

Floristic Quality Assessment for Minnesota Wetlands



Scott A. Milburn

Michael Bourdaghs

Jason J. Husveth



Minnesota Pollution Control Agency

Citation:

Milburn, S. A., M. Bourdaghs, and J. J. Husveth. Floristic Quality Assessment for Minnesota Wetlands.
Minnesota Pollution Control Agency, St. Paul, Minn.

Cover designed by Jason Husveth. Cover photos by Melissa Arikian (background) and Jason Husveth (close-ups of *Eriophorum vaginatum* var. *spissum*, *Carex retrorsa*, *Kalmia polifolia*, and *Nymphaea odorata*).

A limited number of printed copies are available. To obtain a free, printed copy of this publication, call (651) 297-5569 or email: jennifer.marah@pca.state.mn.us

To download an electronic copy of this publication go to:

www.pca.state.mn.us/water/biomonitoring/bio-wetlands.html

This publication was printed on recycled paper containing 30% post consumer product and can be made available in other formats including, Braille, large type, computer disk, or audiotape, upon request.

Floristic Quality Assessment for

Minnesota Wetlands

Scott A. Milburn

Critical Connections Ecological Services
14760 Oakhill Road
Scandia, MN 55073

Michael Bourdaghs

Environmental Analysis and Outcomes Division
Minnesota Pollution Control Agency
520 Lafayette Road N
Saint Paul, MN 55155

Jason J. Husveth

Critical Connections Ecological Services
14760 Oakhill Road
Scandia, MN 55073



**Minnesota Pollution
Control Agency**

May 2007

wq-bwm2-01

ACKNOWLEDGEMENTS

Primary funding for this project was provided by the U.S. Environmental Protection Agency through a Clean Water Act Section 104(b)(3) Wetland Program Development Grant (CD-96545401-1) awarded to the Minnesota Pollution Control Agency. Norm Aaseng produced a synonymy between the Integrated Taxonomic Information System nomenclature used in the project and the nomenclature used by the Minnesota Department of Natural Resources with assistance from Stacey Olszewski. Ron Wieland assisted with synonymy between the wetland species list and the nomenclature used in surrounding states. Kelsey Larson and Jed Chesnut contributed to the production of the county distribution maps. Doug Norris provided statutory insight and review. Copy editing and format consulting was performed by Sam Brungardt. Special thanks go to Anita Cholewa and the University of Minnesota Herbarium for access to the herbarium database. We would also like to thank Gerould Wilhelm and John Taft for providing insight into the methodology. Finally, very special thanks to Mark Gernes, who helped envision this project many years ago and provided much logistical and technical assistance along the way.

REVIEW PANEL

C-value review panel members volunteered their time on this project. Without their effort and expertise this work could have not been possible.

Ken Arndt - *Urban Forester*

William Bartodziej - *Natural Resource Specialist, Ramsey Washington Metro Watershed District*

Paul Bockenstedt - *Ecologist, Bonestroo, Rosene, Anderlik & Associates, Inc.*

Anita Cholewa - *Curator, University of Minnesota Herbarium, Bell Museum of Natural History*

Rolf M. Dahle

Otto Gockman

Rhett Johnson - *Adjunct Faculty, Department of Natural Resources, University of Minnesota Crookston*

Elizabeth Nixon - *Plant Ecologist, Emmons & Olivier Resources*

Ken Powell - *Permit Coordinator/Professional Wetland Scientist, Rice Creek Watershed District*

Gary Walton - *Botanist*

Scott C. Zager - *Plant Ecologist, Wildlands Ecological Services*

MINNESOTA DEPARTMENT OF NATURAL RESOURCES REVIEW

In addition to assistance with synonymy, staff from the County Biological Survey and Natural Heritage and Nongame Research Program at the Minnesota Department of Natural Resources provided C-value review through an interagency agreement with the Minnesota Pollution Control Agency. Carmen Converse, Supervisor of the County Biological Survey, facilitated this review.

Chel Anderson-Botanist/*Plant Ecologist*

Robert Dana-Prairie *Ecologist*

Lawson Gerdes-Northern *Coordinator/Ecologist*

Lynden Gerdes-Botanist/*Plant Ecologist*

Fred Harris-*Plant Ecologist*

Karen Myhre-Botanist

Welby Smith-Botanist



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
REVIEW PANEL.....	i
MINNESOTA DEPARTMENT OF NATURAL RESOURCES REVIEW	i
INTRODUCTION	1
<i>Coefficients of Conservatism</i>	2
<i>Floristic Quality Index</i>	3
METHODS	3
<i>Minnesota's Wetland Species</i>	3
<i>Development of Coefficient of Conservatism Values</i>	5
<i>Distribution Maps</i>	6
PERFORMING A FLORISTIC QUALITY ASSESSMENT.....	7
<i>Data</i>	7
<i>Index Calculations</i>	8
<i>Examples</i>	9
APPLICATION.....	11
<i>Performance of FQA</i>	11
<i>Potential Applications</i>	12
<i>Sampling Considerations</i>	13
<i>Community Type</i>	14
<i>Biogeography</i>	15
FUTURE EFFORTS	17
LITERATURE CITED.....	18
APPENDIX A: MINNESOTA'S WETLAND SPECIES.....	24
APPENDIX B: DISTRIBUTION ATLAS	56
APPENDIX C: SYNONYMY	137



INTRODUCTION

Wetlands are a prevalent feature across the Minnesota landscape, occupying an estimated 9.3 million acres (www.dnr.state.mn.us/wetlands/index.html). This area, however, represents approximately only half of the pre-European settlement wetland acreage in the state (Anderson and Craig 1984). The majority of the historical wetland losses were due to draining and filling activities undertaken to increase the economic productivity of the land. In addition to the loss of wetland acres, many remaining wetlands have been negatively impacted by anthropogenic stressors (human caused external forcing factors that cause change to wetlands; Rapport et al. 1985, Detenbeck et al. 1999) resulting in a degradation of wetland quality. Examples of anthropogenic stressors to wetlands include hydrologic alterations (Wilcox 1995), nutrient enrichment (Kadlec and Bevis 1990), and competition or displacement from exotic invasive species (Galatowitsch et al. 1999).

Recognition of the ecological importance of wetlands and loss of wetland acreage resulted in the no net loss policy initiated in the early 1990s at both the state and federal level. No net loss is enacted through a variety of mechanisms, such as Section 404 of the Federal Clean Water Act (CWA) and Minnesota's Wetland Conservation Act (WCA), that regulate drain and fill activities. On agricultural lands, no net loss is also implemented through the 'swampbuster' provisions in the Food Security Act (i.e., Federal Farm Bill) that deny federal crop subsidies to landowners who drain or fill otherwise exempted wetlands on working lands. While no net loss is often referred to only in terms of wetland quantity (acres), the policy also clearly includes wetland quality. For example, a goal of the WCA is to "achieve no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands" (Minn. S. 103A 201). The WCA further establishes the goal to increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands. Likewise, the CWA requires states to monitor and assess their surface waters to determine whether they are meeting water-quality standards and providing beneficial uses (Section 305). Wetlands, by definition, are waters of the state (Minn. R. Ch. 7050) and are thus subject to the same requirements under the CWA as lakes and streams. This has created a need for tools that can be used to assess the quality of Minnesota's wetlands.

Two types of wetland assessment grew out of this demand to measure wetland quality based primarily on programmatic needs: functional and condition assessment. In general, functional assessment measures the ability of a wetland to provide goods and services, such as flood attenuation or wildlife habitat; whereas, condition assessment measures the deviation of a wetland from its natural state. Typically, these two approaches to wetland quality assessment have been viewed as being unrelated or competing methodologies, but in fact rely on many of the same concepts and are likely complementary (Stevenson and Hauer 2002). The regulatory process in Minnesota requires that wetland functions and values be maintained in a permitted drain or fill activity. This includes a mitigation sequencing approach that may call for a functional assessment. Several tools are available for functional assessment in the state, most notably the Minnesota Routine Assessment Methodology (MnRAM; MN BWSR 2006), which was developed to support goals in the WCA. Conversely, the Minnesota Pollution Control Agency (MPCA) has been developing plant and invertebrate Indices of Biological Integrity (IBIs) for depressional marsh wetland condition assessment in support of CWA goals of protecting surface water-quality (Gernes and Helgen 2002, Genet and Bourdaghs 2006). Both the MnRAM and the IBIs are valuable tools for measuring wetland quality, but each has limitations. MnRAM provides information on wetland functions and values that does not necessarily correlate well with measurements of wetland



condition. The IBIs provide measures of wetland condition but are limited to a narrow wetland type.

Floristic Quality Assessment (FQA) is a tool that would serve to compliment these existing wetland assessment methods. FQA originated in an attempt to provide a uniform and repeatable method for assessing natural area quality of both uplands and wetlands in the Chicago region (Wilhelm 1977). Following refinement of concepts and methodology (Swink and Wilhelm 1994, Taft et al. 1997), the use of FQA rapidly expanded. To date, FQA has been developed in 10 states and one Canadian province: Illinois (Wilhelm 1977, Swink and Wilhelm 1994, Taft et al. 1997), Missouri (Ladd 1993), Ohio (Andreas and Lichvar 1995, Andreas et al. 2004), southern Ontario (Oldham et al. 1995), Michigan (Herman et al. 2001), North and South Dakota (NGPFQAP 2001), Wisconsin (Bernalth 2003), Indiana (Rothrock 2004), Florida (Cohen et al. 2004), and Mississippi (Herman et al. 2006). Because FQA has been shown in a number of studies to be a responsive and reliable indicator of wetland condition, it has potential to be useful in a variety of monitoring and assessment applications. We do not envision FQA as a replacement of existing wetland assessment methodologies or criteria, but rather present it as a tool that can be used to measure the quality of Minnesota's wetlands that current assessments do not cover.

Coefficients of Conservatism

The concept of individual species conservatism, or fidelity, to natural habitats and communities is a fundamental principle in FQA. Through the evolutionary process, species develop life strategies and adaptations within communities or assemblages that better enable survival in relation to competition, stress, and disturbance (Grime 1974). It is assumed then that each plant species has a varying degree of tolerance to disturbance (either natural or anthropogenic in origin) and a varying fidelity to natural habitats. The Coefficient of Conservatism (*C*) value is simply a numerical rating of an individual species' conservatism and habitat fidelity in relation to disturbance (Wilhelm 1977, Swink and Wilhelm 1994, Taft et al. 1997). *C*-values range from 0 to 10 and are assigned to each native species in a flora typically by an expert panel of botanists using best professional judgment. Non-native species are not assigned *C*-values as they were not present during the evolution of native species and local plant communities (Swink and Wilhelm 1994) though they may be included in index calculations with a value of 0. Species that are least conservative, or show the least fidelity to specific natural habitats, are assigned a value of 0; while 10 is reserved for those species that are most conservative. For example, *Hordeum jubatum* ssp. *jubatum* L. (Foxtail barley) is often found in disturbed places such as road ditches and has little fidelity to natural habitats. This species has been assigned a *C*-value of 0. *Drosera anglica* Huds. (English sundew), on the other hand, is restricted to undisturbed minerotrophic water tracks and spring-fed channels and has been assigned a *C*-value of 10. Assigning *C*-values to a local flora is a critical step in the development FQA for a region, as they are used in the core FQA indices.

As with any natural resource quality assessment, FQA does include a degree of subjectivity. In this case, it enters into the process during *C*-value assignment, which requires best professional judgment. The subjectivity is thus placed "up front" in FQA (Swink and Wilhelm 1994, Herman et al. 2001) and controlled through a group decision-making process. Once the values have been assigned, FQA becomes a dispassionate and repeatable measure of ecological condition. Mushet et al. (2002) assessed the effect of subjectivity by comparing FQA results from panel- and data-derived *C*-values in North Dakota wetland complexes and found some differences in index scores. These



differences, however, had little effect on the overall condition assessments and it was concluded that the panel-derived C -values were adequate.

Floristic Quality Index

A central measurement in FQA is the Floristic Quality Index (FQI), which is calculated by the following formula

$$FQI = C \cdot S \quad (1)$$

where C is the mean C -value and S is the number of species, or species richness, occurring in the area that is being evaluated. The greater the C and FQI values, the greater is the condition (or closer to a natural state) of the evaluated area. C and S are also applied as stand-alone indices in FQA. FQI provides an additional measure that can be used to differentiate samples at either the same or different areas. For example, two sites may have the same C but different FQI scores and vice versa (Taft et al. 1997). Evaluating both indices allows for a greater understanding of an area's condition.

C and FQI can be expressed in different ways and have been found to vary due to a variety of factors. These indices can be computed by including or excluding introduced species (Taft et al. 1997, Herman et al. 2001) and by weighting C -values by abundance measures (Poling et al. 2003, Bourdaghs et al. 2006). Because FQI is essentially a weighted species richness index, sampling area or effort effects index scores due to the species-area relationship where species richness increases with area alone (Francis et al. 2000, Rooney and Rogers 2002, Matthews 2003, Bourdaghs et al. 2006). Values have also been found to vary due to the time of year the data are collected, plant community type, and knowledge of the surveyor (Rooney and Rogers 2002, Matthews 2003). The effects of these factors are discussed in detail in upcoming sections.

METHODS

Minnesota's Wetland Species

The first step was to define and compile the list of vascular wetland plants of Minnesota. Two key attributes were used to identify plants that belong on the list: (1) presence in Minnesota and (2) an adapted National Wetland Indicator (NWI) status (Reed 1988). Minnesota native status was also determined. This was necessary as only native species were assigned a C -value. Nomenclature follows the Integrated Taxonomic Information System (ITIS; www.itis.gov) which is a national standardized nomenclature source used in U.S. Environmental Protection Agency data-management systems.

Development of the wetland species list was an iterative process that involved multiple levels of review by experienced botanists. Nomenclature and attribute (e.g., NWI status or growth habit) data were first compiled. All of the plant names recorded in the United States (approximately 60,000 records) were downloaded from ITIS. Attribute data for all species recorded as occurring in Minnesota (approximately 10,000 records) were downloaded from the Natural Resource Conservation Service's PLANTS database (<http://plants.usda.gov>). These two data sets were joined and further refined by selecting only ITIS-accepted names. Quality-control checks revealed several issues that had to be resolved manually to further refine the flora. First, NWI status in PLANTS



was not always tracked in a one:one manner from the original source due to nomenclature differences between PLANTS and Reed (1988). Species that did not have a direct NWI status were reviewed individually. PLANTS also had Minnesota presence reporting inaccuracies. Ownbey and Morley (1991), Gleason and Cronquist (1991), and the University of Minnesota Herbarium on-line database (<http://biosci.cbs.umn.edu/herbarium/vascularplantpage2.htm>) were used to verify presence and determine nativity in Minnesota. Finally, sub-specific classification (i.e., acceptance of varieties or subspecies) was also an issue. When ITIS accepts a sub-specific name(s), the parent name is also accepted, creating a dilemma of which name to choose as ‘most accepted’. All sub-specific classifications were reviewed using Ownbey and Morley (1991), Gleason and Cronquist (1991), Crow and Hellquist (1999a, 1999b) and the University of Wisconsin Madison on-line herbarium database (www.botany.wisc.edu/herbarium). Sub-specific names were accepted only if the names were broadly and consistently recognized in multiple treatments and taxonomic keys that directly identify the sub-specific taxon were available. These four components (NWI status, Minnesota presence and nativity, and sub-specific classification) were reviewed simultaneously and resulted in a first-draft wetland species list (MN Wetlist 1.1). The list was then reviewed by staff from the Minnesota Department of Natural Resources (MN DNR) County Biological Survey. More than 100 errors were identified and corrected to make MN Wetlist 1.2. A review was then conducted to detect false negatives (i.e., plants that occur in Minnesota wetlands but are not on established lists) and approximately 30 species were added to create MN Wetlist 1.3. MN Wetlist 1.3 was the primary list used to develop the C-values. However, during C-value assignment, a handful of errors were detected, resulting in the final list (MN Wetlist 1.4), which is provided in Appendix A.

MN Wetlist 1.4 includes 1,108 native and 158 introduced wetland taxa (Appendix A). The majority of the taxa are species, but there are substantial numbers of subspecies and varieties (which will hereby be referred to generally as species). Species were included in the list if they had a wetland indicator status of FACU- or wetter. Wetland indicator status that differs from what is exactly reported in Reed (1988), because of nomenclature differences or a wetland indicator status was created or revised based on local observations, are noted in brackets. It should be made clear that the wetland indicators listed in Appendix A were adapted from Reed (1988) for the purpose of identifying wetland species and should not, under any circumstances, be used for jurisdictional wetland delineation. Species that appear on Minnesota’s List of Endangered, Threatened, and Special Concern Species (MN DNR 1996) were also denoted. As with the wetland indicators, brackets were used to indicate species that are synonyms of names on the state list. Caution should be used with bracketed designations as nomenclature differences may be obscuring whether the species is truly on the Minnesota list. For example, the state list includes *Carex katadinensis* Fern. as a Threatened species. ITIS, in agreement with Gleason and Cronquist (1991) and the Flora of North America (FNAEC 2002), has lumped *C. katadinensis* with the more common *Carex conoidea* Schkuhr ex Willd.; thereby creating a conflict between nomenclatures, where some populations of *C. conoidea* (according to ITIS) would be considered threatened (according to the current state list). To facilitate greater use, a thorough synonymy was also developed and is provided in Appendix C. Finally, while our goal was to achieve the highest accuracy possible, it should be noted that MN Wetlist 1.4 is a working list of wetland species in the state and not the definitive Minnesota wetland flora. It is anticipated that the list will be reviewed periodically to update taxonomy, nomenclature, and other attributes.



Development of Coefficient of Conservatism Values

C-values were assigned to all of the Minnesota native wetland species on a statewide level. A potential problem with treating species as such is that many vary in terms of conservatism regionally in the state. This was resolved by assigning *C*-values that typically represent the species statewide. For example, *Calamagrostis canadensis* (Michx.) Beauv. (Bluejoint) is a common species occurring throughout the state. In the Northeast, *C. canadensis* occupies upland as well as wetland habitats; whereas in the South and West, it is typically restricted to relatively undisturbed wet meadow wetlands. The conservatism of *C. canadensis* to specific habitats would therefore be relatively less in the Northeast and would increase in the South and West. A more marked example is *Abies balsamea* (L.) P. Mill. (Balsam fir), which is widespread in the northern half of the state, inhabiting a variety of communities from forested peatlands to fire-dependent forests but is narrowly restricted to the Southern Algic Talus Slope community type in southeastern Minnesota (MN DNR 2005a). Both of these species were assigned a statewide *C*-value of 4. Assigning *C*-values according to some ecologically meaningful geographic unit may improve the accuracy of FQA (Bourdachs et al. 2006) but was outside the scope of this project.

Table 1. *C*-value assignment narrative guidance (adapted from Andreas et al. 2004).

C-value	Description
0	Plants with a wide range of ecological tolerances. Often these plants are opportunistic invaders of natural communities (e.g. <i>Phalaris arundinacea</i>) or native species typical of disturbed or ruderal communities (e.g., <i>Ambrosia artemisiifolia</i> or <i>Hordeum jubatum</i> ssp. <i>jubatum</i>)
1-2	Widespread taxa that are not typical of a particular community (e.g., <i>Impatiens capensis</i> or <i>Acer negundo</i>)
3-5	Plants with an intermediate range of ecological tolerances that typify a stable phase of some native communities, but persist under some disturbance (e.g., <i>Carex comosa</i> or <i>Potamogeton richardsonii</i>)
6-8	Plants with a moderately narrow range of ecological tolerances that typify stable or late successional native plant communities (e.g., <i>Epilobium leptophyllum</i> or <i>Vallisneria americana</i>)
9-10	Plants with a narrow range of ecological tolerances that exhibit very high fidelity to a narrow range of stable habitat requirements (e.g., <i>Arethusa bulbosa</i> or <i>Salix candida</i>)

C-value assignment followed the narrative guidance developed by Andreas et al. (2004) listed in Table 1. The rareness of a species was not a factor for assigning *C*. As with the development of the wetland species list, *C*-value assignment followed an iterative process, where several drafts of values were prepared and subsequently reviewed. The initial draft *C*-values were assigned by a limited number of personnel and based on a combination of field experience, information from herbarium records, and *C*-values from adjacent states. We were fortunate to have a wealth of information from other states to guide initial assignment as Minnesota is the last of the Upper-Midwest states to develop *C*-values (researchers in Iowa have produced draft *C*-values;



www.public.iastate.edu/~herbarium/coeffici.html). During this process, each taxon was further assigned a rating of I-III that reflected the degree of confidence in the initial assignment, with I being the greatest level of confidence. The confidence ratings were used to prioritize review. Initial draft C -values were then distributed to a volunteer panel of botanical experts that had cumulative experience statewide for review. The panel included members from academia, local government, and the private sector. Panel members were asked to review the initial values according to the guidelines in Table 1 for only the species with which they were familiar. Panel members provided their own values and comments. A second draft of C -values based on averages from the initial draft and the panel recommendations was then produced.

Finally, the second draft values were reviewed by botanical experts from the County Biological Survey and Natural Heritage and Nongame Research Program at the MN DNR. Again, MN DNR staff reviewed draft C -values according to the guidelines in Table 1 and provided their own values for each species. Values were accepted as final when a species' C -value from the second draft agreed with the values from MN DNR. If the C -values differed, the situation was resolved by further discussion with MN DNR staff and/or review of commentary provided by the review panel. The final C -values are listed in Appendix A.

The C -value distribution of the native wetland species in Minnesota was slightly skewed towards the more conservative end of the scale, where the range of 5 to 8 accounted for more than half of the distribution (Figure 1). This was reflected in the overall native wetland species C (5.9) and median (6). Introduced species also made up a substantial portion of the overall Minnesota wetland species list at 12.5% (Figure 1). The frequency of species found on Minnesota's List of Endangered, Threatened, and Special Concern Species (MN DNR 1996), however, increased with C (Figure 1). In all, 148 of the 244 vascular plant species that are state listed were included in MN Wetlist 1.4 and 39.2% of those were assigned C -values of 10. As previously mentioned, however, rarity had no bearing on C -value assignment even though many rare species had high C -values. For example, *Carex annectens* (Bickn.) Bickn. is a Special Concern species and was assigned a C -value of 3. According to records at the University of Minnesota Herbarium, this species is found in a number of habitats from old pasture to wet prairie. *Malaxis paludosa* (L.) Sw., on the other hand, is listed as Endangered and known only to inhabit undisturbed northern rich spruce swamps. *M. paludosa* was therefore assigned a 10.

Distribution Maps

In addition to assigning C -values, an effort was undertaken to produce distribution maps for Minnesota's wetland species. This was done because a significant number of additional plant specimens have been collected since the most recent species-mapping effort was published for Minnesota (Ownbey and Morley 1991) and because updated maps would provide a valuable resource for the continued study of the state's flora. The availability of electronic plant distribution data combined with GIS applications were key factors that facilitated this effort.

Specimen county records from the University of Minnesota Herbarium were used to produce the distribution maps. Thus, the maps indicate presence or absence at the county level, as opposed to Ownbey and Morley (1991) where the locality of individual plant populations were mapped. Nomenclature differences between ITIS and the University of Minnesota data were resolved



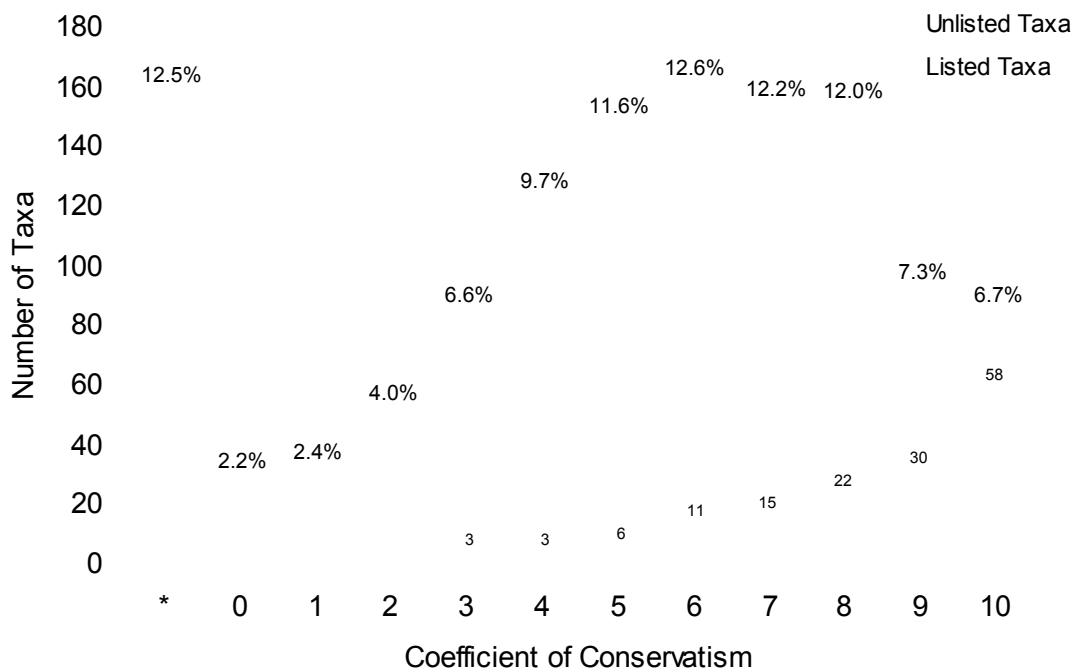


Figure 1. Frequency distribution of C-value assignments for Minnesota's native wetland taxa, introduced species (*), and state listed taxa. The percentage of the overall wetland species list is given above each category and the number of state listed species is given above the black bars.

according to ITIS synonymy. An ArcView™ GIS script was written to produce the maps. Distribution maps were created for all 1,266 wetland species and are provided in Appendix B.

PERFORMING A FLORISTIC QUALITY ASSESSMENT

Data

Any wetland plant data can be used in FQA as long as plants are confidently identified to the taxonomic level that the C-values are assigned to. Plants which cannot be identified to the correct level should be excluded from FQA as C-values are not assigned for taxonomic divisions above species. Data can be from quantitative plot-based sampling or surveys where only the species name is recorded. Caution should be taken, however, to only compare results that used consistent sampling methodologies as sampling area/effort has a significant effect on some FQA indices (see *Sampling Considerations* on page 13). In addition, a description of the general plant community and the biogeographical region should be noted as these will help place FQA results in the proper context (see *Community Type* and *Biogeography* on pages 14-15). Once the plant data have been compiled, the C-values and attributes from MN Wetlist 1.4 (Appendix A) can be related to the data and the various FQA indices can be computed.



Index Calculations

In general, FQA is the expression of plant data through a variety of simple indices that are presented in a summary table. The basic index types are species richness, Coefficient of Conservatism, and Floristic Quality indices. Each of these can be computed using only native species or by including introduced species. Swink and Wilhelm (1994) recommend that FQA indices be computed only using native species because introduced species were uninvolved with the evolution of native plant communities and the native species alone can provide the information needed to assess ecological condition. Other authors include introduced species in calculations with $C = 0$ (Taft et al. 1997, Herman et al. 2001, Lopez and Fennessy 2002, Rooney and Rogers 2002). While indices that include or exclude introduced species may more or less perform at the same level as indicators, it may be more conceptually appropriate to include introduced species (Bourdaghhs et al. 2006) because they are a response as well as a cause of anthropogenic stress (Kadlec and Bevis 1990, Wilcox 1995, Galatowitsch et al. 1999, Kercher and Zedler 2004). Regardless, it will be valuable to compute FQA indices both with only natives as well as with introduced species because doing so may indicate finer aspects of the area in question.

After the attributes from Appendix A have been related to the data, compute all of the indices listed in Table 2. Species richness indices are simple tallies of the number of species; Coefficient of Conservatism indices are the mean C -value of the data; and Floristic Quality indices are calculated using Equation 1. In addition, two other metrics (percentage of the species encountered that are introduced and the number of rare or state-listed species) can be easily computed and may also be useful in FQA. Finally, a growth habit distribution can be compiled and may provide information about the structure of the community in question.

Table 2. Floristic Quality Assessment indices and notation (adapted from Bourdaghhs et al. 2006).

Category	Index	Notation
Species richness	Native species richness	S
	Total species richness	S_i
Coefficient of Conservatism	Native mean coefficient of conservatism	C
	Total mean coefficient of conservatism	C_i
Floristic Quality	Native Floristic Quality Index	FQI
	Total Floristic Quality Index	FQI_i

Species abundance data (e.g., percent cover, stem counts, and biomass) can also be incorporated into Coefficient of Conservatism and Floristic Quality indices as a weighting factor if quantitative abundance data are available. To do this, first compute the weighted Coefficient of Conservatism index (wC) from the following general formula

$$wC = \sum_{j=1}^S p_j C_j \quad (2)$$

where p is the proportional, or relative, abundance and C is the C -value of each species (j). In other words, wC is equal to the sum of proportional abundance times the C -value of all species (S) in the sample. Weighted Floristic Quality indices are then calculated by multiplying wC by the square root



of S . As with the other FQA indices, weighted indices can be computed with only native species (wC and $wFQI$) or with introduced species included (wC_i and $wFQI_i$).

Examples

Tables 3 and 4 provide two examples of FQA applied to data collected by the MPCA to develop a depressional wetland plant IBI for the former prairie region (i.e., Temperate Prairies Ecoregion; Omernik 1987) of the state (Genet and Bourdaghs 2006). The data were collected using a quantitative plot-based sampling technique according to MPCA standard protocols (MPCA 2005); where plants were surveyed in 100 m² plots established at representative locations on the emergent marsh-open water aquatic interface of each wetland. Site A (Table 3) has a substantial native prairie buffer that has little or no evidence of historical livestock grazing and intact natural hydrology. The MPCA considers site A a reference, or least anthropogenically impacted, site that can be used as a benchmark to measure natural wetland conditions. In contrast, site B (Table 4) has a narrow buffer of an old field community which is surrounded by row crop agriculture. The hydrology has also been altered by surface ditch inputs and a railroad bed that intersects the wetland. This site is considered to be heavily anthropogenically impacted.

Table 3. Data, attributes, and the Floristic Quality Assessment for Site A.

SciName	Midpoint % Cover	MN		Growth Habit	C
		Nativity	MNWI		
<i>Bidens cernua</i>	0.45	Native	OBL	Forb/herb	3
<i>Eleocharis palustris</i>	1	Native	OBL	Graminoid	5
<i>Myriophyllum verticillatum</i>	17	Native	OBL	Forb/herb	8
<i>Phalaris arundinacea</i>	0.45	Introduced	FACW+	Graminoid	*
<i>Polygonum amphibium</i>	0.45	Native	OBL	Forb/herb	4
<i>Potamogeton strictifolius</i>	1	Native	OBL	Forb/herb	8
<i>Potamogeton zosteriformis</i>	1	Native	OBL	Forb/herb	6
<i>Rorippa palustris</i>	0.001	Native	OBL	Forb/herb	4
<i>Rumex maritimus</i>	0.001	Native	FACW+	Forb/herb	1
<i>Sagittaria latifolia</i>	7	Native	OBL	Forb/herb	3
<i>Schoenoplectus acutus</i> var. <i>acutus</i>	7	Native	[OBL]	Graminoid	6
<i>Schoenoplectus fluviatilis</i>	84.5	Native	[OBL]	Graminoid	4
<i>Stuckenia pectinatus</i>	17	Native	[OBL]	Forb/herb	3

FLORISTIC QUALITY DATA

Date: 7/17/2003			Index	Value
Community Type:	Shallow marsh/aquatic	<i>S</i>		12
Ecoregion:	Temperate Prairies	<i>S_i</i>		13
		% Introduced		7.7
		<i>C</i>		4.6
Growth Habit	Count	%	<i>C_i</i>	4.2
Forb/herb	9	69	<i>wC</i>	4.5
Graminoid	4	31	<i>wC_i</i>	4.5
Shrub	0	0	<i>FQI</i>	15.9
Subshrub	0	0	<i>FQI_i</i>	15
Tree	0	0	<i>wFQI</i>	15.6
Vine	0	0	<i>wFQI_i</i>	16.2
			# Rare Species	0



Table 4. Data, attributes, and the Floristic Quality Assessment for Site B.

SciName	Midpoint % Cover	MN Nativity	MN NWI	Growth Habit	<i>C</i>
<i>Lemna minor</i>	62	Native	OBL	Forb/herb	5
<i>Lemna trisulca</i>	3	Native	OBL	Forb/herb	5
<i>Rumex maritimus</i>	0.001	Native	FACW+	Forb/herb	1
<i>Typha angustifolia</i>	62	Introduced	OBL	Forb/herb	*
<i>Typha X glauca</i>	7	Introduced	OBL	Forb/herb	*

FLORISTIC QUALITY DATA					
Date: 7/22/2002			Index		Value
Community Type: Shallow marsh/aquatic			<i>S</i>	3	
Ecoregion: Temperate Prairies			<i>S_i</i>	5	
			% Introduced	40.0	
			<i>C</i>	3.7	
Growth Habit	Count	%	<i>C_i</i>	2.2	
Forb/herb	5	100	<i>wC</i>	5	
Graminoid	0	0	<i>wC_i</i>	2.4	
Shrub	0	0	<i>FQI</i>	6.4	
Subshrub	0	0	<i>FQI_i</i>	4.9	
Tree	0	0	<i>wFQI</i>	8.7	
Vine	0	0	<i>wFQI_i</i>	5.4	
			# Rare Species	0	

These examples illustrate the relative ease of computing FQA indices. The general exception would be the abundance-weighted Coefficient of Conservatism indices where calculation requires several steps. First the relative abundance must be computed for each species, then multiplied by that species' *C*-value, and finally summed for all species (Equation 2). Care must be taken to compute the correct values of p_j for indices that include or exclude introduced species as the total abundance will be different for each.

Because sampling methodology was consistent, FQA results from sites A and B can be confidently compared. The scores agree with expectations, where site A was a reference site and had greater scores and site B was heavily anthropogenically impacted and had lower scores. In other words, site A would be considered to be in a better natural condition than site B. Also, index score differences between the two sites were greater with indices that included introduced species, where site A had relatively high richness and few introduced species and site B had low richness and a high abundance of introduced species. Putting these results in greater context, site A had a plant IBI score = 88.0 and site B = 13.6 out of a 100-point scale, where wetland condition increases with the score. The differences in FQA index scores from sites A and B correspond well with the IBI results.



APPLICATION

Performance of FQA

Many of the applications of FQA are predicated on how well it performs as an indicator of wetland condition. A number of studies have shown FQA indices to be very reliable indicators in many wetland settings. Fennessy (1998) found FQI to be responsive against measures of anthropogenic stress in Ohio riparian wetlands. Subsequent study from Ohio has shown consistent response of FQI in other wetland settings (Mack 2001, Lopez and Fennessy 2002), resulting in its use as a metric in all community-type variations of the Ohio Environmental Protection Agency's wetland vegetation IBI (Mack 2004). Similar studies in North Dakota wetland complexes (Musket et al. 2002), Florida depressional marshes (Cohen et al. 2004), Great Lakes coastal wetlands (Bourdaghhs et al. 2006), and Mississippi wetlands (Ervin et al. 2006) have also found FQI to be a responsive condition indicator. In addition, C has been found to perform well as a standalone metric, though results are inconclusive whether it has stronger (Cohen et al. 2004) or weaker (Bourdaghhs et al. 2006) relationships with anthropogenic stress measures than FQI .

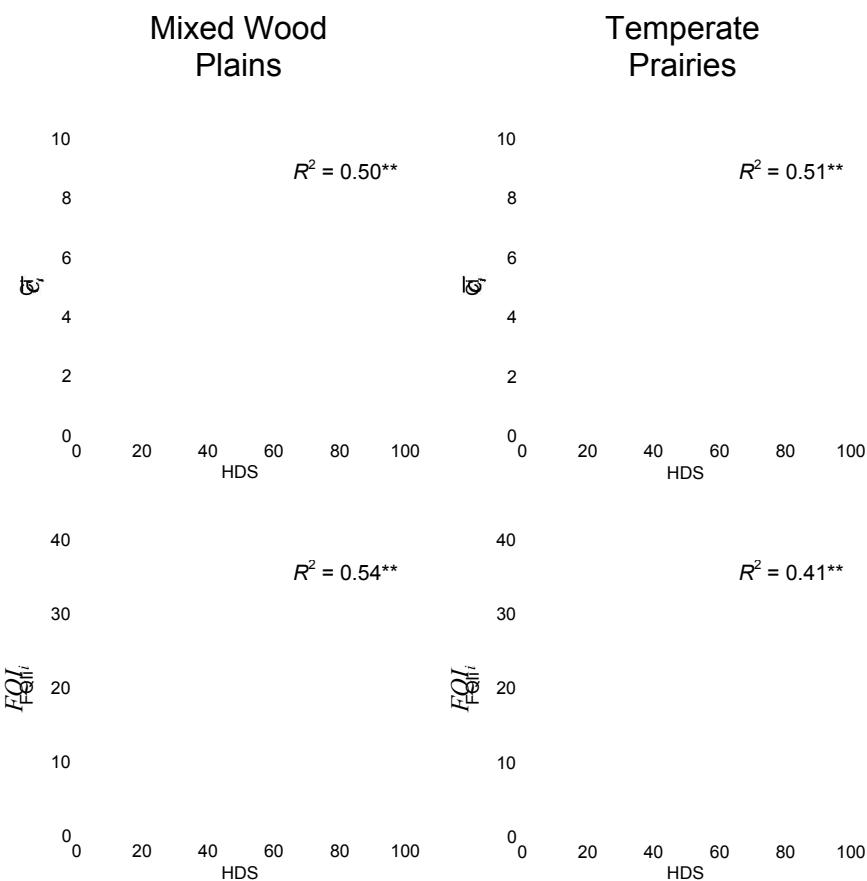


Figure 2. Scatterplots of C_i and FQI_i against the Human Disturbance Score (HDS) for both the Mixed Wood Plains and Temperate Prairies Ecoregions. $^{**} = P < 0.01$



To develop depressional wetland IBIs in Minnesota, the MPCA has performed similar analyses of plant community metrics against measures of anthropogenic stress, where sites were selected along a gradient from least to heavily anthropogenically impacted (Gernes and Helgen 2002, Genet and Bourdaghs 2006). Applying C_i and FQI_i to data collected from the Mixed Wood Plains and Temperate Prairies Ecoregions (Omernik 1987) shows strong relationships with the Human Disturbance Score (HDS; Figure 2). HDS is a semiquantitative anthropogenic disturbance measurement that consists of five factors (buffer landscape disturbance, landscape influence, habitat alteration, hydrologic alteration, and chemical pollution) that are assessed using best professional judgment following consistent narrative standards and assigned numerical scores and summed.

Overall, C_i and FQI_i performed at approximately the same level; neither measure had consistently stronger responses with HDS (Figure 2). C_i and FQI_i also performed at approximately the same level as the IBIs developed for each Ecoregion (Mixed Wood Plains IBI R^2 with HDS = 0.48, Temperate Prairies R^2 with HDS = 0.51). While this evaluation of FQA indices was limited to depressional marshes, it is likely that similar analyses in other wetland types in the state will reveal comparable results given its record of consistent performance.

Potential Applications

FQA has a number of potential applications because of its reliability as a condition indicator. These include ambient status and trends monitoring; regulatory monitoring (e.g., sequencing and measuring compensatory mitigation success); measuring wetland creation, restoration, and enhancement success; natural areas assessment; wastewater discharge monitoring; as well as a number of research applications. Three of these examples are given below in greater detail to illustrate the potential use of FQA:

- *Natural Areas Assessment:* The original purpose of FQA was for the identification of high-quality remnant natural areas in the Chicago region (Wilhelm 1977). In Minnesota, FQA can provide a quantitative assessment that complements existing methodologies already used to identify and monitor natural areas. For example, MN DNR plant ecologists use an assessment called the Element Occurrence Ranking (EOR) to identify significant natural areas. Both FQA and EOR include a degree of subjectivity where the assessment relies on best professional judgment on some level. With FQA, subjectivity enters into the process when assigning the C -values; after which it becomes a repeatable and objective measure of condition. Individual EOR assessments, however, are made using best professional judgment following consistent guidance. While EOR guidance is consistent, interpretations as to the quality of an individual site may differ between ecologists. FQA, in this case for only wetlands, could provide an accompanying source of information to EOR assessments.
- *Status and Trends Monitoring:* The MPCA has completed a probabilistic survey of wetland condition in the Redwood River watershed in southwestern Minnesota (Genet and Olsen 2006). Depressional wetlands were randomly selected and assessed using IBIs. Therefore, estimates of wetland condition for all of the depressional wetlands in the watershed could be made. In the future, the MPCA plans to further apply probabilistic surveys to assess the overall status and trends of ambient wetland quality across broader regions and ultimately statewide (MCWAMMSSC 2006). The existing IBIs, however, were developed specifically for depressional wetlands with marsh/open water plant communities (Gernes and Helgen 2002, Genet and Bourdaghs 2006). With additional development of standard sampling methodologies and performance criteria, FQA could be used to expand beyond the current



scope of the IBIs, facilitating wetland condition status and trends monitoring for all wetland types in Minnesota.

- *Regulatory Usage:* As mentioned in the introduction, regulatory wetland actions in Minnesota often include a functional assessment and the most used assessment tool is MnRAM. MnRAM is essentially a series of questions that are answered using best professional judgment following consistent guidance. The answers are then fed into a series of mathematical models that produce scores for 11 to 14 categories of wetland functions and values similar to Hydrogeomorphic (HGM) wetland assessment (Brinson et al. 1995). While MnRAM was designed to measure wetland functions and values, there are conflicting reports as to whether certain MnRAM functions can also be used as a measure of wetland condition. Two studies have found little to no correlation between MnRAM functions and existing wetland condition measures (Fennessy et al. 2004, Genet et al. 2006) but another found strong relationships between the MPCA plant IBI and the Vegetation Diversity/Integrity function (Joyal 2005). Regardless of the final analysis, FQA could complement MnRAM by providing a reliable and more objective measure of wetland condition.

The Chicago District of the U.S. Army Corps of Engineers has applied FQA in its CWA Section 404 program, where it is used to identify high-quality wetlands and measure mitigation success (www.lrc.usace.army.mil/co-r/mitgr.htm). Wetlands that are identified as high quality by FQA may require greater mitigation ratios for a permitted impact or the impact may be deemed unmitigable and the permit would be denied. On the other end, mitigation wetlands are required to have a $FQI \geq 20$ or $C \geq 3.5$ within five years to be in compliance. If the mitigation fails these standards, the permit may be suspended or revoked and enforcement action may be undertaken.

Sampling Considerations

Users should be aware that several methodological factors can affect FQA indices. By recognizing and controlling these factors, their effect can be minimized, allowing for greater FQA accuracy.

While FQA is relatively simple, both conceptually as well computationally, it is not a substitute for botanical knowledge. The greater the number of misidentified species and plants that cannot be identified to the species level in the sample, the more inaccurate FQA indices become. Rooney and Rogers (2002) examined the effect of removing *Carex* species from samples (essentially simulating an inability of the observer to identify them to species) and found that it significantly reduced C and FQI values. Therefore, knowledge of the Minnesota wetland flora will be essential for proper application of FQA.

A number of studies have also reported that sampling area/effort affects Floristic Quality indices (Francis et al. 2000, Rooney and Rogers 2002, Matthews 2003, Bourdaghs et al. 2006). This is due to the species richness parameter in the index and the positive relationship between the number of species and sampling area (Arrhenius 1921). Sampling area, however, has been found to have little to no effect on Coefficient of Conservatism indices, where index scores remain level as sampling area is increased (Rooney and Rogers 2002, Bourdaghs et al. 2006). This has implications on how data are gathered as well as for comparing data that used different methodologies. Because of the strong effect of sampling area/effort, species richness and Floristic Quality indices should only be



compared when sampling area/effort was controlled. If this is not the case, the user should rely on Coefficient of Conservatism indices.

Early versions of FQA recommended that a comprehensive census of the site be completed, where the observer walked the majority of the site multiple times during the growing season (Swink and Wilhelm 1994, Herman et al. 2001). The effect of sampling area/effort as well as conceptual research on the design of environmental indicators suggests that more controlled sampling schemes may be more appropriate for FQA. For Floristic Quality indices, sampling area does affect scores, but as more area is sampled the number of new species encountered will decrease to the point where indices will become stable with sampling area. When this occurs, the point of diminishing returns is reached where continued sampling to find the remaining species in the community will yield little change to index scores. For Coefficient of Conservatism indices, because they are stable with sampling area, the point of diminishing returns is met sooner. One of the most important properties of an indicator is its ease of use, both in terms of technical feasibility and resources required (Jackson et al. 2000, NRC 2000, Dale and Beyeler 2001). Because the point of diminishing returns is typically met with only a relatively small area of the community being sampled, a comprehensive census of an entire community will result in little gain in knowledge (i.e., little change in index scores and hence the assessment outcome) for the cost of completing the survey.

Resources saved by sampling only a portion of the site can then be used to sample more sites. It should be noted that wetland sites can, and often have, multiple plant communities that have different suites of species and species-area relationships. Sampling schemes for FQA should therefore focus on minimally sampling each community in a wetland to the point where species-area curves tend to become stable, while standardizing the sampling area/effort, so that Floristic Quality indices can be used accurately.

Finally, FQA indices have been found to be influenced by the time of year during which the data were collected (Matthews 2003). This is primarily due to phenology and its effect on the ability of the observer to identify plants to the required taxonomic level. The overall optimal time for applying FQA in Minnesota is June through August, when the greatest number of wetland plant species are likely to have reproductive structures that facilitate identification. In general, the probability that unidentifiable plants will be encountered will increase either earlier in the spring or later in the fall.

Community Type

Early proponents presented FQA as a tool that could compare sites regardless of community type (Swink and Wilhelm 1994, Taft et al. 1997). More recent work has shown, however, that the basic community type of the area in question can have a significant effect on index scores. Using data that formed the basis of John Curtis' classic analysis of Wisconsin plant communities (Curtis 1959) Rooney and Rogers (2002) showed that *C* varied significantly among a number of plant community types. In an evaluation of FQA performance in Great Lakes coastal wetlands, an analysis of the discriminate ability of FQA indices was confounded because study wetlands were stratified by HGM classes and index scores varied between plant communities within an HGM class, adding unexpected variance to the analysis (Bourdachs et al. 2006). Variability of FQA by community type should be expected, because *C*-values are a measure of disturbance tolerance (both natural and anthropogenic) and different communities often have inherently different natural disturbance regimes. For example, floodplain forest communities are adapted to frequent disturbance from natural river fluctuations, typically on an annual basis; whereas, the species that make up poor fen



and bog communities are adapted to a very stable hydrology, on the order of hundreds to thousands of years.

An analysis of MN DNR plot (relevé) data was performed to examine the effect of community type on FQA indices in Minnesota wetlands. Relevé data have been collected using standard procedures in the state since 1964 by a variety of ecologists in relatively undisturbed natural vegetation. The recent classification of native plant communities of Minnesota (MN DNR 2003, MN DNR 2005a, MN DNR 2005b) relied primarily on these data. To simplify the analysis, 74 MN DNR Native Plant Community Classes identified as wetland types were transposed into 12 more general community classes that follow the classification of Minnesota and Wisconsin wetland community types developed by Eggers and Reed (1997). C_i and FQI_i were calculated from 2,273 relevés representing all the Eggers and Reed (1997) communities except Open Water/Aquatic located throughout the state. Average index scores among community types were compared using one-way ANOVAs, and Tukey post hoc tests were used to determine groups of communities that had significant differences.

Overall, community type had an effect on both C_i (ANOVA; df = 11, 2,261, $F = 433.8$, $P < 0.01$) and FQI_i (ANOVA; df = 11, 2,261, $F = 213.4$, $P < 0.01$), where different community types had significantly different index scores (Figure 3). The rankings of community types differed, however, between C_i and FQI_i . For example, Coniferous bog had the highest ranking C_i but the fifth highest FQI_i . Tukey post hoc tests also identified different community groupings between C_i and FQI_i . Classifying samples by community type will therefore be essential for placing index scores in the proper context for FQA interpretation.

While the Eggers and Reed (1997) classification was used in this analysis, there is no standard or recommended plant community classification. Many wetland classifications exist, such as MN DNR's Native Plant Communities of Minnesota (MN DNR 2003, MN DNR 2005a, MN DNR 2005b), the Classification of Wetlands and Deepwater habitats of the U.S. (Cowardin et al. 1979) used in the U.S. Fish and Wildlife Service (US FWS) National Wetland Inventory program, or US FWS Circular 39 (Shaw and Fredine 1956), that may provide differing results to the above analysis. The key point is that a classification that incorporates the plant community should be used when interpreting FQA indices.

Biogeography

In addition to community effects, biogeography may also affect FQA index scores. Communities of the same general type can vary due to natural biogeographical differences, which may in turn cause changes in index scores. To illustrate the potential effect of biogeography, another analysis of the MN DNR relevé data was performed. C_i was compared at the Ecological Classification System (ECS) Province level (www.dnr.state.mn.us/ecs/index.html) for only the Sedge/Fresh Meadow community type using a one-way ANOVA and Tukey post hoc tests.



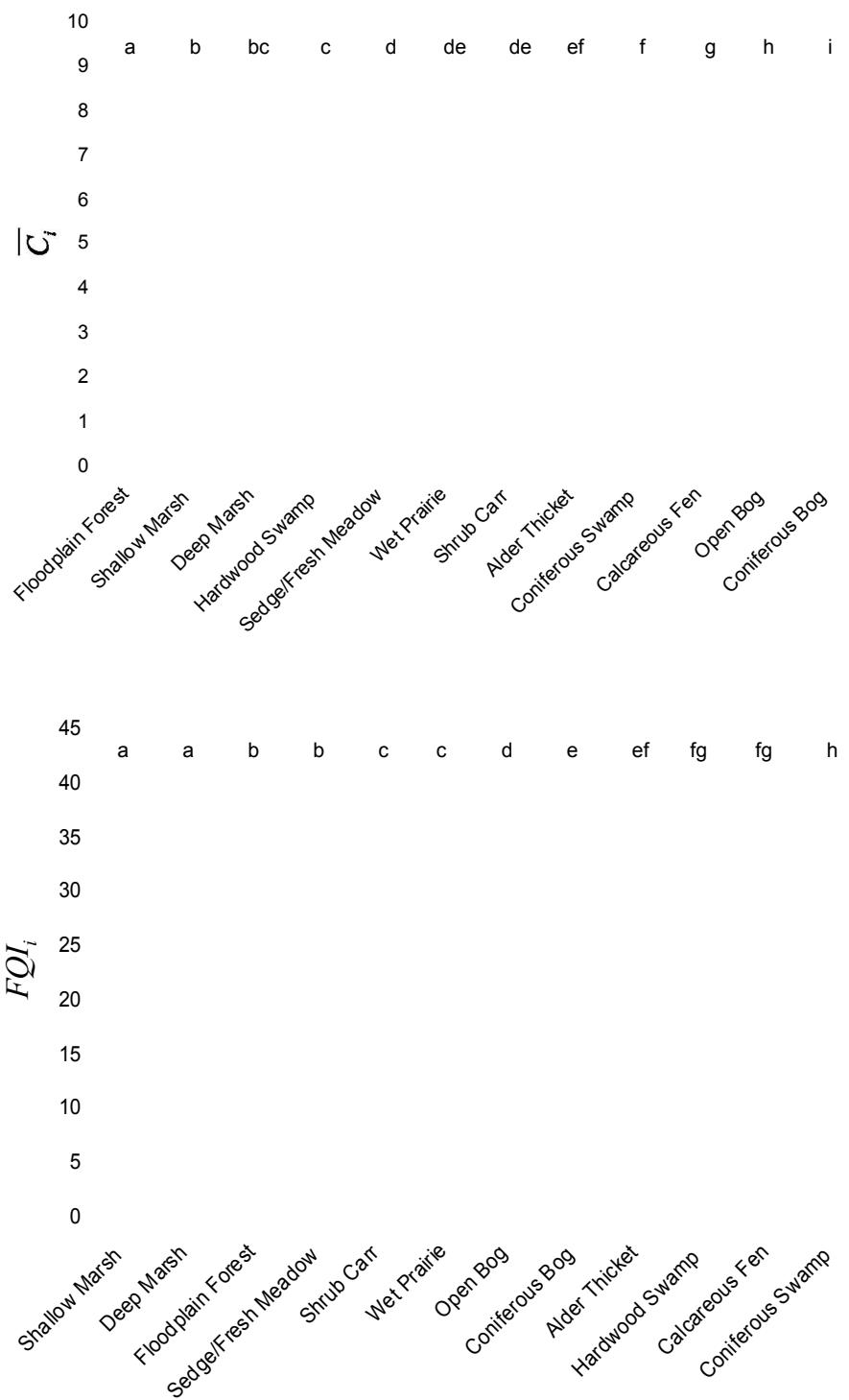


Figure 3. Average C_i and FQI_i values, with Standard Error bars, for 12 wetland plant community types. Letters indicate significant differences ($P < 0.05$) between community types based on Tukey post hoc tests.



Biogeography had a significant effect on C_i (ANOVA; df = 3, 326, $F = 17.3$, $P < 0.01$) in the Sedge/Fresh Meadow community (Figure 4). In general, C_i tended to increase from the Southwest region of Minnesota to the Northeast. Two significant groups of provinces were identified, though there was overlap between the groups in the Tallgrass Aspen Parkland Province. While this analysis was limited to the Sedge/Fresh Meadow community, it is likely indicative of similar biogeographical effects across many, if not all, of the various wetland community types. Thus, classifying samples by biogeography will likely also be necessary to place FQA results within the proper context for interpretation.

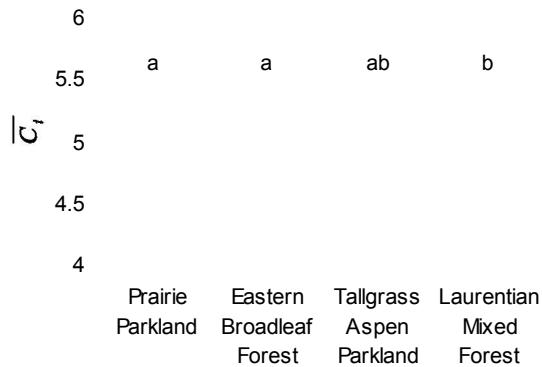


Figure 4. Average C_i , with Standard Error bars, in the Sedge/Fresh Meadow community type according to Ecological Classification System Provinces. Letters indicate significant differences ($P < 0.05$) between community types based on Tukey post hoc tests.

FUTURE EFFORTS

A number of efforts could be undertaken to further develop and promote FQA in Minnesota. This work represents only the first step in the development process. Listed below are several key areas where additional work could be focused:

- *Standardize Methods:* A critical step in the development of any natural resource assessment is the determination of standardized optimal sampling methods. This would promote consistent use and increase the accuracy of the assessment at the most efficient level of effort. As previously discussed, a number of factors, such as sampling area/effort, community type, and biogeographical patterns, affect FQA indices. Development of standardized methods should focus on sampling communities to the point where FQA indices become stable with sampling area/effort and include standard wetland community and biogeography classifications to place results within the proper context. This could greatly facilitate comparison of results between different projects and applications, as well as over time.
- *Develop Performance Criteria:* Development of performance criteria based on reference (i.e., least anthropogenically impacted) conditions would greatly enhance FQA by providing clear benchmarks that FQA results could be measured against. Performance criteria for specific applications, such as measuring wetland restoration success, could also be developed and be



very valuable for the given application. Specific performance criteria, in combination with standard sampling methods, would allow FQA results to be universally comparable yet specific enough to meet many different application needs.

- *Regionalizing C-value Assignment:* As previously discussed, the conservatism of many plant species varies regionally throughout the state based on climatic, geomorphic, and habitat patterns. Assigning C-values according to uniform ecological features that better capture regional conservatism may improve the accuracy of FQA. This may also promote coordination between states that share the same biogeographical regions and perhaps facilitate broader multistate or national development of FQA.
- *Assigning C-values to Upland Species:* The majority of states that have developed FQA did so for both uplands and wetlands. As the primary objective was to develop FQA for the state's wetlands, assigning C-values to upland species was beyond the scope of the project. C-values will first need to be developed for the upland flora to provide the same benefits of FQA to monitoring and assessing Minnesota's upland plant communities.

LITERATURE CITED

- Anderson, J. P. and W. J. Craig. 1984. Growing energy crops on Minnesota's wetlands: the land use perspective. Center for Urban and Regional Affairs, University of Minnesota, Minneapolis, Minn.
- Andreas, B. K. and R. W. Lichvar. 1995. Floristic index for establishing assessment standards: a case study for northern Ohio. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Miss. Technical Report WRP-DE-8.
- Andreas, B. K., J. J. Mack, and J. S. McCormac. 2004. Floristic Quality Assessment Index (FQAI) for vascular plants and mosses for the State of Ohio. Ohio Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, Ohio.
- Arrhenius, O. 1921. Species and area. Journal of Ecology 9:95-99.
- Bernthal, T. W. 2003. Development of a floristic quality assessment methodology for Wisconsin. Wisconsin Department of Natural Resources, Bureau of Integrated Science Services, Madison, Wis. PUB-SS-986 2003.
- Bourdaghs, M., C. A. Johnston, and R. R. Regal. 2006. Properties and performance of the floristic quality index in Great Lakes coastal wetlands. Wetlands 26:718-735.
- Brinson, M. M., F. R. Hauer, L. C. Lee, W. L. Nutter, R. D. Rheinhardt, R. D. Smith, and D. F. Whigham. 1995. A guidebook for application of hydrogeomorphic assessments to riverine wetlands. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Miss.
- Cohen, M. J., S. Carstenn, and C. R. Lane. 2004. Floristic quality indices for biotic assessment of depressional marsh condition in Florida. Ecological Applications 14:784-794.



- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C. FWS/OBS 79/31.
- Crow, G. E. and C. B. Hellquist. 2000a. Aquatic and Wetland Plants of Northeastern North America-Volume 1 Pteridophytes, Gymnosperms, and Angiosperms: Dicotyledons. University of Wisconsin Press, Madison, Wis.
- Crow, G. E. and C. B. Hellquist. 2000b. Aquatic and Wetland Plants of Northeastern North America-Volume 2 Angiosperms: Monocotyledons. University of Wisconsin Press, Madison, Wis.
- Curtis, J. T. 1959. The Vegetation of Wisconsin. University of Wisconsin Press, Madison, Wis.
- Dale, V. H. and S. C. Beyeler. 2001. Challenges in the development and use of ecological indicators. *Ecological Indicators* 1:3-10.
- Detenbeck, N. E., S. M. Galatowitsch, J. Atkinson, and H. Ball. 1999. Evaluating perturbations and developing restoration strategies for inland wetlands in the Great Lakes basin. *Wetlands* 19:789-820.
- Eggers, S. D. and D. M. Reed. 1997. Wetland Plants and Plant Communities of Minnesota and Wisconsin, second edition. U.S. Army Corps of Engineers, St. Paul District, St. Paul, Minn.
- Ervin, G. N., B. D. Herman, J. T. Bried, D. C. Holly. 2006. Evaluating non-native species and wetland indicator status as components of wetlands floristic assessment. *Wetlands* 26:1114-1129.
- Fennessy, M. S., R. Geho, B. Elifritz, and R. Lopez. 1998. Testing the floristic quality assessment index as an indicator of riparian wetland quality. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. Final Report to U.S. EPA.
- Fennessy, M. S., A. D. Jacobs, and M. E. Kentula. 2004. Review of Rapid Methods for Assessing Wetland Condition. U.S. Environmental Protection Agency, Washington, D.C. EPA/620/R-04/009.
- FNAEC (Flora of North America Editorial Committee) 2002. Flora of North America North of Mexico-Volume 23: Cyperaceae. Oxford University Press, New York, N.Y.
- Francis, C. M., M. J. W. Austen, J. M. Bowles, and W. B. Draper. 2000. Assessing floristic quality in southern Ontario woodlands. *Natural Areas Journal* 20:66-77.
- Galatowitsch, S. M., N. O. Anderson, and P. D. Ascher. 1999. Invasiveness in wetland plants in temperate North America. *Wetlands* 19:733-755.
- Genet, J. A. and M. Bourdaghs. 2006. Development and Validation of Indices of Biological Integrity (IBI) for Depressional Wetlands in the Temperate Prairies Ecoregion. Minnesota Pollution Control Agency, St. Paul, Minn. (<http://www.pca.state.mn.us/publications/wq-bwm6-01.pdf>)



- Genet, J. A., M. Bourdaghs, and M. C. Gernes. 2006. Wetland Assessment for Improved Decision-Making. Minnesota Pollution Control Agency, St. Paul, Minn. Final Report to U.S. Environmental Protection Agency (#CD-975768-01).
- Genet, J. A. and A. R. Olsen. 2006. Assessing the Quantity and Quality of Depressional Wetlands in the Redwood River Watershed Utilizing a Probabilistic Sampling Design. Minnesota Pollution Control Agency, St. Paul, Minn. (<http://www.pca.state.mn.us/publications/wq-bwm6-02.pdf>)
- Gernes, M. C. and J. C. Helgen. 2002. Indexes of biological integrity (IBI) for large depressional wetlands in Minnesota. Minnesota Pollution Control Agency, St. Paul, Minn. Final Report to U.S. Environmental Protection Agency (#CD-995525-01).
- Gleason, H. A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada, second edition. New York Botanical Garden, New York, N.Y.
- Grime, J. P. 1974. Vegetation classification by reference to strategies. *Nature* 250:26-31.
- Herman, K. D., L. A. Masters, M. P. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardiner. 2001. Floristic quality assessment with wetland categories and examples of computer applications for the state of Michigan, second edition. Michigan Department of Natural Resources, Wildlife Division, Natural Heritage Program, In partnership with U.S. Department of Agriculture Natural Resources Conservation Service, Rose Lake Plant Materials Center, East Lansing Mich.
- Herman, B. D., J. D. Madsen, and G. N. Ervin. 2006. Development of coefficients of conservatism for wetland vascular flora of north and central Mississippi. Geo resources Institute Report Number 4001, Mississippi State University, Miss. (<http://www.gri.msstate.edu/information/pubs/docs/2006/MS-Coef-Conservatism.pdf>)
- Jackson, L. E., J. C. Kurtz, and W. S. Fisher (eds.). 2000. Evaluation guidelines for ecological indicators. U.S. Environmental Protection Agency, Office of Research and Development, Research Triangle Park, N.C. EPA 620 R-99 005.
- Joyal, L. A. 2005. Verifying, field testing, and validating the revised Minnesota routine wetland assessment method Version 3.0. Minnesota Department of Natural Resources, Ecological Services, St. Paul, Minn.
- Kadlec, R. H. and F. B. Bevis. 1990. Wetlands and wastewater: Kinross, Michigan. *Wetlands* 10:77-92.
- Kercher, S. M. and J. B. Zedler. 2004. Multiple disturbances accelerate invasion of reed canary grass (*Phalaris arundinacea* L.) in a mesocosm study. *Oecologia* 138:455-464.
- Ladd, D. 1993. The Missouri floristic quality assessment system. The Nature Conservancy, St. Louis, Mo.
- Lopez, R. D. and M. S. Fennessy. 2002. Testing the floristic quality assessment index as an indicator of wetland condition. *Ecological Applications* 12:487-497.



- Mack, J. J. 2001. Vegetation Indices of Biotic Integrity (VIBI) for Wetlands. Ohio Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, Ohio. Final Report to U.S. Environmental Protection Agency (#CD985875).
(http://www.epa.state.oh.us/dsw/wetlands/wetland_bioassess.html)
- Mack, J. J. 2004. Integrated Wetland Assessment Program Part 4: Vegetation index of biotic integrity (VIBI) and tiered aquatic life uses (TALUs) for Ohio wetlands. Ohio Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, Ohio. Technical Report WET/2004-4.
(http://www.epa.state.oh.us/dsw/wetlands/PART4_VIBI_OH_WTLDs.pdf)
- Matthews, J. W. 2003. Assessment of the floristic quality index for use in Illinois, USA, wetlands. Natural Areas Journal 23:53-60.
- MCWAMMSS (Minnesota Comprehensive Wetland Assessment Monitoring and Mapping Strategy Steering Committee). 2006. A Comprehensive Wetland Assessment, Monitoring, and Mapping Strategy for Minnesota. Minnesota Pollution Control Agency, St. Paul, Minn.
(<http://www.pca.state.mn.us/publications/wq-bwm6-03.pdf>)
- MN BWSR (Minnesota Board of Water and Soil Resources). 2006. Comprehensive General Guidance for Minnesota Routine Assessment Method (MnRAM) Evaluating Wetland Function, Version 3.0. Minnesota Board of Water and Soil Resources, St. Paul, Minn.
(http://www.bwsr.state.mn.us/wetlands/mnram/MnRAM_Guidance.doc)
- MN DNR (Minnesota Department of Natural Resources). 1996. Minnesota's List of Endangered, Threatened, and Special Concern Species. Minnesota Department of Natural Resources, St. Paul, Minn. (http://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf).
- MN DNR (Minnesota Department of Natural Resources). 2003. Field Guide to the Native Plant Communities of Minnesota: The Laurentian Mixed Forest Province. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program, Minnesota Department of Natural Resources, St. Paul, Minn.
- MN DNR (Minnesota Department of Natural Resources). 2005a. Field Guide to the Native Plant Communities of Minnesota: The Eastern Broadleaf Forest Province. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program, Minnesota Department of Natural Resources, St. Paul, Minn.
- MN DNR (Minnesota Department of Natural Resources). 2005b. Field Guide to the Native Plant Communities of Minnesota: The Prairie Parkland and Tallgrass Aspen Parklands Provinces. Ecological Land Classification Program, Minnesota County Biological Survey, and Natural Heritage and Nongame Research Program, Minnesota Department of Natural Resources, St. Paul, Minn.
- MPCA (Minnesota Pollution Control Agency). 2005. Aquatic plant community sampling procedure for depressional wetland monitoring sites. Minnesota Pollution Control Agency, St. Paul, Minn.
(<http://www.pca.state.mn.us/publications/wq-bwm3-01.pdf>)

- Mushet, D. M., N. H. Euliss, Jr., and T. H. Shaffer. 2002. Floristic quality assessment of one natural and three restored wetland complexes in North Dakota, USA. *Wetlands* 22:126-138.
- NGPFQAP (Northern Great Plains Floristic Quality Assessment Panel). 2001. Coefficients of conservatism for the vascular flora of the Dakotas and adjacent grasslands. U.S. Geological Survey, Biological Resources Division, Northern Prairie Wildlife Research Center, Jamestown, N.D. Information and Technology Report USGS/BRD/ITR-2001-001.
- NRC (National Research Council). 2000. Ecological Indicators for the Nation. National Academy Press, Washington, D.C.
- Oldham, M. J., W. D. Bakowsky, and D. A. Sutherland. 1995. Floristic quality assessment system for southern Ontario. Ontario Ministry of Natural Resources, Natural Heritage Information Centre, Peterborough, Ont., Canada.
- Omernik, J. M. 1987. Ecoregions of the conterminous United States. *Annals of the Association of American Geographers* 77:118-125.
- Ownbey, G. B. and T. Morley. 1991. Vascular Plants of Minnesota: A Checklist and Atlas. University of Minnesota Press, Minneapolis, Minn.
- Poling, T. C., M. G. Bunker, and L. M. Jablonski. 2003. Quadrat-level floristic quality index reflects shifts in composition of a restored tallgrass prairie (Ohio). *Ecological Restoration* 21:144-145.
- Rapport, D. J., H. A. Regier, and T. C. Hutchinson. 1985. Ecosystem behavior under stress. *American Naturalist* 125:617-640.
- Reed, P. 1988. National List of Plant Species That Occur in Wetlands: North Central (Region 3). National Wetland Inventory, U.S. Department of the Interior, Fish and Wildlife Service, St. Petersburg, Fla.
- Rooney, T. P. and D. A. Rogers. 2002. The modified floristic quality index. *Natural Areas Journal* 22:340-344.
- Rothrock, P. E. 2004. Floristic quality assessment in Indiana: the concept, use, and development of coefficients of conservatism. Indiana Department of Environmental Management, Office of Water Quality, Indianapolis, Ind. Final report for ARN A305-4-53, EPA Wetland Program Development Grant CD975586-01.
- Shaw, S. P. and C. G. Fredine. 1956. Wetlands of the United States, Their Extent and Their Value for Waterfowl and Other Wildlife. Circular 39, U.S. Fish and Wildlife Service, Washington, D.C.
- Stevenson, R. J. and F. R. Hauer. 2002. Integrating hydrogeomorphic and index of biotic integrity approaches for environmental assessment of wetlands. *Journal of the North American Benthological Society* 21:502-513.
- Swink, F. A. and G. S. Wilhelm. 1994. Plants of the Chicago Region, fourth edition. Morton Arboretum, Lisle, Ill.



- Taft, J. B., G. S. Wilhelm, D. M. Ladd, and L. A. Masters. 1997. Floristic quality assessment for vegetation in Illinois: a method for assessing vegetation integrity. *Erigenia* 15:3-95.
- Wilcox, D. A. 1995. Wetland and aquatic macrophytes as indicators of anthropogenic hydrologic disturbance. *Natural Areas Journal* 15:240-248.
- Wilhelm, G. S. 1977. Ecological assessment of open land areas in Kane County, Illinois. Kane County Urban Development, Geneva, Ill.



APPENDIX A: MINNESOTA'S WETLAND SPECIES

MN Wetlist 1.4 is provided below. This list should be considered a working list of Minnesota's wetland species for the purposes of developing FQA and not the definitive wetland flora of the state. Nomenclature follows the Integrated Taxonomic Information System (ITIS; www.itis.gov). The compilation of the list is described in the Methods section on page 3. A Microsoft Excel™ version of MN Wetlist 1.4 that includes additional data fields is available online at www.pca.state.mn.us/water/biomonitoring/bio-wetlands.html.

Data Field Descriptions

- **tsn** = Taxonomic Serial Number. A unique identifier used in ITIS and assigned for each scientific name.
- **C** = Coefficient of Conservatism. Asterisks (*) indicate that the species is considered introduced in Minnesota.
- **Scientific Name** = Latin species name.
- **MNWI** = An adapted National Wetland Indicator status for Minnesota. MNWI status listed without brackets are directly from Reed (1988). MNWI status listed with brackets indicates a synonym from Reed 1988 or species that have been observed in Minnesota wetlands but did not have a NWI status. Categories include:
 - OBL = Obligate species (99% probable occurrence in wetlands)
 - FACW = Facultative Wetland species (67%-99% probable occurrence in wetlands)
 - FAC = Facultative species (34% -66% probable occurrence in wetlands)
 - FACU = Facultative Upland species (1%-33% probable occurrence in wetlands)

Positive and negative signs indicate a wet (+) or dry (-) tendency within the range of each category and an asterisk (*) indicates a tentative assignment from Reed (1988). MNWI was used to identify wetland species for this project and should not, under any circumstances, be used for jurisdictional wetland delineation.

- **Growth Habit** = The physical growth form of the plant. Data from the Natural Resource Conservation Service's PLANTS database (<http://plants.usda.gov>).
- **MN Listed** = Listed status from Minnesota's List of Endangered, Threatened, and Special Concern Species (MN DNR 1996).
 - E = Endangered
 - T = Threatened
 - SC = Special Concern

Brackets indicate that the scientific name is a synonym of a species on the state list.

