

THE FLORA OF LA CROSSE COUNTY

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ABSTRACT

This thesis deals with the flora of La Crosse County. It is primarily a revised account of the native and introduced vascular plants in the county. Situated in the "Driftless Area", or unglaciated portion of the state, the area provides a variety of habitats, and a relatively large flora.

This work is based on collections made in 1971 and 1972. During these years, collection areas across the county were revisited from April to October. 3200 individual collections have been made and identified. This information was supplemented by viewing the collections made by other individuals that are deposited in the herbaria of the University of Wisconsin - La Crosse, University of Wisconsin - Madison, and the University of Iowa - Iowa City.

950 species representing 120 families have been confirmed for the county. The largest family represented is the Compositae with 113 species and the largest genus is Carex with 70 species.

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TABLE OF CONTENTS

INTRODUCTION

LA CROSSE COUNTY -----	1
CLIMATE -----	1
TOPOGRAPHY AND GLACIAL HISTORY -----	2
SOILS -----	5
LITERATURE REVIEW -----	8
METHODS AND MATERIALS -----	13
INTRODUCTION TO THE CATALOGUE -----	14
CATALOGUE OF VASCULAR PLANTS -----	15
DIVISION LYCOPODIOPHYTA -----	15
DIVISION EQUISETOPHYTA -----	15
DIVISION POLYPODIOPHYTA -----	16
DIVISION PINOPHYTA -----	19
DIVISION MAGNOLIOPHYTA -----	21
CLASS MAGNOLIATAE -----	21
CLASS LILIATAE -----	92
STATISTICAL SUMMARY -----	121
LA CROSSE COUNTY MAP -----	122
LITERATURE CITED -----	123
INDEX TO THE FAMILIES -----	133

INTRODUCTION

La Crosse county is located $43^{\circ}52'$ north latitude and $91^{\circ}07'$ west longitude in the southwestern portion of the state of Wisconsin. Its twelve townships occupy a total of 469 square miles as can be seen on the La Crosse county map that is located after the summary of this text. It is bounded on the north by Jackson county, Trempeleau county and Monroe county. On the east it is bounded by Monroe county, on the south by Vernon county, and on the west by the Mississippi River, which also forms the boundary between Minnesota and Wisconsin. Formerly a part of Crawford county, La Crosse county was established in 1851 and the boundaries accepted today were established in 1918 (Beatty, 1960).

La Crosse county has a rural setting with the land primarily agricultural. From west to east the total land in farms increases from 50% to 90% and of this the percentage of the land in cropland is anywhere from 25% to 75% (Finley, 1970). The major city and also county seat is La Crosse with a population of 51,153, while the county has a population of 80,468 according to the official 1970 Census.

The climate in the La Crosse county region is humid-continental and is characterized by wide fluctuations in temperature throughout the year. Warm, humid summers occur along with cold winters. The region has 4-8 months over 50°F with the warmest month reaching over 72°F (Finley, 1970).

The normal annual growing season for native plants is 170-180 days between the last killing frost in spring (April-

May) and the first killing frost of autumn (September-October) (Finley, 1970). The mean temperature is 45-46°F with possible temperatures of -40 to -50°F in the winter to several days of 90-100°F in the summer (Martin, 1965).

The annual precipitation is 30-32 inches with 60% of it occurring during May-September (Finley, 1970). The greatest amount of rainfall is in the summer. Winter is the dry season, and most of the precipitation is in the form of snow with an average of 45 inches.

From January to April the prevailing winds in the city of La Crosse are from the Northwest, but they are southerly the rest of the year due to the Mississippi valley. Winds are westerly on the upland ridges (Beatty, 1960).

An average of 56% sunshine occurs in La Crosse county. The range is from 40% in December to 73% in July (Beatty, 1960).

La Crosse county and the surrounding area is locally known as the "coulee region" for its surface is rugged and contains many ridges and valleys similar to the topography of West Virginia and Kentucky. The most prominent feature is the Mississippi valley and its numerous branches.

Once much more of Wisconsin looked like this, but now it only describes the Driftless Area which includes southwest Wisconsin, and adjacent areas of Illinois, Iowa, and Minnesota. The extent of this area is 210 miles from north to south and 120 miles from east to west for a total of 15,000 square miles with 13,360 of it in Wisconsin (Martin, 1965). As a compari-

son it is twice the size of New Jersey and as large as Denmark. A driftless area is not unusual, for most of the United States is driftless in the southern and western states. What makes this particular area interesting is the fact it is the only region completely surrounded by glaciated territory. No similar region exists in North America or northwest Europe.

W. H. Keating, a geologist, was the first to recognize the Driftless Area as he traveled across the land in 1823 (Martin, 1965). He traveled overland from Chicago with Major Long's Second Expedition and observed that granite boulders were not present as they entered southwestern Wisconsin.

During the Pleistocene epoch, ice sheets moved south from the Hudson Bay area. Actually the term, Driftless Area, is a misnomer for the area does have a large quantity of drift. The ice picked up and carried sand and gravel for long distances until it stopped and melted, releasing these materials to be carried away by the water until it was finally deposited as drift in the valleys of the Mississippi River.

It must be understood that although glaciers completely surrounded the Driftless Area they did not do so simultaneously. There were several stages of glacial advance, i.e., the Nebraskan, the Kansan, the Illinoian, and finally, the Wisconsin stage. Each of these had intervening stages where the ice would retreat. Perhaps given more time the ice would have covered the entire region, but each time conditions changed and the ice lobes retreated. Also northern Wisconsin's high-

land provided protection and slowed the glaciers advance. The path of least resistance was to the east and west where the lowlands existed. The Lake Michigan area on the east and the valleys of the Red, Minnesota, and Des Moines Rivers on the west were these paths of least resistance. The ice lobes joined again some 50 miles south of the Wisconsin line with each of the lobes receding or advancing independently (Martin, 1965).

As a result of glaciation much of Wisconsin has a smooth surface with gentle rolling hills and a poorly drained region with many lakes and other standing bodies of water. In La Crosse county, on the other hand, the hills were not ground down and the valleys filled. The area is well drained with few standing bodies of water except in the case of sloughs and oxbow lakes. Also there are a few isolated bogs in the driftless areas which are relics of the postglacial period. (Hansen, 1939).

Several rivers traverse the county which drain into the Mississippi River making the county very well drained. On the north, the Black River receives waters from Fleming Creek and a few smaller ones. La Crosse River almost divides the county in half from east to west, and receives water from Burns, Dutch, Fish and Bostwick Creeks. Mormon and Coon Creeks drain the southern part (Whitson, Geib, and Dunnewald, 1940).

The streams have developed landform patterns through long years of erosion. This erosion cut valleys into what

was once a level plateau. Now the upland is dissected with steep slopes. The elevation from valley bottom to the ridge tops is about 200-500 feet (Beatty, 1960).

The landforms are related to the type of bedrock present, which is basically of two kinds, the Prairie du Chien (Lower Magnesian) dolomite and the Upper Cambrian sandstone with its three formations, Dresbach, Trempeleau, and Franconia (Beatty, 1960).

North of the La Crosse River, erosion has practically removed any remaining traces of the dolomite leaving the softer sandstone exposed. Characteristics of this region are low, irregular hills due to irregular erosion, narrow hilltops and ridges, moderately steep escarpments, and wide valleys. South of the La Crosse River, the hard, resistant, dolomite determines the landforms and erosion has not been able to progress as far. There are level, wide ridgetops, steep escarpments, and narrow valleys.

Soils in La Crosse county have formed from three sources. These include the weathered sandstone bedrock, the wind-deposited silts or loess, and the water-deposited silts on the stream terraces and bottoms (Beatty, 1960). The soils are chiefly residual formed upon Cambrian sandstone, and Prairie du Chien dolomite (limestone). The weathering started long before the glacial period and a deep mantle of residual soils is present while other parts of Wisconsin lacks this because the glaciers scraped this layer away.

Another important ingredient in the soils is the loess blown in during and after glaciation from the Mississippi valley. The loess can be as much as 30 feet thick near the Mississippi River, but this thins out further east. If the loess has been transported from its original location by runoff, it will occur as silt or alluvial material on stream terraces and flood plains. If the runoff was from an area of little loessal material, this will be sandy from soils formed from the bedrock.

The basic unit of classification is the soil type which requires that soil be uniform in texture, color, thickness of soil layers, and other physical properties. The Soil Survey lists over 30 types, much too numerous for this report, but the soil types are arranged into soil series based on common characteristics, and finally into great soil groups.

The first great soil group is the gray-brown podzolic soils consisting of twelve different series. These soils have a thin organic covering consisting mostly of leaves that lie on the surface of the soil. Below the podzolic soils are loessal or alluvial silts, sands, red clay, or weathered products of sandstone. These soils cover a major portion of La Crosse county, occurring on upland ridges and valley slopes mainly under deciduous trees. These include mesic forests which are basically maple-basswood forests and xeric or oak forests (Curtis, 1959). Most of these are farmer's wood lots.

The second great soil group consists of twelve soil series. It is the Brunizems or prairie soils. They occur under

grasses on terraces and low hills. These soils are prime areas for agricultural land. Since the grasses have decayed on and in the soil from the roots and the blades, the soil has a dark thick surface layer. The three dominant families associated with the prairies are Gramineae, Compositae, and Leguminosae (Curtis, 1959).

The third group is the alluvial soils which are composed of six series. They are the soils from material recently deposited as in river valleys where Aesculus glabra Willd. and Betula nigra L. can be found or on sand bars or mud flats where Salix nigra Marsh. and Populus deltoides Marsh. are frequent (Curtis, 1959). Since these areas are lowlands and have a high probability of flooding, they are of little agricultural value.

The fourth group is the bog soils of muck and peat. These are organic soils and occur under swamp or marsh vegetation. The two families characteristic of bogs is Ericaceae and Cyperaceae (Curtis, 1959). Bog soils are usually wet soils, and can be found in depressions, stream bottoms, or terraces. They are in various stages of decomposition.

LITERATURE REVIEW

Many individuals have worked with the flora in the Wisconsin portion of the Driftless Area. Alvin Peterson (1961) made many collections in the vicinity of La Crosse and produced a checklist for the Midway Prairie Scientific Area that has been set aside to preserve several species of plants. Pammel (1902), another La Crosse area collector, specialized in a particular, sphagnum bog located in La Crosse county. Hansen also worked with the Driftless Area in Wisconsin. In 1933, he published a work on tamarack bogs. This was followed by the postglacial vegetation of the Driftless Area of Wisconsin (1939). The first flora of the area was produced by Thomas Hartley (1957). He collected from various habitats in Crawford, Jackson, La Crosse, Monroe, Trempeleau, and Vernon counties. He reported 118 families and 1,344 species. Hartley (1960) also published a study on the plant communities of La Crosse. Hartley (1966) enlarged his previous flora so that it encompassed the entire Driftless Area. The project covered 37 counties and when completed he reported 133 families and 1,639 species. A large percentage of these occur in La Crosse county.

Fassett (1929) published the first and second in the series of preliminary reports of the Flora of Wisconsin. The first dealt with the Juncaginaceae and the Alismaceae, while his second was on the family, Ericaceae. Mahony (1929),

published the third report on the Lobeliaceae, Campanulaceae, and Cucurbitaceae. In 1930 several more family studies appeared. The first by Wilson on the Lycopodiaceae and the Selaginellaceae. The second by Fassett on six individual groups: Coniferales, Pandanales, Betulaceae, Aceraceae, Elatinaceae, and Haloragaceae. Last in 1930 was Almon with a report on the Wisconsin Ranunculaceae. Breakey and Walker produced a report on the Polypodiaceae in 1931. In that year, Costello treated the Fagaceae and McLaughlin treated the Hypericaceae. Fassett (1929) published a report on the Xyridales, Myricaceae, and the Juglandaceae. This was followed by another report on the Saxifragaceae (1932b). Other reports on 1932, included Mahony's on the Polygonaceae and Livergood's on the Sarraceniales. Fassett treated the Geraniales in 1933. In that year, Drescher treated the Cornaceae, Costello, the Urticaceae, and Hagen, the Malvales. From 1933 to 1937 only one report was published, and that was by Costello (1935) on the Salicaceae. In 1937, two studies were completed; one by Fassett on the A-rales, and the other by Fogelberg on the Convolvulaceae. After an absence of reports for another three years, four reports became available in 1940: Thomson's treatment of the Lentibulariaceae, Wade and Wade's Caprifoliaceae, Pohl's Rhamnales, and Fassett's treatment of the Anacardiaceae. In 1943, Fassett treated the Solanaceae. Kruschke (1944) wrote on the Boraginaceae. The final report of the 1940's once again included work by Fassett (1946) with another report on the Ranunculaceae. McIntosh (1950) did a report on the Liliaceae.

the Dioscoreaceae, Amaryllidaceae, Iridaceae, and the Junceaceae. In that year, Fassett and Elser treated the Araliaceae. Ross and Calhoun completed their studies on the Najadaceae in 1951, while Salamun finished the taxonomic work on the Scrophulariaceae in the same year. No other reports were published until Greene's partial survey on the Cyperaceae (1953). Many reports were published in 1957. These included Urban and Iltis' treatment of the Rubiaceae; Iltis' on the Phrymaceae; Noameshi and Iltis' on the Asclepiaceae; and Koeppen's treatment of the Labiate. Mason and Iltis produced a partial study on the Rosaceae in 1958. Numerous reports were also published in the 1960's: Iltis and Shaughnessy (1960), Primulaceae; Patman and Iltis (1961), Cruciferae; Saur and Davidson (1961), Amaranthaceae; Schlising and Iltis (1961), Caryophyllaceae; Ugent (1962), Thymelaeales, Myrtales, and Cactales; Johnson and Iltis (1963), Compositae I; Barkley (1963), Compositae II; Salamun (1963), Compositae III; Pringle (1963), Gentiana hybrids in Wisconsin; Argus (1964), Salicaceae; Mason and Iltis (1965), Gentianaceae and Menyanthaceae; Hauke (1965), Equisetaceae; Mickelson and Iltis (1966), Compositae IV; Beal and Peters (1966), Compositae V; Smith and Levin (1966), Polemoniaceae; Schields (1966), Hydrophyllaceae; Tessene (1968), Plantaginaceae. The last preliminary reports to be released were in 1970. They included a study by Utech on the Tiliaceae and the Malvaceae; a treatment of the Hypericaceae by Utech and Iltis and Payne's treatment of the Compositae VI.

In all these studies, the format is basically the same. Information includes genus and species names of the families or orders studied with complete descriptions. Where more than one species per genus occurs, keys to their identification are provided. Wisconsin maps are provided many times to show where these plants are located.

Of course, the list of useful publications is not limited to the Wisconsin Transactions. Rosendahl (1903) has a helpful listing of plants for the Driftless Area, while Shimek (1924) specialized in the prairies of the Mississippi river bluffs. Rossbach (1939) did a study on the genus Utricularia, and in the same year, Fassett did a large work on all the leguminous plants of Wisconsin. Tryon, Fassett, Dunlop, and Diemer (1940) published a book on the ferns. Mackenzie (1940) published a major work on the Cariceae. Shinnars (1941) work on the genus Aster is a good source in helping to identify members of this complex genus. Shinnars (1948) described a new species of the genus Chrysopsis that can be found in the Driftless Area. Muenscher (1950) produced a good key to the woody plants. Fassett (1951) treated the grasses of Wisconsin and provided excellent illustrations and keys. Several taxonomic revisions of genera are important in working with a particular genus. Saur (1955) treated the dioecious amaranths. Beal (1956) treated the genus Nuphar. Rock (1957) revised the vernal species of Helenium. Heiser (1958) provided a key to Helianthus. Mason (1959) treated a hybrid that is found in Wisconsin among the perennial Gentians. Others include studies of

Najas minor (Merilaninen, 1968), the Guttiferae (Adams, 1962), and on the species Senecio plattensis and Senecio pauperculus (Barkley, 1965).

For general plant identification, Gray's Manual of Botany (Fernald, 1950) and the New Britton and Brown Illustrated Flora of the Northeastern United States and adjacent Canada (Gleason, 1952) were used extensively.

METHODS AND MATERIALS

Plant collections were initiated in May 1971 and continued through September of that year. Random sampling took place at that time. Approximately 850 collections were made at this time. From the fall of 1971 to the spring of 1972 these collections were identified, mounted and placed in the herbarium of the University of Wisconsin - La Crosse. Identification and keying was aided by the use of several sources, many of which were journals xeroxed from the library so they could be used in the herbarium. A fieldbook was kept to record the dates, species, and exact location of the collections. From this, two sets of notecards were typed and filed. One set provides the names of the species along with habitat and relative abundance, while the other set records the collectors and their collection numbers or dates, and the location of the plants in the county.

More intensive collecting took place in the summer of 1972 with a final total of 3182 plants collected. The following winter these plants were identified along with annotating and viewing specimens deposited in the herbarium of the University of Wisconsin - La Crosse.

Trips were also made to the herbaria of the University of Wisconsin - Madison and the University of Iowa - Iowa City. Specimens collected in La Crosse county on deposit there were recorded insofar as time permitted. The specimens supplemented personal collection data.

INTRODUCTION TO THE CATALOGUE

The catalogue which follows is a list of the vascular plant species in La Crosse county. The divisions, classes, subclasses, and families are organized in a phylogenetic fashion with the Angiosperms in the sequence of Cronquist (1968). The genera within the families, and species within the genera are arranged alphabetically.

Fernald's (1950) Gray's Manual of Botany was followed in regard to the scientific binomials and common names. Under each species, specimens are cited by the collectors with their collection numbers, or collection dates, if no numbers were available. The collectors are grouped under the herbarium in which their collections are deposited.

In accordance with the Index Herbariorum (Lanjou and Stafleu, 1964), the acronym WIS is used for the University of Wisconsin - Madison and IA is used for the University of Iowa - Iowa City. As the herbarium at the University of Wisconsin - La Crosse is not listed within the Index Herbariorum, the acronym WISL was chosen to designate collections deposited therein.

DIVISION LYCOPODIOPHYTA

CLASS LYCOPODIAE

LYCOPODIACEAE (Club-moss Family)

Lycopodium clavatum L. Running Club-moss.

WISL: Kretschmann 8 May 1972; IA: Hartley 4642.

Lycopodium complanatum L. Creeping Jenny.

WISL: Hoyer 19 May 1971.

Lycopodium lucidulum Michx. Shining Club-moss.

WISL: Hartley 22; Kretschmann 18 May 1972; DiCecco 9 May 1968.

Lycopodium obscurum L. Ground-pine.

IA: Hartley 4641.

Lycopodium tristachyum Pursh. Ground-pine.

IA: Hartley 889.

SELAGINELLACEAE (Spikemoss Family)

Selaginella rupestris (L.) Spring. Spikemoss.

WISL: Davis 7 May 1972; IA: Hartley 541.

DIVISION EQUISETOPHYTA

CLASS EQUISETAE

EQUISETACEAE (Horsetail Family)

Equisetum arvense L. Common Horsetail.

WISL: Hoeth 4 Apr 1967; Peterson 23 May 1967; Hartley 788; Valiquette 3; Jezwinski 7 May 1966; Hoyer 12 May 1971; Brendel 6 May 1971; Sohmer 1684; Ragoonanan 5 May 1969; Raith 22 Sep 1963; Nontelle 12,13,76,77,82,305,306,138,139,406,405,418,530,533,553,2921,3088,2580,2726,2681,2044,2317,1080,2028,2562,1632,1493,1588,1290,1376,2822,1153,1193,1075,856,1054,898,987,725,810,811; IA: Hartley 69.

Equisetum fluviatile L. Water Horsetail.

IA: Hartley 2126.

Equisetum hyemale.L. Scouring-rush.

WISL: Sohmer 1677,1507; Raith 22 Sep 1963; Fleischmann 16 Sep 1963; Ellis 16 Apr 1967; Nontelle 274,254,255,731,849, 904,858,1911; IA: Hartley 3030.

Equisetum laevigatum A. Br. Smooth Horsetail.

WISL: Hartley 1554; Sohmer 2392; Brendel 14 May 1971; Nontelle 188,189,596,656,427,556,534,3053,1187,1868; IA: Hartley 998,713.

Equisetum pratense Ehrh. Meadow- horsetail.

WISL: Peterson 23 May 1967; Nontelle 54,55,98; IA: Hartley 225.

Equisetum scirpoides Michx. Dwarf Scouring-rush.

IA: Hartley 740.

Equisetum sylvaticum L. Wood-horsetail.

IA: Hartley 2322.

DIVISION POLYPODIOPHYTA

CLASS FILICES

SUBCLASS EUSPORANGIATAE

OPHIOGLOSSACEAE (Adder's-tongue Family)

Botrychium multifidum (Gmel.) Rupr. Leather Grapefern.

IA: Hartley 3005.

Botrychium virginianum (L.) Sw. Rattlesnake Fern.

WISL: Dix 27; Nontelle 376,377,1709,1507,1508; IA: Hartley 115.

SUBCLASS LEPTOSPORANGIATAE

OSMUNDACEAE (Flowering Fern Family)

Osmunda claytoniana L. Interrupted Fern.

WISL: Fischer 71; Dix 14; Boese 20 May 1966; Nontelle
1757,2532,1115,1116,2579,1069,2680,2827,2253,3253,1362,
1363,2853,3160; IA: Hartley 19.

Osmunda regalis L. Royal Fern.

IA: Hartley 503.

POLYPODIACEAE (Poypody Family)

Adiantum pedatum L. Maidenhair Fern.

WISL: Krey 12 Sep 1961; Fischer 79; Nontelle 2620,2231,
2152,2533,2547,2467,2365,1125,1064,1057,744; IA: Hartley
10 Sep 1955.

Asplenium platyneuron (L.) Oakes Ebony-spleenwort.

WISL: Hartley 1609.

Asplenium rhizophyllum L. Walking-fern.

WISL: Brown 26 May 1969; Solberg 7 May 1966; IA: Hartley 763.

Athyrium felix-femina (L.) Roth Lady Fern.

WISL: Sohmer 2523; Nontelle 177,178,1985,2690,2686,749,750,
1098,2840,213,1359,1360,1515,1569,1688,1822,2535,3164,2254,
2657,2583; IA: Hartley 897.

Cryptogramma stelleri (Gmel.) Prantl. Rock-brake.

IA: Hartley 2198.

Cystopteris bulbifera (L.) Bernh. Bulbet-fern.

WISL: Nontelle 1593; IA: Hartley 246.

Cystopteris fragilis (L.) Bernh. Fragile Fern.

WISL: Hartley 144; Nontelle 1537,1545,1579,885; IA: Hartley
896.

Dryopteris cristata (L.) Gray Crested Woodfern.

IA: Hartley 1006.

Dryopteris goldiana (Hook.) Gray Goldie's Fern.

IA: Hartley 725.

Dryopteris spinulosa (O. F. Muell.) Watt. Spinulose Schield Fern.

WISL: Nontelle 3165; IA: Hartley 1068.

Gymnocarpium dryopteris (L.) Newm. Oak-fern.

IA: Hartley 918.

Matteuccia struthiopteris (L.) Todaro Ostrich Fern.

WISL: Riek 94; Nontelle 875.

Onoclea sensibilis L. Sensitive Fern.

WISL: Farringer 22; Cary 16 Sep 1971; Merz 151; Ruhser 449;

Nontelle 2924, 2596, 2697, 2517, 2518, 1191; IA: Hartley 1331.

Pellaea glabella Rydb. Cliff-brake.

WISL: Kretschmann 8 May 1972; Nontelle 1466.

Polypodium vulgare L. Polypody.

