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Additions to and Notes on the Flora of Dickinson County, Iowa

By MARTIN L. GRANT

Dickinson County, Iowa, is one of the northern counties bordering on Minnesota, the third one east from the northwestern corner of the state. Botanically, it is best known for its prairie flora and aquatic habitats.

Since the "Dickinson County Flora" (Grant, 1951) was published, there has been opportunity to do further field work there during the summer of 1952, and to examine specimens in the herbaria of Iowa State College (here cited as ISC), the State University of Iowa (SUI), Iowa State Teachers College (ISTC), and the Iowa Lakeside Laboratory on Lake Okoboji in Dickinson Co. (ILL). The writer's specimens are, or will be, deposited in the above collections, and thus are not cited as to location of repository.

This paper discusses 96 species of plants with respect to their distribution in Dickinson Co. Thirty-one species (and 15 varieties) are added to the county flora, but 16 are removed, making a net gain of 15, and giving a total of "exactly" 800 species of vascular plants now known from the county. Forty-two species notes are "confirmation records", meaning that the writer had not seen specimens of them at the time the Dickinson County Flora was compiled. Discussed are one fern, 29 monocots, and 66 dicots, the main groups represented being Potamogeton (3), Gramineae (21), Carex (3), Salix (3), Ranunculaceae (5), Rosaceae (5), Leguminosae (5), Viola (7), and Compositae (7).

Within families, the genera and species are listed alphabetically, the families being arranged according to the Engler-Prantl system, with Torre and Harms numbers for the families preceding each species citation. Nomenclature is according to Gray's Manual (Fernald, 1950). A bibliography is appended.

Athyrium filix-femina (L.) Roth var. *michauxii* (Spreng.) Farw. Lady fern.

Shimek, Aug. 24, 1916, woods east of Beck canal (SUI). Previously reported by Shimek (1915), and, as *Athyrium angustum*, by Grant (1951).

11. *Potamogeton berchtoldi* Fieber. Berchtold pondweed.

Shimek, July 16, 1915 and Aug. 9, 1919, pond n. of Milford (SUI). Determined by E. Beal. This species had been included by Shimek in *P. pusillus*. New county record.

11. *Potamogeton friesii* Rupr. Fries pondweed.

Shimek, Aug. 1, 1896, E. Lake Okoboji (ISC, SUI); W. A. Anderson, July 5, 1940, Robinson Lake (SUI); Shook and Beal 34, July 19, 1950,

Miller's Bay (ILL); Grant 8770, July 7, 1948, Miller's Bay. Confirmation record. Known also from Emmet Co.

11. *Potamogeton gramineus* L. Grass pondweed.

Shimek, Aug., 1911, and July 16, 1915, pond n. of Laboratory, West Okobojo (SUI). These two specimens represent the typical form, and var. *maximus* Morong, respectively. The latter was labelled *P. epihydrus* var. *nuttallii* by Shimek, and is probably the basis for the record of that species reported by him (1915).

19. *Bromus inermis* Leyss. Smooth brome-grass.

Grant 11521, June 19, 1952, Laboratory campus, abundant. Established. Confirmation record.

19. *Bromus tectorum* L. Downy brome-grass.

Marjorie Winther, June 18, 1951, SW 23, 99-37, roadside (ILL). Established. A new county record.

19. *Calamagrostis canadensis* (Michx.) Nutt. var. *macouniana* (Vasey) Stebbins. Blue-joint.

Grant 8280, Aug. 23, 1938, Lake Okobojo marsh. A new varietal record.

19. *Cinna arundinacea* L. Wood reed-grass.

The specimen on which this record was based (Shimek, July 1, 1912, n. end of West Lake Okobojo, swamp. ILL 149) is actually *Sphenopholis intermedia*, q.v.

19. *Echinochloa pungens* (Poir.) Rydb. var. *wiegandii* Fassett. Barnyard grass.