- **Common Name** = The common plant name.



tsn	C	Scientific Name	MNWI	Growth Habit	MN Listed	Common Name
18032	4	<i>Abies balsamea</i>	FACW	Tree		Balsam fir
21674	*	<i>Abutilon theophrasti</i>	FACU-	Forb/herb		Velvetleaf
28193	0	<i>Acalypha rhomboidea</i>	FACU	Forb/herb		Three-seeded mercury
28749	1	<i>Acer negundo</i>	FACW-	Tree		Box elder
28729	3	<i>Acer rubrum var. rubrum</i>	[FAC]	Tree		Red maple
28757	3	<i>Acer saccharinum</i>	FACW	Tree		Silver maple
28732	5	<i>Acer saccharum var. saccharum</i>	[FACU]	Tree		Sugar maple
28758	5	<i>Acer spicatum</i>	FACU*	Tree, Shrub		Mountain maple
35423	1	<i>Achillea millefolium</i>	FACU	Forb/herb		Yarrow
507943	6	<i>Achnatherum hymenoides</i>	[FACU+]	Graminoid	E	Indian rice grass
182561	7	<i>Acorus americanus</i>	[OBL]	Forb/herb		Sweet flag
564989	*	<i>Acorus calamus</i>	OBL	Forb/herb		Calamus
17311	7	<i>Adiantum pedatum</i>	FAC-	Forb/herb		Maidenhair fern
35348	9	<i>Adoxa moschatellina</i>	FAC	Forb/herb	SC	Moschatel
29567	*	<i>Aegopodium podagraria</i>	FAC	Forb/herb		Bishop's goutweed
33018	7	<i>Agalinis aspera</i>	FAC-	Forb/herb		Rough gerardia
33031	7	<i>Agalinis paupercula</i>	OBL	Forb/herb		Purple false foxglove
33007	7	<i>Agalinis purpurea</i>	FACW	Forb/herb		Purple false foxglove
33036	3	<i>Agalinis tenuifolia</i>	FACW	Forb/herb		Slender-leaved false foxglove
32443	4	<i>Agastache nepetoides</i>	FACU	Subshrub, Forb/herb		Yellow giant hyssop
182398	2	<i>Ageratina altissima</i> var. <i>altissima</i>	[FACU]	Forb/herb		White snakeroot
182407	8	<i>Agoseris glauca</i> var. <i>glauca</i>	[FACU]	Forb/herb		Glaucous false dandelion
25095	2	<i>Agrimonia gryposepala</i>	FACU+	Forb/herb		Common agrimony
25101	3	<i>Agrimonia striata</i>	FAC-	Forb/herb		Roadside agrimony
40414	*	<i>Agrostis gigantea</i>	[FACW]	Graminoid		Redtop
40394	8	<i>Agrostis hyemalis</i>	FAC-	Graminoid		Winter bentgrass
40423	3	<i>Agrostis perennans</i>	FAC-	Graminoid		Autumn bentgrass
40424	2	<i>Agrostis scabra</i>	FAC	Graminoid		Winter bentgrass
40400	1	<i>Agrostis stolonifera</i>	FACW	Graminoid		Redtop Poaceae
38896	5	<i>Alisma gramineum</i>	OBL	Forb/herb		Narrow-leaved water plantain
38895	4	<i>Alisma subcordatum</i>	OBL	Forb/herb		Heart-leaved water plantain
182441	4	<i>Alisma triviale</i>	[OBL]	Forb/herb		Common water plantain
184481	*	<i>Alliaria petiolata</i>	FAC	Forb/herb		Garlic mustard
182590	5	<i>Allium canadense</i> var. <i>canadense</i>	[FACU]	Forb/herb		Wild garlic
526875	9	<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	[FAC+]	Forb/herb	T	Wild chives
42672	6	<i>Allium tricoccum</i>	FACU+	Forb/herb		Wild leek
181888	3	<i>Alnus incana</i> ssp. <i>rugosa</i>	[OBL]	Tree, Shrub		Speckled alder
181894	6	<i>Alnus viridis</i> ssp. <i>crispa</i>	[FAC]	Tree, Shrub		Green alder
182514	4	<i>Alopecurus aequalis</i> var. <i>aequalis</i>	[OBL]	Graminoid		Short-awn foxtail
40440	8	<i>Alopecurus carolinianus</i>	FACW	Graminoid		Carolina foxtail



20719	*	<i>Amaranthus albus</i>	FACU	Forb/herb	Prostrate pigweed	
20745	*	<i>Amaranthus retroflexus</i>	FACU+	Forb/herb	Redroot amaranth	
20746	0	<i>Amaranthus rudis</i>	FACW	Forb/herb	Tamarisk water hemp	
20750	2	<i>Amaranthus tuberculatus</i>	OBL	Forb/herb	Tubercled amaranth	
36496	0	<i>Ambrosia artemisiifolia</i>	FACU	Forb/herb	Common ragweed	
36516	2	<i>Ambrosia psilostachya</i>	FAC-	Forb/herb	Western ragweed	
182422	0	<i>Ambrosia trifida</i> var. <i>trifida</i>	[FAC+]	Subshrub, Forb/herb	Great ragweed	
182033	5	<i>Amelanchier alnifolia</i> var. <i>alnifolia</i>	[FACU+]	Tree, Shrub	Saskatoon juneberry	
182037	6	<i>Amelanchier arborea</i> var. <i>arborea</i>	[FACU]	Tree, Shrub	Downy serviceberry	
25111	6	<i>Amelanchier bartramiana</i>	FAC	Tree, Shrub	Northern juneberry	
564999	3	<i>Amelanchier stolonifera</i>	[FACU]	Shrub	Creeping juneberry	
25115	3	<i>Amelanchier X intermedia</i>	FACW	Tree	Intermediate juneberry	
43487	10	<i>Amerorchis rotundifolia</i>	OBL	Forb/herb	Small round-leaved orchis	
27091	5	<i>Ammannia coccinea</i>	OBL	Forb/herb, Subshrub	Ammannia	
25368	4	<i>Amorpha fruticosa</i>	FACW+	Shrub	False indigo	
182067	2	<i>Amphicarpaea bracteata</i>	FAC	Vine, Forb/herb	Hog peanut	
526876	9	<i>Andromeda polifolia</i> var. <i>glaucocephala</i>	[OBL]	Subshrub, Shrub	Bog rosemary	
40462	4	<i>Andropogon gerardii</i>	FAC-	Graminoid	Big bluestem	
23942	2	<i>Androsace occidentalis</i>	FACU-	Forb/herb	Western androsace	
182009	5	<i>Androsace septentrionalis</i> ssp. <i>puberulenta</i>	[FAC-]	Forb/herb	SC	Northern androsace
18436	3	<i>Anemone canadensis</i>	FACW	Forb/herb	Canada anemone	
531161	5	<i>Anemone quinquefolia</i> var. <i>bifolia</i>	[FAC*]	Forb/herb	Wood anemone	
29436	6	<i>Angelica atropurpurea</i>	OBL	Forb/herb	Angelica	
36330	*	<i>Anthemis cotula</i>	FACU	Forb/herb	Stinking chamomile	
25390	4	<i>Apios americana</i>	FACW	Vine, Forb/herb	Groundnut	
43489	8	<i>Aplectrum hyemale</i>	FAC-	Forb/herb	Puttyroot	
30157	3	<i>Apocynum cannabinum</i>	FAC	Forb/herb	American hemp	
18730	4	<i>Aquilegia canadensis</i>	FAC-	Forb/herb	Columbine	
22689	7	<i>Arabis drummondii</i>	FACU	Forb/herb	Drummond's rock cress	
184344	6	<i>Arabis hirsuta</i>	FACU	Forb/herb	Hairy rock cress	
22672	6	<i>Arabis lyrata</i>	FACU-	Forb/herb	Lyre-leaved rock cress	
22688	6	<i>Arabis X divaricarpa</i>	FACU	Forb/herb	Spreading rock cress	
29376	4	<i>Aralia nudicaulis</i>	FACU	Subshrub, Shrub, Forb/herb	Wild sarsaparilla	
27895	6	<i>Arceuthobium pusillum</i>	[FACW]	Subshrub, Shrub	Eastern dwarf mistletoe	
20270	*	<i>Arenaria serpyllifolia</i>	FAC	Forb/herb	Thymeleaf sandwort	
43491	10	<i>Arethusa bulbosa</i>	OBL	Forb/herb	Dragon's mouth	
184598	4	<i>Argentina anserina</i>	[FACW+]	Forb/herb	Silverweed	
42529	8	<i>Arisaema dracontium</i>	FACW	Forb/herb	Green dragon	
42525	4	<i>Arisaema triphyllum</i>	FACW-	Forb/herb	Jack-in-the-pulpit	
185306	6	<i>Aristida longispica</i> var. <i>geniculata</i>	[FACU-]	Graminoid	Spiked needlegrass	



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

23044	*	<i>Armoracia rusticana</i>	FAC*	Forb/herb		Horseradish
36587	10	<i>Arnoglossum plantagineum</i>	FAC	Forb/herb	T	Tuberous Indian plantain
185327	*	<i>Arrhenatherum elatius</i> var. <i>elatius</i>	[FACU]	Graminoid		Tall oatgrass
183727	*	<i>Artemisia biennis</i> var. <i>biennis</i>	[FACW-]	Forb/herb		Biennial wormwood
35439	*	<i>Artemisia stelleriana</i>	FACU-	Forb/herb		Oldwoman
184805	4	<i>Asclepias incarnata</i> ssp. <i>incarnata</i>	[OBL]	Forb/herb		Swamp milkweed
30304	7	<i>Asclepias speciosa</i>	FAC	Forb/herb		Showy milkweed
42784	*	<i>Asparagus officinalis</i>	FACU	Forb/herb		Garden asparagus
192103	7	<i>Asplenium platyneuron</i> var. <i>platyneuron</i>	[FACU]	Forb/herb	[SC]	Ebony spleenwort
25405	7	<i>Astragalus agrestis</i>	FACW-	Forb/herb		Field milk vetch
192322	9	<i>Astragalus alpinus</i> var. <i>alpinus</i>	[FAC]	Forb/herb	[E]	Alpine milk vetch
192395	5	<i>Astragalus canadensis</i> var. <i>canadensis</i>	[FAC+]	Forb/herb		Canada milk vetch
25598	5	<i>Astragalus neglectus</i>	FACU-	Forb/herb		Cooper's milk vetch
17414	4	<i>Athyrium filix-femina</i> ssp. <i>angustum</i>	[FAC]	Forb/herb		Lady fern
20538	*	<i>Atriplex hortensis</i>	FAC	Forb/herb		Garden orache
20509	*	<i>Atriplex patula</i>	FACW-	Forb/herb		Spear saltbush
18009	3	<i>Azolla mexicana</i>	OBL	Forb/herb		Mexican mosquito fern
33045	7	<i>Bacopa rotundifolia</i>	OBL	Forb/herb	SC	Water-hyssop
192832	8	<i>Baptisia alba</i> var. <i>macrophylla</i>	[FACU*]	Forb/herb	[SC]	White wild indigo
22740	5	<i>Barbarea orthoceras</i>	OBL	Forb/herb		Winter cress
22741	*	<i>Barbarea vulgaris</i>	FAC	Forb/herb		Garden yellowrocket
30025	9	<i>Bartonia virginica</i>	FACW+	Forb/herb	E	Virginia bartonia
41325	4	<i>Beckmannia syzigachne</i>	OBL	Graminoid		American slough grass
18835	*	<i>Berberis thunbergii</i>	FACU-	Shrub		Japanese barberry
18837	*	<i>Berberis vulgaris</i>	FACU	Shrub		Common barberry
29596	8	<i>Berula erecta</i>	OBL	Forb/herb		Wild parsnip
183520	7	<i>Betula alleghaniensis</i> var. <i>alleghaniensis</i>	[FAC]	Tree		Yellow birch
19480	6	<i>Betula nigra</i>	FACW	Tree		River birch
19492	4	<i>Betula papyrifera</i> var. <i>cordifolia</i>	[FACU+]	Tree		Heart-leaved birch
19490	3	<i>Betula papyrifera</i> var. <i>papyrifera</i>	[FACU+]	Tree		Paper birch
183527	7	<i>Betula pumila</i> var. <i>glandulifera</i>	[OBL]	Shrub		Bog birch
19499	4	<i>Betula X purpusii</i>	OBL	Tree		Purpus' birch
19501	4	<i>Betula X sandbergii</i>	OBL	Tree		Sandberg's birch
35710	3	<i>Bidens cernua</i>	OBL	Forb/herb		Nodding bur marigold
35718	3	<i>Bidens connata</i>	OBL	Forb/herb		Swamp beggarticks
35706	7	<i>Bidens coronata</i>	OBL	Forb/herb		Showy beggarticks
35719	8	<i>Bidens discoidea</i>	FACW	Forb/herb		Bur-marigold
35707	1	<i>Bidens frondosa</i>	FACW	Forb/herb		Leafy beggarticks
35709	4	<i>Bidens tripartita</i>	OBL	Forb/herb		Tufted beggarticks
526935	7	<i>Blephilia hirsuta</i> var. <i>hirsuta</i>	[FACU-*]	Forb/herb		Woodmint
19121	5	<i>Boehmeria cylindrica</i>	OBL	Forb/herb		False nettle
526941	4	<i>Boltonia asteroides</i> var. <i>recognita</i>	[FACW]	Forb/herb		Boltonia
17171	4	<i>Botrychium dissectum</i>	FAC	Forb/herb		Dissected grapefern
526949	8	<i>Botrychium lanceolatum</i> var. <i>angustisegmentum</i>	[FACW]	Forb/herb	[T]	Narrow triangle moonwort
17181	4	<i>Botrychium lunaria</i>	FACW	Forb/herb	T	Common moonwort

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

17184	4	<i>Botrychium matricariifolium</i>	FACU	Forb/herb	Matricary grapefern
501024	10	<i>Botrychium mormo</i>	[FACU]	Forb/herb	Goblin Fern
17187	4	<i>Botrychium multifidum</i>	FACU	Forb/herb	Leathery grapefern
17188	7	<i>Botrychium oneidense</i>	[FACW-]	Forb/herb	Blunt-lobed grapefern
501029	3	<i>Botrychium rugulosum</i>	[FACU]	Forb/herb	St. Lawrence grapefern
17190	4	<i>Botrychium simplex</i>	FAC	Forb/herb	Least moonwort
17173	6	<i>Botrychium virginianum</i>	FACU	Forb/herb	Rattlesnake fern
18370	7	<i>Brasenia schreberi</i>	OBL	Forb/herb	Watershield
566208	6	<i>Bromus ciliatus</i> var. <i>ciliatus</i>	[FACW]	Graminoid	Fringed brome
40479	*	<i>Bromus japonicus</i>	FACU	Graminoid	Japanese brome
40503	7	<i>Bromus kalmii</i>	FAC	Graminoid	Kalm's brome
40504	6	<i>Bromus latiglumis</i>	FACW-	Graminoid	Broad-glumed brome
41533	7	<i>Buchloe dactyloides</i>	FACU-	Graminoid	Buffalo grass
523708	6	<i>Bulbostylis capillaris</i> ssp. <i>capillaris</i>	[FACU+]	Graminoid	Bulbostylis
38886	*	<i>Butomus umbellatus</i>	OBL	Forb/herb	flowering rush
40544	4	<i>Calamagrostis canadensis</i>	OBL	Graminoid	Bluejoint
523717	7	<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	[FACW+]	Graminoid	Marsh reedgrass
523718	7	<i>Calamagrostis stricta</i> ssp. <i>stricta</i>	[FACW+]	Graminoid	Narrow reedgrass
42546	8	<i>Calla palustris</i>	OBL	Forb/herb	Wild calla
32057	8	<i>Callitrichie hermaphroditica</i>	OBL	Forb/herb	Autumn water starwort
523724	8	<i>Callitrichie heterophylla</i> ssp. <i>heterophylla</i>	[OBL]	Forb/herb	Larger water starwort
501143	6	<i>Callitrichie palustris</i>	[OBL]	Forb/herb	Spring water starwort
507923	10	<i>Calopogon oklahomensis</i>	[FAC]	Forb/herb	Oklahoma grass pink
527036	9	<i>Calopogon tuberosus</i> var. <i>tuberosus</i>	[OBL]	Forb/herb	Tuberous grass pink
18456	9	<i>Caltha natans</i>	OBL	Forb/herb	E Floating marsh marigold
527037	6	<i>Caltha palustris</i> var. <i>palustris</i>	[OBL]	Forb/herb	Common marsh marigold
527040	9	<i>Calypso bulbosa</i> var. <i>americana</i>	[FACW]	Forb/herb	Fairy slipper
30650	1	<i>Calystegia sepium</i>	FAC	Subshrub, Forb/herb	Hedge bindweed
22600	*	<i>Camelina sativa</i>	FAC-	Forb/herb	Gold-of-pleasure
34476	5	<i>Campanula aparinoides</i>	OBL	Forb/herb	Marsh bellflower
34497	5	<i>Campanula rotundifolia</i>	FAC-	Forb/herb	Harebell
501172	4	<i>Campanulastrum americanum</i>	[FAC]	Forb/herb	Tall bellflower
507585	7	<i>Canadanthus modestus</i>	[FAC+]	Forb/herb	Modest aster
523741	*	<i>Cannabis sativa</i> ssp. <i>sativa</i>	[FAC]	Forb/herb	Marijuana
22766	*	<i>Capsella bursa-pastoris</i>	FAC-	Forb/herb	Shepherd's purse
22769	6	<i>Cardamine bulbosa</i>	OBL	Forb/herb	Spring cress
22787	5	<i>Cardamine concatenata</i>	FACU	Forb/herb	Cut-leaved toothwort
527059	5	<i>Cardamine parviflora</i> var. <i>arenicola</i>	[FAC]	Forb/herb	Small-flowered bitter cress
22772	4	<i>Cardamine pensylvanica</i>	FACW+	Forb/herb	Pennsylvanian bitter cress
527062	7	<i>Cardamine pratensis</i> var. <i>pratensis</i>	[OBL]	Forb/herb	Cuckoo flower
39489	5	<i>Carex alopecoidea</i>	[FACW+]	Graminoid	Foxtail sedge
39491	4	<i>Carex amphibola</i>	FAC+	Graminoid	Ambiguous sedge
39373	3	<i>Carex annectens</i>	FACW	Graminoid	Yellow-fruited sedge



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

527072	7	<i>Carex aquatilis</i> var. <i>aquatilis</i>	[OBL]	Graminoid	Aquatic sedge
39499	6	<i>Carex arcta</i>	OBL	Graminoid	Northern clustered sedge
39500	4	<i>Carex arctata</i>	[FAC]	Graminoid	Drooping woodland sedge
39449	5	<i>Carex atherodes</i>	OBL	Graminoid	Slough sedge
39445	4	<i>Carex aurea</i>	FACW+	Graminoid	Golden fruited sedge
39520	5	<i>Carex bebbii</i>	OBL	Graminoid	Bebb's sedge
527077	6	<i>Carex bicknellii</i> var. <i>bicknellii</i>	[FAC-]	Graminoid	Bicknell's sedge
39379	2	<i>Carex blanda</i>	FAC	Graminoid	Charming sedge
39451	3	<i>Carex brevior</i>	FAC	Graminoid	Short sedge
527079	8	<i>Carex bromoides</i> var. <i>bromoides</i>	[FACW+]	Graminoid	Brome-like sedge
39446	6	<i>Carex brunneascens</i>	FACW	Graminoid	Brownish sedge
39536	*	<i>Carex bushii</i>	FACW	Graminoid	Bush's sedge
39452	8	<i>Carex buxbaumii</i>	OBL	Graminoid	Buxbaum's sedge
39447	7	<i>Carex canescens</i>	OBL	Graminoid	Silvery sedge
39540	8	<i>Carex capillaris</i>	FACW	Graminoid	Hair-like sedge
39453	5	<i>Carex castanea</i>	FACW+	Graminoid	Chestnut-colored sedge
39543	5	<i>Carex cephaloidea</i>	FACU+	Graminoid	Thin-leaved sedge
39383	4	<i>Carex cephalophora</i>	FACU	Graminoid	Oval-headed sedge
39547	10	<i>Carex chordorrhiza</i>	OBL	Graminoid	Creeping sedge
39384	4	<i>Carex comosa</i>	OBL	Graminoid	Bristly sedge
39555	8	<i>Carex conjuncta</i>	FACW	Graminoid	T Jointed sedge
39556	8	<i>Carex conoidea</i>	FACW+	Graminoid	[T] Field sedge
39558	8	<i>Carex crawei</i>	FACW	Graminoid	Crawe's sedge
39559	4	<i>Carex crawfordii</i>	FAC+	Graminoid	Crawford's sedge
39388	6	<i>Carex crinita</i> var. <i>crinita</i>	[FACW+]	Graminoid	Fringe sedge
39561	3	<i>Carex cristatella</i>	FACW+	Graminoid	Crested sedge
39562	8	<i>Carex crus-corvi</i>	OBL	Graminoid	SC Raven's foot sedge
39563	7	<i>Carex cryptolepis</i>	OBL	Graminoid	Secretive sedge
39569	8	<i>Carex davisii</i>	FAC+	Graminoid	T Davis' sedge
527087	6	<i>Carex debilis</i> var. <i>rudgei</i>	[FACW]	Graminoid	Weak sedge
39575	6	<i>Carex deweyana</i>	FACU-	Graminoid	Dewey's sedge
39448	8	<i>Carex diandra</i>	OBL	Graminoid	Lesser-panicked sedge
39577	6	<i>Carex disperma</i>	OBL	Graminoid	Soft-leaved sedge
39581	6	<i>Carex eburnea</i>	FACU-	Graminoid	Ivory sedge
39583	8	<i>Carex echinata</i> ssp. <i>echinata</i>	[OBL]	Graminoid	Slender sedge
39591	7	<i>Carex emoryi</i>	OBL	Graminoid	Emory's sedge
39470	10	<i>Carex exilis</i>	OBL	Graminoid	SC Coastal sedge
39391	8	<i>Carex festucacea</i>	FAC	Graminoid	T Fescue sedge
39606	9	<i>Carex flava</i>	OBL	Graminoid	SC Yellow sedge
39608	9	<i>Carex formosa</i>	FACW-	Graminoid	E Handsome sedge
39611	6	<i>Carex garberi</i>	FACW	Graminoid	T Garber's sedge
39620	4	<i>Carex gracillima</i>	FACU*	Graminoid	Graceful sedge
39398	3	<i>Carex granularis</i>	FACW+	Graminoid	Granular sedge
39622	8	<i>Carex grayi</i>	FACW+	Graminoid	Gray's sedge
39624	9	<i>Carex gynocrates</i>	OBL	Graminoid	Feminine sedge
39454	8	<i>Carex haydenii</i>	OBL	Graminoid	Hayden's sedge
39456	4	<i>Carex hystericina</i>	OBL	Graminoid	Porcupine sedge



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

39652	7	<i>Carex interior</i>	OBL	Graminoid	Interior sedge
39403	5	<i>Carex intumescens</i>	FACW+	Graminoid	Bladder sedge
39409	5	<i>Carex lacustris</i>	OBL	Graminoid	Lake sedge
39457	6	<i>Carex laeviconica</i>	OBL	Graminoid	Smooth-cone sedge
39410	9	<i>Carex laevigata</i>	OBL	Graminoid	Smooth-sheathed sedge
527107	7	<i>Carex lasiocarpa</i> var. <i>americana</i>	[OBL]	Graminoid	Wiregrass sedge
527114	9	<i>Carex lenticularis</i> var. <i>lenticularis</i>	[OBL]	Graminoid	Lenticular sedge
523766	7	<i>Carex leptalea</i> ssp. <i>leptalea</i>	[OBL]	Graminoid	Bristle-stalked sedge
39670	5	<i>Carex leptonervia</i>	FAC	Graminoid	Fine-nerved sedge
39674	9	<i>Carex limosa</i>	OBL	Graminoid	Candle-lantern sedge
527119	9	<i>Carex livida</i> var. <i>radicaulis</i>	[OBL]	Graminoid	Lead-colored sedge
39413	6	<i>Carex lupulina</i>	OBL	Graminoid	Hop umbrella sedge
523770	8	<i>Carex magellanica</i> ssp. <i>irrigua</i>	[OBL]	Graminoid	Poor sedge
39686	6	<i>Carex meadii</i>	FAC	Graminoid	Mead's sedge
39695	8	<i>Carex michauxiana</i>	OBL	Graminoid	Michaux's sedge
39704	3	<i>Carex molesta</i>	FAC+	Graminoid	Field oval sedge
39709	7	<i>Carex muskingumensis</i>	OBL	Graminoid	Muskingum sedge
39720	4	<i>Carex normalis</i>	FACW	Graminoid	Right-angle sedge
39721	10	<i>Carex norvegica</i>	FACW	Graminoid	Cyperaceae
39729	8	<i>Carex oligosperma</i>	OBL	Graminoid	Bog wiregrass sedge
39743	9	<i>Carex pauciflora</i>	OBL	Graminoid	Few-flowered sedge
507767	4	<i>Carex pellita</i>	[OBL]	Graminoid	Woolly sedge
39767	5	<i>Carex praegracilis</i>	FACW	Graminoid	Very slender sedge
39768	8	<i>Carex prairea</i>	FACW+	Graminoid	Prairie sedge
39770	9	<i>Carex praticola</i>	FAC	Graminoid	SC Prairie-dweller sedge
39425	4	<i>Carex projecta</i>	FACW+	Graminoid	Projecting sedge
39462	5	<i>Carex pseudocyperus</i>	OBL	Graminoid	Cyperus sedge
39778	4	<i>Carex radiata</i>	[FAC-]	Graminoid	Eastern star sedge
39783	5	<i>Carex retrorsa</i>	OBL	Graminoid	Retorse sedge
39464	8	<i>Carex rostrata</i>	OBL	Graminoid	Northern yellow lake sedge
527147	7	<i>Carex sartwellii</i> var. <i>sartwellii</i>	[FACW+]	Graminoid	Sartwell's sedge
39799	10	<i>Carex scirpoidea</i>	FACU	Graminoid	SC Northern singlespike sedge
527153	4	<i>Carex scoparia</i> var. <i>scoparia</i>	[FACW]	Graminoid	Pointed broom sedge
39808	6	<i>Carex sparganioides</i>	FAC	Graminoid	Thin-leaved sedge
39814	4	<i>Carex sprengelii</i>	FAC	Graminoid	Sprengel's sedge
39819	10	<i>Carex sterilis</i>	OBL	Graminoid	T Sterile sedge
527159	3	<i>Carex stipata</i> var. <i>stipata</i>	[OBL]	Graminoid	Awl-fruited sedge
39435	5	<i>Carex stricta</i>	OBL	Graminoid	Tussock sedge
39826	9	<i>Carex suberecta</i>	OBL	Graminoid	Wedge-fruited oval sedge
39833	5	<i>Carex sychnocephala</i>	FACW+	Graminoid	Many-headed sedge
39838	4	<i>Carex tenera</i>	FAC+	Graminoid	Marsh straw sedge
39840	8	<i>Carex tenuiflora</i>	OBL	Graminoid	Sparse-flowered sedge
39841	7	<i>Carex tetanica</i>	FACW	Graminoid	Rigid sedge
527164	4	<i>Carex tribuloides</i> var. <i>tribuloides</i>	[FACW+]	Graminoid	Blunt broom sedge
39851	7	<i>Carex trichocarpa</i>	OBL	Graminoid	Hairy-fruited sedge



527166	7	<i>Carex trisperma</i> var. <i>trisperma</i>	[OBL]	Graminoid	Three-seeded bog sedge	
39854	6	<i>Carex tuckermanii</i>	OBL	Graminoid	Tuckerman's sedge	
39439	9	<i>Carex typhina</i>	OBL	Graminoid	Cattail sedge	
501288	7	<i>Carex utriculata</i>	[OBL]	Graminoid	Beaked sedge	
39859	8	<i>Carex vaginata</i>	OBL	Graminoid	Sheathed sedge	
39467	6	<i>Carex vesicaria</i>	OBL	Graminoid	Inflated sedge	
523784	6	<i>Carex viridula</i> ssp. <i>viridula</i>	[OBL]	Graminoid	Green sedge	
39442	3	<i>Carex vulpinoidea</i>	OBL	Graminoid	Fox sedge	
39873	9	<i>Carex woodii</i>	FAC	Graminoid	Wood's sedge	
184202	5	<i>Carpinus caroliniana</i> ssp. <i>virginiana</i>	[FAC]	Tree, Shrub	Blue beech	
19227	5	<i>Carya cordiformis</i>	FAC	Tree	Bitternut hickory	
19243	5	<i>Carya ovata</i>	FACU	Tree	Shagbark hickory	
501322	6	<i>Castilleja coccinea</i>	FAC	Forb/herb	Indian paintbrush	
34315	*	<i>Catalpa speciosa</i>	FACU	Tree	Northern catalpa	
27974	3	<i>Celastrus scandens</i>	FACU*	Vine	Climbing bittersweet	
527229	3	<i>Celtis occidentalis</i> var. <i>occidentalis</i>	[FAC-]	Tree, Shrub	Hackberry	
30036	*	<i>Centaurium pulchellum</i>	FACU-	Forb/herb	Branched centaury	
34786	7	<i>Cephalanthus occidentalis</i>	OBL	Tree, Shrub	Buttonbush	
19947	5	<i>Cerastium arvense</i>	FACU-	Forb/herb	Field chickweed	
19950	6	<i>Cerastium brachypodium</i>	FACU-	Forb/herb	Short-stalk chickweed	
523831	*	<i>Cerastium fontanum</i> ssp. <i>vulgare</i>	[FACU]	Forb/herb	Big chickweed	
527239	2	<i>Cerastium nutans</i> var. <i>nutans</i>	[FACU+]	Forb/herb	Nodding chickweed	
18403	2	<i>Ceratophyllum demersum</i>	OBL	Forb/herb	Common coontail	
501366	10	<i>Ceratophyllum echinatum</i>	[OBL]	Forb/herb	Spiny coontail	
566216	2	<i>Chamaecrista fasciculata</i> var. <i>fasciculata</i>	[FACU-]	Forb/herb	Partridge pea	
527274	8	<i>Chamaedaphne calyculata</i> var. <i>angustifolia</i>	[OBL]	Shrub	Leatherleaf	
565061	0	<i>Chamaesyce maculata</i>	[FACU-]	Forb/herb	Prostrate hairy spurge	
501442	0	<i>Chamaesyce nutans</i>	[FACU]	Forb/herb	Nodding spurge	
566020	3	<i>Chamerion angustifolium</i> ssp. <i>circumvagum</i>	[FAC]	Forb/herb	Fireweed	
33182	7	<i>Chelone glabra</i>	OBL	Forb/herb	White turtlehead	
20592	*	<i>Chenopodium album</i>	FAC-	Forb/herb	Lambsquarters	
20596	*	<i>Chenopodium botrys</i>	FACU-	Forb/herb	Jerusalem oak goosefoot	
20610	*	<i>Chenopodium glaucum</i>	FACW	Forb/herb	Oakleaf goosefoot	
20630	3	<i>Chenopodium rubrum</i>	OBL	Forb/herb	Alkali blite	
24191	9	<i>Chrysosplenium americanum</i>	OBL	Forb/herb	American golden saxifrage	
24193	10	<i>Chrysosplenium iowense</i>	OBL	Forb/herb	E	Iowa golden saxifrage
29459	7	<i>Cicuta bulbifera</i>	OBL	Forb/herb	Bulb-bearing water hemlock	
29456	5	<i>Cicuta maculata</i>	OBL	Forb/herb	Spotted water hemlock	
40583	5	<i>Cinna arundinacea</i>	FACW	Graminoid	Stout woodreed	
40584	5	<i>Cinna latifolia</i>	FACW+	Graminoid	Drooping woodreed	
27564	6	<i>Circaeal alpina</i> ssp. <i>alpina</i>	[FACW]	Forb/herb	Alpine enchanter's nightshade	



27569	2	<i>Circaeа lutetiana</i> ssp. <i>canadensis</i>	[FACU]	Forb/herb	Common enchanter's nightshade	
36335	*	<i>Cirsium arvense</i>	FACU	Forb/herb	Canada thistle	
36387	6	<i>Cirsium muticum</i>	OBL	Forb/herb	Swamp thistle	
36428	*	<i>Cirsium vulgare</i>	FACU-	Forb/herb	Bull thistle	
39880	10	<i>Cladium mariscoides</i>	OBL	Graminoid	SC	Twig rush
527397	8	<i>Claytonia caroliniana</i> var. <i>caroliniana</i>	[FACU]	Forb/herb	[SC]	Carolina spring beauty
527416	6	<i>Claytonia virginica</i> var. <i>virginica</i>	[FACU]	Forb/herb	Virginia spring beauty	
18716	4	<i>Clematis virginiana</i>	FAC	Vine, Subshrub	Virgin's bower	
22626	*	<i>Cleome serrulata</i>	FACU-	Forb/herb	Rocky Mountain beeplant	
42903	7	<i>Clintonia borealis</i>	FAC+	Forb/herb	Bluebead lily	
527434	6	<i>Coeloglossum viride</i> var. <i>virescens</i>	[FAC]	Forb/herb	Long-bracted orchid	
31041	5	<i>Collomia linearis</i>	FACU	Forb/herb	Linear-leaved collomia	
523880	4	<i>Comandra umbellata</i> ssp. <i>umbellata</i>	[FACU]	Subshrub, Shrub,	Bastard toadflax	
501615	7	<i>Comarum palustre</i>	[OBL]	Forb/herb	Marsh cinquefoil	
527459	*	<i>Commelina communis</i> var. <i>communis</i>	[FAC]	Forb/herb	Asiatic dayflower	
29473	*	<i>Conium maculatum</i>	FACW	Forb/herb	Poison hemlock	
527476	0	<i>Conyzа canadensis</i> var. <i>canadensis</i>	[FAC-]	Forb/herb	Horseweed	
18767	7	<i>Coptis trifolia</i>	FACW	Forb/herb	Goldthread	
43523	7	<i>Corallorrhiza maculata</i>	FACU-	Forb/herb	Spotted coralroot	
527479	8	<i>Corallorrhiza striata</i> var. <i>striata</i>	[FACU-]	Forb/herb	Striped coralroot	
43527	6	<i>Corallorrhiza trifida</i>	FACW-	Forb/herb	Early coralroot	
37139	*	<i>Coreopsis lanceolata</i>	FACU	Forb/herb	Lanceleaf tickseed	
527496	*	<i>Coreopsis tinctoria</i> var. <i>tinctoria</i>	[FAC-]	Forb/herb	Golden tickseed	
511428	3	<i>Corispermum americanum</i>	[FACU]	Forb/herb	American Bugseed	
27816	6	<i>Cornus canadensis</i>	FAC	Subshrub, Shrub,	Bunchberry	
511442	4	<i>Cornus obliqua</i>	[FACW+]	Forb/herb	Silky dogwood	
501635	2	<i>Cornus racemosa</i>	[FACW-]	Shrub	Gray dogwood	
523904	3	<i>Cornus sericea</i> ssp. <i>sericea</i>	[FACW]	Tree, Shrub	Red-osier dogwood	
19506	3	<i>Corylus americana</i>	FACU-	Shrub	American hazelnut	
24099	5	<i>Crassula aquatica</i>	[OBL]	Forb/herb	T	Pigmyweed
527518	5	<i>Crataegus douglasii</i> var. <i>douglasii</i>	[FAC]	Tree, Shrub	[T]	Black hawthorn
24585	1	<i>Crataegus mollis</i>	FACW-	Tree, Shrub	Downy hawthorn	
37204	8	<i>Crepis runcinata</i> ssp. <i>runcinata</i>	[FACW]	Forb/herb	Incised hawk's beard	
17462	10	<i>Cryptogramma stelleri</i>	FACU	Forb/herb	Slender cliff brake	
29475	3	<i>Cryptotaenia canadensis</i>	FAC	Forb/herb	Honewort	
30724	3	<i>Cuscuta cephalanthi</i>	[FAC]	Vine, Forb/herb	Buttonbush dodder	
501845	3	<i>Cuscuta coryli</i>	[FACU]	Vine, Forb/herb	Hazel dodder	
30735	3	<i>Cuscuta glomerata</i>	[FAC]	Vine, Forb/herb	Aster dodder	
30712	3	<i>Cuscuta gronovii</i>	[FACW]	Vine, Forb/herb	Swamp dodder	



30747	3	<i>Cuscuta polygonorum</i>	[FACW]	Vine, Forb/herb	Smartweed dodder
20685	2	<i>Cycloloma atriplicifolium</i>	FACU	Forb/herb	Winged pigweed
39883	8	<i>Cyperus acuminatus</i>	OBL	Graminoid	Short-pointed umbrella sedge
501914	4	<i>Cyperus bipartitus</i>	[FACW+]	Graminoid	Brook nut sedge
39885	5	<i>Cyperus diandrus</i>	FACW+	Graminoid	Sedge galingale
39887	2	<i>Cyperus erythrorhizos</i>	OBL	Graminoid	Red-rooted cyperus
534184	*	<i>Cyperus esculentus</i> var. <i>leptostachyus</i>	[FACW]	Graminoid	Chufa flatsedge
501933	6	<i>Cyperus lupulinus</i>	[FACU-]	Graminoid	Slender nut sedge
39894	4	<i>Cyperus odoratus</i>	FACW	Graminoid	Fragrant cyperus
39900	*	<i>Cyperus rotundus</i>	FAC-	Graminoid	nutgrass
39963	5	<i>Cyperus schweinitzii</i>	FACU+	Graminoid	Schweinitz's nut sedge
501940	2	<i>Cyperus squarrosus</i>	[OBL]	Graminoid	Awned umbrella sedge
39901	2	<i>Cyperus strigosus</i>	FACW	Graminoid	Straw-colored umbrella sedge
43534	8	<i>Cypripedium acaule</i>	FACW	Forb/herb	Stemless lady's slipper
43540	9	<i>Cypripedium arietinum</i>	FACW+	Forb/herb	T Ram's head orchid
43542	10	<i>Cypripedium candidum</i>	OBL	Forb/herb	SC Small white lady's slipper
501943	8	<i>Cypripedium parviflorum</i>	[FAC+]	Forb/herb	Yellow lady's slipper
566231	8	<i>Cypripedium pubescens</i> var. <i>pubescens</i>	[FAC+]	Forb/herb	Yellow lady's slipper
43538	8	<i>Cypripedium reginae</i>	FACW+	Forb/herb	Showy lady's slipper
43539	9	<i>Cypripedium X andrewsii</i>	FACW	Forb/herb	Andrew's lady's slipper
17481	8	<i>Cystopteris bulbifera</i>	FACW-	Forb/herb	Bulblet fern
17482	6	<i>Cystopteris fragilis</i>	FACU	Forb/herb	Fragile fern
193447	*	<i>Dactylis glomerata</i> ssp. <i>glomerata</i>	[FACU]	Graminoid	Orchardgrass
565123	7	<i>Dasiphora floribunda</i>	[FACW]	Shrub	Shrubby cinquefoil
27076	8	<i>Decodon verticillatus</i>	OBL	Subshrub, Shrub	SC Waterwillow
501994	8	<i>Deparia acrostichoides</i>	[FAC]	Forb/herb	Silvery spleenwort
40586	8	<i>Deschampsia caespitosa</i>	FACW+	Graminoid	Tufted hair grass
26661	8	<i>Desmanthus illinoensis</i>	FAC-	Shrub, Forb/herb	SC Prairie mimosa
25791	4	<i>Desmodium canadense</i>	FAC-	Forb/herb	Canada tick trefoil
41646	5	<i>Dichanthelium acuminatum</i>	FAC	Graminoid	Hairy panic grass
41654	5	<i>Dichanthelium boreale</i>	FACU+	Graminoid	Northern panic grass
41648	6	<i>Dichanthelium latifolium</i>	FACU	Graminoid	Broad-leaved panic grass
41662	10	<i>Dichanthelium leibergii</i>	FACU+	Graminoid	Leiberg's panic grass
41667	3	<i>Dichanthelium oligosanthes</i>	FACU	Graminoid	Scribner's panic grass
527697	7	<i>Dichanthelium ovale</i> var. <i>addisonii</i>	[FACU]	Graminoid	Stiff -leaved panic grass
41650	8	<i>Dichanthelium sabulorum</i>	FAC-	Graminoid	Columbian panic grass
27106	5	<i>Didiplis diandra</i>	OBL	Forb/herb	Water purslane
40637	*	<i>Digitaria ischaemum</i>	FACU	Graminoid	Smooth crabgrass
40604	*	<i>Digitaria sanguinalis</i>	FACU	Graminoid	Hairy crabgrass
43367	4	<i>Dioscorea villosa</i>	FAC-	Vine, Forb/herb	Wild yam



502095	10	<i>Diplazium pycnocarpon</i>	[FAC-]	Forb/herb	T	Narrow-leaved spleenwort
27129	8	<i>Dirca palustris</i>	FAC	Shrub		Leatherwood
40662	6	<i>Distichlis spicata</i>	FACW	Graminoid		Salt grass
524926	10	<i>Dodecatheon meadia ssp. meadia</i>	[FACU]	Forb/herb	[E]	Prairie shooting star
508093	5	<i>Doellingeria umbellata</i>	[FACW]	Forb/herb		Flat-topped aster
32490	3	<i>Dracocephalum parviflorum</i>	FACU	Forb/herb		Dragonhead
22018	10	<i>Drosera anglica</i>	[OBL]	Forb/herb	SC	English sundew
22013	8	<i>Drosera intermedia</i>	OBL	Forb/herb		Spatulate-leaved sundew
22014	10	<i>Drosera linearis</i>	OBL	Forb/herb	SC	Linear-leaved sundew
527791	8	<i>Drosera rotundifolia</i> var. <i>rotundifolia</i>	[OBL]	Forb/herb		Round-leaved sundew
502157	6	<i>Dryopteris carthusiana</i>	[FACW-]	Forb/herb		Spinulose shield fern
17531	7	<i>Dryopteris cristata</i>	OBL	Forb/herb		Crested fern
17534	8	<i>Dryopteris expansa</i>	[FAC]	Forb/herb		Spreading wood fern
17537	10	<i>Dryopteris goldiana</i>	FAC	Forb/herb	SC	Goldie's fern Dryopteridaceae
17538	7	<i>Dryopteris intermedia</i>	FAC	Forb/herb		Glandular wood fern
17541	10	<i>Dryopteris marginalis</i>	FACU	Forb/herb	T	Marginal shield fern
17525	10	<i>Dryopteris X boottii</i>	FACW	Forb/herb		Boott's shield fern
17548	10	<i>Dryopteris X triploidea</i>	FAC	Forb/herb		Triploid shield fern
17549	10	<i>Dryopteris X uliginosa</i>	FAC*	Forb/herb		Swamp shield fern
40009	8	<i>Dulichium arundinaceum</i>	OBL	Graminoid		Three-way sedge
502210	*	<i>Echinochloa crus-galli</i>	FACW	Graminoid		Barnyardgrass
40672	1	<i>Echinochloa muricata</i>	OBL	Graminoid		Rough barnyardgrass
40669	5	<i>Echinochloa walteri</i>	OBL	Graminoid		Walter's barnyard grass
22378	2	<i>Echinocystis lobata</i>	FACW-	Vine, Forb/herb		Wild cucumber
196226	*	<i>Eclipta prostrata</i>	[FACW]	Forb/herb		False daisy
27770	*	<i>Elaeagnus angustifolia</i>	FACU-	Tree, Shrub		Russian olive
21411	9	<i>Elatine minima</i>	OBL	Forb/herb		Small waterwort
21413	9	<i>Elatine triandra</i>	OBL	Forb/herb		Three-stamened waterwort
527851	4	<i>Eleocharis acicularis</i> var. <i>acicularis</i>	[OBL]	Graminoid		Least spikerush
40012	8	<i>Eleocharis compressa</i>	FACW	Graminoid		Flattened spikerush
502236	7	<i>Eleocharis elliptica</i>	[FACW]	Graminoid		Elliptic spikerush
502237	8	<i>Eleocharis engelmannii</i>	FACW	Graminoid		Engelmann's spike rush
40043	3	<i>Eleocharis erythropoda</i>	OBL	Graminoid		Red-rooted spike rush
40047	6	<i>Eleocharis intermedia</i>	FACW	Graminoid		Intermediate spikerush
40060	5	<i>Eleocharis nitida</i>	OBL	Graminoid	T	Neat spike rush
40017	3	<i>Eleocharis obtusa</i>	OBL	Graminoid		Blunt spike rush
527856	9	<i>Eleocharis olivacea</i> var. <i>olivacea</i>	[OBL]	Graminoid	[T]	Olivaceous spikerush
40061	6	<i>Eleocharis ovata</i>	OBL	Graminoid		Ovoid spikerush
40019	5	<i>Eleocharis palustris</i>	OBL	Graminoid		Red-stalked spikerush
40020	6	<i>Eleocharis parvula</i>	OBL	Graminoid	SC	Dwarf spikerush
502240	9	<i>Eleocharis quinqueflora</i>	[OBL]	Graminoid	SC	Few-flowered spike rush
40068	10	<i>Eleocharis robbinsii</i>	OBL	Graminoid		Robbin's spikerush
40022	10	<i>Eleocharis rostellata</i>	OBL	Graminoid	T	Beaked spikerush
40074	10	<i>Eleocharis wolfii</i>	OBL	Graminoid	E	Wolf's spikerush



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

41692	*	<i>Eleusine indica</i>	FACU	Graminoid	Indian goosegrass
31360	1	<i>Ellisia nyctelea</i>	FAC+	Forb/herb	Ellisia
38940	5	<i>Elodea bifoliata</i>	[OBL]	Forb/herb	Two leaf waterweed
38937	4	<i>Elodea canadensis</i>	OBL	Forb/herb	Canadian elodea
502246	7	<i>Elodea nuttallii</i>	OBL	Forb/herb	Nuttall's elodea
40683	3	<i>Elymus canadensis</i>	FAC-	Graminoid	Nodding wild rye
512839	*	<i>Elymus repens</i>	[FACU]	Graminoid	Quackgrass
502282	5	<i>Elymus trachycaulus</i>	[FAC]	Graminoid	Slender wheatgrass
40714	5	<i>Elymus villosus</i>	FACU	Graminoid	Downy wild rye
40681	4	<i>Elymus virginicus</i>	FACW-	Graminoid	Virginia wild rye
40715	8	<i>Elymus wiegandii</i>	FAC	Graminoid	Weigand's wild rye
524042	10	<i>Empetrum eamesii</i> ssp. <i>atropurpureum</i>	[FAC]	Subshrub, Shrub	[E] Purple crowberry
524044	10	<i>Empetrum nigrum</i> ssp. <i>hermaphroditum</i>	[FACW-]	Subshrub, Shrub	[E] Black crowberry
18769	5	<i>Enemion biternatum</i>	FAC	Forb/herb	False rue anemone
27294	3	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	[FACU]	Forb/herb	American willow herb
27295	3	<i>Epilobium ciliatum</i> ssp. <i>glandulosum</i>	[FACU]	Forb/herb	Northern willow herb
27298	3	<i>Epilobium coloratum</i>	OBL	Forb/herb	Purple-leaved willow herb
27311	7	<i>Epilobium leptophyllum</i>	OBL	Forb/herb	Linear-leaved willow herb
27320	7	<i>Epilobium palustre</i>	OBL	Forb/herb	Marsh willow herb
27326	8	<i>Epilobium strictum</i>	OBL	Forb/herb	Downy willow herb
17152	1	<i>Equisetum arvense</i>	FAC	Forb/herb	Field horsetail
17150	7	<i>Equisetum fluviatile</i>	OBL	Forb/herb	Water horsetail
527892	2	<i>Equisetum hyemale</i> var. <i>affine</i>	[FACW-]	Forb/herb	Tall scouring rush
17156	2	<i>Equisetum laevigatum</i>	FACW	Forb/herb	Smooth scouring rush
17153	9	<i>Equisetum palustre</i>	FACW	Forb/herb	Marsh horsetail
17159	6	<i>Equisetum pratense</i>	FACW	Forb/herb	Meadow horsetail
17151	6	<i>Equisetum scirpoide</i> s	FAC+	Forb/herb	Dwarf scouring rush
17161	6	<i>Equisetum sylvaticum</i>	FACW	Forb/herb	Woodland horsetail
181782	6	<i>Equisetum variegatum</i> var. <i>variegatum</i>	[FACW]	Forb/herb	Variegated scouring rush
502336	2	<i>Equisetum X ferrissii</i>	FACW	Forb/herb	Ferriss' scouring rush
17157	7	<i>Equisetum X litorale</i>	OBL	Forb/herb	Shallow-water horsetail
502337	5	<i>Equisetum X nelsonii</i>	FAC+	Forb/herb	Nelson's scouring rush
40719	*	<i>Eragrostis ciliaris</i>	FACU	Graminoid	Stinkgrass
40741	5	<i>Eragrostis frankii</i>	FACW	Graminoid	Frank's lovegrass
40721	4	<i>Eragrostis hypnoides</i>	OBL	Graminoid	Creeping lovegrass
527900	0	<i>Eragrostis pectinacea</i> var. <i>pectinacea</i>	[FAC]	Graminoid	Tufted lovegrass
40755	*	<i>Eragrostis pilosa</i>	FACU	Graminoid	Indian lovegrass
196276	2	<i>Erechtites hieraciifolia</i> var. <i>hieraciifolia</i>	[FACU]	Forb/herb	Pilewort
35813	8	<i>Erigeron acris</i> ssp. <i>politus</i>	[FAC]	Forb/herb	[SC] Bitter fleabane
35804	0	<i>Erigeron annuus</i>	FAC-	Forb/herb	Annual fleabane
35897	6	<i>Erigeron lonchophyllus</i>	FACW-	Forb/herb	[SC] Short ray fleabane Asteraceae

527953	2	<i>Erigeron philadelphicus</i> var. <i>philadelphicus</i>	[FACW]	Forb/herb	Philadelphia fleabane
35808	6	<i>Erigeron pulchellus</i>	FACU	Forb/herb	Poor Robin's fleabane
35951	2	<i>Erigeron strigosus</i>	FAC-	Forb/herb	Daisy fleabane
502404	9	<i>Eriocaulon aquaticum</i>	[OBL]	Forb/herb	Pipewort
40080	8	<i>Eriophorum angustifolium</i>	OBL	Graminoid	Tall cottongrass
40093	10	<i>Eriophorum chamissois</i>	OBL	Graminoid	Chamisso's cottongrass
528038	9	<i>Eriophorum gracile</i> var. <i>gracile</i>	[OBL]	Graminoid	Slender cottongrass
40103	9	<i>Eriophorum tenellum</i>	OBL	Graminoid	Delicate cottongrass
528041	9	<i>Eriophorum vaginatum</i> var. <i>spissum</i>	[OBL]	Graminoid	Tussock cottongrass
40105	8	<i>Eriophorum virginicum</i>	OBL	Graminoid	Tawny cottongrass
40106	9	<i>Eriophorum viridicarinatum</i>	OBL	Graminoid	Green-keeled cottongrass
182161	9	<i>Eryngium yuccifolium</i> var. <i>yuccifolium</i>	[FAC+]	Forb/herb	Rattlesnake master Apiaceae
22933	*	<i>Erysimum cheiranthoides</i>	FACU	Forb/herb	Wormseed wallflower
196386	5	<i>Erythronium propullans</i>	[FACU]	Forb/herb	E Dwarf trout lily
528148	7	<i>Euonymus atropurpurea</i> var. <i>atropurpurea</i>	[FAC-]	Tree, Shrub	Wahoo
				Subshrub, Shrub, Forb/herb	
502517	4	<i>Eupatorium maculatum</i>	[OBL]	Shrub, Forb/herb	Spotted Joe pye weed
528117	4	<i>Eupatorium perfoliatum</i> var. <i>perfoliatum</i>	[FACW+]	Forb/herb	Common boneset
502522	6	<i>Eupatorium purpureum</i>	[FAC]	Forb/herb	Sweet Joe pye weed
28098	1	<i>Euphorbia marginata</i>	FACU-	Forb/herb	Snow-on-the-mountain
28138	5	<i>Euphorbia spathulata</i>	[FACU*]	Forb/herb	Prairie spurge
37352	4	<i>Euthamia graminifolia</i>	FACW-	Forb/herb	Grass-leaved goldenrod
37353	5	<i>Euthamia gymnospermoides</i>	[FACW]	Forb/herb	Great Plains goldenrod
40821	7	<i>Festuca paradoxa</i>	FAC	Graminoid	Paradox fescue
40797	3	<i>Festuca rubra</i> ssp. <i>rubra</i>	[FAC-]	Graminoid	Red fescue
502612	6	<i>Festuca subverticillata</i>	[FACU+]	Graminoid	Nodding fescue
40111	6	<i>Fimbristylis autumnalis</i>	FACW+	Graminoid	SC Autumn fimbry
528172	10	<i>Fimbristylis puberula</i> var. <i>interior</i>	[OBL]	Graminoid	E Hairy fimbry Cyperaceae
29167	9	<i>Floerkea proserpinacoides</i>	FAC+	Forb/herb	T False mermaid
24639	2	<i>Fragaria virginiana</i>	FAC-	Forb/herb	Common strawberry
504744	*	<i>Frangula alnus</i>	[FAC+]	Tree, Shrub	Glossy buckthorn
32931	5	<i>Fraxinus americana</i>	FACU	Tree	White ash
32945	6	<i>Fraxinus nigra</i>	FACW+	Tree	Black ash
32929	2	<i>Fraxinus pennsylvanica</i>	FACW	Tree	Green ash
34797	1	<i>Galium aparine</i>	FACU	Vine, Forb/herb	Cleavers
34798	6	<i>Galium asprellum</i>	OBL	Forb/herb	Rough bedstraw
565204	4	<i>Galium boreale</i>	FAC	Subshrub, Shrub	Northern bedstraw
34831	8	<i>Galium brevipes</i>	OBL	Forb/herb	Short-stalked bedstraw
34848	5	<i>Galium concinnum</i>	FACU	Forb/herb	Shining bedstraw
34881	9	<i>Galium labradoricum</i>	OBL	Forb/herb	Labrador bedstraw



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

524097	5	<i>Galium obtusum</i> ssp. <i>obtusum</i>	[FACW+]	Forb/herb	Obtuse bedstraw	
34803	5	<i>Galium tinctorium</i>	OBL	Forb/herb	Small bedstraw	
34807	6	<i>Galium trifidum</i> ssp. <i>trifidum</i>	[FACW+]	Vine, Forb/herb	Three-cleft bedstraw	
34933	4	<i>Galium triflorum</i>	FACU+	Forb/herb	Sweet-scented bedstraw	
23653	8	<i>Gaultheria hispida</i>	FACW	Subshrub, Shrub	Creeping snowberry	
23657	6	<i>Gaultheria procumbens</i>	FACU	Subshrub, Shrub	Wintergreen	
27642	2	<i>Gaura biennis</i>	FACU-	Forb/herb	Biennial gaura	
23660	7	<i>Gaylussacia baccata</i>	FACU	Shrub	Black huckleberry	
29965	7	<i>Gentiana alba</i>	FACU	Forb/herb	Yellowish gentian	
29967	6	<i>Gentiana andrewsii</i>	FACW	Forb/herb	Bottle gentian	
29985	7	<i>Gentiana rubricaulis</i>	OBL	Forb/herb	Great Lakes gentian	
30060	7	<i>Gentianella amarella</i> ssp. <i>acuta</i>	[OBL]	Forb/herb	SC	Felwort
30071	8	<i>Gentianella quinquefolia</i> ssp. <i>occidentalis</i>	[FAC]	Forb/herb	Stiff gentian	
30080	7	<i>Gentianopsis crinita</i>	FACW+	Forb/herb	Greater fringed gentian	
30091	8	<i>Gentianopsis virgata</i>	OBL*	Forb/herb	Lesser fringed gentian	
502755	9	<i>Geocaulon lividum</i>	FACW-	Forb/herb	Northern comandra	
29107	4	<i>Geranium maculatum</i>	FACU	Forb/herb	Wild geranium	
24647	3	<i>Geum aleppicum</i>	FAC+	Forb/herb	Yellow avens	
24645	2	<i>Geum canadense</i>	FAC	Forb/herb	White avens	
24652	4	<i>Geum laciniatum</i>	FACW	Forb/herb	Rough avens	
528245	5	<i>Geum macrophyllum</i> var. <i>perincisum</i>	[FACW+]	Forb/herb	Big-leaved avens	
24659	8	<i>Geum rivale</i>	OBL	Forb/herb	Purple avens	
195836	7	<i>Geum triflorum</i> var. <i>triflorum</i>	[FACU-]	Forb/herb	Prairie smoke	
23982	6	<i>Glaux maritima</i>	OBL*	Forb/herb	E	Sea milkwort
502801	*	<i>Glechoma hederacea</i>	FACU	Forb/herb	Ground ivy	
26714	*	<i>Gleditsia triacanthos</i>	FAC	Tree, Shrub	Honeylocust	
40841	8	<i>Glyceria borealis</i>	OBL	Graminoid	Northern manna grass	
40842	7	<i>Glyceria canadensis</i>	OBL	Graminoid	Rattlesnake grass	
528256	6	<i>Glyceria grandis</i> var. <i>grandis</i>	[OBL]	Graminoid	Tall manna grass	
40833	4	<i>Glyceria striata</i>	OBL	Graminoid	Fowl manna grass	
26719	4	<i>Glycyrrhiza lepidota</i>	FACU-	Forb/herb	Wild licorice	
502816	*	<i>Gnaphalium uliginosum</i>	[FAC]	Forb/herb	Marsh cudweed	
43594	8	<i>Goodyera pubescens</i>	FAC*	Forb/herb	Downy rattlesnake plantain	
43595	8	<i>Goodyera repens</i>	FACU	Forb/herb	Lesser rattlesnake plantain	
43596	7	<i>Goodyera tessellata</i>	FACU	Forb/herb	Tesselated rattlesnake plantain	
33197	4	<i>Gratiola neglecta</i>	OBL	Forb/herb	Disk hyssop	
37472	0	<i>Grindelia squarrosa</i>	FACU	Forb/herb	Gumweed	
17579	6	<i>Gymnocarpium dryopteris</i>	FAC	Forb/herb	Common oak fern	
17581	9	<i>Gymnocarpium robertianum</i>	FACU	Forb/herb	Northern oak fern	
31921	1	<i>Hackelia virginiana</i>	FAC-	Forb/herb	Virginia stickseed	
30093	6	<i>Halenia deflexa</i>	FAC	Forb/herb	Spurred gentian	
19033	7	<i>Hamamelis virginiana</i>	FACU	Tree, Shrub	SC	Witch hazel



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

37587	9	<i>Hasteola suaveolens</i>	OBL	Forb/herb	[E]	Sweet smelling Indian plantain
528347	4	<i>Helenium autumnale</i> var. <i>autumnale</i>	[FACW+]	Forb/herb		Autumn sneezeweed
36016	*	<i>Helenium flexuosum</i>	FAC+	Forb/herb		Purplehead sneezeweed
36616	0	<i>Helianthus annuus</i>	FAC-	Forb/herb		Common sunflower
36612	4	<i>Helianthus giganteus</i>	FACW	Forb/herb		Giant sunflower
36644	3	<i>Helianthus grosseserratus</i>	FACW-	Forb/herb		Sawtooth sunflower
36667	6	<i>Helianthus occidentalis</i> ssp. <i>occidentalis</i>	[FACU-]	Forb/herb		Western sunflower
36691	2	<i>Helianthus tuberosus</i>	FAC	Forb/herb		Jerusalem artichoke
502953	4	<i>Heracleum maximum</i>	[FACW]	Forb/herb		Cow parsnip
502960	6	<i>Heteranthera dubia</i>	[OBL]	Forb/herb		Water stargrass
42618	7	<i>Heteranthera limosa</i>	OBL	Forb/herb	T	Mud plantain
24372	7	<i>Heuchera richardsonii</i>	FAC-	Forb/herb		Alumroot
21632	*	<i>Hibiscus laevis</i>	OBL	Forb/herb		Halberdleaf rosemallow
40861	7	<i>Hierochloe hirta</i> ssp. <i>arctica</i>	[FACW]	Graminoid		Sweet grass
27069	9	<i>Hippuris vulgaris</i>	OBL	Forb/herb		Mare's tail
524156	0	<i>Hordeum jubatum</i> ssp. <i>jubatum</i>	[FAC+]	Graminoid		Foxtail barley
40866	8	<i>Hordeum pusillum</i>	FAC	Graminoid		Little barley
19160	3	<i>Humulus lupulus</i>	FACU*	Vine, Forb/herb		Common hops
503079	7	<i>Huperzia lucidula</i>	[FAC+]	Subshrub, Shrub		Shining fir moss
503084	9	<i>Huperzia porophila</i>	[FACU]	Subshrub, Shrub	T	Rock fir moss
528502	8	<i>Huperzia selago</i> var. <i>selago</i>	[FACU-]	Subshrub, Shrub		Northern fir moss
29519	9	<i>Hydrocotyle americana</i>	OBL	Forb/herb	SC	American water pennywort
31396	3	<i>Hydrophyllum virginianum</i>	FACW-	Forb/herb		Virginia waterleaf
503129	6	<i>Hypericum ascyron</i>	[FAC+]	Forb/herb		Great St. John's wort
21427	6	<i>Hypericum boreale</i>	OBL	Forb/herb		Northern St. John's wort
21417	*	<i>Hypericum canadense</i>	FACW	Forb/herb		
21437	9	<i>Hypericum ellipticum</i>	OBL	Forb/herb		Pale St. John's wort
21446	5	<i>Hypericum majus</i>	FACW	Forb/herb		Large St. John's wort
21422	4	<i>Hypericum punctatum</i>	FAC+	Forb/herb		Spotted St. John's wort
503146	8	<i>Hypoxis hirsuta</i>	FAC	Forb/herb		Yellow stargrass
27985	6	<i>Ilex verticillata</i>	FACW+	Tree, Shrub		Winterberry
29182	2	<i>Impatiens capensis</i>	FACW	Forb/herb		Spotted touch-me-not
29189	5	<i>Impatiens pallida</i>	FACW	Forb/herb		Pale touch-me-not
23149	9	<i>Iodanthus pinnatifidus</i>	FACW	Forb/herb	E	Purple rocket
503177	*	<i>Ipomoea hederacea</i>	FAC	Vine, Forb/herb		Ivyleaf morning-glory
30789	*	<i>Ipomoea purpurea</i>	FACU-	Vine, Forb/herb		Tall morning-glory
43194	*	<i>Iris pseudacorus</i>	OBL	Forb/herb		Paleyellow iris



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

43196	4	<i>Iris versicolor</i>	OBL	Forb/herb	Northern blue flag
528568	5	<i>Iris virginica</i> var. <i>shrevei</i>	[OBL]	Forb/herb	Southern blue flag
17131	9	<i>Isoetes lacustris</i>	[OBL]	Graminoid	Lake quillwort
17135	10	<i>Isoetes melanopoda</i>	OBL	Graminoid	Prairie quillwort
507546	8	<i>Isoetes tenella</i>	[OBL]	Graminoid	Braun's quillwort
36041	0	<i>Iva xanthifolia</i>	FAC	Forb/herb	Marsh elder
19250	6	<i>Juglans cinerea</i>	FACU+	Tree	Butternut
19254	4	<i>Juglans nigra</i>	FACU	Tree	Black walnut
503247	6	<i>Juncus alpinoarticulatus</i>	[OBL]	Graminoid	Alpine rush
39249	7	<i>Juncus articulatus</i>	OBL	Graminoid	Jointed rush
528596	4	<i>Juncus balticus</i> var. <i>littoralis</i>	[OBL]	Graminoid	Baltic rush
39226	10	<i>Juncus brachycarpus</i>	FACW	Graminoid	Short-fruited rush
39253	7	<i>Juncus brevicaudatus</i>	OBL	Graminoid	Narrow-panicked rush
528601	2	<i>Juncus bufonius</i> var. <i>bufonius</i>	[FACW+]	Graminoid	Toad rush
39228	7	<i>Juncus canadensis</i>	OBL	Graminoid	Canada rush
39260	*	<i>Juncus compressus</i>	[OBL]	Graminoid	Roundfruit rush
503249	3	<i>Juncus dudleyi</i>	[FAC]	Graminoid	Dudley's rush
39232	4	<i>Juncus effusus</i>	OBL	Graminoid	Soft rush
39240	7	<i>Juncus filiformis</i>	FACW	Graminoid	Thread-like rush
528620	0	<i>Juncus gerardii</i> var. <i>gerardii</i>	[OBL]	Graminoid	Black-grass rush
39273	7	<i>Juncus greenei</i>	FAC	Graminoid	Greene's rush
528625	5	<i>Juncus interior</i> var. <i>interior</i>	[FAC+]	Graminoid	Inland rush
528629	9	<i>Juncus longistylis</i> var. <i>longistylis</i>	[FACW]	Graminoid	Long-styled rush
39289	10	<i>Juncus marginatus</i>	FACW	Graminoid	Marginated rush
531068	5	<i>Juncus nodosus</i> var. <i>nodosus</i>	[OBL]	Graminoid	Knotty rush
39302	8	<i>Juncus pelocarpus</i>	OBL	Graminoid	Brown-fruited rush
524199	10	<i>Juncus stygius</i> ssp. <i>americanus</i>	[OBL]	Graminoid	[SC] Bog rush
39317	10	<i>Juncus subtilis</i>	[OBL]	Graminoid	creeping rush
39243	1	<i>Juncus tenuis</i>	FAC	Graminoid	Path rush
39320	4	<i>Juncus torreyi</i>	FACW	Graminoid	Torrey's rush
39328	7	<i>Juncus vaseyi</i>	FACW	Graminoid	Vasey's rush
194846	10	<i>Juniperus horizontalis</i>	FAC-	Subshrub, Shrub	SC Creeping juniper
194806	2	<i>Juniperus virginiana</i> var. <i>virginiana</i>	[FACU]	Tree	Eastern red cedar
23679	9	<i>Kalmia polifolia</i>	OBL	Shrub	Bog laurel
20696	*	<i>Kochia scoparia</i>	FACU-	Forb/herb	Mexican-fireweed
531069	5	<i>Krigia biflora</i> var. <i>biflora</i>	[FACU]	Forb/herb	Two-flowered Cynthia
36597	3	<i>Lactuca biennis</i>	FAC	Forb/herb	Biennial blue lettuce
36596	2	<i>Lactuca canadensis</i>	FACU+	Forb/herb	Canada wild lettuce
36599	5	<i>Lactuca floridana</i>	FAC-	Forb/herb	Florida wild lettuce
36608	*	<i>Lactuca serriola</i>	FAC	Forb/herb	Prickly lettuce
528669	4	<i>Lactuca tatarica</i> var. <i>pulchella</i>	[FAC]	Forb/herb	Beautiful blue lettuce
19127	3	<i>Laportea canadensis</i>	FACW	Forb/herb	Wood nettle
183412	7	<i>Larix laricina</i>	FACW	Tree	Tamarack
528684	7	<i>Lathyrus japonicus</i> var. <i>maritimus</i>	[FACU-]	Vine, Forb/herb	Beach pea
25866	6	<i>Lathyrus palustris</i>	FACW	Vine, Forb/herb	Marsh vetchling
25886	6	<i>Lathyrus venosus</i>	FAC	Vine, Forb/herb	Veiny pea
23546	8	<i>Ledum groenlandicum</i>	OBL	Shrub	Labrador tea



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

40888	8	<i>Leersia lenticularis</i>	OBL	Graminoid	SC	Catchfly grass
40886	3	<i>Leersia oryzoides</i>	OBL	Graminoid		Rice cut grass
40890	5	<i>Leersia virginica</i>	FACW	Graminoid		White grass
42590	5	<i>Lemna minor</i>	OBL	Forb/herb		Lesser duckweed
42593	1	<i>Lemna obscura</i>	OBL	Forb/herb		Little duckweed
42589	1	<i>Lemna perpusilla</i>	OBL	Forb/herb		Minute duckweed
42595	5	<i>Lemna trisulca</i>	OBL	Forb/herb		Star duckweed
503362	1	<i>Lemna turionifera</i>	[OBL]	Forb/herb		Turion duckweed
22960	0	<i>Lepidium densiflorum</i>	FAC	Forb/herb		Green-flowered peppergrass
22974	*	<i>Lepidium perfoliatum</i>	FAC	Forb/herb		Clasping pepperweed
528742	0	<i>Lepidium virginicum</i> var. <i>virginicum</i>	[FACU-]	Forb/herb		Virginia peppergrass
25897	3	<i>Lespedeza capitata</i>	FACU	Forb/herb		Round-headed bush clover
528786	7	<i>Liatris pycnostachya</i> var. <i>pycnostachya</i>	[FAC-]	Forb/herb		Great blazing star
503458	7	<i>Lilium michiganense</i>	[FAC+]	Forb/herb		Michigan lily
528798	9	<i>Lilium philadelphicum</i> var. <i>andinum</i>	[FAC-]	Forb/herb		Wood lily
33207	6	<i>Limosella aquatica</i>	OBL	Forb/herb	SC	Mudwort
33221	6	<i>Lindernia dubia</i>	OBL	Forb/herb		Yellow-seeded false pimpernel
525179	7	<i>Linnaea borealis</i> ssp. <i>americana</i>	[FAC]	Shrub, Subshrub, Forb/herb		Twinflower
43622	5	<i>Liparis liliifolia</i>	FACU-	Forb/herb		Lily-leaved twayblade
43623	6	<i>Liparis loeselii</i>	FACW+	Forb/herb		Loesel's twayblade
503499	6	<i>Lipocarpha micrantha</i>	[OBL]	Graminoid		Hemicarpha
43629	10	<i>Listera auriculata</i>	FACW+	Forb/herb	E	Auricled twayblade
43633	10	<i>Listera convallarioides</i>	FACW	Forb/herb	SC	Broad-leaved twayblade
528832	8	<i>Listera cordata</i> var. <i>cordata</i>	[FACW]	Forb/herb		Heart-leaved twayblade
32924	10	<i>Littorella uniflora</i>	OBL	Forb/herb	SC	American shore plantain
34505	7	<i>Lobelia cardinalis</i>	OBL	Forb/herb		Cardinal flower
34516	10	<i>Lobelia dortmanna</i>	OBL	Forb/herb		Water lobelia
34524	3	<i>Lobelia inflata</i>	FACU-	Forb/herb		Indian tobacco
34525	9	<i>Lobelia kalmii</i>	OBL	Forb/herb		Kalm's lobelia
528853	5	<i>Lobelia siphilitica</i> var. <i>ludoviciana</i>	[FACW+]	Forb/herb		Great lobelia
34532	7	<i>Lobelia spicata</i>	FAC	Forb/herb		Pale-spiked lobelia
507979	*	<i>Lolium arundinaceum</i>	[FACU+]	Graminoid		Tall fescue
40893	*	<i>Lolium perenne</i>	FACU	Graminoid		Perennial ryegrass
507983	*	<i>Lolium pratense</i>	[FACU-]	Graminoid		Meadow ryegrass
35282	6	<i>Lonicera canadensis</i>	FACU	Shrub		Fly honeysuckle
35290	5	<i>Lonicera dioica</i>	FACU	Vine		Wild honeysuckle
35294	6	<i>Lonicera hirsuta</i>	FAC	Vine		Hairy honeysuckle
35300	8	<i>Lonicera oblongifolia</i>	OBL	Shrub		Swamp fly honeysuckle
35306	*	<i>Lonicera tatarica</i>	FACU*	Shrub		Tatarian honeysuckle



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

503548	8	<i>Lonicera villosa</i>	[FACW]	Shrub	Mountain fly honeysuckle
26362	*	<i>Lotus corniculatus</i>	FAC-	Forb/herb	Birdfoot deervetch
27336	5	<i>Ludwigia palustris</i>	OBL	Forb/herb	Common water primrose
27361	6	<i>Ludwigia polycarpa</i>	OBL	Forb/herb	False loosestrife
529014	6	<i>Luzula acuminata</i> var. <i>acuminata</i>	[FAC-]	Graminoid	Pointed woodrush
524285	5	<i>Luzula multiflora</i> ssp. <i>multiflora</i>	[FACU]	Graminoid	Many-flowered woodrush
39347	8	<i>Luzula parviflora</i>	FAC	Graminoid	[SC] Small-flowered woodrush
503609	7	<i>Lycopodiella inundata</i>	[OBL]	Subshrub, Shrub	Bog clubmoss
17018	7	<i>Lycopodium annotinum</i>	FAC	Subshrub, Shrub	Bristly clubmoss
17024	6	<i>Lycopodium clavatum</i>	FAC	Subshrub, Shrub	Running clubmoss
17025	6	<i>Lycopodium complanatum</i>	FACU+	Subshrub, Shrub	Northern groundcedar
17027	6	<i>Lycopodium dendroideum</i>	FAC	Subshrub, Shrub	Round-branched groundpine
17032	6	<i>Lycopodium obscurum</i>	FACU	Subshrub, Shrub	Ground pine
32254	4	<i>Lycopus americanus</i>	OBL	Forb/herb	Cut-leaved bugleweed
32256	4	<i>Lycopus asper</i>	OBL	Forb/herb	Rough bugleweed
32257	5	<i>Lycopus uniflorus</i>	OBL	Forb/herb	Northern bugleweed
32255	5	<i>Lycopus virginicus</i>	OBL	Forb/herb	Virginia bugleweed
23984	5	<i>Lysimachia ciliata</i>	FACW	Forb/herb	Fringed loosestrife
23990	7	<i>Lysimachia hybrida</i>	OBL	Forb/herb	Hybrid loosestrife
23993	*	<i>Lysimachia nummularia</i>	FACW+	Forb/herb	Creeping jenny
23996	8	<i>Lysimachia quadriflora</i>	OBL	Forb/herb	Whorled loosestrife
23985	7	<i>Lysimachia terrestris</i>	OBL	Forb/herb	Yellow loosestrife
24000	6	<i>Lysimachia thyrsiflora</i>	OBL	Forb/herb	Tufted loosestrife
529063	6	<i>Lythrum alatum</i> var. <i>alatum</i>	[OBL]	Subshrub, Forb/herb	Wing-angled loosestrife
27079	*	<i>Lythrum salicaria</i>	OBL	Subshrub, Forb/herb	Purple loosestrife
38029	0	<i>Madia glomerata</i>	FACU	Forb/herb	Tarweed
503653	5	<i>Maianthemum canadense</i>	FAC	Forb/herb	Canada mayflower
524297	5	<i>Maianthemum canadense</i> ssp. <i>racemosum</i>	[FACU]	Forb/herb	Common false Solomon's seal
503656	5	<i>Maianthemum stellatum</i>	[FAC-]	Forb/herb	Starry false Solomon's seal
503657	9	<i>Maianthemum trifolium</i>	[OBL]	Forb/herb	Three-leaved false Solomon's seal
503665	10	<i>Malaxis brachypoda</i>	[FACW]	Forb/herb	[SC] White adder's mouth
43644	10	<i>Malaxis paludosa</i>	[OBL]	Forb/herb	E Bog adder's mouth
43647	7	<i>Malaxis unifolia</i>	FAC	Forb/herb	Green adder's mouth
32561	*	<i>Marrubium vulgare</i>	FAC	Subshrub, Forb/herb	Horehound
181813	7	<i>Marsilea vestita</i> ssp. <i>vestita</i>	[OBL]	Forb/herb	[E] Hairy waterclover



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

501470	*	<i>Matricaria discoidea</i>	[FACU]	Forb/herb	Disc mayweed
17596	5	<i>Matteuccia struthiopteris</i>	FACW	Forb/herb	Ostrich fern
503721	*	<i>Medicago lupulina</i>	FAC-	Forb/herb	black medic
529114	8	<i>Megalodonta beckii</i> var. <i>beckii</i>	[OBL]	Forb/herb	Water marigold
529121	6	<i>Melampyrum lineare</i> var. <i>lineare</i>	[FAC-]	Forb/herb	Cow wheat
26150	*	<i>Melilotus officinalis</i>	FACU	Forb/herb	Yellow sweetclover
18871	4	<i>Menispernum canadense</i>	FAC*	Vine, Subshrub	Canada moonseed
565302	3	<i>Mentha arvensis</i>	FACW	Forb/herb	Common mint
32272	*	<i>Mentha spicata</i>	FACW+	Forb/herb	Spearmint
32275	*	<i>Mentha X piperita</i>	OBL	Forb/herb	Peppermint
30102	9	<i>Menyanthes trifoliata</i>	OBL	Forb/herb	Buckbean
529169	8	<i>Mertensia paniculata</i> var. <i>paniculata</i>	[FAC]	Subshrub, Forb/herb	Panicled bluebells
31673	6	<i>Mertensia virginica</i>	FACW	Forb/herb	Virginia bluebells
537541	7	<i>Milium effusum</i> var. <i>cisatlanticum</i>	[FACU]	Graminoid	Woodland millet grass
529192	9	<i>Mimulus glaberratus</i> var. <i>jamesii</i>	[OBL]	Forb/herb	Yellow monkey flower
529204	5	<i>Mimulus ringens</i> var. <i>ringens</i>	[OBL]	Forb/herb Subshrub,	Blue monkey flower
35063	6	<i>Mitchella repens</i>	FACU+	Shrub, Forb/herb	Partridgeberry
24407	7	<i>Mitella diphylla</i>	FACU+	Forb/herb	Two-leaved miterwort
24410	7	<i>Mitella nuda</i>	FACW	Forb/herb	Naked miterwort
20017	6	<i>Moehringia lateriflora</i>	FACU*	Forb/herb	Side-flowering sandwort
19899	*	<i>Mollugo verticillata</i>	FAC	Forb/herb	Green carpetweed
524313	3	<i>Monarda fistulosa</i> ssp. <i>fistulosa</i>	[FACU]	Subshrub, Shrub	Wild bergamot
503869	8	<i>Moneses uniflora</i>	[FAC]	Forb/herb	One-flowered pyrola
23778	6	<i>Monotropa uniflora</i>	FACU	Forb/herb	Indian pipe
20406	10	<i>Montia chamissoni</i>	OBL	Forb/herb	E Montia
19066	*	<i>Morus alba</i>	FAC	Tree, Shrub	White mulberry
529232	*	<i>Morus rubra</i> var. <i>rubra</i>	[FAC-]	Tree	Red mulberry
41899	3	<i>Muhlenbergia asperifolia</i>	FACW	Graminoid	Scratchgrass
41915	3	<i>Muhlenbergia frondosa</i>	FACW	Graminoid	Swamp muhly grass
41918	8	<i>Muhlenbergia glomerata</i>	FACW+	Graminoid	Clustered muhly grass
41925	3	<i>Muhlenbergia mexicana</i>	FACW	Graminoid	Mexican muhly grass
41935	4	<i>Muhlenbergia racemosa</i>	FACW	Graminoid	Marsh muhly grass
41938	8	<i>Muhlenbergia richardsonis</i>	FAC+	Graminoid	Mat muhly grass
41939	1	<i>Muhlenbergia schreberi</i>	FAC	Graminoid	Dropseed muhly grass
41942	8	<i>Muhlenbergia sylvatica</i>	FACW	Graminoid	Woodland muhly grass
41946	9	<i>Muhlenbergia uniflora</i>	OBL	Graminoid	SC One-flowered muhly
31692	*	<i>Myosotis arvensis</i>	FAC	Forb/herb	Field forget-me-not
31691	7	<i>Myosotis laxa</i>	OBL	Forb/herb	Smaller forget-me-not
31697	*	<i>Myosotis scorpioides</i>	OBL	Forb/herb	True forget-me-not
31699	7	<i>Myosotis verna</i>	FAC-	Forb/herb	Virginia forget-me-not
20314	*	<i>Myosoton aquaticum</i>	FAC+	Forb/herb	Giantchickweed
503898	2	<i>Myosurus minimus</i>	FACW	Forb/herb	Mousetail
19265	8	<i>Myrica gale</i>	OBL	Shrub	Sweet gale
503903	10	<i>Myriophyllum alterniflorum</i>	OBL	Forb/herb	Alternate-flower water milfoil



27043	9	<i>Myriophyllum farwellii</i>	OBL	Forb/herb	Farwell's water milfoil	
27044	7	<i>Myriophyllum heterophyllum</i>	OBL	Forb/herb	Broadleaf water milfoil	
503906	7	<i>Myriophyllum sibiricum</i>	[OBL]	Forb/herb	Common water-milfoil	
27039	*	<i>Myriophyllum spicatum</i>	OBL	Forb/herb	Spike watermilfoil	
503907	9	<i>Myriophyllum tenellum</i>	OBL	Forb/herb	Slender water milfoil	
27040	8	<i>Myriophyllum verticillatum</i>	OBL	Forb/herb	Whorled water milfoil	
38996	5	<i>Najas flexilis</i>	OBL	Forb/herb	Flexuous naiad	
38997	10	<i>Najas gracillima</i>	OBL	Forb/herb	SC	Slender naiad
38998	8	<i>Najas guadalupensis</i>	OBL	Forb/herb	SC	Southern naiad
39001	4	<i>Najas marina</i>	OBL	Forb/herb	SC	Sea naiad
21853	6	<i>Napaea dioica</i>	FACW-	Forb/herb	T	Glade mallow
18398	8	<i>Nelumbo lutea</i>	OBL	Forb/herb	American lotus	
28016	8	<i>Nemopanthus mucronatus</i>	OBL	Tree, Shrub	Swamp holly	
32623	*	<i>Nepeta cataria</i>	FAC-	Forb/herb	Catnip	
524342	9	<i>Nuphar lutea</i> ssp. <i>pumila</i>	[OBL]	Forb/herb	Yellow pond lily	
525098	9	<i>Nuphar lutea</i> ssp. <i>rubrodisca</i>	[OBL]	Forb/herb	Intermediate pond-lily	
524345	6	<i>Nuphar lutea</i> ssp. <i>variegata</i>	[OBL]	Forb/herb	Yellow pond lily	
565324	10	<i>Nymphaea leibergii</i>	[OBL]	Forb/herb	T	Small white waterlily
18384	6	<i>Nymphaea odorata</i>	OBL	Forb/herb	American white waterlily	
27368	1	<i>Oenothera biennis</i>	FACU	Forb/herb	Common evening primrose	
27371	5	<i>Oenothera laciniata</i>	FACU	Forb/herb	Cut-leaved evening primrose	
504007	2	<i>Oenothera parviflora</i>	FACU	Forb/herb	Northern evening primrose	
27372	6	<i>Oenothera perennis</i>	FAC	Forb/herb	Perennial evening primrose	
565330	7	<i>Oenothera rhombipetala</i>	FACU	Forb/herb	SC	Rhombic evening primrose
27421	1	<i>Oenothera villosa</i>	FAC	Forb/herb	Common evening primrose	
507638	8	<i>Oligoneuron riddellii</i>	[OBL]	Forb/herb	Riddell's goldenrod	
531227	4	<i>Oligoneuron rigidum</i> var. <i>humile</i>	[FACU-]	Forb/herb	Stiff goldenrod	
17637	4	<i>Onoclea sensibilis</i>	FACW	Forb/herb	Sensitive fern	
504033	8	<i>Ophioglossum pusillum</i>	[FACW]	Forb/herb	Adder's tongue	
42754	*	<i>Ornithogalum umbellatum</i>	FAC-	Forb/herb	Sleepydick	
504066	7	<i>Orthilia secunda</i>	[FAC+]	Subshrub, Shrub	One-sided pyrola	
33437	6	<i>Orthocarpus luteus</i>	FACU	Forb/herb	Owl clover	
29789	3	<i>Osmorrhiza claytonii</i>	FACU-	Forb/herb	Clayton's sweet cicely	
29791	4	<i>Osmorrhiza longistylis</i>	FACU-	Forb/herb	Aniseroott	
529311	7	<i>Osmunda cinnamomea</i> var. <i>cinnamomea</i>	[FACW]	Forb/herb	Cinnamon fern	
17220	6	<i>Osmunda claytoniana</i>	FAC+	Forb/herb	Interrupted fern	
529314	7	<i>Osmunda regalis</i> var. <i>spectabilis</i>	[OBL]	Forb/herb	Royal fern	
195247	4	<i>Ostrya virginiana</i> var. <i>virginiana</i>	[FACU-]	Tree, Shrub	Ironwood	
29090	9	<i>Oxalis montana</i>	FACU*	Forb/herb	Common wood sorrel	
29095	0	<i>Oxalis stricta</i>	[FACU]	Forb/herb	Yellow wood sorrel	
29544	8	<i>Oxypolis rigidior</i>	OBL	Forb/herb	Cowbane	



