica</i>
<i>Eleocharis wolfii</i>	<i>Viola lanceolata</i>
<i>Scleria triglomerata</i>	<i>Viola pallens</i>
<i>Juncus acuminatus</i>	<i>Oxypolis rigidior</i>
<i>Juncus canadensis</i>	<i>Pedicularis lanceolata</i>
<i>Juncus marginatus</i>	<i>Aster umbellatus</i>
<i>Juncus torreyi</i>	<i>Eupatorium perfoliatum</i>
<i>Habenaria flava</i>	<i>Liatis pycnostachya</i>

2. Marshes and small ponds, along the Cedar River. Typical examples of these may be found in Sect. 12, Rochester Twp., Sect. 36, Rochester Twp., and Sect. 18, Linn Twp.

<i>Azolla mexicana</i>	<i>Acorus calamus</i>
<i>Typha latifolia</i>	<i>Lemna minor</i>
<i>Sparganium eurycarpum</i>	<i>Spirodela polyrhiza</i>
<i>Potamogeton foliosus</i>	<i>Salix amygdaloides</i>
<i>Alisma subcordatum</i>	<i>Salix interior</i>
<i>Sagittaria latifolia</i>	<i>Salix nigra</i>
<i>Sagittaria montevidensis</i>	<i>Polygonum coccineum</i>
<i>Elodea nuttallii</i>	<i>Polygonum hydropiper</i>
<i>Calamagrostis canadensis</i>	<i>Polygonum hydropiperoides</i>
<i>Eragrostis hypnoides</i>	<i>Polygonum punctatum</i>
<i>Leersia oryzoides</i>	<i>Polygonum sagittatum</i>
<i>Phalaris arundinacea</i>	<i>Rumex verticillata</i>
<i>Spartina pectinata</i>	<i>Ranunculus flabellaris</i>
<i>Carex hystericina</i>	<i>Cardamine bulbosa</i>
<i>Carex lacustris</i>	<i>Spiraea alba</i>
<i>Carex laeviconica</i>	<i>Amorpha fruticosa</i>
<i>Carex stricta</i>	<i>Campanula aparinoides</i>
<i>Carex vesicaria</i>	<i>Hibiscus militaris</i>
<i>Carex vulpinoidea</i>	<i>Lythrum alatum</i>
<i>Cyperus inflexus</i>	<i>Cicuta maculata</i>
<i>Cyperus erythrorhizos</i>	<i>Lysimachia ciliata</i>
<i>Cyperus strigosus</i>	<i>Lysimachia terrestris</i>
<i>Eleocharis acicularis</i>	<i>Asclepias incarnata</i>
<i>Eleocharis calva</i>	<i>Lycopus americanus</i>
<i>Eleocharis obtusa</i>	<i>Stachys tenuifolia</i>
<i>Eleocharis smallii</i>	<i>Scutellaria lateriflora</i>
<i>Hemicarpha micrantha</i>	<i>Teucrium canadense</i>
<i>Scirpus atrovirens</i>	<i>Lindernia dubia</i>
<i>Scirpus cyperinus</i>	<i>Mimulus ringens</i>
<i>Scirpus fluviatilis</i>	<i>Cephalanthus occidentalis</i>
<i>Scirpus validus</i>	<i>Bidens cernua</i>

*Bidens comosa**Bidens coronata**Bidens vulgata**Eclipta alba*

3. Alluvial woodlands along the Cedar River. Good examples of these may be found in Sect. 24, Rochester Twp., and in Sect. 26, Iowa Twp.

*Leersia virginica**Carex cristatella**Carex davisii**Carex grayii**Carex lupulina**Arisaema dracontium**Salix amygdaloides**Salix interior**Salix fragilis**Salix nigra**Populus deltoides**Betula nigra**Ulmus americana**Laportea canadensis**Juglans nigra**Quercus macrocarpa**Ranunculus septentrionalis**Iodanthus pinnatifidus**Cercis canadensis**Gymnocladus dioica**Acer saccharinum**Platanus occidentalis**Echinocystis lobata**Sicyos angulatus*

4. Limestone ledges and rocky woods. Typical examples of these are along Rock Creek, Sect. 23, Center Twp., along the Wapsipinicon River near Massillon, the Gray's Ford woods on the south shore of the Cedar River, Sect. 20, Center Twp., and on the south shore of the Cedar River in Sect. 34, Cass Twp.