Shimek, Aug. 19, 1909, s. of Miller's Bay, waste places (ILL 194), as "*E. crusgalli*"; Shook and Beal 50, Aug. 1, 1950, Sec. 36, 98-6, edge of creek, as "var. *occidentalis*" (ILL). A new varietal record. The typical form is represented by Conard, Aug. 4, 1923, Campus, lake shore (ILL 195).

19. *Eragrostis pectinacea* (Michx) Nees. Comb love-grass.

Shimek, Aug. 18, 1909, Lookout, Miller's Bay, dry prairie (ILL 92), on which this record is based, is *Agrostis hyemalis*, previously reported.

19. *Glyceria borealis* (Nash) Batchelder. Floating manna-grass.

M. Winther, Aug. 14, 1951, SW 17, 99-37, wet prairie (ILL). A new species record.

19. *Glyceria striata* (Lam.) Hitchc. var. *stricta* (Scribn.) Fern. Fowl meadow-grass.

Shimek, June 20, 1912, swamp s. of Miller's Bay, as "*G. nervata*" (ILL 97); Grant 11143, June 20, 1949, Manhattan Pond (NWNE 14, 99-37), marsh; Grant 11515, June 17, 1952, Silver Lake fen. A new varietal record. Conard, June 23, 1923, Beck canal (ILL 98) is the typical form.

19. *Lolium perenne* L. Darnel.

M. Winther, June 30, 1951, Laboratory campus lawn (ILL). Naturalized. A new species record.

19. *Muhlenbergia asperifolia* (Nees & Meyen) Parodi. Scratch grass.

Grant 8301, Aug. 24, 1938, Silver Lake fen. A new species record. Also reported from Clay and Story Cos.

19. *Muhlenbergia frondosa* (Poir.) Fern. f. *commutata* (Scribn.) Fern.

Shimek, Aug. 20, 1911, Laboratory woods, as "*M. sylvatica*" (ILL 158). This is the basis for the previous reports of *M. sylvatica*.

19. *Muhlenbergia glomerata* (Willd.) Trin.

Shimek, Aug. 1, 1896, Spirit Lake, sandy prairie (ILL 156); Conard, Aug. 4, 1923, Miller's Bay (ILL 157); Grant 8300 and 8951, Aug. 24, 1938 and Aug. 11, 1948, Silver Lake fen; Shook & Beal 105, Aug. 8, 1950, Silver

Lake fen (ILL). This species is the "*M. racemosa*" of Gray's Manual, ed. 7, not ed. 8, and is the basis of previous reports of *M. racemosa* from Dickinson Co.

19. *Muhlenbergia mexicana* (L.) Trin.

Shimek, July 31, 1913, W. side Emerson's Bay, sandy beach (ILL 152); Conard, Aug. 9, 1923, Crescent Inn, Okoboji (ILL 153). This is the species that was named "*M. frondosa*" in Gray's Manual, ed. 7, not ed. 8, and in Grant (1951).

Another collection, W. A. Anderson, Aug. 15, 1932, Silver Lake, swamp, as "*M. foliosa*" (ILL 151) is forma *ambigua* (Torr.) Fern., and is the basis of previous reports of *M. foliosa*.

19. *Panicum flexile* (Gattinger) Scribn. Flexible panic-grass.

Grant 8294, Aug. 24, 1938, Montgomery prairie (ISTC). A new species record. Also known from Palo Alto Co.

19. *Panicum gattingeri* Nash. Gattinger's panic-grass.

Grant 11647, Aug. 18, 1952, Elmcrest (NWNW 25, 99-37), roadside. New species record.

19. *Poa annua* L. Annual blue-grass.

M. Winther, Aug. 7, 1951, SW 23, 99-37, wet prairie (ILL). Naturalized. A new species record.

19. *Spartina pectinata* Link. var. *suttiei* (Farw.) Fern. Slough grass.