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

531359	8	<i>Oxytropis lambertii</i> var. <i>lambertii</i>	[FACU-]	Forb/herb	Lambert's locoweed
518139	6	<i>Packera aurea</i>	[FACW]	Forb/herb	Golden ragwort
518149	10	<i>Packera indecora</i>	[FACW*]	Forb/herb	Elegant groundsel
518155	4	<i>Packera paupercula</i>	[FAC+]	Forb/herb	Balsam ragwort
565369	6	<i>Packera plattensis</i>	[FACU-]	Forb/herb	Prairie ragwort
566283	7	<i>Packera pseudaurea</i> var. <i>semicordata</i>	[FACW]	Forb/herb	Western heart-leaved groundsel
40914	0	<i>Panicum capillare</i>	FAC	Graminoid	Witch grass
529361	0	<i>Panicum dichotomiflorum</i> var. <i>dichotomiflorum</i>	[FACW-]	Graminoid	Fall panic grass
504104	4	<i>Panicum philadelphicum</i>	[FACW]	Graminoid	Philadelphia panic grass
529371	2	<i>Panicum virgatum</i> var. <i>virgatum</i>	[FAC+]	Graminoid	Switchgrass
19169	2	<i>Parietaria pensylvanica</i>	FACU	Forb/herb	Pellitory
24210	9	<i>Parnassia glauca</i>	OBL	Forb/herb	American grass-of-Parnassus
24206	8	<i>Parnassia palustris</i>	OBL	Forb/herb	Northern grass of Parnassus
28602	9	<i>Parthenocissus quinquefolia</i>	FAC-	Vine	Woodbine
28605	2	<i>Parthenocissus vitacea</i>	FACU	Vine, Subshrub	Virginia creeper
504124	3	<i>Pascopyrum smithii</i>	[FACU+]	Graminoid	Western wheatgrass
41042	3	<i>Paspalum setaceum</i>	FAC	Graminoid	Hairy beadgrass
524407	7	<i>Pedicularis canadensis</i> ssp. <i>canadensis</i>	[FACU+]	Shrub, Forb/herb	Wood betony
33365	8	<i>Pedicularis lanceolata</i>	FACW+	Forb/herb	Swamp lousewort
42534	*	<i>Peltandra virginica</i>	OBL	Forb/herb	Green arrow arum
565385	*	<i>Pennisetum glaucum</i>	[FAC]	Graminoid	Pearl millet
33881	*	<i>Penstemon digitalis</i>	FAC-	Forb/herb	Talus slope penstemon
504241	3	<i>Penthorum sedoides</i>	OBL	Forb/herb	Ditch stonecrop
529521	*	<i>Perilla frutescens</i> var. <i>frutescens</i>	[FAC]	Forb/herb	Beefsteakplant
529540	6	<i>Petasites frigidus</i> var. <i>palmatus</i>	[FACW]	Forb/herb	Palmate sweet coltsfoot
36059	8	<i>Petasites sagittatus</i>	OBL	Forb/herb	Arrow-leaved sweet coltsfoot
41335	*	<i>Phalaris arundinacea</i>	FACW+	Graminoid	Reed canarygrass
41336	*	<i>Phalaris canariensis</i>	FACU	Graminoid	Annual canarygrass
504296	9	<i>Phegopteris hexagonoptera</i>	[FAC-]	Forb/herb	T Broad beech fern
41062	*	<i>Phleum pratense</i>	FACU	Graminoid Subshrub,	
524475	5	<i>Phlox divaricata</i> ssp. <i>laphamii</i>	[FACU]	Shrub, Forb/herb	Blue phlox
524492	8	<i>Phlox maculata</i> ssp. <i>maculata</i>	[FACW+]	Forb/herb	Wild sweet William
30973	*	<i>Phlox paniculata</i>	FACU	Forb/herb Subshrub,	Fall phlox
524498	7	<i>Phlox pilosa</i> ssp. <i>fulgida</i>	[FAC-]	Shrub, Forb/herb	Prairie phlox
565397	7	<i>Photinia melanocarpa</i>	[FACW-]	Shrub	Black chokeberry
41072	1	<i>Phragmites australis</i>	FACW+	Subshrub, Shrub	Common reed grass

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

32196	6	<i>Phyla lanceolata</i>	OBL	Vine, Forb/herb	Fogfruit
25282	5	<i>Physocarpus opulifolius</i>	FACW-	Shrub	Ninebark
196102	6	<i>Physostegia virginiana</i> ssp. <i>virginiana</i>	[FACW]	Forb/herb	Obedient plant
183295	5	<i>Picea glauca</i>	FACU	Tree	White spruce
183302	7	<i>Picea mariana</i>	FACW	Tree	Black spruce
19131	4	<i>Pilea fontana</i>	FACW	Forb/herb	Black-fruited clearweed
529663	3	<i>Pilea pumila</i> var. <i>pumila</i>	[FACW]	Forb/herb	Dwarf clearweed
34442	10	<i>Pinguicula vulgaris</i>	OBL	Forb/herb	SC Butterwort
183319	5	<i>Pinus banksiana</i>	FACU	Tree	Jack pine
183375	5	<i>Pinus resinosa</i>	FACU	Tree	Red pine
183385	5	<i>Pinus strobus</i>	FACU	Tree	White pine
32016	8	<i>Plagiothrix scouleri</i>	FACW*	Forb/herb	Popcorn flower
32878	8	<i>Plantago elongata</i> ssp. <i>elongata</i>	[FACW]	Forb/herb	[T] Slender plantain
504434	7	<i>Plantago eriopoda</i>	FAC	Forb/herb	Alkali plantain
32874	*	<i>Plantago lanceolata</i>	FAC	Forb/herb	Narrowleaf plantain
32887	*	<i>Plantago major</i>	FAC+	Forb/herb	Common plantain
529717	0	<i>Plantago rugelii</i> var. <i>rugelii</i>	[FAC]	Forb/herb	Rugel's plantain
32895	0	<i>Plantago virginica</i>	FACU-	Forb/herb	Hoary plantain
43423	9	<i>Platanthera clavellata</i>	OBL	Forb/herb	SC Small green wood orchid
196398	10	<i>Platanthera dilatata</i> var. <i>dilatata</i>	[FACW+]	Forb/herb	Tall white bog orchid
196394	8	<i>Platanthera flava</i> var. <i>herbiola</i>	[FACW]	Forb/herb	E Tuberclad rein orchid
43415	8	<i>Platanthera hookeri</i>	FAC+	Forb/herb	Hooker's orchid
43427	5	<i>Platanthera hyperborea</i>	FACW+	Forb/herb	Tall Northern bog orchid
43430	7	<i>Platanthera lacera</i>	FACW	Forb/herb	Ragged fringed orchid
43411	8	<i>Platanthera obtusata</i>	FACW	Forb/herb	Small northern bog orchid
43435	9	<i>Platanthera orbiculata</i>	FAC	Forb/herb	Large round-leaved orchid
196423	10	<i>Platanthera praeclara</i>	[FACW+]	Forb/herb	E Western prairie fringed orchid
504441	7	<i>Platanthera psycodes</i>	FACW	Forb/herb	Small purple fringed orchid
41104	5	<i>Poa alsodes</i>	FACW-	Graminoid	Wood bluegrass
41107	*	<i>Poa annua</i>	FAC-	Graminoid	Annual bluegrass
41109	8	<i>Poa arida</i>	[FAC]	Graminoid	Plains bluegrass
41082	*	<i>Poa compressa</i>	FACU+	Graminoid	Canada bluegrass
41146	*	<i>Poa nemoralis</i>	FAC	Graminoid	Wood bluegrass
41150	10	<i>Poa paludigena</i>	OBL	Graminoid	T Bog bluegrass
41151	5	<i>Poa palustris</i>	FACW+	Graminoid	Fowl bluegrass
566071	*	<i>Poa pratensis</i> ssp. <i>pratensis</i>	[FAC-]	Graminoid	Kentucky bluegrass
41162	8	<i>Poa sylvestris</i>	FAC	Graminoid	Woodland bluegrass
41163	*	<i>Poa trivialis</i>	FACW	Graminoid	Rough bluegrass
18850	4	<i>Podophyllum peltatum</i>	FACU	Forb/herb	Mayapple
43441	9	<i>Pogonia ophioglossoides</i>	OBL	Forb/herb	Rose pogonia
524547	10	<i>Polemonium occidentale</i> ssp. <i>lacustre</i>	[OBL]	Forb/herb	E Western Jacob's ladder

529739	6	<i>Polemonium reptans</i> var. <i>reptans</i>	[FAC]	Subshrub, Shrub, Forb/herb	Spreading Jacob's ladder
529749	9	<i>Polygala cruciata</i> var. <i>aquilonia</i>	[FACW+]	Forb/herb	Cross-leaved milkwort [E]
29306	7	<i>Polygala paucifolia</i>	FACU	Forb/herb	Polygalaceae Gaywings
29308	8	<i>Polygala polygama</i>	FACU-	Forb/herb	Racemed milkwort
29314	5	<i>Polygala sanguinea</i>	FACU	Forb/herb	Blood milkwort
29316	7	<i>Polygala senega</i>	FACU	Forb/herb	Seneca snakeroot
529769	4	<i>Polygonatum biflorum</i> var. <i>commutatum</i>	[FACU]	Forb/herb	Giant Solomon's seal
20868	0	<i>Polygonum achoreum</i>	FAC	Forb/herb	Blue knotweed
20865	4	<i>Polygonum amphibium</i>	OBL	Forb/herb	Water smartweed
20849	7	<i>Polygonum arifolium</i>	OBL	Subshrub, Forb/herb	Prostrate knotweed
20876	*	<i>Polygonum aviculare</i>	FAC-	Forb/herb	Prostrate knotweed
20851	6	<i>Polygonum careyi</i>	FACW+	Forb/herb	Carey's smartweed SC
529779	*	<i>Polygonum convolvulus</i> var. <i>convolvulus</i>	[FAC-]	Vine, Forb/herb	Black bindweed
20889	*	<i>Polygonum cuspidatum</i>	FACU	Subshrub, Shrub, Forb/herb	Japanese knotweed
524554	7	<i>Polygonum douglasii</i> ssp. <i>douglasii</i>	[FACU]	Forb/herb	Douglas' knotweed
20893	1	<i>Polygonum erectum</i>	FACU	Forb/herb	Erect knotweed
20856	*	<i>Polygonum hydropiper</i>	OBL	Forb/herb	Marshpepper knotweed
20857	4	<i>Polygonum hydropiperoides</i>	OBL	Forb/herb	Mild waterpepper
20860	2	<i>Polygonum lapathifolium</i>	FACW+	Forb/herb	Nodding smartweed
20861	1	<i>Polygonum pensylvanicum</i>	FACW+	Forb/herb	Pennsylvania smartweed
20915	*	<i>Polygonum persicaria</i>	FACW	Forb/herb	Spotted ladysthumb
20862	5	<i>Polygonum punctatum</i>	OBL	Forb/herb	Dotted smartweed
20921	2	<i>Polygonum ramosissimum</i>	FAC-	Forb/herb	Bushy knotweed
20863	4	<i>Polygonum sagittatum</i>	OBL	Vine, Subshrub, Forb/herb	Arrow-leaved tearthumb
20924	3	<i>Polygonum scandens</i>	FAC	Vine, Forb/herb	False buckwheat
20931	5	<i>Polygonum virginianum</i>	FAC	Forb/herb	Virginia knotweed
20864	10	<i>Polygonum viviparum</i>	FACW	Forb/herb	Alpine bistort SC
41171	*	<i>Polypogon monspeliensis</i>	OBL	Graminoid	Annual rabbitsfoot grass
42620	8	<i>Pontederia cordata</i>	OBL	Forb/herb	Pickerelweed
22454	4	<i>Populus balsamifera</i> ssp. <i>balsamifera</i>	[FACW]	Tree	Balsam popla
22447	1	<i>Populus deltoides</i> ssp. <i>monilifera</i>	[FAC+]	Tree	Cottonwood
22463	4	<i>Populus grandidentata</i>	FACU	Tree	Big-toothed aspen
195773	2	<i>Populus tremuloides</i>	[FAC]	Tree	Quaking aspen
20422	*	<i>Portulaca oleracea</i>	FAC-	Forb/herb	Little hogweed
39020	9	<i>Potamogeton alpinus</i>	OBL	Forb/herb	Alpine pondweed



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

39021	7	<i>Potamogeton amplifolius</i>	OBL	Forb/herb	Large-leaved pondweed
39023	10	<i>Potamogeton bicupulatus</i>	[OBL]	Forb/herb	Snailseed pondweed
39007	*	<i>Potamogeton crispus</i>	OBL	Forb/herb	Curly pondweed
39026	10	<i>Potamogeton diversifolius</i>	OBL	Forb/herb	Diverse-leaved pondweed
39027	8	<i>Potamogeton epihydrus</i>	OBL	Forb/herb	Ribbon-leaved pondweed
529804	6	<i>Potamogeton foliosus</i> ssp. <i>foliosus</i>	[OBL]	Forb/herb	Leafy pondweed
39031	8	<i>Potamogeton friesii</i>	OBL	Forb/herb	Fries' pondweed
39032	7	<i>Potamogeton gramineus</i>	OBL	Forb/herb	Grass-leaved pondweed
39035	6	<i>Potamogeton illinoensis</i>	OBL	Forb/herb	Illinois pondweed
39008	5	<i>Potamogeton natans</i>	OBL	Forb/herb	Floating pondweed
39009	6	<i>Potamogeton nodosus</i>	OBL	Forb/herb	American pondweed
39040	10	<i>Potamogeton oakesianus</i>	OBL	Forb/herb	Oake's pondweed
39041	8	<i>Potamogeton obtusifolius</i>	OBL	Forb/herb	Blunt-leaved pondweed
39042	7	<i>Potamogeton praelongus</i>	OBL	Forb/herb	White-stemmed pondweed
39017	7	<i>Potamogeton pusillus</i>	OBL	Forb/herb	Small pondweed
504558	5	<i>Potamogeton richardsonii</i>	OBL	Forb/herb	Richardson's pondweed
504559	8	<i>Potamogeton robbinsii</i>	OBL	Forb/herb	Robbins' pondweed
39046	8	<i>Potamogeton spirillus</i>	OBL	Forb/herb	spiral-fruited pondweed
39047	8	<i>Potamogeton strictifolius</i>	OBL	Forb/herb	Straight-leaved pondweed
39054	10	<i>Potamogeton vaseyi</i>	OBL	Forb/herb	Vasey's pondweed
39055	6	<i>Potamogeton zosteriformis</i>	OBL	Forb/herb	Flat-stemmed pondweed
529808	*	<i>Potentilla argentea</i> var. <i>argentea</i>	[FACU]	Forb/herb	Silver cinquefoil
24693	8	<i>Potentilla arguta</i> ssp. <i>arguta</i>	[FACU-]	Subshrub, Forb/herb	Prairie cinquefoil
24714	5	<i>Potentilla gracilis</i>	FAC	Subshrub, Forb/herb	Slender cinquefoil
524586	1	<i>Potentilla norvegica</i> ssp. <i>monspeliensis</i>	[FAC]	Forb/herb	Rough cinquefoil
24733	5	<i>Potentilla paradoxa</i>	FACW+	Forb/herb	Bushy cinquefoil
24744	4	<i>Potentilla rivalis</i>	FACW+	Forb/herb	Brook cinquefoil
24751	2	<i>Potentilla simplex</i>	FACU-	Forb/herb	Oldfield cinquefoil
38270	5	<i>Prenanthes alba</i>	FACU	Forb/herb	White rattlesnakeroot
38278	10	<i>Prenanthes crepidinea</i>	FAC+	Forb/herb	Nodding rattlesnakeroot
38281	9	<i>Prenanthes racemosa</i>	FACW	Forb/herb	Smooth rattlesnakeroot
24028	10	<i>Primula mistassinica</i>	FACW	Forb/herb	Mistassini primrose
32384	0	<i>Prunella vulgaris</i> ssp. <i>lanceolata</i>	[FAC]	Forb/herb	Heal-all
32382	*	<i>Prunella vulgaris</i> ssp. <i>vulgaris</i>	[FAC]	Forb/herb	Common selfheal
24796	6	<i>Prunus nigra</i>	FACU-	Tree	Canada plum
529878	4	<i>Prunus pensylvanica</i> var. <i>pensylvanica</i>	[FACU-*]	Tree, Shrub	Pin cherry

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

529886	4	<i>Prunus serotina</i> var. <i>serotina</i>	[FACU]	Tree, Shrub	Black cherry	
529895	3	<i>Prunus virginiana</i> var. <i>virginiana</i>	[FAC-]	Tree, Shrub	Chokecherry	
524604	*	<i>Ptelea trifoliata</i> ssp. <i>trifoliata</i>	[FACU+]	Tree, Shrub	Common hoptree	
529920	3	<i>Pteridium aquilinum</i> var. <i>latiusculum</i>	[FACU]	Forb/herb	Bracken	
524607	*	<i>Puccinellia distans</i> ssp. <i>distans</i>	[OBL]	Graminoid	Weeping alkaligrass	
41200	7	<i>Puccinellia nuttalliana</i>	OBL	Graminoid	Nuttall's alkali grass	
32670	6	<i>Pycnanthemum virginianum</i>	FACW+	Forb/herb	Virginia mountain mint	
504691	8	<i>Pyrola americana</i>	[FAC-]	Subshrub, Shrub	Round-leaved pyrola	
524614	7	<i>Pyrola asarifolia</i> ssp. <i>asarifolia</i>	[FACW*]	Subshrub, Shrub	Pink shinleaf	
23757	7	<i>Pyrola chlorantha</i>	FACU	Subshrub, Shrub	Green-flowered pyrola	
23760	7	<i>Pyrola minor</i>	FAC+	Subshrub, Shrub	Small shinleaf	
19290	7	<i>Quercus alba</i>	FACU	Tree	White oak	
19300	8	<i>Quercus bicolor</i>	FACW+	Tree	Swamp white oak	
531113	5	<i>Quercus macrocarpa</i> var. <i>macrocarpa</i>	[FAC-]	Tree, Shrub	Bur oak	
19408	5	<i>Quercus rubra</i>	FACU	Tree	Northern red oak	
18559	1	<i>Ranunculus abortivus</i>	FACW-	Forb/herb	Kidney-leaved buttercup	
194927	*	<i>Ranunculus acris</i> var. <i>acris</i>	[FACW-]	Forb/herb	Showy buttercup	
18600	2	<i>Ranunculus cymbalaria</i>	OBL	Forb/herb	Seaside crowfoot	
18602	6	<i>Ranunculus fascicularis</i>	FACU	Forb/herb	Swamp buttercup	
18563	6	<i>Ranunculus flabellaris</i>	OBL	Forb/herb	Large yellow water crowfoot	
18604	7	<i>Ranunculus flammula</i>	FACW	Forb/herb	Spearwort	
504726	6	<i>Ranunculus gmelinii</i>	FACW+	Forb/herb	Small yellow water crowfoot	
18613	6	<i>Ranunculus hispidus</i>	FAC	Forb/herb	Hispid buttercup	
18620	10	<i>Ranunculus lapponicus</i>	OBL	Forb/herb	SC	Lapland buttercup
18623	7	<i>Ranunculus longirostris</i>	OBL	Forb/herb	Limp white water crowfoot	
18625	6	<i>Ranunculus macounii</i>	OBL	Forb/herb	Macoun's buttercup	
18637	5	<i>Ranunculus pensylvanicus</i>	OBL	Forb/herb	Bristly buttercup	
566303	5	<i>Ranunculus recurvatus</i> var. <i>recurvatus</i>	[FACW]	Forb/herb	Hooked crowfoot	
18642	*	<i>Ranunculus repens</i>	FAC+	Forb/herb	Creeping buttercup	
18576	3	<i>Ranunculus sceleratus</i>	OBL	Forb/herb	Cursed crowfoot	
529983	7	<i>Ranunculus trichophyllus</i> var. <i>trichophyllus</i>	[OBL]	Forb/herb	Limp white water crowfoot	
28562	7	<i>Rhamnus alnifolia</i>	OBL	Shrub	Dwarf alder	
28573	*	<i>Rhamnus cathartica</i>	FACU	Tree, Shrub	Common buckthorn	
40151	7	<i>Rhynchospora alba</i>	OBL	Graminoid	White beak rush	
40156	10	<i>Rhynchospora capillacea</i>	OBL	Graminoid	T	Hair-like beak rush
40172	9	<i>Rhynchospora fusca</i>	OBL	Graminoid	SC	Sooty-colored beak rush
24451	4	<i>Ribes americanum</i>	FACW	Shrub	Wild black currant	

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

530043	*	<i>Ribes aureum</i> var. <i>villosum</i>	[FAC-]	Shrub	golden currant
24466	6	<i>Ribes glandulosum</i>	FACW	Shrub	Skunk currant
24470	6	<i>Ribes hirtellum</i>	FACW	Shrub	Swamp gooseberry
530054	8	<i>Ribes hudsonianum</i> var. <i>hudsonianum</i>	[OBL]	Shrub	Northern black currant
24476	8	<i>Ribes lacustre</i>	FACW	Shrub	Swamp black currant
24504	7	<i>Ribes triste</i>	OBL	Shrub	Swamp red currant
504804	*	<i>Robinia pseudoacacia</i>	FACU-	Tree	Black locust
22995	*	<i>Rorippa austriaca</i>	FACW-	Forb/herb	Austrian yellowcress
504812	*	<i>Rorippa microphylla</i>	[OBL]	Forb/herb	Onerow yellowcress
22993	*	<i>Rorippa nasturtium-aquaticum</i>	[OBL]	Forb/herb	Watercress
23006	4	<i>Rorippa palustris</i>	OBL	Forb/herb	Icelandic yellow cress
23013	8	<i>Rorippa sessiliflora</i>	OBL	Forb/herb	Sessile-flowered yellow cress
23014	8	<i>Rorippa sinuata</i>	FACW	Forb/herb	Spreading yellow cress
23017	*	<i>Rorippa sylvestris</i>	OBL	Forb/herb	Creeping yellowcress
24816	7	<i>Rosa blanda</i>	FACU	Shrub	Smooth wild rose
24833	*	<i>Rosa multiflora</i>	FACU	Vine, Shrub	Multiflora rose
24811	*	<i>Rosa rugosa</i>	FACU*	Shrub	Rugosa rose
530130	5	<i>Rosa woodsii</i> var. <i>woodsii</i>	[FACU]	Shrub	Wood's rose
27115	7	<i>Rotala ramosior</i>	OBL	Forb/herb	Toothcup
530131	2	<i>Rubus allegheniensis</i> var. <i>allegheniensis</i>	[FACU+]	Shrub	Allegheny blackberry
524632	9	<i>Rubus arcticus</i> ssp. <i>acaulis</i>	[OBL]	Subshrub, Shrub, Forb/herb	Northern dwarf raspberry
524636	3	<i>Rubus idaeus</i> ssp. <i>strigosus</i>	[FACU+]	Shrub	Red raspberry
530144	3	<i>Rubus parviflorus</i> var. <i>parviflorus</i>	[FACU+]	Shrub	Thimbleberry
530148	6	<i>Rubus pubescens</i> var. <i>pubescens</i>	[FACW+]	Shrub, Forb/herb	Dwarf raspberry
25045	9	<i>Rubus semisetosus</i>	[FAC]	Shrub	Swamp blackberry
25046	7	<i>Rubus setosus</i>	FACW-	Shrub	Bristly blackberry
530172	3	<i>Rudbeckia hirta</i> var. <i>pulcherrima</i>	[FACU]	Forb/herb Subshrub,	Black-eyed Susan
530178	4	<i>Rudbeckia laciniata</i> var. <i>laciniata</i>	[FACW+]	Shrub, Forb/herb	Tall coneflower
530183	5	<i>Rudbeckia triloba</i> var. <i>triloba</i>	[FAC-]	Forb/herb	Three-leaved coneflower
20934	*	<i>Rumex acetosella</i>	FAC	Forb/herb	Common sheep sorrel
20949	2	<i>Rumex altissimus</i>	FACW-	Forb/herb	Tall water dock
566082	*	<i>Rumex crispus</i> ssp. <i>crispus</i>	[FAC+]	Forb/herb	Curly dock
504913	*	<i>Rumex longifolius</i>	[FAC*]	Forb/herb	Cooryard dock
20965	1	<i>Rumex maritimus</i>	FACW+	Forb/herb	Golden dock
20939	*	<i>Rumex obtusifolius</i>	FACW	Forb/herb	Bitter dock
20967	6	<i>Rumex orbiculatus</i>	OBL	Forb/herb	Great water dock
530197	1	<i>Rumex salicifolius</i> var. <i>mexicanus</i>	[OBL]	Forb/herb	Willow-leaved dock
20977	*	<i>Rumex stenophyllus</i>	FACW*	Forb/herb	Narrowleaf dock
20946	5	<i>Rumex verticillatus</i>	OBL	Forb/herb	Whorled water dock
39065	6	<i>Ruppia cirrhosa</i>	[OBL]	Forb/herb	Ditch-grass
20033	10	<i>Sagina nodosa</i> ssp. <i>borealis</i>	[FACU+*]	Forb/herb	Knotty pearlwort
				[SC] E	



Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

20034	*	<i>Sagina procumbens</i>	FACW	Forb/herb	Birdeye pearlwort	
38914	9	<i>Sagittaria brevirostra</i>	OBL	Forb/herb	Short-beaked arrowhead	
182450	8	<i>Sagittaria calycina</i> var. <i>calycina</i>	[OBL]	Forb/herb	Hooded arrowhead	
38916	8	<i>Sagittaria cristata</i>	OBL	Forb/herb	Crested arrowhead	
38917	6	<i>Sagittaria cuneata</i>	OBL	Forb/herb	Arum-leaved arrowhead	
38908	3	<i>Sagittaria latifolia</i>	OBL	Forb/herb	Broad-leaved arrowhead	
38928	7	<i>Sagittaria rigida</i>	OBL	Forb/herb	Sessile-fruited arrowhead	
20651	3	<i>Salicornia rubra</i>	OBL	Subshrub, Forb/herb	T	Red saltwort
565478	*	<i>Salix alba</i>	FACW	Tree	White willow	
22499	5	<i>Salix amygdaloides</i>	FACW	Tree, Shrub	Peach-leaved willow	
22507	6	<i>Salix bebbiana</i>	FACW+	Tree, Shrub	Bebb's willow	
22514	9	<i>Salix candida</i>	OBL	Shrub	Sage-leaved willow	
22524	3	<i>Salix discolor</i>	FACW	Tree, Shrub	Pussy willow	
22528	4	<i>Salix eriocephala</i>	FACW	Tree, Shrub	Heart-leaved willow	
22535	*	<i>Salix fragilis</i>	FAC+	Tree	Crack willow	
22546	6	<i>Salix humilis</i>	FACU	Shrub	Prairie willow	
520829	2	<i>Salix interior</i>	[OBL]	Shrub, Tree	Sandbar willow	
524654	5	<i>Salix lucida</i> ssp. <i>lucida</i>	[FACW+]	Tree, Shrub	Shining willow	
504970	9	<i>Salix maccalliana</i>	[FACW]	Tree	McCalla's willow	
22484	4	<i>Salix nigra</i>	OBL	Tree	Black willow	
22564	8	<i>Salix pedicellaris</i>	OBL	Shrub	Bog willow	
22565	8	<i>Salix pellita</i>	FACW	Tree, Shrub	Satin willow	
22567	5	<i>Salix petiolaris</i>	FACW+	Tree, Shrub	Slender willow	
22569	8	<i>Salix planifolia</i>	OBL	Subshrub, Shrub	Diamond-leaved willow	
22573	9	<i>Salix pseudomonticola</i>	[FACW]	Shrub	False mountaineer willow	
22575	8	<i>Salix pyrifolia</i>	FACW+	Tree, Shrub	Balsam willow	
22496	10	<i>Salix sericea</i>	OBL	Tree, Shrub	Silky willow	
22581	7	<i>Salix serissima</i>	OBL	Tree, Shrub	Autumn willow	
520950	*	<i>Salsola tragus</i>	[FACU]	Forb/herb	Prickly Russian thistle	
525079	3	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	[FACW-]	Tree, Shrub, Subshrub	Common elder	
531321	5	<i>Sambucus racemosa</i> var. <i>racemosa</i>	[FACU+]	Tree, Shrub, Subshrub	Red-berried elder	
18990	6	<i>Sanguinaria canadensis</i>	FACU-*	Forb/herb	Bloodroot	
29850	5	<i>Sanicula canadensis</i>	FACU+	Forb/herb	Canadian black snakeroot	
505004	3	<i>Sanicula odorata</i>	[FAC+]	Forb/herb	Gregarious black snakeroot	
20039	*	<i>Saponaria officinalis</i>	FACU	Forb/herb	Bouncingbet	
195652	9	<i>Sarracenia purpurea</i> ssp. <i>purpurea</i>	[OBL]	Subshrub, Forb/herb	Pitcher plant	
24223	10	<i>Saxifraga cernua</i>	FACW	Forb/herb	E	Nodding saxifrage

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

525147	10	<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>	[FAC]	Forb/herb	[T]	Encrusted saxifrage
24234	7	<i>Saxifraga pensylvanica</i>	OBL	Forb/herb		Swamp saxifrage
530254	10	<i>Saxifraga virginiensis</i> var. <i>virginiensis</i>	[FAC-]	Forb/herb		Early saxifrage
38985	9	<i>Scheuchzeria palustris</i> ssp. <i>americana</i>	[OBL]	Forb/herb		Scheuchzeria
42068	5	<i>Schizachne purpurascens</i>	FACU+	Graminoid		False melic grass
530264	5	<i>Schizachyrium scoparium</i> var. <i>scoparium</i>	[FACU-]	Graminoid		Little bluestem
531332	6	<i>Schoenoplectus acutus</i> var. <i>acutus</i>	[OBL]	Graminoid		Hardstem bulrush
521092	4	<i>Schoenoplectus fluviatilis</i>	[OBL]	Graminoid		River bulrush
507790	8	<i>Schoenoplectus heterochaetus</i>	[OBL]	Graminoid		Slender bulrush
521093	6	<i>Schoenoplectus maritimus</i>	[OBL]	Graminoid		Prairie bulrush
508146	6	<i>Schoenoplectus pungens</i>	[OBL]	Graminoid		Three-square bulrush
507792	8	<i>Schoenoplectus purshianus</i>	[OBL]	Graminoid		Weak-stalk club-rush
507794	8	<i>Schoenoplectus smithii</i>	[OBL]	Graminoid		Pursh's bulrush
507796	9	<i>Schoenoplectus subterminalis</i>	[OBL]	Graminoid		Swaying bulrush
507797	4	<i>Schoenoplectus tabernaemontani</i>	[OBL]	Graminoid		Soft stem bulrush
507798	8	<i>Schoenoplectus torreyi</i>	[OBL]	Graminoid		Torrey's bulrush
40243	7	<i>Scirpus atrocinctus</i>	OBL	Graminoid		Black-girdled wool-grass
40227	4	<i>Scirpus atrovirens</i>	OBL	Graminoid		Dark green bulrush
40228	3	<i>Scirpus cyperinus</i>	OBL	Graminoid		Woolgrass
40259	4	<i>Scirpus georgianus</i>	OBL	Graminoid		Bristleless darkgreen bulrush
40261	4	<i>Scirpus hattorianus</i>	OBL	Graminoid		Early dark green bulrush
40235	6	<i>Scirpus microcarpus</i>	OBL	Graminoid		Small-fruited bulrush
40270	4	<i>Scirpus pallidus</i>	OBL	Graminoid		Dark green bulrush
40272	6	<i>Scirpus pedicellatus</i>	OBL	Graminoid		Stalked wool-grass
40273	3	<i>Scirpus pendulus</i>	OBL	Graminoid		cloked bulrush
20360	*	<i>Scleranthus annuus</i>	FACU	Forb/herb		German knotgrass
40318	10	<i>Scleria triglomerata</i>	FAC	Graminoid	E	Tall nutrush
40319	10	<i>Scleria verticillata</i>	OBL	Graminoid	T	Whorled nutrush
41349	7	<i>Scolochloa festucacea</i>	OBL	Graminoid		Whitetop
34036	4	<i>Scrophularia lanceolata</i>	FACU+	Forb/herb		Lance-leaved figwort
34037	5	<i>Scrophularia marilandica</i>	FACU-*	Subshrub, Forb/herb		Maryland figwort
32798	5	<i>Scutellaria galericulata</i>	OBL	Forb/herb		Marsh skullcap
32765	5	<i>Scutellaria lateriflora</i>	OBL	Forb/herb		Mad dog skullcap
32773	8	<i>Scutellaria ovata</i> ssp. <i>ovata</i>	[FACU]	Forb/herb	T	Ovate-leaved skullcap
32776	7	<i>Scutellaria parvula</i>	FACU*	Forb/herb		Prairie skullcap
17093	10	<i>Selaginella selaginoides</i>	FACW+	Forb/herb	E	Northern spikemoss
36086	3	<i>Senecio congestus</i>	FACW+	Forb/herb		Swamp ragwort
530319	7	<i>Senecio integerrimus</i> var. <i>integerrimus</i>	[FAC*]	Forb/herb		Entire ragwort
41244	*	<i>Setaria faberi</i>	FACU+	Graminoid		Japanese bristlegrass
41248	*	<i>Setaria italica</i>	FACU	Graminoid		Foxtail bristlegrass
41232	*	<i>Setaria verticillata</i>	FAC	Graminoid		Hooked bristlegrass
22402	2	<i>Sicyos angulatus</i>	FACW-	Vine,		Bur cucumber



					Forb/herb	
20090	9	<i>Silene nivea</i>	FACW	Forb/herb	T	Snowy campion
38404	4	<i>Silphium perfoliatum</i> var. <i>perfoliatum</i>	[FACW-]	Forb/herb		Cup plant
23312	*	<i>Sisymbrium altissimum</i>	FACU	Forb/herb		Tall tumbelmustard
43240	6	<i>Sisyrinchium angustifolium</i>	FACW-	Forb/herb		Narrowleaf blue-eyed grass
43269	6	<i>Sisyrinchium montanum</i>	FAC+	Forb/herb		Mountain blue-eyed grass
43239	7	<i>Sisyrinchium mucronatum</i>	FACW-	Forb/herb		Pointed-petal blue-eyed grass
29558	5	<i>Sium suave</i>	OBL	Forb/herb		Water parsnip
43356	5	<i>Smilax herbacea</i>	FAC	Vine, Forb/herb		Smooth carrion flower
				Shrub,		
43348	4	<i>Smilax tamnoides</i>	[FAC]	Subshrub, Vine		Greenbrier
				Subshrub,		
530413	*	<i>Solanum carolinense</i> var. <i>carolinense</i>	[FAC]	Shrub, Forb/herb		Carolina horseradish
530416	*	<i>Solanum dulcamara</i> var. <i>dulcamara</i>	[FAC]	Subshrub, Forb/herb		Climbing nightshade
36224	1	<i>Solidago canadensis</i>	FACU	Forb/herb		Canada goldenrod
36257	5	<i>Solidago flexicaulis</i>	FACU	Forb/herb		Zigzag goldenrod
36259	3	<i>Solidago gigantea</i>	FACW	Forb/herb		Giant goldenrod
530486	9	<i>Solidago uliginosa</i> var. <i>uliginosa</i>	[OBL]	Forb/herb		Bog goldenrod
38421	*	<i>Sonchus arvensis</i>	FAC-	Forb/herb		Field sowthistle
38424	*	<i>Sonchus asper</i>	FAC	Forb/herb		Spiny sowthistle
38427	*	<i>Sonchus oleraceus</i>	FACU	Forb/herb		Common sowthistle
25319	5	<i>Sorbus americana</i>	FAC+	Tree, Shrub		American mountain ash
42102	5	<i>Sorghastrum nutans</i>	FACU+	Graminoid		Indian grass
42313	8	<i>Sparganium americanum</i>	OBL	Forb/herb		Nuttall's bur reed
42320	8	<i>Sparganium androcladum</i>	OBL	Forb/herb		Branching bur reed
42318	8	<i>Sparganium angustifolium</i>	[OBL]	Forb/herb		Narrow-leaved bur reed
525168	7	<i>Sparganium erectum</i> ssp. <i>stoloniferum</i>	[OBL]	Forb/herb		Unbranched bur reed
42316	5	<i>Sparganium eurycarpum</i>	OBL	Forb/herb		Giant bur reed
42321	8	<i>Sparganium fluctuans</i>	OBL	Forb/herb		Floating bur reed
42322	7	<i>Sparganium glomeratum</i>	OBL	Forb/herb	SC	Clustered bur reed
507177	9	<i>Sparganium natans</i>	[OBL]	Forb/herb		Small bur reed
41272	5	<i>Spartina pectinata</i>	FACW+	Graminoid		Prairie cordgrass
20153	*	<i>Spergularia rubra</i>	FACU	Forb/herb		Red sandspurry
41279	8	<i>Sphenopholis obtusata</i>	FAC	Graminoid		Prairie wedge grass
25329	5	<i>Spiraea alba</i>	FACW+	Shrub		White meadowsweet
530522	7	<i>Spiraea tomentosa</i> var. <i>rosea</i>	[FACW]	Shrub		Steeplebush
43444	5	<i>Spiranthes cernua</i>	FACW-	Forb/herb		Nodding ladies' tresses
43464	7	<i>Spiranthes lacera</i>	FAC+	Forb/herb		Northern slender ladies' tresses
43473	9	<i>Spiranthes romanzoffiana</i>	FACW+	Forb/herb		Hooded ladies' tresses

505347	5	<i>Spirodela polyrrhiza</i>	[OBL]	Forb/herb	Greater duckweed
42132	7	<i>Sporobolus cryptandrus</i>	FACU-	Graminoid	Sand dropseed
42119	9	<i>Sporobolus heterolepis</i>	FACU-	Graminoid	Prairie dropseed
32344	4	<i>Stachys palustris</i>	OBL	Forb/herb	Woundwort
32323	5	<i>Stachys tenuifolia</i>	OBL	Forb/herb	Narrow-leaved hedge nettle
28646	6	<i>Staphylea trifolia</i>	FAC	Tree, Shrub	Bladdernut
20185	6	<i>Stellaria longifolia</i>	FACW+	Forb/herb	Long-leaved chickweed
20168	9	<i>Stellaria longipes</i>	OBL	Forb/herb	Long-stalked chickweed
524719	*	<i>Stellaria media</i> ssp. <i>media</i>	[FACU]	Forb/herb	Common chickweed
530586	10	<i>Streptopus amplexifolius</i> var. <i>amplexifolius</i>	[FAC+]	Forb/herb	Clasping leaved twistedstalk
531400	7	<i>Streptopus lanceolatus</i> var. <i>longipes</i>	[FAC]	Forb/herb	Rose twistedstalk
505392	4	<i>Strophostyles helvula</i>	FAC+	Vine, Forb/herb	Wild bean
565546	8	<i>Stuckenia filiformis</i>	[OBL]	Forb/herb	Thread-leaved pondweed
565547	3	<i>Stuckenia pectinatus</i>	[OBL]	Forb/herb	Sago pondweed
565549	9	<i>Stuckenia vaginatus</i>	[OBL]	Forb/herb	[SC] Sheathed pondweed
505402	2	<i>Suaeda calceoliformis</i>	[FACW]	Forb/herb, Shrub	Seablite
530601	10	<i>Subularia aquatica</i> var. <i>americana</i>	[OBL]	Forb/herb	[T] Awlwort
530604	6	<i>Symporicarpos albus</i> var. <i>albus</i>	[FACU-]	Subshrub, Shrub	Snowberry
522185	9	<i>Symphyotrichum boreale</i>	[OBL]	Forb/herb	Bog aster
522190	2	<i>Symphyotrichum ciliatum</i>	[FAC]	Forb/herb	Short-rayed aster
522202	4	<i>Symphyotrichum ericoides</i>	[FAC-]	Forb/herb	Heath aster
541086	6	<i>Symphyotrichum falcatum</i> var. <i>commutatum</i>	[FAC-]	Forb/herb	Sickle-shaped aster
522219	5	<i>Symphyotrichum lanceolatum</i>	[FACW]	Forb/herb	Eastern panicled aster
522220	4	<i>Symphyotrichum lateriflorum</i>	[FACW-]	Forb/herb	Side-flowering aster
522226	3	<i>Symphyotrichum novae-angliae</i>	[FACW]	Forb/herb	New England aster
522229	5	<i>Symphyotrichum ontarione</i>	[FAC]	Forb/herb	Ontario aster
566340	1	<i>Symphyotrichum pilosum</i> var. <i>pilosum</i>	[FACU+]	Forb/herb	Awl aster
566342	6	<i>Symphyotrichum praealtum</i> var. <i>praealtum</i>	[FACW]	Forb/herb	Veiny lined aster
522239	8	<i>Symphyotrichum prenanthoides</i>	[FAC]	Forb/herb	Crooked aster
522241	6	<i>Symphyotrichum puniceum</i>	[OBL]	Subshrub, Shrub	Red-stemmed aster
42538	8	<i>Symplocarpus foetidus</i>	OBL	Forb/herb	Skunk cabbage
36213	*	<i>Taraxacum officinale</i>	FACU	Forb/herb	Common dandelion
194885	8	<i>Taxus canadensis</i>	FACU	Shrub	Canada yew
32352	4	<i>Teucrium canadense</i>	FACW-	Forb/herb	Germander
18667	4	<i>Thalictrum dasycarpum</i>	FACW-	Forb/herb	Tall meadow-rue
18669	5	<i>Thalictrum dioicum</i>	FACU+	Forb/herb	Early meadow-rue
18660	5	<i>Thalictrum revolutum</i>	FAC	Forb/herb	Purple meadow-rue

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

18684	8	<i>Thalictrum venulosum</i>	[FAC*]	Forb/herb	Veiny meadow-rue
530656	7	<i>Thelypteris palustris</i> var. <i>pubescens</i>	[FACW+]	Forb/herb	Northern marsh fern
505490	7	<i>Thuja occidentalis</i>	FACW	Tree	White cedar
530686	*	<i>Tiarella cordifolia</i> var. <i>cordifolia</i>	[FAC-]	Forb/herb	Heartleaf foamflower
530690	5	<i>Tilia americana</i> var. <i>americana</i>	[FACU]	Tree	Basswood
524757	9	<i>Tofieldia glutinosa</i> ssp. <i>glutinosa</i>	[OBL]	Forb/herb	Sticky false asphodel
43052	10	<i>Tofieldia pusilla</i>	FACW+	Forb/herb	E Small false asphodel
505539	8	<i>Torreyochloa pallida</i>	[OBL]	Graminoid	SC Torrey's manna-grass
524763	7	<i>Toxicodendron radicans</i> ssp. <i>negundo</i>	[FAC+]	Shrub, Subshrub, Vine	Common poison ivy
28822	1	<i>Toxicodendron rydbergii</i>	FAC	Shrub	Western poison ivy
28823	7	<i>Toxicodendron vernix</i>	OBL	Tree, Shrub	Poison sumac
39157	7	<i>Tradescantia bracteata</i>	FACU-	Forb/herb	Bracted spiderwort
39169	6	<i>Tradescantia ohiensis</i>	FACU+	Forb/herb	Ohio spiderwort
21473	6	<i>Triadenum fraseri</i>	OBL	Forb/herb	Marsh St. John's wort
522802	10	<i>Trichophorum alpinum</i>	[OBL]	Graminoid	Hudson Bay bulrush
565577	9	<i>Trichophorum caespitosum</i>	[OBL]	Graminoid	Tufted bulrush
507801	9	<i>Trichophorum clintonii</i>	[FACU-]	Graminoid	Clinton's bulrush
524769	6	<i>Trientalis borealis</i> ssp. <i>borealis</i>	[FAC+]	Forb/herb	Starflower
26261	*	<i>Trifolium hybridum</i>	FAC-	Forb/herb	Alsike clover
26313	*	<i>Trifolium pratense</i>	FACU+	Forb/herb	Red clover
26206	*	<i>Trifolium repens</i>	FACU+	Forb/herb	White clover
505588	8	<i>Triglochin maritimum</i>	OBL	Graminoid	Seaside arrowgrass
38989	10	<i>Triglochin palustre</i>	OBL	Graminoid	Marsh arrowgrass
43065	7	<i>Trillium cernuum</i>	FAC	Forb/herb	Nodding trillium
43071	8	<i>Trillium flexipes</i>	FAC-	Forb/herb	Drooping trillium
530743	4	<i>Triodanis perfoliata</i> var. <i>perfoliata</i>	[FAC]	Forb/herb	Clasping-leaved Venus' looking-glass
525064	*	<i>Tripleurospermum maritima</i> ssp. <i>maritima</i>	[FAC]	Forb/herb	False mayweed
41294	9	<i>Trisetum spicatum</i>	FAC-	Graminoid	Spike trisetum
183397	10	<i>Tsuga canadensis</i>	FACU	Tree	Eastern hemlock
38583	*	<i>Tussilago farfara</i>	FACU	Forb/herb	Coltsfoot
42325	*	<i>Typha angustifolia</i>	OBL	Forb/herb	Narrowleaf cattail
42326	2	<i>Typha latifolia</i>	OBL	Forb/herb	Broad-leaved cattail
42328	*	<i>Typha X glauca</i>	OBL	Forb/herb	Hybrid cattail
19049	3	<i>Ulmus americana</i>	FACW-	Tree	American elm
19050	4	<i>Ulmus rubra</i>	FAC	Tree	Red elm
19059	5	<i>Ulmus thomasii</i>	FAC+	Tree	Rock elm
19154	1	<i>Urtica dioica</i> ssp. <i>gracilis</i>	[FAC+]	Forb/herb	Stinging nettle
34447	10	<i>Utricularia cornuta</i>	OBL	Forb/herb	Horned bladderwort
34451	10	<i>Utricularia geminiscapa</i>	[OBL]	Forb/herb	Hidden-fruited bladderwort
34452	9	<i>Utricularia gibba</i>	OBL	Forb/herb	Humped bladderwort
34454	8	<i>Utricularia intermedia</i>	OBL	Forb/herb	Intermediate bladderwort
34456	5	<i>Utricularia macrorhiza</i>	OBL	Forb/herb	Common bladderwort
34457	8	<i>Utricularia minor</i>	OBL	Forb/herb	Lesser bladderwort

Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

34461	10	<i>Utricularia purpurea</i>	OBL	Forb/herb	SC	Purple-flowered bladderwort
34463	10	<i>Utricularia resupinata</i>	OBL	Forb/herb	SC	Lavender bladderwort
43112	6	<i>Uvularia sessilifolia</i>	FAC-	Forb/herb		Pale bellwort
23579	5	<i>Vaccinium angustifolium</i>	FACU	Subshrub, Shrub		Lowbush blueberry
566347	5	<i>Vaccinium caespitosum</i> var. <i>caespitosum</i>	[FACU*]	Subshrub, Shrub		Dwarf bilberry
23599	9	<i>Vaccinium macrocarpon</i>	OBL	Subshrub, Shrub		Large cranberry
23604	6	<i>Vaccinium myrtilloides</i>	FACW-	Subshrub, Shrub		Velvet-leaved blueberry
505635	8	<i>Vaccinium oxycoccus</i>	OBL	Subshrub, Shrub		Small cranberry
23574	10	<i>Vaccinium uliginosum</i>	FAC*	Subshrub, Shrub	T	Alpine bilberry
524790	9	<i>Vaccinium vitis-idaea</i> ssp. <i>minus</i>	[FAC]	Subshrub, Shrub		Lingonberry
530773	10	<i>Valeriana edulis</i> var. <i>ciliata</i>	[FACW+]	Forb/herb	T	Edible valerian
38951	6	<i>Vallisneria americana</i>	OBL	Forb/herb		Eelgrass
32085	0	<i>Verbena bracteata</i>	FACU	Forb/herb		Large-bracted vervain
32071	6	<i>Verbena hastata</i>	FACW+	Forb/herb		Blue vervain
32127	6	<i>Verbena urticifolia</i>	FAC+	Forb/herb		White vervain
38629	5	<i>Vernonia fasciculata</i>	FACW	Forb/herb		Bunched ironweed
33399	6	<i>Veronica americana</i>	OBL	Forb/herb		American brooklime
565594	5	<i>Veronica anagallis-aquatica</i>	OBL	Forb/herb		Water speedwell
33421	0	<i>Veronica peregrina</i>	FACW+	Forb/herb		Purslane speedwell
33422	6	<i>Veronica scutellata</i>	OBL	Forb/herb		Marsh speedwell
33425	0	<i>Veronica serpyllifolia</i> ssp. <i>humifusa</i>	[FACW]	Forb/herb		Thyme-leaved speedwell
33424	*	<i>Veronica serpyllifolia</i> ssp. <i>serpyllifolia</i>	[FACW]	Forb/herb		Thymeleaf speedwell
34073	6	<i>Veronicastrum virginicum</i>	FAC	Forb/herb		Culver's root
35261	7	<i>Viburnum edule</i>	FACW	Shrub		Squashberry
35266	4	<i>Viburnum lentago</i>	FAC+	Tree, Shrub		Nannyberry
530811	5	<i>Viburnum opulus</i> var. <i>americanum</i>	[FACW]	Tree, Shrub		Highbush cranberry
26355	*	<i>Vicia sativa</i>	FACU-	Vine, Forb/herb		Garden vetch
22033	6	<i>Viola adunca</i> var. <i>adunca</i>	[FAC-]	Forb/herb		Sand violet
22035	4	<i>Viola affinis</i>	FACW	Forb/herb		Common blue violet
22050	6	<i>Viola blanda</i>	FACW-	Forb/herb		Big-leaved white violet
22060	5	<i>Viola conspersa</i>	FACW-	Forb/herb		Dog violet
505709	6	<i>Viola cucullata</i>	OBL	Forb/herb		Marsh violet
22093	7	<i>Viola labradorica</i>	FAC*	Forb/herb		Sand violet
22095	7	<i>Viola lanceolata</i> ssp. <i>lanceolata</i>	[OBL]	Forb/herb	T	Lance-leaved violet
524820	7	<i>Viola macloskeyi</i> ssp. <i>pallens</i>	[OBL]	Forb/herb		Northern white violet
22117	8	<i>Viola nephrophylla</i>	FACW+	Forb/herb		Northern bog violet
22119	6	<i>Viola novae-angliae</i>	OBL	Forb/herb		New England violet
22131	8	<i>Viola pedatifida</i>	FACU-	Forb/herb		Bearded birdfoot violet



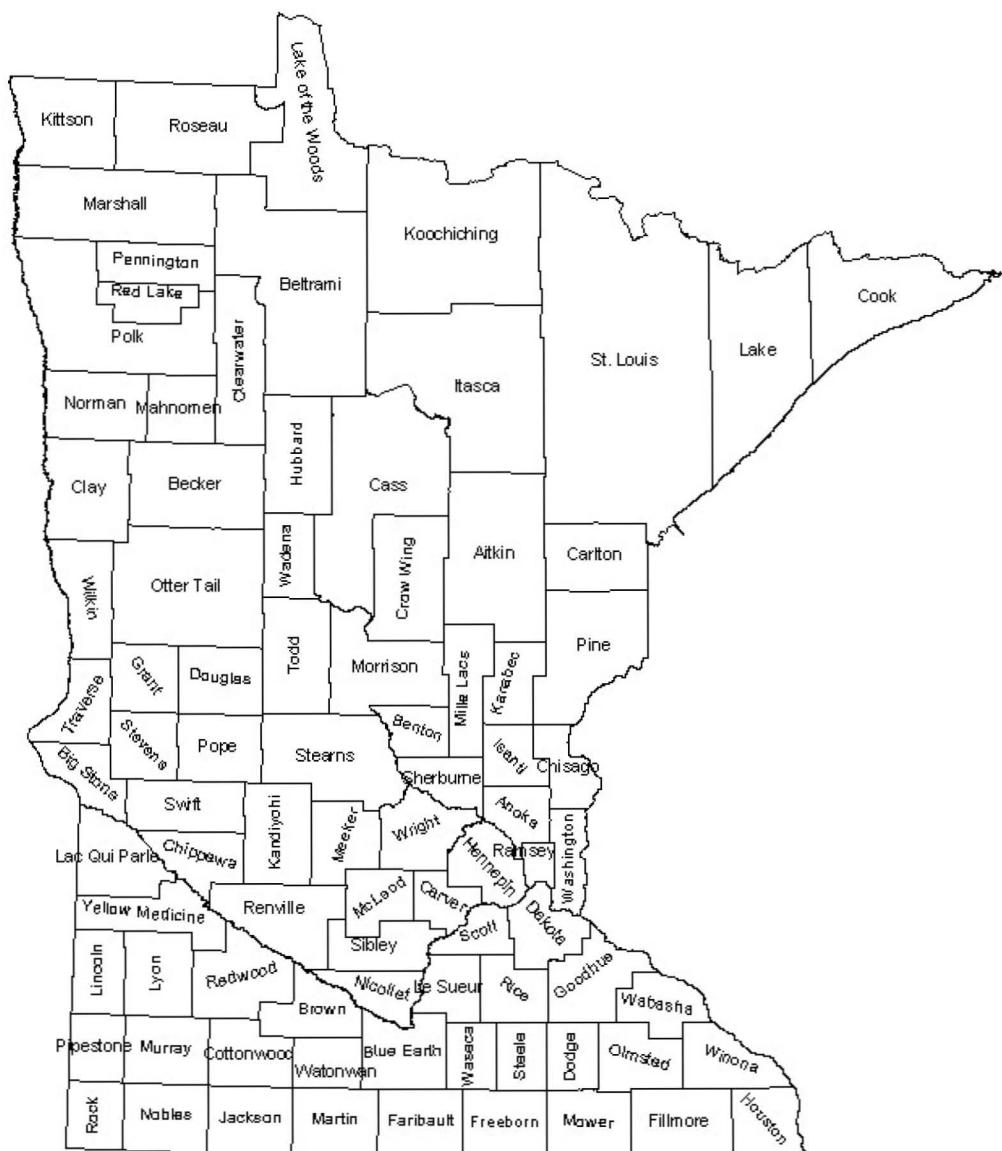
Floristic Quality Assessment for Minnesota Wetlands-Appendix A: Minnesota's Wetland Species

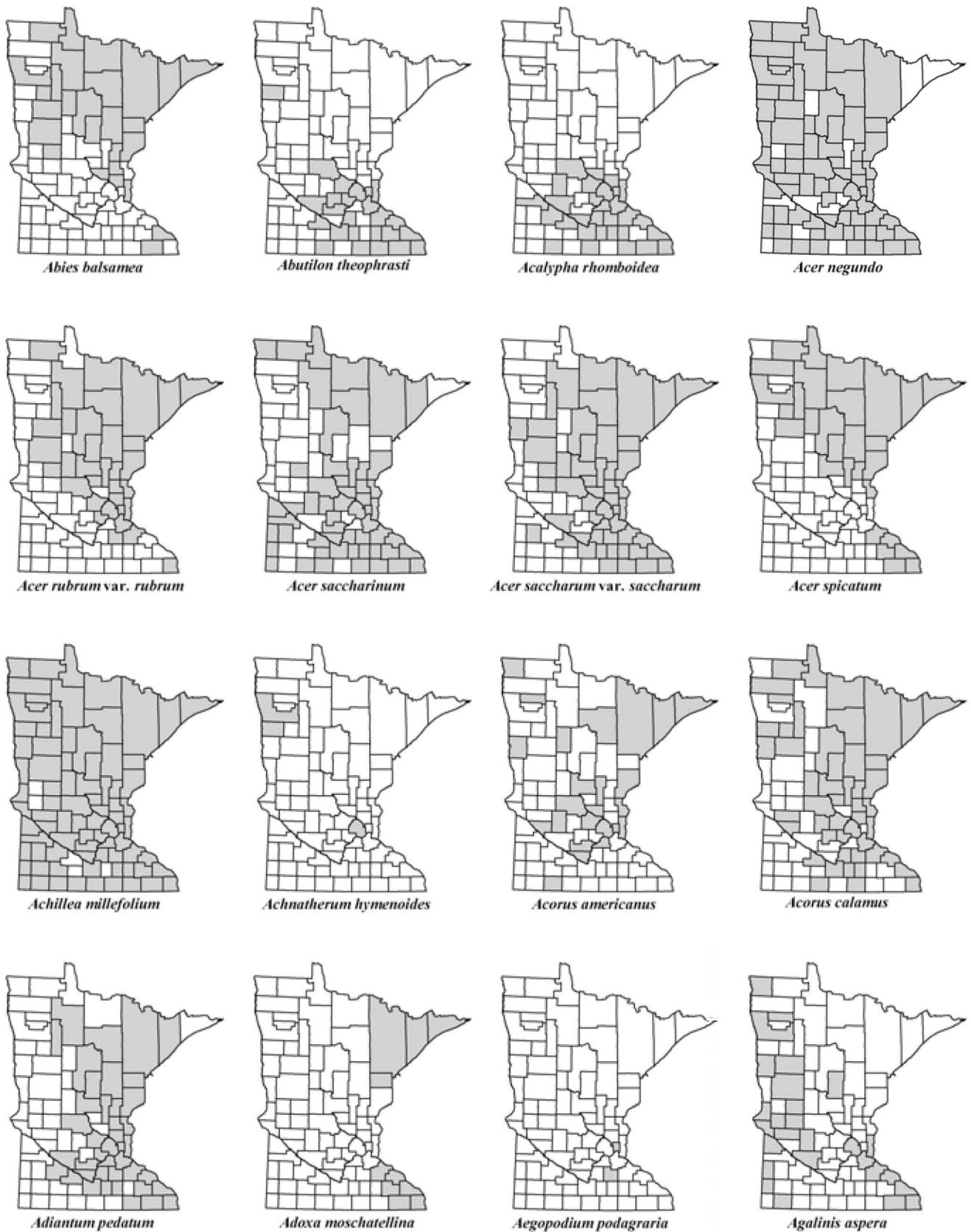
22144	4	<i>Viola pubescens</i>	FACU-	Forb/herb	Yellow violet
22156	7	<i>Viola renifolia</i>	FACW	Forb/herb	Kidney-leaved violet
566349	6	<i>Viola sagittata</i> var. <i>sagittata</i>	[FACW]-	Forb/herb	Arrow-leaved violet
22169	4	<i>Viola sororia</i>	FAC-	Forb/herb	Common blue violet
530852	7	<i>Vitis aestivalis</i> var. <i>bicolor</i>	[FACU]	Vine	Silverleaf grape
28624	2	<i>Vitis riparia</i>	FACW-	Vine	Wild grape
530861	3	<i>Vulpia octoflora</i> var. <i>glauca</i>	FACU-*	Graminoid	Eightweek fescue
505749	5	<i>Wolffia borealis</i>	[OBL]	Forb/herb	Spotted watermeal
42602	5	<i>Wolffia columbiana</i>	OBL	Forb/herb	Columbian watermeal
38692	0	<i>Xanthium strumarium</i>	FAC	Forb/herb	Cocklebur
39111	10	<i>Xyris montana</i>	OBL	Forb/herb	Montane yellow-eyed grass
39117	10	<i>Xyris torta</i>	OBL	Forb/herb	Twisted yellow-eyed grass
39068	7	<i>Zannichellia palustris</i>	OBL	Forb/herb	Horned pondweed
524838	9	<i>Zigadenus elegans</i> ssp. <i>elegans</i>	[FAC-]	Forb/herb	White camass
530914	8	<i>Zizania aquatica</i> var. <i>aquatica</i>	[OBL]	Graminoid	Wild rice
505807	8	<i>Zizania palustris</i>	[OBL]	Graminoid	Wild rice
29905	8	<i>Zizia aptera</i>	FACU	Forb/herb	Heart-leaved alexanders
29906	6	<i>Zizia aurea</i>	FAC+	Forb/herb	Golden alexanders

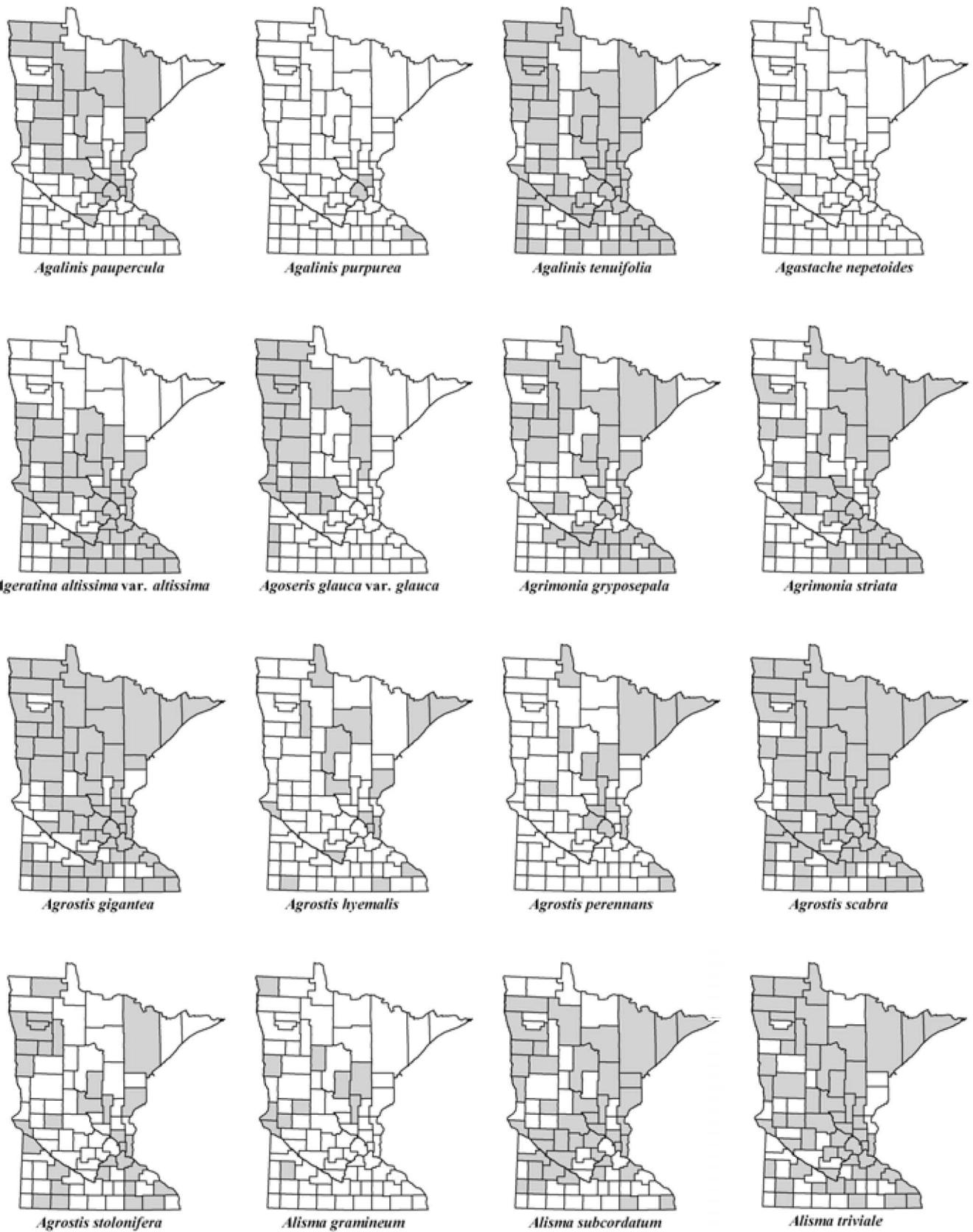


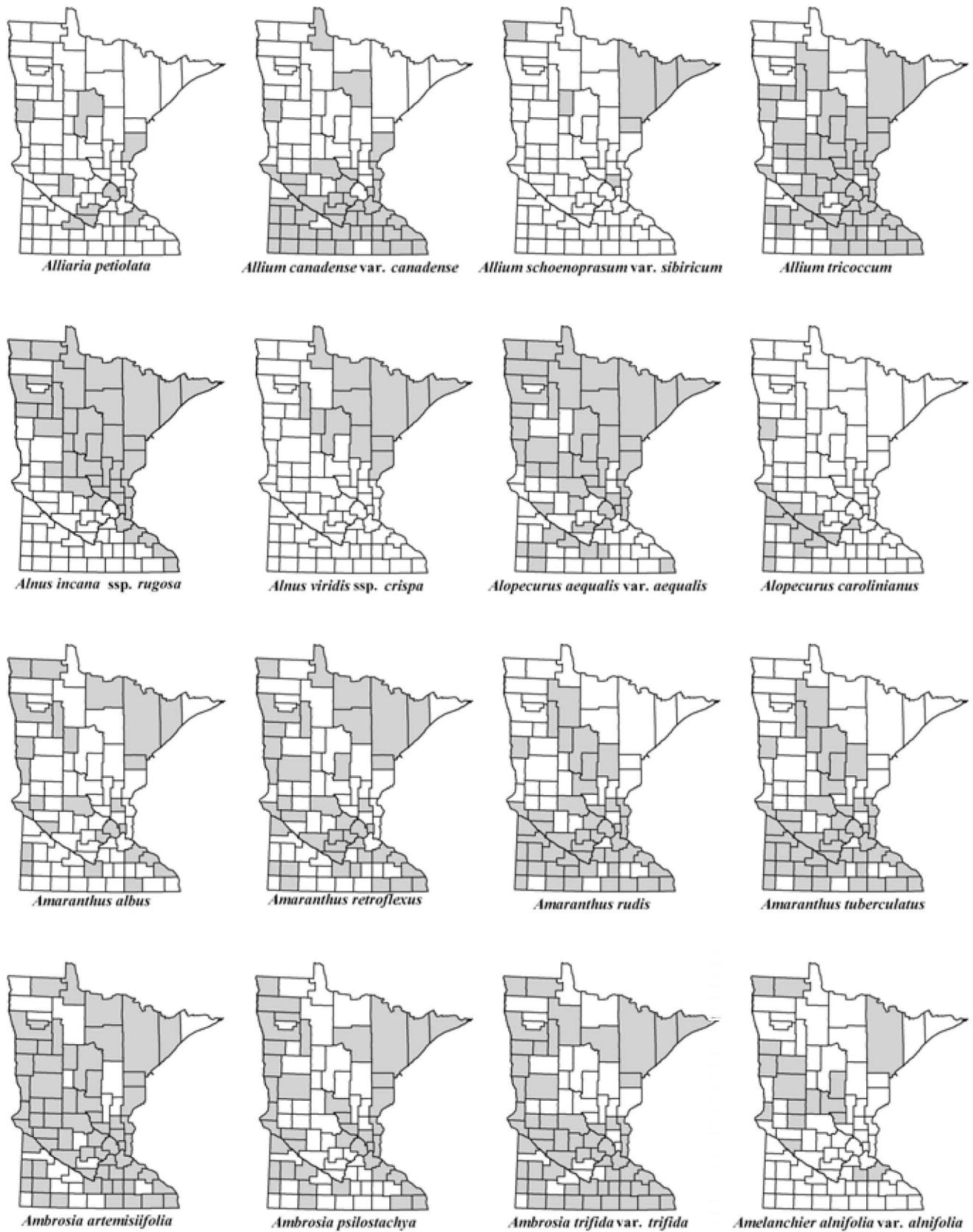
APPENDIX B: DISTRIBUTION ATLAS

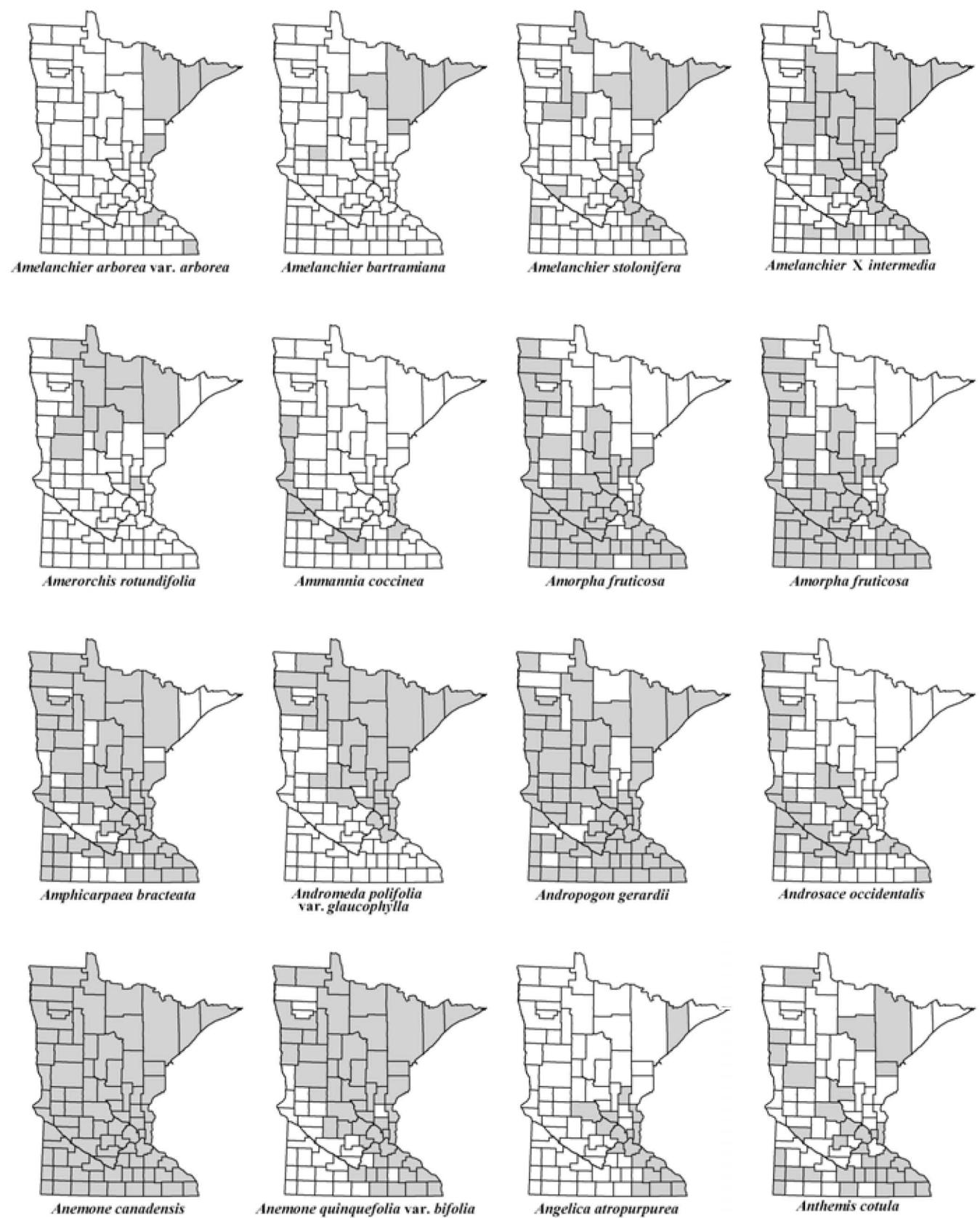
County distribution maps were produced for all species in MN Wetlist 1.4 and are listed alphabetically. Data from the University of Minnesota Herbarium were used to produce the maps. Counties are shaded where a species is present. A handful of species maps lack shaded counties entirely because the herbarium did not have a verified specimen at the time the data were acquired. A map with Minnesota county names is provided below for reference.