WISL: Nontelle 1584, 1589; IA: Hartley 895.

Pteridium aquilinum (L.) Kuhn. Bracken.

WISL: Nontelle 2148, 2546, 2984, 3146, 1754, 1517, 1604, 1391,

2834, 1172, 752, 3018, 2466.

Thelypteris palustris Schott. Marsh Fern.

IA: Hartley 1385.

Woodsia obtusa (Spreng.) Torr. Large Woodsia

IA: Hartley 2110.

Woodsia oregana D. C. Eat. Oregon Woodsia.

IA: Hartley 1184.

AZOLLACEAE (Mosquito Fern Family)

Azolla mexicana Presl. Mosquito Fern.

WISL: Nontelle 826.

DIVISION PINOPHYTA

CLASS CONIFERAE

TAXACEAE (Yew Family)

Taxus canadensis Marsh. American Yew.

WISL: Pierce 1 May 1959; Harvey 20 Apr 1968; IA: Hartley
1925.

PINACEAE (Pine Family)

Larix laricina (DuRoi) K. Koch Larch.

WISL: Johnson 22; Erdman 14 May 1966; Hall 20 May 1966;
Gabrielson 12 May 1969; Pfaff 20 May 1966; Anderson 17
Sep 1962.

Pinus banksiana Lamb. Jack Pine.

WISL: Ruhser 492; Nontelle 2459,2446,2419,1217; IA: Hart-
ley 48.

Pinus resinosa Ait. Red or Norway Pine.

WISL: Lenser 20 Apr 1971; Ruhser 481; Nontelle 1980,1178;
IA: Hartley 926.

Pinus strobus L. White Pine.

WISL: Ruhser 459; Johnson 60; Waldt 1 May 1959; Nontelle
2605,2461; IA: Hartley 71.

CUPRESSACEAE (Cypress Family)

Juniperus communis L. Common Juniper.

WISL: Gabrielson 12 May 1969; Hoyer 19 May 1971; Engberg
19 May 1969; Nontelle 1496,1008.

Juniperus horizontalis Moench. Creeping Juniper.

WISL: Pierce 11 May 1959.

Juniperus virginiana L. Red Cedar.

WISL: Brown 25 Apr 1969; Anderson 21 Sep 1962; Johnson
1; Kohlmeyer 11 Apr 1962; Sohmer 1680; Nontelle 14,15,81,
365,2866,3005,2477,2498,1455,1006,887.

Thuja occidentalis L. Arbor Vitae.

WISL: Ellis 14 May 1967; Stark 17 1966; Nontelle 843.

DIVISION MAGNOLIOPHYTA

CLASS MAGNOLIATAE (Dicotyledons)

SUBCLASS MAGNOLIIDAE

ARISTOLOCHIACEAE (Birthwort Family)

Asarum canadense L. Wild Ginger.

WISL: Netwal 11 May 1965; Brendel 27 May 1971; Sohmer 2392; Boese 3 May 1966; Lange 13 May 1971; Lenser 22 Apr 1971; Nicolai 30 Apr 1966; Ernst 20 Apr 1969; Harvey 20 Apr 1969; Hoyer 24 May 1971; Nontelle 1000,1001,1002,1890, 1891,1892; Hartley 103.

NYMPHAEACEAE (Waterlily Family)

Nuphar luteum (L.) Sibth & Sm. Spatter-dock.

WISL: Christianson 22; Dix 92; Fischer 189; Ruhser 618; Nontelle 1836.

Nymphaea odorata Ait. Fragrant Waterlily.

WISL: Merz 1.

Nymphaea tuberosa Paine White Waterlily.

WISL: Bills 22 Sep 1971; Christianson 30; Merz 52; Nontelle 826,834; IA: Hartley 1390.

NELUMBONACEAE (Lotus Family)

Nelumbo pentapetala (Walt.) Fernald American Lotus.

WISL: Fischer 194; Ruhser 638; Dix 93; Merz 126; Albrecht 24 Sep 1971; Justinger 16 Oct 1971; Nontelle 1837,736,830.

CERATOPHYLLACEAE (Hornwort Family)

Ceratophyllum demersum L. Coontail.

WISL: Merz 135; Ruhser 636; Fischer 186; Dix 89; Albrecht 3 Sep 1971; Farringer 34; Sohmer 2800; Justinger

24 Oct 1971; Nontelle; 838; IA; Hartley 1618.

RANUNCULACEAE (Crowfoot Family)

Actaea pachypoda Ell. White Baneberry.

WISL: Wildt 24 May 1959.

Actaea rubra (Ait.) Willd. Red Baneberry.

WISL: Fischer 69; Johann 14 May 1967; Key 13 May 1961;

Johnson 59; Lorenz 8 May 1962; Kovar 17 May 1961;

Nontelle 1762, 1475, 3163.

Anemone canadensis L. Meadow Anemone.

WISL: Fuller 23 May 1958; Hudec 21 Jun 1960; Sohmer

1673, 1674, 1688, 1689, 1690; Berg 21 May 1962; Moerschel

23 May 1959; Dix 34; Ruhser 424; Nontelle 1336, 688,

336, 554, 420.

Anemone cylindrica Gray Slender Thimbleweed.

WISL: Mauuye 29 Sep 1963; Nontelle 691.

Anemone patens L. Pasque Flower.

WISL: Ernst 4 May 1969; Post 22 Apr 1958; Wechter 20

Apr 1959; Lonqueville 15 Apr 1966; Treder 16 May 1961;

Puent 12 May 1958; Lierscher 17 Apr 1966; Pierce 17 May

1959; Smith 14 May 1965; Carl 29 Apr 1961; Wildt 29

1958; Moerschel 6 May 1959; Hornby 16 May 1958; Temp

19 Apr 1959; Johann 22 Apr 1967; Stelláck 26 Apr 1959;

James 7 Apr 1958; Kujak 7 Apr 1958; Van Vleet 12 Apr

1958; Rovang 29 Apr 1947; Brown 27 Apr 1969; Aiello 9;

Nontelle 870.

Anemone quinquefolia L. Wood Anemone.

WISL: Chill 19 May 1961, 16 May 1961; Hornby 14 May 1958;

Pierce 27 Apr 1959; Peterson 30 Apr 1967; Hoeth 1 May 1967; Murphy 27 May 1962; Hoyer 19 May 1971; Brown 26 Apr 1969; Wechter 5 May 1959; James 24 May 1958; Nontelle 159,102,103,104,993,884.

Anemone virginiana L. Thimbleweed

WISL: Sohmer 2373,2123,2010,2011,2012; Drecktrah 28 May 1960 Wechter 29 May 1959; Fish 1 Jun 1959; Nontelle 398,528,1606,1096,1699,2585,2134,21502067,1824,1630, 1566.

Anemonella thalictroides (L.) Spach. Rue Anemone.

WISL: Henry 15 May 1965; Smith 29 May 1965; Fish 14 May 1959; Schnell 7 May 1959; Dereszynski 18 May 1962; Murphy 18 May 1962; Connor 19 May 1962; Pierce 24 May 1959; Brown 26 Apr 1969; Brendel 1 May 1971; Lenser 22 Apr 1971; Hoyer 19 May 1971; Sohmer 1502,1501; Nontelle 23,24,25,156,130,143,152,100,102,278,296,1100, 1142,879,1021,911,939,958,974,984,853.

Aquilegia canadensis L. Columbine.

WISL: Johnson 54; Aiello 4; Fuller 14 May 1958; Fish 31 May 195; Biehn 17 May 1959; Horswill 12 May 1959; Schnell 16 May 1959; Hudec 21 Jun 1960; Murphy 18 May 1962; Dereszynski 23 May 1962; Ludwig 16 May 1962; Jacoby 16 May 1962; Connor 18 May 1962; Coorough 18; Pierce 15 May 1959; Drecktrah 28 May 1960; Puent 14 May 1958; Hoyer 19 May 1971; Peterson 19 May 1971; Brendel 19 May 1971; Lenser 19 May 1971; Nontelle 212, 1090,1490,1544,2573,1340.

Caltha palustris L. Marsh Marigold.

WISL: Brendel 27 Apr 1971; Moerschel 6 May 1959;
 Caflisch 11 May 1959; Hall 15 May 1966; Pierce 24 May
 1959; Stellick 2 May 1959; Hornby 16 May 1958; Murphy
 27 Apr 1962; Pfaff 20 May 1966; Ziegler 12 May 1959;
 Fish 12 May 1959; Temp 7 May 1959; Gabrielson 12 May
 1969; James 22 Apr 1958; Johnson 37; Kujak 22 Apr 1958;
 Nontelle 842.

Clematis virginiana L. Virgin's Bower.

WISL: Krey 12 Sep 1962; Mauuye 16 Sep 1963; Raith 16
 Sep 1963; Wolley 23 Sep 1963; Nontelle 1346.

Hepatica acutiloba DC. Sharp-lobed Hepatica.

WISL: Ziegler 19 May 1960; Johnson 17; Lorenz 29 Apr
 1966; Rank 9 May 1960; Nontelle 854.

Hepatica americana (DC.) Ker. Round-lobed Hepatica.

WISL: Solberg 20 May 1966; Gschwind 3 May 1965; An-
 derson 8 May 1955; Liegel 17 May 1959; Brown 26
 Apr 1969; Brendel 4 May 1971; Lenser 22 Apr 1971; Non-
 telle 99.

Ranunculus abortivus L. Kidneyleaf Buttercup.

WISL: Ernst 20 1969; Friell 13 May 1968; Sohmer 11 May
 1968; Nontelle 84,137,107,1410,955,874,888,1899,1157,
 1042,905,915,945.

Ranunculus acris L. Tall Buttercup.

WISL: Nontelle 1429.

Ranunculus fascicularis Muhl. Early Buttercup.

WISL: Brown 20 Apr 1969; Nontelle 94,95.

Ranunculus pensylvanicus L.f. Bristly Crowfoot.

WISL: Nontelle 739.

Ranunculus rhomboideus Goldie Prairie Buttercup.

WISL: Brown 20 Apr 1960; Aiello 3; Lonqueville 15
Apr 1966; Rovang 29 Apr 1947; Nontelle 881,882,900.

Ranunculus sceleratus L. Cursed Crowfoot.

WISL: Sohmer 1861.

Ranunculus septentrionalis Poir. Swamp Buttercup.

WISL: Brown 25 Apr 1969; Hornby 14 May 1958; Netwal
12 May 1965; Ziegler 9 May 1960; Hanson 23 May 1959;
Schnell 16 May 1959; Hoyer 12 May 1971; Harvey 20
Apr 1968; Johnson 1 May 1971; Brendel 6 May 1971;
Nontelle 148,126,1192,873.

Thalictrum dasycarpum Fishc. & Lall. Purple Meadow-rue.

WISL: Sohmer 1973; Nontelle 313,1648,1529,1427.

Thalictrum dioicum L. Early Meadow Rue.

WISL: Johnson 49; Brandvold 16 May 1971; James 14 May
1958; Fadness 15 May 1960; Lenser 17 May 1971; Ander-
son 26 May 1956; Wechter 12 May 1959; Lauscher 19
May 1961; Kovar 17 May 1961; Stark 20 May 1966; House
6 May 1962; Hoeth 17 May 1967; Erdman 22 May 1966;
Nontelle 1586,912,921,982,1174,1137,2760,1499.

BERBERIDACEAE (Barberry Family)

Berberis thunbergii DC. Japanese Barberry.

WISL: Nontelle 174,3158.

Caulophyllum thalictroides (L.) Michx. Blue Cohosh.

WISL: Lorenz 8 May 1962; Johnson 50; Fadness 4 May 1960;
Fish 19 May 1959; Sohmer 2397; Moerschel 2 May 1959;

Dix 32; Fischer 75; Hartley 85.

Podophyllum peltatum L. May-apple.

WISL: Peterson 18 May 1971; Ganschow 15 May 1959; Kunkel 23 May 1959; Schmidt 30 May 1959; Hoeth 18 May 1967; Temp 25 May 1959; Stellick 29 May 1959; Hanson 23 May 1959; Horswill 23 May 1959; Moerschel 26 May 1959; Wildt 24 May 1959; Lenser 22 Apr 1971; Dix 20; Fischer 75; Nontelle 133,371,989,919,918,977,978,876; IA: Hartley 138.

MENISPERMACEAE (Moonseed Family)

Menispermum canadense L. Moonseed.

WISL: Dix 90; Fischer 191; Nontelle 504,206,1923,3080,1833,1778,1779,1640,1314.

PAPAVERACEAE (Poppy Family)

Sanguinaria canadensis L. Bloodroot.

WISL: James 22 Apr 1958; Brown 26 Apr 1969; Lange 5 May 1971; Brendel 27 Apr 1971; Lenser 22 Apr 1972; Smith 10 May 1965; Hoyer 17 Apr 1971; Becwar 23 Apr 1969; Boehm 18 Apr 1959; Fish 31 May 1959; Temp 1 May 1959; Moerschel 22 Apr 1959; Henry 2 May 1965; Post 5 May 1968; Gschwind 3 May 1965; Lorenz 28 Apr 1966; Stellick 2 May 1959; Negri 9 May 1965; Zaleski 27 Apr 1967; Ellis 29 Apr 1967; Madramootoo 20 Apr 1971; Dix 26; Fischer 84; Nontelle 125,848,981,917,893,1032,1033,1203,1333,1580,2052; IA: Hartley 25.

FUMARIACEAE (Fumitory Family)

Dicentra cucullaria (L.) Bernh. Dutchman's Breeches.

WISL: Harvey 20 Apr 1969; Ernst 20 Apr 1969; Haggerty 11 May 1968; Temp 10 May 1959; Jacoby 16 May 1962; Ludwig 16 May 1962; Schnell 7 May 1959; Coorough 36; Peterson 30 Apr 1967 Hoeth 28 Apr 1967; Lorenz 5 May 1962; Valiquette 19; Negri 9 May 1965; Gschwind 3 May 1965; Connor 25 Apr 1962; Ziegler 9 May 1960; Hoyer 5 May 1971; Raagoonanan 5 May 1969; Friell 24 Apr 1969; Gabrielson 12 Apr 1969; Johnson 9; Brown 26 Apr 1969; Witt 14 May 1958; Anderson 13 May 1954; Puent 14 May 1958; Johnson 56; Kujak 14 May 1958; Brendel 27 Apr 1971; Lenser 22 Apr 1971; Hornby 14 May 1958; Arkin 17 Apr 1965; Nontelle 41,42,43, 1,2,847,892.

Dicentra spectabilis Lem. Bleeding Heart.

WISL: Hoyer 11 May 1971.

SUBCLASS HAMAMELIDAE

HAMAMELIDACEAE (Witch-hazel Family)

Hamamelis virginiana L. Witch-hazel.

WISL: Anderson 22 Sep 1962; IA: Hartley 680.

ULMACEAE (Elm Family)

Celtis occidentalis L. Hackberry.

WISL: Ernst 21 May 1969; Huggett 6 May 1965; Lenser 25 May 1971; Netwal 6 May 1965; Lonqueville 24 May 1966; Anderson 17 Sep 1962; Peterson 23 May 1967; Hamilton 10 Oct 1963; Nontelle 267.

Ulmus americana L. American Elm.

WISL: Peterson 18 Apr 1967; Pierce 20 May 1959; Lenser 18 Apr 1971; Borchardt 24 Apr 1962; Connor 25 Apr 1962; Henry 16 May 1965; Huggett 13 May 1965 Kwick 7

1965; Arkin 17 Apr 1965; Hill 15 Apr 1961; Key 21 Apr 1961; Carl 29 Apr 1961; Lonqueville 11 May 1966; Fischer 34; Nontelle 56,57,1083,942,968,980,1341,1625,3066,3064.

Ulmus pumila L. Siberian Elm.

WISL: Wolley 29 Oct 1963; Lonqueville 26 May 1966; Huggett; Nontelle 550,3000,2970,2136,1857,3084; IA: Hartley 1745.

Ulmus rubra Muhl. Slippery Elm.

WISL: Brendel 1 May 1971; Mauuye 2 Oct 1963; Sohmer 1683, 1698; Nontelle 391,200,412,660,2839,2807,2745,1119,1235, 1036,1595,1472,1421,1446,1273,1674,2658,2576,2901,2869, 2297,2110,2040,1881,1542; IA: Hartley 2717.

MORACEAE (Mulberry Family)

Morus alba L. White Mulberry.

WISL: Lonqueville 27 May 1966; Nontelle 685,351,2170, 2390; IA: Hartley 850.

Morus rubra L. Red Mulberry.

WISL: Raith 22 Sep 1963; Hamilton 10 Oct 1963; Nontelle 499,2275,2818,3074,3100.

CANNABINACEAE (Hemp Family)

Cannabis sativa L. Hemp, Marijuana.

WISL: Fischer 203; Hartley 7 Oct 1967; Nontelle 2300, 2302,2953,2954; IA: Hartley 1227.

Humulus lupulus L. Hops.

IA: Hartley 1759.

URTICACEAE (Nettle Family)

Laportea canadensis (L.) Wedd. Wood Nettle.

WISL: Sohmer 2740,7338,2477; IA: Hartley 2205.

Pilea pumila (L.) Gray Dwarf Clearweed.

WISL: Sohmer 17 Sep 1967, 5064; Kohlmeyer 21 Oct 1962;

IA: Hartley 2948.

Urtica dioica L. Nettle.

WISL: Sohmer 7380, 2414, 17 Sep 1967; Fischer 204; Nontelle
2440, 1786, 1932, 3106, 2145; IA: Hartley 2256.

JUGLANDACEAE (Walnut Family)

Carya cordiformis (Wang.) K. Koch Bitternut.

WISL: Sohmer 5095, 2544; Fischer 80; Nontelle 2894.

Carya ovata (Mill.) K. Koch Shagbark Hickory.

WISL: Krey 17 Sep 1962; Schmidt 24 May 1959; Fish
17 May 1959; Sohmer 1671; Brendel 19 May 1971; Hoyer
19 May 1971; Lenser 19 May 1971; Hellwig 19 May 1971;
Kohlmeyer 29 Sep 1962; Kwick 19 May 1965; Ruhser 418;
Nontelle 364; IA: Hartley 2173.

Juglans cinerea L. Butternut.

WISL: Lonqueville 26 May 1966; Pierce 17 May 1959;
Ruhser 490; Nontelle 1485, 1986.

Juglans nigra L. Black Walnut.

WISL: Lenser 116.

MYRICACEAE (Wax-myrtle Family)

Comptonia peregrina (L.) Coult. Sweet-fern.

WISL: Farringer 33.

FAGACEAE (Beech Family)

Castanea dentata (Marsh.) Borkh. Chestnut.

WISL: Davis 19 Jul 1972.

Quercus alba L. White Oak.

WISL: Brendel 19 May 1971; Peterson 19 May 1972; Hoyer 19 May 1971; Hellwig 19 May 1971; Anderson 17 Sep 1962; Barlow 29 Sep 1962; Krey 17 Sep 1962; Dix 18; Ruhser 447; Fischer 490; Nontelle 205,1570,1908,2824,2791,2780,1447,2679,2241,2047,1908.

Quercus bicolor Willd. Swamp White Oak.

WISL: Anderson 17 Sep 1962; Nontelle 1094,1918,2899,2904;
IA: Hartley 2495.

Quercus ellipsoidalis E. J. Hill Jack Oak.

WISL: Nontelle 203,621,392,552,1904,2432,1267,1332;
IA: Hartley 2491.

Quercus macrocarpa Michx. Bur Oak.

WISL: Fleischmann 16 Sep 1963; Fish 17 May 1959; Schmidt 24 May 1959; Mauuye 16 Sep 1963; Lonqueville 26 May 1966; Raith 16 Sep 1963; Anderson 17 Sep 1962; Ruhser 496; Nontelle 1479,1307,3026,2457,2537,1908,1517,2780,368.

Quercus rubra L. Red Oak.

WISL: Krey 17 Sep 1962; Fish 17 May 1959; Kohlmeyer 27 Oct 1962; Nontelle 465,301,204,653,659,370,1010,1026,1049,1198,1143,1123,2808,1448,1585,2371,2549,2054,2433,3007,3015,2613,2688,2665,2666,1364; IA: Hartley 1589.

Quercus velutina Lam. Black Oak.

WISL: Lonqueville 26 May 1966; Lorenz 2 May 1962; Kwick 7 May 1965; Mauuye 15 Sep 1963; Huggett 13 May 1965; Hamilton 10 Oct 1963; Nontelle 45,46,256,185,2458,2455,2499,2678,3052,3087,960,941,1086,1209,1147.

BETULACEAE (Birch Family)

Alnus rugosa (DuRoi) Spreng. Speckled Alder.

WISL: Liebsetter 29; Valiquette 5; Nontelle 307,1065,
2730,2599,2053,2568,965.

Betula lutea Michx. Yellow Birch.

WISL: Kohlmeyer 7 Oct 1962; Barlow 10 Oct 1962; IA:
Hartley 3213..

Betula nigra L. River Birch.

WISL: Lonqueville 22 May 1966; Nontelle 618; IA:
Hartley 68.

Betula papyrifera Marsh. White Birch.

WISL: Huggett 1 May 1965; Friell 13 May 1969; Hoyer
5 May 1971; Lenser 7 May 1971; Valiquette 8 May 1966;
Henry 15 May 1965; Moerschel 22 Apr 1959. Stellick 18
May 1959; Schmidt 18 May 1959; Lonqueville 20 May 1966;
Jeszewski 7 May 1966; Gschwind 3 May 1965; Rank 23 May
1960; Nontelle 1058.

Betula pumila L. var. glandulifera Regel. Swamp Birch.

WISL: Nontelle 638,603; IA: Hartley 1089.

Carpinus caroliniana Walt. Hornbeam.

WISL: Hartley 755; Anderson 17 Sep 1962.

Corylus americana Walt. American Hazel.

WISL: Fischer 65; Dix 16; Anderson 22 Sep 1962; Ruhser
451; Nontelle 2435,211,2242,1809,1152,1623,1453,1555,
1379,2652,1031,2470; IA: Hartley 21.

Ostrya virginiana (Mill.) K. Koch Ironwood.

WISL: Nontelle 379; IA: Hartley 108,975.

SUBCLASS CARYOPHYLLIDAE

NYCTAGINACEAE (Four-o'clock Family)

Mirabilis nyctaginea (Michx.) MacM. Wild Four-o'clock.

WISL: Hamilton 10 Sep 1963; Baker 27 Jul 1960; Fleischmann 16 Sep 1963; Sohmer 1979, 1986; Nontelle 419, 1699, 1258, 3075, 630, 359, 1920, 1282.

CACTACEAE (Cactus Family)

Opuntia humifusa Raf. Prickly-pear.

IA: Hartley 923.

AIZOACEAE (Carpetweed Family)

Mollugo verticillata L. Carpetweed.

WISL: Smaby Jul 1962; Mauuye 16 Sep 1963; Wolley 23 Sep 1963; Sohmer 5109, 5111.

CARYOPHYLLACEAE (Pink Family)

Arenaria lateriflora L. Grove Sandwort.

IA: Hartley 224.

Cerastium arvense L. Field Chickweed.

WISL: Fish 15 May 1959; Carl 18 May 1961; Fadness 23 May 1960; Murphy 18 May 1962; Nontelle 109, 110, 111;

IA: Hartley 200.

Cerastium nutans Raf. Chickweed.

WISL: Key 8 May 1961; Nontelle 1160, 436, 1636.

Cerastium vulgatum L. Mouse-ear Chickweed.