Conard, Aug. 9, 1923, Crescent Inn (ILL 183); Grant 8283, Aug. 23, 1938, Lake Okoboji, high prairie; Grant 8835, July 22, 1948, Jepson's Kettlehole, mud shore, Sec. 36, 99-37. A new varietal record. The typical form is represented by Shimek, Aug. 2, 1910, bog n. of Miller's Bay (ILL 182); Shook & Beal 106, Aug. 8, 1950, Silver Lake fen (ILL).

19. *Sphenopholis intermedia* (Rydb.) Rydb. Slender wedge-grass.

Shimek, July 1, 1912, n. end of W. Okoboji, swamp, as "*Cinna arundinacea*" (ILL 149); M. Winther, Aug. 3, 1951, NW 4, 94-37, swamp (ILL); Grant 11523, June 21, 1952, Okoboji town, NW 20, 99-36, sandy lake shore. A new species record.

19. *Sporobolus cryptandrus* (Torr.) Gray var. *strictus* Scribn. Sand drop-seed.

Grant 8322, Aug. 25, 1938, Spirit Lake beach. A new varietal record.

19. *Sporobolus heterolepis* Gray. Northern drop-seed.

Grant 8256, Aug. 23, 1938, Lake Okoboji, dry prairie; Shimek, Aug. 2, 1912, Okoboji Lookout, prairie, as "*S. asper*" (ILL 161). The Shimek specimen is the one on which the county record for *S. asper* was based.

19. *Sporobolus vaginiflorus* (Torr.) Wood. Poverty-grass.

R. W. Pohl 7017, Aug. 16, 1950, cornfield margin, Lakeville Tp. (ISC). A new species record.

20. *Carex assiniboinensis* W. Boott. Assiniboia sedge.

Grant & Thorne 11642, Aug. 18, 1952, Elmcrest (NWNW 25, 99-37). New species record. Known in Iowa also from Emmet, Hardin, and Winneshek Cos.

20. *Carex interior* Bailey. Inland sedge.

Shimek, June 4, 1940, Manhattan Pond, n. of Laboratory, low prairie (SUI); Grant 11516, June 17, 1952, Silver Lake fen. At SUI are specimens from Clayton and Iowa Cos., also known from six others (Gilly, 1946). Confirmation record.