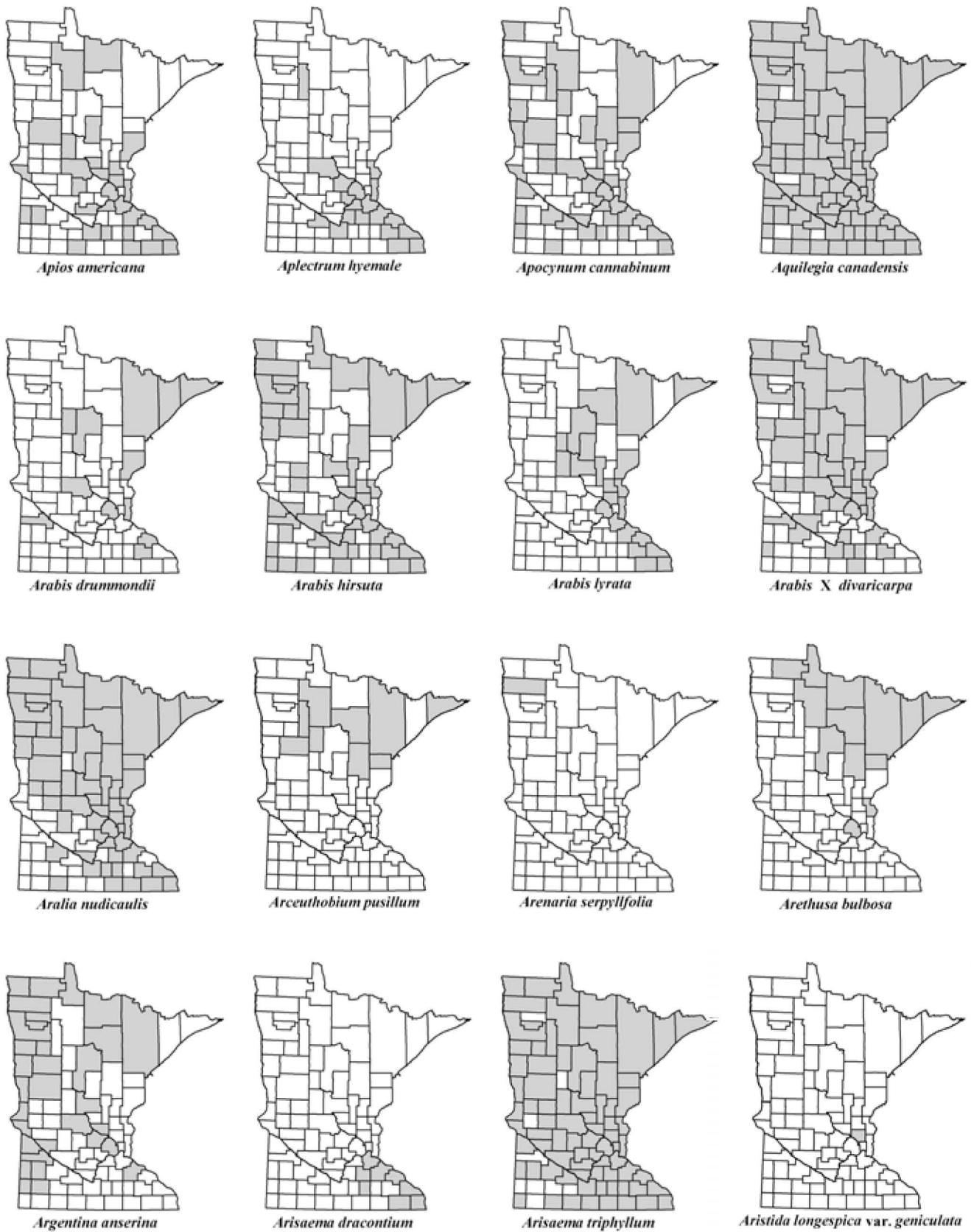


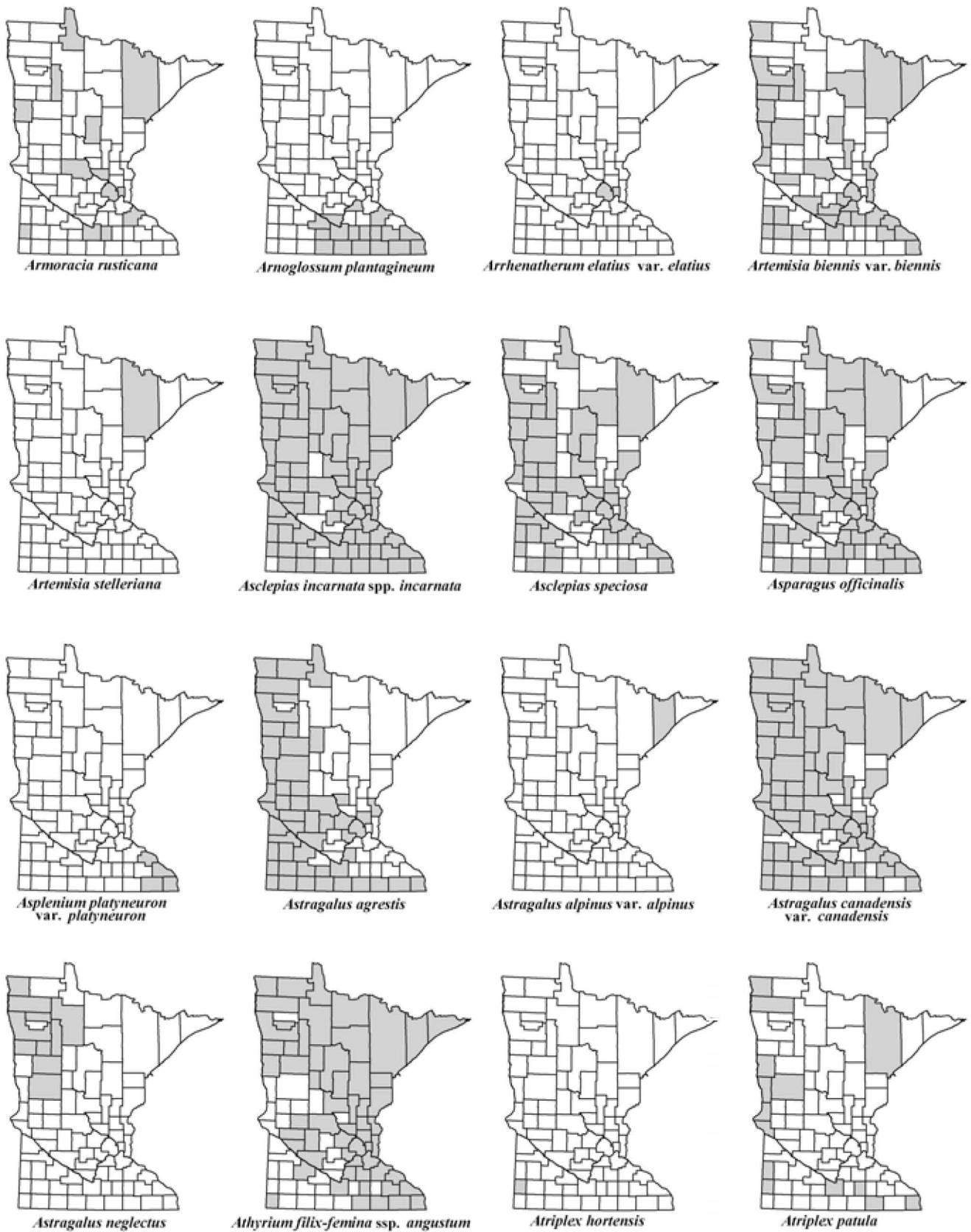


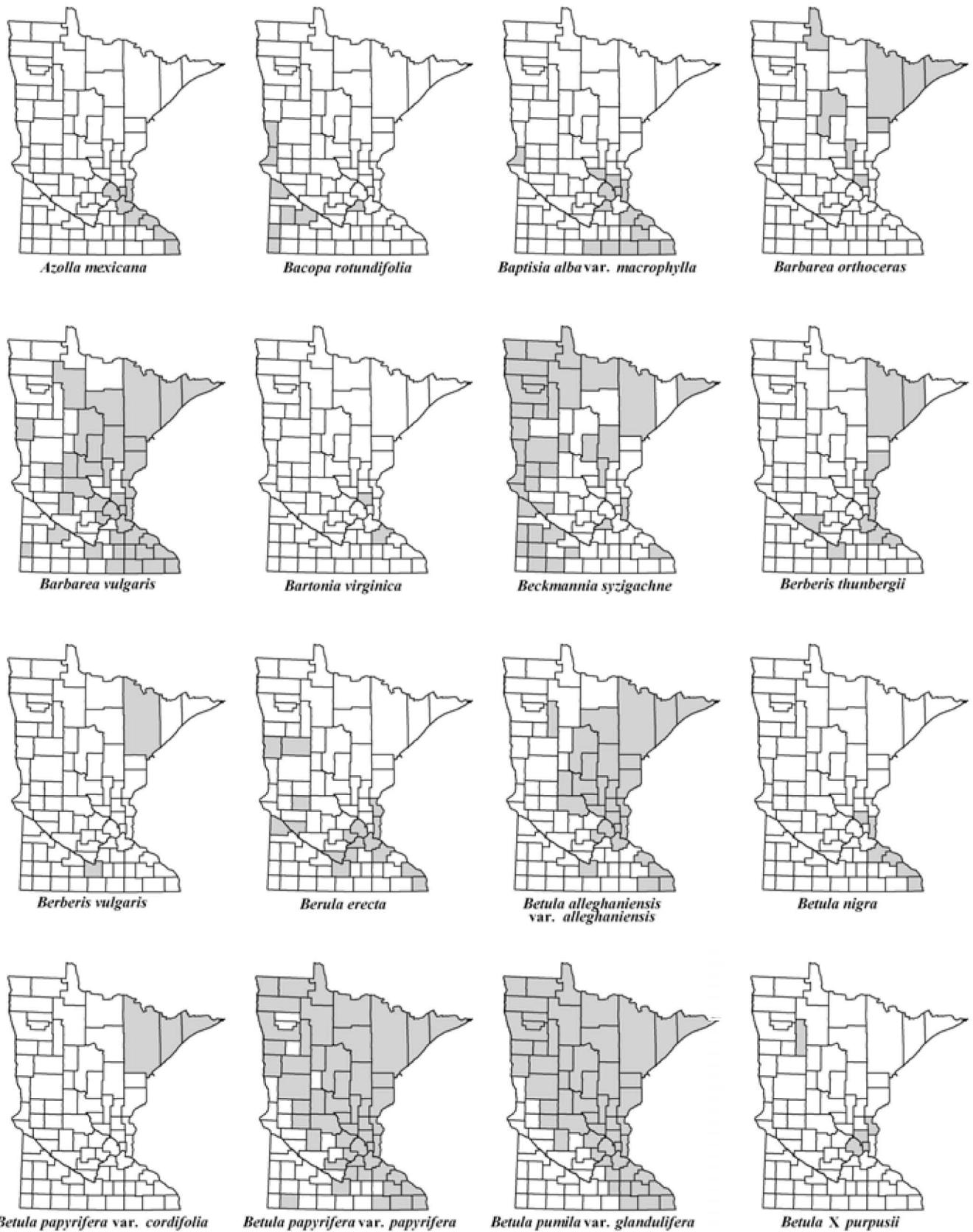


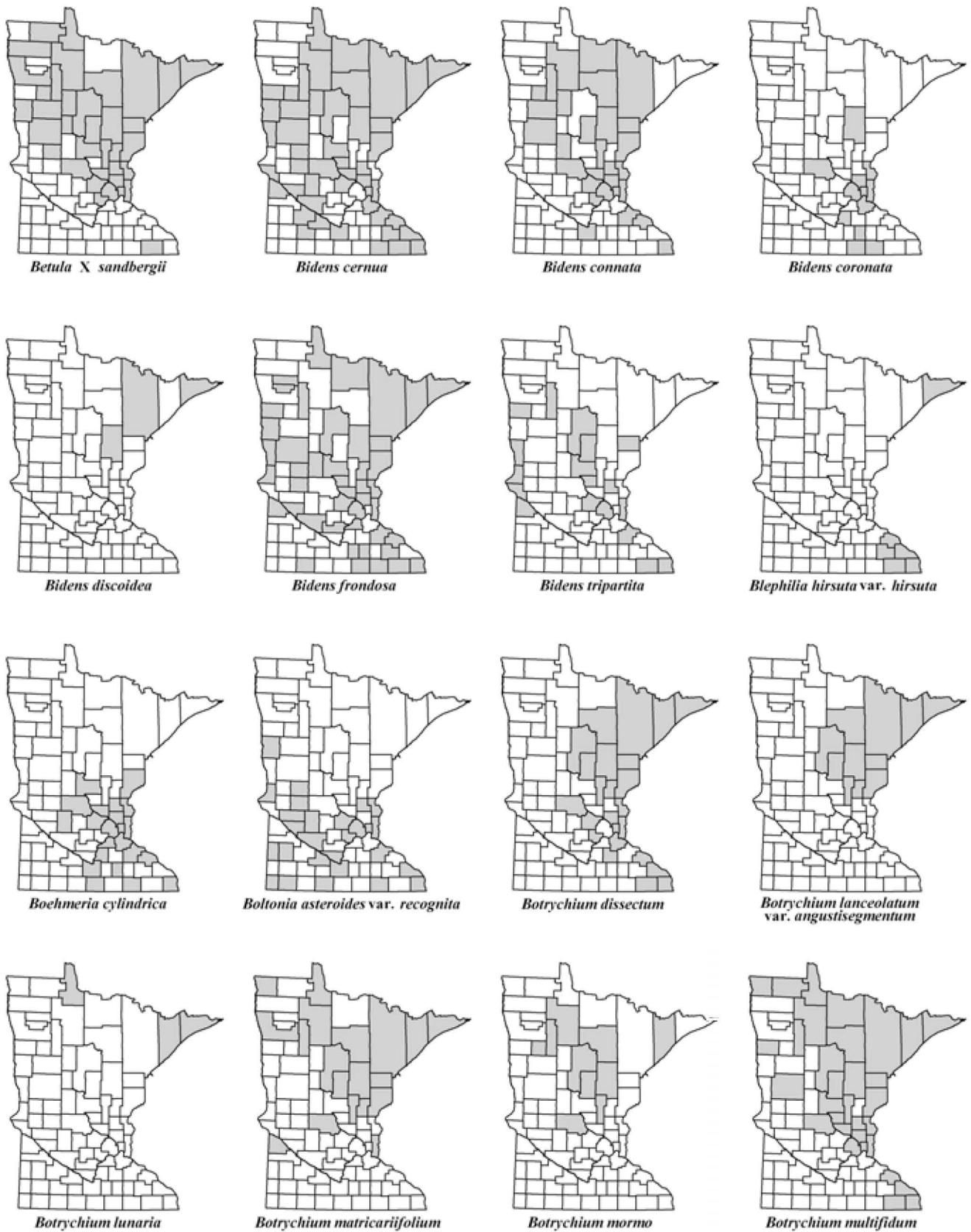


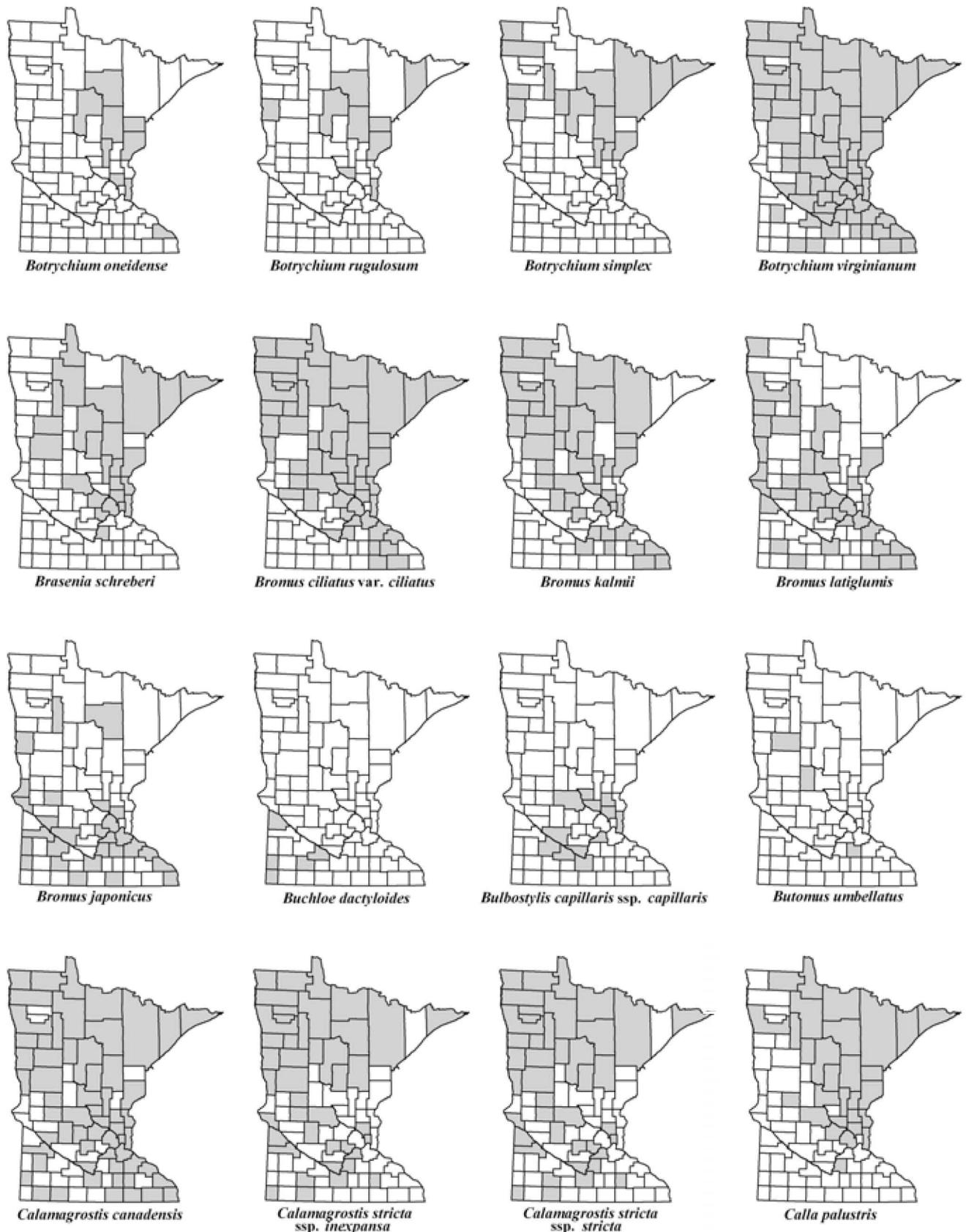










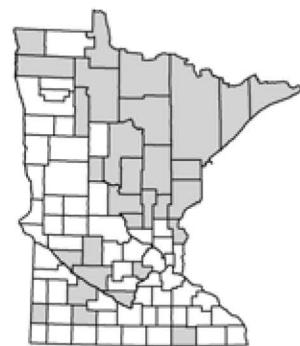




Callitriches hermaphroditica



Callitriches heterophylla
ssp. *heterophylla*



Callitriches palustris



Calopogon oklahomensis



Calopogon tuberosus var. *tuberous*



Caltha natans



Caltha palustris var. *palustris*



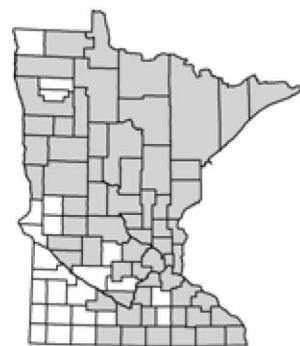
Calypso bulbosa var. *americana*



Calystegia sepium



Camelina sativa



Campanula aparinoides



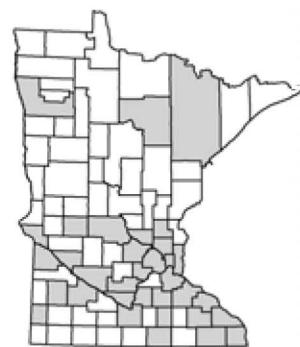
Campanula rotundifolia



Campanulastrum americanum



Canadanthus modestus



Cannabis sativa var. *sativa*



Capsella bursa-pastoris

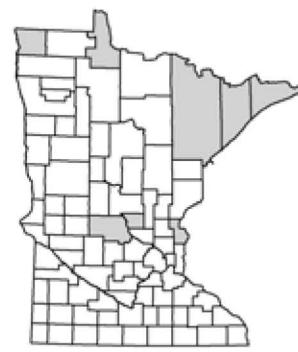




Cardamine bulbosa



Cardamine concatenata



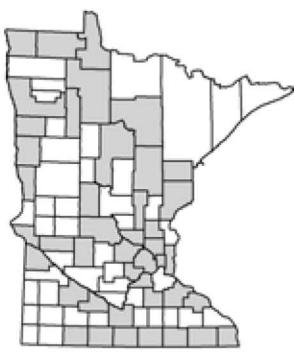
Cardamine parviflora var. arenicola



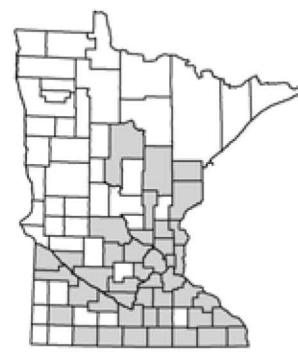
Cardamine pensylvanica



Cardamine pratensis var. pratensis



Carex alopecoidea



Carex amphibola



Carex annectens



Carex aquatilis var. aquatilis



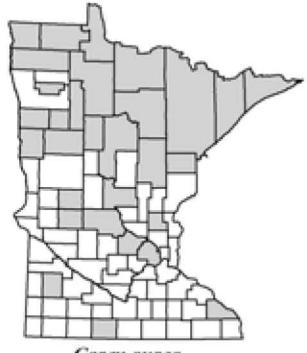
Carex arcta



Carex arctata



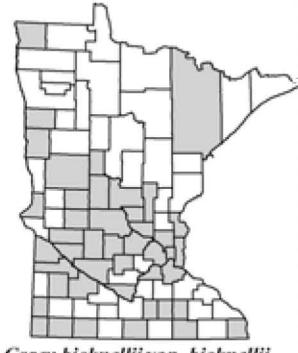
Carex atherodes



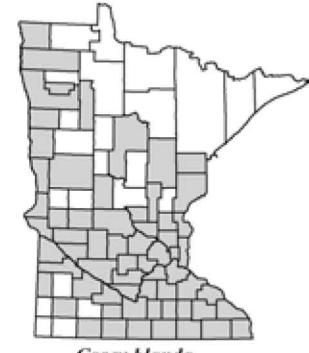
Carex aurea



Carex bebbii

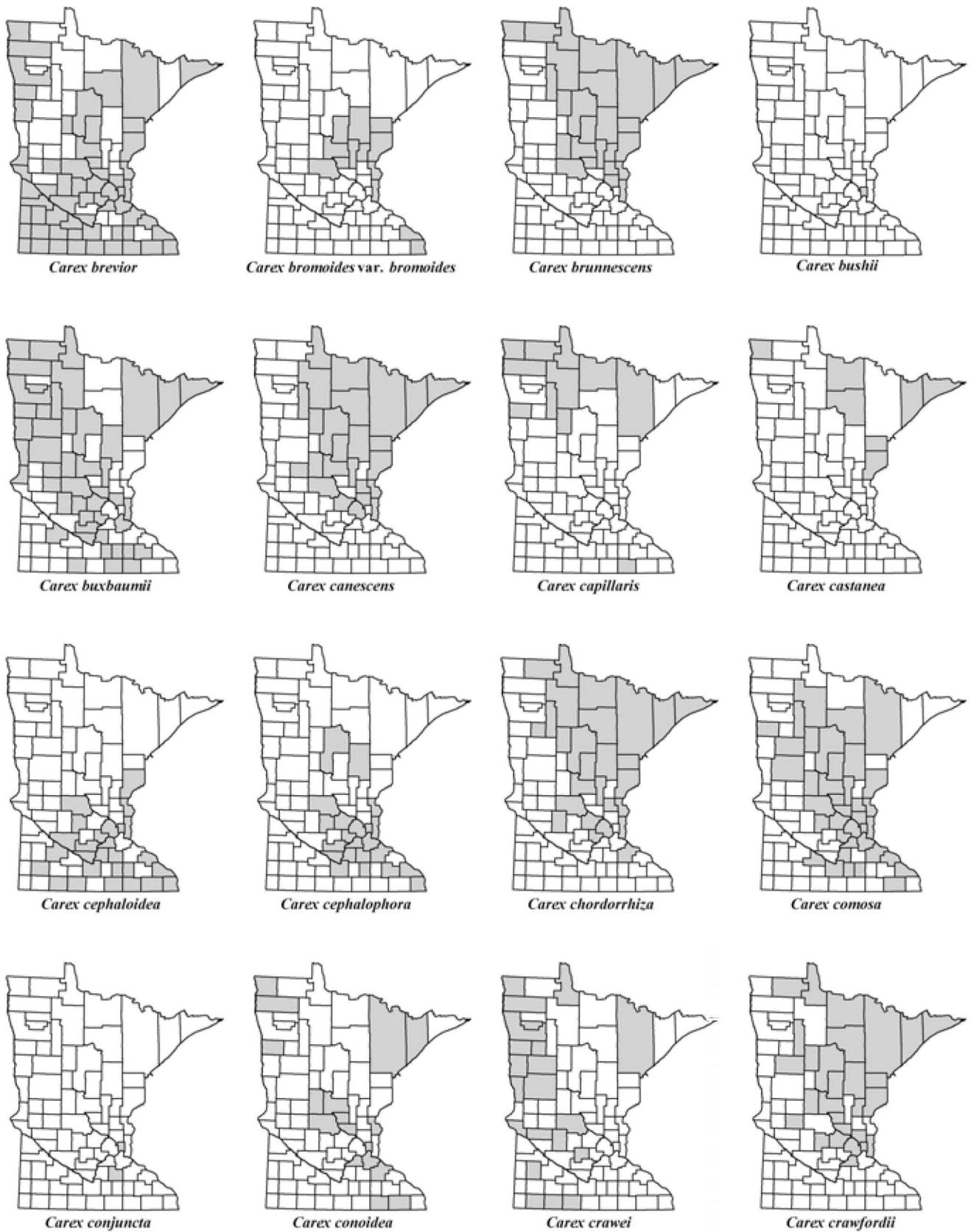


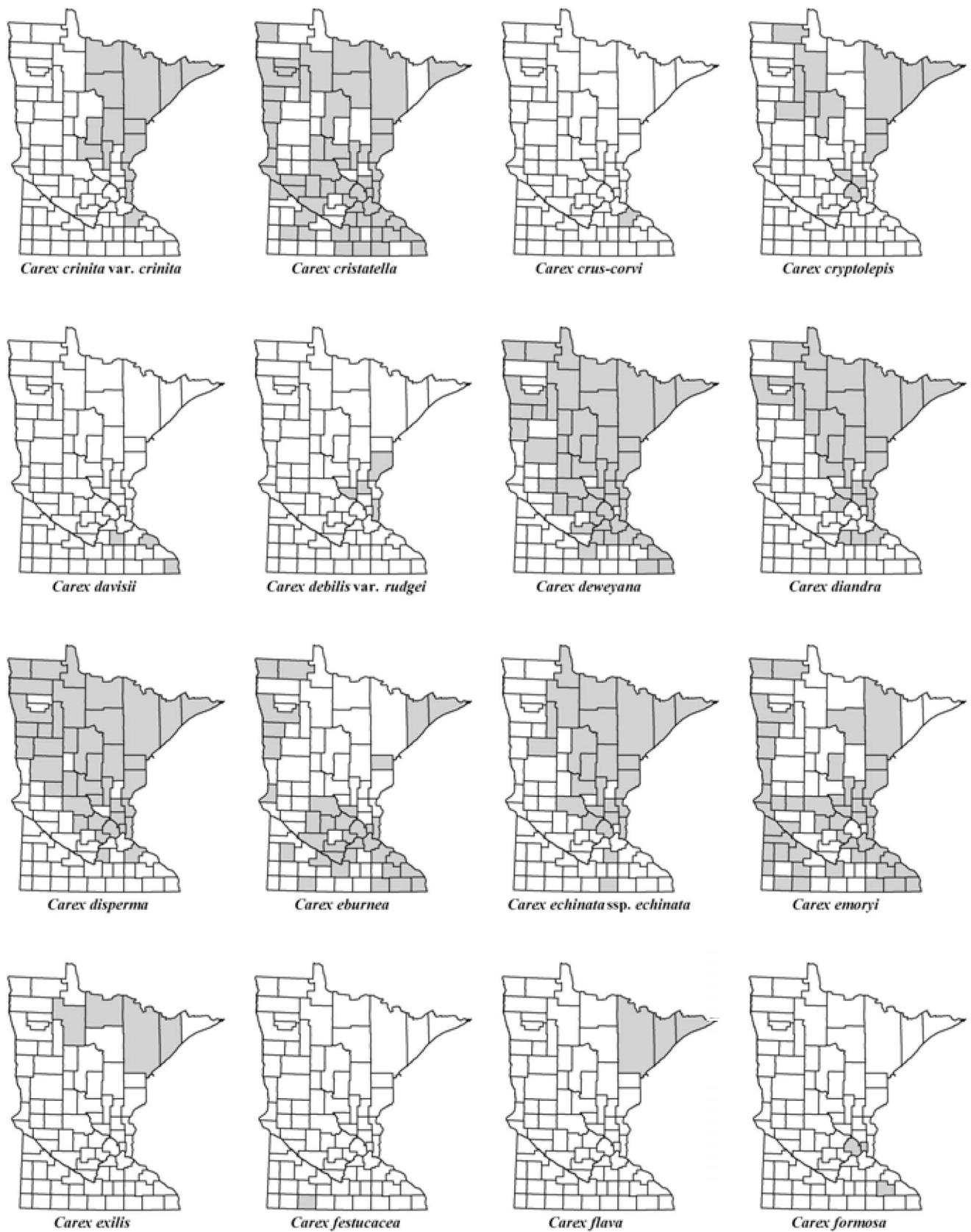
Carex bicknellii var. bicknellii

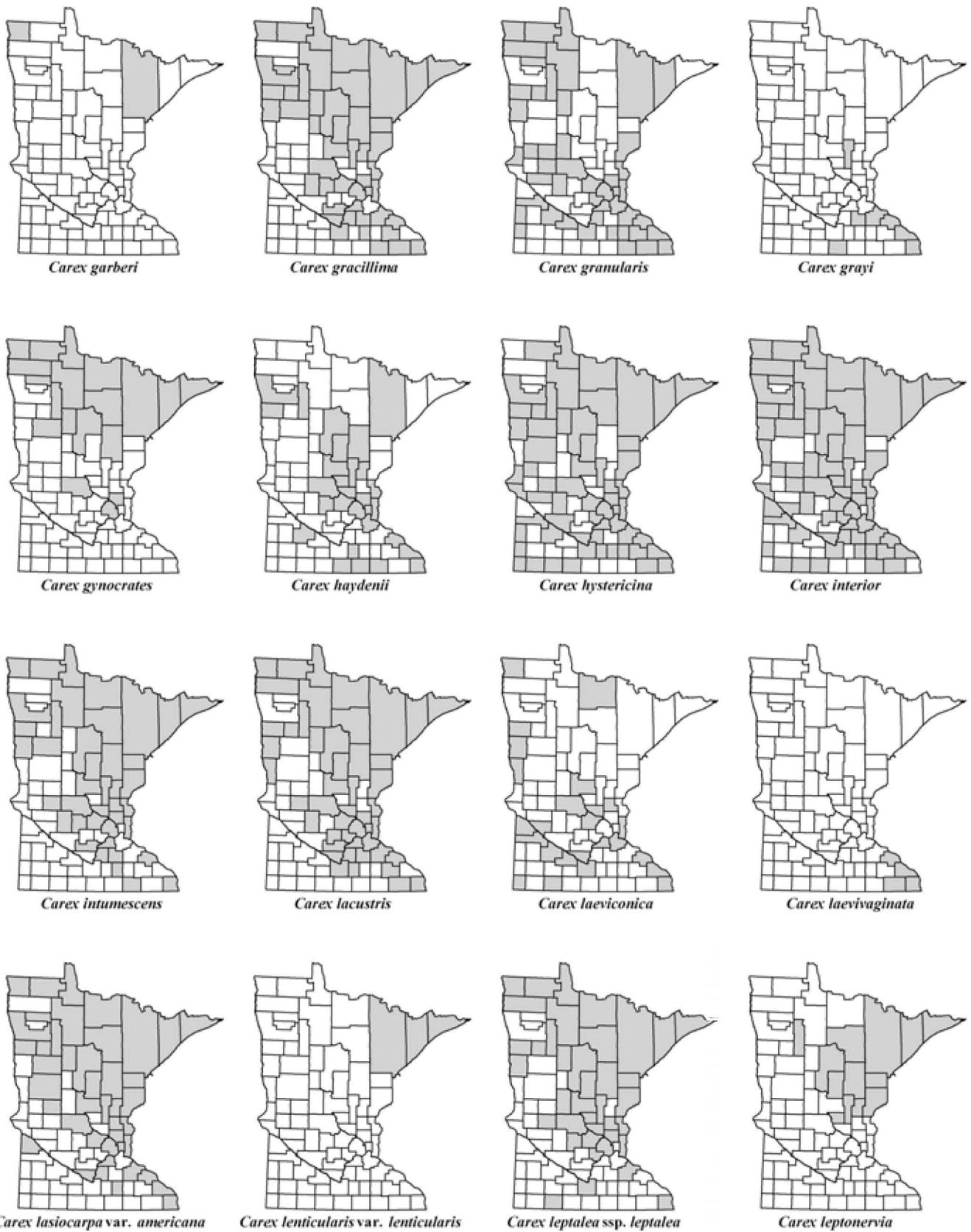


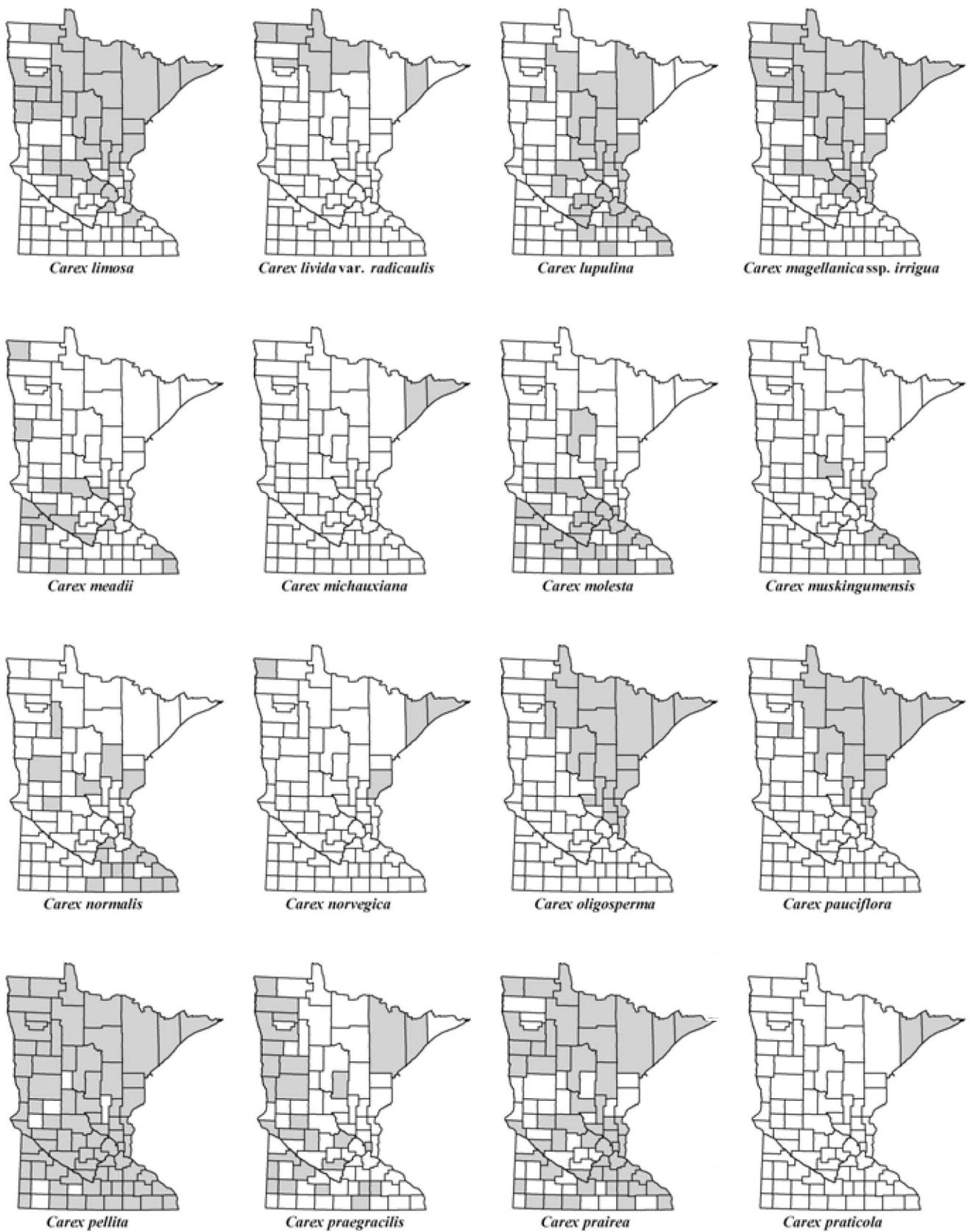
Carex blanda

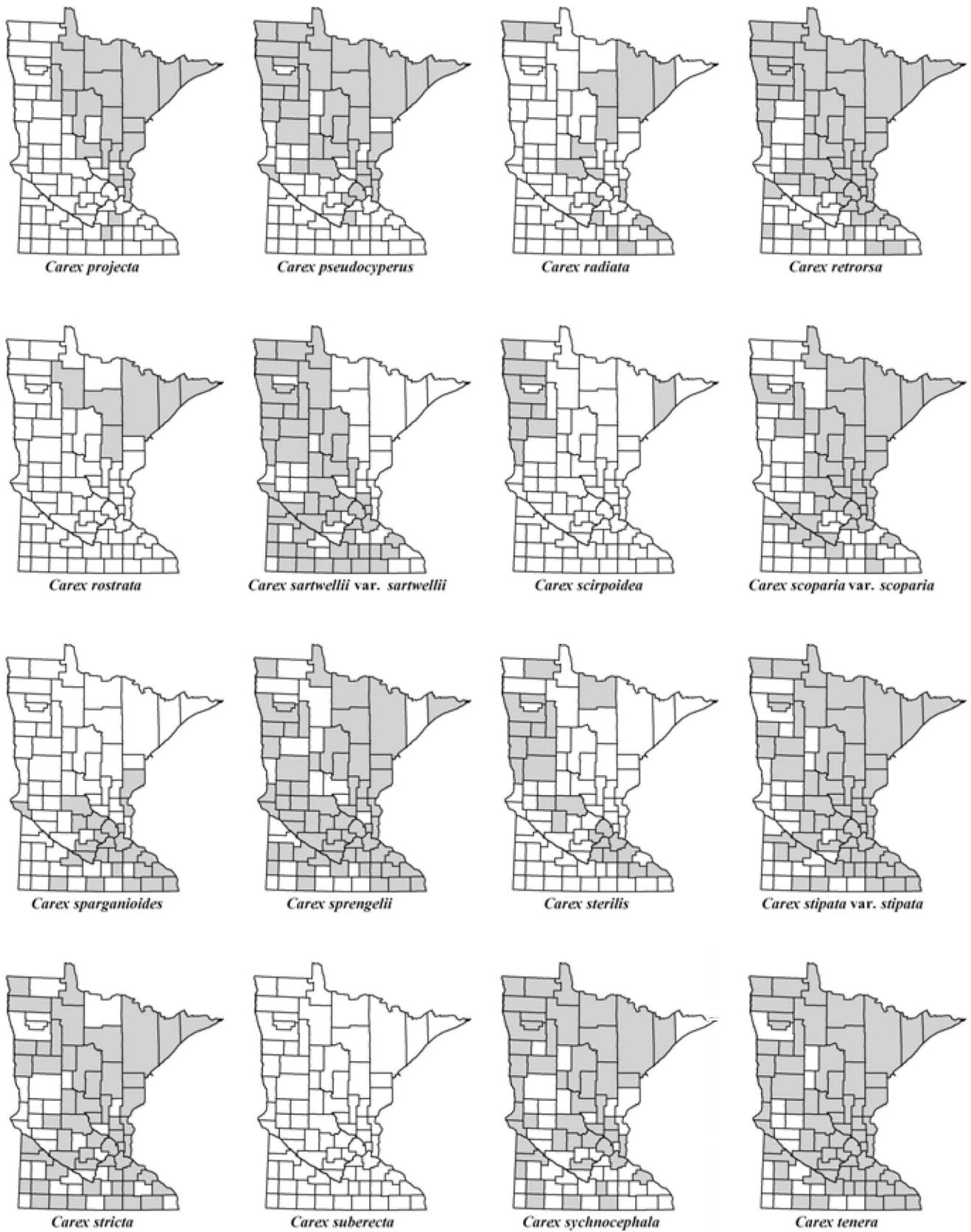


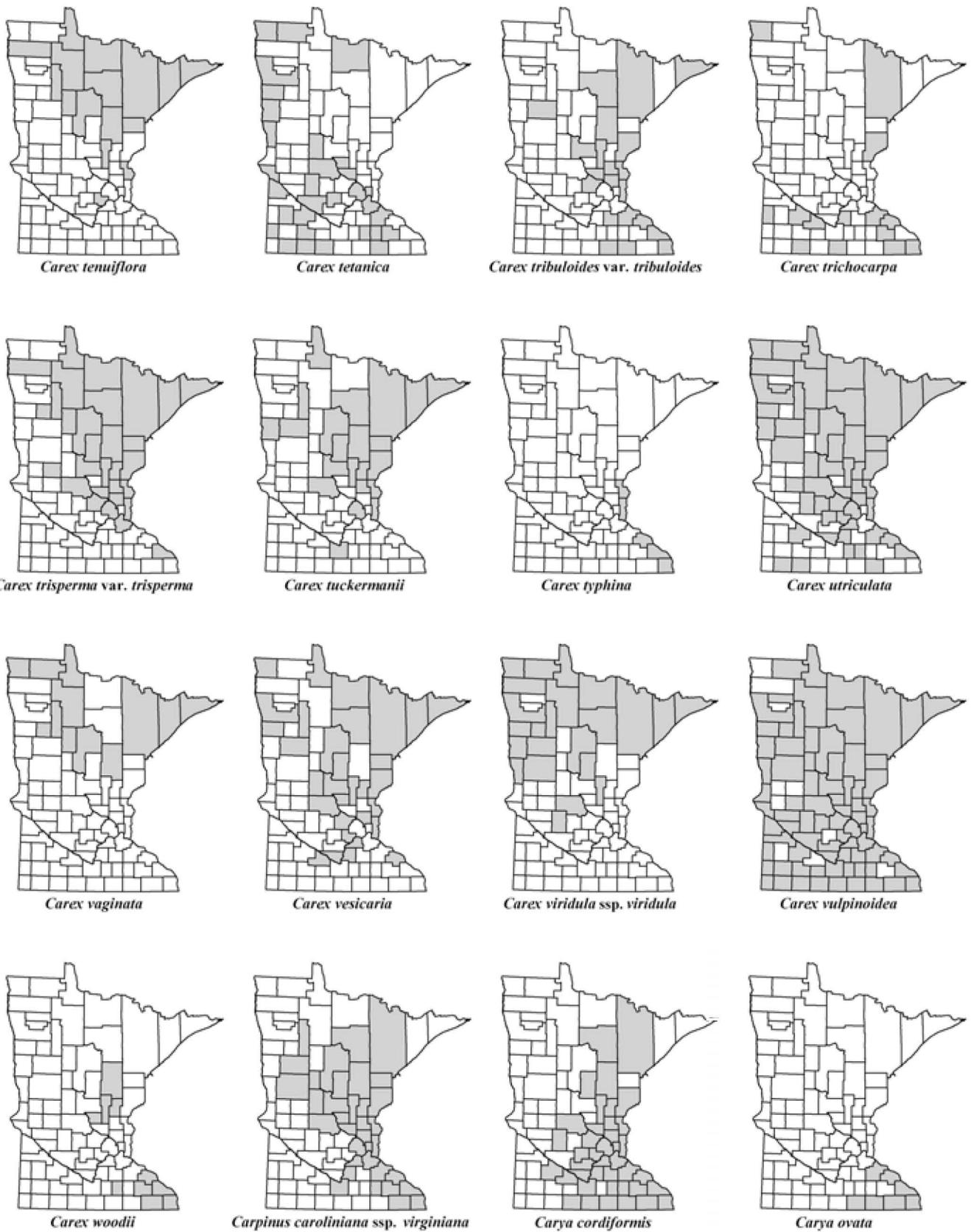


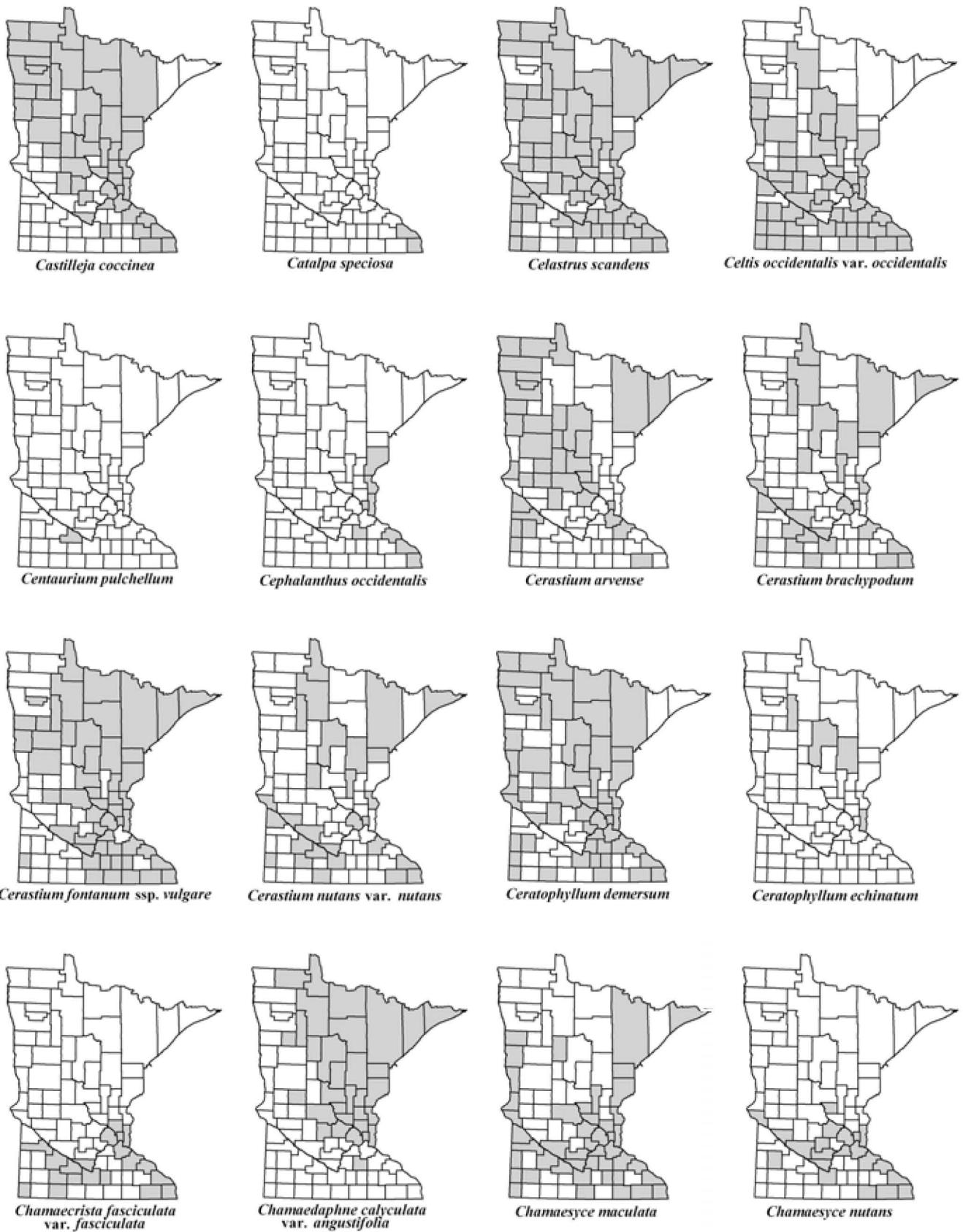


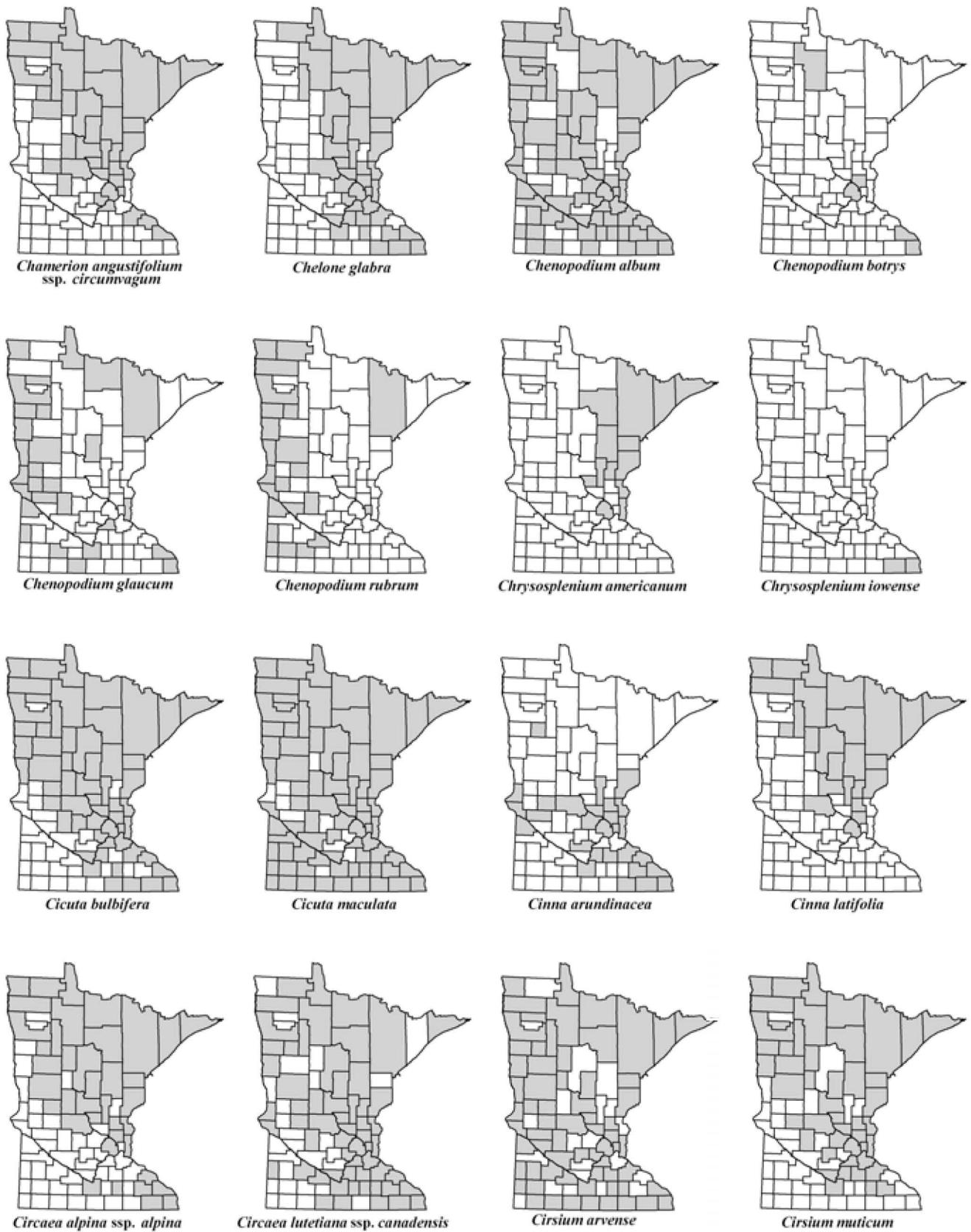


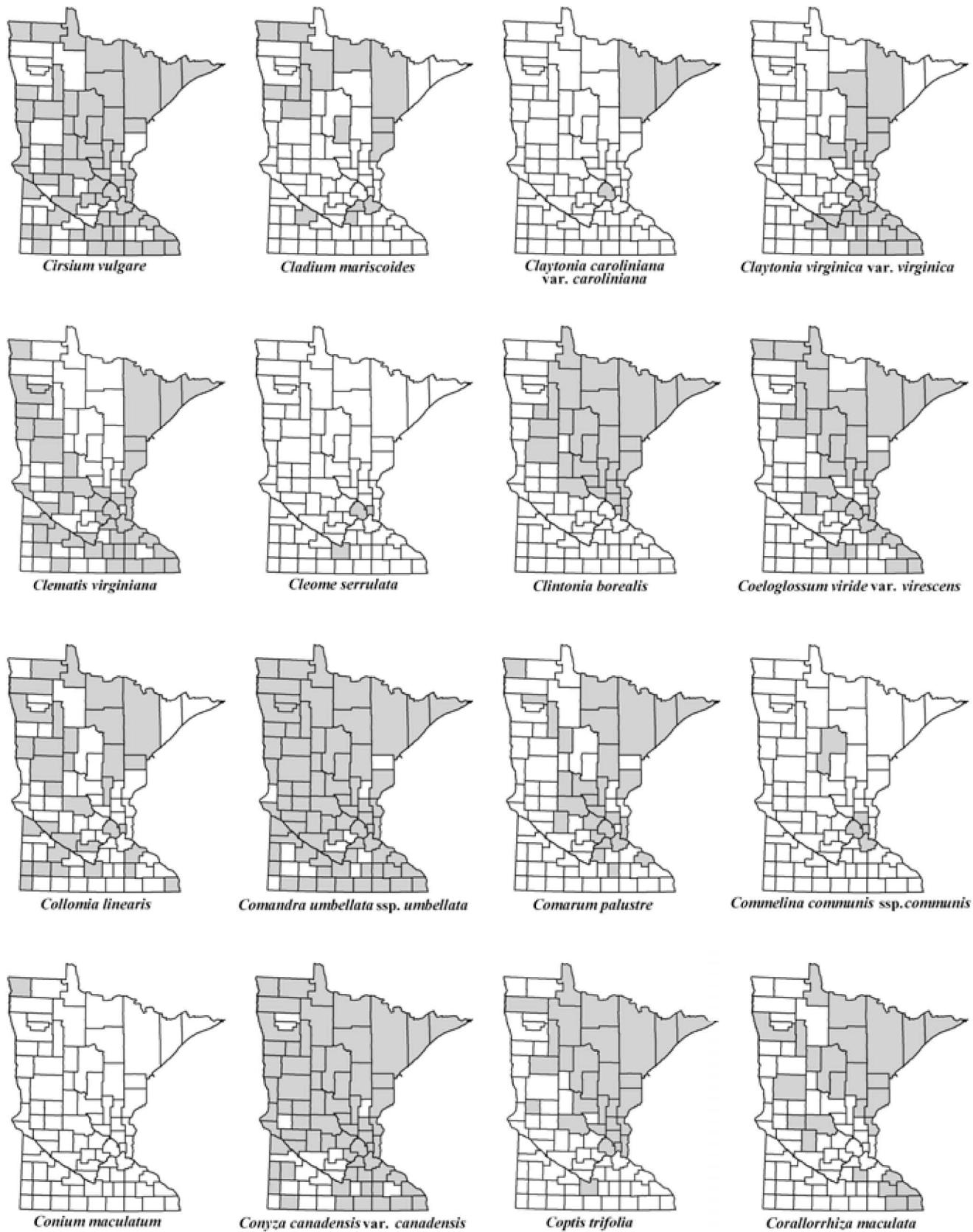














Corallorrhiza striata var. *striata*



Corallorrhiza trifida



Coreopsis lanceolata



Coreopsis tinctoria var. *tinctoria*



Corispermum americanum



Cornus canadensis



Cornus obliqua



Cornus racemosa



Cornus sericea ssp. *sericea*



Corylus americana



Crassula aquatica



Crataegus douglasii var. *douglasii*



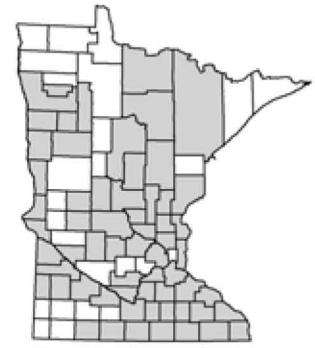
Crataegus mollis



Crepis runcinata ssp. *runcinata*

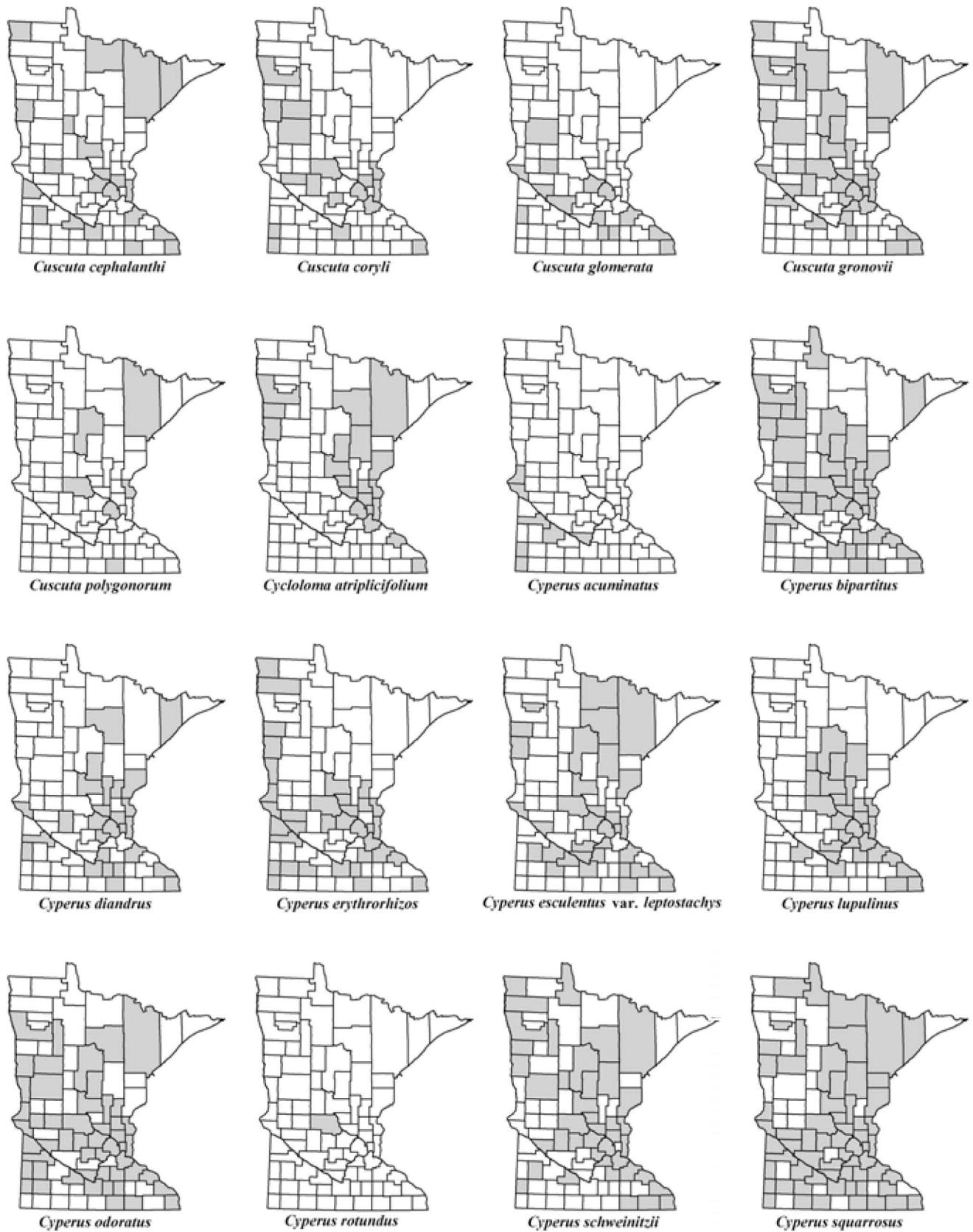


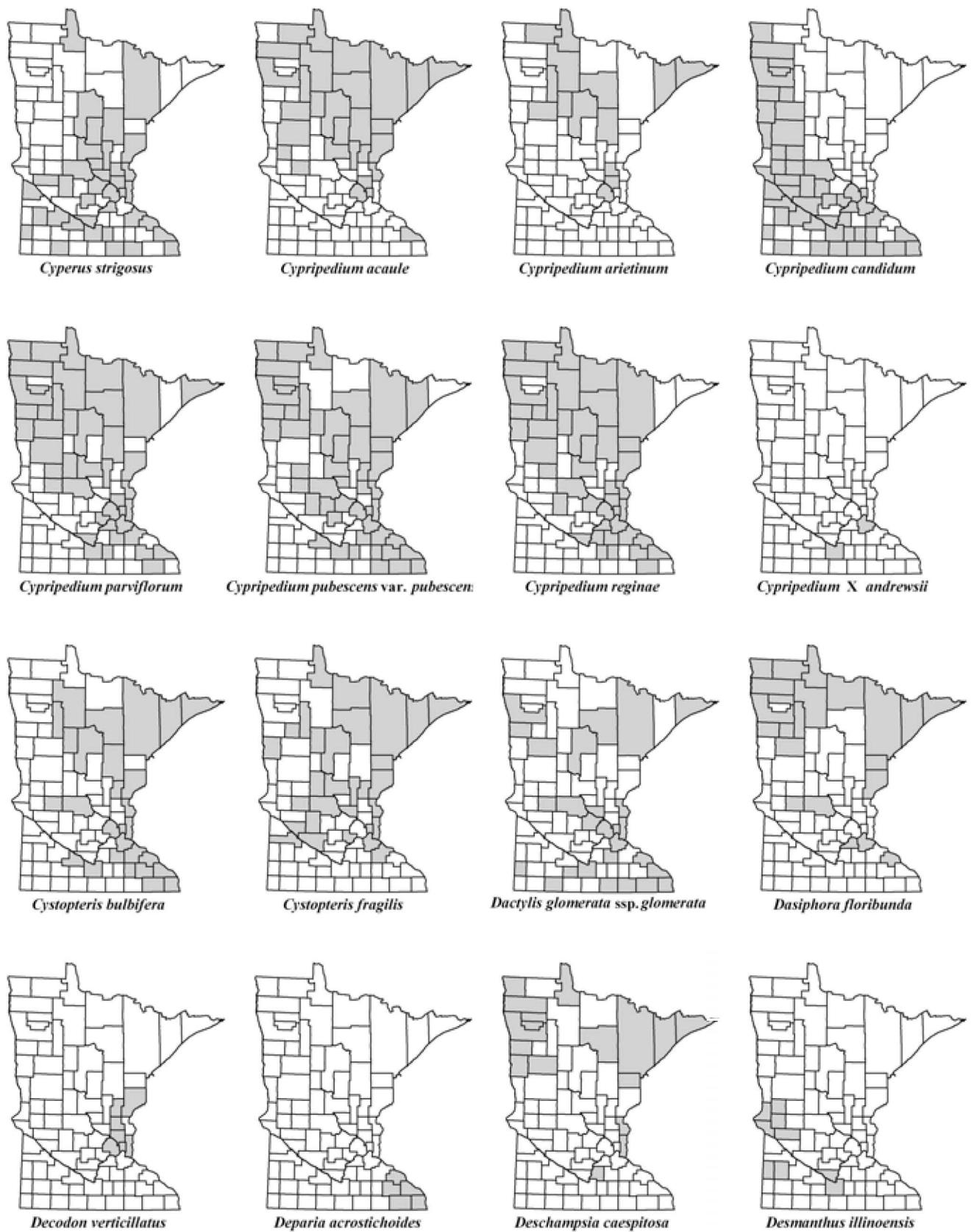
Cryptogramma stelleri

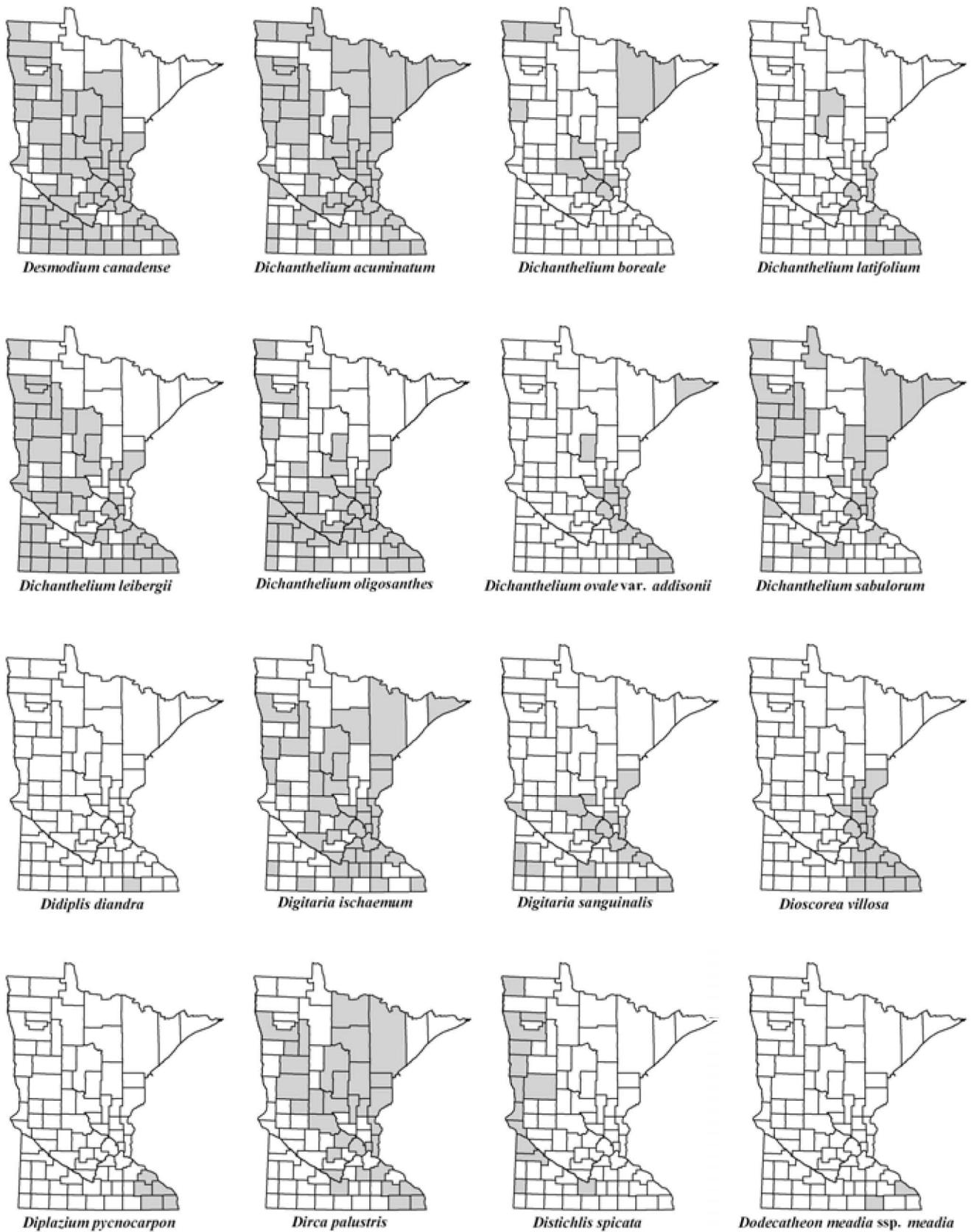


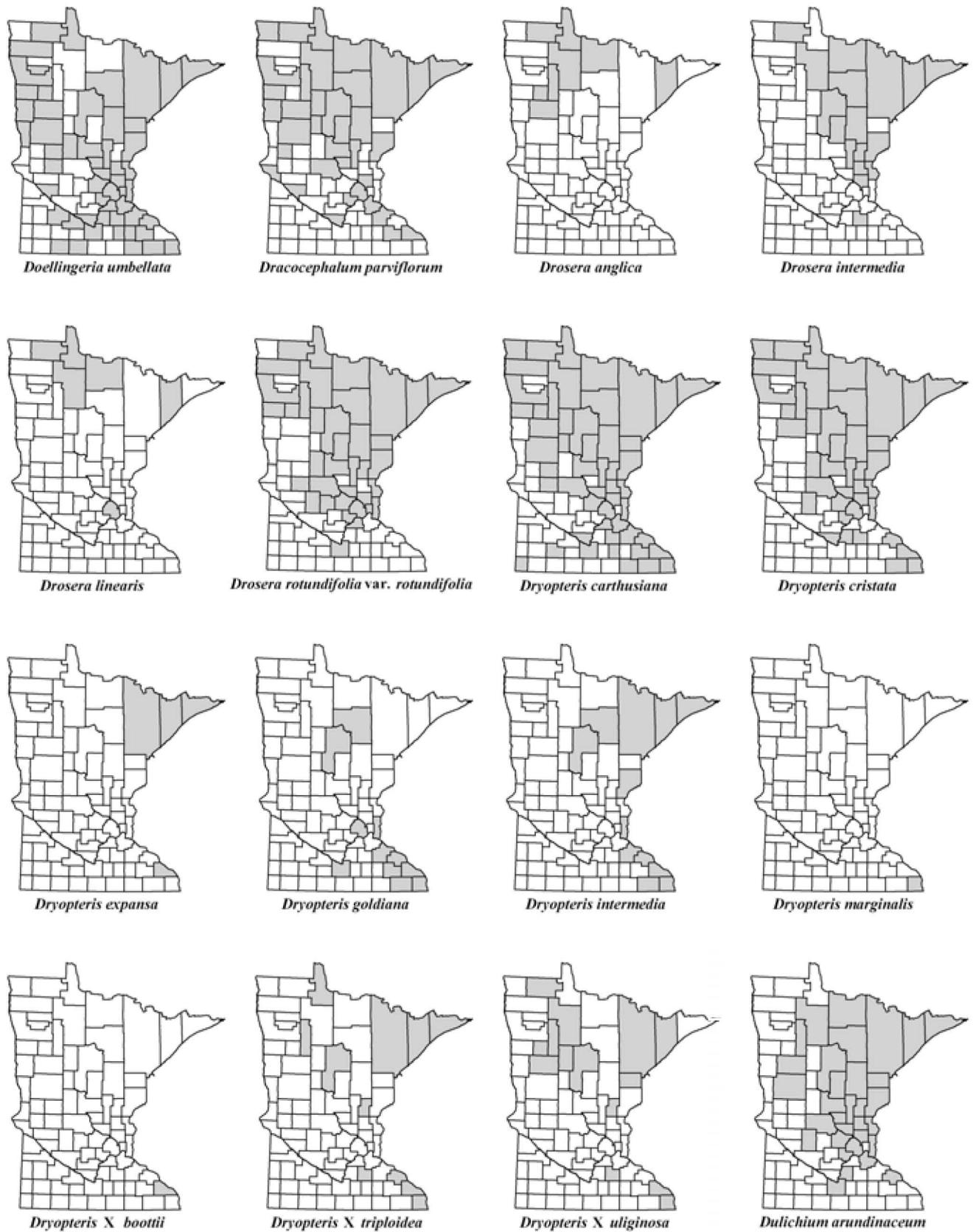
Cryptotaenia canadensis

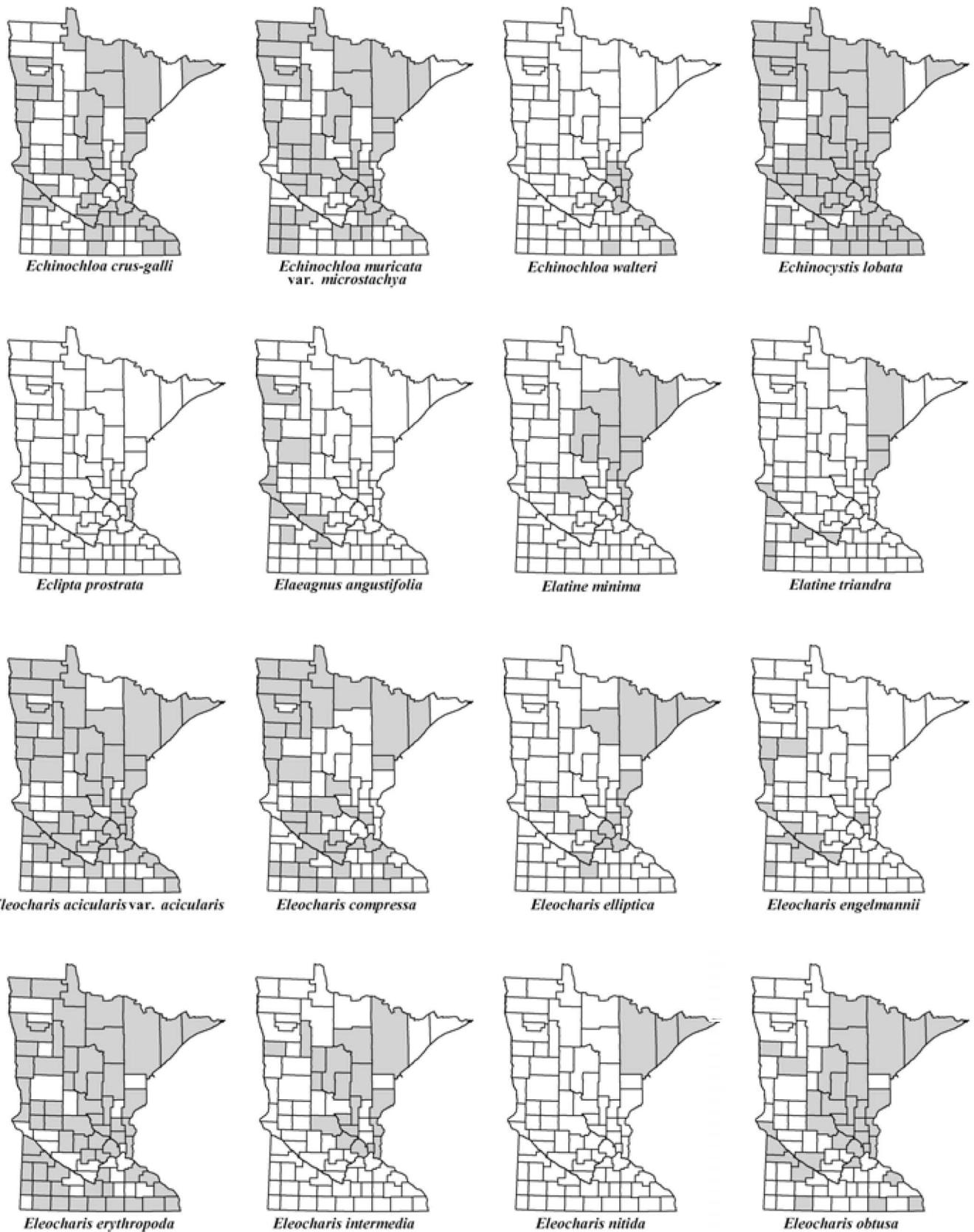


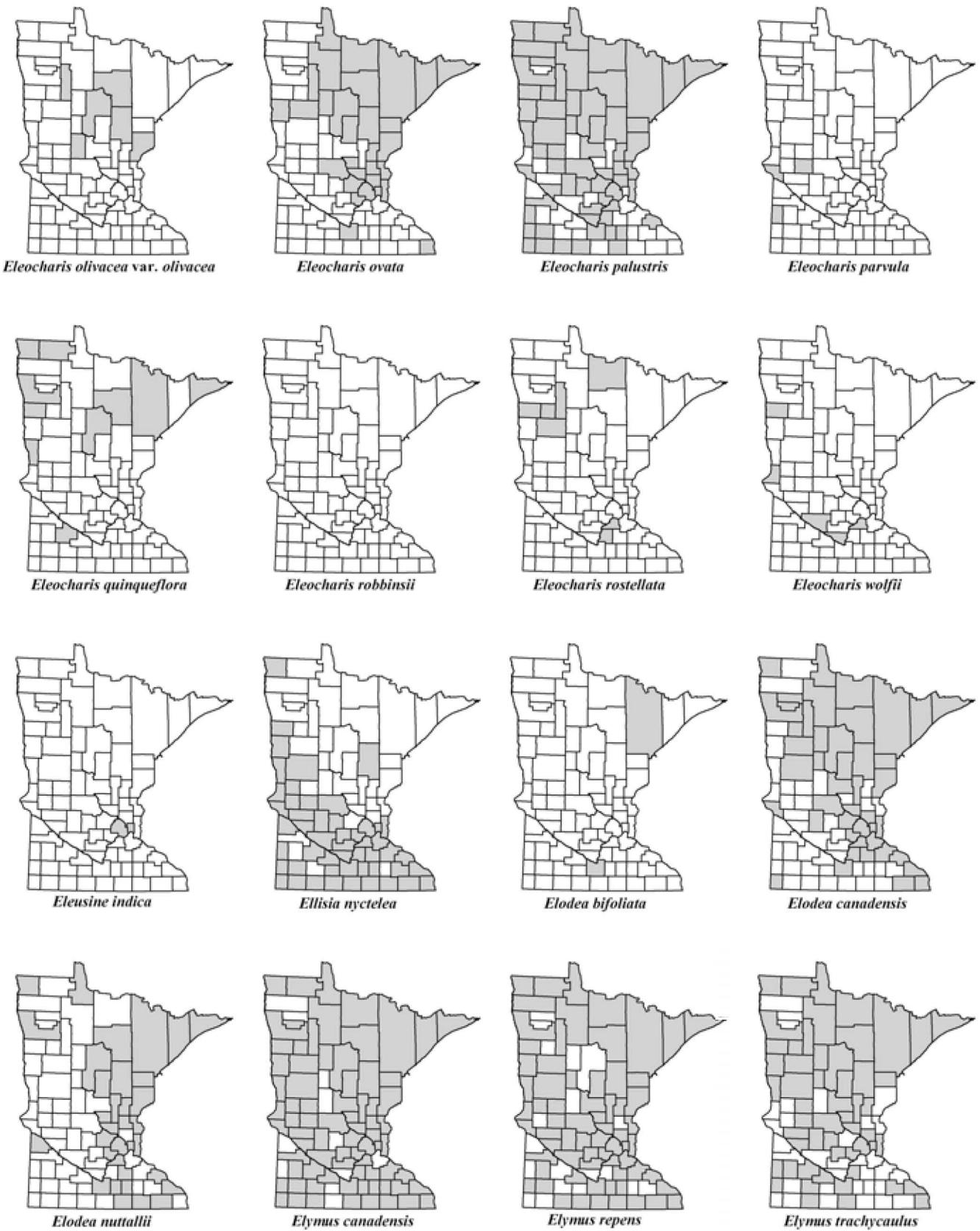


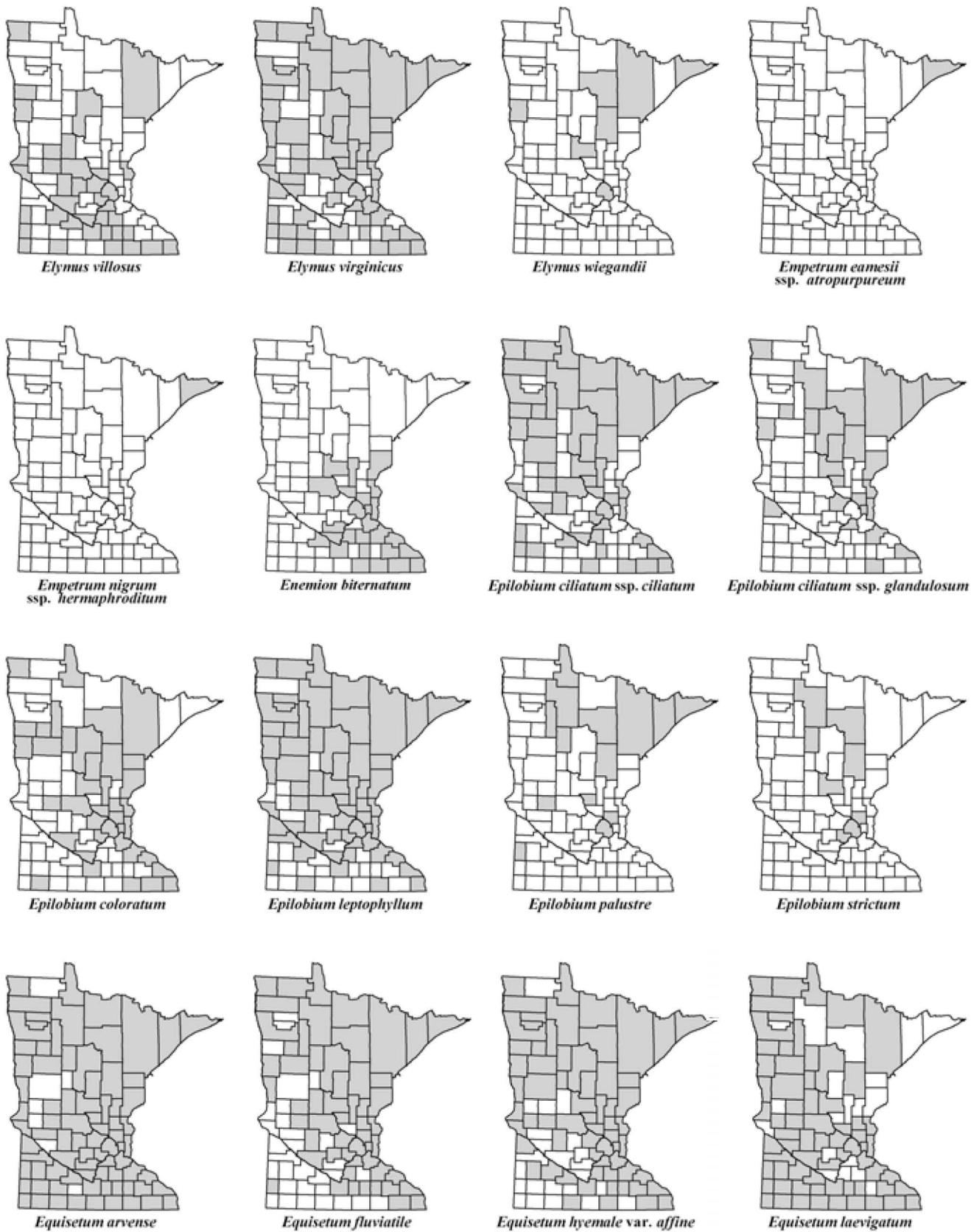


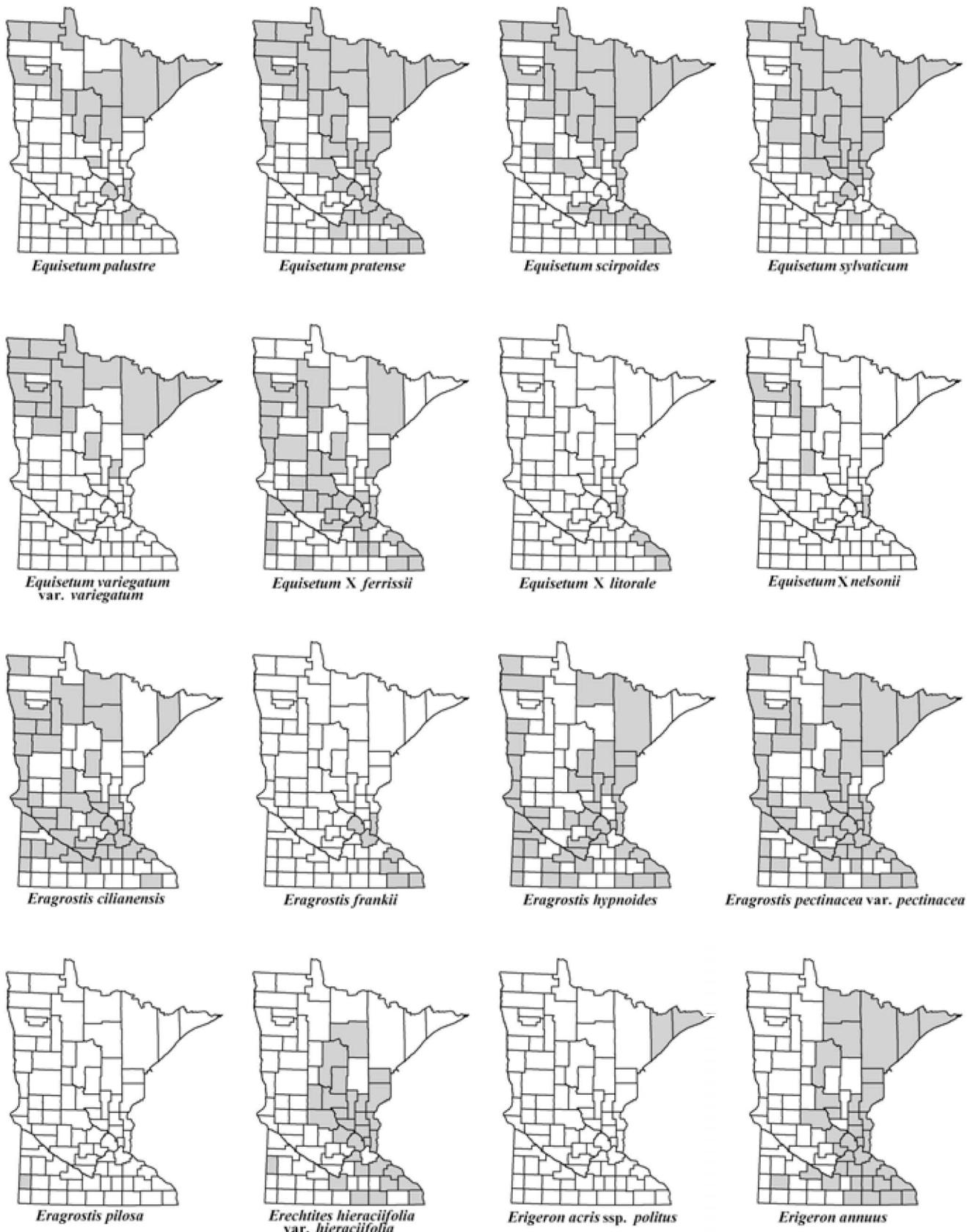


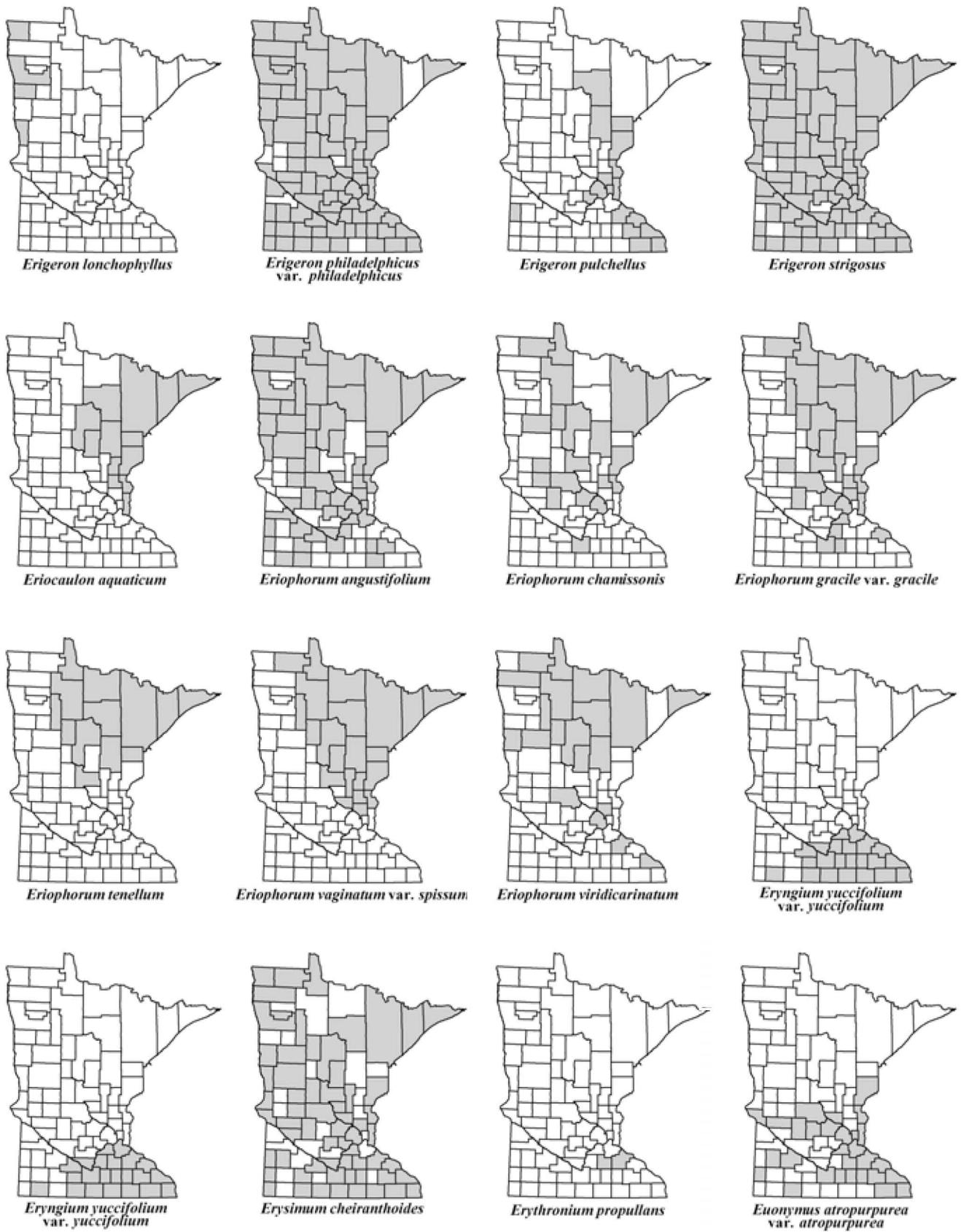