WISL: Moerschel 26 May 1959; Gschwind 15 May 1965; Nash 8 May 1969; Nontelle 408, 275, 988, 1176, 2567; IA: Hartley 805.

Lychnis alba Mill. White Champion.

WISL: Sohmer 2110,5072; Hudec 22 Jun 1960; Stellick
29 May 1959; Schnell 16 May 1959; Moerschel 22 May 1959;
Schmidt 30 May 1959; Nontelle 338,339.

Lychnis flos-cuculi L. Ragged-robin.

WISL: Sohmer 5072.

Saponaria officinalis L. Bouncing Bet.

WISL: Hudec 28 Jun 1960; Sohmer 17 Sep 1967,2460,2734;
Nontelle 635,2564,2731,2721,1997,1862,1834,586,2487;
IA: Hartley 842.

Silene armeria L. None-so-pretty.

WISL: Sohmer 2471,2470; Hudec 21 Jul 1960; Nontelle
409,410.

Silene cserei Baumg. Smooth Campion.

IA: Hartley 637.

Silene nivea (Nutt.) Otth. Showy Campion.

WISL: Nontelle 502.

Silene noctiflora L. Night-flowering Catchfly.

IA: Hartley 1092.

Silene stellata (L.) Ait. Starry Campion.

WISL: Smaby Jul 1961; IA: Hartley 1675.

Stellaria aquatica (L.) Scop. Chickweed.

WISL: Sohmer 2363,2364,2366; Nontelle 1411; IA: Hartley
455.

Stellaria longifolia Muhl. Stitchwort.

WISL: Ernst 23 May 1959; Nontelle 294; IA: Hartley 285.

Stellaria media (L.) Cyrillo Common Chickweed.

WISL: Hudec 3 Jul 1960; Lauscher 11 May 1961; Lesperance

10 May 1961; Nontelle 194,123,349,953; IA: Hartley 860.

PORTULACACEAE (Purslane Family)

Claytonia virginica L. Spring Beauty.

WISL: Lenser 22 Apr 1971; Brendel 4 May 1971; Brown
26 Apr 1969; Lesperance 18 May 1961; Fish 6 May 1959;
Johnson 16; Coorough 20; Nontelle 140,872,852.

Portulaca oleracea L. Purslane.

WISL: Sohmer 5112; IA: Hartley 2001.

CHENOPODIACEAE (Goosefoot Family)

Chenopodium album L. Lamb's Quarters.

WISL: Sohmer 7339,23 Sep 1968; Hamilton 10 Sep 1963;
Nontelle 2752,2788,3035,3134,2951,2988,1756,2883,1782,
2569,2021,2270,2490,2636; IA: Hartley 3016.

Chenopodium gigantospermum Aellen Maple-leaved Goosefoot.

WISL: Nontelle 1682,1720,1746.

Chenopodium pratericola Rydb.

WISL Nontelle 1996.

Chenopodium standleyanum Aellen Woodland Goosefoot.

WISL: Nontelle 2396; IA: Hartley 2211.

Corispermum nitidum Kit. Bugseed.

WISL: Nontelle 3136,2959,2960,2298,2294.

Cycloloma atriplicifolium (Spreng.) Coult.

WISL: Sohmer 17 Sep 1967; Raith 9 Sep 1963; Barlow 10
Oct 1962; Nontelle 3028,713; IA: Hartley 2742.

Kochia scoparia (L.) Roth Summer Cypress.

WISL: Sohmer 7353; Fleischmann 17 Sep 1963; Nontelle 3135;
IA: Hartley 1784.

Salsola kali L. Russian Thistle.

IA: Hartley 1757.

AMARANTHACEAE (Amaranth Family)

Amaranthus albus L. Tumbleweed.

IA: Hartley 1978.

Amaranthus gracizans L. Creeping Amaranth.

IA: Hartley 1669.

Amaranthus retroflexus L. Rough Amaranth.

WISL: Nontelle 1783,2944,3144,2885,2765; IA: Hartley 1622.

Amaranthus tamaricinus Nutt. Water-hemp.

IA: Hartley 1658.

Amaranthus tuberculatus (Moq.) J. D. Sauer Water-hemp.

IA: Hartley 3205.

Froelichia floridana (Nutt.) Moq. Cottonweed.

WISL: Hartley 15 Sep 1957; Fleischmann 4 Oct 1963; Raith
9 Sep 1963; Anderson 7 Sep 1962; Nontelle 2176,2177,2424,
2503,3043; IA: Hartley 2844.

POLYGONACEAE (Buckwheat Family)

Polygonella articulata (L.) Meisn. Jointweed.

IA: Hartley 2975.

Polygonum arifolium L. Halberd-leaved Tearthumb.

WISL: Cary 16 Sep 1971; Farringer 40; Sohmer 17 Sep
1967.

Polygonum aviculare L. Common Knotweed.

WISL: Sohmer 17 Sep 1967; Hartley 343; Nontelle 2838,1681.

Polygonum coccineum Muhl. Water Smartweed.

WISL: Sohmer 5115,5116,7391; Cary 30 Aug 1971; Hartley

2946; Nontelle 3141,3147,3002,3013.

Polygonum convolvulus L. Black Bindweed.

WISL: Hartley 1976; Nontelle 573,1783,1853.

Polygonum cuspidatum Sieb. & Zucc. Mexican Bamboo.

WISL: Sohmer 5107.

Polygonum hydropiper L. Water Pepper.

WISL: Hartley 3062.

Polygonum hydropiperoides Michx. Mild Water Pepper.

WISL: Hamilton 10 Sep 1963; Sohmer 2468,5060; Kohlmeyer
20 Oct 1962; Nontelle 1980,2138,2708,836.

Polygonum lapathifolium L. Heart's Ease.

WISL: Sohmer 2476,17 Sep 1967; Justinger 11 Sep 1971,
4 Sep 1971; Ruhser 24 Sep 1971; Hartley 2164,2224;
Nontelle 770,3029,2401,2410,2230,701.

Polygonum pensylvanicum L. Pinkweed.

WISL: Warner 29 Oct 1971; Sohmer 7376,17 Sep 1967,5106;
Justinger 11 Sep 1971; Hartley 2104,2771; Nontelle 3104,
3054,2753,2754,2327,3094,2099,2240,2278,2919,2889,2633,
780,788.

Polygonum persicaria L. Lady's Thumb.

WISL: Nontelle 2849; Hartley 2515.

Polygonum punctatum Ell. Water Smartweed.

WISL: Ruhser 24 Sep 1971; Sohmer 7354,7355,5058,7392,
17 Sep 1967; Nontelle 836.

Polygonum sagittatum L. Tear-thumb.

WISL: Justinger 1 Nov 1971; Sohmer 7392; Nontelle 2217,
2516,2929.

Polygonum scandens L. False Buckwheat.

WISL: Sohmer 7343,7351; Wolley 23 Sep 1963; Hartley
2928; Nontelle 2528,3070.

Polygonum virginianum L. Jumpseed.

WISL: Sohmer 8332,7333,7334; Kohlmeyer 29 Sep 1962;
Nontelle 2992,2932,3132,1950.

Rumex acetosella L. Sheep Sorrel.

WISL: Baker 2 Jul 1960; Hudec 7 Jul 1960; Drecktrah 29
May 1960; Nontelle 625,317,318,319,652,662,1339,1937,
1007,1212,1182,1129,1283,2141.

Rumex altissimus Wood. Pale Dock.

WISL: Nontelle 2271.

Rumex crispus L. Curly Dock.

WISL: Dix 9; Nontelle 353,67,759,1571,1161,1628,1519,
1389; IA: Hartley 610.

Rumex mexicanus Meisn. Mexican Dock.

WISL: Nontelle 628; IA: Hartley 648.

Rumex obtusifolius L. Bitter Dock.

WISL: Fleischmann 18 Oct 1963; IA: Hartley 801.

Rumex orbiculatus Gray Great Water Dock.

IA: Hartley 6169.

SUBCLASS DILLENIIDAE

GUTTIFERAE (St. John's-wort Family)

Hypericum canadense L. St. John's-wort.

IA: Hartley 2312.

Hypericum Kalmianum L. Kalm's St. John's-wort.

WISL: Hartley 4683.

Hypericum mutilum L.

IA: Hartley 2095.

Hypericum perforatum L. Common St. John's-wort.

WISL: Sohmer 2537,2539; Nontelle 541,2283,1703,1616,
1615; IA: Hartley 1214.

Hypericum punctatum Lam. Spotted St. John's-wort.

WISL: Sohmer 1374; Nontelle 1821; IA: Hartley 1690.

Hypericum pyramidatum Ait. Great St. John's-wort.

WISL: Nontelle 1968,1954,1953; IA: Hartley 1493.

TILIACEAE (Linden Family)

Tilia americana L. Basswood.

WISL: Sohmer 2530; Lenser 19 May 1971; Temp 17 May
1959; Lonqueville 20 May 1966; Schmidt 18 May 1959;
Fischer 42; Nontelle 363,3076,2804,2762,1107,1030,1038,
1676,1385,3003,1328,2651,2687,2578,2905,2890.

MALVACEAE (Mallow Family)

Abutilon theophrasti Medic. Velvetleaf.

WISL: Fleischmann 16 Oct 1963; Krey 29 Sep 1962; Sohmer
2448; Nontelle 3030,2886,2244,2091,2316,2417,2756; IA:
Hartley 1945.

Callirhoe triangulata (Leavenw.) Gray Poppy Mallow.

WISL: Nontelle 634; IA: Hartley 1404.

Malva neglecta Wallr. Common Mallow.

IA: Hartley 2746.

VIOLACEAE (Violet Family)

Viola conspersa Reichenb.

IA: Hartley 623.

Viola cucullata Ait. Marsh Blue Violet.

WISL: Hoyer 5 May 1971; IA: Hartley 90.

Viola incognita Brainerd.

WISL: Johnson 67; Nontelle 1041; IA: Hartley 2217.

Viola lanceolata L. Lance-leaved Violet.

WISL: Fish 15 May 1959; Witt 15 May 1958; Johnson
15 May 1958; Nontelle 233; IA: Hartley 2346.

Viola macloskeyi F. E. Lloyd subsp. pallens (Banks) M.S. Baker.

WISL: Ziegler 22 May 1960, 23 May 1960; Hill 19 Jun
1961; Brown 26 Apr 1969; Nontelle 155,30,31,3,4, 84,
1009,928; IA: Hartley 91,2318.

Viola missouriensis Greene Missouri Violet.

WISL: Brendel 19 May 1971; IA: Hartley 117.

Viola nephrophylla Greene Northern Bog Violet.

WISL: Hornby 14 May 1958; Nontelle 112,961.

Viola pedata L. Birdfoot Violet.

WISL: Ernst 4 May 1969; Harvey 4 May 1969; Lenser 7
May 1971; Kunkel 11 May 1959; Johnson 13 May 1959;
Wechter 12 May 1959; Drecktrah 21 May 1960; Biehn 20
May 1959; Stellick 18 May 1959; Puent 14 May 1958;
Jacoby 16 May 1962; Ziegler 23 May 1960; Peterson 12
May 1967; Marcou 19 May 1962; Schnell 7 May 1959; Bren-
del 19 May 1971; Hoyer 19 May 1971; Nontelle 234,1180,
1181,1224,1216; IA: Hartley 3280.

Viola pedatifida G. Don. Prairie Violet.

WISL: Witt 15 May 1958; Ziegler 14 May 1960; Nontelle 1034.

Viola pensylvanica Michx. Smooth Yellow Violet.

WISL: Hoyer 22 May 1971; Witt 15 May 1958; Brown 9
May 1969; Fadness 3 May 1960; Nontelle 158,975,914,1128.

Viola pubescens Ait. Downy Yellow Violet.

IA: Hartley 743.

Viola rugulosa Greene Violet.

WISL: Hudec 25 Jun 1960.

Viola sagittata Ait. Arrow-leaved Violet.

WISL: Fish 15 May 1959; Schnell 7 May 1959; Sohmer 11
May 1968; Nontelle 1060; IA: Hartley 3496,3067,3094.

Viola sororia Willd. Hairy Wood Violet.

WISL: Witt 27 Apr 1958; Lonqueville 14 May 1966; Johnson 8 ; Brown 26 Apr 1969; Ludwig 16 May 1962; Schnell 7 May 1959; Murphy 18 May 1962; Nontelle 32,33,128,1155, 910,899,931,930,943,991,1106; IA: Hartley 64.

CISTACEAE (Rockrose Family)

Helianthemum bicknellii Fern. Bicknell's Frostweed.

IA: Hartley 1647.

Helianthemum canadense (L.) Michx. Common Rockrose.

IA: Hartley 211.

Hudsonia tomentosa Nutt. Poverty-grass.

IA: Hartley 1733.

CUCURBITACEAE (Gourd Family)

Echinocystis lobata (Michx.) T. & G. Wild or Prickly Cucumber.

WISL: Fleischmann 10 Oct 1963; Raith 5 Oct 1963; Anderson
7 Sep 1963; Nontelle 3093.

Sicyos angulata L. Bur-cucumber.

WISL: Mauuye 22 Sep 1963; Nontelle 3102,3103,1745;

IA: Hartley 2951.

SALICACEAE (Willow Family)

Populus alba L. White Poplar.

WISL: Anderson 22 Sep 1962; Lonqueville 7 May 1966.

Populus deltoides Marsh. Cottonwood.

WISL: Lenser 9 May 1971; Farringer 13; Krey 22 Sep 1962; Anderson 21 Sep 1962; Connor 28 Apr 1962; Ernst 20 Apr 1959; Moerschel 22 Apr 1959; Nontelle 522,547, 443,68,3101,1204,1078,1450,1352,2638,2604,2875,3009, 2508,2538,2397,1563.

Populus grandidentata Michx. Large-toothed Aspen.

WISL: Nontelle 295,1109,2781,1140,1196,1016,1017,952, 1482,1401,1367,2649,2691,2610,2870,2247,2160.

Populus tremuloides Michx. Trembling Aspen.

WISL: Anderson 19 Sep 1962; Lonqueville 26 May 1966; Gschwind 7 May 1965; Henry 15 May 1965; Raith 15 Sep 1963; Nontelle 374,232,299,2855,2803,2744,1095,1171, 1200,1015,1018,932,964,1460,1451,2664,2712,2623,2474, 2448,2281,2140,2063,1541.

Salix alba L. White Willow.

IA: Hartley 336.

Salix amygdaloides Anerss. Peach-leaved Willow.

WISL: Sohmer 734; Nontelle 62,63,3096,1511; IA: Hartley 1118.

Salix babylonica L. Weeping Willow.

WISL: Lenser 20 Apr 1971; IA: Hartley 2702.

Salix bebbiana Sar. Beaked Willow.

WISL: Hartley 2345; IA: Hartley 2244.

Salix discolor Muhl. Pussywillow.

WISL: Lorenz 8 May 1962; Brown 26 Apr 1969; Kujak 22
Apr 1958; Nontelle 851,2693,1047; IA: Hartley 5124.

Salix fragilis L. Crack Willow.

WISL: Connor 28 Apr 1962; Nontelle 52,53,58,59; IA:
Hartley 2824.

Salix glaucophylloides Fern. Dune Willow.

WISL: Nontelle 72,71,210.

Salix humilis Marsh. Prairie Willow.

WISL: Hartley 1590; Johnson 25; Melvin 14 May 1958;
Nontelle 844,208,878,298; IA: Hartley 1215.

Salix interior Rowlee Sandbar Willow.

WISL: Hartley 1970, 2680; Sohmer 7317; Nontelle 3119,
453,640,664,2854,2806,1079,2727,2925,2409,1188; IA:
Hartley 305.

Salix lucida Muhl. Shining Willow.

IA: Hartley 270.

Salix nigra Marsh. Black Willow.

WISL: Lonqueville 22 May 1966; Lenser 119; Nontelle 3096,
2025,2070,2733; IA: Hartley 785.

Salix pedicellaris Pursh. Bog Willow.

WISL: Nontelle 2715; IA: Hartley 714.

Salix petiolaris Sm. Slender Willow.

WISL: Hartley 1979; Nontelle 2483,144; IA: Hartley 2341.

Salix rigida Muhl. Heart-leaved Willow.

WISL: Negri 11 May 1965; Sohmer 11 May 1968; Hartley 2795; Nontelle 1066,2447,954,559,908,992,1568,1967,374, 1190,1399,2631,2285,2149,2550.

CAPPARIDACEAE (Caper Family)

Polansia dodecandra (L.) DC. Clammyweed.

IA: Hartley 1383.

CRUCIFERAE (Mustard Family)

Arabis canadensis L. Sicklepod.

WISL: Nontelle 1689; IA: Hartley 2245.

Arabis hirsuta (L.) Scop. Hairy Rock Cress.

WISL: Nontelle 318.

Arabis laevigata (Muhl.) Poir. Bank Cress.

WISL: Fish 17 May 1959; Johnson 88; Witt 14 May 1958; Nontelle 240,87,88,1486; IA: Hartley 729.

Arabis lyrata L. Sand Cress.

WISL: Aiello 1; Rovang 29 Apr 1947; Hartley 111; Johnson 57; Fish 15 May 1959; Drecktrah 28 May 1960; Stellick 18 May 1959; Gschwind 3 May 1965; Henry 15 May 1965; Pierce 26 Apr 1959; Hoyer 12 May 1971; Haggerty 13 May 1969; Dereszynski 23 May 1962; Solberg 25 Apr 1966; Sohmer 1591,1590, Lonqueville 8 May 1966; Cowles 8 May 1969; Ernst 20 Apr 1969; Nontelle 28,29,5,6,7,108,552, 1062,1130,1183,1211,933; IA: Hartley 81.

Arabis shortii (Fern.) Gl. Toothed Cress.

WISL: Lonqueville 16 May 1966.

Armoracia lapathifolia Gilib. Horseradish.

WISL: Fadness 28 May 1960.

Barbarea vulgaris R. Br. Yellow Rocket, Winter Cress.

WISL: Moe 24 May 1959; Van Vleet 30 Apr 1958; Fish 15 May 1959; Lonqueville 21 May 1966; Stellick 23 May 1959; Schnell 16 May 1959; Friell 13 May 1969; Lenser 19 May 1971; Connor 19 May 1962; James 22 Apr 1958; Puent 14 May 1958; Post 14 May 1958; Fadness 14 May 1960; Sohmer 11 May 1968, 1675, 1676; Moerschel 29 May 1959; Nontelle 279, 280, 1567, 1417, 1159, 951, 966, 983, 855; IA: Hartley 674.

Berteroa incana (L.) DC. Hoary Alyssum.

WISL: Sohmer 2732; Smaby Jul 1961; Olson 23 Jul 1960; Johnson 1 Jun 1959; Nontelle 455, 681, 683, 480, 283, 284, 332, 1638, 1316, 1298, 1777; IA: Hartley 916.

Capsella bursa-pastoris (L.) Medic. Shepherd's Purse.

WISL: Hoyer 5 May 1971; Negri 7 May 1965; Raith 20 Oct 1963; Hanson 23 May 1959; Coorough 20, 39; Cowles 8 May 1969; Ludwig 16 May 1962; Lauscher 13 May 1962; Smith 10 May 1965; Lorenz 6 May 1966; Pierce 7 May 1959; Fadness 23 Apr 1960; Hudec 23 Jun 1960; Post 20 May 1958; Nontelle 69, 70, 175, 135, 97, 1525, 1423, 1164, 1040.

Cardamine bulbosa (Schreb.) BSP. Spring Cress.

IA: Hartley 227.

Cardamine pensylvanica Muhl. Bitter Cress.

WISL: Johnson 66; Hartley 1685; Fish 26 May 1959; IA: Hartley 223.

Coronopus didymus (L.) Smith

IA: Hartley 9398.

Dentaria laciniata Muhl. Toothwort.

WISL: Ziegler 9 May 1960; Sterba 24 Apr 1967; Drecktrah
28 Apr 1960; Brendel 19 May 1971; Lenser 22 Apr 1971;
Brown 12 May 1969; Nontelle 141,845.

Descurainia pinnata (Walt.) Britt. Tansy Mustard.

WISL: Lonqueville 15 May 1966; Johnson 29 May 1966;
Ziegler 23 May 1960; Riek 96; Connor 15 May 1962;
Nontelle 1253,857; IA: Hartley 631.

Descurainia sophia (L.) Webb. Herb-Sophia.

IA: Hartley 1126.

Draba nemorosa L.

IA: Hartley 342.

Draba reptans (Lam.) Fern. Whitlow Grass.

WISL: Davis 18 May 1972; Ziegler 23 May 1960; Nontelle 894.

Erysimum cheiranthoides L. Wormseed.

WISL: Hartley 2371; Sbhmer 2493,2494; Nontelle 511,1641,
1651,2841; IA: Hartley 1376.

Hesperis matronalis L. Dame's Violet.

WISL: Nontelle 281,282.

Lepidium densiflorum Schrader Small Peppergrass.

WISL: Hartley 350; Hudec 12 Jul 1960; Sohmer 1569; Nontelle
457,347,348,424,686,334,2963,1302,1321,1321,1422,3058;

IA: Hartley 350.

Lepidium virginicum L. Common Peppergrass.

WISL: Hudec 12 Jul 1960; Smaby Jul 1961.

Nasturtium officinale R. Br. Watercress.

WISL: Nontelle 757,795; IA: Hartley 2183.

Raphanus raphanistrum L. Wild Radish.

WISL: Sohmer 2522; IA: Hartley 847.

Rorippa austriaca (Crantz) Besser Yellow Cress.

WISL: Nontelle 498.

Rorippa islandica (Oeder) Borbas Marsh Cress.

WISL: Nontelle 486,1672; IA: Hartley 1365.

Sisymbrium altissimum L. Tumble Mustard.

WISL: Smaby Jul 1961; Sohmer 2455; Nontelle 1642,1649;

IA: Hartley 630.

Sisymbrium officinale (L.) Scop. Hedge Mustard.

WISL: Brendel 20 May 1971; Raith 9 Sep 1963; Lonqueville 16 May 1966; Nontelle 598,258,497,425,477,2284,1764,1652,1723,2825; IA: Hartley 803.

Thlaspi arvense L. Penny Cress.

WISL: Lonqueville 7 May 1966; Van Vleet 18 May 1958; Johnson 89; Schnell 16 May 1959; Nontelle 957,935,1039,1236,1162,1124,1524.

ERICACEAE (Heath Family)

Arctostaphylos uva-ursi (L.) Spreng. Bearberry.

IA: Hartley 2453.

Chamaedaphne calyculata (L.) Moench Leatherleaf.

IA: Hartley 2315.

Chimaphila umbellata (L.) Bart. Prince's Pine.

IA: Hartley.

Epigaea repens L. Trailing Arbutus.

IA: Hartley 1698.

Gaultheria procumbens L. Creeping Wintergreen.

IA: Hartley 2325.

Gaylussacia baccata (Wang.) K. Koch Huckleberry.

IA: Hartley 2109.

Vaccinium angustifolium Ait. Low Sweet Blueberry.

IA: Hartley 82.

Vaccinium myrtilloides Michx. Velvet-leaf Blueberry.

Ia; Hartley 217.

PYROLACEAE (Wintergreen Family)

Pyrola elliptica Nutt. Shinleaf.

IA: Hartley 901.

Pyrola rotundifolia L.

IA: Hartley 991.

PRIMULACEAE (Primrose Family)

Androsace occidentalis Pursh. Rock Jasmine.

WISL: Key 5 May 1961; Randall 5 May 1961; Nontelle
113,1330,868,864.

Dodecatheon radicans Greene Jeweled Shooting Star.

IA: Hartley 110.