20. *Carex tenera* Dewey. Marsh straw-sedge.
Grant 11643, Aug. 18, 1952, Elmcrest (NWNW 25, 99-37), oak woods. Confirmation record. Known also from Emmet, Story, and Webster Cos. (Gilly, 1946), and Iowa Co. (Easterly, 1952).
38. *Smilax ecirrhata* (Engelm.) S. Wats. Erect greenbriar.
Shimek, May 26, 1912, Center Lake, as "*S. herbacea*" (SUI). Confirmation record.
50. *Habenaria viridis* (L.) R. Br. Bracted orchid.
Shimek, July 7, 1916, Elmcrest (ISC). Shimek reports (1917) "deep woods, very rare, between E. & W. Okoboji," as *H. bracteata*. Confirmation record.
56. *Salix discolor* Muhl. Pussy willow.
Shimek, April 14, 1911, W. Lake Okoboji, woods s. of Laboratory (SUI); Conard, July 27, 1923, Swan Lake (ILL). The Shimek specimen is typical, while that of Conard is var. *latifolia* Anderss. New varietal record.
56. *Salix interior* Rowlee. Sandbar willow.
Conard, Aug. 17, 1923, Hayward Bay, sandy shore (ILL 397), with small, densely-silky leaves, 3 x 0.5 cm. This is forma *wheeleri* (Rowlee) Rouleau.
Grant 11275, Aug. 15, 1949, Silver Lake, pond margin s. of the fen, another peculiar form, with some of the basal leaves pinnatisected.
56. *Salix rigida* Muhl. Stiff willow.
Five collections of Shimek: Aug. 4, 1910, swamp s. of Miller's Bay (ILL); Aug. 30 & Oct. 1, 1916, Little Sioux River, hanging bog and along creek, NWNW 4, 98-37 (SUI); May 4, 1930, same locality (SUI); Aug. 28, 1932, Silver Lake fen (SUI); also Grant 11277, Aug. 15, 1949, Silver Lake pond margin, previously reported under the synonym *S. cordata* Muhl.; Grant 11594, Little Miller's Bay sand spit. I doubt if this is specifically distinct from *S. eriocephala* Michx. (*S. missouriensis* Bebb.)
60. *Carya ovata* (Mill.) K. Koch. Shagbark hickory.
Shimek, July 31, 1913, Egralharve, w. side W. Lake Okoboji (ISC, SUI). Confirmation record.
60. *Juglans nigra* L. Black walnut.
Shimek, May 26, 1912, Arnold's Park woods (ISC, SUI); Shimek, July 31, 1924, w. of Milford (SUI); Grant 11532, June 30, 1952, E. Okoboji woods, NW 11, 99-36. Confirmation record.
61. *Corylus americana* Walt. Hazel.
Shimek, Aug. 4, 1899, e. side W. Lake Okoboji (SUI); Grant 11634, Aug. 13, 1952, Milford woods, NWNE 10, 98-37. Confirmation record.
64. *Humulus lupulus* L. Common hops.
Shimek, Aug. 29, 1916, prairie along railroad, Arnold's Park (ISC). Confirmation record.
64. *Morus alba* L. White mulberry.
Grant 11539, June 30, 1952, E. Okoboji woods, NWSW 11, 99-36, creek bottom forest. Naturalized. New record.
65. *Boehmeria cylindrica* (L.) Sw. Bog-hemp.
This was reported by Shimek (1915), but there are no specimens (SUI) except from the extreme southeastern part of the state (Iowa, Johnson, Muscatine Cos.). Wolden (1934) reports it as rare in Emmet Co.
65. *Pilea pumila* (L.) Gray. Richweed.
Shimek, Aug. 28, 1932, Silver Lake fen (ISC). Confirmation record.

77. *Rumex mexicanus* Meisn. Mexican dock.

Anderson 2009, July 1, 1942, swale near Little Sioux (SUI). New county record. The species is also represented (SUI) from Lyon, Harrison, Johnson and Muscatine Cos., and there are reports from Emmet, Palo Alto, Mahaska, Cedar, and others.

77. *Rumex orbiculatus* Gray. Water dock.

Conard, Aug. 17, 1923, hanging bog 3 m. sw. of Laboratory (ILL 448); Conard, same date, Beck Canal, Emerson's Bay (ILL 449); both previously reported as "*R. altissimus*"; Shimek, Aug. 3, 1934, Silver Lake fen, as "*R. verticillatus*" (SUI); W. A. Anderson, Aug. 21, 1934, Silver Lake fen (SUI); Shook & Beal 62, Aug. 4, 1950, sec. 4, 37-98 (ILL), these last two as "*R. brittanica*."

87. *Saponaria officinalis* L. Bouncing-Bet.

Grant 11591, Garlock Slough, SESE 34, 99-37, roadside, flowers single. Naturalized. New county record.

91. *Actaea rubra* (Ait.) Willd. forma *neglecta* (Gillman) Robinson. White-fruited red baneberry.

Grant, 11561, July 22, 1952, oak woods, s. of Laboratory. This is probably the basis of Shimek's report (1915, of *A. alba*). His specimen, May 26, 1912, Center Lake (SUI) has no fruits. The true white baneberry (*A. pachypoda* Ell., *A. alba* Bigel.) is found (SUI) only in the eastern third of Iowa. Wolden (1934) says of this species: "credited to Emmet Co. by Fitzpatrick and Shimek. All the white-berried plants seen by the author have belonged to the preceding species (*A. rubra*)."

91. *Ranunculus cymbalaria* Pursh. Seaside crowfoot.