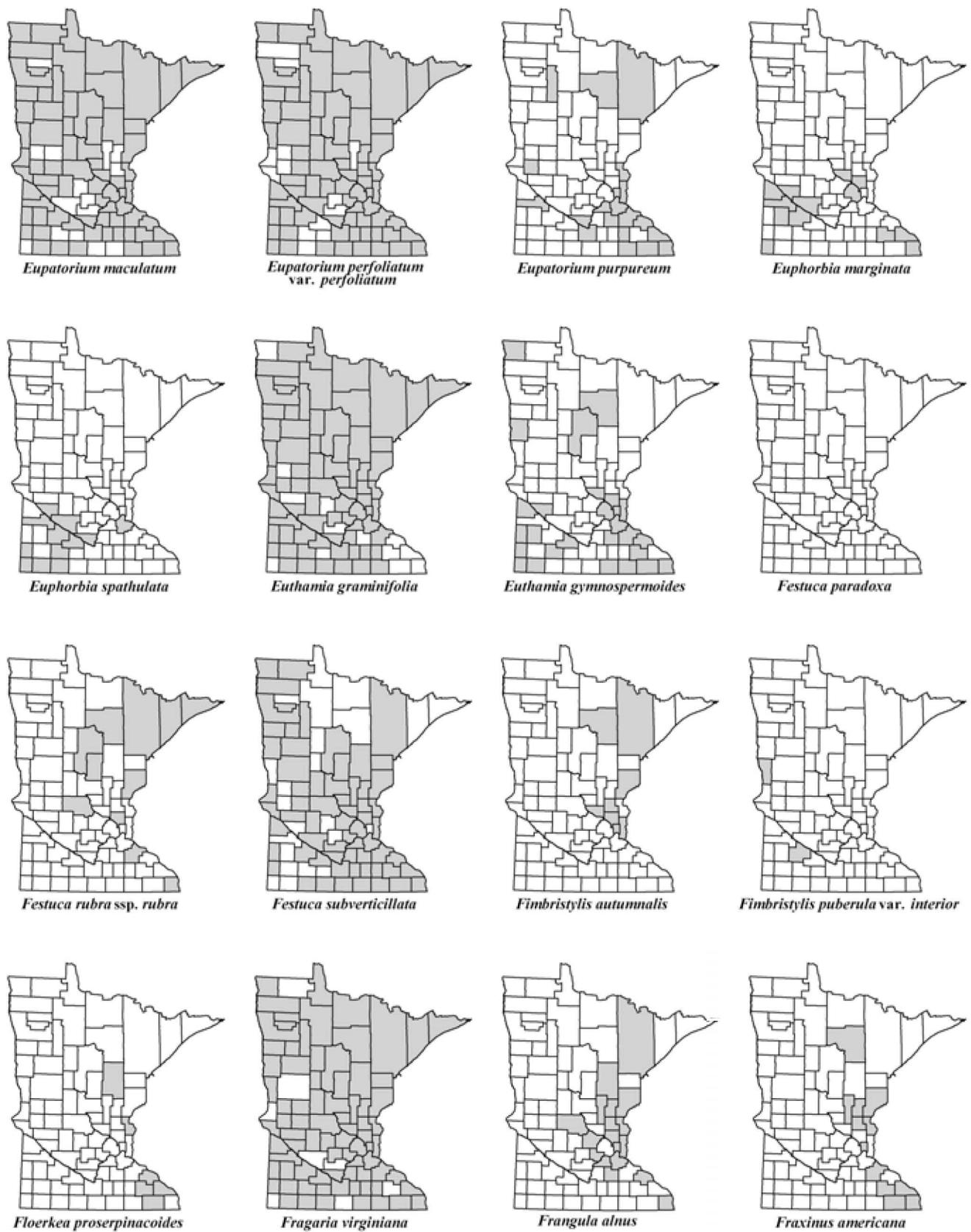


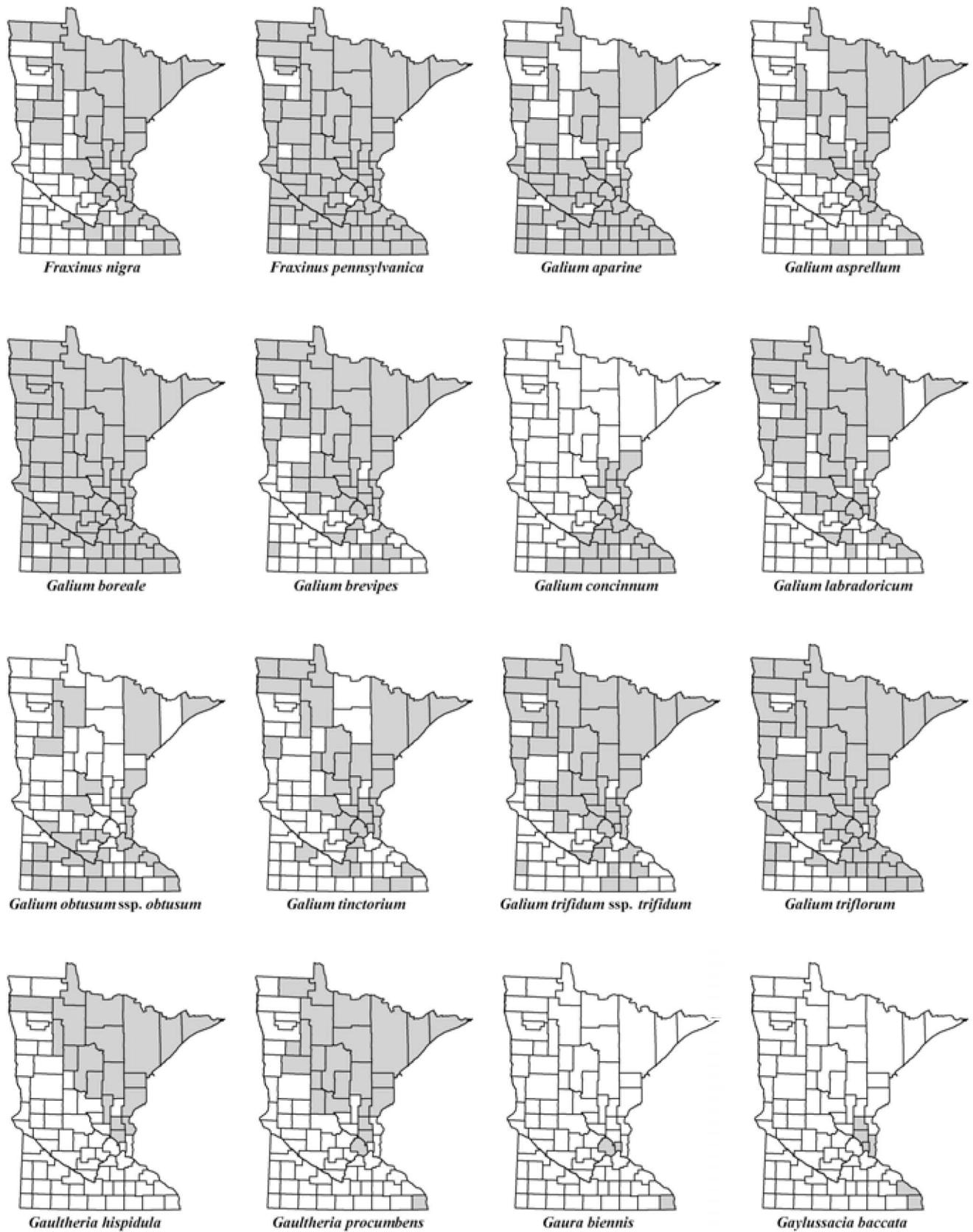


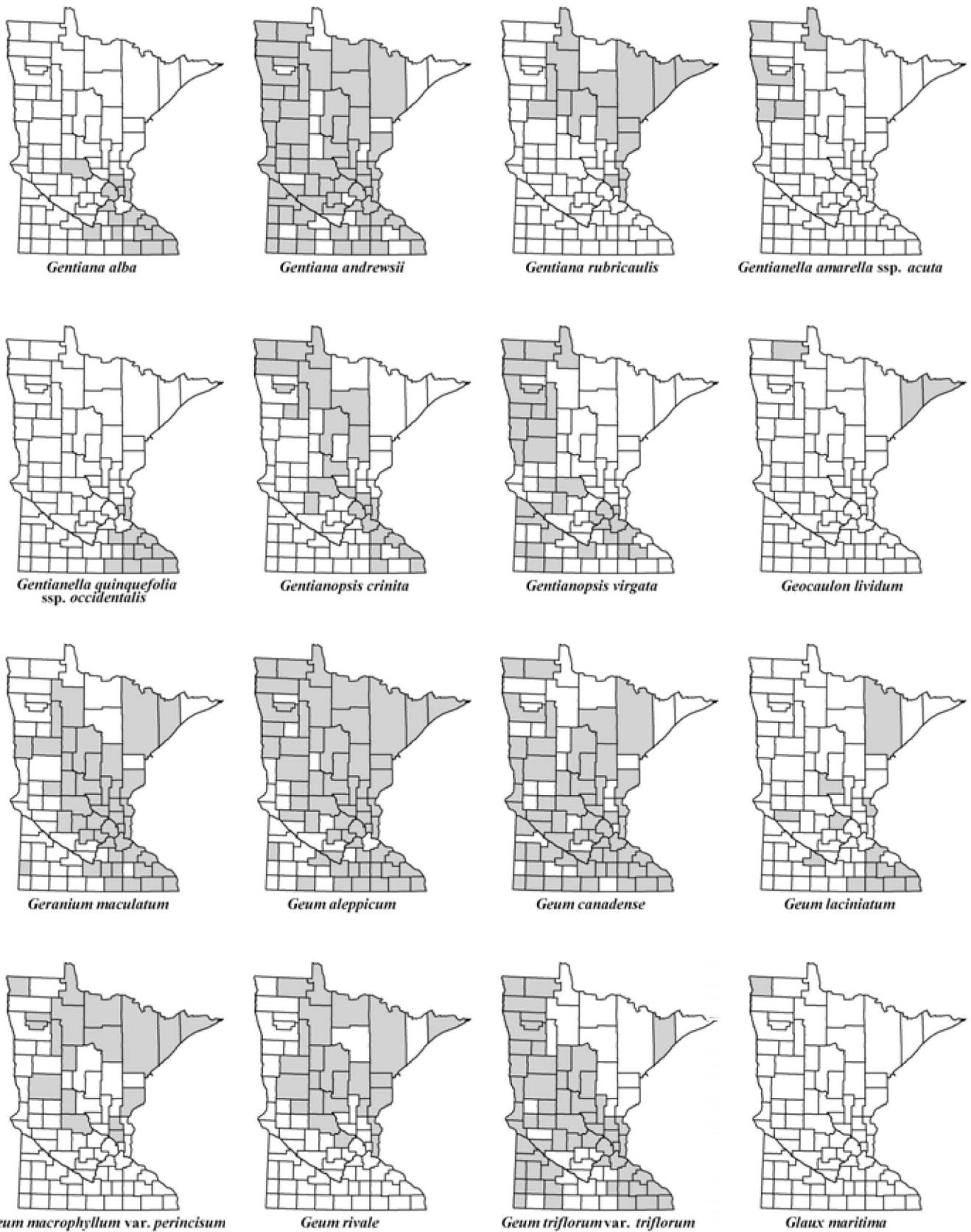


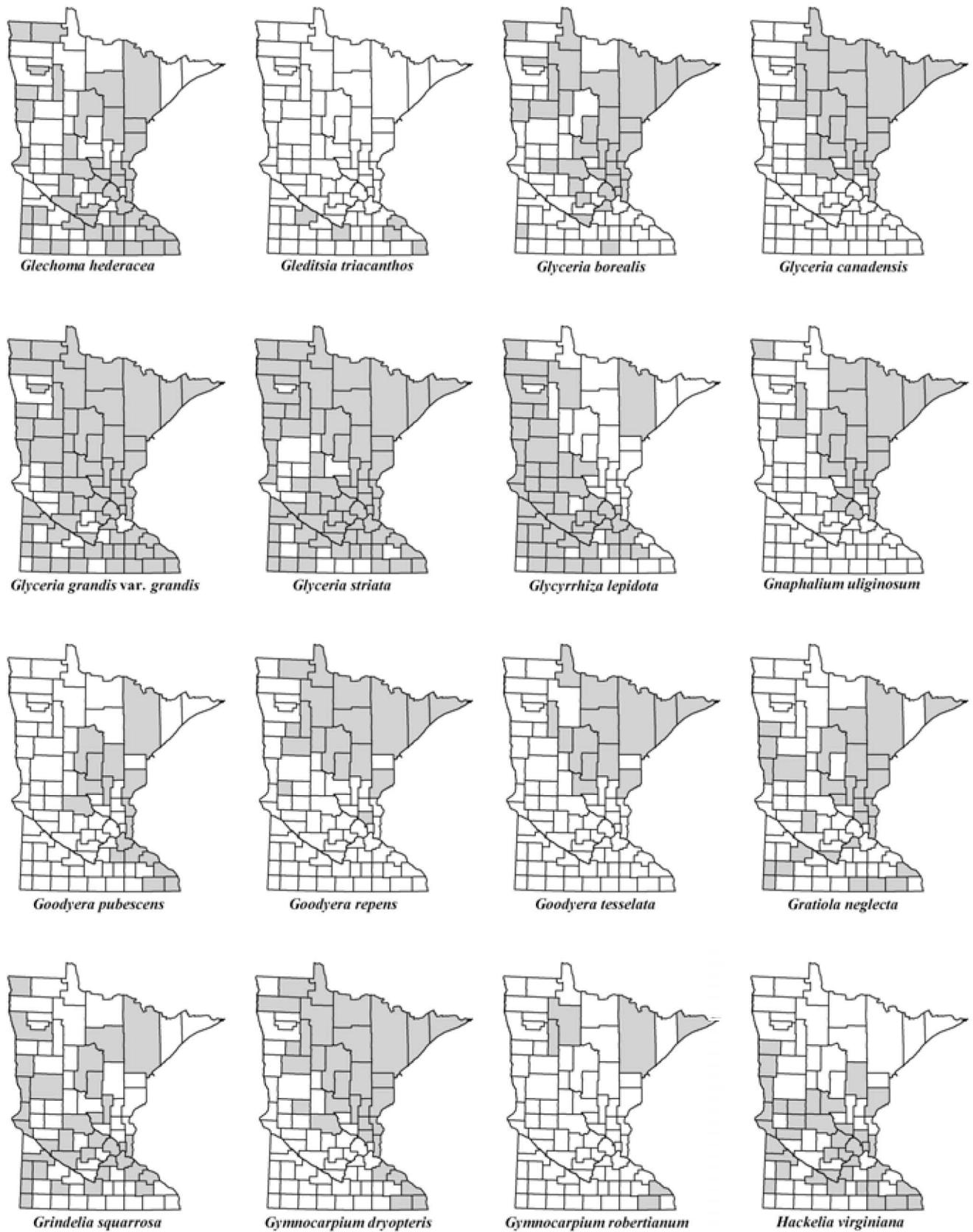


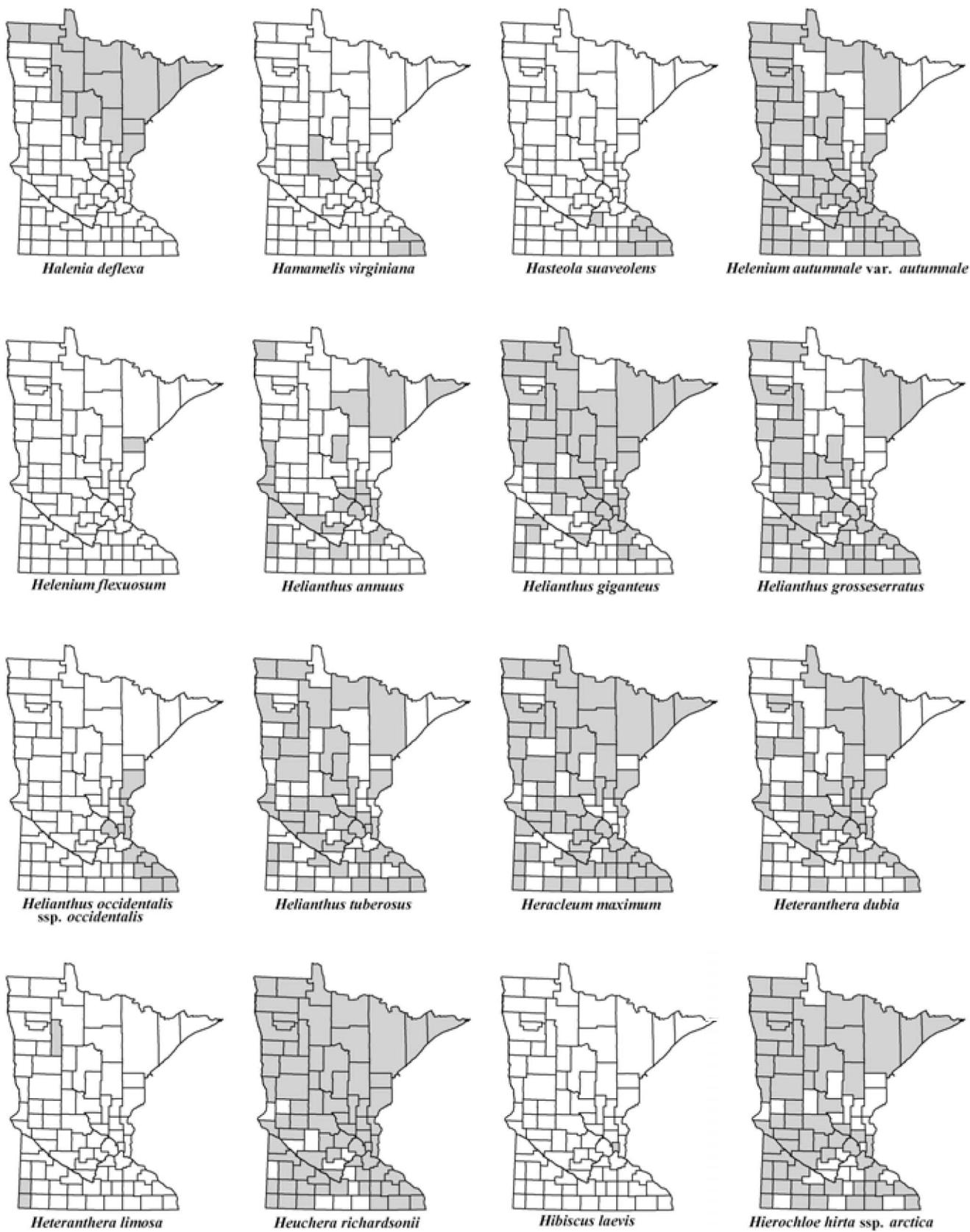


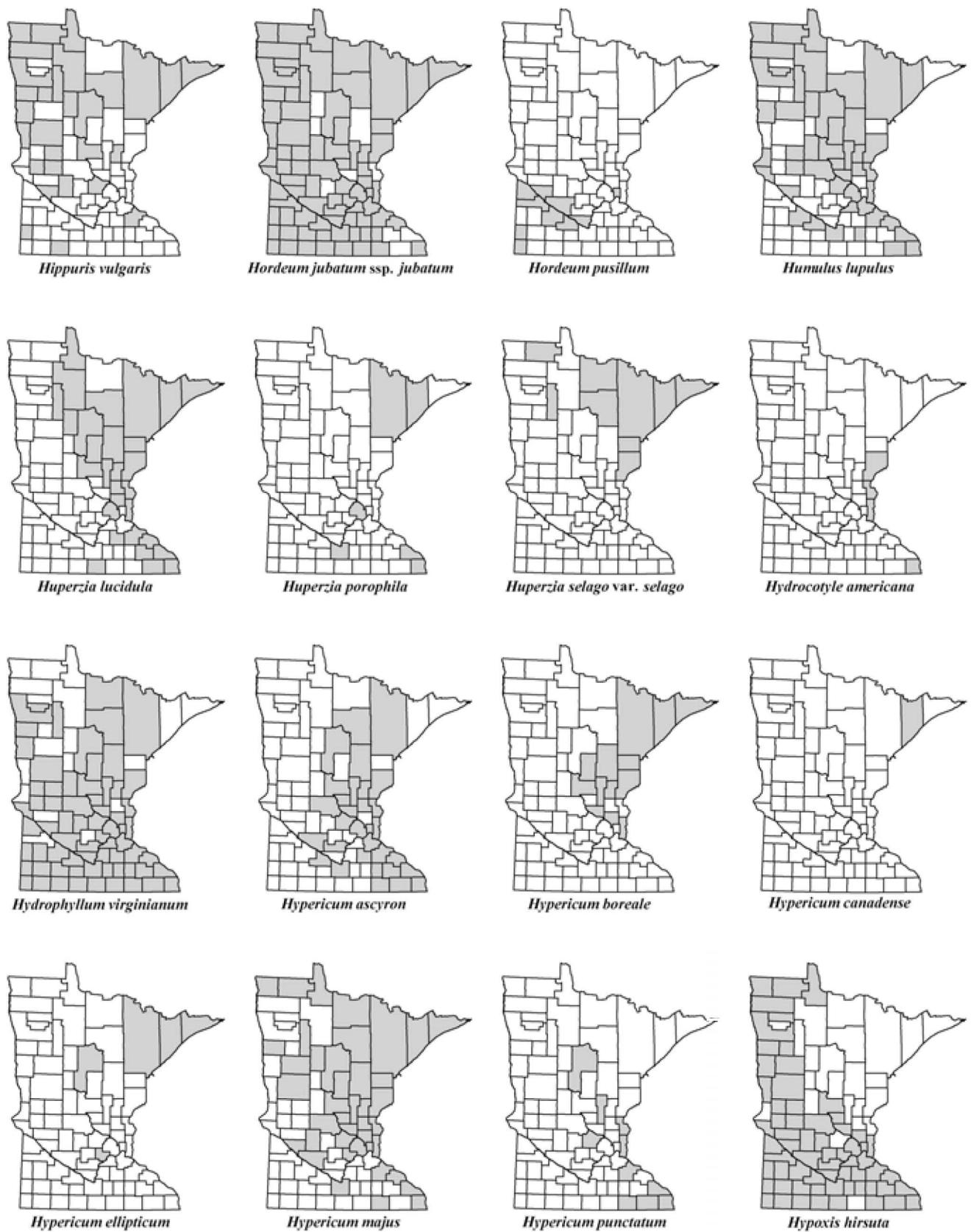


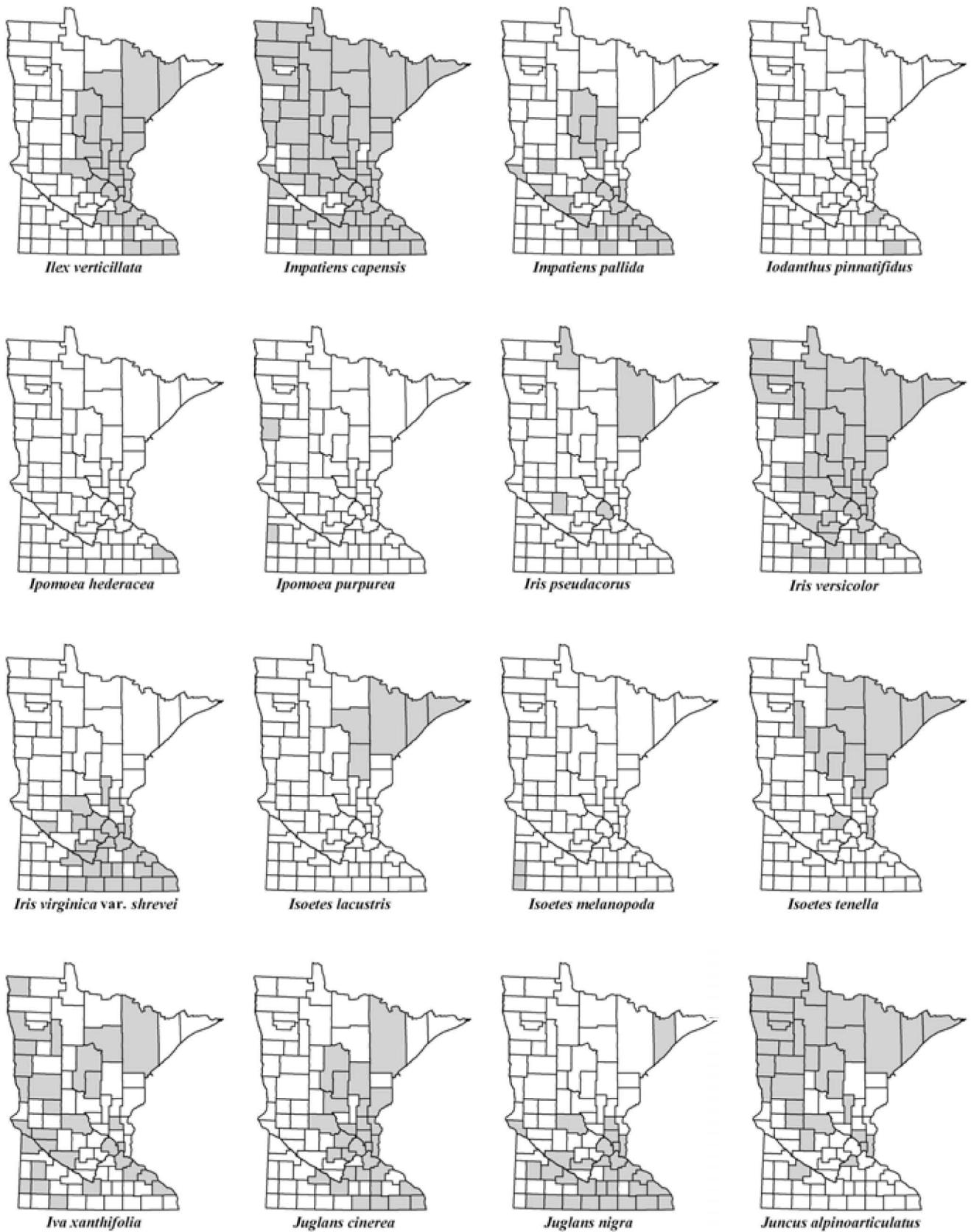






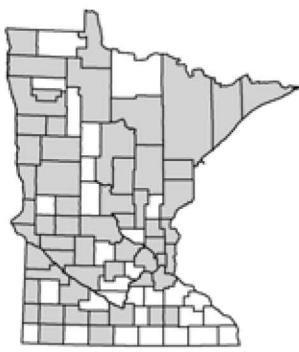








Juncus articulatus



Juncus balticus var. *littoralis*



Juncus brachycarpus



Juncus brevicaudatus



Juncus bufonius var. *bufonius*



Juncus canadensis



Juncus compressus



Juncus dudleyi



Juncus effusus



Juncus filiformis



Juncus gerardii var. *gerardii*



Juncus greenei



Juncus interior var. *interior*



Juncus longistylis var. *longistylis*

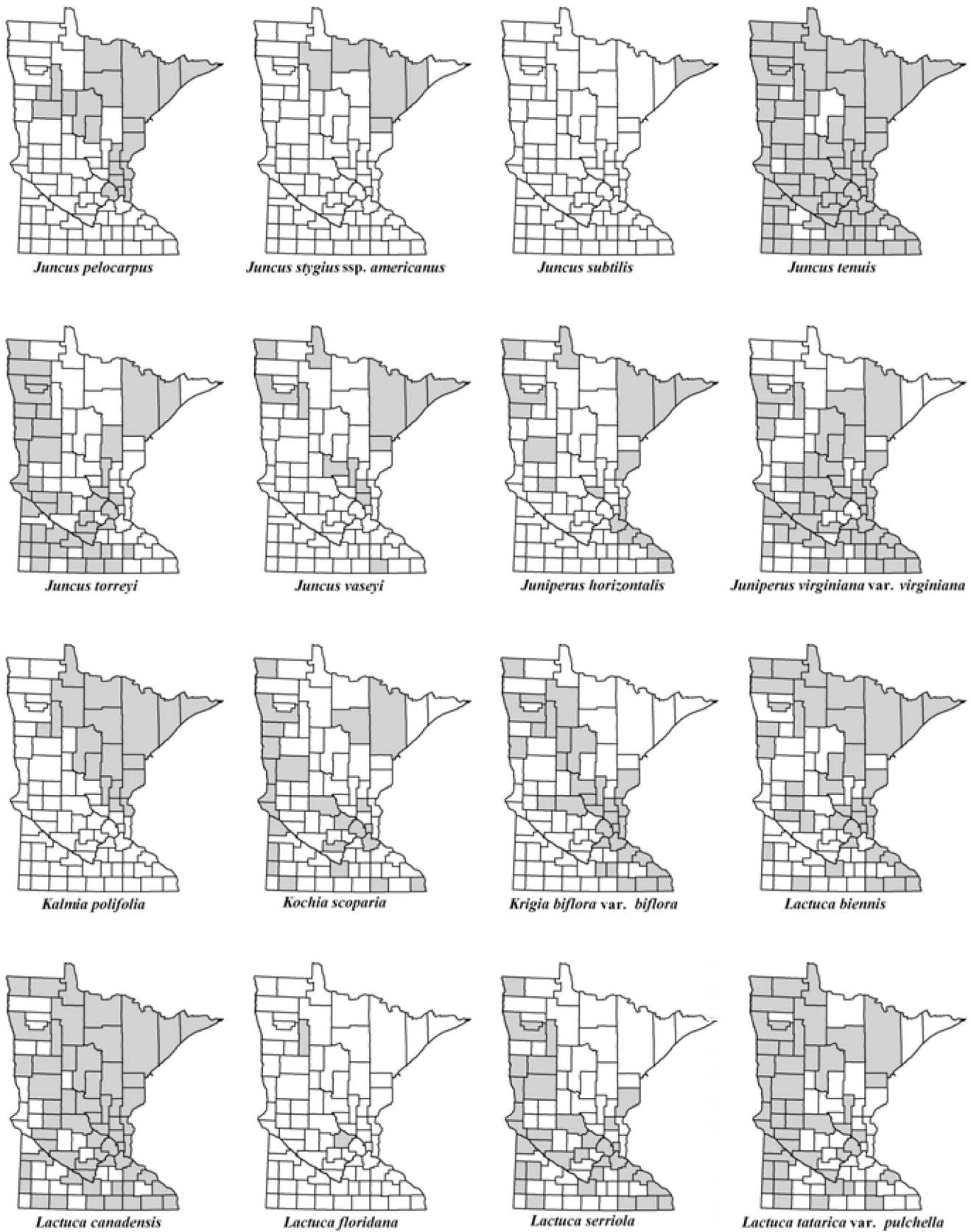


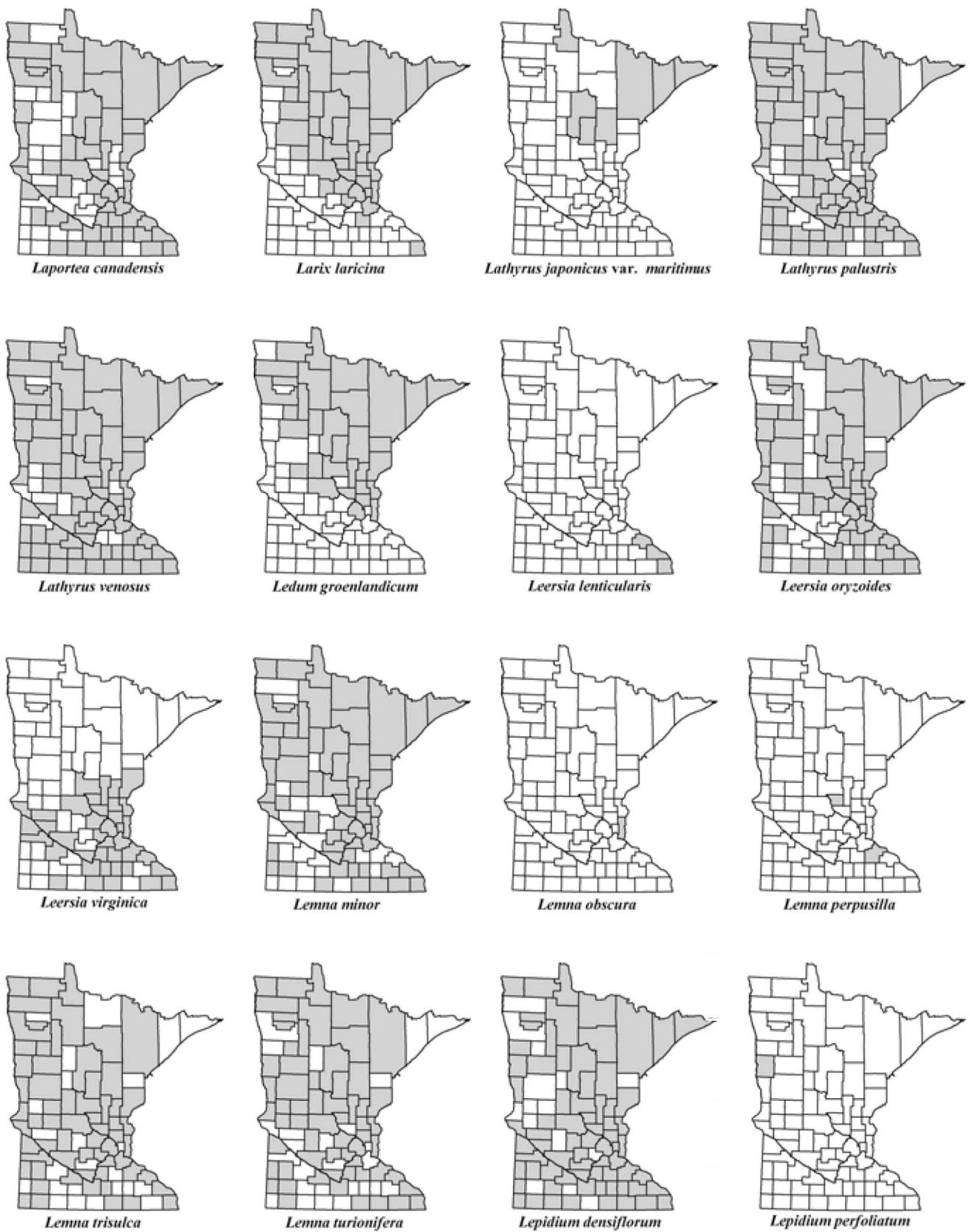
Juncus marginatus

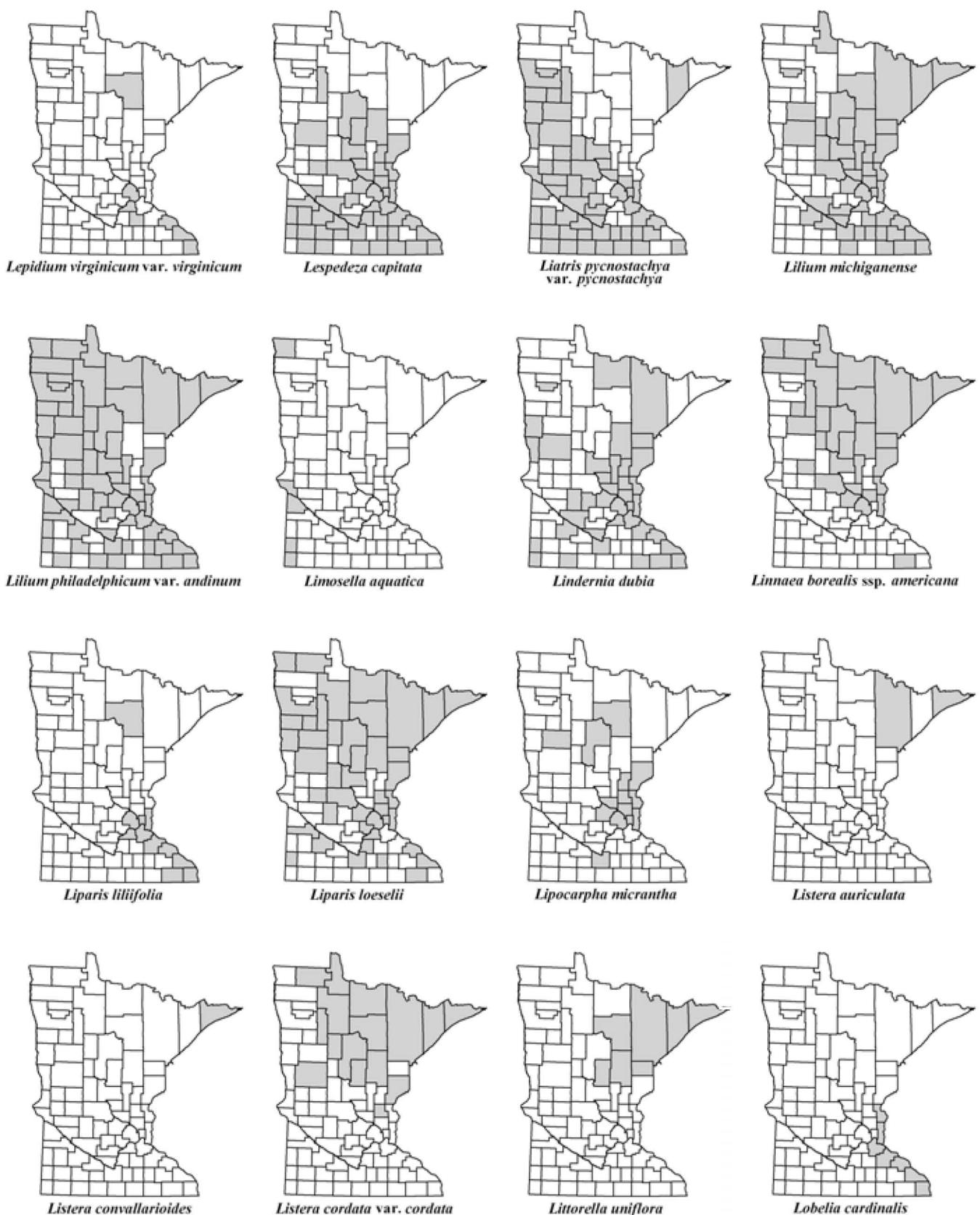


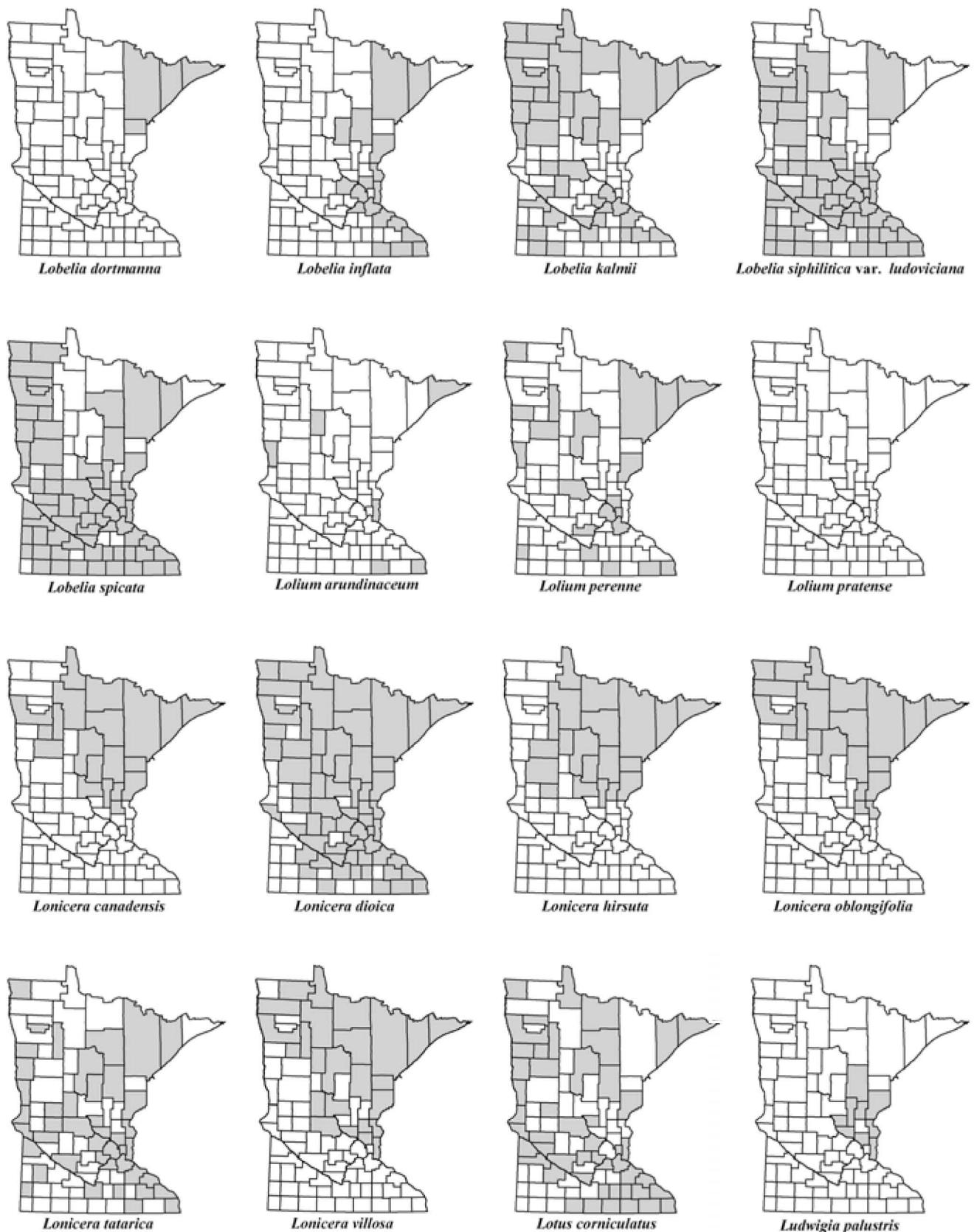
Juncus nodosus var. *nodosus*













Ludwigia polycarpa



Luzula acuminata var. *acuminata*



Luzula multiflora ssp. *multiflora*



Luzula parviflora



Lycopodiella inundata



Lycopodium annotinum



Lycopodium clavatum



Lycopodium complanatum



Lycopodium dendroideum



Lycopodium obscurum



Lycopus americanus



Lycopus asper



Lycopus uniflorus



Lycopus virginicus



Lysimachia ciliata



Lysimachia hybrida





Lysimachia nummularia



Lysimachia quadriflora



Lysimachia terrestris



Lysimachia thyrsiflora



Lythrum alatum var. *alatum*



Lythrum salicaria



Madia glomerata



Maianthemum canadense



Maianthemum racemosum
ssp. *racemosum*



Maianthemum stellatum



Maianthemum trifolium



Malaxis brachypoda



Malaxis paludosa



Malaxis unifolia

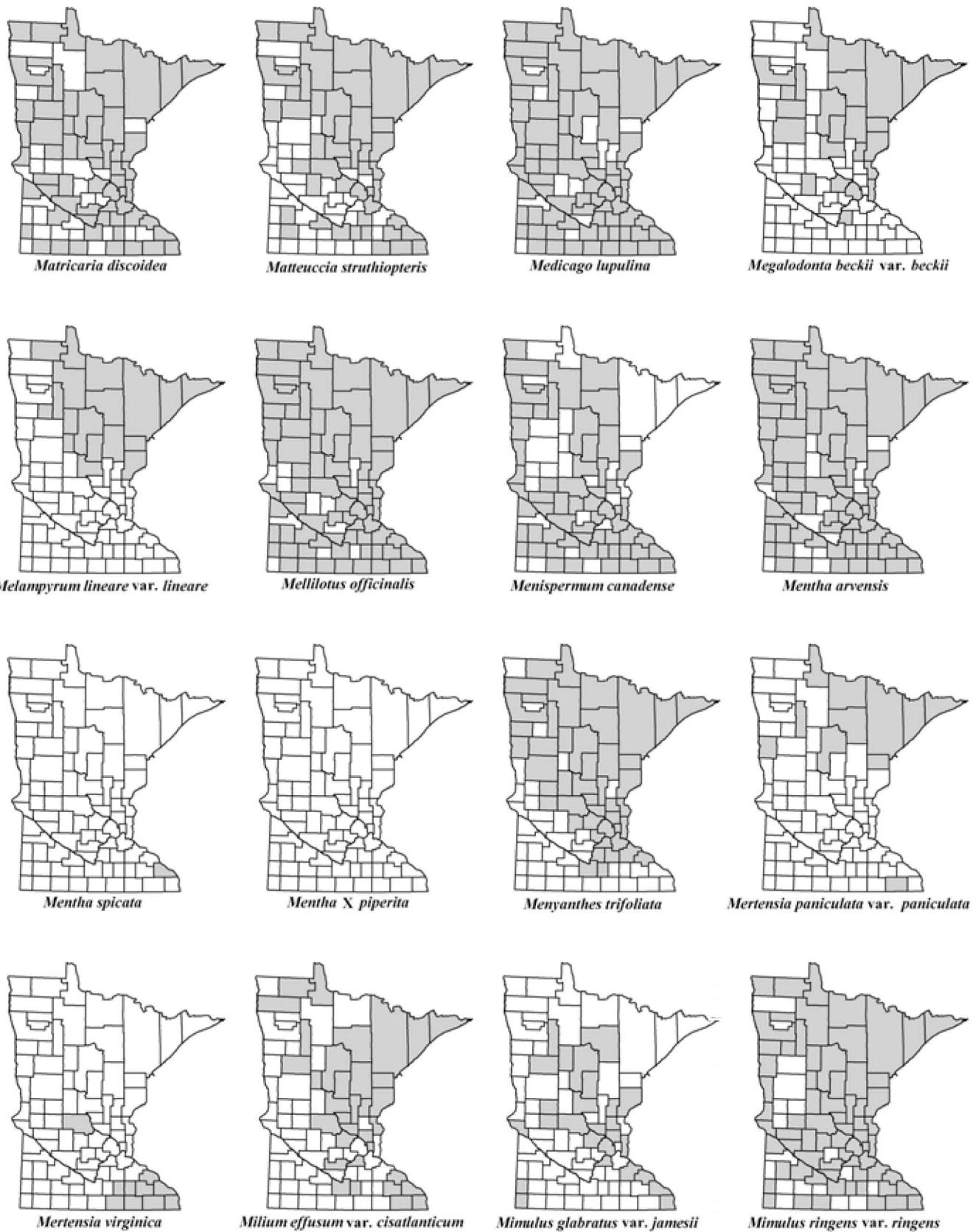


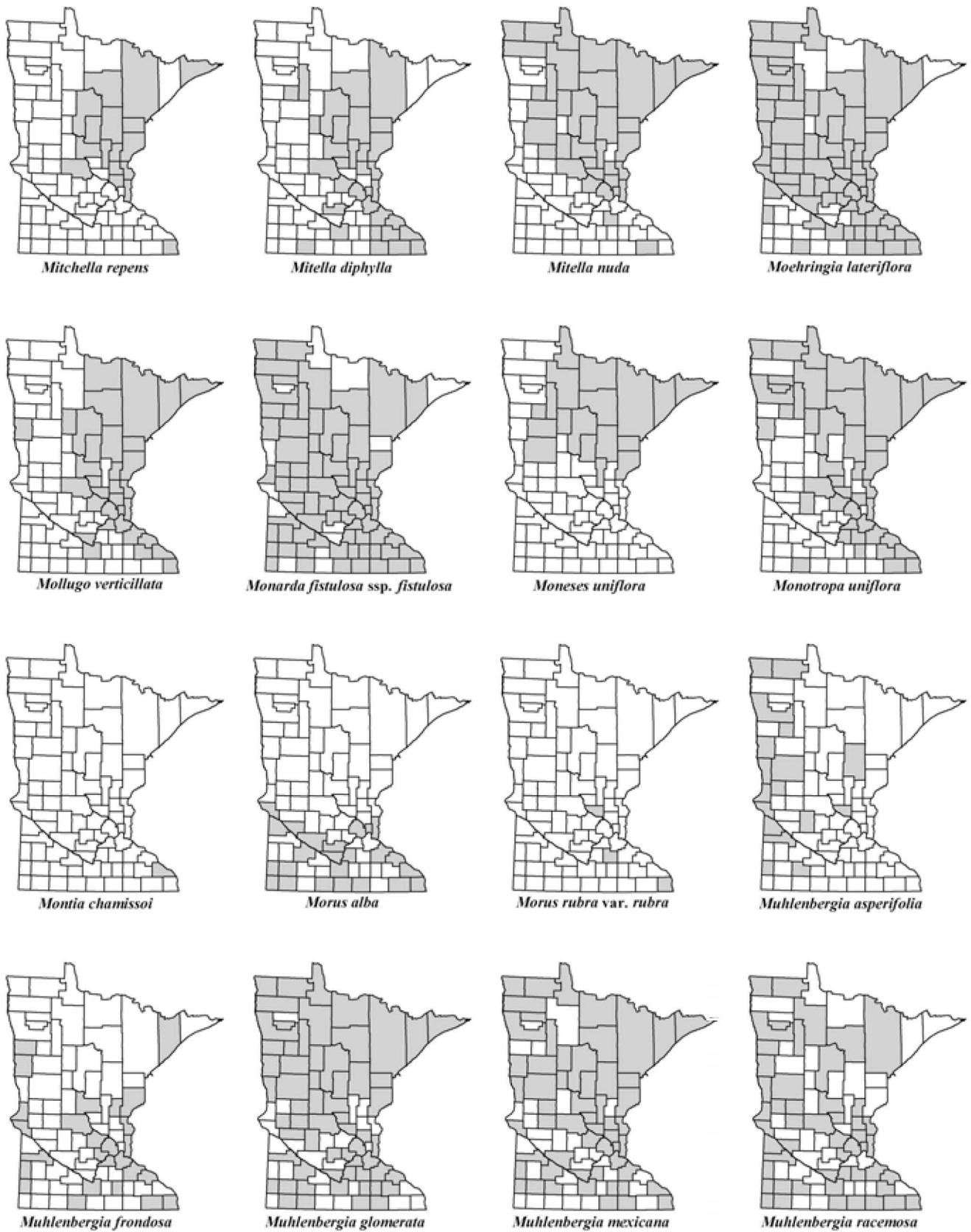
Marrubium vulgare



Marsilea vestita ssp. *vestita*









Muhlenbergia richardsonis



Muhlenbergia schreberi



Muhlenbergia sylvatica



Muhlenbergia uniflora



Myosotis arvensis



Myosotis laxa



Myosotis scorpioides



Myosotis verna



Myosoton aquaticum



Myosurus minimus



Myrica gale



Myriophyllum alterniflorum



Myriophyllum farwellii



Myriophyllum heterophyllum

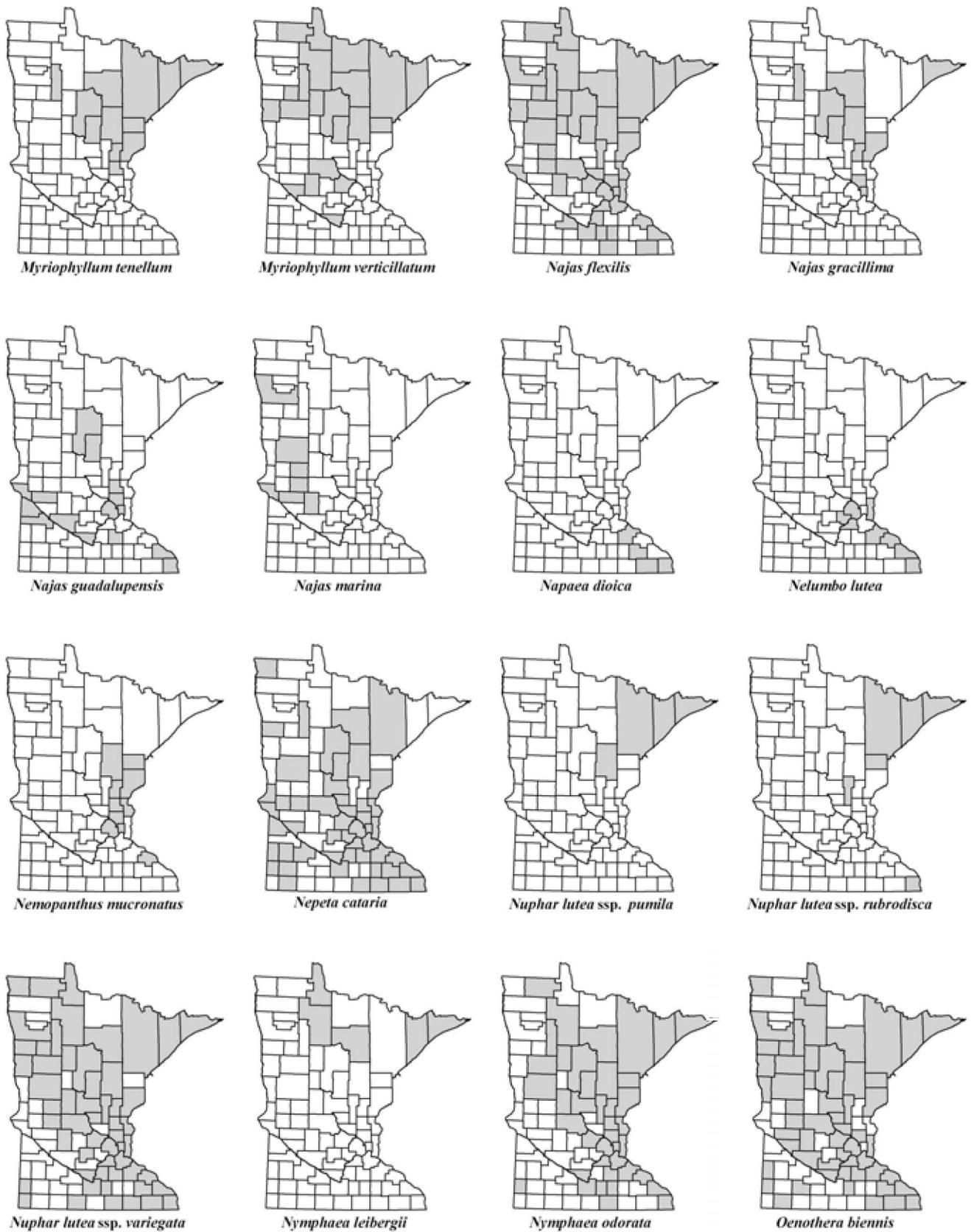


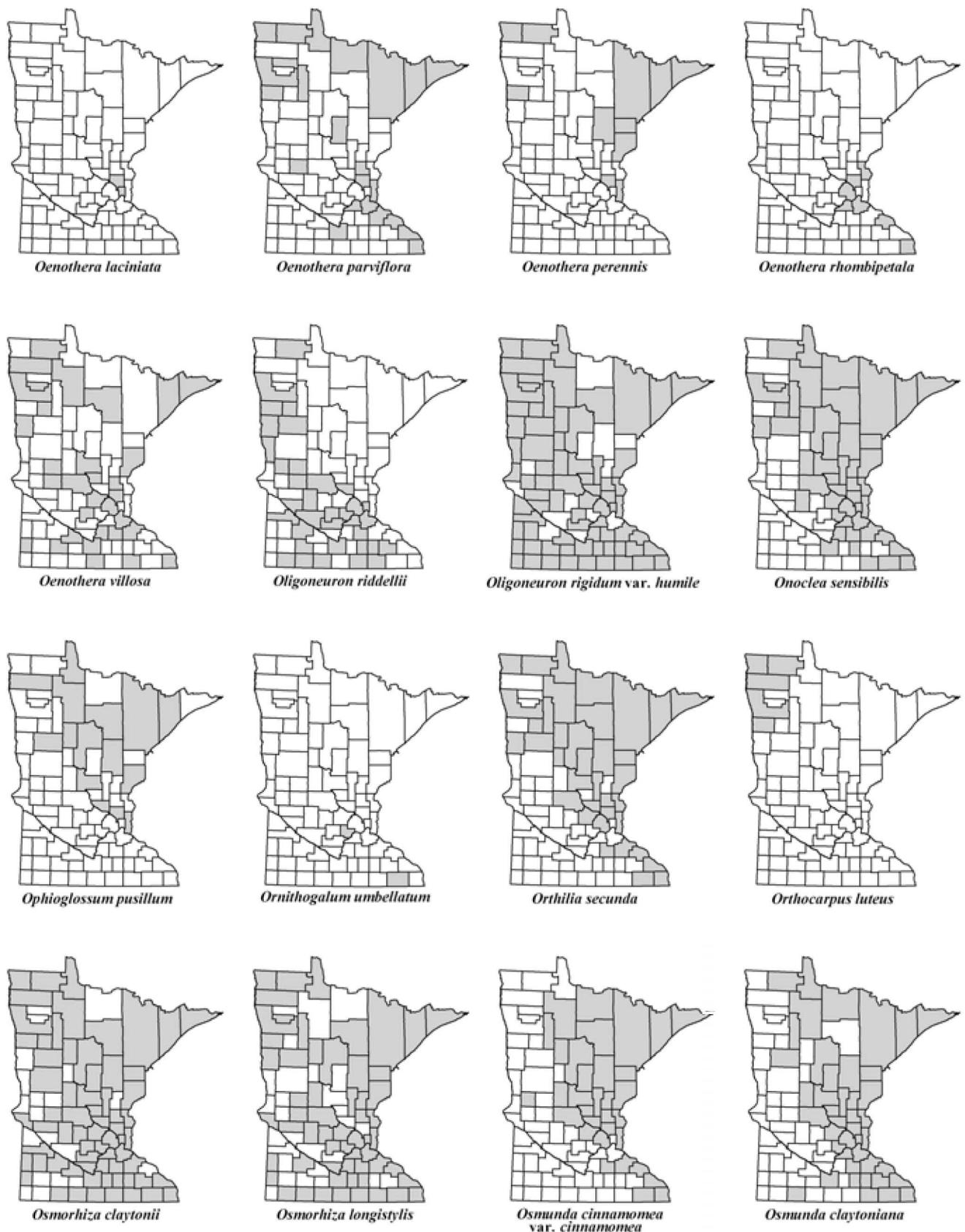
Myriophyllum sibiricum



Myriophyllum spicatum









Osmunda regalis var. *spectabilis*



Ostrya virginiana var. *virginiana*



Oxalis montana



Oxalis stricta



Oxypolis rigidior



Oxytropis lambertii var. *lambertii*



Packera aurea



Packera indecora



Packera paupercula



Packera plattensis



Packera pseudaura var. *semicordata*



Panicum capillare



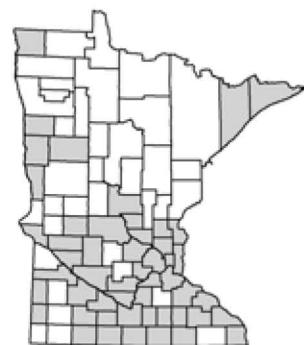
Panicum dichotomiflorum var. *dichotomiflorum*