SUBCLASS ROSIDAE

CRASSULACEAE (Orpine Family)

Sedum acre L. Stonecrop.

WISL: Ernst 21 May 1969; Nontelle 20,21,22,193.

SAXIFRAGACEAE (Saxifrage Family)

Heuchera richardsonii R. Br. Alumroot.

WISL: Sohmer 2009; Coorough 25; Nontelle 250,251,
1473,1474,1732,1731; IA: Hartley 233.

Mitella diphylla L. Bishop's Cap.

WISL: Frazee 23 May 1937; Craig 18 May 1965; Johnson
51; Moe 24 May 1959; Ziegler 19 May 1960; Pfeifer 19
May 1959; Temp 7 May 1959; Swanson 8 May 1972; Fish
6 May 1959; Hanson 20 May 1959; Brendel 10 May 1972;
Puent 14 May 1958; Post 14 May 1958; Kujak 14 May 1958;
James 14 May 1958; Hornby 14 May 1958; Hoyer 12 May
1971; Sterba 13 May 1967; Kircher 19 May 1938; Liegel
17 May 1959; IA: Hartley 87.

Ribes americanum Mill. Wild Black Currant.

WISL: Laurent 13 May 1965; Hartley 1947,316; Lonque-
ville 20 May 1966; Netwal 2 May 1965; Nontelle 1046,
226,1086,1149,3133; IA: Hartley 92.

Ribes cynosbati L. Dogberry.

WISL: Fadness 4 May 1960; Johnson 52; Fischer 78;
Ruhser 372; Nontelle 929,1687,1476,1477,2235; IA:
Hartley 77.

Ribes missouriense Nutt. Missouri Gooseberry.

WISL: Kujak 14 May 1958; Fadness 4 May 1960; Swanson
8 May 1972; Hanson 23 May 1959; Gschwind 10 May 1965;
Henry 15 May 1965; Nontelle 962,940,886,2763,2987,1940;
IA: Hartley 44.

Ribes odoratum Wendl. Clove Current.

WISL: Randall 19 Apr 1961; Brendel 12 May 1971; IA:
Hartley 42.

ROSACEAE (Rose Family)

Crataegus macrosperma Ashe Hawthorn

IA: Hartley 765.

Crataegus punctata Jacq. Dotted Hawthorn.

IA: Hartley 238.

Fragaria vesca L. Woodland Strawberry.WISL: Hoyer 19 May 1971; Brendel 19 May 1971; Ruhser
370; Nontelle 1201.Fragaria virginiana L. Wild Strawberry.WISL: Sohmer 5833; Brendel 9 May 1971; Aiello 8; Kujak
22 Apr 1958; Johnson 55; Puent 14 May 1958; Schnell 7
May 1959; Fish 17 May 1959; Murphy 18 May 1962; Deres-
zynski 18 May 1962; Lonqueville 8 May 1966; Nontelle
269,270,293,1175,1013,946.Geum aleppicum Jacq. Yellow Avens.

WISL: Sohmer 2529,2335; Nontelle 531.

Geum canadense Jacq. White Avens.

WISL: Hartley 979; Nontelle 1773,1560,1715,1748,1747.

Geum triflorum Pursh. Prairie Smoke.WISL: Ziegler 23 May 1960; Coorough 58; Drecktrah 18
1960; Johnson 13 May 1959; Nontelle 871.Potentilla argentea L. Silvery Cinquefoil.WISL: Ernst 27 May 1959; Stellick 1 Jun 1959; Raith
14 Sep 1963; Sohmer 1576,1570,1571; Nontelle 322,323,
567,488,622,2133,1702,1704,675,672,1887,1706,1331,1297.Potentilla fruticosa L. Shrubby Cinquefoil.

WISL: Chatarpaul 19 May 1971.

Potentilla norvegica L. Rough Cinquefoil.

WISL: Sohmer 2771,2445,27 Jul 1968; Nontelle 535,489,
3057,1690,1800,1784,673,2931,1769,1922.

Potentilla recta L. Sulfur Cinquefoil.

WISL: Raith 14 Sep 1963; Hudec 25 Jun 1960; Nontelle
519,592.

Potentilla simplex Michx. Common Cinquefoil.

WISL: Fuller 17 May 1958; Stellick 23 May 1959; Hoyer
22 May 1971; Drecktrah 28 May 1960; Johnson 77; Witt
15 May 1958; Nontelle 345,285,1614,1226,1459.

Prunus americana Marsh. Wild Plum.

WISL: Sohmer 1504; Nontelle 114,115.

Prunus cerasus L. Sour Cherry.

WISL: Nontelle 549.

Prunus nigra Ait. Canada Plum.

WISL: Fish 6 May 1959.

Prunus pensylvanica L. f. Pin Cherry.

WISL: Fish 15 May 1959; Kwick 7 May 1965.

Prunus pumila L. Sand Cherry.

WISL: Huggett 13 May 1965; Sohmer 1987.

Prunus virginiana L. Choke Cherry.

WISL: Becwar 6 May 1969; Sohmer 11 May 1968; Stellick
18 May 1959; Kujak 14 May 1958; Coorough 63; Gschwind
15 May 1965; Kwick 19 May 1965; Moerschel 16 May 1959;
Liegel 17 May 1959; Nontelle 207.

Pyrus ioensis (Wood) Bailey Wild Crab.

WISL: Nontelle 241,242.

Rosa acicularis Lindl. Prickly Wild Rose.

WISL: Hudec 21 Jul 1960; Hagen 20 May 1971; Nontelle 411.

Rosa blanda Ait. Early Wild Rose.

WISL: Vollmar 26 Jun 1960; Hartley 3015; Schmidt 30 May 1959; Pierce 30 May 1959; Van Vleet 21 May 1958; Nontelle 342,343,393.

Rosa carolina L. Pasture Rose.

WISL: Fish 3 Jun 1959; Stellick 8 Jun 1959.

Rosa suffulta Greene

WISL: Sohmer 2097.

Rubus allegheniensis Porter Common Bramble.

WISL: Nontelle 287,288,1895,1166,1357,1559,2046,2251,2581.

Rubus flagellaris L. Northern Dewberry.

WISL: Nontelle 344,687,1312,1319.

Rubus occidentalis L. Black Raspberry.

WISL: Nontelle 3085,1794,1850,2758,2993,1551,2056,1696, 2456,217,218,865.

Rubus strigosus Michx. Red Raspberry.

WISL: Fleishmann 4 Oct 1963; Nontelle 2119.

Sorbaria sorbifolia (L.) A. Br. False Spiraea.

WISL: Nontelle 578,1050.

LEGUMINOSAE (Pulse Family)

Amorpha canescens Pursh. Lead Plant.

WISL: Hudec 21 Jul 1960; Nontelle 648,649,1872,2196, 2001,1933.

Amorpha fruticosa L. Indigo Bush.

WISL: Nontelle 3044.

Amphicarpa bracteata (L.) Fern. Hog Peanut.

WISL: Raith 14 Sep 1963; Nontelle 244,245,303.

Apios americana Medic. Groundnut.

IA: Hartley 3110.

Astragalus canadensis L. Milk Vetch.

IA: Hartley 2431.

Baptisia leucantha T. & G. White Wild Indigo.

WISL: Sohmer 2776; Hudec 12 Jul 1960; Ruhser 533;

Nontelle 2922,1646,1645.

Baptisia leucophaea Nutt. Cream Wild Indigo.

WISL: Coorough 30; Berg 21 May 1962; Sohmer 2013;

Ruhser 389; IA: Hartley 232.

Chamaecrista fasciculata (Michx.) Greene Partridge-pea.

WISL: Olson 23 Jul 1960; Anderson 7 Sep 1962; Zietlow

15 Jul 1960; Sohmer 17 Sep 1967; Raith 14 Sep 1963; Nontelle 1897,2173; IA: Hartley 1498.

Coronilla varia L. Crown Vetch.

WISL: Nontelle 2851,2852.

Crotalaria sagittalis L. Rattlebox.

IA: Hartley 1727.

Desmodium canadense (L.) DC. Showy Tick Trefoil.

WISL: Mauuye 14 Sep 1963; Sohmer 2723; Anderson 12 Sep

1962; Krey 12 Sep 1962; Nontelle 1970;2175,2085,2131,

2035,1870,1871; IA: Hartley 2161.

Desmodium glutinosum (Muhl.) Wood Pointed Tick Trefoil.

WISL: Sohmer 2404; Raith 15 Sep 1963; Fitzpatrick 13

Jul 1960; Nontelle 3168,1982,1733,1734,1684; IA:

Hartley 1182.

Desmodium illinoense Gray Illinois Tick Trefoil.

WISL: Raith 16 Sep 1963; Nontelle 1875; IA: Hartley
2068.

Glycyrrhiza lepidota (Nutt.) Pursh Wild Licorice.

IA: Hartley 629.

Lathyrus ochroleucus Hook. Wild Pea.

WISL: Pierce 24 May 1959; IA: Hartley 207.

Lathyrus palustris L. Vetchling.

WISL: Davies 9 May 1966; Nontelle 1961; IA: Hartley 1077.

Lathyrus venosus Muhl. Veiny Wild Pea.

WISL: Drecktrah 4 Jun 1969; Fish 1 Jun 1959; Nontelle
367; IA: Hartley 356.

Lespedeza capitata Michx. Bush Clover.

IA: Hartley 2643.

Lotus corniculatus L. Birdsfoot-trefoil.

WISL: Fitzpatrick 11 Jul 1960; Nontelle 2304,2861,2862.

Lupinus perennis L. Wild Lupine.

WISL: Ruhser 388; Drecktrah 29 May 1960; Fuller 23 May
1958; Ziegler 23 May 1960; Nontelle 1213; IA: Hartley
193.

Medicago falcata L.

WISL: Sohmer 5101; Nontelle 573,570,1533,1439.

Medicago lupulina L. Black Medic.

WISL: Stellick 1 Jun 1959; Fitzpatrick 7 Jul 1960; Hudec
25 Jun 1960; Moerschel 29 May 1959; Barr 23 May 1962;
Murphy 21 May 1962; Dereszynski 23 May 1962; Sohmer 1574,

1573; Nontelle 355,400,331,289,2677,2310,1637,1583,1514,
1443,1390,1184; IA: Hartley 669.

Medicago sativa L. Alfalfa.

WISL: Smaby Jul 1961; Stellick 1 Jun 1959; Hudec 25 Jun
1960; Sohmer 17 Sep 1967; Nontelle 461,572,468,1435,
1262,1530,1489,1695,1780,2366,2644.

Melilotus alba Desr. White Sweet Clover.

WISL: Hudec 14 Jul 1960; Smaby Jul 1961; Sohmer 17 Sep
1967; Ruhser 455; Nontelle 459,503,3049,1924,1426,1549,
2552,2050,2111,2509,2974,2605,2714.

Melilotus officinalis (L.) Lam. Yellow Sweet Clover.

WISL: Pierce 30 May 1959; Stellick 30 May 1959; Hudec
14 Jul 1960; Nontelle 421,333,3118,1242,1405,1458,
1903,2713; IA: Hartley 335.

Petalostemon candidus (Willd.) Michx. White Prairie Clover.

WISL: Nontelle 2007,2186,2187,2356,2355; IA: Hartley
1403.

Petalostemon purpureus (Vent.) Rydb, Purple Prairie Clover.

IA: Hartley 1400.

Petalostemon villosus Nutt. Silky Prairie Clover.

IA: Hartley 2029.

Robinia pseudo-acacia L. Black Locust.

WISL: Coorough 72; Mauuye 29 Sep 1963; Raith 9 Sep
1963; Connor 23 May 1962; Ruhser 402; Nontelle 439,
690,614,263,2764,2899; IA: Hartley 301.

Strophostyles leiosperma (T. & G.) Piper Wild Bean.

IA: Hartley 2757.

Tephrosia virginiana (L.) Pers. Goat's Rue.

WISL: Zietlow 8 Jul 1960; Nontelle 644; IA: Hartley 694.

Trifolium arvense L. Rabbit-foot Clover.

WISL: Nontelle 1994,1995.

Trifolium hybridum L. Alsike Clover.

WISL: Ruhser 432; Nontelle 1449,1644.

Trifolium pratense L. Red Clover.

WISL: Fadness 28 May 1960; Smaby Jul 1961; Dereszynski
23 May 1962; Murphy 18 May 1962; Moerschel 2 Jun 1959;
Nontelle 1512,2842,2797,2743,1925,454,290,291,2864,
2511,2299,2057,1383,2399,1543; Ruhser 414.

Trifolium repens L. White Clover.

WISL: Moerschel 11 Jun 1959; Pierce 27 May 1959;
Murphy 18 May 1959; Dereszynski 18 May 1959; Fadness
28 May 1960; Sohmer 1575; Ruhser 376; Nontelle 396,456,
1113,1418,1354,1513,1582,2318; IA: Hartley 334.

Vicia americana Muhl. American Vetch.

WISL: Stellick 23 May 1959; Hanson 23 May 1959; Murphy
18 May 1962; Dereszynski 18 May 1962; Nontelle 292,1337,
2544,2560.

Vicia angustifolia Reichard Vetch.

WISL: Nontelle 1470,2259.

Vicia caroliniana Walt. Wood Vetch.

WISL: Puent 14 May 1958; Hornby 14 May 1958.

Vicia villosa Roth Hairy Vetch.

WISL: Fish 3 Jun 1959; Raith 14 Sep 1963; Hudec 29 Jun
1960; Wolley 23 Sep 1963; Nontelle 597,481,1275,2008,

313; IA: Hartley 710.

HALORAGACEAE (Water Milfoil Family)

Myriophyllum exalbescens Fern. Water Milfoil.

WISL: Nontelle 824; IA: Hartley 2852.

LYTHRACEAE (Loosestrife Family)

Lythrum salicaria L. Spiked Loosestrife.

IA: Hartley 8334.

THYMELAEACEAE (Mezereum Family)

Dirca palustris L. Leatherwood.

WISL: Nontelle 850; IA: Hartley 747.

ONAGRACEAE (Evening Primrose Family)

Circaea alpina L. Enchanter's Nightshade.

IA: Hartley 734.

Circaea quadrisulcata (Maxim.) Franch. & Sav. Enchanter's Nightshade.

WISL: Sohmer 2497, 2498, 5061; Nontelle 608.

Epilobium angustifolium L. Fireweed.

WISL: Fitzpatrick 11 Jul 1960; Nontelle 1828; IA: Hartley 2260.

Epilobium coloratum Biehler Cinnamon Willow Herb.

IA: Hartley 2225.

Epilobium glandulosum Lehm.

WISL: Farringer 6; Nontelle 761, 797; IA: Hartley 2184.

Epilobium leptophyllum Raf. Bog Willow Herb.

IA: Hartley 2237.

Ludwigia palustris (L.) Ell. Water Purslane.

IA: Hartley 1323.

Oenothera biennis L. Common Evening Primrose.

WISL: Nontelle 1080,2208,469,2908,2162,3047,722,2451,
3167,2019,2041,2143; IA: Hartley 2689.

Oenothera parviflora L. Evening Primrose.

WISL: Fleischmann 17 Sep 1963.

Oenothera rhombipetala Nutt. Sand Evening Primrose.

WISL: Hartley 1131; Hudec 15 Jul 1960; Sohmer 2786;
Nontelle 637,620,2502,2428,1926,1000,1849; IA: Hartley
2761.

ELAEAGNACEAE (Oleaster Family)

Elaeagnus angustifolia L. Russian Olive.

IA: Hartley 1794.

CORNACEAE (Dogwood Family)

Cornus alternifolia L. f. Alternate-leaved Dogwood..

WISL: Nontelle 1195,1463,1055; IA: Hartley 121.

Cornus canadensis L. Bunchberry.

IA: Hartley 281.

Cornus obliqua Raf. Silky Dogwood.

WISL: Sohmer 1974; Nontelle 505; IA: Hartley 1736.

Cornus racemosa Lam. Gray Dogwood.

IA: Hartley 2512.

Cornus rugosa Lam. Round-leaved Dogwood.

WISL: Sohmer 2528; Nontelle 2233; IA: Hartley 2073.

Cornus stolonifera Michx. Red Osier.

WISL: Sohmer 1697; Fadness 18 May 1960; Moerschel 23
May 23 1959; Nontelle 382,595,2829,1622; IA: Hartley
1079.

SANTALACEAE (Sandalwood Family)

Comandra umbellata (L.) Nutt. Bastard Toadflax.

WISL: Moerschel 20 May 1959; Caflisch 11 May 1959;
James 24 May 1958; Johnson 66; Pierce 17 May 1959;
Jackson 18 May 1959; Connor 19 May 1962; Nontelle 1220,
1087,3172; IA: Hartley 219.

CELASTRACEAE (Staff-tree Family)

Celastrus scandens L. Bittersweet.

WISL: Barlow 1 Oct 1962; Raith 15 Sep 1963; Mauuye 29
Sep 1963; Krey 12 Sep 1962; Anderson 12 Sep 1962; Non-
telle 229,2481.

Euonymus atropurpureus Jacq. Burning Bush.

IA: Hartley 733.

AQUIFOLIACEAE (Holly Family)

Ilex verticillata (L.) Gray Black Alder.

IA: Hartley 933.

EUPHORBIACEAE (Spurge Family)

Acalypha rhomboidea Raf. Copperleaf.

IA: Hartley 2733.

Euphorbia agraria Bieb.

WISL: Nontelle 463.

Euphorbia corollata L. Flowering Spurge.

WISL: Sohmer 2509,2420; Baker 8 Jul 1960; Crook 171;
Nontelle 600,601,636,584,589,1280,1247,1605,1686,1790,
1909,1858,2574,2124,2074,2468,2720,1819; IA: Hartley 706.

Euphorbia cyparissias L. Cypress Spurge.

WISL: Ernst 20 Apr 1969; Harvey 20 Apr 1969; Nontelle 446.

Euphorbia geyeri Engelm.

IA: Hartley 1738.

Euphorbia maculata L. Eyebane.

WISL: Nontelle 2109,2641; IA: Hartley 1995.

Euphorbia marginata Pursh. Snow-on-the-mountain.

IA: Hartley 1911.

Euphorbia supina Raf. Milk-purslane.

IA: Hartley 1668.

RHAMNACEAE (Buckthorn Family)

Ceanothus herbaceus Raf. New Jersey Tea.

IA: Hartley 701.

VITACEAE (Grape Family)

Parthenocissus quinquefolia (L.) Planch. Virginia Creeper.

WISL: Nontelle 1471.

Parthenocissus vitacea (Knerr) Hitchc.

WISL: Sohmer 2774,1983; Nontelle 356,369,441,266,1056,
1269,2741,1158,1085,1901,1572,1324,2264,2106,3079,2973,
2541; IA: Hartley 2735.

Vitus riparia Michx. Frost Grape.

WISL: Ernst 22 May 1969; Hoyer 21 May 1971; Peterson
18 May 1971; Brendel 19 May 1971; Sohmer 1985; Fischer
192; Ruhser 470; Nontelle 357,442,216,262,2920,2497,
2263,2121,2042,2659,2547,2593,2635,3069,1089,1886,1540,
1478,1437,1438,1380,1276,2802,2746,1146,1154,1072,3017;
IA: Hartley 314.

HIPPOCASTANACEAE (Horse-chestnut Family)

Aesculus glabra Willd. Ohio Buckeye.

WISL: Caflisch 11 May 1959; Lonqueville 18 May 1966;
Nontelle 1761; IA: Hartley 254.

Aesculus hippocastanum L. Horse-chestnut.

WISL: Moerschel 12 May 1959.

ACERACEAE (Maple Family)

Acer ginnala Maxim.

WISL: Nontelle 2180,2181.

Acer negundo L. Box-elder.

WISL: Sohmer 1505; Noel; 12 Apr 1967; Brendel 10 May 19-
71; Lorenz 12 May 1962; Huggett 13 May 1965; Randall
17 May 1961; Carl 19 May 1961; Key 19 May 1961; Lonque-
ville 22 May 1966; Friell 13 May 1965; Henry 2 May 1965;
Ernst 12 May 1969; Nontelle 60,61,37,38,39,40,451,539,
527,380,490,682,689,2553,2431,1865,3059,2630,2258,2135,
2159,2036,2831,2737,1108,1197,859,1053,903,922,937,956,
967,979,1445,1370,1144,2672,2582.

Acer rubrum L. Red Maple.

WISL: Nontelle 302,903,2445.

Acer saccharinum L. Silver Maple.

WISL: Lonqueville 22 May 1966; Kwick 7 May 1965; Sohmer
11 May 1968; Huggett 25 Apr 1965; Anderson 22 Sep 1962;
Rank 6 Apr 1960; Wolley 30 Oct 1963; Schmidt 24 May 19559;
Nontelle 616,3111,902,2900168,169,2608.

Acer saccharum Marsh. Sugar Maple.

WISL: Nontelle 2608.

Acer spicatum Lam. Mountain Maple.

WISL: Fish 17 May 1959.

ANACARDIACEAE (Cashew Family)

Rhus glabra L. Smooth Sumac.

WISL: Raith 15 Sep 1963; Barlow 11 Oct 1962; Fischer 64; Dix 31; Nontelle 220,663,264,3316,2801,907,1510,1456,1372,1266,2603,2480,2938,2292,2120,2539,3004,1880.

Rhus radicans L. Poison Ivy.

WISL: Wechter 18 May 1959; Smith 29 May 1959; Sohmer 2787,1700; Hoyer 19 May 1971; Nontelle 366,1052.

Rhus typhina L. Staghorn Sumac.

WISL: Nontelle 1538,1088,1135,990,1202.

Rhus vernix L. Poison Sumac.

IA: Hartley 3146.

RUTACEAE (Rue Family)

Zanthoxylum americanum Mill. Prickly Ash.

WISL: Brendel 27 Apr 1971; Nontelle 1917,2043,2673,2169,1683,1029,1309; Hellwig 6 May 1971.

OXALIDACEAE (Wood Sorrel Family)

Oxalis europaea Jord. Wood Sorrel.

WISL: Sohmer 5075; Fleishmann 10 Sep 1963; Smaby Jul 1961; Hudec 25 Jun 1960; Nontelle 2706,2729,2454,1639,1635,1503,2836,1921; IA: Hartley 825.

Oxalis stricta L. Tall Wood Sorrel.

WISL: Ellis 24 May 1967; Moerschel 22 May 1959; Lonqueville 28 May 1966; Coorough 76; Kujak 20 May 1958; Ruhser 534; Nontelle 316,1325,1277.

Oxalis violacea L. Violet Wood Sorrel.

WISL: Fish 17 May 1959; Pierce 15 May 1957; Schnell 16

May 1959; Johnson 63; Witt 15 May 1958; Drecktrah 28
 May 1960; Stellick 23 May 1959; Brendel 19 May 1971;
 Ruhser 383; IA: Hartley 56.

GERANIACEAE (Geranium Family)

Geranium maculatum L. Wild Geranium.

WISL: Kunkel 11 May 1959; Lonqueville 25 May 1966;
 Temp 24 May 1959; Stellick 23 May 1959; Fish 17 May 1959;
 Coorough 25 May 1959; Pierce 22 May 1959; Dereszynski
 23 May 1962; Barr 23 May 1962; Hudec 26 Jun 1960; Murphy
 18 May 1962; Biehn 20 May 1959; Lenser 19 May 1971; Moes-
 shel 26 May 1959; Fischer 89; Dix 33; Nontelle 227,154,
 1536,1378,1342,1170,1151,1234,1067,1020,944,272.

LIMNANTHACEAE (False Mermaid Family)

Floerkea proserpinacoides Willd. False Mermaid.