Of the SUI specimens of this plant only two (Harrison & Winnebago Cos.) are typical. The rest are forma *hebecaulis* Fern., from Clay, Lyon, and Dickinson Cos. From Dickinson Co.: Shimek, Aug. 1, 1896, Spirit Lake (SUI); Shimek, Aug., 1901, Okoboji Station, muddy beaches (ILL); Shimek, Aug. 13, 1910, swamp s. of Miller's Bay Hotel (SUI); Conard, June 23, 1923, Beck canal (ILL); Grant 8844, July 26, 1948, Stony Lake, dry shore; K. Takehara 6, July 22, 1949, Milford woods (ILL); Shook & Beal 30, July 27, 1950, edge of river (Sec. 8, 99-37) (ILL).

91. *Ranunculus fascicularis* Muhl. Early crowfoot.

Reported by Shimek (1915), but no specimens have been located (ISC, SUI, ILL). A specimen of *R. septentrionalis*, Cavanagh, May 20, 1910, sw. of Miller's Bay (ILL 676), originally determined by Shimek as *R. fascicularis*, is possibly the source of the record.

91. *Ranunculus gmelini* DC. var. *hookeri* (D. Don) Benson. Yellow water-crowfoot.

Shook & Beal 12, July 24, 1950, marsh (31, 100-36), as "*R. flabellaris* f. *riparius*" (ILL); Thorne 11013, Aug. 18, 1952, Center Lake, sandy shore, Sec. 5, 99-36 (SUI). I have seen no other Iowa specimens. Synonym: *R. purshii* Richards. Confirmation record.

91. *Ranunculus trichophyllus* Chaix. White water-crowfoot.

Reported by Shimek (1915), but the only Iowa specimens (ISC, SUI) are from the extreme northeastern part of the state (Winneshiek & Clayton Cos.). In dried condition it is difficult to separate from *R. longirostis*, which is abundant here.

93. *Caulophyllum thalictroides* (L.) Michx. Blue cohosh.

Shimek, July 31, 1924, Milford woods (ISC); Shimek, July 15, 1919, e. of Arnold's Park (SUI); Grant 11588, July 30, 1952, Milford Woods, NENW 10, 98-37. Confirmation record.

104. *Sanguinaria canadensis* L. Bloodroot.

Shimek, May 26, 1912, Center Lake woods (ISC); Grant 11579, Sunset Beach, SWSW 30, 99-36. Confirmation record.

105. *Barbarea vulgaris* R. Br. Winter cress.

Reported by Pamel (1913), but no specimens have been found (ISC. SUI). SUI has specimens from Shelby, Iowa, and Muscatine Cos., and it has been reported from Emmet, Palo Alto, Story, Mahaska, Cedar, and other counties.

105. *Cardamine pensylvanica* Muhl. Bitter cress.

Grant 11547, July 5, 1952, Gull Point, NENW 25, 99-37, forest swale. A new county record. SUI has specimens from Story and Johnson Cos., and it has been reported from Emmet, Clay, Cedar and Iowa Cos.

126. *Potentilla anserina* L. Silverweed.

Shimek, Aug. 25, 1934, as "*P. palustris*"; W. A. Anderson, Aug. 6, 1939; both from Silver Lake fen (SUI). According to Dr. Conard (MS), it had been found there June 23, 1932, by Miss Virtue. The only other Iowa specimen at SUI is from Linn Co. Confirmation record. Also reported from Emmet Co. (Wolden, 1934) and Hamilton Co. (Pammel, 1909).

126. *Potentilla nicolletii* (Wats.) Sheld. Nicollet cinqufoil.

Shimek, July 8, 1918, swamp, s. end Lower Gar Lake (ISC). The odd enlargement of the ventral suture of the achene, as in *P. paradoxa*, makes this member of the *P. rivalis* complex seem distinct.

126. *Potentilla rivalis* Nutt. var. *millegrana* (Engelm.) Wats. Diffuse cinqufoil.

Shimek, Aug. 4, 1910, swamp s. of Miller's Bay Hotel (SUI). This specimen was included by Shimek in *P. Nicolletii*. (*P. millegrana* Engelm.)