Panicum philadelphicum

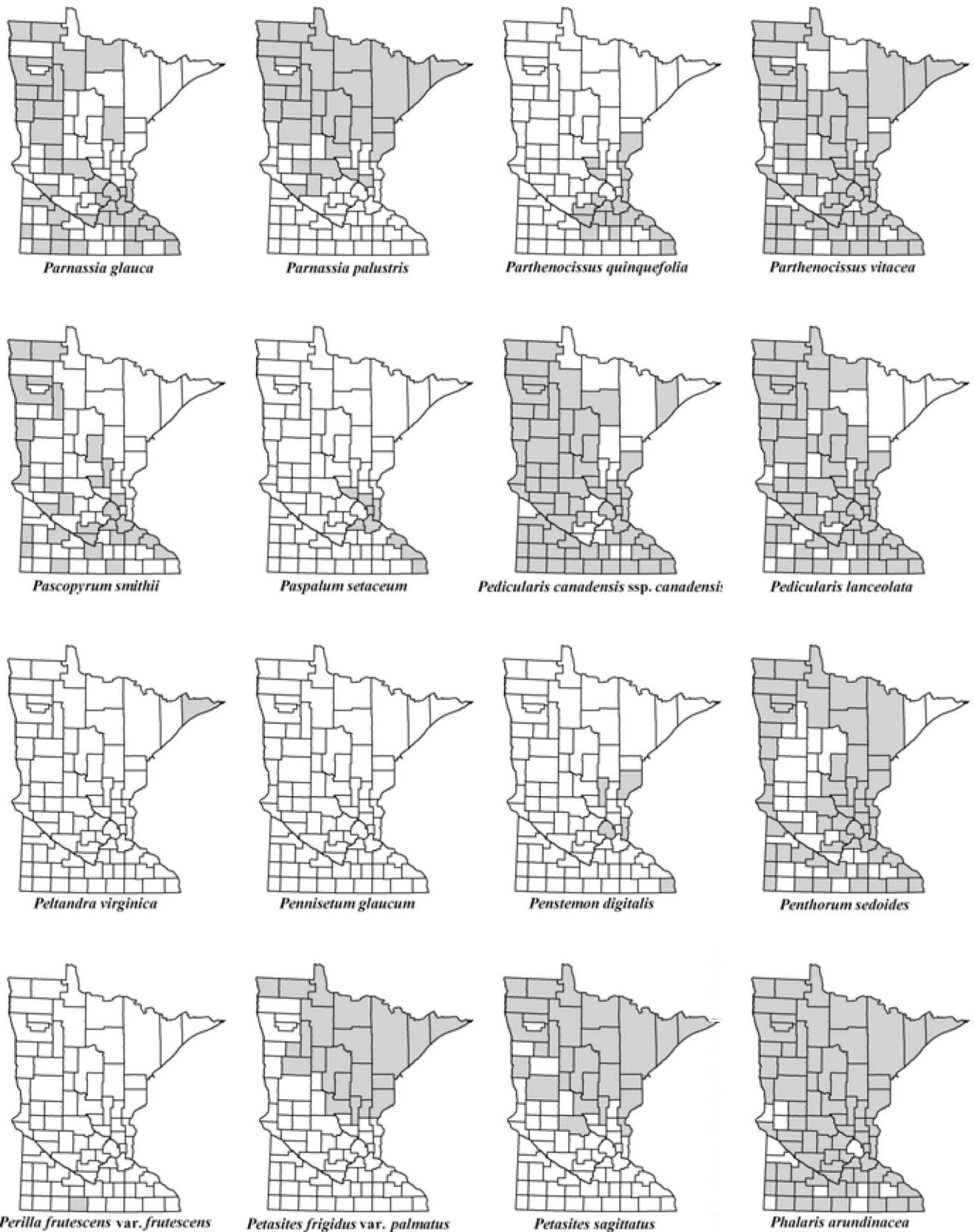


Panicum virgatum var. *virgatum*



Parietaria pensylvanica







Phalaris canariensis



Phegopteris hexagonoptera



Phleum pratense



Phlox divaricata ssp. *laphamii*



Phlox maculata ssp. *maculata*



Phlox paniculata



Phlox pilosa ssp. *fulgida*



Photinia melanocarpa



Phragmites australis



Phyla lanceolata



Physocarpus opulifolius



Physostegia virginiana ssp. *virginiana*



Picea glauca



Picea mariana

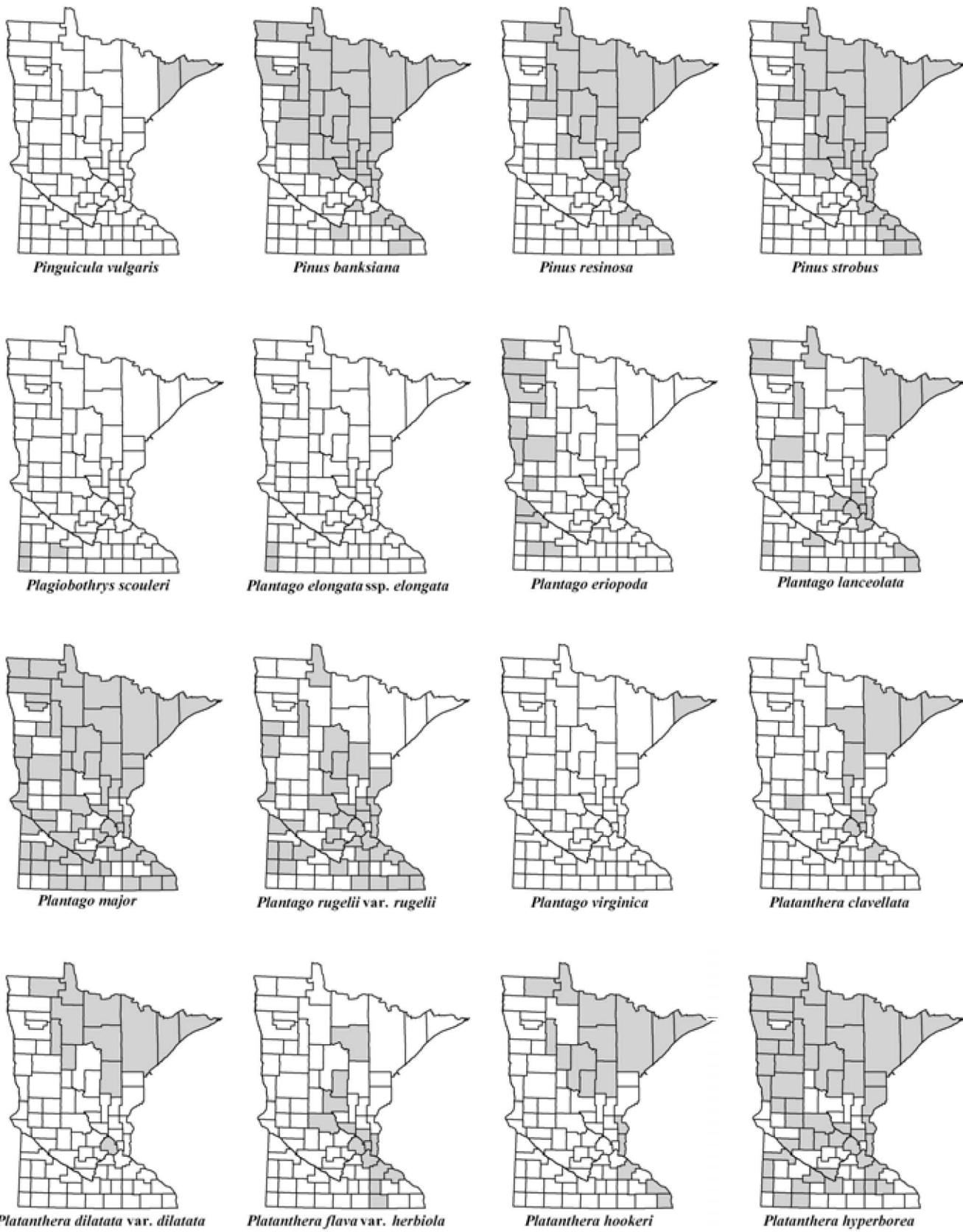


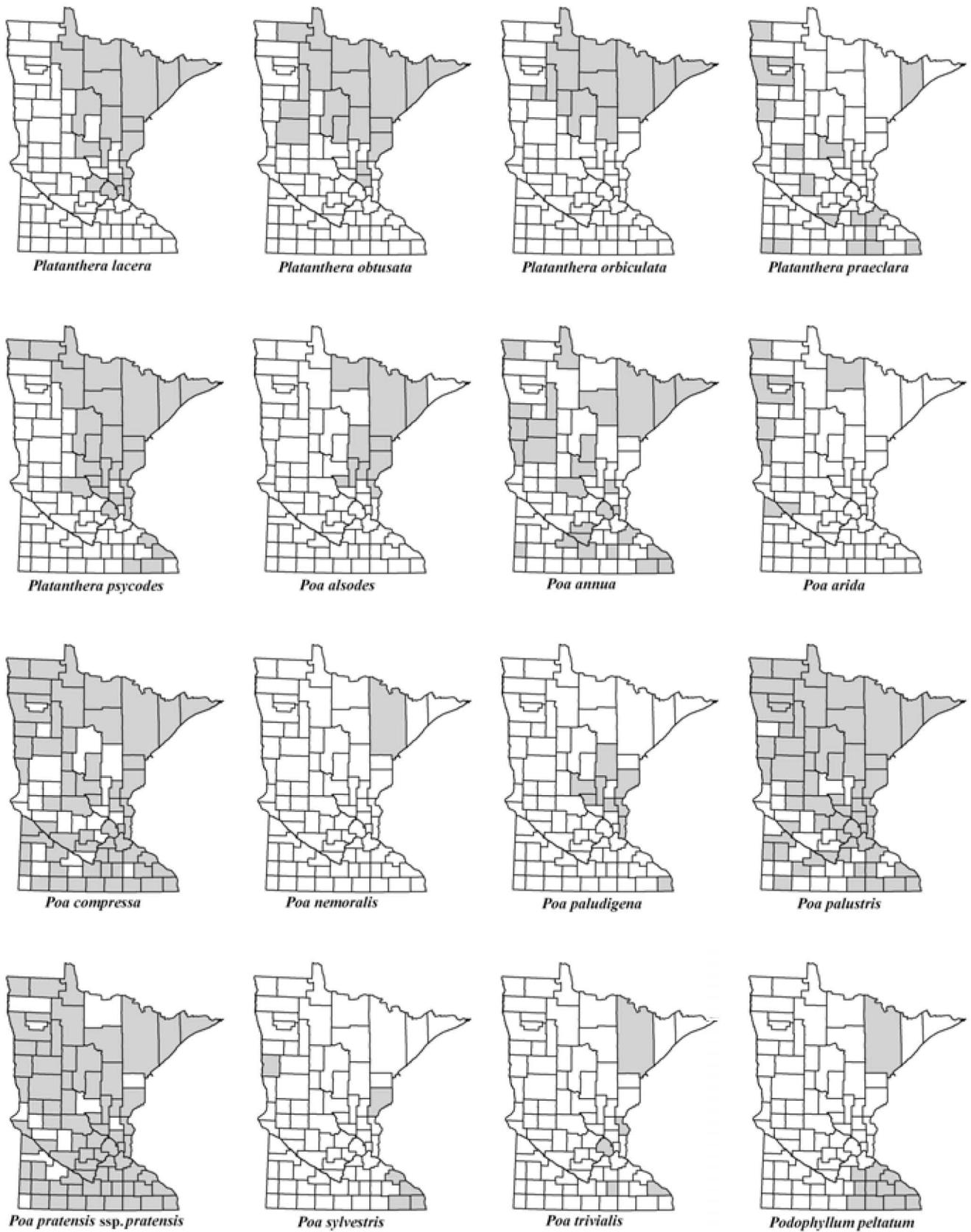
Pilea fontana



Pilea pumila var. *pumila*









Pogonia ophioglossoides



Polemonium occidentale ssp. *lacustre*



Polemonium reptans var. *reptans*



Polygala cruciata var. *aquilonia*



Polygala paucifolia



Polygala polygama



Polygala sanguinea



Polygala senega



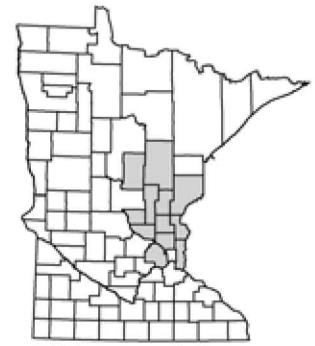
Polygonatum biflorum var. *commutatum*



Polygonum achoreum



Polygonum amphibium



Polygonum arifolium



Polygonum aviculare



Polygonum careyi

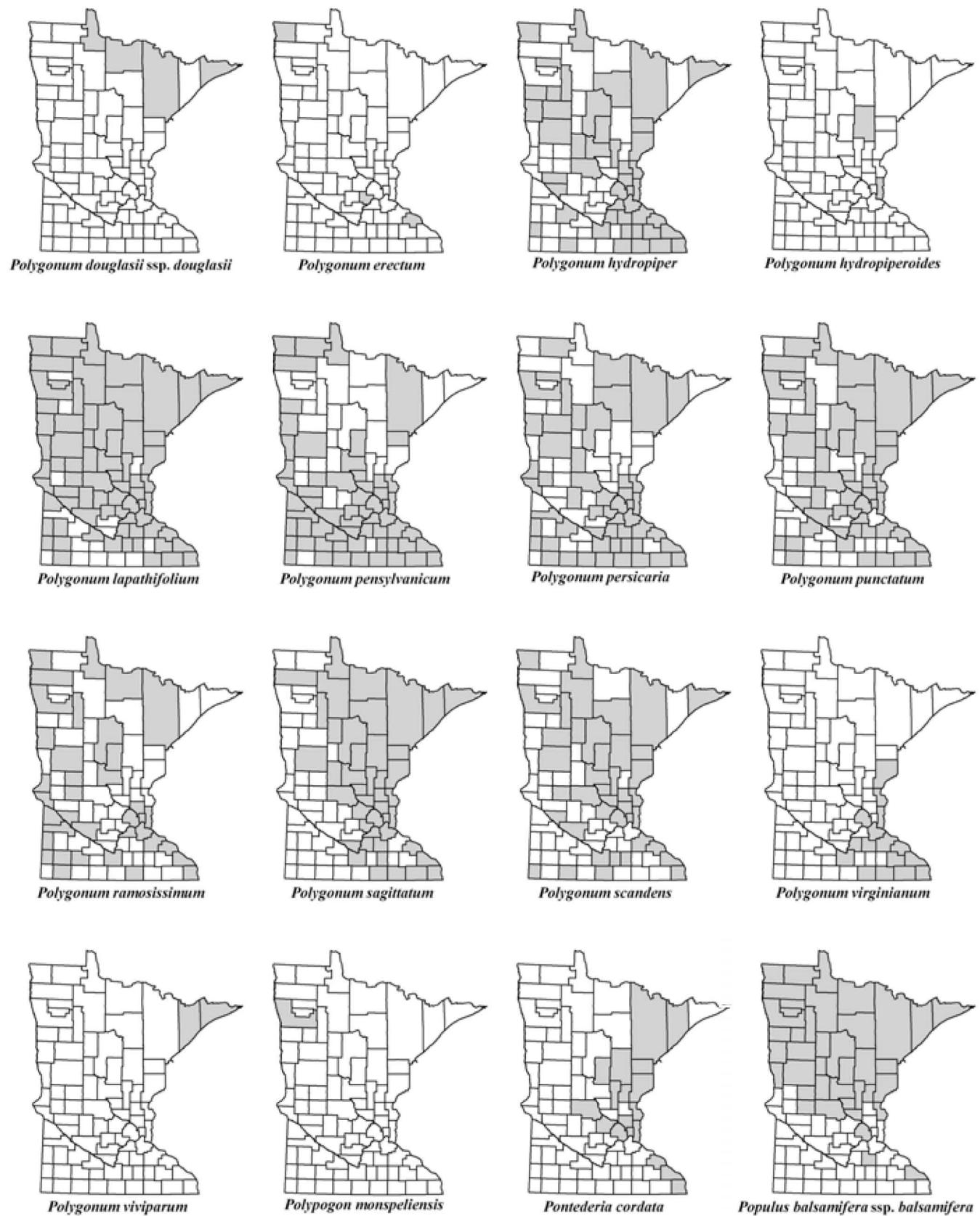


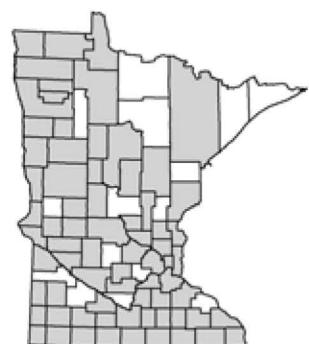
Polygonum convolvulus var. *convolvulus*



Polygonum cuspidatum



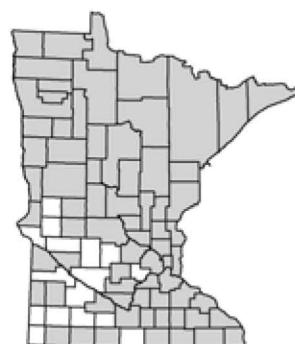




Populus deltoides ssp. *monilifera*



Populus grandidentata



Populus tremuloides



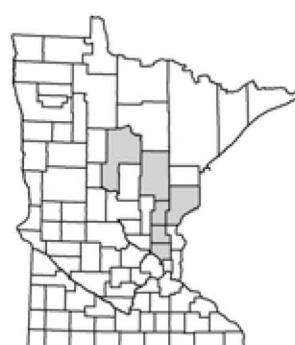
Portulaca oleracea



Potamogeton alpinus



Potamogeton amplifolius



Potamogeton bicupulatus



Potamogeton crispus



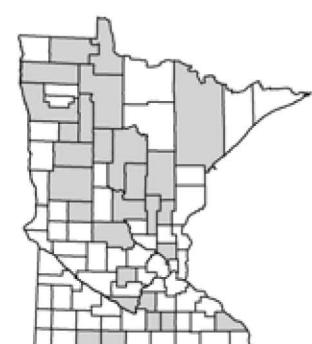
Potamogeton diversifolius



Potamogeton epihydrus



Potamogeton foliosus ssp. *foliosus*



Potamogeton friesii



Potamogeton gramineus



Potamogeton illinoensis



Potamogeton natans



Potamogeton nodosus





Potamogeton oakesianus



Potamogeton obtusifolius



Potamogeton praelongus



Potamogeton pusillus



Potamogeton richardsonii



Potamogeton robbinsii



Potamogeton spirillus



Potamogeton strictifolius



Potamogeton vaseyi



Potamogeton zosteriformis



Potentilla argentea var. *argentea*



Potentilla arguta ssp. *arguta*



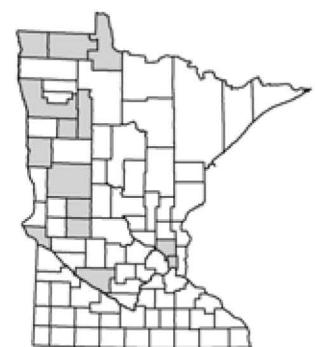
Potentilla gracilis



Potentilla norvegica ssp. *monspeliensis*



Potentilla paradoxa



Potentilla rivalis





Potentilla simplex



Prenanthes alba



Prenanthes crepidinea



Prenanthes racemosa



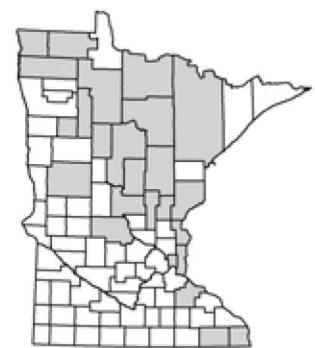
Primula mistassinica



Prunella vulgaris ssp. *lanceolata*



Prunella vulgaris ssp. *vulgaris*



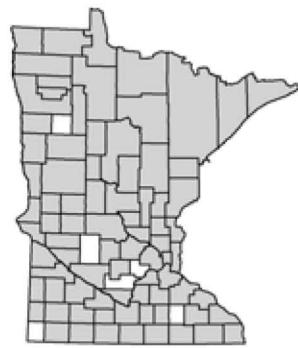
Prunus nigra



Prunus pensylvanica var. *pensylvanica*



Prunus serotina var. *serotina*



Prunus virginiana var. *virginiana*



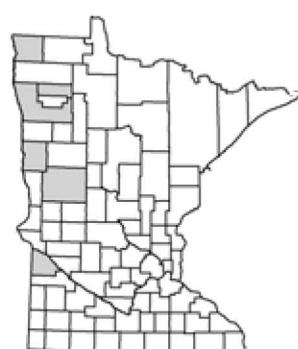
Ptelea trifoliata ssp. *trifoliata*



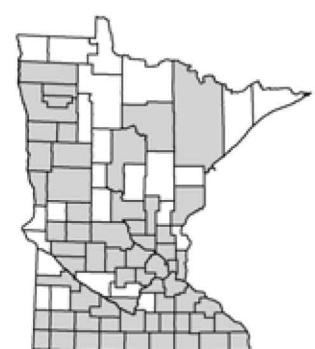
Pteridium aquilinum var. *latiusculum*



Puccinellia distans ssp. *distans*

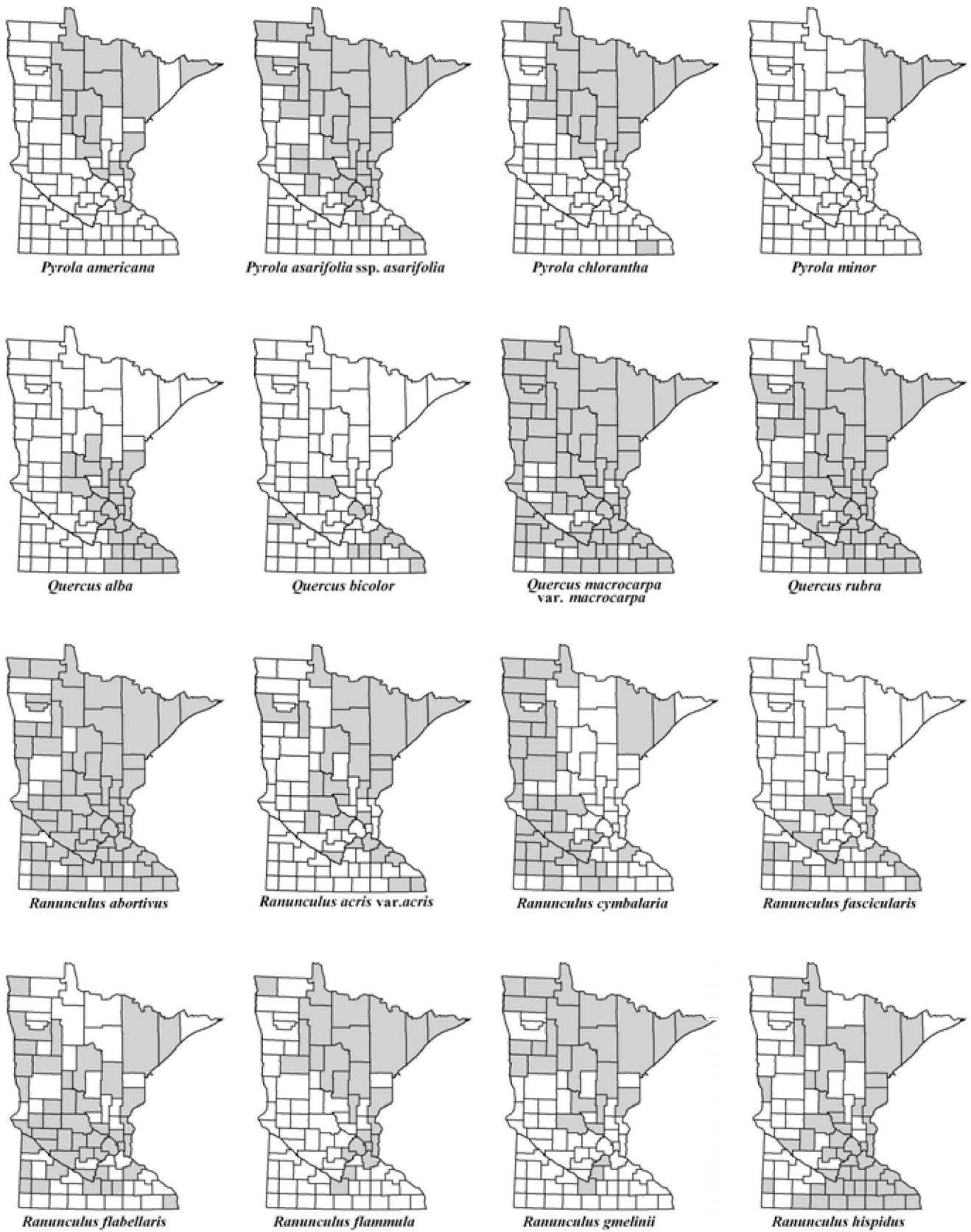


Puccinellia nuttalliana



Pyrrhopappus virginianus







Ranunculus lapponicus



Ranunculus longirostris



Ranunculus macounii



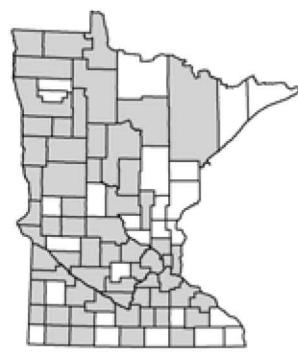
Ranunculus pensylvanicus



Ranunculus recurvatus
var. *recurvatus*



Ranunculus repens



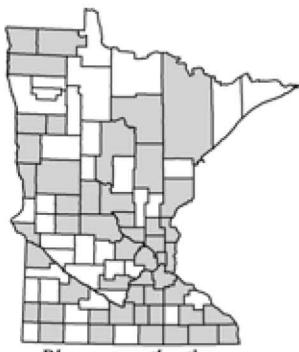
Ranunculus sceleratus



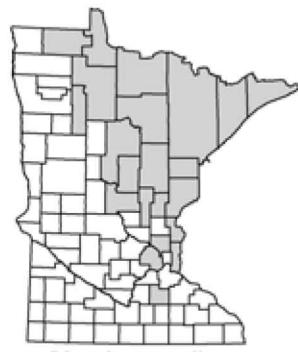
Ranunculus trichophyllus
var. *trichophyllus*



Rhamnus alnifolia



Rhamnus cathartica



Rhynchospora alba



Rhynchospora capillacea



Rhynchospora fusca



Ribes americanum

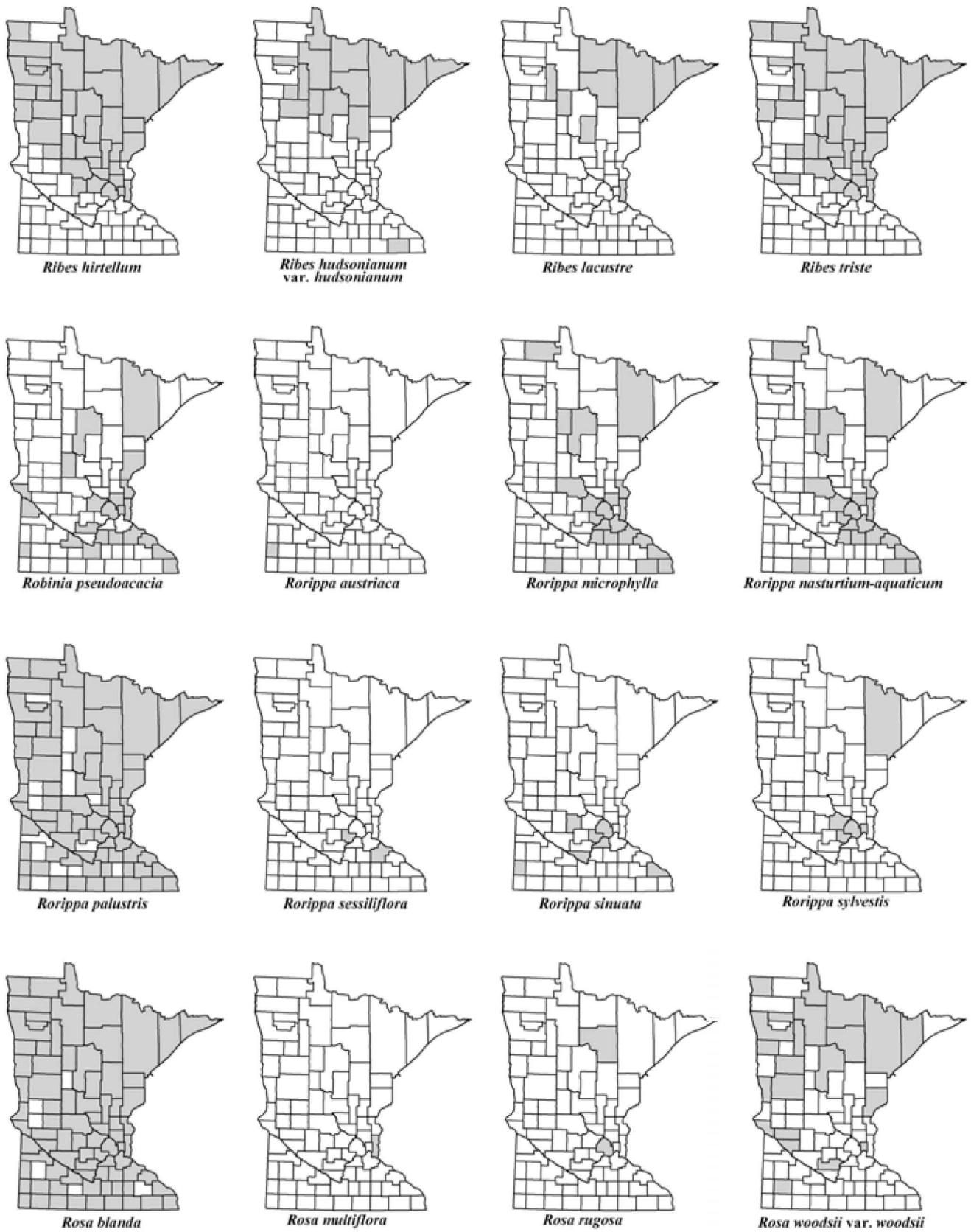


Ribes aureum var. *vilosum*



Ribes glandulosum



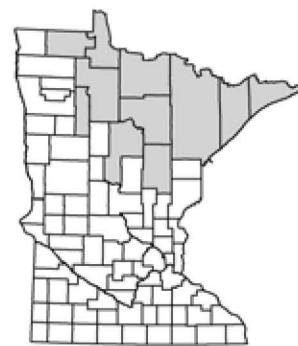




Rotala ramosior



Rubus allegheniensis
var. *allegheniensis*



Rubus arcticus ssp. *acaulis*



Rubus idaeus ssp. *strigosus*



Rubus parviflorus var. *parviflorus*



Rubus pubescens var. *pubescens*



Rubus semisetosus



Rubus setosus



Rudbeckia hirta var. *pulcherrima*



Rudbeckia laciniata var. *laciniata*



Rudbeckia triloba var. *triloba*



Rumex acetosella



Rumex altissimus



Rumex crispus ssp. *crispus*

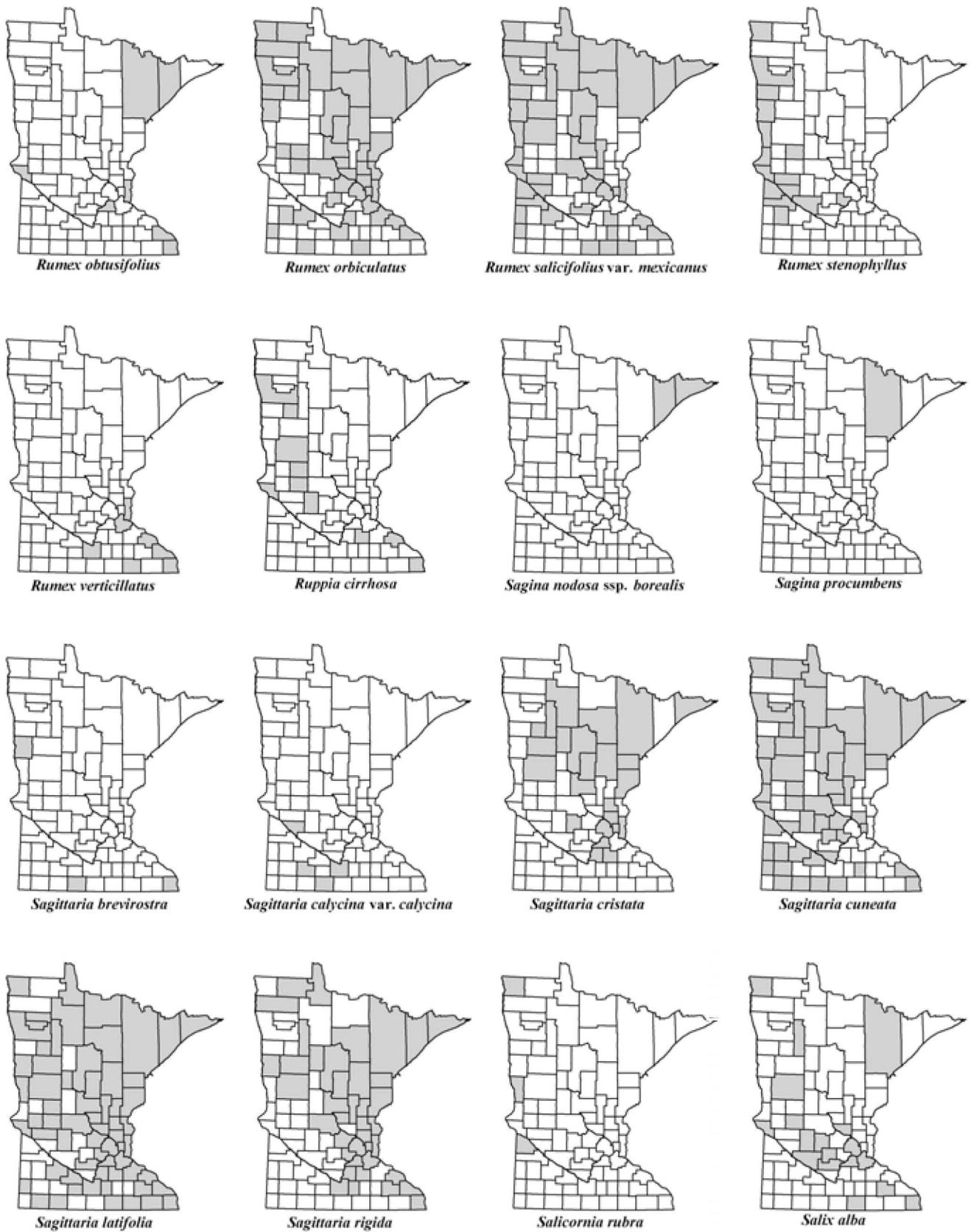


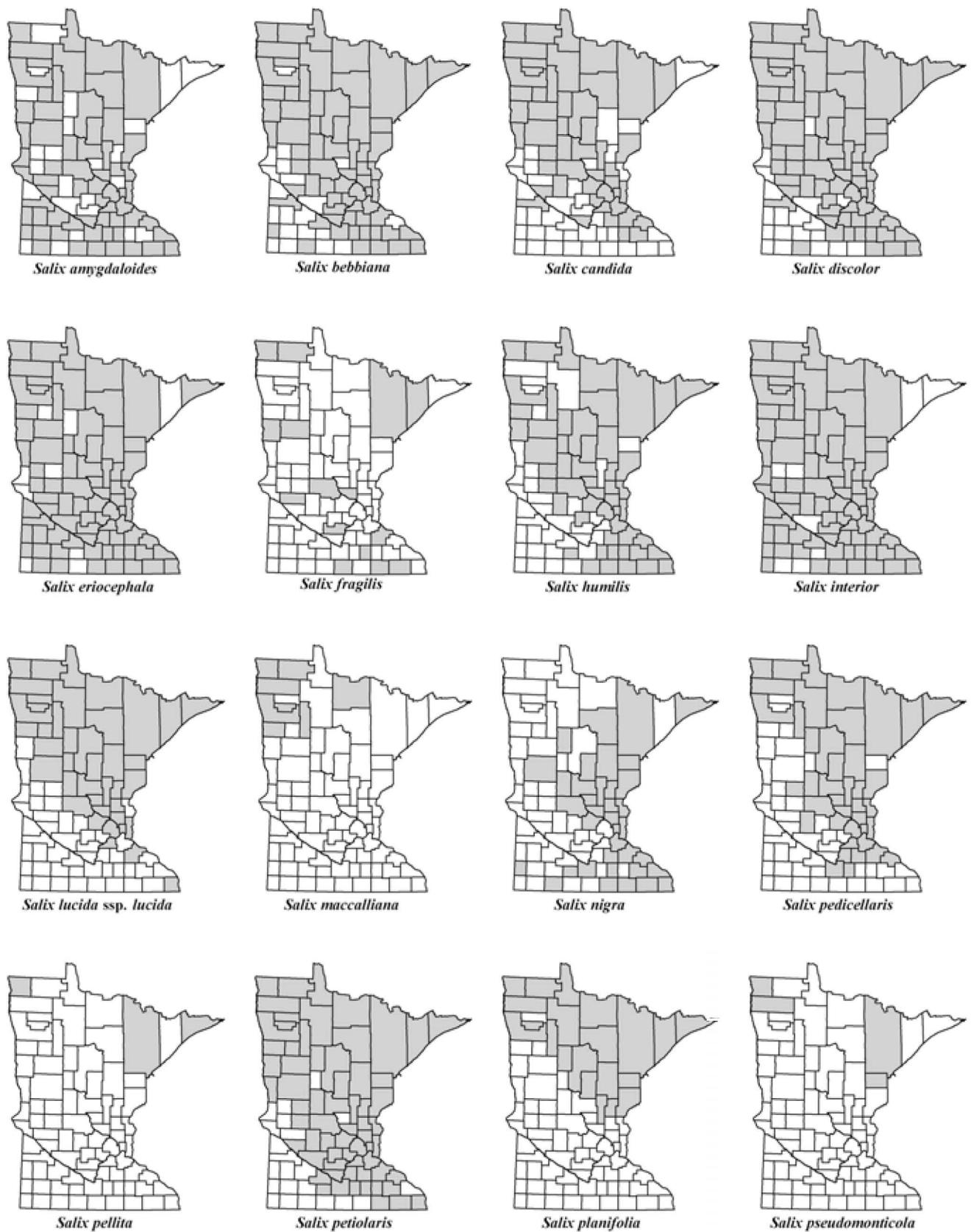
Rumex longifolius

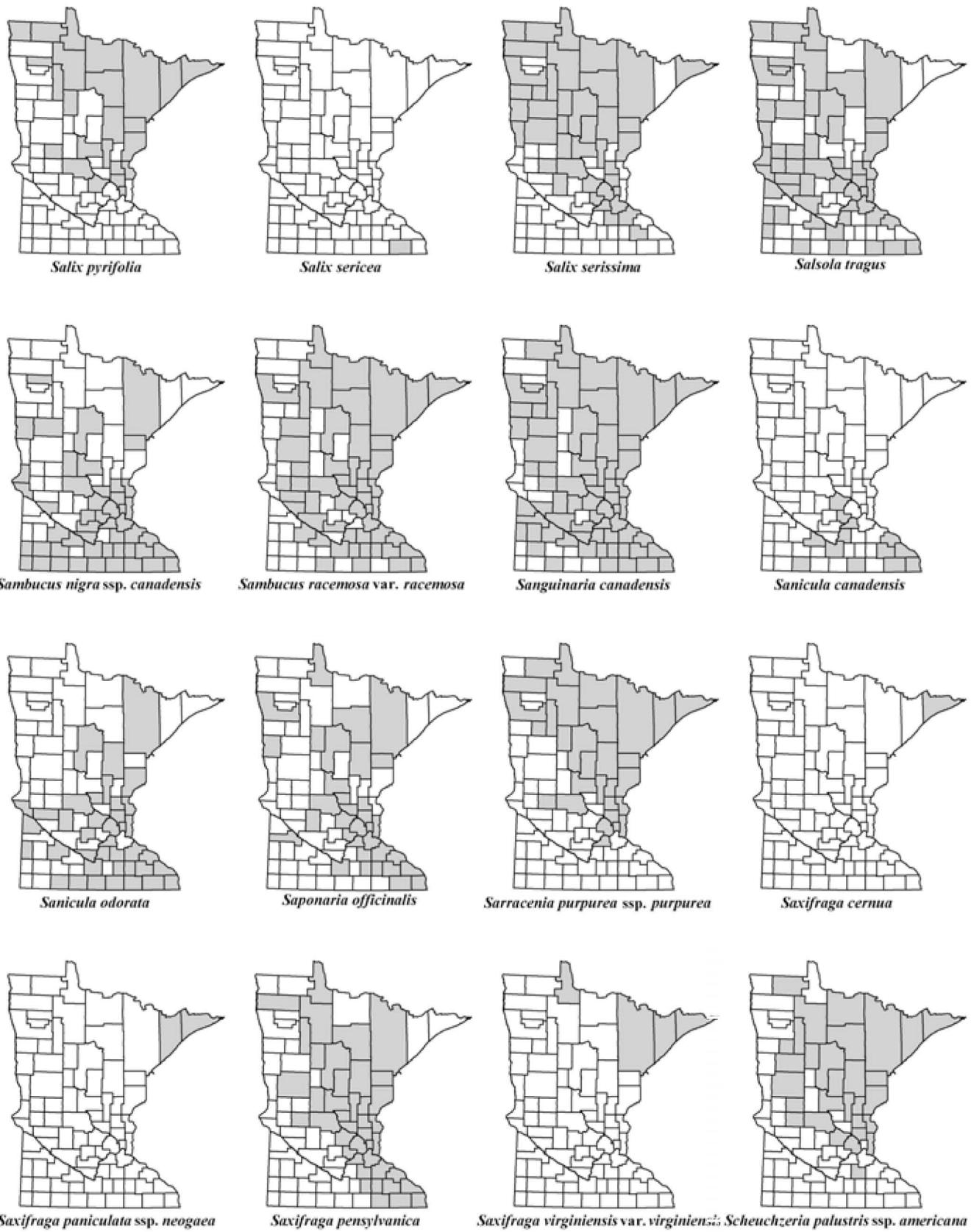


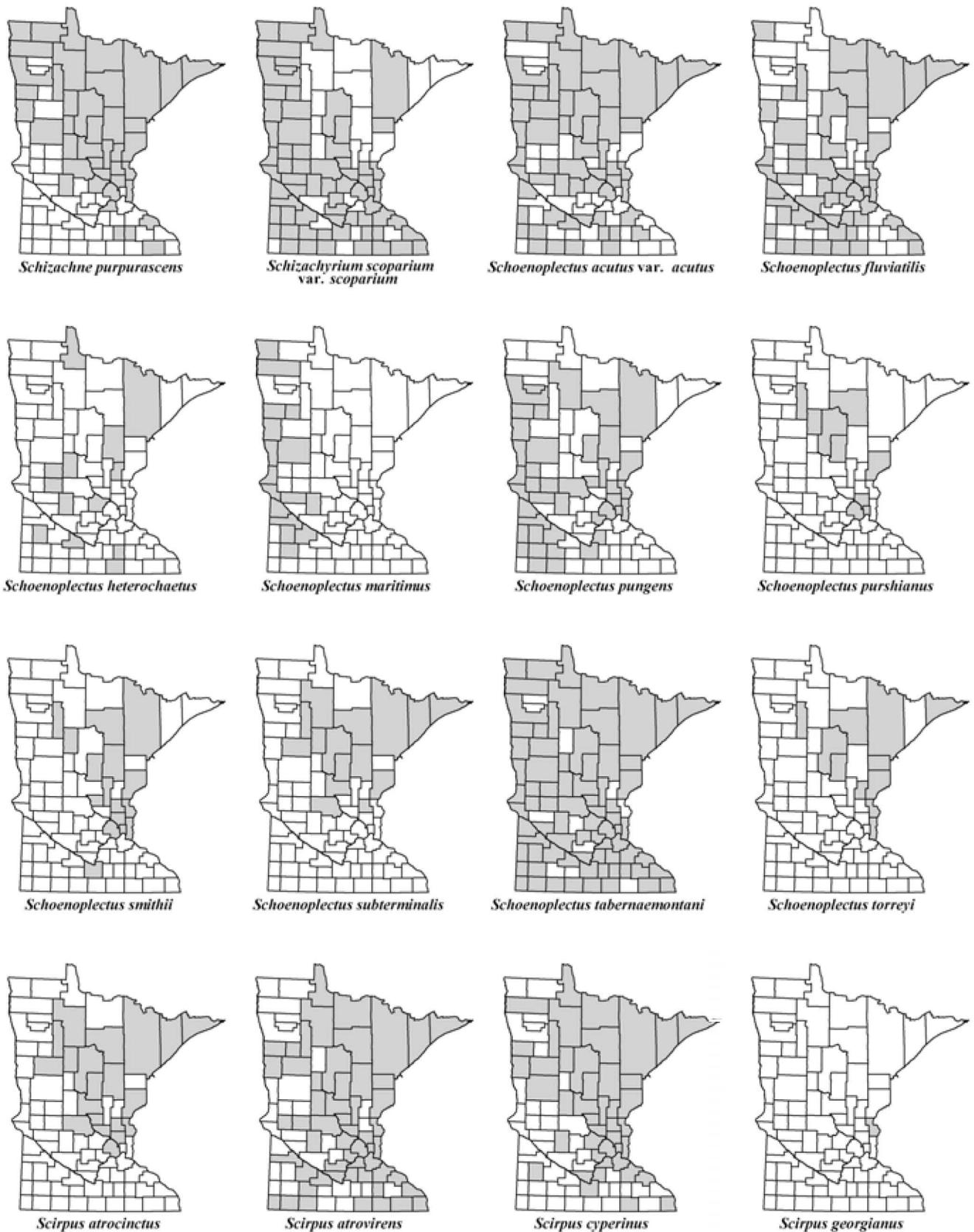
Rumex maritimus









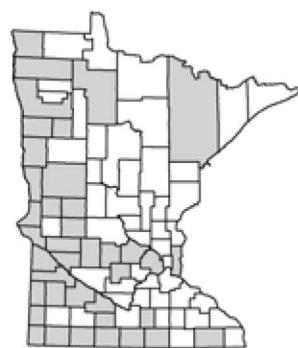




Scirpus hattorianus



Scirpus microcarpus



Scirpus pallidus



Scirpus pedicellatus



Scirpus pendulus



Scleranthus annuus



Scleria triglomerata



Scleria verticillata



Scolochloa festucacea



Scrophularia lanceolata



Scrophularia marilandica



Scutellaria galericulata



Scutellaria lateriflora



Scutellaria ovata ssp. *ovata*

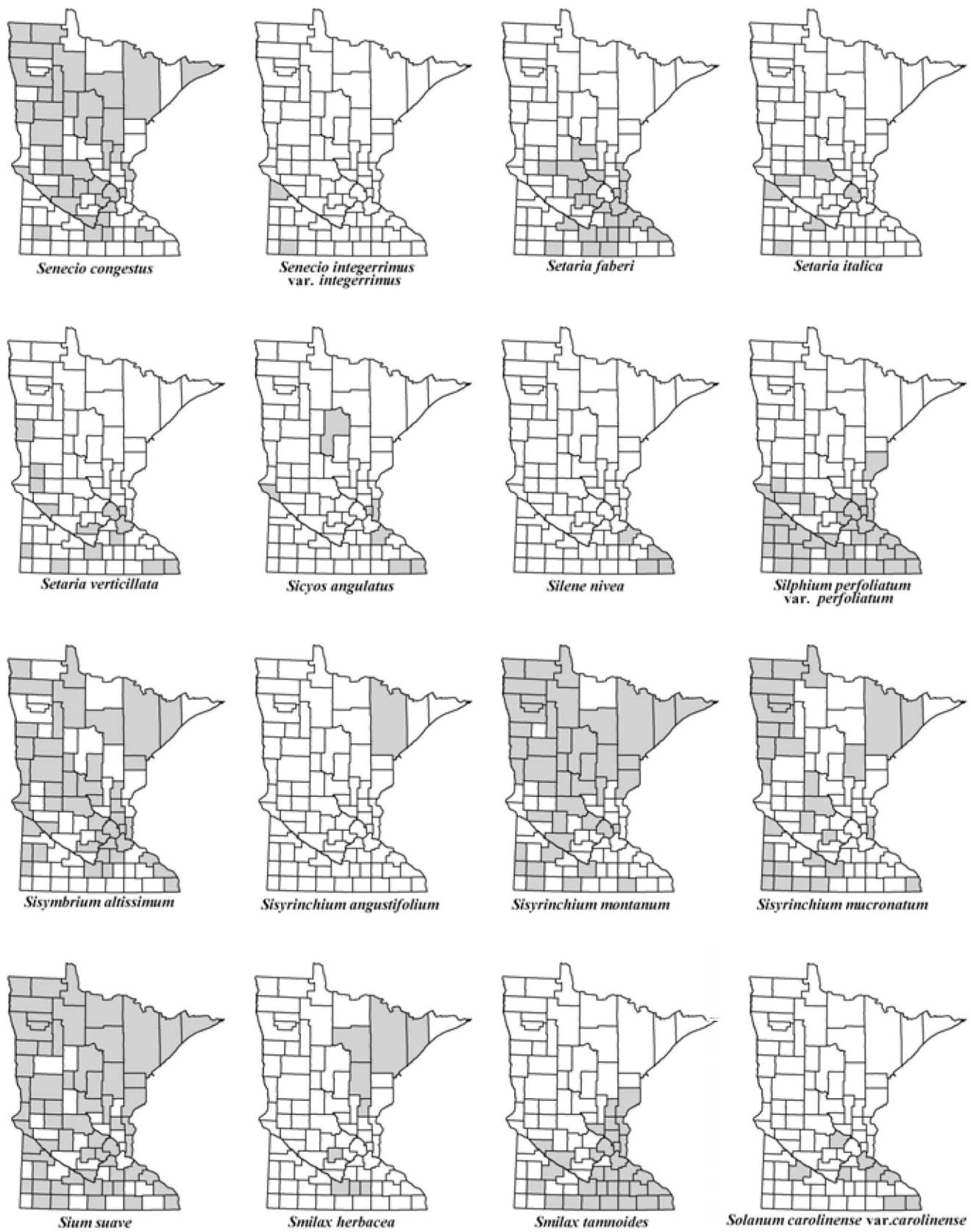


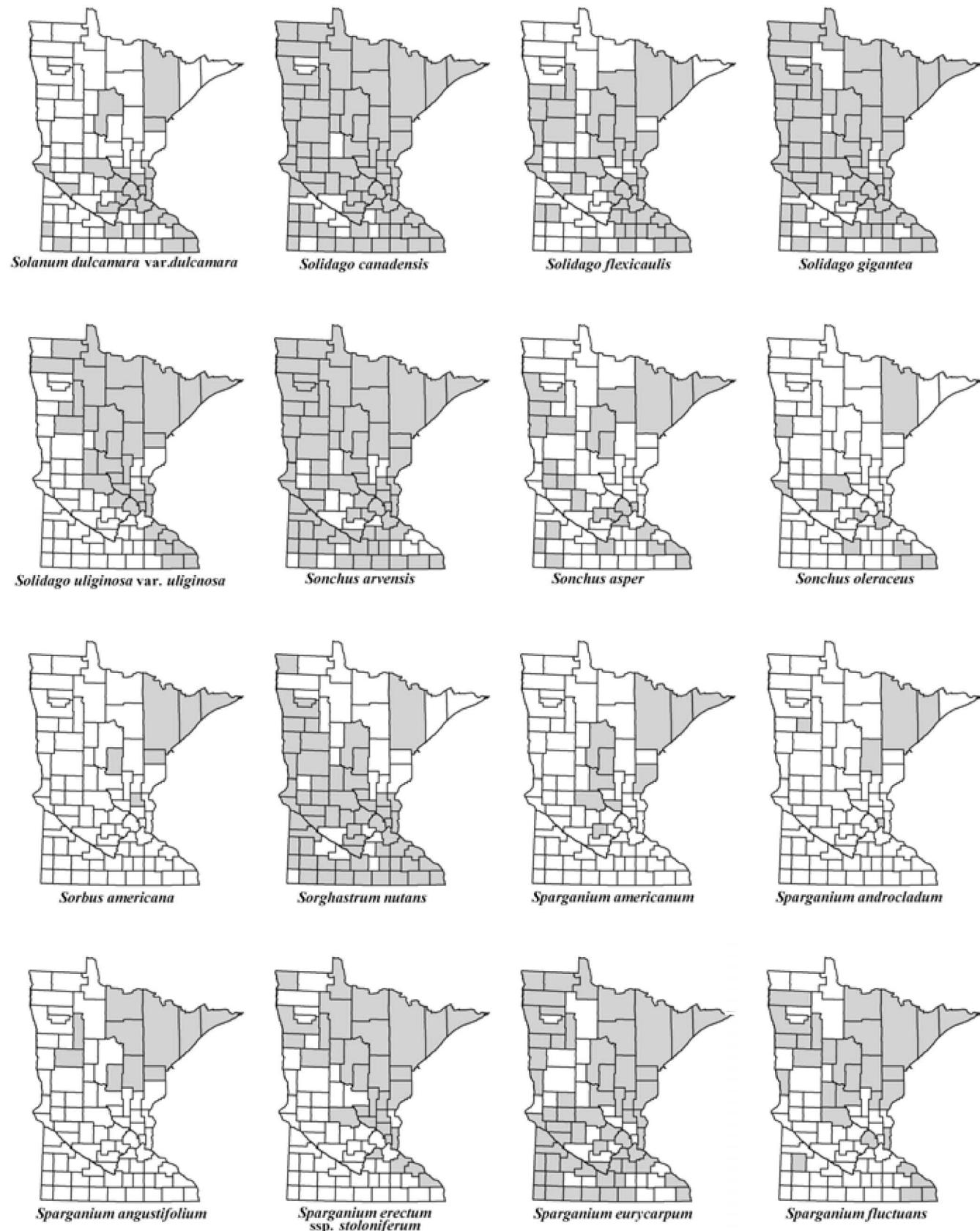
Scutellaria parvula

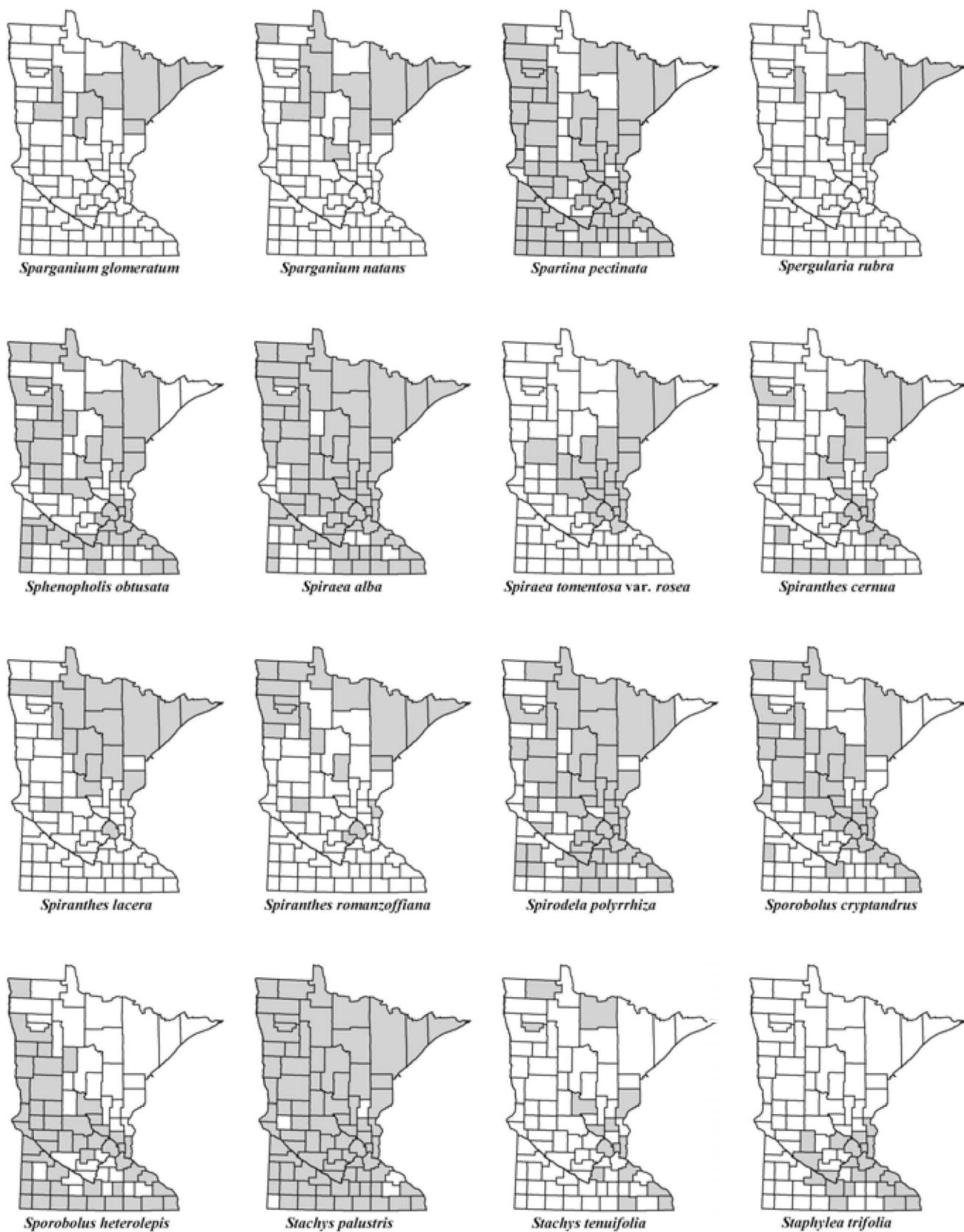


Selaginella selaginoides







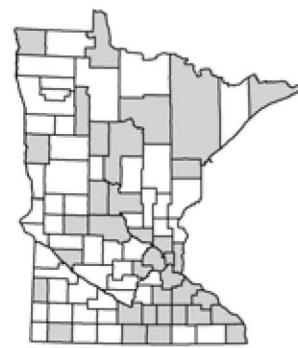




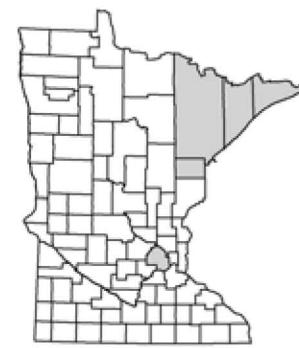
Stellaria longifolia



Stellaria longipes



Stellaria media ssp. *media*



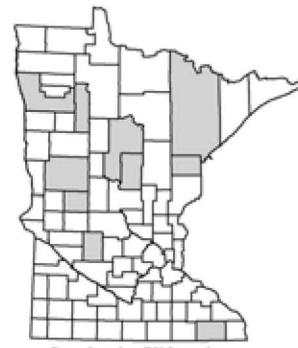
Streptopus amplexifolius
var. *amplexifolius*



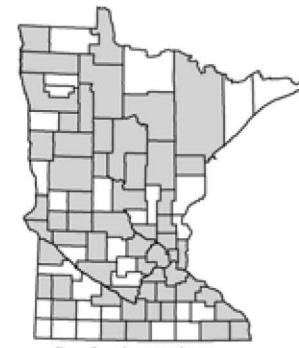
Streptopus lanceolatus var. *longipes*



Strophostyles helvula



Stuckenia filiformis



Stuckenia pectinatus



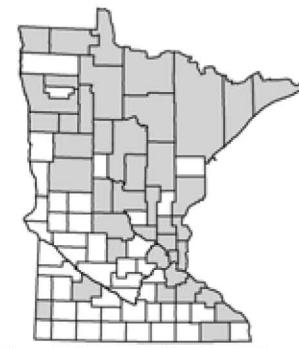
Stuckenia vaginatus



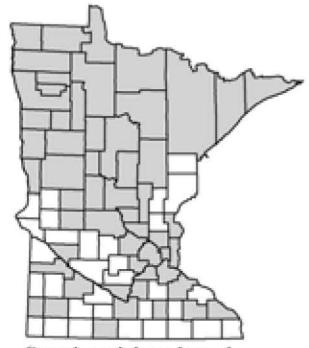
Suaeda calceoliformis



Subularia aquatica var. *americana*



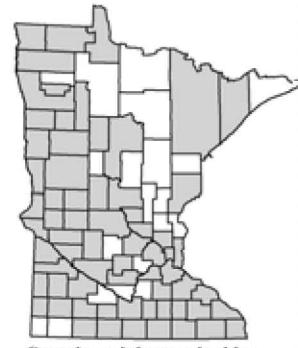
Symphoricarpos albus var. *albus*



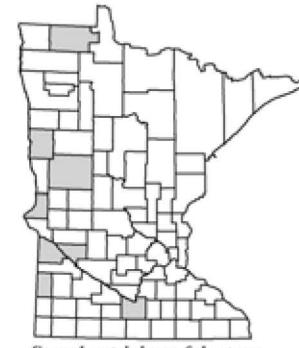
Symphyotrichum boreale



Symphyotrichum ciliatum

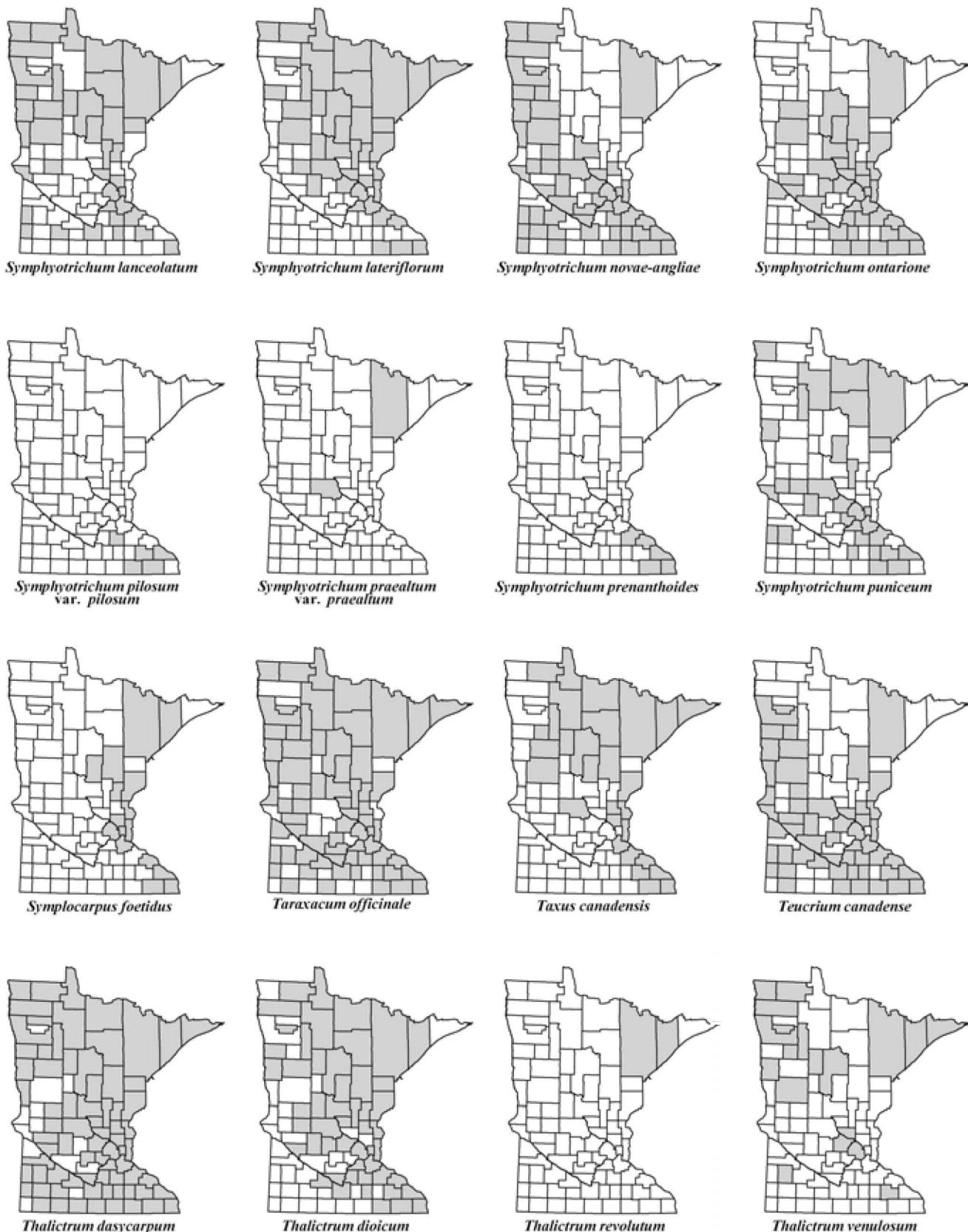


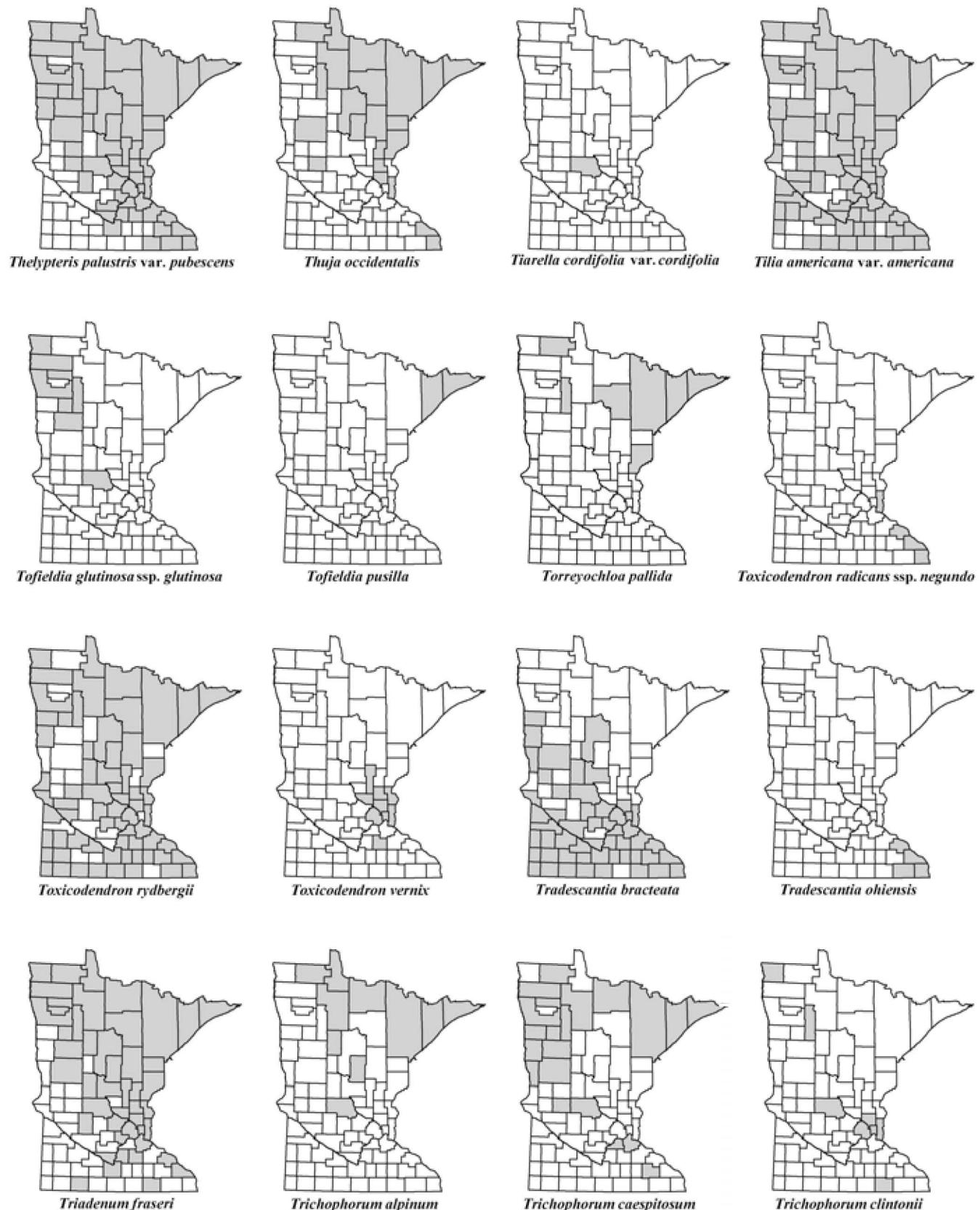
Symphyotrichum ericoides

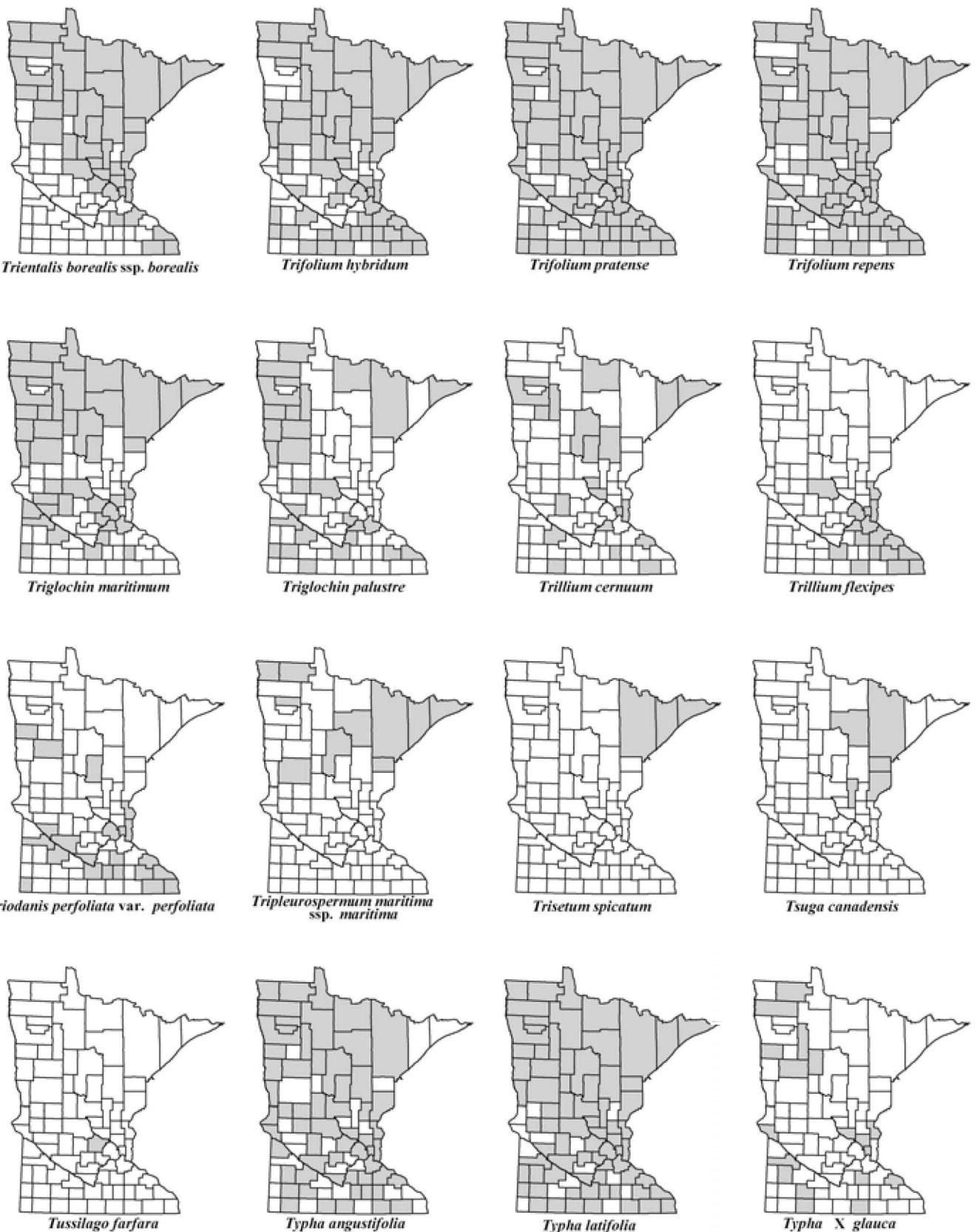


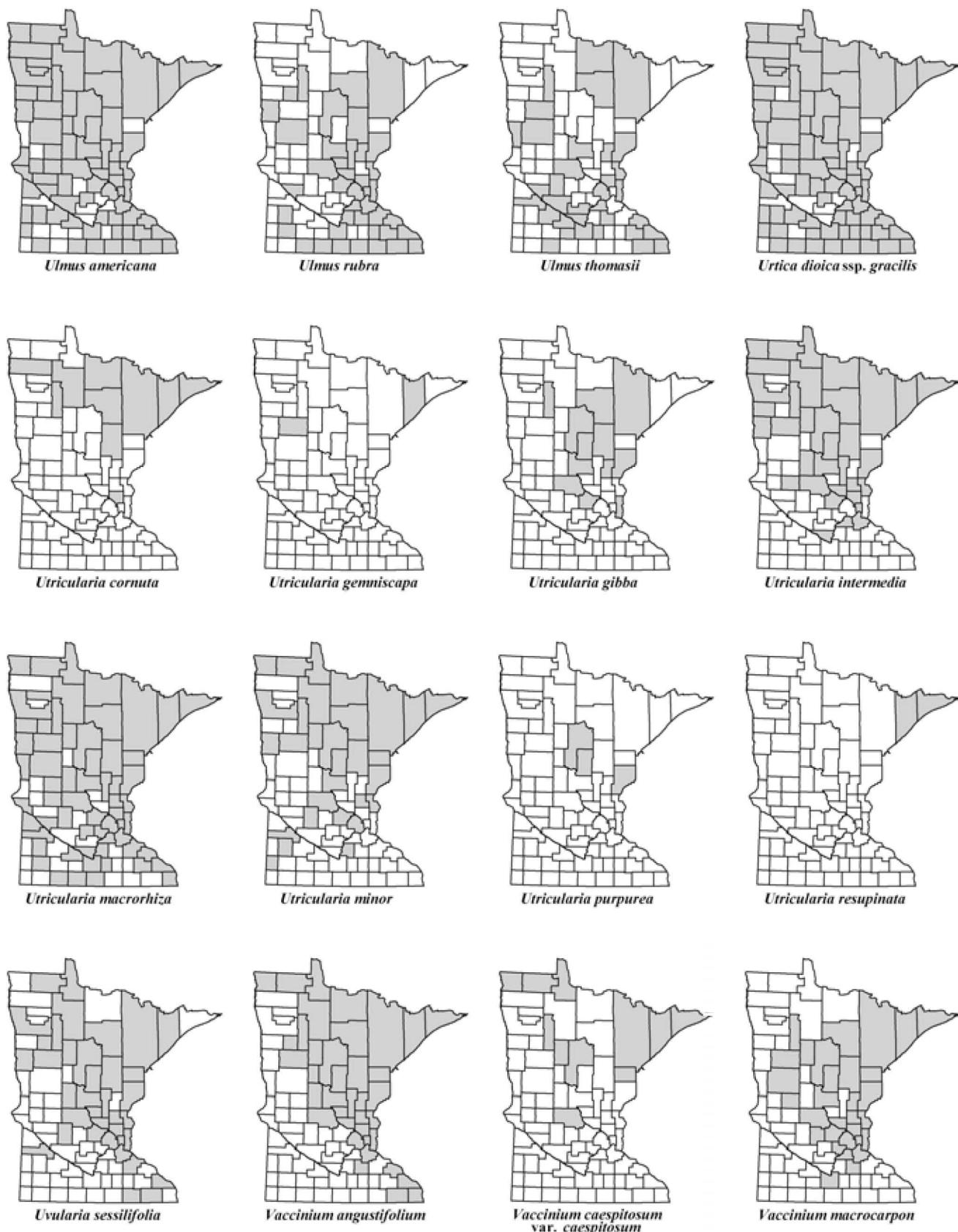
Symphyotrichum falcatum
var. *communiatum*

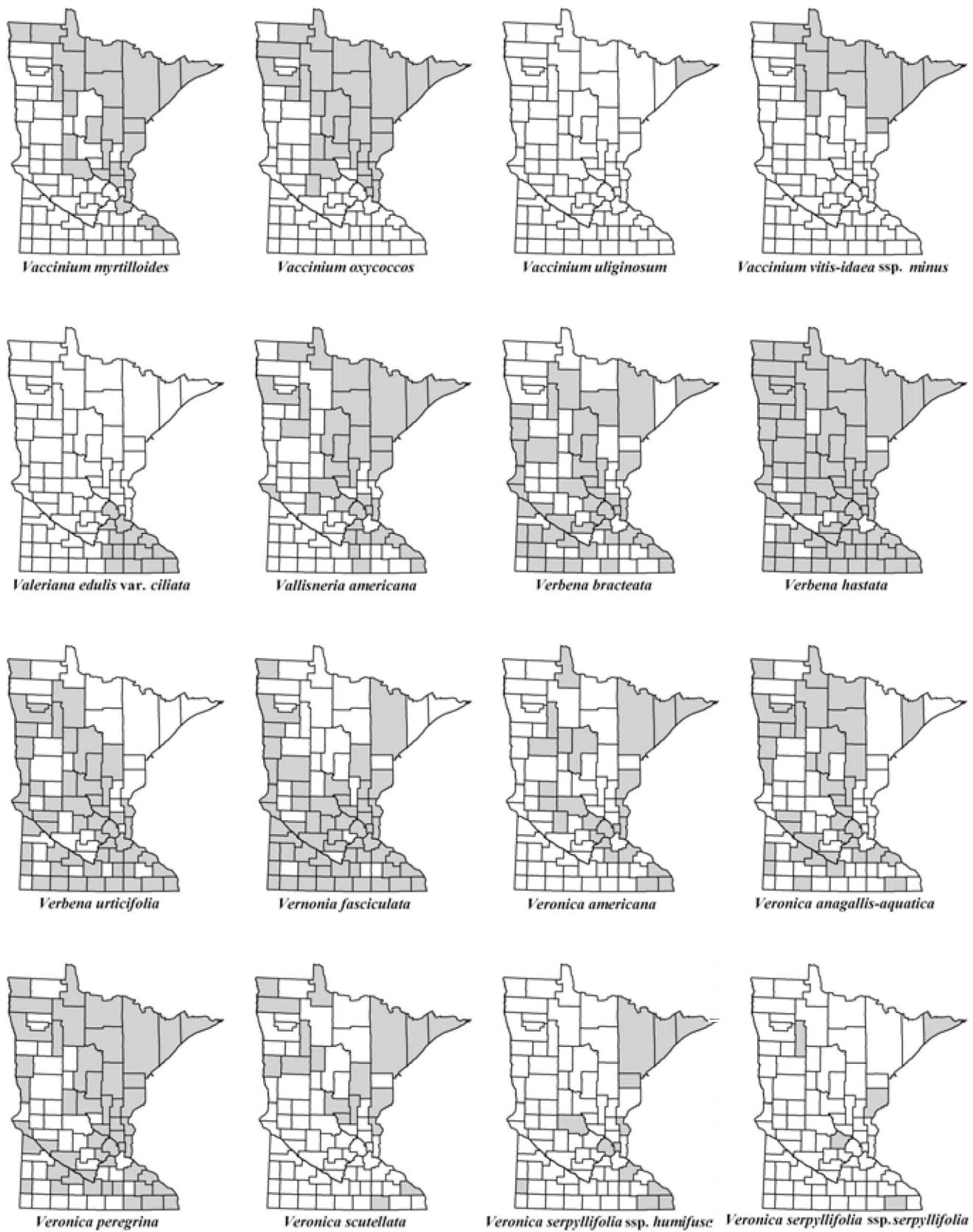


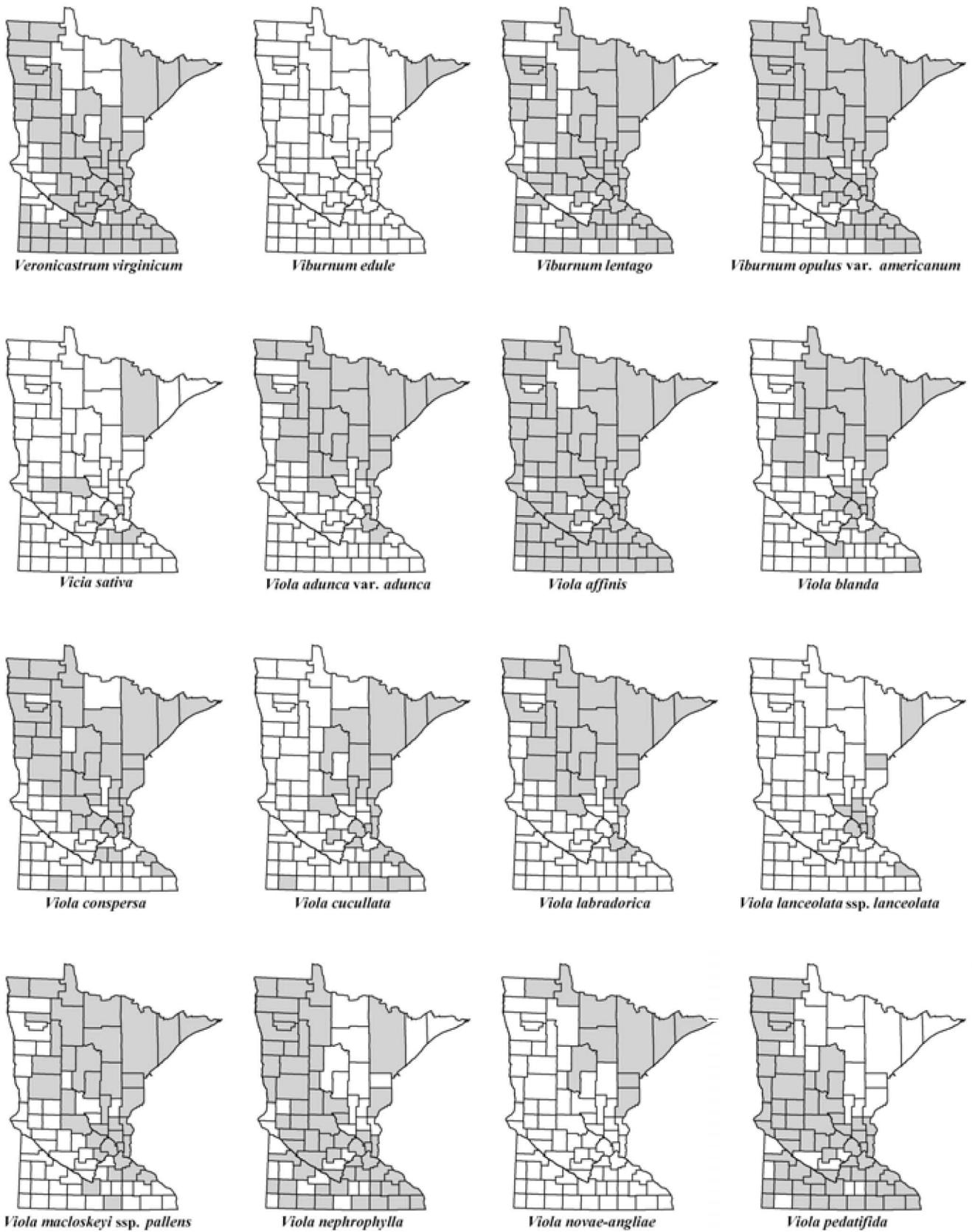


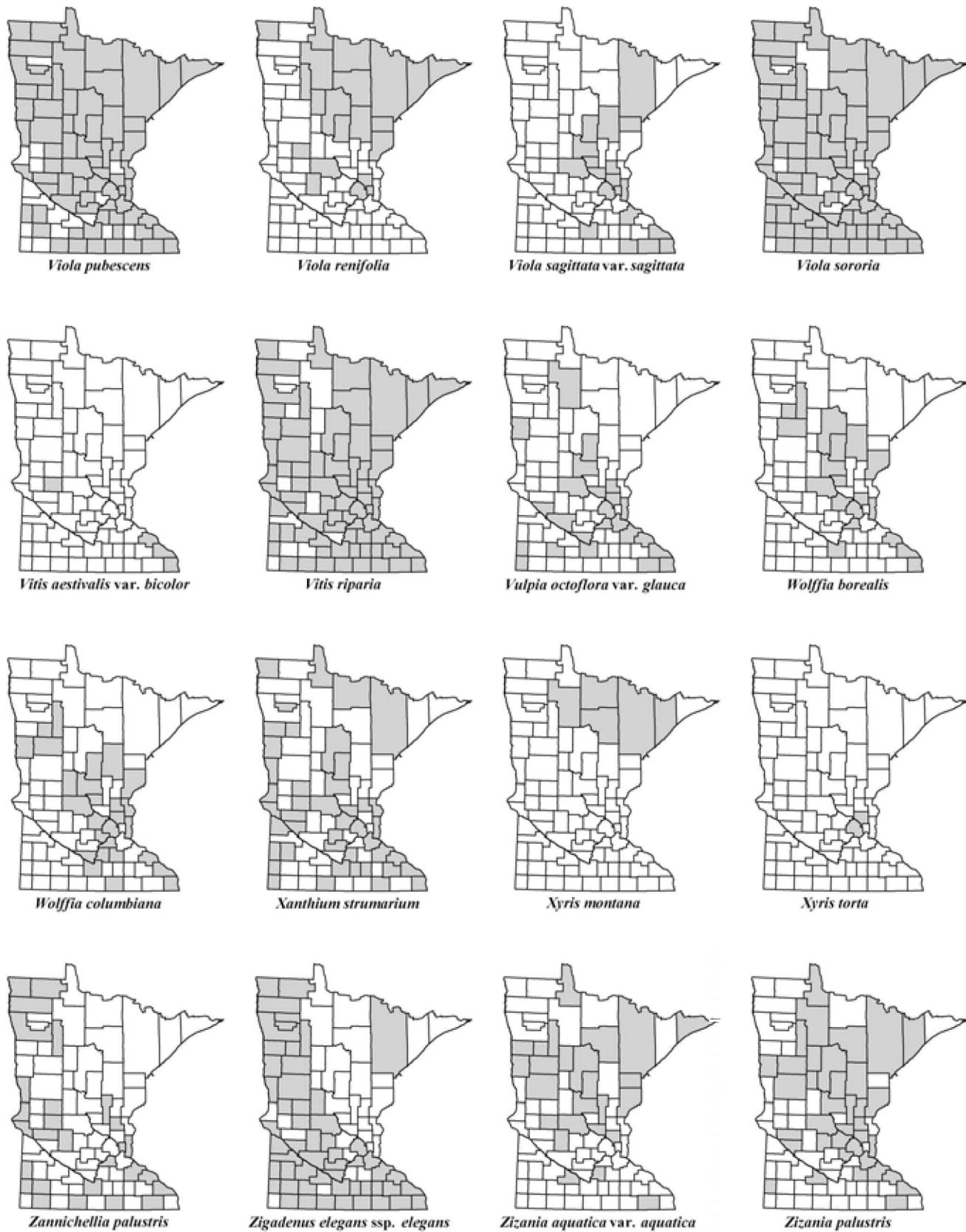






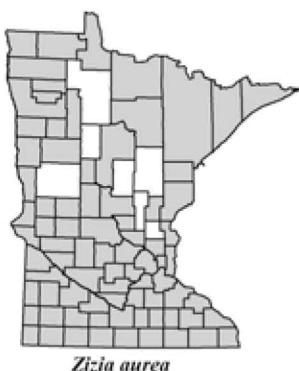








Zizia aptera



Zizia aurea



APPENDIX C: SYNONYMY

The synonymy listed below for MN Wetlist 1.4 follows ITIS synonym relationships. The majority of this synonymy is comprised of ITIS unaccepted names directly associated with MN Wetlist 1.4. Because many choices were made with accepting sub-specific taxa in MN Wetlist 1.4, many ‘synthetic’ synonyms were also added. Synthetic synonyms are ITIS accepted parent or sub-specific taxa that were not included in MN Wetlist 1.4. For example, the accepted name in MN Wetlist 1.4 for Sugar Maple is *Acer saccharum* var. *saccharum* Marsh. ITIS also accepts the parent name (*Acer saccharum* Marsh.), which then needs to be equated with *Acer saccharum* var. *saccharum*. In addition to these synthetic synonyms, all of the ITIS unaccepted synonyms of the synthetics were determined and added to the synonymy. Finally, a number of names used in Ownbey and Morley (1991) that had no record in ITIS were identified. The synonymy with MN Wetlist 1.4 was determined for these manually and they were added. The resulting synonymy includes more than 5,000 names that have been associated with names on MN Wetlist 1.4. The primary objective when developing this synonymy was to facilitate efficient conversion of electronic plant data to MN Wetlist 1.4 in relational databases so that FQA can be applied to existing data. The synonymy provided below is organized alphabetically by pairs, with the synonym on the left and the MN Wetlist 1.4 accepted name on the right separated by a colon (:). A Microsoft Excel™ version of the synonymy is available online at www.pca.state.mn.us/water/biomonitoring/bio-wetlands.html. The Excel™ version includes Taxonomic Serial Numbers, author names, and identifies the synthetic synonyms.