*Camptosorus rhizophyllus**Cryptogramma stelleri**Cystopteris bulbifera**Cystopteris fragilis**Pellaea glabella**Woodsia obtusa**Taxus canadensis**Juniperus virginiana**Carex albursina**Carex eburnea**Muhlenbergia sobolifera**Oryzopsis racemosa**Carpinus caroliniana**Quercus muehlenbergii**Aquilegia canadensis**Hepatica acutiloba**Thalictrum dioicum**Trillium lewisii**Mitella diphylla**Ribes cynosbati**Sullivantia renifolia**Amelanchier arborea**Asarum canadense**Arabis drummondii**Arabis hirsuta**Staphylea trifolia**Rhamnus lanceolata**Cornus alternifolia**Cornus rugosa**Aralia nudicaulis**Aralia racemosa**Taenidia integerrima**Thaspium barbinode**Lonicera dioica**Viburnum rafinesquii**Artemisia caudata*

5. Rich, loamy, wooded slopes of ravines. The Gray's Ford woods, in Sections 20 of Center Twp. and 29 of Gower Twp., present perhaps the best example of this type of habitat.

*Botrychium virginianum**Osmunda claytoniana**Adiantum pedatum**Athyrium filix-femina**Athyrium thelypteroides**Cystopteris fragilis**Dryopteris hexagonoptera**Bromus purgans**Brachyeletrum erectum**Carex sparganoides**Carex rosea**Carex albursina**Carex blanda**Arisaema triphyllum*

<i>Erythronium albidum</i>	<i>Saxifraga pennsylvanica</i>
<i>Polygonatum commutatum</i>	<i>Mitella diphylla</i>
<i>Smilacina racemosa</i>	<i>Geranium maculatum</i>
<i>Trillium gleasoni</i>	<i>Acer nigrum</i>
<i>Ostrya virginiana</i>	<i>Tilia americana</i>
<i>Carya cordiformis</i>	<i>Viola papilionacea</i>
<i>Ulmus rubra</i>	<i>Viola pensylvanica</i>
<i>Asarum canadense</i>	<i>Viola pubescens</i>
<i>Actaea alba</i>	<i>Viola sororia</i>
<i>Actaea rubra</i>	<i>Panax quinquefolius</i>
<i>Hepatica acutiloba</i>	<i>Cornus alternifolia</i>
<i>Isopyrum biternatum</i>	<i>Fraxinus nigra</i>
<i>Caulophyllum thalictroides</i>	<i>Polemonium reptans</i>
<i>Dicentra canadensis</i>	<i>Hydrophyllum appendiculatum</i>
<i>Dicentra cucullaria</i>	<i>Cacalia renifolia</i>
<i>Sedum ternatum</i>	<i>Prenanthes alba</i>

6. Upland woods. Representative areas are in Sect. 12, Rochester Twp., and Sect. 24 of Gower Twp.

<i>Cystopteris fragilis</i>	<i>Podophyllum peltatum</i>
<i>Dryopteris spinulosa</i>	<i>Sanguinaria canadensis</i>
<i>Carex pensylvanica</i>	<i>Ribes missouriensis</i>
<i>Carex rosea</i>	<i>Prunus virginiana</i>
<i>Carex hirtifolia</i>	<i>Prunus serotina</i>
<i>Cinna arundinacea</i>	<i>Crataegus mollis</i>
<i>Hystrix patula</i>	<i>Pyrus ioensis</i>
<i>Smilax herbacea</i>	<i>Desmodium glutinosum</i>
<i>Cypripedium calceolus</i>	<i>Cornus racemosa</i>
<i>Populus tremuloides</i>	<i>Aralia nudicaulis</i>
<i>Corylus americana</i>	<i>Viola papilionacea</i>
<i>Carya cordiformis</i>	<i>Viola pensylvanica</i>
<i>Carya ovata</i>	<i>Viola pubescens</i>
<i>Quercus alba</i>	<i>Viola sororia</i>
<i>Quercus macrocarpa</i>	<i>Pedicularis canadensis</i>
<i>Quercus rubra</i>	<i>Aster sagittifolius</i>
<i>Ulmus rubra</i>	<i>Aster shortii</i>
<i>Ranunculus fascicularis</i>	<i>Hieracium scabrum</i>
<i>Anemone quinquefolia</i>	<i>Solidago ulmifolia</i>
<i>Anemonella thalictroides</i>	

7. Dry sand dunes along the Cedar River. These occur on the east side of the river; and large dunes may be found in Sect. 19 and in the northeast quarter of Sect. 12, Rochester Twp.