126. *Prunus pumila* L. Sand cherry.

Shimek, Aug. 6, 1918, sandy area e. of Spirit Lake (SUI). It is also known in Iowa (SUI) from Lyon and Winneshiek Cos. Confirmation record.

126. *Spiraea alba* DuRoi. Meadow-sweet.

Shimek, Aug., 1901, kettlehole borders; Shimek, Aug. 2, 1910, and Sept. 12, 1927, prairie n. of Milford, near center of Sec. 6, 98-36; (SUI). Confirmation record.

128. *Amorpha nana* Nutt. Fragrant false-indigo.

Shimek, Aug. 24, 1924, prairie n. of Milford, near center of Sec. 6, 98-36, as "*A. microphylla*" (SUI). Confirmation record.

128. *Amphicarpa bracteata* (L.) Fern. Hog-peanut.

Shimek, Aug. 27, 1918, Elmcrest woods, s. of Miller's Bay (SUI). This typical form is much less common than the more pubescent var. *comosa* (L.) Fern., of which we have five collections from Dickinson Co. Confirmation record.

128. *Baptisia leucophaea* Nutt. Large-bracted false-indigo.

Shimek, Sept. 12, 1927, prairie n. of Milford, near center of Sec. 6, 98-36, as "*B. bracteata*" (SUI). Shimek (1915) reported *B. leucantha* as "very rare", but this seems to be the only Dickinson Co. specimen in the genus in any of the four herbaria studied. Confirmation record.

128. *Gymnocladus dioica* (L.) K. Koch. Kentucky coffee-tree.
Shimek, July 9, 1918, n. of Hayward's Bay (ISC, SUI). Confirmation record.
128. *Medicago sativa* L. f. *alba* Benke. Alfalfa.
Grant 11557, July 9, 1952, Stony Lake, roadside, corolla greenish-white to pale lavender. New county record.
148. *Callitriche verna* L. (*C. palustris* L.). Water starwort.
Shook & Beal 72, Aug. 3, 1950, Four Mile Lake, shallow water (ILL). Confirmation record. Known also from Emmet, Clay, and Buchanan Cos.
158. *Celastrus scandens* L. Bittersweet.
Grant 11646, Aug. 18, 1952, Elmcrest. Confirmation record.
163. *Acer saccharinum* L. Silver maple.
Pammel, Aug. 21, 1913, Spirit Lake (ISC). Confirmation record.
163. *Acer saccharum* Marsh. Sugar maple.
Two collections from the e. shore of W. Okoboji: Shimek, Aug. 5, 1924, between Hayward's Bay and the Inn; Grant 11597, Omaha Beach. Following Desmarais's treatment (1952), the Shimek specimen fits subsp. *saccharum* in 7½ characteristics, and only in 1½ (some nodes have stipule scars, and some of the leaves approximate the *nigrum*-outline) does it approach subsp. *nigrum* (Michx. f.) Desmarais. The other specimen is exactly intermediate between the two, with four *saccharum* characters, four *nigrum* characters, and one (outline and lobing) intermediate. It thus should be labelled: cline *saccharum-nigrum*. According to Desmarais's study, the hard maple in w. Iowa is almost entirely black maple, but the Dickinson Co. material (only two specimens, however, compared to the hundreds of Iowa leaves he examined) does not fit this pattern. Confirmation record.
169. *Ceanothus ovatus* Desv. f. *pubescens* (S. Wats.) Soper. (*C. herbaceus* Raf.) Redroot.
Shimek, June 12 and Aug. 5, 1916, upland prairie w. of Green Slough, s. of Emerson's Bay (ISC, SUI). Confirmation record.
169. *Rhamus cathartica* L. Buckthorn.
Grant 8328, Aug. 25, 1938, Spirit Lake, oak forest. Naturalized. Confirmation record.
170. *Parthenocissus inserta* (Kerner) K. Fritsch. Woodbine.
Grant 11545, July 5, 1952, Gull Point (NENW 25, 99-37), oak woods. The typical form. New county record.
187. *Hypericum majus* (Gray) Britt. Larger St. John's-wort.
Shimek, Aug. 4, 1910, swamp s. of Miller's Bay (ILL); Grant 8901, Aug. 9, 1948, Arend's kettlehole (33, 99-37), wet prairie; Shook & Beal 91, Aug. 11, 1950, Sec. 35, Range 37, wet ground (ILL). The first two of these are the basis of previous reports of "*H. virginicum*" from Dickinson Co.
198. *Viola nephrophylla* Green. Kidney-leaved violet.
L. M. Cavanagh, May 20, 1910, prairie sw. of Miller's Bay, as "*V. cucullata*" (ILL); Same, May 25, 1910, n. edge of Miller's Bay, as "*V. hirsutula*" (SUI); Shimek, May 27, 1929, w. of Lake Park, low prairie draw, as "*V. hirsutula*" (SUI); W. A. Anderson, June 23, 1935, Silver Lake fen (SUI). Previous reports of *V. septentrionalis* from Dickinson Co. seem to be based on this species. All the determinations in this genus (exc. *V. pubescens*) have been checked by N. H. Russell. The eight species listed here appear to cover all the Dickinson Co. *Viola* specimens seen (SUI, ILL, ISTC).