Abies mariana : *Picea mariana*
Abutilon abutilon : *Abutilon theophrasti*
Abutilon avicennae : *Abutilon theophrasti*
Acalypha virginica var. *rhomboidea* : *Acalypha rhomboidea*
Acer californica : *Acer negundo*
Acer dasycarpum : *Acer saccharinum*
Acer interius : *Acer negundo*
Acer negundo ssp. *californicum* : *Acer negundo*
Acer negundo ssp. *interius* : *Acer negundo*
Acer negundo ssp. *latifolium* : *Acer negundo*
Acer negundo var. *arizonicum* : *Acer negundo*
Acer negundo var. *californicum* : *Acer negundo*
Acer negundo var. *interius* : *Acer negundo*
Acer negundo var. *negundo* : *Acer negundo*
Acer negundo var. *texanum* : *Acer negundo*
Acer negundo var. *violaceum* : *Acer negundo*
Acer nigrum var. *glaucum* : *Acer saccharum* var. *saccharum*
Acer nigrum var. *saccharophorum* : *Acer saccharum* var. *saccharum*
Acer rubrum : *Acer rubrum* var. *rubrum*
Acer rubrum var. *tomentosum* : *Acer rubrum* var. *rubrum*
Acer rugelii : *Acer saccharum* var. *saccharum*
Acer saccharinum var. *laciniatum* : *Acer saccharinum*

Acer saccharinum var. *wieri* : *Acer saccharinum*
Acer saccharophorum : *Acer saccharum* var. *saccharum*
Acer saccharum : *Acer saccharum* var. *saccharum*
Acer saccharum var. *glaucum* : *Acer saccharum* var. *saccharum*
Acer stenocarpum : *Acer rubrum* var. *rubrum*
Acetosa oblongifolia : *Rumex obtusifolius*
Acetosella acetosella : *Rumex acetosella*
Acetosella tenuifolia : *Rumex acetosella*
Acetosella vulgaris : *Rumex acetosella*
Achillea alpicola : *Achillea millefolium*
Achillea angustissima : *Achillea millefolium*
Achillea arenicola : *Achillea millefolium*
Achillea asplenifolia : *Achillea millefolium*
Achillea borealis : *Achillea millefolium*
Achillea borealis ssp. *arenicola* : *Achillea millefolium*
Achillea borealis ssp. *californica* : *Achillea millefolium*
Achillea borealis ssp. *typica* : *Achillea millefolium*
Achillea borealis var. *arenicola* : *Achillea millefolium*
Achillea borealis var. *californica* : *Achillea millefolium*
Achillea californica : *Achillea millefolium*
Achillea eradiata : *Achillea millefolium*
Achillea fusca : *Achillea millefolium*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Achillea gigantea : *Achillea millefolium*
Achillea gracilis : *Achillea millefolium*
Achillea lanulosa : *Achillea millefolium*
Achillea lanulosa ssp. *alpicola* : *Achillea millefolium*
Achillea lanulosa ssp. *typica* : *Achillea millefolium*
Achillea lanulosa var. *alpicola* : *Achillea millefolium*
Achillea lanulosa var. *arachnoidea* : *Achillea millefolium*
Achillea lanulosa var. *eradiata* : *Achillea millefolium*
Achillea laxiflora : *Achillea millefolium*
Achillea millefolium ssp. *atrosegula* : *Achillea millefolium*
Achillea millefolium ssp. *borealis* : *Achillea millefolium*
Achillea millefolium ssp. *lanulosa* : *Achillea millefolium*
Achillea millefolium ssp. *millefolium* : *Achillea millefolium*
Achillea millefolium ssp. *occidentalis* : *Achillea millefolium*
Achillea millefolium ssp. *pallidotequa* : *Achillea millefolium*
Achillea millefolium var. *alpicola* : *Achillea millefolium*
Achillea millefolium var. *arenicola* : *Achillea millefolium*
Achillea millefolium var. *asplenifolia* : *Achillea millefolium*
Achillea millefolium var. *borealis* : *Achillea millefolium*
Achillea millefolium var. *californica* : *Achillea millefolium*
Achillea millefolium var. *fulva* : *Achillea millefolium*
Achillea millefolium var. *fusca* : *Achillea millefolium*
Achillea millefolium var. *gigantea* : *Achillea millefolium*
Achillea millefolium var. *gracilis* : *Achillea millefolium*
Achillea millefolium var. *lanulosa* : *Achillea millefolium*
Achillea millefolium var. *litoralis* : *Achillea millefolium*
Achillea millefolium var. *maritima* : *Achillea millefolium*
Achillea millefolium var. *millefolium* : *Achillea millefolium*
Achillea millefolium var. *nigrescens* : *Achillea millefolium*
Achillea millefolium var. *occidentalis* : *Achillea millefolium*
Achillea millefolium var. *pacifica* : *Achillea millefolium*
Achillea millefolium var. *parviligula* : *Achillea millefolium*
Achillea millefolium var. *parvula* : *Achillea millefolium*
Achillea millefolium var. *puberula* : *Achillea millefolium*
Achillea millefolium var. *rosea* : *Achillea millefolium*
Achillea millefolium var. *russeolata* : *Achillea millefolium*
Achillea nigrescens : *Achillea millefolium*
Achillea occidentalis : *Achillea millefolium*
Achillea pacifica : *Achillea millefolium*
Achillea puberula : *Achillea millefolium*
Achillea rosea : *Achillea millefolium*
Achillea subalpina : *Achillea millefolium*
Achillea tomentosa : *Achillea millefolium*
Acnida altissima : *Amaranthus tuberculatus*

Acnida altissima var. *prostrata* : *Amaranthus tuberculatus*
Acnida altissima var. *subnuda* : *Amaranthus tuberculatus*
Acnida concatenate : *Amaranthus tuberculatus*
Acnida subnuda : *Amaranthus tuberculatus*
Acnida tamariscina : *Amaranthus rufus*
Acnida tamariscina var. *prostrata* : *Amaranthus tuberculatus*
Acnida tuberculata : *Amaranthus tuberculatus*
Acorus calamus : *Acorus americanus*
Acorus calamus var. *americanus* : *Acorus americanus*
Acuan illinoense : *Desmanthus illinoensis*
Acuan illinoensis : *Desmanthus illinoensis*
Adicea fontana : *Pilea fontana*
Adicea pumila : *Pilea pumila* var. *pumila*
Aegopodium podagraria var. *variegatum* : *Aegopodium podagraria*
Agalinis besseyana : *Agalinis tenuifolia*
Agalinis paupercula var. *borealis* : *Agalinis paupercula*
Agalinis paupercula var. *paupercula* : *Agalinis paupercula*
Agalinis purpurea var. *carteri* : *Agalinis purpurea*
Agalinis purpurea var. *parviflora* : *Agalinis paupercula*
Agalinis purpurea var. *purpurea* : *Agalinis purpurea*
Agalinis tenuifolia ssp. *leucantha* : *Agalinis tenuifolia*
Agalinis tenuifolia var. *leucantha* : *Agalinis tenuifolia*
Agalinis tenuifolia var. *macrophylla* : *Agalinis tenuifolia*
Agalinis tenuifolia var. *parviflora* : *Agalinis tenuifolia*
Agalinis tenuifolia var. *polyphylla* : *Agalinis tenuifolia*
Agalinis tenuifolia var. *tenuifolia* : *Agalinis tenuifolia*
Agaloma marginata : *Euphorbia marginata*
Ageratina altissima : *Ageratina altissima* var. *altissima*
Ageratum altissimum : *Ageratina altissima* var. *altissima*
Agoseris glaevis : *Agoseris glauca* var. *glauca*
Agoseris arizonica : *Agoseris glauca* var. *glauca*
Agoseris glauca : *Agoseris glauca* var. *glauca*
Agoseris glauca var. *agrestis* : *Agoseris glauca* var. *glauca*
Agoseris glauca var. *laciniata* : *Agoseris glauca* var. *glauca*
Agoseris glauca var. *parviflora* : *Agoseris glauca* var. *glauca*
Agoseris parviflora : *Agoseris glauca* var. *glauca*
Agoseris turbinata : *Agoseris glauca* var. *glauca*
Agropyron brevifolium : *Elymus trachycaulus*
Agropyron caninum ssp. *majus* : *Elymus trachycaulus*
Agropyron caninum var. *andinum* : *Elymus trachycaulus*
Agropyron caninum var. *hornemannii* : *Elymus trachycaulus*
Agropyron caninum var. *mitchellii* : *Elymus trachycaulus*
Agropyron caninum var. *unilaterale* : *Elymus trachycaulus*
Agropyron laeve : *Elymus trachycaulus*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Agropyron molle : Pascopyrum smithii
Agropyron parishii var. laeve : Elymus trachycaulus
Agropyron pauciflorum : Elymus trachycaulus
Agropyron pauciflorum ssp. laeve : Elymus trachycaulus
Agropyron pauciflorum ssp. majus : Elymus trachycaulus
Agropyron pauciflorum ssp. novae-angliae : Elymus trachycaulus
Agropyron pauciflorum ssp. teslinense : Elymus trachycaulus
Agropyron pauciflorum var. glaucum : Elymus trachycaulus
Agropyron pauciflorum var. novae-angliae : Elymus trachycaulus
Agropyron repens : Elymus repens
Agropyron repens var. repens : Elymus repens
Agropyron repens var. subulatum : Elymus repens
Agropyron smithii : Pascopyrum smithii
Agropyron smithii var. molle : Pascopyrum smithii
Agropyron smithii var. palmeri : Pascopyrum smithii
Agropyron subsecundum : Elymus trachycaulus
Agropyron subsecundum var. andinum : Elymus trachycaulus
Agropyron tenerum : Elymus trachycaulus
Agropyron teslinense : Elymus trachycaulus
Agropyron trachycaulum : Elymus trachycaulus
Agropyron trachycaulum var. ciliatum : Elymus trachycaulus
Agropyron trachycaulum var. glaucum : Elymus trachycaulus
Agropyron trachycaulum var. majus : Elymus trachycaulus
Agropyron trachycaulum var. novae-angliae : Elymus trachycaulus
Agropyron trachycaulum var. trachycaulum : Elymus trachycaulus
Agropyron trachycaulum var. unilaterale : Elymus trachycaulus
Agropyron violaceum ssp. andinum : Elymus trachycaulus
Agropyron violaceum var. andinum : Elymus trachycaulus
Agrostis alba : Agrostis gigantea
Agrostis alba alba : Agrostis gigantea
Agrostis alba var. palustris : Agrostis stolonifera
Agrostis alba var. stolonifera : Agrostis stolonifera
Agrostis altissima : Agrostis perennans
Agrostis antecedens : Agrostis hyemalis
Agrostis cryptandra : Sporobolus cryptandrus
Agrostis elata : Agrostis perennans
Agrostis frondosa : Muhlenbergia frondosa
Agrostis geminata : Agrostis scabra
Agrostis gigantea var. dispar : Agrostis gigantea
Agrostis hyemalis var. geminata : Agrostis scabra
Agrostis hyemalis var. hyemalis : Agrostis hyemalis
Agrostis hyemalis var. scabra : Agrostis scabra
Agrostis hyemalis var. tenuis : Agrostis scabra
Agrostis maritima : Agrostis stolonifera

Agrostis mexicana : Muhlenbergia mexicana
Agrostis nigra : Agrostis gigantea
Agrostis oreophila : Agrostis perennans
Agrostis palustris : Agrostis stolonifera
Agrostis perennans var. aestivalis : Agrostis perennans
Agrostis perennans var. elata : Agrostis perennans
Agrostis racemosa : Muhlenbergia racemosa
Agrostis scabra ssp. septentrionalis : Agrostis scabra
Agrostis scabra var. geminata : Agrostis scabra
Agrostis scabra var. septentrionalis : Agrostis scabra
Agrostis schweinitzii : Agrostis perennans
Agrostis stolonifera ssp. gigantea : Agrostis gigantea
Agrostis stolonifera var. compacta : Agrostis stolonifera
Agrostis stolonifera var. major : Agrostis gigantea
Agrostis stolonifera var. palustris : Agrostis stolonifera
Agrostis sylvatica : Muhlenbergia sylvatica
Aira caespitosa : Deschampsia caespitosa
Aira cespitosa : Deschampsia caespitosa
Aira obtusata : Sphenopholis obtusata
Aira spicata : Trisetum spicatum
Alisma brevipes : Alisma triviale
Alisma geyeri : Alisma gramineum
Alisma gramineum var. angustissimum : Alisma gramineum
Alisma gramineum var. geyeri : Alisma gramineum
Alisma gramineum var. graminifolium : Alisma gramineum
Alisma gramineum var. wahlenbergii : Alisma gramineum
Alisma lanceolatum : Alisma gramineum
Alisma plantago-aquatica ssp. brevipes : Alisma triviale
Alisma plantago-aquatica ssp. subcordatum : Alisma subcordatum
Alisma plantago-aquatica var. americanum : Alisma triviale
Alisma plantago-aquatica var. brevipes : Alisma triviale
Alisma plantago-aquatica var. parviflorum : Alisma subcordatum
Alliaria alliaria : Alliaria petiolata
Alliaria officinalis : Alliaria petiolata
Allium acetabulum : Allium canadense var. canadense
Allium canadense : Allium canadense var. canadense
Allium canadense var. ovoideum : Allium canadense var. canadense
Allium canadense var. robustum : Allium canadense var. canadense
Allium continuum : Allium canadense var. canadense
Allium schoenoprasum : Allium schoenoprasum var. sibiricum
Allium schoenoprasum ssp. sibiricum : Allium schoenoprasum var. sibiricum
Allium schoenoprasum var. laurentianum : Allium schoenoprasum var. sibiricum
Allium sibiricum : Allium schoenoprasum var. sibiricum
Allocarya californica : Plagiobothrys scouleri



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Allocarya cognata : *Plagiobothrys scouleri*
Allocarya cusickii : *Plagiobothrys scouleri*
Allocarya granulata : *Plagiobothrys scouleri*
Allocarya hispidula : *Plagiobothrys scouleri*
Allocarya scopulorum : *Plagiobothrys scouleri*
Allocarya scouleri : *Plagiobothrys scouleri*
Alnus crispa : *Alnus viridis* ssp. *crispa*
Alnus crispa fruticosa : *Alnus viridis* ssp. *crispa*
Alnus crispa var. *elongata* : *Alnus viridis* ssp. *crispa*
Alnus crispa var. *mollis* : *Alnus viridis* ssp. *crispa*
Alnus incana : *Alnus incana* ssp. *rugosa*
Alnus incana var. *americana* : *Alnus incana* ssp. *rugosa*
Alnus rugosa : *Alnus incana* ssp. *rugosa*
Alnus rugosa var. *americana* : *Alnus incana* ssp. *rugosa*
Alnus viridis : *Alnus viridis* ssp. *crispa*
Alnus viridis var. *crispa* : *Alnus viridis* ssp. *crispa*
Alnus X hultenii : *Alnus viridis* ssp. *crispa*
Alopecurus aequalis : *Alopecurus aequalis* var. *aequalis*
Alopecurus aequalis var. *natans* : *Alopecurus aequalis* var. *aequalis*
Alopecurus aristulatus : *Alopecurus aequalis* var. *aequalis*
Alopecurus geniculatus var. *aristulatus* : *Alopecurus aequalis* var. *aequalis*
Alopecurus macounii : *Alopecurus carolinianus*
Alopecurus monspeliensis : *Polypogon monspeliensis*
Alopecurus ramosus : *Alopecurus carolinianus*
Alsine aquatica : *Myosoton aquaticum*
Alsine longifolia : *Stellaria longifolia*
Alsine longipes : *Stellaria longipes*
Alsine media : *Stellaria media* ssp. *media*
Alsine palmeri : *Stellaria longipes*
Alsine stricta : *Stellaria longipes*
Alsine validus : *Stellaria longipes*
Amaranthus albus var. *pubescens* : *Amaranthus albus*
Amaranthus altissimus : *Amaranthus tuberculatus*
Amaranthus ambigens : *Amaranthus tuberculatus*
Amaranthus graecizans : *Amaranthus albus*
Amaranthus graecizans : *Amaranthus albus*
Amaranthus graecizans var. *pubescens* : *Amaranthus albus*
Amaranthus pubescens : *Amaranthus albus*
Amaranthus retroflexus var. *salicifolius* : *Amaranthus retroflexus*
Amaranthus tamariscinus : *Amaranthus rudis*
Amaranthus tuberculatus var. *prostratus* : *Amaranthus tuberculatus*
Amaranthus tuberculatus var. *subnudus* : *Amaranthus tuberculatus*
Amarella acuta : *Gentianella amarella* ssp. *acuta*
Amarella plebeja : *Gentianella amarella* ssp. *acuta*
Amarella strictiflora : *Gentianella amarella* ssp. *acuta*
Ambrosia artemisiifolia var. *artemisiifolia* : *Ambrosia artemisiifolia*
Ambrosia artemisiifolia var. *elatior* : *Ambrosia artemisiifolia*
Ambrosia artemisiifolia var. *paniculata* : *Ambrosia artemisiifolia*
Ambrosia californica : *Ambrosia psilostachya*
Ambrosia coronopifolia : *Ambrosia psilostachya*
Ambrosia cumanensis : *Ambrosia psilostachya*
Ambrosia elatior : *Ambrosia artemisiifolia*
Ambrosia glandulosa : *Ambrosia artemisiifolia*
Ambrosia monophylla : *Ambrosia artemisiifolia*
Ambrosia paniculata : *Ambrosia artemisiifolia*
Ambrosia psilostachya var. *californica* : *Ambrosia psilostachya*
Ambrosia psilostachya var. *coronopifolia* : *Ambrosia psilostachya*
Ambrosia psilostachya var. *lindheimeriana* : *Ambrosia psilostachya*
Ambrosia rugelii : *Ambrosia psilostachya*
Ambrosia trifida : *Ambrosia trifida* var. *trifida*
Ambrosia trifida var. *integrifolia* : *Ambrosia trifida* var. *trifida*
Amelanchier alnifolia : *Amelanchier alnifolia* var. *alnifolia*
Amelanchier arborea : *Amelanchier arborea* var. *arborea*
Amelanchier intermedia : *Amelanchier X intermedia*
Amelanchier oblongifolia : *Amelanchier arborea* var. *arborea*
Amelanchier spicata : *Amelanchier stolonifera*
Ammannia coccinea ssp. *purpurea* : *Ammannia coccinea*
Ammannia teres : *Ammannia coccinea*
Amorpha angustifolia : *Amorpha fruticosa*
Amorpha bushii : *Amorpha fruticosa*
Amorpha croceolanata : *Amorpha fruticosa*
Amorpha curtissii : *Amorpha fruticosa*
Amorpha devinkeleri : *Amorpha fruticosa*
Amorpha fruticosa var. *angustifolia* : *Amorpha fruticosa*
Amorpha fruticosa var. *croceolanata* : *Amorpha fruticosa*
Amorpha fruticosa var. *emarginata* : *Amorpha fruticosa*
Amorpha fruticosa var. *oblongifolia* : *Amorpha fruticosa*
Amorpha fruticosa var. *occidentalis* : *Amorpha fruticosa*
Amorpha fruticosa var. *tennesseensis* : *Amorpha fruticosa*
Amorpha occidentalis : *Amorpha fruticosa*
Amorpha occidentalis var. *arizonica* : *Amorpha fruticosa*
Amorpha occidentalis var. *emarginata* : *Amorpha fruticosa*
Amorpha tennesseensis : *Amorpha fruticosa*
Amorpha virgata : *Amorpha fruticosa*
Ampelopsis hederacea var. *murorum* : *Parthenocissus quinquefolia*
Ampelopsis latifolia : *Parthenocissus quinquefolia*
Ampelopsis quinquefolia : *Parthenocissus quinquefolia*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Amphicarpa bracteata var. bracteata : Amphicarpa bracteata
Amphicarpa bracteata var. comosa : Amphicarpa bracteata
Amphicarpa comosa : Amphicarpa bracteata
Amphicarpa pitcheri : Amphicarpa bracteata
Anacharis canadensis : Elodea canadensis
Anacharis canadensis var. planchonii : Elodea canadensis
Anacharis nuttallii : Elodea nuttallii
Anacharis occidentalis : Elodea nuttallii
Andromeda calyculata : Chamaedaphne calyculata var. angustifolia
Andromeda glaucophylla : Andromeda polifolia var. glaucophylla
Andromeda glaucophylla var. iodandra : Andromeda polifolia var. glaucophylla
Andromeda polifolia : Andromeda polifolia var. glaucophylla
Andromeda polifolia ssp. glaucophylla : Andromeda polifolia var. glaucophylla
Andropogon chrysocomus : Andropogon gerardii
Andropogon furcatus : Andropogon gerardii
Andropogon gerardii var. chrysocomus : Andropogon gerardii
Andropogon nutans : Sorghastrum nutans
Andropogon praematurus : Schizachyrium scoparium var. scoparium
Andropogon provincialis : Andropogon gerardii
Andropogon scoparius : Schizachyrium scoparium var. scoparium
Andropogon scoparius var. ducis : Schizachyrium scoparium var. scoparium
Andropogon scoparius var. frequens : Schizachyrium scoparium var. scoparium
Andropogon scoparius var. neomexicanus : Schizachyrium scoparium var. scoparium
Andropogon scoparius var. polycladus : Schizachyrium scoparium var. scoparium
Andropogon scoparius var. septentrionalis : Schizachyrium scoparium var. scoparium
Androsace arizonica : Androsace occidentalis
Androsace occidentalis var. arizonica : Androsace occidentalis
Androsace occidentalis var. simplex : Androsace occidentalis
Androsace puberulenta : Androsace septentrionalis ssp. puberulenta
Androsace septentrionalis : Androsace septentrionalis ssp. puberulenta
Androsace septentrionalis var. puberulenta : Androsace septentrionalis ssp. puberulenta
Anemone nemorosa var. bifolia : Anemone quinquefolia var. bifolia
Anemone quinquefolia : Anemone quinquefolia var. bifolia
Anemone quinquefolia var. interior : Anemone quinquefolia var. bifolia
Anemonidium canadense : Anemone canadensis
Angelica atropurpurea var. occidentalis : Angelica atropurpurea
Antennaria virginianum : Polygonum virginianum
Anthopogon crinitum : Gentianopsis crinita
Anthoxanthum hirtum ssp. arcticum : Hierochloe hirta ssp. arctica
Anticlea chlorantha : Zigadenus elegans ssp. elegans
Anticlea elegans : Zigadenus elegans ssp. elegans
Arios americana var. turrigera : Arios americana
Apocynum cannabinum var. angustifolium : Apocynum cannabinum
Apocynum cannabinum var. glaberrimum : Apocynum cannabinum

Apocynum cannabinum var. greeneanum : Apocynum cannabinum
Apocynum cannabinum var. hypericifolium : Apocynum cannabinum
Apocynum cannabinum var. nemorale : Apocynum cannabinum
Apocynum cannabinum var. pubescens : Apocynum cannabinum
Apocynum cannabinum var. suksdorffii : Apocynum cannabinum
Apocynum hypericifolium : Apocynum cannabinum
Apocynum pubescens : Apocynum cannabinum
Apocynum sibiricum : Apocynum cannabinum
Apocynum sibiricum var. cordigerum : Apocynum cannabinum
Apocynum sibiricum var. farwellii : Apocynum cannabinum
Apocynum sibiricum var. salignum : Apocynum cannabinum
Apocynum suksdorffii : Apocynum cannabinum
Apocynum suksdorffii var. angustifolium : Apocynum cannabinum
Apocynum suskdorffii : Apocynum cannabinum
Aquilegia australis : Aquilegia canadensis
Aquilegia canadensis latiscula : Aquilegia canadensis
Aquilegia canadensis var. australis : Aquilegia canadensis
Aquilegia canadensis var. coccinea : Aquilegia canadensis
Aquilegia canadensis var. eminens : Aquilegia canadensis
Aquilegia canadensis var. hybrida : Aquilegia canadensis
Aquilegia canadensis var. latiuscula : Aquilegia canadensis
Aquilegia coccinea : Aquilegia canadensis
Aquilegia phoenicantha : Aquilegia canadensis
Arabis acutina : Arabis X divaricarpa
Arabis brachycarpa : Arabis drummondii
Arabis bulbosa : Cardamine bulbosa
Arabis confinis : Arabis drummondii
Arabis confinis var. interposita : Arabis X divaricarpa
Arabis connexa : Arabis drummondii
Arabis divaricarpa : Arabis X divaricarpa
Arabis divaricarpa var. dechamplainii : Arabis X divaricarpa
Arabis divaricarpa var. interposita : Arabis X divaricarpa
Arabis divaricarpa var. stenocarpa : Arabis X divaricarpa
Arabis divaricarpa var. typica : Arabis X divaricarpa
Arabis drummondii oxphylla : Arabis drummondii
Arabis drummondii var. connexa : Arabis drummondii
Arabis drummondii var. oxyphylla : Arabis drummondii
Arabis hirsuta ssp. pycnocarpa : Arabis hirsuta
Arabis hirsuta var. adpressipilis : Arabis hirsuta
Arabis hirsuta var. glabrata : Arabis hirsuta
Arabis hirsuta var. hirsuta : Arabis hirsuta
Arabis hirsuta var. pycnocarpa : Arabis hirsuta
Arabis interposita : Arabis X divaricarpa
Arabis lyrata var. glabra : Arabis lyrata

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Arabis ovata : *Arabis hirsuta*
Arabis oxyphylla : *Arabis drummondii*
Arabis pycnocarpa : *Arabis hirsuta*
Arabis pycnocarpa var. *adpressipilis* : *Arabis hirsuta*
Arabis rhomboidea : *Cardamine bulbosa*
Arenaria lateriflora : *Moehringia lateriflora*
Arenaria lateriflora var. *angustifolia* : *Moehringia lateriflora*
Arenaria lateriflora var. *tayloriae* : *Moehringia lateriflora*
Arenaria leptoclados : *Arenaria serpyllifolia*
Arenaria serpyllifolia ssp. *leptoclados* : *Arenaria serpyllifolia*
Arenaria serpyllifolia var. *tenuior* : *Arenaria serpyllifolia*
Argentacer saccharinum : *Acer saccharinum*
Argentina anserina var. *concolor* : *Argentina anserina*
Argentina argentea : *Argentina anserina*
Arisaema acuminatum : *Arisaema triphyllum*
Arisaema atrorubens : *Arisaema triphyllum*
Arisaema atrorubens var. *stewardsonii* : *Arisaema triphyllum*
Arisaema pusillum : *Arisaema triphyllum*
Arisaema quinatum : *Arisaema triphyllum*
Arisaema stewardsonii : *Arisaema triphyllum*
Arisaema triphyllum ssp. *quinatum* : *Arisaema triphyllum*
Arisaema triphyllum ssp. *stewardsonii* : *Arisaema triphyllum*
Arisaema triphyllum ssp. *triphyllum* : *Arisaema triphyllum*
Aristida geniculata : *Aristida longispica* var. *geniculata*
Aristida gracilis : *Aristida longispica* var. *geniculata*
Aristida intermedia : *Aristida longispica* var. *geniculata*
Aristida longespica var. *geniculata* : *Aristida longispica* var. *geniculata*
Aristida longispica : *Aristida longispica* var. *geniculata*
Aristida longispica var. *longispica* : *Aristida longispica* var. *geniculata*
Aristida necopina : *Aristida longispica* var. *geniculata*
Armoracia armoracia : *Armoracia rusticana*
Armoracia lapathifolia : *Armoracia rusticana*
Aronia alnifolia : *Amelanchier alnifolia* var. *alnifolia*
Aronia arbutifolia var. *nigra* : *Photinia melanocarpa*
Aronia melanocarpa : *Photinia melanocarpa*
Aronia nigra : *Photinia melanocarpa*
Arrhenatherum elatius : *Arrhenatherum elatius* var. *elatius*
Arrhenatherum elatius var. *biaristatum* : *Arrhenatherum elatius* var. *elatius*
Artemisia biennis : *Artemisia biennis* var. *biennis*
Artemisia matricarioides : *Matricaria discoidea*
Arundo festucacea : *Scolochloa festucacea*
Asclepias giffordii : *Asclepias speciosa*
Asclepias incarnata : *Asclepias incarnata* ssp. *incarnata*

Asperula tinctoria : *Galium tinctorium*
Asplenium platyneuron : *Asplenium platyneuron* var. *platyneuron*
Asplenium platyneuron var. *incisum* : *Asplenium platyneuron* var. *platyneuron*
Asplenium pycnocarpon : *Diplazium pycnocarpon*
Aster acadiensis : *Symphyotrichum lateriflorum*
Aster agrostifolius : *Symphyotrichum lateriflorum*
Aster bellidiflorus : *Symphyotrichum lanceolatum*
Aster borealis : *Symphyotrichum boreale*
Aster brachyactis : *Symphyotrichum ciliatum*
Aster caeruleescens : *Symphyotrichum praealtum* var. *praealtum*
Aster calderi : *Symphyotrichum puniceum*
Aster coeruleescens : *Symphyotrichum praealtum* var. *praealtum*
Aster commutatus : *Symphyotrichum falcatum* var. *commutatum*
Aster commutatus var. *polycephalus* : *Symphyotrichum falcatum* var. *commutatum*
Aster conduplicatus : *Symphyotrichum puniceum*
Aster cordineri : *Symphyotrichum falcatum* var. *commutatum*
Aster diffusus var. *thyrsoides* : *Symphyotrichum ontarione*
Aster elegantulus : *Symphyotrichum falcatum* var. *commutatum*
Aster ericoides : *Symphyotrichum ericoides*
Aster ericoides ssp. *ericoides* : *Symphyotrichum ericoides*
Aster ericoides ssp. *pansus* : *Symphyotrichum ericoides*
Aster ericoides var. *commutatus* : *Symphyotrichum falcatum* var. *commutatum*
Aster ericoides var. *pansus* : *Symphyotrichum ericoides*
Aster ericoides var. *platyphyllus* : *Symphyotrichum pilosum* var. *pilosum*
Aster ericoides var. *pringlei* : *Symphyotrichum pilosum* var. *pilosum*
Aster ericoides var. *prostratus* : *Symphyotrichum ericoides*
Aster ericoides var. *stricticaulis* : *Symphyotrichum ericoides*
Aster ericoides var. *villosum* : *Symphyotrichum pilosum* var. *pilosum*
Aster exiguus : *Symphyotrichum ericoides*
Aster falcatus : *Symphyotrichum falcatum* var. *commutatum*
Aster falcatus ssp. *commutatus* : *Symphyotrichum falcatum* var. *commutatum*
Aster falcatus var. *commutatus* : *Symphyotrichum falcatum* var. *commutatum*
Aster faxoni : *Symphyotrichum pilosum* var. *pilosum*
Aster faxonii : *Symphyotrichum pilosum* var. *pilosum*
Aster firmus : *Symphyotrichum puniceum*
Aster forwoodii : *Symphyotrichum puniceum*
Aster franklinianus : *Symphyotrichum boreale*
Aster hesperius : *Symphyotrichum lanceolatum*
Aster hesperius var. *laetevirens* : *Symphyotrichum lanceolatum*
Aster hesperius var. *wootonii* : *Symphyotrichum lanceolatum*
Aster hirsuticaulis : *Symphyotrichum lateriflorum*
Aster horizontalis : *Symphyotrichum lateriflorum*
Aster interior : *Symphyotrichum lanceolatum*
Aster junceus : *Symphyotrichum boreale*



Aster junceus : *Symphyotrichum boreale*
Aster junciformis : *Symphyotrichum boreale*
Aster juniperinus : *Symphyotrichum pilosum* var. *pilosum*
Aster juniperinus : *Symphyotrichum pilosum* var. *pilosum*
Aster laetevirens : *Symphyotrichum lanceolatum*
Aster lamarckianus : *Symphyotrichum lanceolatum*
Aster lanceolatus : *Symphyotrichum lanceolatum*
Aster lanceolatus ssp. *hesperius* : *Symphyotrichum lanceolatum*
Aster lanceolatus ssp. *interior* : *Symphyotrichum lanceolatum*
Aster lanceolatus ssp. *lanceolatus* : *Symphyotrichum lanceolatum*
Aster lanceolatus ssp. *simplex* : *Symphyotrichum lanceolatum*
Aster lanceolatus var. *hirsuticaulis* : *Symphyotrichum lanceolatum*
Aster lanceolatus var. *interior* : *Symphyotrichum lanceolatum*
Aster lanceolatus var. *interior* : *Symphyotrichum lanceolatum*
Aster lanceolatus var. *latifolius* : *Symphyotrichum lanceolatum*
Aster lanceolatus var. *simplex* : *Symphyotrichum lanceolatum*
Aster lateriflorus : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *angustifolius* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *flagellaris* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *hirsuticaulis* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *horizontalis* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *indutus* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *pendulus* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *spatelliformis* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *tenuipes* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *tenuipes* : *Symphyotrichum lateriflorum*
Aster lateriflorus var. *thyrsoides* : *Symphyotrichum ontarione*
Aster latissimifolius var. *serotinus* : *Solidago gigantea*
Aster laxifolius var. *borealis* : *Symphyotrichum boreale*
Aster laxus : *Symphyotrichum lanceolatum*
Aster lucidulus : *Symphyotrichum puniceum*
Aster major : *Canadanthus modestus*
Aster missouriensis : *Symphyotrichum ontarione*
Aster missouriensis var. *thyrsoides* : *Symphyotrichum ontarione*
Aster modestus : *Canadanthus modestus*
Aster multiflorus : *Symphyotrichum ericooides*
Aster multiflorus var. *commutatus* : *Symphyotrichum falcatum* var. *commutatum*
Aster multiflorus var. *exiguus* : *Symphyotrichum ericooides*
Aster multiflorus var. *pansus* : *Symphyotrichum ericooides*
Aster multiflorus var. *prostratus* : *Symphyotrichum ericooides*
Aster multiflorus var. *stricticaulis* : *Symphyotrichum ericooides*
Aster nahanniensis : *Symphyotrichum falcatum* var. *commutatum*
Aster novae-angliae : *Symphyotrichum novae-angliae*
Aster novi-belgii var. *litoreus* : *Symphyotrichum praealtum* var. *praealtum*

Aster ontarionis : *Symphyotrichum ontarione*
Aster ontarionis var. *glabrus* : *Symphyotrichum ontarione*
Aster osterhoutii : *Symphyotrichum lanceolatum*
Aster paniculatus : *Symphyotrichum lanceolatum*
Aster paniculatus var. *simplex* : *Symphyotrichum lanceolatum*
Aster pansi : *Symphyotrichum ericooides*
Aster pantotrichus : *Symphyotrichum ontarione*
Aster pantotrichus var. *thyrsoides* : *Symphyotrichum ontarione*
Aster pendulus : *Symphyotrichum lateriflorum*
Aster pilosus : *Symphyotrichum pilosum* var. *pilosum*
Aster pilosus var. *demotus* : *Symphyotrichum pilosum* var. *pilosum*
Aster pilosus var. *platyphyllus* : *Symphyotrichum pilosum* var. *pilosum*
Aster pilosus var. *pringlei* : *Symphyotrichum pilosum* var. *pilosum*
Aster polyccephalus : *Symphyotrichum ericooides*
Aster polyphyllus : *Symphyotrichum pilosum* var. *pilosum*
Aster praealtus : *Symphyotrichum praealtum* var. *praealtum*
Aster praealtus var. *caerulescens* : *Symphyotrichum praealtum* var. *praealtum*
Aster praealtus var. *imbricati* : *Symphyotrichum praealtum* var. *praealtum*
Aster praealtus var. *texicola* : *Symphyotrichum praealtum* var. *praealtum*
Aster prenanthoides : *Symphyotrichum prenanthoides*
Aster pringlei : *Symphyotrichum pilosum* var. *pilosum*
Aster pubentior : *Doellingeria umbellata*
Aster puniceus : *Symphyotrichum puniceum*
Aster puniceus ssp. *firmiss* : *Symphyotrichum puniceum*
Aster puniceus ssp. *puniceus* : *Symphyotrichum puniceum*
Aster puniceus var. *calderi* : *Symphyotrichum puniceum*
Aster puniceus var. *calvus* : *Symphyotrichum puniceum*
Aster puniceus var. *compactus* : *Symphyotrichum puniceum*
Aster puniceus var. *demissus* : *Symphyotrichum puniceum*
Aster puniceus var. *firmus* : *Symphyotrichum puniceum*
Aster puniceus var. *lucidulus* : *Symphyotrichum puniceum*
Aster puniceus var. *oligocephalus* : *Symphyotrichum puniceum*
Aster puniceus var. *perlongus* : *Symphyotrichum puniceum*
Aster puniceus var. *scabricaulis* : *Symphyotrichum puniceum*
Aster racemosus : *Symphyotrichum pilosum* var. *pilosum*
Aster ramosissimus : *Symphyotrichum pilosum* var. *pilosum*
Aster ramulosus : *Symphyotrichum falcatum* var. *commutatum*
Aster salicifolius : *Symphyotrichum praealtum* var. *praealtum*
Aster saxatilis : *Symphyotrichum lateriflorum*
Aster scabricaulis : *Symphyotrichum puniceum*
Aster simplex : *Symphyotrichum lanceolatum*
Aster simplex var. *estuarinus* : *Symphyotrichum lanceolatum*
Aster simplex var. *interior* : *Symphyotrichum lanceolatum*
Aster simplex var. *ramosissimus* : *Symphyotrichum lanceolatum*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Aster spatelliformis : *Symphyotrichum lateriflorum*
Aster stricticaulis : *Symphyotrichum ericooides*
Aster tenuifolius var. *ramosissimus* : *Symphyotrichum lanceolatum*
Aster tradescantii : *Symphyotrichum lateriflorum*
Aster tradescantii var. *saxatilis* : *Symphyotrichum lateriflorum*
Aster tradescantii var. *thrysoides* : *Symphyotrichum ontariense*
Aster umbellatus : *Doellingeria umbellata*
Aster umbellatus var. *pubens* : *Doellingeria umbellata*
Aster umbellatus var. *umbellatus* : *Doellingeria umbellata*
Aster unalaschkensis var. *major* : *Canadanthus modestus*
Aster villosus : *Symphyotrichum pilosum* var. *pilosum*
Aster vimineus : *Symphyotrichum lateriflorum*
Aster vimineus var. *saxatilis* : *Symphyotrichum lateriflorum*
Aster wootonii : *Symphyotrichum lanceolatum*
Astragalus alpinus : *Astragalus alpinus* var. *alpinus*
Astragalus alpinus ssp. *alaskanus* : *Astragalus alpinus* var. *alpinus*
Astragalus alpinus ssp. *arcticus* : *Astragalus alpinus* var. *alpinus*
Astragalus astragalinus : *Astragalus alpinus* var. *alpinus*
Astragalus canadensis : *Astragalus canadensis* var. *canadensis*
Astragalus canadensis var. *carolinianus* : *Astragalus canadensis* var. *canadensis*
Astragalus canadensis var. *longilobus* : *Astragalus canadensis* var. *canadensis*
Astragalus carolinianus : *Astragalus canadensis* var. *canadensis*
Astragalus cooperi : *Astragalus neglectus*
Astragalus danicus var. *dasyglossa* : *Astragalus agrestis*
Astragalus dasyglossa : *Astragalus agrestis*
Astragalus goniatus : *Astragalus agrestis*
Astragalus halei : *Astragalus canadensis* var. *canadensis*
Astragalus hypoglossa : *Astragalus agrestis*
Atelophragma alpinum : *Astragalus alpinus* var. *alpinus*
Athyrium alpestre var. *cyclosum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum angustum : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum borealis : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum var. *boreale* : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum var. *elatius* : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum var. *rubellum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium angustum var. *subtripinnatum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina ssp. *cyclosum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina var. *angustum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina var. *californicum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina var. *cyclosum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina var. *michaui* : *Athyrium filix-femina* ssp. *angustum*

Athyrium filix-femina var. *rubellum* : *Athyrium filix-femina* ssp. *angustum*
Athyrium filix-femina var. *sitchensis* : *Athyrium filix-femina* ssp. *angustum*
Athyrium pycnocarpon : *Diplazium pycnocarpon*
Athyrium thelypteroides : *Deparia acrostichoides*
Atriplex hortensis var. *atrosanguinea* : *Atriplex hortensis*
Atriplex patula var. *bracteata* : *Atriplex patula*
Atriplex patula var. *japonica* : *Atriplex patula*
Avena elatior : *Arrhenatherum elatius* var. *elatius*
Avena torreyi : *Schizachne purpurascens*
Bacopa nobisiana : *Bacopa rotundifolia*
Bacopa simulans : *Bacopa rotundifolia*
Baeothryon alpinum : *Trichophorum alpinum*
Baeothryon caespitosum : *Trichophorum caespitosum*
Baeothryon cespitosum : *Trichophorum caespitosum*
Baeothryon clintonii : *Trichophorum clintonii*
Baptisia alba : *Baptisia alba* var. *macrophylla*
Baptisia lactea : *Baptisia alba* var. *macrophylla*
Baptisia leucantha : *Baptisia alba* var. *macrophylla*
Baptisia leucantha var. *divaricata* : *Baptisia alba* var. *macrophylla*
Baptisia leucantha var. *pauciflora* : *Baptisia alba* var. *macrophylla*
Baptisia pedula : *Baptisia alba* var. *macrophylla*
Baptisia pendula var. *macrophylla* : *Baptisia alba* var. *macrophylla*
Barbarea americana : *Barbarea orthoceras*
Barbarea arcuata : *Barbarea vulgaris*
Barbarea orthoceras var. *dolichocarpa* : *Barbarea orthoceras*
Barbarea stricta : *Barbarea vulgaris*
Barbarea vulgaris var. *arcuata* : *Barbarea vulgaris*
Barbarea vulgaris var. *brachycarpa* : *Barbarea vulgaris*
Barbarea vulgaris var. *longisiliquosa* : *Barbarea vulgaris*
Barbarea vulgaris var. *sylvestris* : *Barbarea vulgaris*
Barbarea vulgaris arcuata : *Barbarea vulgaris*
Barbarea vulgaris brachycarpa : *Barbarea vulgaris*
Barbarea vulgaris longisiliquosa : *Barbarea vulgaris*
Barbarea vulgaris sylvestris : *Barbarea vulgaris*
Bassia scoparia : *Kochia scoparia*
Bassia sieversiana : *Kochia scoparia*
Batrachium circinatum : *Ranunculus longirostris*
Batrachium circinatum ssp. *subrigidum* : *Ranunculus longirostris*
Batrachium flaccidum : *Ranunculus trichophyllum* var. *trichophyllum*
Batrachium longirostre : *Ranunculus longirostris*
Batrachium porteri : *Ranunculus trichophyllum* var. *trichophyllum*
Batrachium trichophyllum : *Ranunculus trichophyllum* var. *trichophyllum*
Beckmannia eruciformis : *Beckmannia syzigachne*
Beckmannia eruciformis : *Beckmannia syzigachne*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Beckmannia eruciformis ssp. baicalensis : Beckmannia syzigachne
Beckmannia eruciformis var. uniflora : Beckmannia syzigachne
Beckmannia syzigachne ssp. baicalensis : Beckmannia syzigachne
Beckmannia syzigachne var. baicalensis : Beckmannia syzigachne
Beckmannia syzigachne var. uniflora : Beckmannia syzigachne
Berberis thunbergii var. atropurpurea : Berberis thunbergii
Berula erecta var. incisa : Berula erecta
Berula incisa : Berula erecta
Berula pusilla : Berula erecta
Betula alba var. cordifolia : Betula papyrifera var. cordifolia
Betula alleghaniensis : Betula alleghaniensis var. alleghaniensis
Betula alleghaniensis var. fallax : Betula alleghaniensis var. alleghaniensis
Betula cordifolia : Betula papyrifera var. cordifolia
Betula glandulifera : Betula pumila var. glandulifera
Betula glandulosa var. glandulifera : Betula pumila var. glandulifera
Betula lutea : Betula alleghaniensis var. alleghaniensis
Betula lutea var. fallax : Betula alleghaniensis var. alleghaniensis
Betula nana var. glandulifera : Betula pumila var. glandulifera
Betula papyrifera : Betula papyrifera var. cordifolia
Betula papyrifera : Betula papyrifera var. papyrifera
Betula papyrifera var. elobata : Betula papyrifera var. papyrifera
Betula papyrifera var. macrostachya : Betula papyrifera var. papyrifera
Betula papyrifera var. pensilis : Betula papyrifera var. papyrifera
Betula pumila : Betula pumila var. glandulifera
Betula purpusii : Betula X purpusii
Betula sandbergii : Betula X sandbergii
Bidens acuta : Bidens tripartita
Bidens beckii : Megalodonta beckii var. beckii
Bidens cernua var. cernua : Bidens cernua
Bidens cernua var. dentata : Bidens cernua
Bidens cernua var. elliptica : Bidens cernua
Bidens cernua var. integra : Bidens cernua
Bidens cernua var. minima : Bidens cernua
Bidens cernua var. oligodonta : Bidens cernua
Bidens cernua var. radiata : Bidens cernua
Bidens comosa : Bidens tripartita
Bidens connata var. ambiversa : Bidens connata
Bidens connata var. anomala : Bidens connata
Bidens connata var. connata : Bidens connata
Bidens connata var. fallax : Bidens connata
Bidens connata var. gracilipes : Bidens connata
Bidens connata var. inundata : Bidens connata
Bidens connata var. petiolata : Bidens connata
Bidens connata var. pinnata : Bidens connata

Bidens connata var. submutica : Bidens connata
Bidens coronata var. brachyodonta : Bidens coronata
Bidens coronata var. coronata : Bidens coronata
Bidens coronata var. tenuiloba : Bidens coronata
Bidens coronata var. trichosperma : Bidens coronata
Bidens frondosa var. anomala : Bidens frondosa
Bidens frondosa var. caudata : Bidens frondosa
Bidens frondosa var. pallida : Bidens frondosa
Bidens frondosa var. stenodonta : Bidens frondosa
Bidens glaucescens : Bidens cernua
Bidens trichosperma : Bidens coronata
Bilderdykia convolvulus : Polygonum convolvulus var. convolvulus
Bilderdykia cristata : Polygonum scandens
Bilderdykia dumetorum : Polygonum scandens
Bilderdykia scandens : Polygonum scandens
Bilderdykia scandens var. cristata : Polygonum scandens
Bistorta vivipara : Polygonum viviparum
Blephariglotis lacera : Platanthera lacera
Blephariglotis psycodes : Platanthera psycodes
Blephilia hirsuta : Blephilia hirsuta var. hirsuta
Boechera divaricarpa : Arabis X divaricarpa
Boechera drummondii : Arabis drummondii
Boehmeria austrina : Boehmeria cylindrica
Boehmeria cylindrica var. drummondiana : Boehmeria cylindrica
Boehmeria cylindrica var. scabra : Boehmeria cylindrica
Boehmeria decurrens : Boehmeria cylindrica
Boehmeria drummondiana : Boehmeria cylindrica
Boehmeria scabra : Boehmeria cylindrica
Bolboschoenus fluviatilis : Schoenoplectus fluviatilis
Bolboschoenus maritimus : Schoenoplectus maritimus
Bolboschoenus maritimus ssp. fluviatilis : Schoenoplectus fluviatilis
Bolboschoenus maritimus ssp. paludosus : Schoenoplectus maritimus
Bolboschoenus paludosus : Schoenoplectus maritimus
Boltonia asteroides : Boltonia asteroides var. recognita
Boltonia asteroides var. latisquama : Boltonia asteroides var. recognita
Boltonia latisquama : Boltonia asteroides var. recognita
Boltonia latisquama var. microcephala : Boltonia asteroides var. recognita
Boltonia latisquama var. occidentalis : Boltonia asteroides var. recognita
Boltonia latisquama var. recognita : Boltonia asteroides var. recognita
Boltonia recognita : Boltonia asteroides var. recognita
Botrychium angustisegmentum : Botrychium lanceolatum var. angustisegmentum
Botrychium californicum : Botrychium multifidum
Botrychium coulteri : Botrychium multifidum
Botrychium dissectum var. obliquum : Botrychium dissectum



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Botrychium dissectum var. *oblongifolium* : *Botrychium dissectum*
Botrychium dissectum var. *oneidense* : *Botrychium oneidense*
Botrychium lanceolatum : *Botrychium lanceolatum* var. *angustisegmentum*
Botrychium lanceolatum *angustisegmentum* : *Botrychium lanceolatum* var.
angustisegmentum
Botrychium lanceolatum ssp. *angustisegmentum* : *Botrychium lanceolatum* var.
angustisegmentum
Botrychium lunaria var. *onondagense* : *Botrychium lunaria*
Botrychium matricariae : *Botrychium multifidum*
Botrychium matricariifolium : *Botrychium matricariifolium*
Botrychium multifidum ssp. *californicum* : *Botrychium multifidum*
Botrychium multifidum ssp. *coulteri* : *Botrychium multifidum*
Botrychium multifidum ssp. *silaifolium* : *Botrychium multifidum*
Botrychium multifidum var. *californicum* : *Botrychium multifidum*
Botrychium multifidum var. *coulteri* : *Botrychium multifidum*
Botrychium multifidum var. *intermedium* : *Botrychium multifidum*
Botrychium multifidum var. *oneidense* : *Botrychium oneidense*
Botrychium multifidum var. *silaifolium* : *Botrychium multifidum*
Botrychium obliquum : *Botrychium dissectum*
Botrychium obliquum var. *elongatum* : *Botrychium dissectum*
Botrychium onondagense : *Botrychium lunaria*
Botrychium silaifolium : *Botrychium multifidum*
Botrychium silaifolium var. *coulteri* : *Botrychium multifidum*
Botrychium simplex ssp. *typicum* : *Botrychium simplex*
Botrychium simplex var. *compositum* : *Botrychium simplex*
Botrychium simplex var. *laxifolium* : *Botrychium simplex*
Botrychium simplex var. *tenebrosum* : *Botrychium simplex*
Botrychium tenebrosum : *Botrychium simplex*
Botrychium ternatum : *Botrychium rugulosum*
Botrychium virginianum ssp. *europaeum* : *Botrychium virginianum*
Botrychium virginianum var. *europaeum* : *Botrychium virginianum*
Botrydium botrys : *Chenopodium botrys*
Brachyactis angusta : *Sympyotrichum ciliatum*
Brachyactis ciliata : *Sympyotrichum ciliatum*
Brachyactis ciliata ssp. *angusta* : *Sympyotrichum ciliatum*
Bramia rotundifolia : *Bacopa rotundifolia*
Brasenia peltata : *Brasenia schreberi*
Braxilia minor : *Pyrola minor*
Bromopsis canadensis : *Bromus ciliatus* var. *ciliatus*
Bromopsis ciliata : *Bromus ciliatus* var. *ciliatus*
Bromopsis kalmii : *Bromus kalmii*
Bromopsis richardsonii : *Bromus ciliatus* var. *ciliatus*
Bromus altissimus : *Bromus latiglumis*
Bromus canadensis : *Bromus ciliatus* var. *ciliatus*
Bromus ciliatus : *Bromus ciliatus* var. *ciliatus*

Bromus ciliatus var. *genuinus* : *Bromus ciliatus* var. *ciliatus*
Bromus ciliatus var. *intonsus* : *Bromus ciliatus* var. *ciliatus*
Bromus dudleyi : *Bromus ciliatus* var. *ciliatus*
Bromus japonicus var. *orrectus* : *Bromus japonicus*
Bromus patulus : *Bromus japonicus*
Bromus purgans : *Bromus kalmii*
Bromus purgans : *Bromus latiglumis*
Bromus purgans : *Bromus latiglumis*
Bromus richardsonii : *Bromus ciliatus* var. *ciliatus*
Bromus richardsonii var. *pallidus* : *Bromus ciliatus* var. *ciliatus*
Bruniera columbiana : *Wolffia columbiana*
Bulbilis dactyloides : *Buchloe dactyloides*
Bulbostylis capillaris : *Bulbostylis capillaris* ssp. *capillaris*
Bulbostylis capillaris var. *crebra* : *Bulbostylis capillaris* ssp. *capillaris*
Bulbostylis capillaris var. *isopoda* : *Bulbostylis capillaris* ssp. *capillaris*
Bulliarda aquatica : *Crassula aquatica*
Bursa bursa-pastoris : *Capsella bursa-pastoris*
Bursa bursa-pastoris var. *bifida* : *Capsella bursa-pastoris*
Bursa gracilis : *Capsella bursa-pastoris*
Cacalia paniculata : *Arnoglossum plantagineum*
Cacalia plantaginea : *Arnoglossum plantagineum*
Cacalia pteranthes : *Arnoglossum plantagineum*
Cacalia suaveolens : *Hasteola suaveolens*
Cacalia tuberosa : *Arnoglossum plantagineum*
Calamagrostis anomala : *Calamagrostis canadensis*
Calamagrostis atropurpurea : *Calamagrostis canadensis*
Calamagrostis californica : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis canadensis ssp. *langsдорфii* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *acuminata* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis canadensis var. *arcta* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis canadensis var. *canadensis* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *imberbis* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *lactea* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *langsдорфii* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *macouniana* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *pallida* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *robusta* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *scabra* : *Calamagrostis canadensis*
Calamagrostis canadensis var. *typica* : *Calamagrostis canadensis*
Calamagrostis chordorrhiza : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis crassiglumis : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis expansa : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis expansa var. *robusta* : *Calamagrostis canadensis*
Calamagrostis fernaldii : *Calamagrostis stricta* ssp. *inexpansa*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Calamagrostis hyperborea var. *americana* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis hyperborea var. *elongata* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis hyperborea var. *stenodes* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis inexpansa : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis inexpansa var. *barbulata* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis inexpansa var. *brevior* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis inexpansa var. *cuprea* : *Calamagrostis canadensis*
Calamagrostis inexpansa var. *novae-angliae* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis inexpansa var. *robusta* : *Calamagrostis canadensis*
Calamagrostis labradorica : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis lacustris : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis langsdorffii : *Calamagrostis canadensis*
Calamagrostis lapponica var. *brevipilis* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis macouniana : *Calamagrostis canadensis*
Calamagrostis neglecta : *Calamagrostis stricta* ssp. *stricta*
Calamagrostis neglecta ssp. *stricta* : *Calamagrostis stricta* ssp. *stricta*
Calamagrostis neglecta var. *gracilis* : *Calamagrostis stricta* ssp. *stricta*
Calamagrostis neglecta var. *micrantha* : *Calamagrostis stricta* ssp. *stricta*
Calamagrostis nubila : *Calamagrostis canadensis*
Calamagrostis pickeringii var. *lacustris* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis robertii : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis scribneri : *Calamagrostis canadensis*
Calamagrostis stricta : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis stricta : *Calamagrostis stricta* ssp. *stricta*
Calamagrostis stricta var. *brevior* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis stricta var. *lacustris* : *Calamagrostis stricta* ssp. *inexpansa*
Calamagrostis X lactea : *Calamagrostis canadensis*
Callitricha anceps : *Callitricha heterophylla* ssp. *heterophylla*
Callitricha autumnalis : *Callitricha hermaphroditica*
Callitricha heterophylla : *Callitricha heterophylla* ssp. *heterophylla*
Callitricha palustris var. *verna* : *Callitricha palustris*
Callitricha verna : *Callitricha palustris*
Calopogon pulchellus : *Calopogon tuberosus* var. *tuberous*
Calopogon pulchellus var. *latifolius* : *Calopogon tuberosus* var. *tuberous*
Calopogon tuberosus : *Calopogon tuberosus* var. *tuberous*
Calopogon tuberosus var. *latifolius* : *Calopogon tuberosus* var. *tuberous*
Caltha asarifolia : *Caltha palustris* var. *palustris*
Caltha natans var. *asarifolia* : *Caltha palustris* var. *palustris*
Caltha palustris : *Caltha palustris* var. *palustris*
Caltha palustris ssp. *asarifolia* : *Caltha palustris* var. *palustris*
Caltha palustris var. *asarifolia* : *Caltha palustris* var. *palustris*
Caltha palustris var. *flabellifolia* : *Caltha palustris* var. *palustris*
Calypso bulbosa : *Calypso bulbosa* var. *americana*
Calystegia inflata : *Calystegia sepium*

Calystegia sepium ssp. *americana* : *Calystegia sepium*
Calystegia sepium ssp. *angulata* : *Calystegia sepium*
Calystegia sepium ssp. *appalachiana* : *Calystegia sepium*
Calystegia sepium ssp. *binghamiae* : *Calystegia sepium*
Calystegia sepium ssp. *erratica* : *Calystegia sepium*
Calystegia sepium ssp. *limnophila* : *Calystegia sepium*
Calystegia sepium ssp. *sepium* : *Calystegia sepium*
Calystegia sepium var. *americana* : *Calystegia sepium*
Calystegia sepium var. *angulata* : *Calystegia sepium*
Calystegia sepium var. *repens* : *Calystegia sepium*
Camelina alyssum : *Camelina sativa*
Camelina dentata : *Camelina sativa*
Camelina parodii : *Camelina sativa*
Camelina sativa ssp. *alyssum* : *Camelina sativa*
Camelina sativa ssp. *sativa* : *Camelina sativa*
Campanula alaskana : *Campanula rotundifolia*
Campanula americana : *Campanulastrum americanum*
Campanula americana var. *illinoensis* : *Campanulastrum americanum*
Campanula aparinoides var. *aparinoides* : *Campanula aparinoides*
Campanula aparinoides var. *grandiflora* : *Campanula aparinoides*
Campanula aparinoides var. *uliginosa* : *Campanula aparinoides*
Campanula dubia : *Campanula rotundifolia*
Campanula heterodoxa : *Campanula rotundifolia*
Campanula intercedens : *Campanula rotundifolia*
Campanula petiolata : *Campanula rotundifolia*
Campanula rotundifolia ssp. *intercedens* : *Campanula rotundifolia*
Campanula rotundifolia var. *alaskana* : *Campanula rotundifolia*
Campanula rotundifolia var. *intercedens* : *Campanula rotundifolia*
Campanula rotundifolia var. *lancifolia* : *Campanula rotundifolia*
Campanula rotundifolia var. *petiolata* : *Campanula rotundifolia*
Campanula rotundifolia var. *velutina* : *Campanula rotundifolia*
Campanula sacajaweaana : *Campanula rotundifolia*
Campanula uliginosa : *Campanula aparinoides*
Campe barbarea : *Barbarea vulgaris*
Campe stricta : *Barbarea vulgaris*
Cannabis sativa : *Cannabis sativa* ssp. *sativa*
Capsella rubella : *Capsella bursa-pastoris*
Cardamine arenicola : *Cardamine parviflora* var. *arenicola*
Cardamine laciniata : *Cardamine concatenata*
Cardamine palustris : *Cardamine pratensis* var. *pratensis*
Cardamine parviflora : *Cardamine parviflora* var. *arenicola*
Cardamine pensylvanica var. *brittoniana* : *Cardamine pensylvanica*
Cardamine pratensis : *Cardamine pratensis* var. *pratensis*
Cardamine pratensis var. *palustris* : *Cardamine pratensis* var. *pratensis*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Cardamine rhomboidea : Cardamine bulbosa	Carex colorata : Carex woodii
Carduus arvensis : Cirsium arvense	Carex corrugata : Carex amphibola
Carduus lanceolatus : Cirsium vulgare	Carex crawfordii var. vigens : Carex crawfordii
Carduus muticus : Cirsium muticum	Carex crinita : Carex crinita var. crinita
Carduus vulgaris : Cirsium vulgare	Carex crinita var. minor : Carex crinita var. crinita
Carex abacta : Carex michauxiana	Carex crinita var. simulans : Carex crinita var. crinita
Carex acutinella : Carex aquatilis var. aquatilis	Carex curta : Carex canescens
Carex amphibola var. globosa : Carex amphibola	Carex debilis : Carex debilis var. rudgei
Carex amphibola var. rigida : Carex amphibola	Carex debilis ssp. rudgei : Carex debilis var. rudgei
Carex amphibola var. turgida : Carex amphibola	Carex deweyana var. deweyana : Carex deweyana
Carex angarae : Carex norvegica	Carex dioica ssp. gynocrates : Carex gynocrates
Carex angustior : Carex echinata ssp. echinata	Carex dioica var. gynocrates : Carex gynocrates
Carex angustior var. gracilenta : Carex echinata ssp. echinata	Carex echinata : Carex echinata ssp. echinata
Carex annexans : Carex annexans	Carex echinata var. angustata : Carex echinata ssp. echinata
Carex annexans var. xanthocarpa : Carex annexans	Carex elachycarpa : Carex sterilis
Carex aquatilis : Carex aquatilis var. aquatilis	Carex festucacea var. brevior : Carex brevior
Carex aquatilis ssp. altior : Carex aquatilis var. aquatilis	Carex flava var. fertilis : Carex cryptolepis
Carex aquatilis var. altior : Carex aquatilis var. aquatilis	Carex flava var. fertilis : Carex flava
Carex aquatilis var. substricta : Carex aquatilis var. aquatilis	Carex flava var. gaspensis : Carex flava
Carex asa-grayi : Carex grayi	Carex flava var. graminis : Carex flava
Carex athabascensis : Carex scirpoidea	Carex flava var. laxior : Carex flava
Carex bayardii : Carex crus-corvi	Carex flava var. rectirostra : Carex flava
Carex bicknellii : Carex bicknellii var. bicknellii	Carex flexuosa : Carex debilis var. rudgei
Carex brachyglossa : Carex annexans	Carex garberi ssp. bifaria : Carex garberi
Carex brevior var. crawei : Carex bicknellii var. bicknellii	Carex garberi var. bifaria : Carex garberi
Carex bromoides : Carex bromoides var. bromoides	Carex gracillima var. macerrima : Carex gracillima
Carex bromoides ssp. bromoides : Carex bromoides var. bromoides	Carex granularis var. granularis : Carex granularis
Carex brunnescens ssp. alaskana : Carex brunnescens	Carex granularis var. haleana : Carex granularis
Carex brunnescens ssp. brunnescens : Carex brunnescens	Carex granularis var. recta : Carex granularis
Carex brunnescens ssp. pacifica : Carex brunnescens	Carex grayi var. hispidula : Carex grayi
Carex brunnescens ssp. sphaerostachya : Carex brunnescens	Carex grisea : Carex amphibola
Carex brunnescens var. sphaerostachya : Carex brunnescens	Carex haleana : Carex granularis
Carex bulbostylis : Carex amphibola	Carex hawaiiensis : Carex echinata ssp. echinata
Carex camporum : Carex praegracilis	Carex inflata : Carex vesicaria
Carex canescens ssp. canescens : Carex canescens	Carex inflata var. utriculata : Carex utriculata
Carex canescens ssp. disjuncta : Carex canescens	Carex interior ssp. charlestonensis : Carex interior
Carex canescens var. disjuncta : Carex canescens	Carex interior var. keweenawensis : Carex interior
Carex capillaris ssp. chlorostachys : Carex capillaris	Carex intumescens var. fernaldii : Carex intumescens
Carex capillaris ssp. robustior : Carex capillaris	Carex josselynii : Carex echinata ssp. echinata
Carex capillaris var. elongata : Carex capillaris	Carex katahdinensis : Carex conoidea
Carex capillaris var. fuscidula : Carex capillaris	Carex lanuginosa : Carex pellita
Carex capillaris var. major : Carex capillaris	Carex lanuginosa var. americana : Carex lasiocarpa var. americana
Carex caroliniana var. cuspidata : Carex bushii	Carex laricina : Carex echinata ssp. echinata
Carex cephalantha : Carex echinata ssp. echinata	Carex lasiocarpa : Carex lasiocarpa var. americana



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Carex lasiocarpa ssp. americana : Carex lasiocarpa var. americana
Carex lasiocarpa var. latifolia : Carex pellita
Carex laxiflora var. blanda : Carex blanda
Carex laxiflora var. varians : Carex leptonervia
Carex leersii : Carex echinata ssp. echinata
Carex lenticularis : Carex lenticularis var. lenticularis
Carex lenticularis var. albimontana : Carex lenticularis var. lenticularis
Carex lenticularis var. blakei : Carex lenticularis var. lenticularis
Carex lenticularis var. eucycla : Carex lenticularis var. lenticularis
Carex lenticularis var. merens : Carex lenticularis var. lenticularis
Carex leptalea : Carex leptalea ssp. leptalea
Carex leptonervia : Carex leptonervia
Carex livida : Carex livida var. radicaulis
Carex livida var. grayana : Carex livida var. radicaulis
Carex lupulina var. pedunculata : Carex lupulina
Carex magellanica : Carex magellanica ssp. irrigua
Carex magellanica var. irrigua : Carex magellanica ssp. irrigua
Carex media : Carex norvegica
Carex media var. stevenii : Carex norvegica
Carex monile : Carex vesicaria
Carex muricata var. angustata : Carex echinata ssp. echinata
Carex muricata var. cephalantha : Carex echinata ssp. echinata
Carex muricata var. laricina : Carex echinata ssp. echinata
Carex muricata var. sterilis : Carex sterilis
Carex nevadensis ssp. flavella : Carex flava
Carex norvegica ssp. inferalpina : Carex norvegica
Carex norvegica ssp. stevenii : Carex norvegica
Carex norvegica var. inferalpina : Carex norvegica
Carex norvegica var. stevenii : Carex norvegica
Carex oederi : Carex viridula ssp. viridula
Carex oederi ssp. viridula : Carex viridula ssp. viridula
Carex oederi var. recterostrata : Carex viridula ssp. viridula
Carex ormantha : Carex echinata ssp. echinata
Carex parallela : Carex gynocrates
Carex pauciflora : Carex pauciflora
Carex paupercula : Carex magellanica ssp. irrigua
Carex paupercula var. brevisquama : Carex magellanica ssp. irrigua
Carex paupercula var. irrigua : Carex magellanica ssp. irrigua
Carex paupercula var. pallens : Carex magellanica ssp. irrigua
Carex phyllomanica var. angustata : Carex echinata ssp. echinata
Carex phyllomanica var. ormantha : Carex echinata ssp. echinata
Carex praticola : Carex praticola
Carex praticola var. subcoriacea : Carex praticola
Carex radiata var. staminata : Carex radiata

Carex raeana : Carex vesicaria
Carex rector : Carex granularis
Carex rhynchophysa : Carex utriculata
Carex riparia var. lacustris : Carex lacustris
Carex rosea var. minor : Carex radiata
Carex rosea var. radiata : Carex radiata
Carex rostrata var. ambigens : Carex rostrata
Carex rostrata var. utriculata : Carex utriculata
Carex rousseau : Carex haydenii
Carex saltuensis : Carex vaginata
Carex sartwellii : Carex sartwellii var. sartwellii
Carex scirpiformis : Carex scirpoidea
Carex scirpoidea ssp. scirpoidea : Carex scirpoidea
Carex scirpoidea var. convoluta : Carex scirpoidea
Carex scirpoidea var. scirpiformis : Carex scirpoidea
Carex scirpoidea var. stenochlaena : Carex scirpoidea
Carex scoparia : Carex scoparia var. scoparia
Carex scoparia var. condensa : Carex scoparia var. scoparia
Carex scoparia var. moniliformis : Carex scoparia var. scoparia
Carex serotina : Carex viridula ssp. viridula
Carex setacea : Carex vulpinoidea
Carex setacea var. ambigua : Carex annectens
Carex shriveri : Carex granularis
Carex sparganioides var. cephaloidea : Carex cephaloidea
Carex squarrosa var. typhina : Carex typhina
Carex stenochoena : Carex scirpoidea
Carex stevenii : Carex norvegica
Carex stipata : Carex stipata var. stipata
Carex stipata var. laevivaginata : Carex laevivaginata
Carex stricta var. decora : Carex haydenii
Carex stricta var. elongata : Carex emoryi
Carex stricta var. strictior : Carex stricta
Carex strictior : Carex stricta
Carex substricta : Carex aquatilis var. aquatilis
Carex suksdorfii : Carex aquatilis var. aquatilis
Carex svensonis : Carex echinata ssp. echinata
Carex sylvicola : Carex radiata
Carex tenera var. echinodes : Carex tenera
Carex tetanica var. meadii : Carex meadii
Carex tetanica var. woodii : Carex woodii
Carex tribuloides : Carex tribuloides var. tribuloides
Carex tribuloides var. moniliformis : Carex scoparia var. scoparia
Carex trisperma : Carex trisperma var. trisperma
Carex vahlii var. inferalpina : Carex norvegica



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Carex vesicaria var. distenta : Carex vesicaria
Carex vesicaria var. jejuna : Carex vesicaria
Carex vesicaria var. laurentiana : Carex vesicaria
Carex vesicaria var. monile : Carex vesicaria
Carex vesicaria var. raeana : Carex vesicaria
Carex vesicaria var. vesicaria : Carex vesicaria
Carex viridula : Carex viridula ssp. viridula
Carex viridula var. viridula : Carex viridula ssp. viridula
Carex vulpinoidea var. pycnocephala : Carex vulpinoidea
Carex vulpinoidea var. vulpinoidea : Carex vulpinoidea
Carex X macounii : Carex lupulina
Carex X minganisularum : Carex sterilis
Carpinus betulus caroliniana : Carpinus caroliniana ssp. virginiana
Carpinus betulus var. virginiana : Carpinus caroliniana ssp. virginiana
Carpinus caroliniana : Carpinus caroliniana ssp. virginiana
Carpinus caroliniana var. virginiana : Carpinus caroliniana ssp. virginiana
Carya cordiformis var. latifolia : Carya cordiformis
Carya ovata var. fraxinifolia : Carya ovata
Carya ovata var. nuttallii : Carya ovata
Carya ovata var. pubescens : Carya ovata
Cassandra calyculata var. angustifolia : Chamaedaphne calyculata var. angustifolia
Cassia brachiata : Chamaecrista fasciculata var. fasciculata
Cassia chamaecrista : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. brachiata : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. depressa : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. ferrisiae : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. puberula : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. robusta : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. rostrata : Chamaecrista fasciculata var. fasciculata
Cassia fasciculata var. tracyi : Chamaecrista fasciculata var. fasciculata
Cassia mississipiensis : Chamaecrista fasciculata var. fasciculata
Cassia robusta : Chamaecrista fasciculata var. fasciculata
Cassia rostrata : Chamaecrista fasciculata var. fasciculata
Castalia lekophylla : Nymphaea odorata
Castalia minor : Nymphaea odorata
Castalia odorata : Nymphaea odorata
Castalia reniformis : Nymphaea odorata
Castalia tuberosa : Nymphaea odorata
Castilleja ludoviciana : Castilleja coccinea
Caulinia flexilis : Najas flexilis
Caulinia guadalupensis : Najas guadalupensis
Celtis occidentalis : Celtis occidentalis var. occidentalis
Celtis occidentalis var. crassifolia : Celtis occidentalis var. occidentalis

Ceologglossum viride : Coeloglossum viride var. virescens
Cephalanthus occidentalis var. californicus : Cephalanthus occidentalis
Cephalanthus occidentalis var. pubescens : Cephalanthus occidentalis
Cerastium adsurgens : Cerastium fontanum ssp. vulgare
Cerastium alsophilum : Cerastium arvense
Cerastium angustatum : Cerastium arvense
Cerastium aquaticum : Myosoton aquaticum
Cerastium arvense ssp. arvense : Cerastium arvense
Cerastium arvense ssp. fuegianum : Cerastium arvense
Cerastium arvense ssp. maximum : Cerastium arvense
Cerastium arvense ssp. strictum : Cerastium arvense
Cerastium arvense ssp. velutinum : Cerastium arvense
Cerastium arvense ssp. velutinum var. velutinum : Cerastium arvense
Cerastium arvense ssp. velutinum var. villosum : Cerastium arvense
Cerastium arvense var. angustifolium : Cerastium arvense
Cerastium arvense var. bracteatum : Cerastium arvense
Cerastium arvense var. fuegianum : Cerastium arvense
Cerastium arvense var. latifolium : Cerastium arvense
Cerastium arvense var. maximum : Cerastium arvense
Cerastium arvense var. oblongifolium : Cerastium arvense
Cerastium arvense var. purpurascens : Cerastium arvense
Cerastium arvense var. velutinum : Cerastium arvense
Cerastium arvense var. villosissimum : Cerastium arvense
Cerastium arvense var. villosum : Cerastium arvense
Cerastium arvense var. viscidulum : Cerastium arvense
Cerastium arvense var. webbii : Cerastium arvense
Cerastium brachypodium var. compactum : Cerastium brachypodium
Cerastium bracteatum : Cerastium arvense
Cerastium campestre : Cerastium arvense
Cerastium confertum : Cerastium arvense
Cerastium effusum : Cerastium arvense
Cerastium elongatum : Cerastium arvense
Cerastium fontanum : Cerastium fontanum ssp. vulgare
Cerastium fontanum ssp. holosteoides : Cerastium fontanum ssp. vulgare
Cerastium fontanum ssp. triviale : Cerastium fontanum ssp. vulgare
Cerastium fuegianum : Cerastium arvense
Cerastium graminifolium : Cerastium arvense
Cerastium holosteoides : Cerastium fontanum ssp. vulgare
Cerastium holosteoides var. vulgare : Cerastium fontanum ssp. vulgare
Cerastium latifolium : Cerastium arvense
Cerastium longepedunculatum : Cerastium nutans var. nutans
Cerastium nitidum : Cerastium arvense
Cerastium nutans : Cerastium nutans var. nutans
Cerastium nutans var. brachypodium : Cerastium brachypodium