<i>Equisetum kansanum</i>	<i>Leptoloma cognatum</i>
<i>Aristida basiramea</i>	<i>Paspalum ciliatifolium</i>
<i>Aristida oligantha</i>	<i>Panicum implicatum</i>
<i>Bouteloua curtipendula</i>	<i>Panicum leibergii</i>
<i>Cenchrus pauciflorus</i>	<i>Panicum scribnerianum</i>
<i>Eragrostis spectabilis</i>	<i>Panicum perlongum</i>
<i>Festuca octoflora</i>	<i>Panicum villosissimum</i>
<i>Hordeum pusillum</i>	<i>Panicum virgatum</i>

<i>Triplasis purpurea</i>	<i>Monarda punctata</i>
<i>Bulbostylis capillaris</i>	<i>Physalis heterophylla</i>
<i>Carex gravida</i>	<i>Euphorbia corollata</i>
<i>Carex muhlenbergii</i>	<i>Euphorbia geyeri</i>
<i>Cyperus filiculmis</i>	<i>Euphorbia glyptosperma</i>
<i>Cyperus schweinitzii</i>	<i>Rhus aromatica</i>
<i>Polygonum tenue</i>	<i>Lechea stricta</i>
<i>Rumex acetosella</i>	<i>Lechea tenuifolia</i>
<i>Cycloloma atriplicifolia</i>	<i>Oenothera rhombipetala</i>
<i>Froelichia floridana</i>	<i>Asclepias amplexicaulis</i>
<i>Mollugo verticillata</i>	<i>Asclepias viridiflora</i>
<i>Clematis pitcheri</i>	<i>Crotalaria sagittalis</i>
<i>Polanisia graveolens</i>	<i>Lespedeza capitata</i>
<i>Linum sulcatum</i>	<i>Tephrosia virginiana</i>
<i>Polygala verticillata</i>	<i>Strophostyles leiosperma</i>
<i>Croton glandulosus</i>	<i>Strophostyles helvola</i>
<i>Viola pedata</i>	<i>Ruellia humilis</i>
<i>Opuntia humifusa</i>	<i>Plantago purshii</i>
<i>Lithospermum croceum</i>	<i>Ambrosia psilostachya</i>
<i>Onosmodium occidentale</i>	<i>Artemisia ludoviciana</i>

8. Dry, sandy, upland prairie remnants. One of these may be found in the northeast quarter of Section 16, Linn Twp.

<i>Equisetum kansanum</i>	<i>Polygala verticillata</i>
<i>Andropogon gerardi</i>	<i>Ceanothus americanus</i>
<i>Andropogon scoparius</i>	<i>Viola pedatifida</i>
<i>Bouletoua curtipendula</i>	<i>Oenothera rhombipetala</i>
<i>Bouteloua hirsuta</i>	<i>Dodecatheon meadia</i>
<i>Koeleria cristata</i>	<i>Gentiana puberula</i>
<i>Sporobolus asper</i>	<i>Asclepias tuberosa</i>
<i>Sporobolus cryptandrus</i>	<i>Asclepias verticillata</i>
<i>Sporobolus heterolepis</i>	<i>Phlox pilosa</i>
<i>Sporobolus neglectus</i>	<i>Lithospermum canescens</i>
<i>Sporobolus vaginiflorus</i>	<i>Lithospermum incisum</i>
<i>Stipa spartea</i>	<i>Scutellaria parvula</i>
<i>Carex bicknellii</i>	<i>Aster azureus</i>
<i>Spiranthes gracilis</i>	<i>Aster ericoides</i>
<i>Salix humilis</i>	<i>Coreopsis palmata</i>
<i>Comandra richardsonii</i>	<i>Echinacea pallida</i>
<i>Anemone cylindrica</i>	<i>Helianthus laetiflorus</i>
<i>Heuchera richardsonii</i>	<i>Hieracium longipilum</i>
<i>Potentilla arguta</i>	<i>Kuhnia eupatorioides</i>
<i>Amorpha canescens</i>	<i>Liatris aspera</i>
<i>Petalostemum candidum</i>	<i>Liatris cylindracea</i>
<i>Petalostemum purpureum</i>	<i>Parthenium integrifolium</i>
<i>Lespedeza capitata</i>	<i>Prenanthes aspera</i>
<i>Polygala incarnata</i>	<i>Rudbeckia hirta</i>
<i>Polygala sanguinea</i>	<i>Silphium integrifolium</i>
<i>Polygala senega</i>	<i>Solidago nemoralis</i>