IA: Hartley 201.

BALSAMINACEAE (Touch-me-not Family)

Impatiens biflora Walt. Touch-me-not.

WISL: Nontelle 2392,2330,2656,2098,2221,2262,2990,2627,
 2728,3125,790,804; IA: Hartley 2127.

Impatiens pallida Nutt. Pale Touch-me-not.

WISL: Nontelle 2389; IA: Hartley 220.

LINACEAE (Flax Family)

Linum sulcatum Riddell Yellow Flax.

IA: Hartley 1645.

POLYGALACEAE (Milkwort Family)

Polygala cruciata L. Cross Milkwort.

IA: Hartley 2334.

Polygala polygama Walt. Purple Milkwort.

IA: Hartley 1025.

ARALIACEAE (Ginseng Family)

Aralia nudicaulis L. Wild Sarsaparilla.

WISL: Fish 17 May 1959; Witherbee 19 May 1962; Kujak
20 May 1958; Van Vleet 20 May 1958; Kunkel 18 May 1959;
Pierce 24 May 1959; Fuller 15 May 1959; Fischer 199;
Nontelle 199.

Aralia racemosa L. Spikenard.

WISL: Sohmer 2413; IA: Hartley 2187,2738.

UMBELLIFERAE (Parsley Family)

Angelica atropurpurea L. Angelica.

WISL: Kohlmeyer 27 Oct 1962; Nontelle 337,1428,1194.

Carum carvi L. Caraway.

IA: Hartley 824.

Cicuta maculata L. Water Hemlock.

WISL: Nontelle 2907; IA: Hartley 2041.

Cryptotaenia canadensis (L.) DC. Honewort.

WISL: Hartley 769; Nontelle 407,422,491,1556,1896,1480,
1382. IA: Hartley 964.

Daucus carota L. Queen Anne's Lace, Wild Carrot.

WISL: Raith 22 Sep 1063; Hudec 12 Jul 1960; Smaby Jul
1961; Sohmer 1359; Nontelle 445,1952,1976,2749,1800,2863,
1670,1694,2027,2033,2107,2295,2442,2640,2598,2707; IA:
Hartley 1497.

Heracleum maximum Bartr. Cow Parsnip.

WISL: Fischer 66; Nontelle 340,1574,1677,1894.

Osmorhiza claytoni (Michx.) Clarke Sweet Cicely.

WISL: Coorough 88; Hanson 23 May 1959; Nontelle 219,
1573,1350,1500.

Osmorhiza longistylis (Torr.) DC. Anise-root.

WISL: Stellick 23 May 1959.

Pastinaca sativa L. Parsnip.

WISL: Nontelle 548,1523,1669,1603,1961,1394.

Sanicula gregaria Bickn. Black Snakeroot.

IA: Hartley 961.

Sanicula marilandica L. Black Snakeroot.

WISL: Raith 16 Sep 1963; Wolley 27 Sep 1963; Dix 30;

Fischer 90; Nontelle 2629; IA: Hartley 1009.

Sanicula trifoliata Bickn. Black Snakeroot.

IA: Hartley 2194.

Sium suave Walt. Water Parsnip.

WISL: Bills 22 Sep 1971; IA: Hartley 2496.

Taenida intergerrima (L.) Drude. Yellow Pimpernel.

WISL: Nontelle 1621; IA: Hartley 812.

Thaspium barbinode (Michx.) Nutt. Meadow Parsnip.

WISL: Hudec 14 Jul 1960.

Zizia aurea (L.) Koch. Golden Alexanders.

WISL: Smith 25 May 1959; Johnson 43; Coorough 62; Witt
14 May 1958; Johnson 48; Nontelle 198,346,273,308,2117,
1618,1554,1602,1432,1237,1061; IA: Hartley 752.

SUBCLASS ASTERIDAE

GENTIANACEAE (Gentian Family)

Bartonia virginica (L.) BSP.

IA: Hartley 2326.

Gentiana andrewsii Griseb. Bottle Gentian.

WISL: Warner 11 Oct 1968.

Gentiana flavida Gray Yellowish Gentian.

IA: Hartley 3052.

Gentiana quinquefolia L. Staff Gentian.

WISL: Sohmer 5071; IA: Hartley 3014.

APOCYNACEAE (Dogbane Family)

Apocynum androsaemifolium L. Dogbane.

WISL: Nontelle 1981; IA: Hartley 692.

Apocynum cannabinum L. Indian Hemp.

WISL: Nontelle 3061,3062; IA: Hartley 615,1954.

Vinca minor L. Common Periwinkle.

IA: Hartley 1106.

ASCLEPIADACEAE (Milkweed Family)

Asclepias amplexicaulis Sm. Sand Milkweed.

IA: Hartley 14 Jun 1956, 2057.

Asclepias exaltata L. Poke Milkweed.

WISL: Nontelle 1771; IA: Hartley 982,2246.

Asclepias incarnata L. Swamp Milkweed.

WISL: Sohmer 2773,2545; Nontelle 619,3063,1785,2526,
2166,831; IA: Hartley 1957.

Asclepias purpurascens L. Purple Milkweed.

WISL: Sohmer 2394.

Asclepias syriaca L. Common Milkweed.

WISL: Hudec 13 Jul 1960; Goderski 27 Jun 1961; Raith
22 Sep 1963; Nontelle 483,3108,2735,1680,1805,2403,

2439,2961,2880,2696.

Asclepias tuberosa L. Butterfly Weed.

WISL: Hudec 13 Jul 1960; Vollmar 6 Jul 1960; IA: Hartley 3028.

Asclepias verticillata L. Milkweed.

WISL: Sohmer 2745,2575; Fitzpatrick 1 Aug 1960; Nontelle 738; IA: Hartley 1631.

Asclepias viridiflora Raf. Short Green Milkweed.

IA: Hartley 700.

SOLANACEAE (Nightshade Family)

Datura stramonium L. Jimsonweed.

IA: Hartley 2739.

Physalis alkekengi L. Chinese Lantern-plant.

WISL: Nontelle 516.

Physalis heterophylla Ness. Clammy Ground Cherry.

WISL: Ruhser 519; Nontelle 2871,3024,3082,2939,2479, 1851,1758,1425,1355,2845,615,479,540,1885,1873; IA: Hartley 653.

Physalis virginiana Mill. Lance-leaved Ground Cherry.

WISL: Zietlow 18 Jul 1960; Raith 14 Sep 1963; Hudec 21 Jul 1960; Nontelle 1288; IA: Hartley 663.

Solanum carolinense L. Horse Nettle.

WISL: Nontelle 3166; IA: Hartley 1955.

Solanum dulcamara L. Bittersweet Nightshade.

WISL: Sohmer 2454; Crook 49; Nontelle 494,3031,3078, 2086,1959,1395; IA: Hartley 843.

Solanum nigrum L. Black Nightshade.

WISL: Sohmer 5055, 5056, 5057; Nontelle 3031, 1760, 2391;

IA: Hartley 855.

Solanum rostratum Dunal Buffalo-Bur..

IA: Hartley 2030.

CONVOLVULACEAE (Morning-glory Family)

Convolvulus arvensis L. Field Bindweed.

WISL: Nontelle 587; IA: Hartley 1492.

Convolvulus sepium L. Wild Morning-glory.

WISL: Raith 9 Sep 1963; Hudec 29 Jun 1960; Nontelle 448,
501, 349, 309, 631, 2024, 2287, 1647, 1442, 1126; IA: Hartley
948.

Ipomoea purpurea (L.) Roth Common Morning-glory.

WISL: Nontelle 3041; IA: Hartley 2740.

CUSCUTACEAE (Dodder Family)

Cuscuta campestris Yuncker Dodder.

IA: Hartley 2851.

Cuscuta cephalanthi Engelm.

IA: Hartley 2494.

Cuscuta cuspidata Engelm.

IA: Hartley 2498.

Cuscuta gronovii Willd. Common Dodder.

IA: Hartley 2808.

POLEMONIACEAE (Phlox Family)

Phlox divaricata L. Woodland Phlox.

WISL: Fadness 4 May 1960; Dereszynski 14 May 1962; Brown
13 May 1959; Coorough 42; Davies 9 May 1966; Murphy 12
May 1962; Post 5 May 1958; Ziegler 9 May 1960; Hornby

14 May 1958; Hanson 23 May 1959; Nontelle 147.

Phlox paniculata L. Perennial Phlox.

WISL: Sohmer 2489,2492; IA: Hartley 2257.

Phlox pilosa L. Prairie Phlox.

WISL: Moe 24 May 1959; Hornby 14 May 1958; Fish 17

May 1959; Hanson 23 May 1959; Pierce 24 May 1959; IA:
Hartley 235.

Polemonium reptans L. Jacob's Ladder.

WISL: Sohmer 5829,5830; Hoyer 12 May 1971; Pfaff 20 May
1966; Netwal 11 May 1965; Kovar 19 May 1961; Moe 24 May
1959; Ziegler 9 May 1960; Drecktrah 28 May 1960; Schnell
16 May 1959; Laurent 18 May 1965; Puent 19 May 1958;
Johnson 31; Brown 21 May 1969; Nontelle 151,124,129,134,
144,271,972,1073,1165.

HYDROPHYLLACEAE (Waterleaf Family)

Hydrophyllum appendiculatum Michx. Great Waterleaf.

IA: Hartley.

Hydrophyllum virginianum L. Virginia Waterleaf.

WISL: Berg 11 May 1962; Dereszynski 21 May 1962; Barr
21 May 1962; Ernst 21 May 1969; Harvey 21 May 1969;
Nontelle 182,1737,1329; IA: Hartley 126.

BORAGINACEAE (Borage Family)

Cynoglossum officinale L. Hound's Tongue.

WISL: Smith 28 May 1959; IA: Hartley 1219.

Hackelia virginiana (L.) Johnst. Beggar's Lice.

IA: Hartley 2739.

Lappula myosotis Moench Stickseed.

IA: Hartley 3268.

Lithospermum canescens L. Hoary Puccoon.

WISL: Ernst 4 May 1969; Hanson 23 May 1954; Pierce 15 May 1959; Ziegler 23 May 1960; Lorenz 8 May 1962; Stellick 23 May 1959; Johnson 44; Kujak 14 May 1958; Jacoby 16 May 1962; Kunkel 18 May 1959; James 13 May 1958; Puent 14 May 1958; Fish 31 May 1959; Moerschel 23 May 1959; Hoyer 29 May 1971; Peterson 19 May 1971; Nash 13 May 1969; Drecktrah 21 May 1960; Ragoonanan 13 May 1969; Harvey 4 May 1969; Aiello 10 May 1969; Lonqueville 26 May 1966; Johnson 17 May 1959; Schnell 7 May 1959; Nontelle 214,215, 395,1003,1004; IA: Hartley 218.

Lithospermum croceum Fern. Hairy Puccoon.

WISL: Vollmar 6 Jul 1960; Nontelle 252,253,665,666,1869, 1248,1225,1208; IA: Hartley 318.

Lithospermum incisum Lehm. Fringed Puccoon.

WISL: Stellick 18 May 1959; Moe 16 May 1959; Temp 18 May 1959; Kwick 19 May 1965; Johnson 72, 18 May 1959; James 13 May 1958; Pierce 15 May 1959; Kujak 13 May 1958; Jackson 18 May 1959; Fish 18 May 1950; Drecktrah 28 May 1960; Witt 15 May 1958; Aiello 7; Hoyer 21 May 1971; Nontelle 231,248,249; IA: Hartley 617.

Mertensia virginica (L.) Pers. Virginia Bellwort.

WISL: Laurent 18 May 1965; Becwar 26 Apr 1968; Murphy 15 May 1962; Fadness 3 May 1960; Gschwind 16 May 1965; Nontelle 170,3159.

Myosostis scorpioides L. Forget-me-not.

WISL: Hudec 19 Jul 1960; Stellick 23 May 1959; Nontelle 1802,1801.

VERBENACEAE (Vervain Family)

Verbena bracteata Lag. & Rodr. Creeping Vervain.

WISL: Sohmer 2459; Nontelle 544,476,2945,449,1431; IA: Hartley 2928.

Verbena hastata L. Blue Vervain.

WISL: Sohmer 2555,2554,5094; Hudec 25 Jul 1960; Smaby Jul 1961; Nontelle 807,2702,1966,2407,2527,2009,2164,2207,802,798; IA: Hartley 1375.

Verbena stricta Vent. Hoary Vervain.

WISL: Mauuye 16 Sep 1963; Smaby Jul 1961; Sohmer 2358; Anderson 7 Sep 1962; Nontelle 668,669,536,1711,1882,2274,2178,2882.

Verbena urticifolia L. White Vervain.

WISL: Sohmer 5049,5050; Nontelle 2010,2589,3083; IA: Hartley 1623.

PHRYMACEAE (Lopseed Family)

Phryma leptostachya L. Lopseed.

IA: Hartley 1105.

LABIATAE (Mint Family)

Agastache scrophylariaefolia (Willd.) Ktze. Giant Hyssop.

IA: Hartley 1914.

Glechoma hederacea L. Creeping Charlie, Ground Ivy.

WISL: Lenser 22 May 1971; Henry 16 May 1965; Dereszynski 18 May 1962; James 22 May 1958; Sohmer 2008; Friell 14 Apr 1969; Murphy 17 May 1962; Brendel 19 May 1971;

Puent 14 May 1958; Hornby 14 May 1958; Fish 19 May 1959;
Nontelle 17,18,19,145,91,1348,2572,3123,1127,1077,1043;
897,986; IA: Hartley 784.

Hedeoma hispida Pursh. Mock Pennyroyal.

WISL: Nontelle 545,590,1867,1658,1317,2123; IA: Hartley
344.

Hedeoma pulegioides (L.) Pers. American Pennyroyal.

IA: Hartley 3064.

Leonurus cardiaca L. Motherwort.

WISL: Fitzpatrick 13 Jul 1960; Sohmer 2439; Fleischmann
16 Oct 1963; Goderski 10 Jul 1961; Nontelle 440,1406,
1789; IA: Hartley 851.

Lycopus americanus Muhl. Water Horehound.

WISL: Farringer 2; IA: Hartley 2148.

Lycopus uniflorus Michx. Bugleweed.

WISL: Nontelle 808,809,735; IA: Hartley 1930.

Mentha arvensis L. Wild Mint.

IA: Hartley 2122.

Mentha spicata L. Spearmint.

IA: Hartley 2215.

Monarda fistulosa L. Wild Bergamot.

WISL: Hudec 20 Jul 1960; Zietlow 20 Jul 1960; Sohmer 2338,
3370; Crook 164; Nontelle 1978,1993,2023,2039,2122,2075;
2179,2174,2290.

Monarda punctata L. Dotted Monarda.

WISL: Sohmer 2778,2779; Barlow 30 Sep 1962; Hudec 25 Jul
1960; Zietlow 20 Jul 1960; Nontelle 3081,2967,3012,2874,

2183,930,1929,599,2500.

Physostegia formosior Lunnell False Dragonhead.

IA: Hartley 2114.

Prunella vulgaris L. Heal-all.

WISL: Sohmer 2361,2362; Zietlow 12 Jul 1960; Nontelle
1734,1581,1893,1975,470,594,740,1951,2624,2656,2127,
2061,1707.

Pycnanthemum virginianum (L.) Durand & Jackson Mountain Mint,

WISL: Sohmer 5077; Nontelle 760; IA: Hartley 1933.

Scutellaria galericulata L. Common Skullcap.

IA: Hartley 2637.

Scutellaria lateriflora L. Mad-dog Skullcap.

WISL: Nontelle 734; IA: Hartley 1935.

Scutellaria parvula Michx. Small Skullcap.

WISL: Smith 28 May 1959.

Stachys hispida Pursh

IA: Hartley 2162.

Stachys tenuifolia Willd. Hedge Nettle.

IA: Hartley 2505.

Teucrium canadense L. Germander.

WISL: Hudec 20 Jul 1960; Sohmer 2456,2472,2790; Nontelle
2171,2096,1958,1906; IA: Hartley 2167.

PLANTAGINACEAE (Plantain Family)

Plantago aristata Michx. Bracted Plantain.

IA: Hartley 651.

Plantago lanceolata L. English Plantain.

WISL: Nontelle 1728,2646,2647; IA: Hartley 863.

Plantago major L. Common Plantain.

WISL: Sohmer 5103; Hudec 25 Jun 1960; Nontelle 580,
2416,2530; IA: Hartley 862.

Plantago media L. Hoary Plantain.

IA: Hartley 2787.

Plantago purshii R. & S. Woolly Plantain.

WISL: Hudec 27 Jun 1960; Drecktrah 28 May 1960; Kwick
15 May 1965; Nontelle 475,415,416,602,1287,1285,1656,
1878,1960; IA: Hartley 668.

Plantago rugelii Dcne. Red-stemmed Plantain.

WISL: Fleischmann 20 Sep 1963; Goderski 13 Jul 1961;
Hudec 25 Jun 1960; Sohmer 2390; Nontelle 565,591,500,
462,66,627,642,1983,1705,1754,2158,2095,1884,1825, IA:
Hartley 3006.

OLEACEAE (Olive Family)

Fraxinus americana L. White Ash.

WISL: Raith 15 Sep 1963; Temp 15 May 1959; Nontelle 655,
2377.

Fraxinus pensylvanica Marsh. Red Ash.

WISL: Raith 22 Sep 1963; Mauye 22 Sep 1963; Anderson
15 Sep 1962; Barlow 5 Oct 1962; Lonqueville 15 May 1966;
Sohmer 1670; Huggett 5 May 1965; Raith 14 Sep 1963;
Nontelle 3117,3077,64,65,2946,1835,1879,1558,1270; IA:
Hartley 1551.

SCROHPULARIACEAE (Figwort Family)

Linaria canadensis (L.) Dumont Blue Toadflax.

WISL: Nontelle 1214,1215; IA: Hartley 209.

Linaria vulgaris Hill Butter-and-eggs.

WISL: Sohmer 2572,2570,2759,2764; Fleischmann 10 Sep 1063; Hudec 14 Jul 1960; Raith 16 Sep 1963; Nontelle 2819, 2820,726,1927,2200.

Lindernia dubia (L.) Pennell False Pimpernel.

IA: Hartley 2836.

Mimulus glabratus HBK. Yellow Monkey Flower.

IA: Hartley 3286.

Pedicularis canadensis L. Wood Betony.

WISL: Hoyer 21 May 1971; Stellick 23 May 1959; Friell 13 May 1969; Ragoonanan 13 May 1969; Drecktrah 28 May 1960; James 14 May 1958; Witherbee 19 May 1958; Johnson 81; Moerschel 23 May 1959; Nontelle 1227,1228; IA: Hartley 532.

Penstemon digitalis Nutt. Foxglove Beard Tongue.

IA: Hartley 3077.

Penstemon gracilis Nutt.

IA: Hartley 698.

Penstemon grandiflorus Nutt.

WISL: Nontelle 1305,1304; IA: Hartley 501.

Scrophularia lanceolata Pursh. Early Figwort.

WISL: Stellick 1 Jun 1959; Hartley 1002; Nontelle 417, 1320,1318,1528.

Scrophularia marilandica L. Late Figwort.

IA: Hartley 2221.

Verbascum blattaria L. Moth Mullein.

IA: Hartley 698.

Verbascum thapsus L. Mullein.

WISL: Erdman 14 May 1966; Valiquette 8; Sohmer 2488;
Nontelle 484,629,3128,969,906,909,1019,1177,1562,1866,
2670,2060,2669.

Veronica arvensis L. Corn Speedwell.

WISL: Nontelle 146; IA: Hartley 1483.

Veronica peregrina L. Purslane Speedwell.

IA: Hartley 804.

Veronica scutellata L. Marsh Speedwell.

IA: Hartley 3287.

Veronicastrum virginicum (L.) Farw. Culver's Root.

WISL: Nontelle 2015,2059,2118,1972,1971; Hudec 25 Jul
1960.

OROBANCHACEAE (Broom-rape Family)

Conopholis americana (L.) Wallr. Squawroot.

IA: Hartley 2186.

BIGNONIACEAE (Trumpet Creeper Family)

Catalpa speciosa Warder Northern Catalpa.

WISL: Wolley 5 Oct 1963; Krey 6 Oct 1962; Nontelle 1848;
IA: Hartley 1742.

LENTIBULARIACEAE (Bladderwort Family)

Utricularia intermedia Hayne Flat-leaved Bladderwort.

IA: Hartley 2642.

CAMPANULACEAE (Harebell Family)

Campanula americana L. Tall Bellflower.

WISL: Nontelle 2261,2154.

Campanula aparinoides Pursh Marsh Bellflower.

IA: Hartley 1344.

Campanula rapunculoides L. European Bellflower.

WISL: Nontelle 577.

Campanula rotundifolia L. Harebell.

WISL: Sohmer 2112,2111,2416,2415; Hudec 23 Jun 1960;
Smaby Jul 1961; Biehn 5 Jun 1959; Nontelle 1712,1504,
1596,1697,1089,2115,1943.

Lobelia cardinalis L. Cardinal Flower.

WISL: Christianson 15; Farringer 5; Fleishmann 15 Sep
1963; Cary 16 Sep 1971; Nontelle 1948; IA: Hartley 2507.

Lobelia inflata L. Indian Tobacco.

IA: Hartley 2061.

Lobelia siphilitica L. Great Lobelia.

WISL: Sohmer 5080, 22 Sep 1967; Raith 22 Sep 1963;
Farringer 12; Cary 10 Sep 1971; Merz 6; Justinger 11
Sep 1971; Nontelle 2211,2212,2400,2591,787; IA: Hart-
ley 2218.

Lobelia spicata Lam. Pale-spiked Lobelia.

WISL: Sohmer 2576; Crook 96; Nontelle 1622,1717.

Triodanis perfoliata (L.) Nieuwl. Venus' Looking-glass.

IA: Hartley 1021.

RUBIACEAE Madder Family)

Cephalanthus occidentalis L. Buttonbush.

WISL: Sohmer 7340,2737, 17 Sep 1967; Nontelle 1912,
1913; IA: Hartley 1330.

Galium aparine L. Cleavers.

WISL: James 14 May 1958; Kujak 14 May 1958; Brown 26
Apr 1969; Nontelle 190,191,117,1167.

Galium asprellum Michx. Rough Bedstraw.

WISL: Warner 11 Oct 1968; Hudec 21 Jul 1960; Sohmer
17 Sep 1967; Nontelle 889,1964,2734,924; IA: Hartley
1937.

Galium boreale L. Northern Bedstraw.

WISL: Kohlmeyer 29 Sep 1962; Nontelle 1351,3171,1469,
1552,1714,372.

Galium concinnum T. & G. Pretty Bedstraw.

WISL: Hartley 922; Briggs 6 Jul 1961; Stellick 23 May
1959; Johnson 41; Sohmer 2410; Nontelle 394,1484,1548,
3169,1772; IA: Hartley 1090.

Galium obtusum Bigel. Wild Madder.

IA: Hartley 974.

Galium triflorum Michx. Fragrant Bedstraw.

WISL: Nontelle 1377; IA: Hartley 921.

Houstonia longifolia Gaertn.

IA: Hartley 1005.

CAPRIFOLIACEAE (Honeysuckle Family)

Linnaea borealis L. Twinflower.

IA: Hartley 1076.

Lonicera xybella Zabel Honeysuckle.

WISL: Sohmer 11 May 1968; Nontelle 167.

Lonicera dioica L. Wild Honeysuckle.