198. *Viola pallens* (Banks) Brainerd. Pale violet.
Grant 8726, June 29, 1948, Silver Lake fen. New county record. Reported from Iowa (Easterly, 1952) and Cedar (Fay, 1952) Cos.
198. *Viola papilionacea* Pursh. Meadow blue violet.
Shimek, May 21, 1920, Spirit Lake, prairie w. of rr. station (SUI). New record.
198. *Viola pedatifida* Don x *V. sororia* Willd.
Shimek, May 26, 1919, upland prairie near Manhattan Pond, n. of Miller's Bay (part of a sheet of *V. pedatifida* at SUI). The parent species are represented by four collections each from the county (SUI, ILL).
198. *Viola pennsylvanica* Michx. Smooth yellow violet.
Shimek, May 26, 1912, s. side of Center Lake, woods (SUI); Shimek, July 26, 1916, Elmcrest, as "*V. pubescens*" (SUI), which is apparently the basis of his report (1915) of that species. Confirmation record.
198. *Viola pubescens* Ait. Downy yellow violet.
Grant 11578, July 29, 1952, Sunset Beach (SWSW 30, 99-36), oak-basswood forest. Confirmation record.
198. *Viola rugulosa* Greene. Wrinkled violet.
W. A. Anderson, July 5, 1940, Kettleson's Woods (SUI). New county record.
224. *Oenothera biennis* L. var. *pyncocarpa* (Atkins & Bart.) Wieg. Evening-primrose.
Grant 11631, Aug. 12, 1952, Lake Park, Trapper's Bay, oak clearing. Confirmation record.
227. *Aralia nudicaulis* L. Wild sarsaparilla.
Shimek, June 25, 1939, Elmcrest (ISC); Grant 11635, Aug. 13, 1952, Milford Woods (NWNE 10, 98-37). New county record.
227. *Panax quinquefolius* L. Ginseng.
Shimek, July 31, 1924, Milford Woods (SUI); Grant 11586, July 30, 1952, Milford Woods. New county record.
228. *Daucus carota* L. Wild carrot.
Grant 11571, July 28, 1952, 1 m. n. of Milford, roadside weed. Naturalized. Confirmation record.
229. *Cornus alternifolia* L. f. Alternate-leaved dogwood.
Shimek, Aug. 14, 1912, Little Sioux River, nw. of Milford (ISC). Confirmation record.
237. *Lysimachia hybrida* Michx. Loosestrife.
Cratty, July 21, 1920, low ground (ISC). Confirmation record.
248. *Asclepias incarnata* L. f. *albiflora* Heller. White-flowered swamp milkweed.
Grant 8876, Aug. 5, 1948, N. Slough (36, 100-37), pond margin, corolla, hoods and horns white, calyx and column-base greenish.
250. *Polemonium reptans* L. Jacob's ladder.
Shimek, May 25, 1912, Gilley's Beach, woods, s. of Arnold's Park (ISC); Grant 11577, July 29, 1952, Sunset Beach, SWSW 30, 90-36, oak-hardwood forest. Confirmation record.
254. *Teucrium occidentale* Gray. var. *boreale* (Bickn.) Fern. Western germander.
Shook & Beal 43, July 28, 1950, Sec. 2, 99-37, marsh (ILL); Grant 11550, July 7, 1952, margin of Marble Lake. Confirmation record.