9. Moist prairie remnants along railroads. Few of these remain; perhaps the most extensive being in Sections 14 and 15 of Pioneer Twp.

<i>Agropyron smithii</i>	<i>Salix humilis</i>
<i>Andropogon gerardi</i>	<i>Anemone canadensis</i>
<i>Andropogon scoparius</i>	<i>Heuchera richardsonii</i>
<i>Koeleria cristata</i>	<i>Amorpha canescens</i>
<i>Stipa spartea</i>	<i>Baptisia leucophaea</i>
<i>Carex bicknellii</i>	<i>Eryngium yuccifolium</i>
<i>Carex gravida</i>	<i>Lespedeza capitata</i>
<i>Carex haydenii</i>	<i>Dodecatheon meadii</i>
<i>Carex lanuginosa</i>	<i>Lithospermum canescens</i>
<i>Carex meadii</i>	<i>Phlox pilosa</i>
<i>Carex molesta</i>	<i>Aster azureus</i>
<i>Carex scoparia</i>	<i>Artemisia ludoviciana</i>
<i>Carex tribuloides</i>	<i>Liatris pycnostachya</i>
<i>Allium canadense</i>	<i>Parthenium integrifolium</i>
<i>Hypoxis hirsuta</i>	<i>Silphium laciniatum</i>
<i>Sisyrinchium campestre</i>	<i>Solidago rigida</i>

10. Common weeds of roadsides, railroads, and waste land.

<i>Agropyron repens</i>	<i>Brassica nigra</i>
<i>Agrostis alba</i>	<i>Capsella bursa-pastoris</i>
<i>Bromus japonicus</i>	<i>Lepidium densiflorum</i>
<i>Digitaria ischaemum</i>	<i>Lepidium virginicum</i>
<i>Digitaria sanguinalis</i>	<i>Lepidium campestre</i>
<i>Elymus canadensis</i>	<i>Thlaspi arvense</i>
<i>Elymus virginicus</i>	<i>Melilotus officinale</i>
<i>Echinochloa crusgalli</i>	<i>Pastinaca sativa</i>
<i>Hordeum jubatum</i>	<i>Asclepias syriaca</i>
<i>Poa pratensis</i>	<i>Convolvulus sepium</i>
<i>Setaria lutescens</i>	<i>Verbena stricta</i>
<i>Setaria viridis</i>	<i>Achillea millefolium</i>
<i>Panicum dichotomiflorum</i>	<i>Ambrosia artemisiifolia</i>
<i>Panicum capillare</i>	<i>Ambrosia trifida</i>
<i>Cannabis sativa</i>	<i>Arctium minus</i>
<i>Polygonum aviculare</i>	<i>Erigeron strigosus</i>
<i>Polygonum convolvulus</i>	<i>Helianthus annuus</i>
<i>Polygonum pennsylvanicum</i>	<i>Helianthus grosseserratus</i>
<i>Polygonum persicaria</i>	<i>Helianthus tuberosus</i>
<i>Chenopodium album</i>	<i>Helenium autumnale</i>
<i>Salsola kali</i>	<i>Matricaria matricarioides</i>
<i>Amaranthus graecizans</i>	<i>Solidago altissima</i>
<i>Amaranthus retroflexus</i>	<i>Solidago canadensis</i>
<i>Mirabilis nyctagineus</i>	<i>Taraxacum officinale</i>
<i>Cerastium nutans</i>	<i>Tragopogon major</i>
<i>Silene antirrhina</i>	<i>Veronica peregrina</i>
<i>Saponaria officinalis</i>	<i>Xanthium commune</i>

SUMMARY

Additions and corrections presented in this paper increase the total known flora of Cedar County, Iowa, to 803 species and 394 genera. 684 species are native in the area, and 119 are introduced.

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