WISL: Brendel 14 May 1971; Hellwig 19 May 1971; Dreck-

trah 28 May 1960; Moerschel 19 May 1959; Witt 15 May 1958; Pierce 17 May 1959; Van Vleet 30 Apr 1959; Fish 17 May 1959; Nontelle 1051; IA: Hartley 240.

Lonicera morrowi Gray Morrow's Honeysuckle.

WISL: Arkin 4 May 1965; Lonqueville 27 May 1966; Nontelle 230,647.

Lonicera tatarica L. Tartarian Honeysuckle.

WISL: Ernst 21 May 1969; Sohmer 11 May 1968; Moerschel 22 May 1969; Connor 15 May 1962; Gschwind 16 May 1965; Nontelle 187.

Sambucus canadensis L. Common Elderberry.

WISL: Nontelle 2877,2265,2026,1914,1791,1710,1587; IA: Hartley 841.

Sambucus pubens Michx. Red-berried Elder.

WISL: Johnson 58; James 7 May 1958; Drecktrah 4 May 1960; IA: Hartley 730.

Symphoricarpus albus (L.) Blake Snowberry.

IA: Hartley 3013.

Symphoricarpos occidentalis Hook. Wolfberry.

IA: Hartley 1549.

Viburnum lentago L. Nannyberry.

WISL: Pierce 17 May 1959.

Viburnum opulus L. Highbush Cranberry.

IA: Hartley 273.

Viburnum rafinesquianum Schultes Downy Arrow-wood.

IA: Hartley 745.

COMPOSITAE (Composite Family)

Achillea millefolium L. Yarrow.

WISL: Hoeth 19 May 1967; Peterson 12 May 1967; Smaby Jul 1961; Hudec 25 Jun 1960; Van Vleet 15 May 1958; Kujak 20 May 1958; Johnson 70; Fish 30 May 1959; Fadness 28 May 1960; Baker 22 Jun 1960; Sohmer 1678,1679; Nontelle 328,311,312,437,645,485,2236,2142,2037,1599,1509,1412,1338,1272,1289,1148,1210,1084,869,2615; IA: Hartley 345.

Agroseris cuspidata (Pursh) Raf.

WISL: Fadness 14 May 1960.

Ambrosia artemisiifolia L. Common Ragweed.

WISL: Nontelle 2799,2759,2588,2642,2068,2661,2909,2878,3008,2996,2501,2453,2268,2202,2013,2558,2372,2395; Sohmer 7327, 17 Sep 1967.

Ambrosia psilostachya DC. Western Ragweed.

WISL: Raith 16 Sep 1963; Hartley 2755; Mauuye 16 Sep 1964; Nontelle 2360,1643,2965; IA: Hartley 2002.

Ambrosia trifida L. Great Ragweed.

WISL: Sohmer 7385; Nontelle 2755,2796,2373,2571,2308,2956,2991,2879,2660,2592,2205,2126,2081,3109.

Antennaria neglecta Greene Pussytoes.

WISL: Johann 14 May 1967; Johnson 34; Marcou 5 May 1962; Puent 12 May 1968; Ziegler 23 May 1960; Temp 15 May 1959; Pierce 15 May 1959; Van Vleet 4 Apr 1958; Brown 26 Apr 1967; Nontelle 9,10,11,985,948,949,867,1122; IA: Hartley 84.

Antennaria plantaginifolia (L.) Richards. Plantain-leaved Pus-
toes.

WISL: Sohmer 1503; Brown 26 Apr 1969; Hoyer 3 May 1971, 23 May 1971; Nontelle 93,973,950,1059,1179,1205.

Anthemis cotula L. Dog Fennel.

WISL: Sohmer 2563; Hartley 995; Nontelle 2768,1650,1792,2850; IA: Hartley 2694.

Arctium minus (Hill) Bernh. Burdock.

WISL: Anderson 17 Sep 1962; Krey 4 Oct 1962; Nontelle 2082,1629,1561,2742,2199; IA: Hartley 2172.

Artemisia biennis Willd. Biennial Wormwood.

WISL: Nontelle 805; IA: Hartley 3206.

Artemisia caudata Michx. Wild Wormwood.

WISL: Anderson 7 Sep 1962; Nontelle 3046; IA: Hartley 2427.

Artemisia ludoviciana Nutt. White Sage.

WISL: Anderson 12 Sep 1962; Krey 12 Sep 1962; Mauuye 16 Sep 1963; Nontelle 2354,2172,3145,2493,2978,2977,2997,2350,3045; IA: Hartley 2644.

Aster azureus Lindl. Rough-leaved Aster.

WISL: Lenser 106; Mauuye 29 Sep 1963; Nontelle 2621,2892,3025,3006,2482,2333,2334,2449,2782,2462,2450.

Aster ciliolatus Lindl.

WISL: Nontelle 2995,2989,2663.

Aster cordifolius L. Blue Woodland Aster.

WISL: Hartley 2722; IA: Hartley 3056.

Aster drummondii Lindl. Drummond's Aster.

WISL: Nontelle 2320,2329; IA: Hartley 2609.

Aster ericoides L. Heather Aster.

WISL: Nontelle 2969, 3010, 2881, 2722, 2485, 2394, 2798, 2344, 2338; IA: Hartley 2792.

Aster laevis L. Smooth Aster.

WISL: Hartley 2647; Nontelle 2422, 2215; IA: Hartley 1608.

Aster lateriflorus (L.) Britt. White Woodland Aster.

WISL: Nontelle 2903, 2197, 2590, 742, 2730, 2832, 2859, 782.

Aster macrophyllus L. Large-leaved Aster.

IA: Hartley 3078.

Aster novae-angliae L. New England Aster.

WISL: Fleischmann 25 Sep 1963; Sohmer 5084; Gary 10 Sep 1971; Farringer 1; Nontelle 2701, 2637, 2683, 2773, 2848, 2293, 2452, 2229, 2228.

Aster oblongifolius Nutt. Aromatic Aster.

WISL: Nontelle 2301; IA: Hartley 3038.

Aster ontarionis Wieg. Ontario Aster.

WISL: Nontelle 3120, 719; IA: Hartley 3103.

Aster pilosus Willd. Hairy Aster.

WISL: Nontelle 2387, 2388.

Aster prenanthoides Muhl.

WISL: Nontelle 2534, 2748; IA: Hartley 3096.

Aster ptarmicoides (Nees) T. & G. Stiff Aster.

IA: Hartley 2429.

Aster sagittifolius Willd. Arrow-leaved Aster.

WISL: Nontelle 2634, 2625, 2703, 2243, 741, 2548, 2288; IA: Hartley 2727.

Aster sericeus Vent. Silky Aster.

WISL: Sohmer 17 Sep 1967; Anderson 7 Sep 1962; Nontelle

2339,2345; IA: Hartley 2658.

Aster simplex Willd. Tall White Aster.

WISL: Nontelle 220,715,3095,3075,2438,2739,2705; IA:
Hartley 3276.

Aster umbellatus Mill. Flat-topped Aster.

WISL: Hartley 3145; IA: Hartley 3113.

Bidens cernua L. Nodding Bur Marigold.

WISL: Sohmer 5121; Nontelle 746,2923,2412,2411,2406,
762,796,840; IA: Hartley 3172.

Bidens coronata (L.) Britt. Tickseed Sunflower.

IA: Hartley 3108.

Bidens discoidea (T. & G.) Britt.

IA: Hartley 2389.

Bidens frondosa L. Common Bur Marigold.

WISL: Sohmer 17 Sep 1967; Hartley 3275; Nontelle 2545;
IA: Hartley 2751.

Bidens tripartita L.

WISL: Sohmer 5098,5123; Hartley 3274.

Bidens vulgata Greene Tall Stick-tight.

WISL: Nontelle 2321; IA: Hartley 3075.

Boltonia asteroides (L.) L'Her.

IA: Hartley 2925.

Cacalia suaveolens L. Sweet Indian Plantain.

IA: Hartley 3116.

Chrysanthemum leucanthemum L. Ox-eye Daisy.

WISL: Hudec 15 Jun 1960; Fleishmann 10 Oct 1963; Nontelle
1381,452,575,2129,1613,1691; IA: Hartley 826.

Cichorium intybus L. Chicory.

WISL: Nontelle 1988,1989,2213,2434,2014,2137,2068; IA:
Hartley 1103.

Cirsium arvense (L.) Scop. Canada Thistle.

WISL: Nontelle 555,1775; IA: Hartley 1100.

Cirsium discolor (Muhl.) Spreng. Prairie Thistle.

WISL: Mauuye 16 Sep 1963; Nontelle 2510,2794,2876.

Cirsium hillii (Canby) Fern. Small Prairie Thistle.

IA: Hartley 3279.

Cirsium vulgare (Savi) Ten. Bull Thistle.

WISL: Hartley 2177; Nontelle 3042,2750,737; IA: Hartley
3011.

Coreopsis lanceolata L. Tickseed.

WISL: Crook 54; Nontelle 473; IA: Hartley 1107.

Coreopsis palmata Nutt. Tickseed.

WISL: Zietlow 8 Jul 1960; Nontelle 582,2005.

Crepis tectorum L. Hawk's-beard.

WISL: Nontelle 495.

Erechtites hieracifolia (L.) Raf. Fireweed.

WISL: Nontelle 3124; IA: Hartley 2686.

Erigeron annuus (L.) Pers. Annual Fleabane.

WISL: Nontelle 521,1727,2307,1420,1539,2248,2100,2156,
2016,1664,2709,2587,447,612,2858,2443,2065,1763,1795;
Crook 13; Hartley 1961; Fischer 59; Fleischmann 10 Sep
1963.

Erigeron canadensis L. Horseweed.

WISL: Mauuye 15 Sep 1963; Nontelle 3055,2272,2671;

IA: Hartley 1060,802.

Erigeron philadelphicus L. Daisy Fleabane.

WISL: Fadness 28 May 1960; Hudec 25 Jun 1960; Murphy
18 May 1962; Swanson 12 May 1972; Nontelle 1384,196,
197,335.

Erigeron pulchellus Michx. Robin's Plantain.

WISL: Van Vleet 19 May 1958; Fish 31 May 1959; Fuller
10 May 1958; Coorough 108; Drecktrah 28 May 1960;
Dereszynski 21 May 1962; Barr 21 May 1962; Murphy
18 May 1962; IA: Hartley 241.

Erigeron strigosus Muhl. Daisy Fleabane.

WISL: Nontelle 583,373,1936,1726,1662,2497,1245,1279,
1495,2463,2671,2941; IA: Hartley 1004.

Eupatorium altissimum L. Tall Boneset.

WISL: Lenser 105; Nontelle 2387; IA: Hartley 1789.

Eupatorium maculatum L. Spotted Joe-Pye Weed,

WISL: Hughes 25 Sep 1971; Nontelle 2732,2165,806.

IA: Hartley 2150.

Eupatorium perfoliatum L. Common Boneset.

WISL: Hughes 25 Sep 1971; Nontelle 799,2219,2201,2521,
2017,1962; IA: Hartley 1919.

Eupatorium purpureum L. Purple Joe-Pye Weed.

WISL: Nontelle 2331; IA: Hartley 2426.

Eupatorium rugosum Houtt. White Snakeroot.

WISL: Lenser 103; Sohmer 17 Sep 1967; Kohlmeyer 7 Oct
1962; Fleischmann 5 Sep 1963; Nontelle 2670,2374,2198,2266,
2884,2475,720,2830,2757,2536; IA: Hartley 2206.

Galinsoga ciliata (Raf.) Blake Peruvian Daisy.

WISL: Wolley 12 Oct 1963; Fleischmann 10 Sep 1963; Crook
15; Nontelle 471,3027; IA: Hartley 859.

Gnaphalium obtusifolium L. Sweet Cudweed.

WISL: Raith 22 Sep 1963; Nontelle 2704,2460,2427,2336;
IA: Hartley 3216.

Helenium autumnale L. Sneezeweed.

WISL: Nontelle 2918,2414,2209; IA: Hartley 2839.

Helianthus annuus L. Garden Sunflower.

IA: Hartley 1974.

Helianthus giganteus L. Tall Sunflower.

WISL: Nontelle 2732,2718,2600,2514,2379,2357; IA: Hartley
3106.

Helianthus grosseserratus Martens Sawtooth Sunflower.

IA: Hartley 5419.

Helianthus occidentalis Riddell Western Sunflower.

WISL: Nontelle 1551,2420,2476; IA: Hartley 2049.

Helianthus petiolaris Nutt.

WISL: Lenser 109; Hughes 168; Sohmer 17 Sep 1967.

Helianthus rigidus (Cass.) Desf. Prairie Sunflower.

IA: Hartley 2135.

Helianthus strumosus L. Harsh Sunflower.

WISL: Sohmer 2796; Nontelle 2116,2543,2058; IA:
Hartley 2258.

Helianthus tuberosus L. Jerusalem Artichoke.

WISL: Mauye 16 Sep 1964; Sohmer 7382; Lenser 113;
Nontelle 2930,2322,3072,716,2260,2494,2816,2319; IA:

Hartley 2787.

Heliopsis helianthoides (L.) Sweet. Ox-eye.

WISL: Crook 182; Goderski 13 Jul 1961; Nontelle 1905,
1781,1934,2837,1413,3019; IA: Hartley 1548.

Hieracium aurantiacum L. Devil's Paint-brush.

WISL: Ruhser 448; Fitzpatrick 10 Jul 1960; Nontelle
2685,2684,1600,1601.

Hieracium longipilum Torr. Prairie Hawkweed.

WISL: Sohmer 2724; Nontelle 2342,1928,1700,1701; IA:
Hartley 1070.

Hieracium pratense Tausch.

IA: Hartley 909.

Hieracium scabrum Michx. Rough Hawkweed.

WISL: Nontelle 2246,754,3068; IA: Hartley 2202.

Hieracium umbellatum L. Narrow-leaved Hawkweed.

WISL: Nontelle 2675,2614,2441,2697.

Krigia biflora (Walt.) Blake Dwarf Dandelion.

WISL: Crook 94; Fuller 23 May 1958; Sohmer 2003,2004,
2005,1610,1578,1577.

Kuhnia eupatorioides L. False Boneset.

WISL: Nontelle 2359,2358; IA: Hartley 2648.

Lactuca biennis (Moench) Fern. Wood Lettuce.

IA: Hartley 2229.

Lactuca canadensis L. White Lettuce.

WISL: Nontelle 1730,2559,1987; IA: Hartley 2071.

Lactuca scariola L. Prickly Lettuce.

WISL: Sohmer 277; Nontelle 2303,2376,2812,2948,2888,
2955; IA: Hartley 2770.

Liatris aspera Michx. Rough Blazing Star.

WISL: Zietlow 30 Jul 1960; Raith 14 Sep 1963; Mauuye
29 Sep 1963; Kohlmeyer 7 Oct 1962; Nontelle 2556,2349,
2079,2214,2167,3152,2489,3151,2084.

Liatris cylindracea Michx. Cylindrical Blazing Star.

IA: Hartley.3043.

Matricaria matricarioides (Less) Porter Pineapple Weed.

WISL: Nontelle 464,354,2645,2282,1520,1977; IA:
Hartley 457.

Polymnia canadensis L. Leafcup.

WISL: Nontelle 1744; IA: Hartley 736.

Prenanthes alba L. Lion's Foot.

WISL: Nontelle 2488,2626,2473,2472,745; IA: Hartley
2984.

Ratibida pinnata (Vent.) Barnh. Yellow Coneflower.

WISL: Sohmer 2550; IA: Hartley 1213.

Rudbeckia lacinata L. Wild Goldenglow.

IA: Hartley.

Rudbeckia serotina Nutt. Black-eyed Susan.

WISL: Sohmer 2115; Crook 81; Hudec 29 Jun 1960; Fitz-
patrick 2078; Nontelle 523,1518,1607,1557,1626,1740,1693
2004,2022,2069; IA: Hartley 816.

Senecio aureas L. Golden Ragwort.

WISL: Stellick 23 May 1959; Moe 24 May 1959; Wildt 24
May 1959; Horswill 23 May 1959; Ganschow 17 May 1959;

IA: Hartley 221.

Senecio pauperculus Michx. Northern Ragwort.

WISL: Sohmer 1580,1581,1685,1686; Smith 24 May 1959;
Smaby Jun 1961; Nontelle 261,413,414,1254,1313,1343.

Senecio plattensis Nutt. Prairie Groundsel.

WISL: Murphy 18 May 1962; Puent 12 May 1958; Hoyer
19 May 1971; Witt 17 Jul 1958; Johnson 71; Kujak 13
May 1958; Ziegler 23 May 1960; Huggett 19 May 1965;

IA: Hartley 328.

Silphium laciniatum L. Compass Plant.

IA: Hartley 1632.

Silphium perfoliatum L. Cup Plant.

WISL: Nontelle 2540,1860.

Solidago altissima L. Tall Goldenrod.

WISL: Nontelle 2964,2639,2594,2717,2444,2793,2814,2857,
2139,2999.

Solidago canadensis L. Canada Goldenrod.

WISL: Sohmer 7346; Nontelle 2206,2496,2204,2083,2088,
2865,2328,2700,2029; IA: Hartley 2724.

Solidago flexicaulis L. Zigzag Goldenrod.

WISL: Nontelle 2856,747,2577,2606,2256,2257; Sohmer
5062; Hartley 3214; IA: Hartley 2696.

Solidago gigantea Ait. Late Goldenrod.

WISL: Hartley 3187; Sohmer 2735,7318; Nontelle 2910,
3065,2289,3139,2738,2747,721,2364,2380,2011,2155; IA:
Hartley 2151.

Solidago graminifolia (L.) Salisb. Grass-leaved Goldenrod.

WISL: Nontelle 2719; IA: Hartley 1673.

Solidago missouriensis Nutt. Missouri Goldenrod.

WISL: Hartley 2763; Nontelle 2998,2191,2077,2076; IA:
Hartley 2974.

Solidago nemoralis Ait. Field Goldenrod.

WISL: Hartley 6163,3089; Raith 9 Sep 1963; Krey 12
Sep 1962; Nontelle 2203,2335,2436,2676,2361,2609,
2478,2465,2190,2423,2425,2426; IA: Hartley 3027.

Solidago rigida L. Stiff Goldenrod.

WISL: Wolley 30 Sep 1963; Anderson 7 Sep 1962, 12 Sep
1962; Nontelle 2347,2348,2340; IA: Hartley 2430.

Solidago sciaphila Steele

WISL: Nontelle 2817,748; IA: Hartley 3026.

Solidago speciosa Nutt. Showy Goldenrod.

WISL: Nontelle 2362,2513,2325,2090,2002; IA: Hartley
2048.

Solidago uliginosa Nutt. Bog Goldenrod.

WISL: Nontelle 2003; IA: Hartley 3144.

Solidago ulmifolia Muhl. Elm-leaved Goldenrod.

WISL: Hartley 2732; Nontelle 2232,751,2245,2337; IA:
Hartley 3055.

Sonchus asper (L.) Hill Spiny Sow Thistle.

WISL: Krey 4 Oct 1962; Nontelle 2031,1955,581,2833,1973,
1773,1774.

Sonchus oleraceus L. Sow Thistle.

WISL: Mauuye 29 Sep 1963; Nontelle 2341; IA: Hartley 2135.

Sonchus uliginosus Bieb. Smooth Sow Thistle.

IA: Hartley 2783.

Tanacetum vulgare L. Tansy.

IA: Hartley 1910.

Taraxacum erythrospermum Andrz. Red-seeded Dandelion.

WISL: Nontelle 913.

Taraxacum officinale Weber Common Dandelion.

WISL: Connor 28 Apr 1962; Lesperance 2 May 1961; Key
29 Apr 1961; Treder 20 May 1961; Stellick 26 Apr 1959;
Fuller 4 May 1958; Temp 20 May 1959; Post 20 Apr 1958;
Hudec 25 Jun 1960; Crook 22; Nontelle 8,44,1111,1048,
896,947,1134,959; IA: Hartley 3060.

Tragopogon dubius Scop. Goat's Beard.

WISL: Horswill 30 May 1959; Fish 31 May 1959; Hoyer 13
May 1971; Brendel 20 May 1971; Stellick 29 May 1959;
Fuller 23 May 1958; Temp 28 May 1959; Sohmer 1757;
Raith 16 Sep 1963; Ruhser 416; Nontelle 247,246,428,
1776,1692,1461,1430,1243,2813,2945,3129; IA: Hartley
815.

Xanthium strumarium L. Cocklebur.

WISL: Mauuye 22 Sep 1963; Fleischmann 6 Oct 1963; Sohmer
5114, 17 Sep 1967; Nontelle 2655,3034; IA: Hartley 2837.

CLASS LILIATAE (Monocotyledons)

SUBCLASS ALISMATIDAE

ALISMATACEAE (Water-plantain Family)

Alisma subcordatum Raf. Water-plantain.

WISL: Cary 10 Sep 1971; Merz 15; Christianson 10; Sohmer 2559; Nontelle 2524, 2525, 781, 819; WIS: Fassett 4139, 4141; Hartley 1659.

Sagittaria cuneata Sheldon Arrowhead.

WIS: Hartley 1765.

Sagittaria engelmanniana J. G. Smith Arrowhead.

WISL: Justinger 14 Sep 1971; Christianson 32; WIS: Hartley 1648.

Sagittaria latifolia Willd. Common Arrowhead.

WISL: Justinger 4 Sep 1971; Merz 73; Farringer 4; Cary 30 Oct 1971; Sohmer 7358; Bills 26 Sep 1971; Nontelle 780, 617, 764; WIS: Hauser 536, 620, 452; Hartley 2809; Jones 410.

Sagittaria rigida Pursh. Stiff Arrowhead.

WISL: Christianson 21; Crook 173; Merz 123; Nontelle 823; WIS: Hartley 1396, 5696.

HYDROCHARITACEAE (Frog's-bit Family)

Elodea canadensis Michx. Waterweed.

WISL: Ruhser 634; Kretschmann 3 May 1972; Farringer 23; Albrecht 3 Sep 1971; Sohmer 2799; Sievert 3; Justinger 24 Oct 1971; Nontelle 1840, 855, 839; WIS: Hartley 4610.

Elodea nuttallii (Planch.) St. John Waterweed.

WIS: Hartley 1359, 2835.

Vallisneria americana Michx. Water-celery.

WISL: Albrecht 24 Sep 1971; Nontelle 767,821; WIS: Hartley 4608.

NAJADACEAE (Naiad Family)

Najas flexilis (Willd.) Rosrk. & Schmidt Naiad.

WISL: Nontelle 837.

Najas guadalupensis (Spreng.) Magnus Naiad.

WISL: Justinger 24 Oct 1971.

POTAMOGETONACEAE (Pondweed Family)

Potamogeton amplifolius Tuckerm. Pondweed.

WISL: Farringer 29; WIS: Peterson 177.

Potamogeton crispus L. Curly-leaved Pondweed.

WISL: Ruhser 635; Fischer 190; Nontelle 1842,825; Farringer 16; WIS: Hartley 1828; Peterson 160.

Potamogeton epihydrus Raf. Pondweed.

WIS: Peterson 314.

Potamogeton foliosus Raf. Leafy Pondweed.

WISL: Justinger 22 Sep 1971; Christianson 33; Merz 13; Nontelle 812,801; WIS: Hartley 1358,2683.

Potamogeton natans L. Common Pondweed.

WIS: Peterson 178.

Potamogeton nodosus Poir. Long-leaved Pondweed.

WISL: Farringer 50; Sohmer 2515; Nontelle 800,832; WIS: Hartley 5698; Peterson 165.

Potamogeton pectinatus L. Comb Pondweed.