257. *Gratiola neglecta* Torr. Hedge hyssop.

Grant 11566, July 24, 1952, Garlock Slough (SENE 35, 99-37), in willow thicket. New county record.

270. *Galium verum* L. Yellow bedstraw.

Grant 11645, Aug. 18, 1952, Elmcrest (NWNW 25, 99-37), prairie at edge of forest. Naturalized. New county record. Previously reported from Cass and Greene Cos. only (Leyendecker, 1941).

276. *Campanula aparinoides* Pursh. Marsh bellflower.

Shimek, July 19, 1916, Beck canal, s. of Miller's Bay Hotel (ISC), det. P. Monson. Confirmation record.

280. *Artemisia biennis* Willd. Biennial wormwood.

Shimek, Aug. 10, 1911, Kettlehole border, w. of Laboratory (SUI); Shimek, Aug. 14, 1924, swamp s. of Miller's Bay Hotel (ISC); Hayden 8726, Aug. 13, 1940, slough w. of Miller's Bay (ISC). Naturalized. Confirmation record.

280. *Artemisia ludoviciana* Nutt. White sage.

Typical variety: six collections of Shimek (SUI): Aug. 16, 1909; Aug. 1 and Aug. 5, 1918; Aug. 23, 1919; Sept. 13, 1921; Aug. 11, 1922. Confirmation record.

Var. *gnaphalodes* (Nutt.) T. & G.—Shimek, Aug. 18, 1909 (SUI, ISC). close to *latifolia*.

Var. *latifolia* (Bess.) T. & G.—Shimek, Aug. 16, 1916, Hayward's Bay, sandy beach (SUI); Pammel, Aug. 28, 1918, Spirit Lake (ISC).

Var. *pubularis* (Nels.) Fern.—Shimek, Aug. 24, 1919 and Sept. 3, 1930, prairie ridge nw. of Milford, SW 23, 99-37 (SUI).

280. *Aster novae-angliae* L. New England aster.

Five collections, the first four by Shimek: Aug. 27, 1918, openings, Elmcrest (SUI); Oct. 6, 1919, sandy prairie, n. end E. Lake Okoboji (ISC, SUI); Aug. 17, 1924, hanging bog, w. of Little Sioux River, NWNW 4, 98-37 (SUI); Aug. 25, 1934, Silver Lake fen (SUI); Grant 11667, Aug. 19, 1952, Grover Lake, NWNE 13, 100-37, low prairie. Confirmation record.

280. *Cichorium intybus* L. Chicory.

Grant 11592, July 30, 1952, Garlock Slough, SESE 34, 99-37, farmyard. Naturalized. New county record.

280. *Helianthus tuberosus* L. var. *subcanescens* Gray. Jerusalem artichoke.

Grant 11672, Aug. 20, 1952, Cayler Prairie, SWNW 17, 99-37. Confirmation record.

280. *Sonchus uliginosus* Bieb. Marsh sow-thistle.

L. W. Miller, July 24, 1933, W. Okoboji, sandy shore. Naturalized. This specimen was previously reported (Grant, 1951) as "*S. arvensis*."

280. *Tragopogon major* Jacq. Goat's-beard.

No herbarium specimens available. Naturalized. Common.

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