WISL: Christianson 7; Hartley 1823; Merz 132; Justinger

22 Sep 1971; Nontelle 1839,820; WIS: Peterson 159.

Potamogeton pusillus L. Small Pondweed.

WISL: Hartley 1826.

Potamogeton richardsonii (Ar. Benn.) Rydb. Red-head Pondweed.

WISL: Hartley 1829; Nontelle 827; WIS: Peterson 198.

Potamogeton vaseyi Robbins Pondweed.

WIS: Hartley 1831.

Potamogeton zosteriformis Fern. Flat-stem Pondweed.

WISL: Hartley 1825; Fischer 188; Nontelle 1838,773; WIS:
Peterson 161.

ZANNICHELLIACEAE (Horned-pondweed Family)

Zannichellia palustris L. Horned Pondweed.

WIS: Hartley 16 Jul 1968, 2825; Peterson 2.

SUBCLASS COMMELINIDAE

COMMELINACEAE (Spiderwort Family)

Commelina communis L. Dayflower.

WISL: Fleischmann 10 Sep 1963; Nontelle 361,1863,2542,
2815; WIS: Peterson 547; Hartley 1054.

Tradescantia bracteata Small Spiderwort.

WISL: Sohmer 2487,2486; Hoyer 20 May 1971; Nontelle 450.

Tradescantia ohioensis Raf. Spiderwort.

WISL: Nontelle 320,321,2723,2125,2385,1284,1883,1708,
1619,1598,1497,1251; WIS: Hartley 460; Iltis 5918; Fassett
5107.

JUNCACEAE (Rush Family)

Juncus brevicaudatus (Engelm.) Fern. Rush.

WIS: Hartley 6168.

Juncus effusus L. Soft Rush.

WISL: Justinger 11 Sep 1971; Christianson 38; Cary 16 Sep 1971; Nontelle 2522,2227,2226,1817,1816,671,814; WIS: Fassett 5089; Hartley 2119; Hauser 605.

Juncus greenei Oakes & Tuckerm. Greene's Rush.

WIS: Hartley 1350,6177; Fassett 5071.

Juncus interior Wieg, Rush.

WISL: Nontelle 785.

Juncus nodosus L. Joint Rush.

WISL: Nontelle 1812; WIS: Hartley 797.

Juncus tenuis Willd. Path Rush.

WISL: Hartley 654; Nontelle 624,507,529,1698,1738,399;
WIS: Fassett 5083; Hartley 4648,806; Iltis 5913.

Luzula acuminata Raf. Woodrush.

WISL: Hoyer 19 May 1971; WIS: Hartley 762.

Luzula campestris (L.) DC. Woodsrush.

WISL: Hartley 274; WIS: Hartley 3495,194.

CYPERACEAE (Sedge Family)

Bulbostylis capillaris (L.) C. B. Clarke Hair Sedge.

WIS: Peterson 24; Hartley 2304.

Carex abdita Bickn. Hidden Sedge.

WISL: Hartley 421; WIS: Hartley 9155.

Carex alopecoidea Tuckerm. Foxtail Sedge.

WISL: Nontelle 2092,2102.

Carex amphibola Steud. Gray Sedge.

WIS: Hartley 965; Iltis 5972.

Carex annectens Bickn. Sedge.

WIS: Fassett 7164; Peterson 670; Hartley 892.

Carex backii Boott Sedge.

WIS: Hartley 9140,554,6762; Iltis 5980.

Carex bebbii Olney Bebb's Sedge.

WISL: Sohmer 2348; Nontelle 783; WIS: Peterson 22; Hartley 782.

Carex bicknellii Britt. Bicknell's Sedge.

WISL: Nontelle 1999,1685,1716; WIS: Hartley 1500.

Carex brevior (Dew.) Mackenz. Sedge.

WISL: Nontelle 362,1938,1264,1315,1433,1660,1724,433;

WIS: Peterson 35; Hartley 635; Iltis 5938.

Carex bromoides Schk. Sedge.

WIS: Hartley 551,198; Iltis 5994.

Carex brunnescens (Pers.) Poir. Sedge.

WISL: Spoor 22 Jun 1968.

Carex careyana Torr. Sedge.

WIS: Hartley 6766; Peterson 675.

Carex canescens L. Sedge.

WISL: Nontelle 1099,1156,325.

Carex cephalantha (Bailey) Bickn. Sedge.

WIS: Hartley 1409.

Carex cephaloidea Dew. Sedge.

WIS: Peterson 11; Iltis 5973.

Carex cephalophora Muhl. Woodbank Sedge.

WISL: Nontelle 1722,558,1261,1256,1491; WIS: Hartley 1229;
Peterson 18.

Carex comosa Boott Sedge.

WIS: Hartley 2807.

Carex conidea Schk. Field Sedge.

WISL: Nontelle 1024,171.

Carex convoluta Mackenz. Star Sedge.

WIS: Peterson 738; Hartley 828.

Carex crinita Lam. Sedge.

WIS: Hartley 942.

Carex cristatella Britt. Crested Sedge.

WISL: Hartley 970.

Carex cumulata (Bailey) Mackenz. Sedge.

WIS: Hartley 6175.

Carex davisii Schwin. & Torr. Davis' Sedge.

WIS: Hartley 966.

Carex debilis Michx. Sedge.

WIS: Hartley 2331.

Carex diandra Schrank Panicked Sedge.

WIS: Peterson 702.

Carex disperma Dew. Two-seeded Sedge.

WISL: Sohmer 1665; WIS: Iltis 5859; Hartley 1064.

Carex eburnea Boott Sedge.

WIS: Hartley 3020; Peterson 736.

Carex emoryi Dew. Emory's Sedge.

WIS: Hartley 306.

Carex foenea Willd. Hay Sedge.

WIS: Peterson 733.

Carex gracillima Schwein. Sedge.

WISL Nontelle 1133; WIS: Peterson 6.

Carex gracilescens Steud. Sedge.

WIS: Hartley 1065.

Carex granularis Muhl. Meadow Sedge.

WIS: Hartley 6779.

Carex gravida Bailey Sedge.

WISL: Nontelle 1371,1501; WIS: Hartley 239.

Carex grisea Wahl. Sedge.

WISL: Nontelle 1345.

Carex haydenii Dew. Hayden's Sedge.

WIS: Hartley 941.

Carex hystericina Muhl. Bottlebrush Sedge.

WISL: Hartley 1061; Sohmer 1992; WIS: Peterson 422,20;
Hartley 621.

Carex interior Bailey Inland Sedge.

WIS: Peterson 741; Hartley 279; Iltis 5868.

Carex intumescens Rudge Sedge.

WISL: Farringer 9.

Carex jamesii Schwein. Sedge.

WIS: Hartley 6774.

Carex lacustris Willd. Lake Sedge.

WIS: Hartley 1410.

Carex laeviconida Dew. Sedge.

WIS: Peterson 697; Hartley 310; Crosswhite 2381.

Carex langinosa Michx. Woolly Sedge.

WIS: Hartley 493.

Carex leptalea Wahl. Delicate Sedge.

WIS: Hartley 280.

Carex lupulina Muhl. Hop Sedge.

WISL: Nontelle 2928.

Carex lurida Wahlenb. Sedge.

WIS: Hartley 2420,4669,2238.

Carex meadii Dew. Mead's Sedge.

WIS: Peterson 31.

Carex muhlenbergii Schk. Sand Sedge.

WISL: Nontelle 1942,658,697; WIS: Peterson 36; Hartley 708; Iltis 5903.

Carex muskingumensis Schw. Sedge.

WISL: Nontelle 1012; WIS: Peterson 581.

Carex normalis Mackenz. Sedge.

WISL: Spoor 22 Jul 1968; Nontelle 1553,1419; WIS: Peterson 26,19; Hartley 986.

Carex oliocarpa Schk. Sedge.

WISL: Nontelle 3148,1035.

Carex pennsylvanica Lam. Early Sedge.

WISL: Lorenz 12 May 1962; Johnson 20; Drecktrah 4 May 1960; Marcou 21 Apr 1962; Nontelle 105,79,74,75,927,127,3149,916,994,883,877,863,326,1028; WIS: Iltis 5924; Thomson 19 Apr 1937; Peterson 727; Hartley 205.

Carex plantaginea Lam. Sedge.

WISL: Brown 26 Apr 1969; Kretschmann 3 May 1972; Fadness 4 May 1060; Hill 3 May 1961; Nontelle 846.

Carex rosea Schk. Sedge.

WISL: Sohmer 2534,2535,2536; WIS: Harper 6 May 1963; Iltis 5957.

Carex rostrata Stokes Beaked Sedge.

WIS: Hartley 720.

Carex scabrata Schwein. Sedge.

WIS: Hartley 760.

Carex scoparia Schk. Broom Sedge.

WISL: Hartley 2300; WIS: Peterson 24, 724; Hartley 533,
1340; Iltis 5925.

Carex spicata Huds. Sedge.

WISL: Nontelle 862,1186,1221.

Carex sparganioides Muhl. Bur Sedge.

WIS: Peterson 9; Hartley 757.

Carex sprengelii Dew. Long-beaked Sedge.

WISL: Nontelle 971; WIS: Hartley 202.

Carex stipata Muhl Awl Sedge.

WISL: Sohmer 2000; Nontelle 1189; WIS: Hauser 426;
Peterson 8; Hartley 272.

Carex straminea Willd. Sedge.

WIS: Hartley 4663.

Carex stricta Lam. Hassock Sedge.

WISL: Sohmer 11 May 1968; Nontelle 1076,150; WIS: Iltis
5925; Hartley 497.

Carex tenera Dew. Sedge.

WIS: Crosswhite 2380; Hartley 539.

Carex tonsa (Fern.) Bickn. Sedge.

WISL: Hartley 189.

Carex tribuloides Wahl. Blunt Broomsedge.

WISL: Sohmer 1994; Hartley 1220; Nontelle 696,626; WIS:
Peterson 23; Hartley 967, 1336.

Carex tuckermani Boott Sedge.

WIS: Peterson 182.

Carex typhina Michx. Sedge.

WISL: Nontelle 2927; WIS: Hartley 920,2052; Peterson 15,
337,502.

Carex umbellata Schk. Sedge.

WIS: Peterson 743; Iltis 5922; Hartley 189.

Carex vesicaria L. Inflated Sedge.

WIS: Peterson 658,23; Hartley 928.

Carex vulpinoidea Michx. Fox Sedge.

WISL: Sohmer 2382; Nontelle 1413,1386,1654,1798,474; WIS:
Peterson 7; Hartley 685; Hauser 427.

Carex woodii Dew.

WIS: Harper 6 May 1962; Peterson 739,14.

Cyperus diandrus Torr. Strand Cyperus.

WIS: Jones 22 Oct 1948.

Cyperus erythrorhizos Muhl.

WISL: Merz 54; WIS: Peterson 627; Jones 22 Oct 1948.

Cyperus esculentus L. Yellow Nutgrass.

WISL: Mauuye 15 Nov 1963; Hamilton 10 Nov 1963; Farringer
3; Sohmer 5089; Nontelle 771,2767,3033,2313,2312,766; WIS:
Jones 23 Oct 1948; Fassett 7624,7619,7627; Peterson 589,349,
Hartley 1363.

Cyperus filiculmis Vahl. Galingale.

WISL: Sohmer 2798; Nontelle 607,650,2193,1877; WIS: Fassett

14795; Sohmer 2797; Crosswhite 2477; Peterson 588.

Cyperus inflexus Muhl.

WIS: Peterson 633; Jones 22 Aug 1931.

Cyperus rivularis Kunth Brook Sedge.

WIS: Hartley 2218; Peterson 612, 628.

Cyperus schweinitzii Torr. Schweinitz' umbrella sedge.

WISL: Spoor 19 Nov 1968; Hartley 3035; Nontelle 576,458,

714,2135,2112,2429,633,1847,1944,657,510,2506,3132,3036;

WIS: Fassett 7757,16202; Jones 22 Aug 1948; Hartley 634.

Cyperus strigosus L. Straw Cyperus.

WISL: Cary 20 Nov 1971; Raith 16 Nov 1963; Justinger 16

Oct 1971; Nontelle 2913,2405,2404,784,789; WIS: Hauser

605; Hartley 2310; Peterson 624.

Dulichium arundinaceum (L.) Britt. Three-way Sedge.

WIS: Hartley 1333.

Eleocharis acicularis (L.) R. & S. Needle Spikerush.

WISL: Sohmer 2801; WIS: Hartley 17767,1124.

Eleocharis calva Torr. Spikerush.

WISL: Spoor 15 Jul 1968; Sohmer 1998; Nontelle 1804,1808;

WIS: Hartley 1343,791; Fassett 4318.

Eleocharis palustris (L.) R. & S. Spikerush.

WIS: Hartley 1347.

Eriophorum virginicum L. Tawny Cotton-grass.

WIS: Hartley 2337.

Hemicarpha micrantha (Vahl.) Britt.

WIS: Fassett 4331; Peterson 635.

Rynchospora capillacea Torr. Beak Rush.

WIS: Hartley 4649; 2351.

Scirpus atrovirens Willd. Dark-green Bulrush.

WISL: Hartley 1928; Sohmer 2350; Nontelle 794,2087,1815,
1796,1797,2222,2223,2224,2225,1671; WIS: Peterson 338,
647,379; Fassett 4338; Hauser 429; Hartley 1949.

Scirpus cyperinus (L.) Kunth Woolgrass.

WISL: Hartley 1381; Nontelle 803,3114,728,2520,2519,2218,
2219; WIS: Peterson 341,2508; Hanson 607; Hartley 2338.

Scirpus fluviatilis (Torr.) Gray River Bulrush.

WIS: Hartley 1661.

Scirpus pedicellatus Fern.

WIS: Peterson 590,546; Hartley 1341.

Scirpus rubrotinctus Fern.

WISL: Nontelle 1813,1814.

Scirpus validus Vahl. Great Blurush.

WISL: Spoor 15 Jul 1968; Bills 22 Nov 1971; Sohmer 1988;
Nontelle 769,815,1799,1803; WIS: Peterson 398; Hartley
1378.

Scleria triglomerata Michx. Nut-rush.

WIS: Hartley 2349.

GRAMINEAE (Grass Family)

Agropyron desertorum (Fisch.) Schult

WIS: Hartley 996.

Agropyron repens (L.) Beauv. Quackgrass.

WISL: Hartley 955; Nontelle 566,1665,700,431,605,694,560,
546,676,1532,1398,1241,1286,1293,1941,1663,3021,2981,3142;
WIS: Hartley 844,1686.

Agrostis hyemalis (Walt.) BSP. Tickle Grass.

WISL: Nontelle 651,1907; WIS: Hartley 667,1020.

Agrostis perennans (Walt.) Tuckerm. Upland Bent.

WIS: Hartley 2063.

Agrostis scabra Willd. Hairgrass.

WIS: Hartley 1699; Fassett 5127,5125; Pammel Jul 1883;
Peterson 21.

Agrostis stolonifera L.

WISL: Nontelle 562,517,509,404,1531,1408,1657.

Andropogon gerardi Vitman Big Bluestem.

WISL: Nontelle 706,2895,3091,2711,2933,2492,2507,2567,
2182,2146,2557,2386; WIS: Thomson 1 Sep 1939; Jones
22 Aug 1948.

Andropogon scoparius Michx. Little Bluestem.

WISL: Mauuye 16 Nov 1963; Nontelle 2101,2346,2382; WIS:
Hartley 2777; Thomson 1 Sep 1937, 30 Aug 1937, 31 Aug
1937.

Aristida basiramea Engelm. Triple-awned Grass.

WISL: Hartley 2978; WIS: Hartley 6178, 2530,2313; Jones
22 Aug 1948; Peterson 19.

Aristida intermedia Scribn. & Ball

WIS: Fassett 5136.

Aristida oligantha Michx.

WIS: Hartley 2781.

Aristida purpurascens Poir.

WIS: Hartley 8331.

Aristida tuberculosa Nutt.

WIS: Hartley 2847,2977; Fassett 5135,16376; Peterson 248, 304; Jones 22 Aug 1948.

Avena sativa L. Oats.

WISL: Ruhser 518; Nontelle 2273,1823,2772.

Bouteloua curtipendula (Michx.) Torr. Tall Gramma-grass.

WIS: Thomson 1 Sep 1937, 3 Aug 1937, 30 Aug 1937, 31 Aug 1937; Peterson 561; Hartley 1402.

Bouteloua hirsuta Lag.

WISL: Nontelle 2194,2195; WIS: Hartley 2652; Thomson 19 Apr 1937, 30 Aug 1937, 1 Nov 1937; Pammel Aug 1883; Peterson 329; Fassett 5059.

Brachyelytrum erectum (Schreb.) Beauv. Woodgrass.

WIS: Hartley 1595.

Bromus ciliatus L. Fringed Brome.

WISL: Nontelle 538.

Bromus erectus Huds

WISL: Nontelle 524,1564,1667.

Bromus inermis Leyss. Smooth Brome.

WISL: Hartley 642; Nontelle 430,537,643,564,492,402,324, 3071,1291,1259,1263,1534,1859,2505,2952,727,2130,1900, 1666,1403,1407; WIS: Peterson 442,27; Hartley 458; Jones 22 Aug 1948.

Bromus japonicus Thunb. Japanese Brome.

WISL: Nontelle 569,330,1668.

Bromus kalmii Gray Prairie Brome.

WISL: Nontelle 2161.

Bromus purgans L. Woodland Brome.

WISL: Nontelle 2595.

Bromus tectorum L. Downy Brome.

WISL: Sohmer 1587,1588,1589; Nontelle 460,186,259,1120,
1295,1265,1246,2979,2710; WIS: Hartley 302, 1653.

Buchloe dactyloides (Nutt.) Engelm. Buffalo-grass.

WIS: Hartley 2 Oct 1956.

Calamagrostis canadensis (Michx.) Nutt. Bluejoint.

WISL: Hartley 1338; WIS: Hartley 723; Pammel Jul 1887.

Calamovifa longifolia (Hook.) Scribn.

WIS: Hartley 1992.

Cenchrus longispinus (Hack.) Fern. Sandbur.

WISL: Fleischmann 2 Oct 1963; Sohmer 2463; Nontelle 712,3097,
3123,2947,2934,2309,2188,1845,736; WIS: Fassett 5319;
Hartley 1588; Cull 26 Aug 1945.

Cinna arundinacea L. Woodreed.

WISL: Nontelle 2926; WIS: Hartley 2060,3120.

Dactylis glomerata L. Orchard Grass.

WISL: Nontelle 563,327,304,224,225,397,401,1576,1502,
1506,1522,1403,1388,2769,1624; WIS: Hartley 459.

Danthonia spicata (L.) Beauv. Poverty Grass.

WIS: Hartley 4692,893.

Digitaria ischaemum (Schreb.) Muhl. Crabgrass.

WISL: Nontelle 2304,753; WIS: Hartley 2980.

Digitaria sanguinalis (L.) Scop. Crabgrass.

WISL: Nontelle 3067,2994,2949,2093; WIS: Crosswhite 2373;
Hartley 1971; Fassett 5166.

Echinochloa crusgalli (L.) Beauv. Barnyard Grass.

WISL: Nontelle 2032,2654,2828,2790,2761,2736; WIS:
Hartley 1372; Fassett 16364.

Echinochloa muricata (Michx.) Fern. Barnyard Grass.

WISL: Hartley 2806; Farringer 8; Sohmer 5087; Nontelle
791,792,817,774,775,730,2911,2983,2306,2097,3130,2398,
2766,2770; WIS: Fassett 5297; Hartley 1656.

Echinochloa walteri (Pursh.) Nash.

WISL: Nontelle 2239,2311; WIS: Hartley 2841.

Elymus canadensis L. Wild Rye.

WISL: Fleischmann 16 Nov 1963; Hartley 2157; Nontelle
709,679,2968,2937,2384,610,2504,2185,2555,723,2872;
WIS: Hartley 1218; Fassett 4311; Jones 22 Aug 1948.

Elymus villosus Muhl. Silky Wild Rye.

WISL: Nontelle 2985; WIS: Hartley 1205.

Elymus virginicus L. Virginia Wild Rye.

WISL: Nontelle 708,3113,2902,1947; WIS: Hartley 2492.

Eragrostis cilianensis (All.) Lut. Stink Grass.

WISL: Nontelle 2648,2940.

Eragrostis frankii C. A. Mey. Sandbar Lovegrass.

WIS: Hartley 2719,8959.

Eragrostis hypnoides (Lam.) BSP. Creeping Lovegrass.

WIS: Hartley 1366; Peterson 622.

Eragrostis megastachya (Koel.) Link Stink Grass.

WIS: Pammel Jul 1883; Jones 23 Aug 1948; Hartley 1651;
Peterson 355.

Eragrostis pectinacea (Michx.) Nees. Small Lovegrass.

WISL: Hartley 1599; Sohmer 5122; Nontelle 674,2912;

WIS: Peterson 357,632; Hartley 1198,5708; Cull 23 Oct
1945; Jones 23 Aug 1948; Fassett 4176.

Eragrostis poaeoides Beauv. Low Lovegrass.

WIS: Shinnars 2823.

Eragrostis spectabilis (Pursh) Steud. Purple Lovegrass.

WISL: Fleischmann 2 Oct 1963; Hartley 2390; Nontelle
3014,724; WIS: Jones 22 Aug 1948; Hartley 1730.

Festuca elatior L. Meadow Fescue.

WISL: Nontelle 568,2860; WIS: Hartley 775.

Festuca obtusa Biehler Nodding Fescue.

WISL: Nontelle 1765,1766; WIS: Peterson 726,28; Hartley
684.

Festuca octoflora Walt. Fescue.

WIS: Hartley 192,324; Pammel Jun 1883; Fassett 4156.

Festuca ovina L.

WISL: Nontelle 518.

Festuca rubra L.

WIS: Hartley 4651.

Festuca saximontana Rydb.

WISL: Nontelle 588,389; WIS: Hartley 4710.

Glyceria canadensis (Michx.) Trin. Rattlesnake Grass.

WIS: Hartley 1705.

Glyceria grandis S. Wats. Reed-meadow Grass.

WISL: Nontelle 758,1806,1807,732,733,1675; WIS: Hartley
2090,776.

Glyceria striata (Lam.) Hitchc. Fowl-meadow Grass.

WIS: Hartley 627,454,772; Pammel June 1883; Iltis 5824;
Peterson 30.

Hordeum jubatum L. Squirreltail Grass.

WISL: Nontelle 329,526,2381,1876,1793,1301; WIS: Hartley
1204.

Hystrix patula Moench. Bottlebrush Grass.

WISL: Nontelle 1753,1979; WIS: Pammel Jul 1883; Hartley
1206; Peterson 556.

Koeleria cristata (L.) Pers. Junegrass.

WISL: Hartley 614; Nontelle 667,646,1222,1223,1998,1255,
1239,1300; WIS: Pammel Jul 1883; Iltis 5923.

Leersia lenticularis Michx. Catchfly Grass.

WIS: Hartley 2499.

Leersia oryzoides (L.) Sw. Rice Cutgrass.

WISL: Justinger 11 Nov 1971; Nontelle 793,833,2393; WIS:
Hartley 2168.

Leersia virginica Willd. Whitegrass.

WIS: Hartley 2388.

Leptoloma cognatum (Schultes) Chase Fall Witchgrass.

WISL: Hartley 2756; Nontelle 1982,2972,2114; WIS: Cross-
white 2379; Hartley 2756.

Lolium multiflorum Lam. Italian Rye-grass.

WISL: Nontelle 2771; WIS: Hartley 1231; Moe 26 Sep 1970.

Milium effusum L. Millet-grass.

WISL: Nontelle 3039; WIS: Hartley 767.

Muhlenbergia cuspidata (Nutt.) Rydb. Muhly.

WIS: Thomson 1 Sep 1937; Fassett 2156.

Muhlenbergia frondosa (Poir.) Fern. Muhly.

WISL: Nontelle 3060,2618,2196,2667; WIS: Hartley 2387.

Muhlenbergia glomerata (Willd.) Trin.

WIS: Hartley 2428.

Muhlenbergia mexicana (L.) Trin. Muhly.

WIS: Hartley 3112.

Muhlenbergia racemosa (Michx.) BSP. Muhly.

WISL: Nontelle 2367,2368,3001,2896,2935; WIS: Pammel

Aug 1883; Peterson 661; Hartley 2517,3034.

Muhlenbergia schreberi Gmel. Nimblewill.

WIS: Hartley 3065.

Oryzopsis asperifolia Michx.

WIS: Hartley 6402.

Orzyopsis racemosa (Sm.) Ricker. Ricegrass.

WIS: Hartley 2204.

Panicum boreale Nash

WISL: Nontelle 1488.

Panicum capillare L. Witchgrass.

WISL: Hamilton 20 Sep 1963; Hartley 1973; Sohmer 5108;

Nontelle 772,3110,2887,2786,2632,2484,2267,2030; WIS:

Shinners 2822; Hartley 1973; Fassett 4191,16363.

Panicum commonsianum Ashe

WISL: Hartley 650.

Panicum depauperatum Muhl. Starved Panic Grass.

WISL: Nontelle 2751,2238,2408,2823; WIS: Peterson 654.

Panicum dichotomiflorum Michx. Fall Panic Grass.

WIS: Shinners 2821; Hartley 8332,2938.

Panicum latifolium L. Broad-leaved Panic Grass.

WISL: Sohmer 2084; Nontelle 1735,1736; WIS: Hartley 821.

Panicum leibergii (Vasey) Scribn. Prairie Panic Grass.

WISL: Nontelle 403.

Panicum meridionale Ashe

WISL: Hartley 1117.

Panicum miliaceum L.

WISL: Nontelle 698.

Panicum oligosanthos Schultes

WISL: Hartley 338; Raith 16 Sep 1963; Nontelle 438,
432,642,2889,1713,1659,1327,1281,1299; WIS: Fassett
5163.

Panicum perlongum Nash Long-stalked Panic Grass

WISL: Thorne 190.

Panicum virgatum L. Switchgrass.

WISL: Nontelle 692,711,2716,2192,2363; WIS: Hartley 2651;
Thomson 30 Aug 1937; Fassett 16359; Crosswhite 2368.

Paspalum ciliatifolium Michx.

WISL: Nontelle 670,623,2421,1874; WIS: Fassett 5165;
Hartley 1728; Jones 22 Aug 1948; Thomson 30 Aug 1937.

Phalaris arundinacea L. Reed Canary Grass.

WISL: Spoor 22 Jul 1968; Nontelle 710,778,779,639,613,
423,341,482,2936,3038,1303,2785,1856,1679,1661,1653,
1452,1402,1373; WIS: Hartley 357.

Phleum pratense L. Timothy.

WISL: Nontelle 580,693,520,557,604,1992,1888,1505,1454,
1387; WIS: Hartley 831.

Phragmites communis Trin. Reed Grass.

WISL: Ruhser 24 Sep 1971; Nontelle 3098,3099,818;

WIS: Hartley 1810.

Poa alsodes Gray

WIS: Hartley 208.

Poa annua L. Annual Bluegrass.

WISL: Nontelle 142; WIS: Hartley 313.

Poa compressa L. Canada Bluegrass.

WISL: Hartley 618; Nontelle 390,286,1326,1132,1296,

1278,1250,1516; WIS: Hartley 777,4657; Pammel Jul 1883.

Poa palustris L. Fowl Bluegrass.

WISL: Hartley 930; Nontelle 3122; WIS: Hartley 1075,

829.

Poa pratensis L. Kentucky Bluegrass.

WISL: Nontelle 1231,1238,1356,268,661,434,508,235,1440,

1392,1414,1082,1074,1014,934,1185; Hartley 774; WIS:

Hartley 332,256..

Poa sylvestris Gray

WIS: Hartley 732,6756.

Schizachne purpurascens (Torr.) Swallen

WIS: Hartley 6755.

Secale cereale L. Rye.

WISL: Nontelle 1353; WIS: Hartley 1024.

Setaria faberii Herrm. Giant Foxtail.

WIS: Nees 1132.

Setaria lutescens (Wiegel) F. T. Hubb

WISL: Nontelle 3138,2893,2611,2971,699,729,2774,2810,
2847,2402,2566,2276; WIS: Crosswhite 2372; Hartley 2170.

Setaria viridus (L.) Beauv. Green Foxtail.

WISL: Dix 8; Nontelle 466,2237,2108; WIS: Peterson 708.

Sorghastrum nutans (L.) Nash Indian Grass.

WISL: Mauuye 16 Sep 1963; Raith 16 Sep 1963; Wolley 23
Sep 1963; Krey 12 Sep 1962; Nontelle 2323,2471,2561;
WIS: Hartley 3033; Thomson 30 Aug 1937, 30 Sep 1937;
Fassett 5227.

Spartina pectinata Link Slough Grass.

WISL: Justinger 16 Oct 1971; Nontelle 705,707,835,
3094,2914,1962; WIS: Hartley 3277; Thomson 30 Aug 1937.

Sphenopholis intermedia (Rydb.) Rydb. Wedgegrass.

WISL: Nontelle 1494; WIS: Hartley 1074; Pammel Jul 1883;
Peterson 473.

Sporobolus cryptandrus (Torr.) Gray Sand Dropseed.

WISL: Hartley 2525; Nontelle 2418,2147; WIS: Fassett
5131; Hartley 4709,2365,2765.

Sporobolus heterolepis Gray Prairie Dropseed..

WIS: Fassett 17698; Jones 22 Aug 1948; Hartley 3047,
2649; Thomson 31 Aug 1937, 30 Aug 1937.

Sporobolus vaginiflorus (Torr.) Wood Poverty Grass.

WISL: Hartley 3040; WIS: Hartley 2782; Shinnars 2824.

Stipa spartea Trin. Porcupine Grass.

WIS: Hartley 358; Thomson 30 Aug 1937.

Triticum aestivum L. Wheat.

WISL: Nontelle 429.

Zizania aquatica L. Wild Rice.

WISL: Bills 22 Sep 1971; Cary 16 Sep 1971; Farringer 16
Sep 1971; WIS: Hartley 1690.

SPARGANIACEAE (Bur-reed Family)

Sparganium americanum Nutt. Bur-reed.

WIS: Hartley 1351.

Sparganium eurycarpum Engelm. Common Bur-reed.

WISL: Crook 166; Albrecht 17 Sep 1971; Sohmer 1990;
Nontelle 813; WIS: Peterson 498,138; Hartley 1350.

TYPHACEAE (cattail Family)

Typha latifolia L. Common Cat-tail.

WISL: Cary 16 Sep 1971; Nontelle 2163,2523,2105,1963,
786; WIS: Hartley 1352; Hauser 413.

SUBCLASS ARECIDAE

ARACEAE (Arum Family)

Acorus calamus L. Sweetflag.

WISL: Christianson 14; Cary 16 Sep 1971; Ruhser 17 Sep 1971;
Nontelle 2524,1525,816; WIS: Hartley 1412.

Arisaema dracontium (L.) Schott. Green Dragon.

WISL: Christianson 41; WIS: Peterson 37,459.

Arisaema triphyllum (L.) Schott. Jack-in-the-pulpit.

WISL: Lierscher 7 May 1966; Hoyer 23 May 1971; Temp
10 May 1959; Laurent 18 May 1965; Fish 31 May 1959;
Haggerty 6 May 1969; Brown 13 May 1969; Melvin 14 May
1958; Johnson 61; Nontelle 1612,998,923,237,161,162,163.

Calla palustris L. Wild Calla.

WIS: Hauser 10 June 1930.

Symplocarpus foetidus (L.) Skunk Cabbage.

WISL: Lange 5 May 1971; Brendel 27 Apr 1971; Lenser
 22 Apr 1971; Dion 26 Apr 1969; Sterba 24 Apr 1967;
 Peterson 30 Apr 41967; Davies 2 May 1966; Carl 29 Apr
 1961; Lierscher 13; Valiquette 13; Lorenz 29 Apr 1966;
 Nontelle 136; WIS: Beaty 24 Apr 1972; Fassett 13402;
 Iltis 5870.

LEMNACEAE (Duckweed Family)

Lemna minor L. Small Duckweed.

WISL: Nontelle 1843, 632, 829.

Spirodela polyrhiza (L.) Schleid. Water-flaxseed.

WISL: Nontelle 1844.

Wolffia columbiana Karst Water-meal.

WISL: Nontelle 1841.

SUBCLASS LILIIDAE

PONTEDERIACEAE (pickerelweed Family)

Heteranthera dubia (Jacq.) MacM. Water Stargrass.

WIS: Hartley 1818; Peterson 1 Aug 1954; Jones 22 Aug
 9148.

Pontederia cordata L. Pickerelweed.

WIS: Peterson 324; Hartley 1345.

LILIACEAE (Lily Family)

Aletris farinosa L. Unicorn Root.

WIS: Hartley 2348.

Allium cernuum Roth Wild Onion.

WISL: Fish 18 May 1959; Kunkel 18 May 1959.

Allium tricoccum Ait. Wild Leek.

WISL: Brendel 9 May 1971; Pierce 24 May 1959; Kunkel 15
 May 1959.

Asparagus officinalis L. Asparagus.

WISL: Van Vleet 20 May 1968; Stellick 18 May 1959;
James 8 May 1958; Kujak 8 May 1958; Sohmer 1977; Nontelle
179,221,265,3089,2725,2575,2269,1852,1335,2784,1103; WIS:
Hartley 319.

Erythronium albidum Nutt. Trout-lily.

WISL: Brown 2 May 1969; Murphy 27 Spr 1962; Temp 12 May
1959; Johnson 13 May 1959; Fish 14 May 1959; Kujak 14
May 1958; Puent 17 May 1958; WIS: Peterson 426,85;
Hartley 30.

Erythronium americanum Ker. Yellow Adder's-tongue.

WISL: Lenser 22 Apr 1971; Brendel 4 May 1971; Brown
26 Apr 1969; Caflisch 18 May 1959; Biehn 18 May 1959
Temp 12 May 1959; WIS: Peterson 672.

Hemerocallis fulva L. Day Lily.

WISL: Nontelle 1829; WIS: Hartley 1108.

Lilium michiganense Farw. Michigan Lily.

WISL: Hudec 13 Jul 1960; Nontelle 1956,1957,1965; WIS:
Hartley 1012; Iltis 5989.

Lilium philadelphicum L. Wood Lily.

WIS: Taylor 4 Jul 1932.

Lilium tigrinum Ker Tiger-lily.

WISL: Sohmer 2733.

Maianthemum canadense Desf. Wild Lily-of-the-valley.

WISL: Deresznski 23 May 1962; Barr 23 May 1962;
Ludwig 16 May 1962; Jacoby 16 May 1971; Boese 20 May
1966; Murphy 18 May 1962; Brendel 19 May 1971; Pfaff 20
May 1966; Peterson 21 May 1971; WIS: Iltis 5839; Hartley 220.

Polygonatum canaliculatum (Muhl.) Pursh. Solomon's Seal.

WISL: Sohmer 1984,1978; Hoyer 19 May 1971; Lenser 19 May 1971; Ludwig 16 May 1962; Fischer 67; Ruhser 409; Nontelle 180,181,238,236,96,257,1063,1229,1207,1240, 1145,1334,1498,1306,1627,2128,3037.

Polygonatum pubescens (Willd.) Pursh. Small Solomon's Seal.

WISL: Van Vleet 18 May 1958; Pierce 14 May 1959; Liegel 17 May 1959; Moe 24 May 1959; Fischer 88; Nontelle 995; WIS: Iltis 5851; Hartley 499,2711.

Smilacina racemosa (L.) Desf. False Spikenard.

WISL: Ludwig 16 May 1962; Dereszynski 23 May 1962; Johnson 74; Witt 15 May 1958; Horswill 23 May 1959; Fadness 14 May 1960; Raith 15 Sep 1963; Stellick 23 May 1959; Murphy 18 May 1962; Friell 13 May 1969; Moershel 23 May 1959; Nontelle 202,1991,2628,1347,1104, 2826,1462; Ruhser 371.

Smilacina stellata (L.) Desf. False Solomon's Seal.

WISL: Ziegler 23 May 1960; Connor 19 May 1962; Fuller 20 May 1958; Sohmer 11 May 1968; Liegel 17 May 1959; Moerschel 23 May 1959; Schnell 16 May 1959; Ruhser 361; Hoyer 19 May 1971; Brendel 21 May 1971; Moe 24 May 1959; Aiello 2; Hill 3 May 1967; Temp 8 May 1959; Van Vleet 20 May 1958; Ganschow 18 May 1959; Jackson 18 May 1959; Fish 17 May 1959; Kunkel 8 May 1959; Pierce 10 May 1959; Witt 15 May 1958; Johnson 68; Nontelle 1358,260,1218, 1091,1322,1252.

Trillium flexipes Raf. Declined Trillium.

WISL: Hornby 16 May 1958; WIS: Hartley 9220.

Trillium grandiflorum (Michx.) Salisb. Large-flowered Trillium.

WISL: Netwal 14 Apr 1965; Johnson 40; Fish 14 May 1959;
 Johann 14 May 1967; Fadness 4 May 1960; Hornby 14 May 1958;
 Caflisch 11 May 1959; Ziegler 9 May 1960; Lange 5 May
 1971; Dix 21; Brendel 10 May 1971; WIS: Iltis 6002.

Uvularia grandiflora Sm. Bellwort.

WISL: Peterson 18 May 1971; Fish 6 May 1959; Ernst 20
 Apr 1969; Jacoby 16 May 1962; Ludwig 16 May 1962;
 Ziegler 9 May 1960; Lorenz 5 May 1966; Lonqueville 21
 May 1966; Puent 12 May 1958; Brendel 27 Apr 1971; Lange
 5 May 1971; Brown 2 May 1969; Johnson 14 May 1959; Hornby
 14 May 1958; Becwar 1 May 1969; Ruhser 385; Nontelle 92,
 26,27,160,2531,1102,1138,880,890,1044,920,936.

Uvularia sessilifolia L. Wild-oats.

WISL: Fuller 10 May 1958; Johnson 79; Witt 15 May 1958;
 WIS: Hartley 913,73.

Zigadenus glaucus Nutt. White Camass, Alkali-grass.

WIS: Hauser 456; Fassett 18364; Hartley 1616.

AMARYLLIDACEAE (Amaryllis Family)

Hypoxis hirsuta (L.) Coville Yellow Stargrass.

WISL: Caflisch 21 May 1959; Stellick 23 May 1959; Moe
 23 May 1959; Johnson 73; Dereszynski 23 May 1962; Murphy
 18 May 1962; Drecktrah 28 May 1960; Temp 13 May 1959;
 Pierce 24 May 1959.

IRIDACEAE (Iris Family)

Belamcanda chinensis (L.) DC. Blackberry-lily.

WISL: Nontelle 2103,2104.

Iris versicolor L. Blue Flag.

WIS: Hansen 448; Hartley 949.

Sisyrinchium campestre Bickn. Blue-eyed Grass.

WISL: Melvin 14 May 1958; Stellick 23 May 1959; Moerschel 16 May 1959; Schroeder 24 May 1938; Moe 24 May 1959; Lenser 19 May 1971; Hellwig 19 May 1971; Ernst 4 May 1969; Harvey 4 May 1969; Peterson 18 May 1971; Puent 12 May 1958; Pierce 11 May 1959; Johnson 83; Dereszynski 21 May 1962; Biehn 29 May 1959; Brandvold 16 May 1961; Ziegler 23 May 1960; Fish 17 May 1959; Nontelle 222,223, 276,277,1005,1081; WIS: Peterson 27; Hartley 228,3499; Hansen 126,127; Curtis 16 Jun 1952; Peterson 732.

SMILACACEAE (Greenbrier Family)

Smilax ecirrhata (Engelm.) Upright Carrion Flower.

WISL: Fadness 16 May 1960; Van Vleet 20 May 1958; Pierce 24 May 1959.

Smilax herbacea L. Carrion Flower.

WISL: Ganschow 18 May 1959; Kunkel 15 May 1959; Nontelle 386,3090,1349,1308,2867,2469; WIS: Iltis 5985.

Smilax hispida Muhl. Greenbriar.

WIS: Iltis 5959; Hartley 1017.

DIOSCOREACEAE (Yam Family)

Dioscorea villosa L. Wild Yam.

WISL: Ruhser 471; Nontelle 201,385,1492,1375,1150,1974; WIS: Peterson 174; Marks 23 Jun 1939; Fassett 12444; Hartley 929.

ORCHIDACEAE (Orchis Family)

Calopogon pulchellus (Salisb.) R. Br. Grass Pink.

WIS: Hartley 4676.

Cypripedium calceolus L. Yellow Lady's-slipper.

WISL: Wildt 23 May 1959; Pierce 23 May 1959; Treder
19 May 1961; Brandvold 13 May 1969; Brown 13 May 1969;
Smith 29 May 1959; Moe 24 May 1959; WIS: Hartley 492,
275; Kluver 25 May 1889; Miles Jul 1894.

Cypripedium reginae Walt. Showy Lady's-slipper.

WIS: Hartley 672; Hansen 439; Iltis 5855.

Goodyera pubescens (Willd.) R. Br. Rattlesnake-plantain.

WISL: Ulvestad 13 May 1972.

Habenaria dilata (Pursh) Hook Leafy White Orchis.

WIS: Hansen 420.

Habenaria flava (L.) R. Br. Pale Green Orchis.

Habenaria hyperborea (L.) R. Br. Leafy Northern Green Orchis.

WIS: Hansen 530.

Habenaria lacera (Michx.) Lodd. Ragged Orchis.

WIS: Hartley 4677.

Liparis lilifolia (L.) Richard Purple Twayblade.

WIS: Hartley 2047.

Orchis spectabilis L. Showy Orchis.

WISL: Hoyer 22 May 1971; Brenzel 17 May 1971; Nontelle 1131,
3161; WIS: Hartley 738.

Spiranthes cernua (L.) Richard Ladies' Tresses.

WIS: Hartley 3185,3068.

STATISTICAL SUMMARY

I. Major components of the flora of La Crosse County:

Major Groups	Families	Species
Pteridophytes	7	37
Gymnosperms	3	9
Monocotyledons	21	300
Dicotyledons	89	604
Total	120	950

II. Largest families with number of species in each:

Compositae -----114	Cruciferae -----28
Gramineae -----108	Ranunculaceae -----22
Cyperaceae -----93	Polygonaceae -----21
Leguminosae -----39	Labiatae -----20
Rosaceae -----28	Polypodiaceae -----19

III. Largest genera with number of species in each:

Carex -----70	Viola -----14
Aster -----18	Panicum -----12
Polygonum -----14	Solidago -----12
Salix -----14	Potamogeton -----11

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INDEX TO FAMILIES

ACERACEAE -----	60	CERATOPHYLLACEAE -----	21
AIZOACEAE -----	32	CHENOPODIACEAE -----	34
ALISMATACEAE -----	92	CISTACEAE -----	40
AMARANTHACEAE -----	35	COMMELINACEAE -----	94
AMARYLLIDACEAE -----	118	COMPOSITAE -----	78
ANACARDIACEAE -----	61	CONVOLVULACEAE -----	67
APOCYNACEAE -----	65	CORNACEAE -----	57
AQUIFOLIACEAE -----	58	CRASSULACEAE -----	47
ARACEAE -----	114	CRUCIFERAE -----	43
ARALIACEAE -----	63	CUCURBITACEAE -----	40
ARISTOLOCHIACEAE -----	21	CUPRESSACEAE -----	19
ASCLEPIADACEAE -----	65	CUSCUTACEAE -----	67
AZOLLACEAE -----	18	CYPERACEAE -----	95
BALSAMINACEAE -----	62	DIOSCOREACEAE -----	119
BERBERIDACEAE -----	25	ELAEGNACEAE -----	57
BETULACEAE -----	31	EQUISETACEAE -----	15
BIGNONIACEAE -----	75	ERICACEAE -----	46
BORAGINACEAE -----	68	EUPHORBIACEAE -----	58
CACTACEAE -----	32	FAGACEAE -----	29
CAMPANULACEAE -----	75	FUMARIACEAE -----	26
CANNABINACEAE -----	28	GENTIANACEAE -----	64
CAPPARIDACEAE -----	43	GERANIACEAE -----	62
CAPRIFOLIACEAE -----	77	GRAMINEAE -----	103
CARYOPHYLLACEAE -----	32	GUTTIFERAE -----	37
CELASTRACEAE -----	58	HALORAGACEAE -----	56

HAMAMELIDACEAE	-----	27	ORCHIDACEAE	-----	119
HIPPOCASTANACEAE	-----	59	OROBANCHACEAE	-----	75
HYDROCHARITACEAE	-----	92	OSMUNDACEAE	-----	17
HYDROPHYLLACEAE	-----	68	OXALIDACEAE	-----	67
IRIDACEAE	-----	118	PAPAVERACEAE	-----	26
JUGLANDACEAE	-----	29	PHRYMACEAE	-----	70
JUNCACEAE	-----	94	PINACEAE	-----	19
LABIATAE	-----	70	PLANTAGINACEAE	-----	72
LEGUMINOSAE	-----	51	POLEMONIACEAE	-----	67
LEMNACEAE	-----	115	POLYGALACEAE	-----	62
LENTIBULARIACEAE	-----	75	POLYGONACEAE	-----	35
LILIACEAE	-----	115	POLYPODIACEAE	-----	17
LIMNANTHACEAE	-----	62	PONTEDERIACEAE	-----	115
LINACEAE	-----	62	PORTULACACEAE	-----	34
LYCOPODIACEAE	-----	15	POTAMOGETONACEAE	-----	93
LYTHRACEAE	-----	56	PRIMULACEAE	-----	47
MALVACEAE	-----	38	PYROLACEAE	-----	47
MENISPERMACEAE	-----	26	RANUNCULACEAE	-----	22
MORACEAE	-----	28	RHAMNACEAE	-----	59
MYRICACEAE	-----	29	ROSACEAE	-----	49
NAJADACEAE	-----	93	RUBIACEAE	-----	76
NELUMBONACEAE	-----	21	RUTACEAE	-----	61
NYCTAGINACEAE	-----	32	SALICACEAE	-----	41
NYMPHAEACEAE	-----	21	SANTALACEAE	-----	58
OLEACEAE	-----	73	SAXIFRAGACEAE	-----	47
ONAGRACEAE	-----	56	SCROPHULARIACEAE	-----	73
OPHIOGLOSSACEAE	-----	16	SELAGINELLACEAE	-----	15

SMILACACEAE	-----119
SOLANACEAE	----- 66
SPARGANIACEAE	-----114
TAXACEAE	----- 19
THYMELAEACEAE	----- 56
TILIACEAE	----- 38
TYPHACEAE	-----114
ULMACEAE	----- 27
UMBELLIFERAE	----- 63
URTICACEAE	----- 28
VERBENACEAE	----- 70
VIOLACEAE	----- 38
VITACEAE	----- 59
ZANNICHELLIACEAE	----- 94