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Cerastium nutans var. occidentale : Cerastium nutans var. nutans
Cerastium oblongifolium : Cerastium arvense
Cerastium occidentale : Cerastium arvense
Cerastium oreophilum : Cerastium arvense
Cerastium patulum : Cerastium arvense
Cerastium scopulorum : Cerastium arvense
Cerastium sonnei : Cerastium arvense
Cerastium strictum : Cerastium arvense
Cerastium subulatum : Cerastium arvense
Cerastium tenuifolium : Cerastium arvense
Cerastium thermale : Cerastium arvense
Cerastium triviale : Cerastium fontanum ssp. vulgare
Cerastium velutinum : Cerastium arvense
Cerastium vestitum : Cerastium arvense
Cerastium villosum : Cerastium arvense
Cerastium viride : Cerastium arvense
Cerastium vulgatum : Cerastium fontanum ssp. vulgare
Cerastium vulgatum var. hirsutum : Cerastium fontanum ssp. vulgare
Cerastium vulgatum var. holosteoides : Cerastium fontanum ssp. vulgare
Cerasus pensylvanica : Prunus pensylvanica var. pensylvanica
Ceratophyllum apiculatum : Ceratophyllum demersum
Ceratophyllum demersum var. apiculatum : Ceratophyllum demersum
Ceratophyllum demersum var. apiculatum : Ceratophyllum demersum
Ceratophyllum demersum var. echinatum : Ceratophyllum echinatum
Ceratophyllum submersum var. echinatum : Ceratophyllum echinatum
Ceratoxalis coloradensis : Oxalis stricta
Ceratoxalis cymosa : Oxalis stricta
Chaetochloa glauca : Pennisetum glaucum
Chaetochloa italicica : Setaria italica
Chaetochloa lutescens : Pennisetum glaucum
Chaetochloa verticillata : Setaria verticillata
Chamaecrista brachiata : Chamaecrista fasciculata var. fasciculata
Chamaecrista depressa : Chamaecrista fasciculata var. fasciculata
Chamaecrista fasciculata : Chamaecrista fasciculata var. fasciculata
Chamaecrista littoralis : Chamaecrista fasciculata var. fasciculata
Chamaecrista mississippiensis : Chamaecrista fasciculata var. fasciculata
Chamaecrista robusta : Chamaecrista fasciculata var. fasciculata
Chamaecrista rostrata : Chamaecrista fasciculata var. fasciculata
Chamaecrista tracyi : Chamaecrista fasciculata var. fasciculata
Chamaedaphne calyculata : Chamaedaphne calyculata var. angustifolia
Chamaedaphne glauca : Kalmia polifolia
Chamaenerion angustifolium ssp. circumvagum : Chamerion angustifolium ssp. circumvagum
Chamaepericlymenum canadense : Cornus canadensis

Chamaesyce maculata : Chamaesyce nutans
Chamaesyce mathewsi : Chamaesyce maculata
Chamaesyce preslii : Chamaesyce nutans
Chamaesyce supina : Chamaesyce maculata
Chamaesyce tracyi : Chamaesyce maculata
Chamerion angustifolium : Chamerion angustifolium ssp. circumvagum
Chamerion danielsii : Chamerion angustifolium ssp. circumvagum
Chamerion platyphyllum : Chamerion angustifolium ssp. circumvagum
Chamomilla maritima : Tripleurospermum maritima ssp. maritima
Chamomilla suaveolens : Matricaria discoidea
Cheirinia cheiranthoides : Erysimum cheiranthoides
Chelone chlorantha : Chelone glabra
Chelone glabra var. chlorantha : Chelone glabra
Chelone glabra var. dilatata : Chelone glabra
Chelone glabra var. elatior : Chelone glabra
Chelone glabra var. elongata : Chelone glabra
Chelone glabra var. linifolia : Chelone glabra
Chelone glabra var. ochroleuca : Chelone glabra
Chelone glabra var. typica : Chelone glabra
Chelone montana : Chelone glabra
Chenopodium album ssp. dacoticum : Chenopodium album
Chenopodium album ssp. fallax : Chenopodium album
Chenopodium album var. album : Chenopodium album
Chenopodium album var. lanceolatum : Chenopodium album
Chenopodium album var. microphyllum : Chenopodium album
Chenopodium album var. missouriense : Chenopodium album
Chenopodium album var. polymorphum : Chenopodium album
Chenopodium album var. stevensii : Chenopodium album
Chenopodium album var. striatum : Chenopodium album
Chenopodium amaranticolor : Chenopodium album
Chenopodium giganteum : Chenopodium album
Chenopodium glaucum ssp. euglaucum : Chenopodium glaucum
Chenopodium lanceolatum : Chenopodium album
Chenopodium missouriense : Chenopodium album
Chenopodium missouriense var. bushianum : Chenopodium album
Chenopodium paganum : Chenopodium album
Chenopodium strictum : Chenopodium album
Chenopodium strictum ssp. glaucophyllum : Chenopodium album
Chenopodium strictum var. glaucophyllum : Chenopodium album
Chenopodium suecicum : Chenopodium album
Chiogenes hispidula : Gaultheria hispidula
Chondrosea paniculata ssp. neogaea : Saxifraga paniculata ssp. neogaea
Chrysosplenium alternifolium ssp. iowense : Chrysosplenium iowense
Chrysosplenium alternifolium var. iowense : Chrysosplenium iowense



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Cicuta bolanderi : Cicuta maculata
Cicuta curtissii : Cicuta maculata
Cicuta maculata var. angustifolia : Cicuta maculata
Cicuta maculata var. bolanderi : Cicuta maculata
Cicuta maculata var. curtissii : Cicuta maculata
Cicuta maculata var. maculata : Cicuta maculata
Cicuta mexicana : Cicuta maculata
Cicuta occidentalis : Cicuta maculata
Cineraria congesta : Senecio congestus
Cinna arundinacea var. inexpansa : Cinna arundinacea
Circaeа alpina : Circaeа alpina ssp. alpina
Circaeа canadensis var. virginiana : Circaeа lutetiana ssp. canadensis
Circaeа latifolia : Circaeа lutetiana ssp. canadensis
Circaeа lutetiana : Circaeа lutetiana ssp. canadensis
Circaeа lutetiana var. canadensis : Circaeа lutetiana ssp. canadensis
Circaeа quadrifalcata ssp. canadensis : Circaeа lutetiana ssp. canadensis
Circaeа quadrifalcata var. canadensis : Circaeа lutetiana ssp. canadensis
Cirsium arvense var. argenteum : Cirsium arvense
Cirsium arvense var. arvense : Cirsium arvense
Cirsium arvense var. horridum : Cirsium arvense
Cirsium arvense var. integrifolium : Cirsium arvense
Cirsium arvense var. mite : Cirsium arvense
Cirsium arvense var. vestitum : Cirsium arvense
Cirsium bigelovii : Cirsium muticum
Cirsium incanum : Cirsium arvense
Cirsium lanceolatum : Cirsium vulgare
Cirsium lanceolatum var. hypoleucum : Cirsium vulgare
Cirsium muticum var. monticola : Cirsium muticum
Cirsium muticum var. subpinnatifidum : Cirsium muticum
Cirsium setosum : Cirsium arvense
Claytonia caroliniana : Claytonia caroliniana var. caroliniana
Claytonia chamissoi : Montia chamissoi
Claytonia media : Claytonia virginica var. virginica
Claytonia robusta : Claytonia virginica var. virginica
Claytonia virginica : Claytonia virginica var. virginica
Clematis virginiana var. missouriensis : Clematis virginiana
Cleome serrulata var. angusta : Cleome serrulata
Cochlearia armoracia : Armoracia rusticana
Coeloglossum bracteatum : Coeloglossum viride var. virescens
Coeloglossum viride : Coeloglossum viride var. virescens
Coeloglossum viride ssp. bracteatum : Coeloglossum viride var. virescens
Coleogeton filiformis : Stuckenia filiformis
Coleogeton filiformis ssp. alpinus : Stuckenia filiformis
Coleogeton filiformis ssp. occidentalis : Stuckenia filiformis
Coleogeton pectinatus : Stuckenia pectinatus
Coleogeton vaginatus : Stuckenia vaginatus
Comandra lividum : Geocaulon lividum
Comandra pallida : Comandra umbellata ssp. umbellata
Comandra richardsiana : Comandra umbellata ssp. umbellata
Comandra umbellata : Comandra umbellata ssp. umbellata
Comandra umbellata ssp. pallida : Comandra umbellata ssp. umbellata
Comandra umbellata var. angustifolia : Comandra umbellata ssp. umbellata
Comandra umbellata var. pallida : Comandra umbellata ssp. umbellata
Commelinа communis : Commelinа communis var. communis
Commelinа willdenowii : Commelinа communis var. communis
Convallaria biflora : Polygonatum biflorum var. commutatum
Convallaria racemosa : Maianthemum racemosum ssp. racemosum
Convallaria stellata : Maianthemum stellatum
Convallaria trifolia : Maianthemum trifolium
Convolvulus americanus : Calystegia sepium
Convolvulus binghamiae : Calystegia sepium
Convolvulus nashii : Calystegia sepium
Convolvulus purpureus : Ipomoea purpurea
Convolvulus repens : Calystegia sepium
Convolvulus sepium : Calystegia sepium
Convolvulus sepium var. americanus : Calystegia sepium
Convolvulus sepium var. communis : Calystegia sepium
Convolvulus sepium var. dumetorum : Calystegia sepium
Convolvulus sepium var. repens : Calystegia sepium
Conyzа canadensis : Conyzа canadensis var. canadensis
Coptidium lapponicum : Ranunculus lapponicus
Coptis groenlandica : Coptis trifolia
Coptis trifolia ssp. groenlandica : Coptis trifolia
Coptis trifolia var. groenlandica : Coptis trifolia
Corallorrhiza maculata : Corallorrhiza maculata
Corallorrhiza striata : Corallorrhiza striata var. striata
Corallorrhiza trifida : Corallorrhiza trifida
Corallorrhiza corallorrhiza : Corallorrhiza trifida
Corallorrhiza maculata ssp. occidentalis : Corallorrhiza maculata
Corallorrhiza maculata var. flava : Corallorrhiza maculata
Corallorrhiza maculata var. immaculata : Corallorrhiza maculata
Corallorrhiza maculata var. intermedia : Corallorrhiza maculata
Corallorrhiza maculata var. maculata : Corallorrhiza maculata
Corallorrhiza maculata var. occidentalis : Corallorrhiza maculata
Corallorrhiza maculata var. punicea : Corallorrhiza maculata
Corallorrhiza multiflora : Corallorrhiza maculata
Corallorrhiza ochroleuca : Corallorrhiza striata var. striata
Corallorrhiza striata : Corallorrhiza striata var. striata



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Corallorrhiza striata var. *flavida* : *Corallorrhiza striata* var. *striata*
Corallorrhiza striata var. *ochroleuca* : *Corallorrhiza striata* var. *striata*
Corallorrhiza trifida var. *verna* : *Corallorrhiza trifida*
Coreopsis cardaminefolia : *Coreopsis tinctoria* var. *tinctoria*
Coreopsis crassifolia : *Coreopsis lanceolata*
Coreopsis heterogyna : *Coreopsis lanceolata*
Coreopsis lanceolata var. *villosa* : *Coreopsis lanceolata*
Coreopsis stenophylla : *Coreopsis tinctoria* var. *tinctoria*
Coreopsis tinctoria : *Coreopsis tinctoria* var. *tinctoria*
Coreopsis tinctoria var. *imminuta* : *Coreopsis tinctoria* var. *tinctoria*
Corispermum americanum var. *americanum* : *Corispermum americanum*
Corispermum americanum var. *rydbergii* : *Corispermum americanum*
Corispermum emarginatum : *Corispermum americanum*
Corispermum hyssopifolium : *Corispermum americanum*
Corispermum hyssopifolium var. *emarginatum* : *Corispermum americanum*
Corispermum hyssopifolium var. *rubricaulis* : *Corispermum americanum*
Corispermum marginale : *Corispermum americanum*
Corispermum nitidum : *Corispermum americanum*
Corispermum orientale : *Corispermum americanum*
Corispermum orientale var. *emarginatum* : *Corispermum americanum*
Corispermum simplicissimum : *Corispermum americanum*
Cornella canadensis : *Cornus canadensis*
Cornucopiae hyemalis : *Agrostis hyemalis*
Cornucopiae perennans : *Agrostis perennans*
Cornus alba : *Cornus sericea* ssp. *sericea*
Cornus alba ssp. *stolonifera* : *Cornus sericea* ssp. *sericea*
Cornus alba var. *baileyi* : *Cornus sericea* ssp. *sericea*
Cornus alba var. *interior* : *Cornus sericea* ssp. *sericea*
Cornus amomum : *Cornus obliqua*
Cornus amomum ssp. *obliqua* : *Cornus obliqua*
Cornus amomum var. *schuetzeana* : *Cornus obliqua*
Cornus baileyi : *Cornus sericea* ssp. *sericea*
Cornus canadensis var. *dutillyi* : *Cornus canadensis*
Cornus foemina ssp. *racemosa* : *Cornus racemosa*
Cornus instolonea : *Cornus sericea* ssp. *sericea*
Cornus interior : *Cornus sericea* ssp. *sericea*
Cornus paniculata : *Cornus racemosa*
Cornus purpusii : *Cornus obliqua*
Cornus sericea : *Cornus sericea* ssp. *sericea*
Cornus sericea ssp. *stolonifera* : *Cornus sericea* ssp. *sericea*
Cornus sericea var. *interior* : *Cornus sericea* ssp. *sericea*
Cornus stolonifera : *Cornus sericea* ssp. *sericea*
Cornus stolonifera var. *baileyi* : *Cornus sericea* ssp. *sericea*
Cornus stolonifera var. *interior* : *Cornus sericea* ssp. *sericea*

Corylus americana var. *indehiscens* : *Corylus americana*
Crataegus albicans : *Crataegus mollis*
Crataegus arkansana : *Crataegus mollis*
Crataegus brachyphylla : *Crataegus mollis*
Crataegus cibaria : *Crataegus mollis*
Crataegus columbiana : *Crataegus douglasii* var. *douglasii*
Crataegus douglasii : *Crataegus douglasii* var. *douglasii*
Crataegus gravida : *Crataegus mollis*
Crataegus induta : *Crataegus mollis*
Crataegus invisa : *Crataegus mollis*
Crataegus lacera : *Crataegus mollis*
Crataegus limaria : *Crataegus mollis*
Crataegus mollis var. *dumetosa* : *Crataegus mollis*
Crataegus mollis var. *gigantea* : *Crataegus mollis*
Crataegus mollis var. *incisifolia* : *Crataegus mollis*
Crataegus mollis var. *sera* : *Crataegus mollis*
Crataegus noelensis : *Crataegus mollis*
Crataegus pedicellata var. *albicans* : *Crataegus mollis*
Crataegus placens : *Crataegus mollis*
Crataegus williamsii : *Crataegus douglasii* var. *douglasii*
Crepis alpicola : *Crepis runcinata* ssp. *runcinata*
Crepis glaucella : *Crepis runcinata* ssp. *runcinata*
Crepis neomexicana : *Crepis runcinata* ssp. *runcinata*
Crepis perplexans : *Crepis runcinata* ssp. *runcinata*
Crepis runcinata : *Crepis runcinata* ssp. *runcinata*
Crepis runcinata ssp. *typica* : *Crepis runcinata* ssp. *runcinata*
Criosanthes arietina : *Cypripedium arietinum*
Critesion jubatum : *Hordeum jubatum* ssp. *jubatum*
Critesion pusillum : *Hordeum pusillum*
Crunocallis chamuscoi : *Montia chamuscoi*
Cuscuta gronovii var. *calyptata* : *Cuscuta gronovii*
Cuscuta gronovii var. *gronovii* : *Cuscuta gronovii*
Cuscuta gronovii var. *latiflora* : *Cuscuta gronovii*
Cuscuta gronovii var. *saururi* : *Cuscuta gronovii*
Cuscuta umbrosa : *Cuscuta gronovii*
Cyanococcus canadensis : *Vaccinium myrtilloides*
Cyclachaena xanthifolia : *Iva xanthifolia*
Cylactis arctica ssp. *acaulis* : *Rubus arcticus* ssp. *acaulis*
Cylactis pubescens : *Rubus pubescens* var. *pubescens*
Cynosurus indicus : *Eleusine indica*
Cynthia virginica : *Krigia biflora* var. *biflora*
Cyperus acicularis : *Cyperus odoratus*
Cyperus aristatus : *Cyperus squarrosus*
Cyperus aristatus var. *runyonii* : *Cyperus squarrosus*

Cyperus bushii : *Cyperus lupulinus*
Cyperus eggersii : *Cyperus odoratus*
Cyperus engelmannii : *Cyperus odoratus*
Cyperus esculentus : *Cyperus esculentus* var. *leptostachyus*
Cyperus esculentus : *Cyperus esculentus* var. *leptostachyus*
Cyperus esculentus var. *angustispicatus* : *Cyperus esculentus* var. *leptostachyus*
Cyperus ferax : *Cyperus odoratus*
Cyperus ferruginescens : *Cyperus odoratus*
Cyperus filiculmis : *Cyperus lupulinus*
Cyperus filiculmis var. *macilentus* : *Cyperus lupulinus*
Cyperus halei : *Cyperus erythrorhizos*
Cyperus hansenii : *Cyperus strigosus*
Cyperus inflexus : *Cyperus squarrosus*
Cyperus longispicatus : *Cyperus odoratus*
Cyperus lupulinus ssp. *lupulinus* : *Cyperus lupulinus*
Cyperus lupulinus ssp. *macilentus* : *Cyperus lupulinus*
Cyperus macrocephalus : *Cyperus odoratus*
Cyperus macrocephalus var. *eggersii* : *Cyperus odoratus*
Cyperus martindalei : *Cyperus lupulinus*
Cyperus niger var. *rivularis* : *Cyperus bipartitus*
Cyperus odoratus var. *acicularis* : *Cyperus odoratus*
Cyperus odoratus var. *engelmannii* : *Cyperus odoratus*
Cyperus odoratus var. *squarrosum* : *Cyperus odoratus*
Cyperus rivularis : *Cyperus bipartitus*
Cyperus schweinitzii var. *überior* : *Cyperus schweinitzii*
Cyperus speciosus : *Cyperus odoratus*
Cyperus speciosus var. *squarrosum* : *Cyperus odoratus*
Cyperus squarrosum var. *runyonii* : *Cyperus squarrosum*
Cyperus stenolepis : *Cyperus strigosus*
Cyperus strigosus var. *capitatus* : *Cyperus strigosus*
Cyperus strigosus var. *multiflorus* : *Cyperus strigosus*
Cyperus strigosus var. *robustior* : *Cyperus strigosus*
Cyperus strigosus var. *stenolepis* : *Cyperus strigosus*
Cyperus X mesochoreus : *Cyperus schweinitzii*
Cypripedium calceolus : *Cypripedium parviflorum*
Cypripedium calceolus ssp. *parviflorum* : *Cypripedium parviflorum*
Cypripedium calceolus var. *parviflorum* : *Cypripedium parviflorum*
Cypripedium calceolus var. *planipetalum* : *Cypripedium pubescens* var. *pubescens*
Cypripedium calceolus var. *pubescens* : *Cypripedium pubescens* var. *pubescens*
Cypripedium furcatum : *Cypripedium pubescens* var. *pubescens*
Cypripedium parviflorum var. *pubescens* : *Cypripedium pubescens* var. *pubescens*
Cypripedium planipetalum : *Cypripedium pubescens* var. *pubescens*
Cypripedium pubescens : *Cypripedium pubescens* var. *pubescens*
Cypripedium X andrewsii var. *landonii* : *Cypripedium X andrewsii*

Cyrtorhyncha cymbalaria ssp. *alpina* : *Ranunculus cymbalaria*
Cystopteris dickieana : *Cystopteris fragilis*
Cystopteris fragilis ssp. *dickieana* : *Cystopteris fragilis*
Cystopteris fragilis var. *angustata* : *Cystopteris fragilis*
Cystopteris fragilis var. *woodsioides* : *Cystopteris fragilis*
Cytherea bulbosa : *Calypso bulbosa* var. *americana*
Dactylis glomerata : *Dactylis glomerata* ssp. *glomerata*
Dactylis glomerata var. *ciliata* : *Dactylis glomerata* ssp. *glomerata*
Dactylis glomerata var. *detonsa* : *Dactylis glomerata* ssp. *glomerata*
Dactylis glomerata var. *vivipara* : *Dactylis glomerata* ssp. *glomerata*
Dasiphora fruticosa : *Dasiphora floribunda*
Dasystephana andrewsii : *Gentiana andrewsii*
Dasystephana grayi : *Gentiana rubricaulis*
Decachaena baccata : *Gaylussacia baccata*
Decodon verticillatus var. *laevigatus* : *Decodon verticillatus*
Dentaria concatenata : *Cardamine concatenata*
Dentaria concatenata var. *coalescens* : *Cardamine concatenata*
Dentaria laciniata : *Cardamine concatenata*
Dentaria laciniata var. *integra* : *Cardamine concatenata*
Deringa canadensis : *Cryptotaenia canadensis*
Deschampsia caespitosa ssp. *genuina* : *Deschampsia caespitosa*
Deschampsia caespitosa ssp. *glauca* : *Deschampsia caespitosa*
Deschampsia caespitosa ssp. *orientalis* : *Deschampsia caespitosa*
Deschampsia caespitosa ssp. *paramushirensis* : *Deschampsia caespitosa*
Deschampsia caespitosa ssp. *parviflora* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *abbeii* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *alpicola* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *arctica* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *glauca* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *intercotidalis* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *littoralis* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *longiflora* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *mackenzieana* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *maritima* : *Deschampsia caespitosa*
Deschampsia caespitosa var. *parviflora* : *Deschampsia caespitosa*
Deschampsia cespitosa : *Deschampsia caespitosa*
Deschampsia cespitosa ssp. *genuina* : *Deschampsia caespitosa*
Deschampsia cespitosa ssp. *glauca* : *Deschampsia caespitosa*
Deschampsia cespitosa ssp. *orientalis* : *Deschampsia caespitosa*
Deschampsia cespitosa ssp. *paramushirensis* : *Deschampsia caespitosa*
Deschampsia cespitosa ssp. *parviflora* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *abbeii* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *alpicola* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *arctica* : *Deschampsia caespitosa*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Deschampsia cespitosa var. *glauca* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *intercotidalis* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *litoralis* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *longiflora* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *mackenzieana* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *maritima* : *Deschampsia caespitosa*
Deschampsia cespitosa var. *parviflora* : *Deschampsia caespitosa*
Deschampsia glauca : *Deschampsia caespitosa*
Deschampsia mackenzieana : *Deschampsia caespitosa*
Deschampsia paramushirensis : *Deschampsia caespitosa*
Deschampsia pumila : *Deschampsia caespitosa*
Deschampsia sukatschewii : *Deschampsia caespitosa*
Dichanthelium acuminatum var. *acuminatum* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *fasciculatum* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *implicatum* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *lindheimeri* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *sericeum* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *thermale* : *Dichanthelium acuminatum*
Dichanthelium acuminatum var. *thurowii* : *Dichanthelium acuminatum*
Dichanthelium columbianum : *Dichanthelium sabulorum*
Dichanthelium columbianum ssp. *columbianum* : *Dichanthelium sabulorum*
Dichanthelium commonsianum : *Dichanthelium ovale* var. *addisonii*
Dichanthelium commonsianum var. *euchlamydeum* : *Dichanthelium sabulorum*
Dichanthelium lanuginosum : *Dichanthelium acuminatum*
Dichanthelium lanuginosum var. *fasciculatum* : *Dichanthelium acuminatum*
Dichanthelium lanuginosum var. *lindheimeri* : *Dichanthelium acuminatum*
Dichanthelium lanuginosum var. *thermale* : *Dichanthelium acuminatum*
Dichanthelium lindheimeri : *Dichanthelium acuminatum*
Dichanthelium oligosanthes var. *helleri* : *Dichanthelium oligosanthes*
Dichanthelium oligosanthes var. *oligosanthes* : *Dichanthelium oligosanthes*
Dichanthelium oligosanthes var. *scribnerianum* : *Dichanthelium oligosanthes*
Dichanthelium ovale : *Dichanthelium ovale* var. *addisonii*
Dichanthelium portoricense : *Dichanthelium sabulorum*
Dichanthelium sabulorum var. *patulum* : *Dichanthelium sabulorum*
Dichanthelium sabulorum var. *thinum* : *Dichanthelium sabulorum*
Dichrophyllum marginatum : *Euphorbia marginata*
Digitaria ischaemum var. *mississippiensis* : *Digitaria ischaemum*
Dioscorea hirticaulis : *Dioscorea villosa*
Dioscorea villosa var. *hirticaulis* : *Dioscorea villosa*
Diphasiastrum complanatum : *Lycopodium complanatum*
Diphasium anceps : *Lycopodium complanatum*
Diphasium complanatum : *Lycopodium complanatum*
Diphasium complanatum ssp. *montellii* : *Lycopodium complanatum*
Diphasium wallrothii : *Lycopodium complanatum*

Diplazium acrostichoides : *Deparia acrostichoides*
Distichlis spicata ssp. *stricta* : *Distichlis spicata*
Distichlis spicata var. *borealis* : *Distichlis spicata*
Distichlis spicata var. *divaricata* : *Distichlis spicata*
Distichlis spicata var. *nana* : *Distichlis spicata*
Distichlis spicata var. *stolonifera* : *Distichlis spicata*
Distichlis spicata var. *stricta* : *Distichlis spicata*
Distichlis stricta : *Distichlis spicata*
Distichlis stricta var. *dentata* : *Distichlis spicata*
Dodecatheon hugeri : *Dodecatheon meadia* ssp. *meadia*
Dodecatheon meadia : *Dodecatheon meadia* ssp. *meadia*
Dodecatheon meadia var. *obesum* : *Dodecatheon meadia* ssp. *meadia*
Dodecatheon meadia var. *standfieldii* : *Dodecatheon meadia* ssp. *meadia*
Doellingeria umbellata ssp. *pubens* : *Doellingeria umbellata*
Doellingeria umbellata var. *pubens* : *Doellingeria umbellata*
Doellingeria umbellata var. *umbellata* : *Doellingeria umbellata*
Dondia depressa : *Suaeda calceoliformis*
Dracaena borealis : *Clintonia borealis*
Dracocephalum denticulatum : *Physostegia virginiana* ssp. *virginiana*
Dracocephalum formosius : *Physostegia virginiana* ssp. *virginiana*
Dracocephalum virginianum : *Physostegia virginiana* ssp. *virginiana*
Drosera longifolia : *Drosera anglica*
Drosera rotundifolia : *Drosera rotundifolia* var. *rotundifolia*
Drymocallis agrimonoides : *Potentilla arguta* ssp. *arguta*
Drymocallis arguta : *Potentilla arguta* ssp. *arguta*
Dryopteris assimilis : *Dryopteris expansa*
Dryopteris austriaca var. *fructuosa* : *Dryopteris X triploidea*
Dryopteris austriaca var. *intermedia* : *Dryopteris intermedia*
Dryopteris austriaca var. *spinulosa* : *Dryopteris carthusiana*
Dryopteris dilatata : *Dryopteris expansa*
Dryopteris dilatata ssp. *americana* : *Dryopteris expansa*
Dryopteris dryopteris : *Gymnocarpium dryopteris*
Dryopteris hexagonoptera : *Phegopteris hexagonoptera*
Dryopteris intermedia var. *fructuosa* : *Dryopteris X triploidea*
Dryopteris linnaeana : *Gymnocarpium dryopteris*
Dryopteris robertiana : *Gymnocarpium robertianum*
Dryopteris spinulosa : *Dryopteris carthusiana*
Dryopteris spinulosa var. *concordiana* : *Dryopteris intermedia*
Dryopteris spinulosa var. *dilatata* : *Dryopteris expansa*
Dryopteris spinulosa var. *fructuosa* : *Dryopteris X triploidea*
Dryopteris spinulosa var. *intermedia* : *Dryopteris intermedia*
Dryopteris thelypteris : *Thelypteris palustris* var. *pubescens*
Dryopteris thelypteris var. *haleana* : *Thelypteris palustris* var. *pubescens*
Dryopteris thelypteris var. *pubescens* : *Thelypteris palustris* var. *pubescens*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Dryopteris triploidea : Dryopteris X triploidea
Dulichium arundinaceum var. arundinaceum : Dulichium arundinaceum
Duschekia viridis : Alnus viridis ssp. crispa
Echinochloa crusgalli : Echinochloa crus-galli
Echinochloa crus-galli var. mitis : Echinochloa muricata
Echinochloa microstachya : Echinochloa muricata
Echinochloa muricata var. ludoviciana : Echinochloa muricata
Echinochloa muricata var. microstachya : Echinochloa muricata
Echinochloa muricata var. muricata : Echinochloa muricata
Echinochloa muricata var. occidentalis : Echinochloa muricata
Echinochloa muricata var. wiegandii : Echinochloa muricata
Echinochloa occidentalis : Echinochloa muricata
Echinochloa pungens : Echinochloa muricata
Echinochloa pungens var. coarctata : Echinochloa muricata
Echinochloa pungens var. ludoviciana : Echinochloa muricata
Echinochloa pungens var. microstachya : Echinochloa muricata
Echinochloa pungens var. multiflora : Echinochloa muricata
Echinochloa wiegandii : Echinochloa muricata
Eclipta alba : Eclipta prostrata
Eclipta erecta : Eclipta prostrata
Eclipta punctata : Eclipta prostrata
Eleocharis acicularis : Eleocharis acicularis var. acicularis
Eleocharis acicularis var. occidentalis : Eleocharis acicularis var. acicularis
Eleocharis acicularis var. typica : Eleocharis acicularis var. acicularis
Eleocharis acuminata : Eleocharis compressa
Eleocharis annua : Eleocharis ovata
Eleocharis bernardina : Eleocharis quinqueflora
Eleocharis calva : Eleocharis erythropoda
Eleocharis calva var. australis : Eleocharis palustris
Eleocharis capitata var. borealis : Eleocharis elliptica
Eleocharis coloradoensis : Eleocharis parvula
Eleocharis compressa var. atrata : Eleocharis compressa
Eleocharis diandra : Eleocharis obtusa
Eleocharis elliptica var. compressa : Eleocharis compressa
Eleocharis engelmannii var. monticola : Eleocharis engelmannii
Eleocharis engelmannii var. robusta : Eleocharis engelmannii
Eleocharis flaccida var. olivacea : Eleocharis olivacea var. olivacea
Eleocharis flavescens var. olivacea : Eleocharis olivacea var. olivacea
Eleocharis leptos : Eleocharis parvula
Eleocharis leptos var. coloradoensis : Eleocharis parvula
Eleocharis leptos var. johnstonii : Eleocharis parvula
Eleocharis macounii : Eleocharis obtusa
Eleocharis macrostachya : Eleocharis palustris
Eleocharis mammillata : Eleocharis palustris

Eleocharis membranacea : Eleocharis parvula
Eleocharis monticola : Eleocharis engelmannii
Eleocharis monticola var. pallida : Eleocharis engelmannii
Eleocharis obtusa var. detonsa : Eleocharis engelmannii
Eleocharis obtusa var. ellipsoidalis : Eleocharis obtusa
Eleocharis obtusa var. engelmannii : Eleocharis engelmannii
Eleocharis obtusa var. gigantea : Eleocharis obtusa
Eleocharis obtusa var. heuseri : Eleocharis ovata
Eleocharis obtusa var. jejuna : Eleocharis obtusa
Eleocharis obtusa var. ovata : Eleocharis ovata
Eleocharis obtusa var. peasei : Eleocharis obtusa
Eleocharis olivacea : Eleocharis olivacea var. olivacea
Eleocharis ovata var. engelmannii : Eleocharis engelmannii
Eleocharis ovata var. obtusa : Eleocharis obtusa
Eleocharis palustris var. australis : Eleocharis palustris
Eleocharis palustris var. major : Eleocharis palustris
Eleocharis palustris var. vigens : Eleocharis palustris
Eleocharis parvula var. anachaeta : Eleocharis parvula
Eleocharis parvula var. coloradoensis : Eleocharis parvula
Eleocharis pauciflora : Eleocharis quinqueflora
Eleocharis pauciflora var. bernardina : Eleocharis quinqueflora
Eleocharis pauciflora var. fernaldii : Eleocharis quinqueflora
Eleocharis pauciflora var. suksdorffiana : Eleocharis quinqueflora
Eleocharis perlonga : Eleocharis palustris
Eleocharis quinqueflora ssp. fernaldii : Eleocharis quinqueflora
Eleocharis quinqueflora ssp. suksdorffiana : Eleocharis quinqueflora
Eleocharis quinqueflora var. bernardina : Eleocharis quinqueflora
Eleocharis quinqueflora var. suksdorffiana : Eleocharis quinqueflora
Eleocharis reverchonii : Eleocharis acicularis var. acicularis
Eleocharis rostellata var. congdonii : Eleocharis rostellata
Eleocharis rostellata var. occidentalis : Eleocharis rostellata
Eleocharis smallii : Eleocharis palustris
Eleocharis smallii var. major : Eleocharis palustris
Eleocharis suksdorffiana : Eleocharis quinqueflora
Eleocharis tenuis var. atrata : Eleocharis compressa
Eleocharis tenuis var. borealis : Eleocharis elliptica
Eleocharis xyridiformis : Eleocharis palustris
Ellisia nyctelea var. coloradensis : Ellisia nyctelea
Elodea brandegeae : Elodea canadensis
Elodea columbiana : Elodea nuttallii
Elodea fraseri : Triadenum fraseri
Elodea ioensis : Elodea canadensis
Elodea linearis : Elodea canadensis
Elodea longivaginata : Elodea bifoliata



Elodea minor : Elodea nuttallii	Elytrigia repens : Elymus repens
Elodea nevadensis : Elodea bifoliata	Elytrigia repens var. vaillantiana : Elymus repens
Elodea occidentalis : Elodea nuttallii	Elytrigia smithii : Pascopyrum smithii
Elodea planchonii : Elodea canadensis	Elytrigia smithii var. mollis : Pascopyrum smithii
Elymus arkansanus : Elymus villosus	Elytrigia vaillantiana : Elymus repens
Elymus australis : Elymus virginicus	Empetrum atropurpureum : Empetrum eamesii ssp. atropurpureum
Elymus brachystachys : Elymus canadensis	Empetrum eamesii : Empetrum eamesii ssp. atropurpureum
Elymus canadensis ssp. wiegandii : Elymus wiegandii	Empetrum eamesii ssp. atropurpur : Empetrum eamesii ssp. atropurpureum
Elymus canadensis var. brachystachys : Elymus canadensis	Empetrum eamesii ssp. hermaphroditum : Empetrum nigrum ssp. hermaphroditum
Elymus canadensis var. hirsutus : Elymus canadensis	Empetrum hermaphroditum : Empetrum nigrum ssp. hermaphroditum
Elymus canadensis var. robustus : Elymus canadensis	Empetrum nigrum : Empetrum nigrum ssp. hermaphroditum
Elymus canadensis var. villosus : Elymus villosus	Empetrum nigrum var. atropurpureum : Empetrum eamesii ssp. atropurpureum
Elymus canadensis var. wiegandii : Elymus wiegandii	Empetrum nigrum var. purpureum : Empetrum eamesii ssp. atropurpureum
Elymus cespitosus : Elymus canadensis	Empetrum rubrum var. atropurpureum : Empetrum eamesii ssp. atropurpureum
Elymus donianus ssp. virescens : Elymus trachycaulus	Epilobium adenocaulon : Epilobium ciliatum ssp. ciliatum
Elymus glabriflorus : Elymus virginicus	Epilobium adenocaulon var. cinerascens : Epilobium ciliatum ssp. glandulosum
Elymus glabriflorus var. australis : Elymus virginicus	Epilobium adenocaulon var. ecomosum : Epilobium ciliatum ssp. ciliatum
Elymus halophilus : Elymus virginicus	Epilobium adenocaulon var. holosericeum : Epilobium ciliatum ssp. ciliatum
Elymus hirsutiglumis : Elymus virginicus	Epilobium adenocaulon var. occidentale : Epilobium ciliatum ssp. glandulosum
Elymus jejunus : Elymus virginicus	Epilobium adenocaulon var. parishii : Epilobium ciliatum ssp. ciliatum
Elymus laevis : Elymus trachycaulus	Epilobium adenocaulon var. perplexans : Epilobium ciliatum ssp. ciliatum
Elymus pauciflorus : Elymus trachycaulus	Epilobium americanum : Epilobium ciliatum ssp. ciliatum
Elymus philadelphicus : Elymus canadensis	Epilobium angustifolium : Chamerion angustifolium ssp. circumvagum
Elymus philadelphicus var. hirsutus : Elymus canadensis	Epilobium angustifolium ssp. circumvagum : Chamerion angustifolium ssp. circumvagum
Elymus robustus : Elymus canadensis	Epilobium angustifolium ssp. macrophyllum : Chamerion angustifolium ssp. circumvagum
Elymus smithii : Pascopyrum smithii	Epilobium angustifolium var. abbreviatum : Chamerion angustifolium ssp. circumvagum
Elymus striatus : Elymus virginicus	Epilobium angustifolium var. canescens : Chamerion angustifolium ssp. circumvagum
Elymus trachycaulus ssp. andinus : Elymus trachycaulus	Epilobium angustifolium var. macrophyllum : Chamerion angustifolium ssp. circumvagum
Elymus trachycaulus ssp. glaucus : Elymus trachycaulus	Epilobium angustifolium var. platyphyllum : Chamerion angustifolium ssp. circumvagum
Elymus trachycaulus ssp. novae-angliae : Elymus trachycaulus	Epilobium boreale : Epilobium ciliatum ssp. glandulosum
Elymus trachycaulus ssp. subsecundus : Elymus trachycaulus	Epilobium brevistylum : Epilobium ciliatum ssp. ciliatum
Elymus trachycaulus ssp. teslinensis : Elymus trachycaulus	Epilobium brevistylum var. ursinum : Epilobium ciliatum ssp. ciliatum
Elymus trachycaulus ssp. trachycaulus : Elymus trachycaulus	Epilobium californicum : Epilobium ciliatum ssp. ciliatum
Elymus trachycaulus var. andinus : Elymus trachycaulus	Epilobium californicum var. holosericeum : Epilobium ciliatum ssp. ciliatum
Elymus trachycaulus var. majus : Elymus trachycaulus	Epilobium ciliatum : Epilobium ciliatum ssp. glandulosum
Elymus trachycaulus var. unilateralis : Elymus trachycaulus	Epilobium ciliatum var. ecomosum : Epilobium ciliatum ssp. ciliatum
Elymus villosus var. arkansanus : Elymus villosus	Epilobium ciliatum var. glandulosum : Epilobium ciliatum ssp. glandulosum
Elymus virginicus var. australis : Elymus virginicus	Epilobium delicatulum : Epilobium ciliatum ssp. ciliatum
Elymus virginicus var. glabriflorus : Elymus virginicus	Epilobium densum : Epilobium strictum
Elymus virginicus var. halophilus : Elymus virginicus	Epilobium ecomosum : Epilobium ciliatum ssp. ciliatum
Elymus virginicus var. hirsutiglumis : Elymus virginicus	Epilobium glandulosum : Epilobium ciliatum ssp. glandulosum
Elymus virginicus var. intermedius : Elymus virginicus	Epilobium glandulosum var. adenocaulon : Epilobium ciliatum ssp. ciliatum
Elymus virginicus var. jejunus : Elymus virginicus	
Elymus virginicus var. virginicus : Elymus virginicus	



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Epilobium glandulosum var. *cardiophyllum* : *Epilobium ciliatum* ssp. *glandulosum*
Epilobium glandulosum var. *ecomosum* : *Epilobium ciliatum* ssp. *ciliatum*
Epilobium glandulosum var. *macounii* : *Epilobium ciliatum* ssp. *ciliatum*
Epilobium glandulosum var. *occidentale* : *Epilobium ciliatum* ssp. *glandulosum*
Epilobium leptocarpum var. *macounii* : *Epilobium ciliatum* ssp. *ciliatum*
Epilobium lineare : *Epilobium palustre*
Epilobium nesophilum : *Epilobium leptophyllum*
Epilobium nesophilum var. *sabulonense* : *Epilobium leptophyllum*
Epilobium oliganthum : *Epilobium palustre*
Epilobium palustre var. *gracile* : *Epilobium leptophyllum*
Epilobium palustre var. *grammadophyllum* : *Epilobium palustre*
Epilobium palustre var. *labradoricum* : *Epilobium palustre*
Epilobium palustre var. *lapponicum* : *Epilobium palustre*
Epilobium palustre var. *longirameum* : *Epilobium palustre*
Epilobium palustre var. *oliganthum* : *Epilobium palustre*
Epilobium palustre var. *sabulonense* : *Epilobium leptophyllum*
Epilobium pylaeaneum : *Epilobium palustre*
Epilobium rosmarinifolium : *Epilobium leptophyllum*
Epilobium treleaseanum : *Epilobium leptophyllum*
Epilobium ursinum : *Epilobium ciliatum* ssp. *ciliatum*
Epilobium watsonii var. *occidentale* : *Epilobium ciliatum* ssp. *glandulosum*
Epilobium watsonii var. *parishi* : *Epilobium ciliatum* ssp. *ciliatum*
Epilobium wyomingense : *Epilobium palustre*
Equisetum affine : *Equisetum hyemale* var. *affine*
Equisetum arvense var. *alpestre* : *Equisetum arvense*
Equisetum arvense var. *boreale* : *Equisetum arvense*
Equisetum arvense var. *campestre* : *Equisetum arvense*
Equisetum arvense var. *riparium* : *Equisetum arvense*
Equisetum calderi : *Equisetum arvense*
Equisetum ferrissii : *Equisetum X ferrissii*
Equisetum fluviatile var. *limosum* : *Equisetum fluviatile*
Equisetum funstonii : *Equisetum laevigatum*
Equisetum hyemale : *Equisetum hyemale* var. *affine*
Equisetum hyemale ssp. *affine* : *Equisetum hyemale* var. *affine*
Equisetum hyemale var. *californicum* : *Equisetum hyemale* var. *affine*
Equisetum hyemale var. *elatum* : *Equisetum X ferrissii*
Equisetum hyemale var. *intermedium* : *Equisetum X ferrissii*
Equisetum hyemale var. *pseudohyemale* : *Equisetum hyemale* var. *affine*
Equisetum hyemale var. *robustum* : *Equisetum hyemale* var. *affine*
Equisetum intermedium : *Equisetum X ferrissii*
Equisetum kansanum : *Equisetum laevigatum*
Equisetum laevigatum ssp. *funstonii* : *Equisetum laevigatum*
Equisetum limosum : *Equisetum fluviatile*
Equisetum litorale : *Equisetum X litorale*

Equisetum nelsoni : *Equisetum X nelsonii*
Equisetum palustre var. *americanum* : *Equisetum palustre*
Equisetum palustre var. *simplicissimum* : *Equisetum palustre*
Equisetum praecultum : *Equisetum hyemale* var. *affine*
Equisetum robustum : *Equisetum hyemale* var. *affine*
Equisetum sylvaticum var. *multiramosum* : *Equisetum sylvaticum*
Equisetum sylvaticum var. *pauciramosum* : *Equisetum sylvaticum*
Equisetum variegatum : *Equisetum variegatum* var. *variegatum*
Equisetum variegatum var. *anceps* : *Equisetum variegatum* var. *variegatum*
Equisetum variegatum var. *nelsonii* : *Equisetum X nelsonii*
Eragrostis caroliniana : *Eragrostis pectinacea* var. *pectinacea*
Eragrostis diffusa : *Eragrostis pectinacea* var. *pectinacea*
Eragrostis frankii var. *brevipes* : *Eragrostis frankii*
Eragrostis major : *Eragrostis ciliaris*
Eragrostis megastachya : *Eragrostis ciliaris*
Eragrostis multicaulis : *Eragrostis pilosa*
Eragrostis pectinacea : *Eragrostis pectinacea* var. *pectinacea*
Eragrostis perplexa : *Eragrostis pilosa*
Eragrostis pilosa var. *perplexa* : *Eragrostis pilosa*
Eragrostis purshii : *Eragrostis pectinacea* var. *pectinacea*
Erechtites hieracifolia : *Erechtites hieracifolia* var. *hieracifolia*
Erechtites hieracifolia : *Erechtites hieracifolia* var. *hieracifolia*
Erechtites hieracifolia var. *intermedia* : *Erechtites hieracifolia* var. *hieracifolia*
Erechtites hieracifolia var. *praealta* : *Erechtites hieracifolia* var. *hieracifolia*
Erigeron acris : *Erigeron acris* ssp. *politus*
Erigeron acris : *Erigeron acris* ssp. *politus*
Erigeron acris var. *asteroides* : *Erigeron acris* ssp. *politus*
Erigeron annuus ssp. *strigosus* : *Erigeron strigosus*
Erigeron annuus var. *discoideus* : *Erigeron annuus*
Erigeron canadensis : *Conyza canadensis* var. *canadensis*
Erigeron droebachianus : *Erigeron acris* ssp. *politus*
Erigeron elongatus : *Erigeron acris* ssp. *politus*
Erigeron lonchophyllus var. *laurentianus* : *Erigeron lonchophyllus*
Erigeron minor : *Erigeron lonchophyllus*
Erigeron philadelphicus : *Erigeron philadelphicus* var. *philadelphicus*
Erigeron philadelphicus var. *scaturicola* : *Erigeron philadelphicus* var. *philadelphicus*
Erigeron politus : *Erigeron acris* ssp. *politus*
Erigeron pulchellus var. *brauniae* : *Erigeron pulchellus*
Erigeron pulchellus var. *pulchellus* : *Erigeron pulchellus*
Erigeron pulchellus var. *tolsteadii* : *Erigeron pulchellus*
Erigeron purpureus : *Erigeron philadelphicus* var. *philadelphicus*
Erigeron ramosus : *Erigeron strigosus*
Erigeron ramosus var. *beyrichii* : *Erigeron strigosus*
Erigeron strigosus ssp. *septentrionalis* : *Erigeron strigosus*



Erigeron strigosus var. *beyrichii* : *Erigeron strigosus*
Erigeron strigosus var. *discoideus* : *Erigeron strigosus*
Erigeron strigosus var. *eligulatus* : *Erigeron strigosus*
Erigeron strigosus var. *septentrionalis* : *Erigeron strigosus*
Erigeron strigosus var. *strigosus* : *Erigeron strigosus*
Erigeron strigosus var. *typicus* : *Erigeron strigosus*
Erigeron traversii : *Erigeron strigosus*
Eriocaulon pellucidum : *Eriocaulon aquaticum*
Eriocaulon septangulare : *Eriocaulon aquaticum*
Eriocoma cuspidata : *Achnatherum hymenoides*
Eriophorum alpinum : *Trichophorum alpinum*
Eriophorum angustifolium ssp. *scabriusculum* : *Eriophorum angustifolium*
Eriophorum angustifolium ssp. *subarcticum* : *Eriophorum angustifolium*
Eriophorum angustifolium ssp. *triste* : *Eriophorum angustifolium*
Eriophorum angustifolium var. *coloratum* : *Eriophorum angustifolium*
Eriophorum angustifolium var. *giganteum* : *Eriophorum angustifolium*
Eriophorum angustifolium var. *majus* : *Eriophorum angustifolium*
Eriophorum gracile : *Eriophorum gracile* var. *gracile*
Eriophorum polystachion : *Eriophorum angustifolium*
Eriophorum russeolum ssp. *rufescens* : *Eriophorum chamissonis*
Eriophorum spissum : *Eriophorum vaginatum* var. *spissum*
Eriophorum spissum var. *erubescens* : *Eriophorum vaginatum* var. *spissum*
Eriophorum tenellum var. *monticola* : *Eriophorum tenellum*
Eriophorum triste : *Eriophorum angustifolium*
Eriophorum vaginatum : *Eriophorum vaginatum* var. *spissum*
Eriophorum vaginatum ssp. *spissum* : *Eriophorum vaginatum* var. *spissum*
Eriophorum viridi-carinatum : *Eriophorum viridicarinatum*
Erxlebenia minor : *Pyrola minor*
Eryngium yuccifolium : *Eryngium yuccifolium* var. *yuccifolium*
Erysimum alliaria : *Alliaria petiolata*
Erysimum cheiranthoides *cheiranthoides* : *Erysimum cheiranthoides*
Erysimum cheiranthoides ssp. *altum* : *Erysimum cheiranthoides*
Erysimum drummondii : *Arabis drummondii*
Erythrocoma triflora : *Geum triflorum* var. *triflorum*
Euonymus atropurpurea : *Euonymus atropurpurea* var. *atropurpurea*
Euonymus atropurpurea : *Euonymus atropurpurea* var. *atropurpurea*
Eupatoriadelphus maculatus : *Eupatorium maculatum*
Eupatoriadelphus maculatus var. *bruneri* : *Eupatorium maculatum*
Eupatoriadelphus purpureus : *Eupatorium purpureum*
Eupatorium bruneri : *Eupatorium maculatum*
Eupatorium falcatum : *Eupatorium purpureum*
Eupatorium holzingeri : *Eupatorium purpureum*
Eupatorium maculatum ssp. *bruneri* : *Eupatorium maculatum*
Eupatorium maculatum var. *bruneri* : *Eupatorium maculatum*

Eupatorium maculatum var. *foliosum* : *Eupatorium maculatum*
Eupatorium maculatum var. *maculatum* : *Eupatorium maculatum*
Eupatorium perfoliatum : *Eupatorium perfoliatum* var. *perfoliatum*
Eupatorium purpureum var. *amoenum* : *Eupatorium purpureum*
Eupatorium purpureum var. *holzingeri* : *Eupatorium purpureum*
Eupatorium purpureum var. *maculatum* : *Eupatorium maculatum*
Eupatorium purpureum var. *purpureum* : *Eupatorium purpureum*
Eupatorium rugosum : *Ageratina altissima* var. *altissima*
Eupatorium rugosum var. *chlorolepis* : *Ageratina altissima* var. *altissima*
Eupatorium rugosum var. *tomentellum* : *Ageratina altissima* var. *altissima*
Eupatorium rugosum var. *villicae* : *Ageratina altissima* var. *altissima*
Eupatorium trifoliatum : *Eupatorium purpureum*
Eupatorium urticifolium var. *tomentellum* : *Ageratina altissima* var. *altissima*
Euphorbia alta : *Euphorbia spathulata*
Euphorbia arkansana : *Euphorbia spathulata*
Euphorbia dictyosperma : *Euphorbia spathulata*
Euphorbia maculata : *Chamaesyce maculata*
Euphorbia maculata : *Chamaesyce nutans*
Euphorbia maculata : *Chamaesyce nutans*
Euphorbia nutans : *Chamaesyce nutans*
Euphorbia obtusata : *Euphorbia spathulata*
Euphorbia preslii : *Chamaesyce nutans*
Euphorbia supina : *Chamaesyce maculata*
Euthamia camporum : *Euthamia gymnospermoides*
Euthamia chrysothamnoides : *Euthamia gymnospermoides*
Euthamia floribunda : *Euthamia graminifolia*
Euthamia glutinosa : *Euthamia gymnospermoides*
Euthamia graminifolia var. *graminifolia* : *Euthamia graminifolia*
Euthamia graminifolia var. *hirtipes* : *Euthamia graminifolia*
Euthamia graminifolia var. *major* : *Euthamia graminifolia*
Euthamia graminifolia var. *nuttallii* : *Euthamia graminifolia*
Euthamia hirtipes : *Euthamia graminifolia*
Euthamia media : *Euthamia gymnospermoides*
Euthamia nuttallii : *Euthamia graminifolia*
Euthamia pulverulenta : *Euthamia gymnospermoides*
Falcata comosa : *Amphicarpaea bracteata*
Falcata pitcheri : *Amphicarpaea bracteata*
Fallopia convolvulus : *Polygonum convolvulus* var. *convolvulus*
Fallopia japonica : *Polygonum cuspidatum*
Fallopia scandens : *Polygonum scandens*
Festuca arundinacea : *Lolium arundinaceum*
Festuca elatior : *Lolium pratense*
Festuca elatior ssp. *arundinacea* : *Lolium arundinaceum*
Festuca elatior var. *arundinacea* : *Lolium arundinaceum*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Festuca gracilenta : *Vulpia octoflora* var. *glaуca*
Festuca nutans : *Festuca paradoxa*
Festuca obtusa : *Festuca subverticillata*
Festuca octoflora : *Vulpia octoflora* var. *glaуca*
Festuca octoflora var. *aristulata* : *Vulpia octoflora* var. *glaуca*
Festuca octoflora var. *glaуca* : *Vulpia octoflora* var. *glaуca*
Festuca octoflora var. *tenella* : *Vulpia octoflora* var. *glaуca*
Festuca pratensis : *Lolium pratense*
Festuca rubra : *Festuca rubra* ssp. *rubra*
Festuca rubra ssp. *junccea* : *Festuca rubra* ssp. *rubra*
Festuca rubra var. *junccea* : *Festuca rubra* ssp. *rubra*
Festuca shortii : *Festuca paradoxa*
Festuca tenella : *Vulpia octoflora* var. *glaуca*
Festuca tenella var. *glaуca* : *Vulpia octoflora* var. *glaуca*
Filaginella uliginosa : *Gnaphalium uliginosum*
Filia bulbifera : *Cystopteris bulbifera*
Filia fragilis : *Cystopteris fragilis*
Fimbristylis autumnalis var. *mucronulata* : *Fimbristylis autumnalis*
Fimbristylis capillaris : *Bulbostylis capillaris* ssp. *capillaris*
Fimbristylis geminata : *Fimbristylis autumnalis*
Fimbristylis interior : *Fimbristylis puberula* var. *interior*
Fimbristylis puberula : *Fimbristylis puberula* var. *interior*
Fissipes acaulis : *Cypripedium acaule*
Floerkea occidentalis : *Floerkea proserpinacoides*
Fluminia festucacea : *Scolochloa festucacea*
Fragaria australis : *Fragaria virginiana*
Fragaria canadensis : *Fragaria virginiana*
Fragaria glauca : *Fragaria virginiana*
Fragaria grayana : *Fragaria virginiana*
Fragaria multipunctata : *Fragaria virginiana*
Fragaria ovalis : *Fragaria virginiana*
Fragaria pauciflora : *Fragaria virginiana*
Fragaria platypetala : *Fragaria virginiana*
Fragaria platypetala var. *sibbaldifolia* : *Fragaria virginiana*
Fragaria sibbaldifolia : *Fragaria virginiana*
Fragaria suksdorffii : *Fragaria virginiana*
Fragaria truncata : *Fragaria virginiana*
Fragaria virginiana ssp. *glaуca* : *Fragaria virginiana*
Fragaria virginiana ssp. *grayana* : *Fragaria virginiana*
Fragaria virginiana ssp. *platypetala* : *Fragaria virginiana*
Fragaria virginiana ssp. *virginiana* : *Fragaria virginiana*
Fragaria virginiana var. *australis* : *Fragaria virginiana*
Fragaria virginiana var. *canadensis* : *Fragaria virginiana*
Fragaria virginiana var. *glaуca* : *Fragaria virginiana*

Fragaria virginiana var. *illinoensis* : *Fragaria virginiana*
Fragaria virginiana var. *ovalis* : *Fragaria virginiana*
Fragaria virginiana var. *platypetala* : *Fragaria virginiana*
Fragaria virginiana var. *terrae-novae* : *Fragaria virginiana*
Fraxinus americana var. *biltmoreana* : *Fraxinus americana*
Fraxinus americana var. *crassifolia* : *Fraxinus americana*
Fraxinus americana var. *curtissii* : *Fraxinus americana*
Fraxinus americana var. *juglandifolia* : *Fraxinus americana*
Fraxinus americana var. *microcarpa* : *Fraxinus americana*
Fraxinus *biltmoreana* : *Fraxinus americana*
Fraxinus campestris : *Fraxinus pennsylvanica*
Fraxinus darlingtonii : *Fraxinus pennsylvanica*
Fraxinus lanceolata : *Fraxinus pennsylvanica*
Fraxinus pennsylvanica var. *austinii* : *Fraxinus pennsylvanica*
Fraxinus pennsylvanica var. *integerrima* : *Fraxinus pennsylvanica*
Fraxinus pennsylvanica var. *lanceolata* : *Fraxinus pennsylvanica*
Fraxinus pennsylvanica var. *subintegerrima* : *Fraxinus pennsylvanica*
Fraxinus smallii : *Fraxinus pennsylvanica*
Galarhoeus arkansanus : *Euphorbia spathulata*
Galarhoeus obtusatus : *Euphorbia spathulata*
Gale palustris : *Myrica gale*
Galium agreste var. *echinospermum* : *Galium aparine*
Galium aparine var. *echinospermum* : *Galium aparine*
Galium aparine var. *intermedium* : *Galium aparine*
Galium aparine var. *minor* : *Galium aparine*
Galium aparine var. *vaiallantii* : *Galium aparine*
Galium boreale ssp. *septentrionale* : *Galium boreale*
Galium boreale ssp. *septentrionale* : *Galium boreale*
Galium boreale var. *hyssopifolium* : *Galium boreale*
Galium boreale var. *intermedium* : *Galium boreale*
Galium boreale var. *linearifolium* : *Galium boreale*
Galium boreale var. *scabrum* : *Galium boreale*
Galium boreale var. *typicum* : *Galium boreale*
Galium brachiatum : *Galium triflorum*
Galium brandegeei : *Galium trifidum* ssp. *trifidum*
Galium claytonii : *Galium tinctorium*
Galium claytonii var. *subbiflorum* : *Galium trifidum* ssp. *trifidum*
Galium hyssopifolium : *Galium boreale*
Galium obtusum : *Galium obtusum* ssp. *obtusum*
Galium obtusum var. *floridanum* : *Galium tinctorium*
Galium obtusum var. *ramosum* : *Galium obtusum* ssp. *obtusum*
Galium pennsylvanicum : *Galium triflorum*
Galium septentrionale : *Galium boreale*
Galium spurium var. *echinospermum* : *Galium aparine*

Galium spurium var. *vaillantii* : *Galium aparine*
Galium spurium var. *vaillantii* : *Galium aparine*
Galium strictum : *Galium boreale*
Galium subbiflorum : *Galium trifidum* ssp. *trifidum*
Galium tinctorium ssp. *floridanum* : *Galium tinctorium*
Galium tinctorium *tinctorium* : *Galium tinctorium*
Galium tinctorium var. *diversifolium* : *Galium tinctorium*
Galium tinctorium var. *floridanum* : *Galium tinctorium*
Galium tinctorium var. *labradoricum* : *Galium labradoricum*
Galium tinctorium var. *subbiflorum* : *Galium trifidum* ssp. *trifidum*
Galium trifidum : *Galium trifidum* ssp. *trifidum*
Galium trifidum ssp. *brevipes* : *Galium brevipes*
Galium trifidum ssp. *subbiflorum* : *Galium trifidum* ssp. *trifidum*
Galium trifidum ssp. *tinctorium* : *Galium tinctorium*
Galium trifidum var. *latifolium* : *Galium obtusum* ssp. *obtusum*
Galium trifidum var. *pusillum* : *Galium trifidum* ssp. *trifidum*
Galium trifidum var. *subbiflorum* : *Galium trifidum* ssp. *trifidum*
Galium trifidum var. *tinctorium* : *Galium tinctorium*
Galium triflorum var. *asprelliforme* : *Galium triflorum*
Galium triflorum var. *viridiflorum* : *Galium triflorum*
Galium vaillantii : *Galium aparine*
Gentiana acuta : *Gentianella amarella* ssp. *acuta*
Gentiana amarella : *Gentianella amarella* ssp. *acuta*
Gentiana amarella ssp. *acuta* : *Gentianella amarella* ssp. *acuta*
Gentiana amarella var. *acuta* : *Gentianella amarella* ssp. *acuta*
Gentiana amarella var. *plebeja* : *Gentianella amarella* ssp. *acuta*
Gentiana amarella var. *stricta* : *Gentianella amarella* ssp. *acuta*
Gentiana andrewsii var. *andrewsii* : *Gentiana andrewsii*
Gentiana andrewsii var. *dakotica* : *Gentiana andrewsii*
Gentiana crinita : *Gentianopsis crinita*
Gentiana crinita var. *browniana* : *Gentianopsis virgata*
Gentiana flava : *Gentiana alba*
Gentiana linearis ssp. *rubricaulis* : *Gentiana rubricaulis*
Gentiana linearis var. *lanceolata* : *Gentiana rubricaulis*
Gentiana linearis var. *latifolia* : *Gentiana rubricaulis*
Gentiana plebeja : *Gentianella amarella* ssp. *acuta*
Gentiana plebeja var. *holmii* : *Gentianella amarella* ssp. *acuta*
Gentiana procera : *Gentianopsis virgata*
Gentiana quinquefolia var. *occidentalis* : *Gentianella quinquefolia* ssp. *occidentalis*
Gentiana strictiflora : *Gentianella amarella* ssp. *acuta*
Gentiana ventricosa : *Gentianopsis crinita*
Gentianella acuta : *Gentianella amarella* ssp. *acuta*
Gentianella amarella : *Gentianella amarella* ssp. *acuta*
Gentianella amarella var. *acuta* : *Gentianella amarella* ssp. *acuta*

Gentianella crinita : *Gentianopsis crinita*
Gentianella crinita ssp. *procera* : *Gentianopsis virgata*
Gentianella occidentalis : *Gentianella quinquefolia* ssp. *occidentalis*
Gentianella quinquefolia : *Gentianella quinquefolia* ssp. *occidentalis*
Gentianella quinquefolia var. *occidentalis* : *Gentianella quinquefolia* ssp. *occidentalis*
Gentianella strictiflora : *Gentianella amarella* ssp. *acuta*
Gentianopsis procera : *Gentianopsis virgata*
Gerardia aspera : *Agalinis aspera*
Gerardia besseyana : *Agalinis tenuifolia*
Gerardia leucantha : *Agalinis tenuifolia*
Gerardia paupercula : *Agalinis paupercula*
Gerardia paupercula ssp. *borealis* : *Agalinis paupercula*
Gerardia paupercula var. *borealis* : *Agalinis paupercula*
Gerardia paupercula var. *typica* : *Agalinis paupercula*
Gerardia polyphylla : *Agalinis tenuifolia*
Gerardia purpurea : *Agalinis purpurea*
Gerardia purpurea ssp. *parvula* : *Agalinis purpurea*
Gerardia purpurea var. *carteri* : *Agalinis purpurea*
Gerardia purpurea var. *grandiflora* : *Agalinis purpurea*
Gerardia purpurea var. *parviflora* : *Agalinis paupercula*
Gerardia purpurea var. *paupercula* : *Agalinis paupercula*
Gerardia tenuifolia : *Agalinis tenuifolia*
Gerardia tenuifolia ssp. *leucantha* : *Agalinis tenuifolia*
Gerardia tenuifolia ssp. *macrophylla* : *Agalinis tenuifolia*
Gerardia tenuifolia ssp. *parviflora* : *Agalinis tenuifolia*
Gerardia tenuifolia ssp. *polyphylla* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *humilis* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *leucantha* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *macrophylla* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *parviflora* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *polyphylla* : *Agalinis tenuifolia*
Gerardia tenuifolia var. *typica* : *Agalinis tenuifolia*
Geum agrimonoides : *Potentilla arguta* ssp. *arguta*
Geum aleppicum ssp. *strictum* : *Geum aleppicum*
Geum aleppicum var. *strictum* : *Geum aleppicum*
Geum canadense grimesii : *Geum canadense*
Geum canadense var. *brevipes* : *Geum canadense*
Geum canadense var. *camporum* : *Geum canadense*
Geum canadense var. *canadense* : *Geum canadense*
Geum canadense var. *grimesii* : *Geum canadense*
Geum canadense var. *texanum* : *Geum canadense*
Geum ciliatum var. *griseum* : *Geum triflorum* var. *triflorum*
Geum laciniatum var. *laciniatum* : *Geum laciniatum*
Geum laciniatum var. *trichocarpum* : *Geum laciniatum*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Geum macrophyllum ssp. *perincisum* : *Geum macrophyllum* var. *perincisum*
Geum macrophyllum var. *rydbergii* : *Geum macrophyllum* var. *perincisum*
Geum oregonense : *Geum macrophyllum* var. *perincisum*
Geum perincisum : *Geum macrophyllum* var. *perincisum*
Geum perincisum var. *intermedium* : *Geum macrophyllum* var. *perincisum*
Geum strictum : *Geum aleppicum*
Geum strictum var. *decurrens* : *Geum aleppicum*
Geum triflorum : *Geum triflorum* var. *triflorum*
Glaux maritima ssp. *obtusifolia* : *Glaux maritima*
Glaux maritima var. *angustifolia* : *Glaux maritima*
Glaux maritima var. *macrophylla* : *Glaux maritima*
Glaux maritima var. *obtusifolia* : *Glaux maritima*
Glechoma hederacea var. *micrantha* : *Glechoma hederacea*
Glechoma hederacea var. *parviflora* : *Glechoma hederacea*
Gleditsia triacanthos var. *inermis* : *Gleditsia triacanthos*
Gleditsia triacanthus *inermis* : *Gleditsia triacanthos*
Glyceria distans : *Puccinellia distans* ssp. *distans*
Glyceria elata : *Glyceria striata*
Glyceria fernaldii : *Torreyochoea pallida*
Glyceria grandis : *Glyceria grandis* var. *grandis*
Glyceria maxima ssp. *grandis* : *Glyceria grandis* var. *grandis*
Glyceria maxima var. *americana* : *Glyceria grandis* var. *grandis*
Glyceria nervata : *Glyceria striata*
Glyceria otisii : *Torreyochoea pallida*
Glyceria pallida : *Torreyochoea pallida*
Glyceria pallida var. *fernaldii* : *Torreyochoea pallida*
Glyceria pauciflora : *Torreyochoea pallida*
Glyceria striata ssp. *stricta* : *Glyceria striata*
Glyceria striata var. *striata* : *Glyceria striata*
Glyceria striata var. *stricta* : *Glyceria striata*
Glycine apios : *Apios americana*
Glycine bracteata : *Amphicarpaea bracteata*
Glycine comosa : *Amphicarpaea bracteata*
Glycyrrhiza glutinosa : *Glycyrrhiza lepidota*
Glycyrrhiza lepidota var. *glutinosa* : *Glycyrrhiza lepidota*
Goodyera ophioides : *Goodyera repens*
Goodyera repens ssp. *ophioides* : *Goodyera repens*
Goodyera repens var. *ophioides* : *Goodyera repens*
Grammica cephalanthi : *Cuscuta cephalanthi*
Grammica coryli : *Cuscuta coryli*
Grammica gronovii : *Cuscuta gronovii*
Grammica umbrosa : *Cuscuta gronovii*
Gratiola dubia : *Lindernia dubia*
Gratiola neglecta var. *glaberrima* : *Gratiola neglecta*

Grindelia perennis : *Grindelia squarrosa*
Grindelia serrulata : *Grindelia squarrosa*
Grindelia squarrosa var. *quasiperennis* : *Grindelia squarrosa*
Grindelia squarrosa var. *serrulata* : *Grindelia squarrosa*
Grindelia squarrosa var. *squarrosa* : *Grindelia squarrosa*
Grossularia hirtella : *Ribes hirtellum*
Gymnadeniopsis clavellata : *Platanthera clavellata*
Gymnocarpium dryopteris var. *pumilum* : *Gymnocarpium robertianum*
Habenaria bracteata : *Coeloglossum viride* var. *virescens*
Habenaria clavellata : *Platanthera clavellata*
Habenaria clavellata var. *ophioglossoides* : *Platanthera clavellata*
Habenaria clavellata var. *wrightii* : *Platanthera clavellata*
Habenaria dilatata : *Platanthera dilatata* var. *dilatata*
Habenaria flava var. *herbiola* : *Platanthera flava* var. *herbiola*
Habenaria hookeri : *Platanthera hookeri*
Habenaria hookeri var. *abbreviata* : *Platanthera hookeri*
Habenaria hyperborea : *Platanthera hyperborea*
Habenaria hyperborea var. *viridiflora* : *Platanthera hyperborea*
Habenaria lacera : *Platanthera lacera*
Habenaria lacera var. *terrae-novae* : *Platanthera lacera*
Habenaria leucophaea var. *praeclara* : *Platanthera praeclara*
Habenaria obtusata : *Platanthera obtusata*
Habenaria obtusata var. *collectanea* : *Platanthera obtusata*
Habenaria orbiculata : *Platanthera orbiculata*
Habenaria orbiculata var. *lehorsii* : *Platanthera orbiculata*
Habenaria orbiculata var. *menziesii* : *Platanthera orbiculata*
Habenaria psycodes : *Platanthera psycodes*
Habenaria sparsiflora var. *laxiflora* : *Platanthera hyperborea*
Habenaria viridis var. *bracteata* : *Coeloglossum viride* var. *virescens*
Halenia deflexa var. *deflexa* : *Halenia deflexa*
Halerpestes cymbalaria : *Ranunculus cymbalaria*
Halerpestes cymbalaria ssp. *saximontana* : *Ranunculus cymbalaria*
Hamamelis macrophylla : *Hamamelis virginiana*
Hamamelis virginiana var. *henryi* : *Hamamelis virginiana*
Hamamelis virginiana var. *macrophylla* : *Hamamelis virginiana*
Hamamelis virginiana var. *parvifolia* : *Hamamelis virginiana*
Hammarbya paludosa : *Malaxis paludosa*
Hecatomnia scelerata : *Ranunculus sceleratus*
Hedera quinquefolia : *Parthenocissus quinquefolia*
Helenium autumnale : *Helenium autumnale* var. *autumnale*
Helenium autumnale var. *canaliculatum* : *Helenium autumnale* var. *autumnale*
Helenium autumnale var. *parviflorum* : *Helenium autumnale* var. *autumnale*
Helenium canaliculatum : *Helenium autumnale* var. *autumnale*
Helenium floridanum : *Helenium flexuosum*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Helenium godfreyi : *Helenium flexuosum*
Helenium latifolium : *Helenium autumnale* var. *autumnale*
Helenium nudiflorum : *Helenium flexuosum*
Helenium parviflorum : *Helenium autumnale* var. *autumnale*
Helianthus alienus : *Helianthus giganteus*
Helianthus annuus ssp. *jaegeri* : *Helianthus annuus*
Helianthus annuus ssp. *lenticularis* : *Helianthus annuus*
Helianthus annuus ssp. *texanus* : *Helianthus annuus*
Helianthus annuus var. *lenticularis* : *Helianthus annuus*
Helianthus annuus var. *macrocarpus* : *Helianthus annuus*
Helianthus annuus var. *texanus* : *Helianthus annuus*
Helianthus aridus : *Helianthus annuus*
Helianthus borealis : *Helianthus giganteus*
Helianthus dowellianus : *Helianthus occidentalis* ssp. *occidentalis*
Helianthus giganteus ssp. *alienus* : *Helianthus giganteus*
Helianthus giganteus var. *subtuberous* : *Helianthus giganteus*
Helianthus grosseserratus ssp. *maximus* : *Helianthus grosseserratus*
Helianthus grosseserratus var. *hypoleucus* : *Helianthus grosseserratus*
Helianthus instabilis : *Helianthus grosseserratus*
Helianthus lenticularis : *Helianthus annuus*
Helianthus nuttallii var. *subtuberous* : *Helianthus giganteus*
Helianthus occidentalis : *Helianthus occidentalis* ssp. *occidentalis*
Helianthus occidentalis var. *dowellianus* : *Helianthus occidentalis* ssp. *occidentalis*
Helianthus subtuberous : *Helianthus giganteus*
Helianthus tomentosus : *Helianthus tuberosus*
Helianthus tuberosus var. *subcanescens* : *Helianthus tuberosus*
Helianthus validus : *Helianthus giganteus*
Hemicarpha micrantha : *Lipocarpha micrantha*
Hemicarpha micrantha var. *minor* : *Lipocarpha micrantha*
Heracleum lanatum : *Heracleum maximum*
Heracleum sphondylium ssp. *montanum* : *Heracleum maximum*
Heracleum sphondylium var. *lanatum* : *Heracleum maximum*
Hesperis pinnatifidus : *Iodanthus pinnatifidus*
Heteranthera graminea : *Heteranthera dubia*
Heteranthera liebmannii : *Heteranthera dubia*
Heuchera hispida : *Heuchera richardsonii*
Heuchera hispida : *Heuchera richardsonii*
Heuchera richardsonii var. *affinis* : *Heuchera richardsonii*
Heuchera richardsonii var. *grayana* : *Heuchera richardsonii*
Heuchera richardsonii var. *hispidior* : *Heuchera richardsonii*
Hibiscus militaris : *Hibiscus laevis*
Hicoria alba : *Carya ovata*
Hicoria borealis : *Carya ovata*
Hicoria cordiformis : *Carya cordiformis*

Hicoria ovata : *Carya ovata*
Hierochloe hirta : *Hierochloe hirta* ssp. *arctica*
Hierochloe odorata : *Hierochloe hirta* ssp. *arctica*
Hierochloe odorata ssp. *arctica* : *Hierochloe hirta* ssp. *arctica*
Hierochloe odorata ssp. *hirta* : *Hierochloe hirta* ssp. *arctica*
Hippochaete hyemalis : *Equisetum hyemale* var. *affine*
Hippochaete hyemalis ssp. *affinis* : *Equisetum hyemale* var. *affine*
Hippochaete laevigata : *Equisetum laevigatum*
Hippochaete variegata : *Equisetum variegatum* var. *variegatum*
Homalocenchrus lenticularis : *Leersia lenticularis*
Homalocenchrus oryzoides : *Leersia oryzoides*
Homalocenchrus virginicus : *Leersia virginica*
Hordeum jubatum : *Hordeum jubatum* ssp. *jubatum*
Hordeum pusillum var. *pubens* : *Hordeum pusillum*
Humulus americanus : *Humulus lupulus*
Humulus lupulus ssp. *americanus* : *Humulus lupulus*
Humulus lupulus var. *lupuloides* : *Humulus lupulus*
Humulus lupulus var. *lupulus* : *Humulus lupulus*
Humulus lupulus var. *neomexicanus* : *Humulus lupulus*
Humulus lupulus var. *pubescens* : *Humulus lupulus*
Huperzia selago : *Huperzia selago* var. *selago*
Huperzia selago ssp. *lucidula* : *Huperzia lucidula*
Huperzia selago var. *patens* : *Huperzia porophila*
Huperzia selago var. *porophila* : *Huperzia porophila*
Hydranthelium rotundifolium : *Bacopa rotundifolia*
Hydrophila aquatica : *Crassula aquatica*
Hydrophyllum virginianum var. *atranthum* : *Hydrophyllum virginianum*
Hyoseris biflora : *Krigia biflora* var. *biflora*
Hypericum canadense var. *galiiforme* : *Hypericum canadense*
Hypericum canadense var. *magnisulare* : *Hypericum canadense*
Hypericum canadense var. *majus* : *Hypericum majus*
Hypericum muticum ssp. *boreale* : *Hypericum boreale*
Hypericum pyramidatum : *Hypericum ascyron*
Hypericum subpetiolatum : *Hypericum punctatum*
Hypericum virginicum var. *fraseri* : *Triadenum fraseri*
Hypoxis decumbens : *Hypoxis hirsuta*
Ibidium beckii : *Spiranthes lacera*
Ibidium cernuum : *Spiranthes cernua*
Ibidium gracile : *Spiranthes lacera*
Ibidium strictum : *Spiranthes romanzoffiana*
Ilex bronxensis : *Ilex verticillata*
Ilex fastigiata : *Ilex verticillata*
Ilex verticillata var. *cyclophylla* : *Ilex verticillata*
Ilex verticillata var. *fastigiata* : *Ilex verticillata*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Ilex verticillata var. *padifolia* : *Ilex verticillata*
Ilex verticillata var. *tenuifolia* : *Ilex verticillata*
Ilysanthes attenuata : *Lindernia dubia*
Ilysanthes dubia : *Lindernia dubia*
Ilysanthes inequalis : *Lindernia dubia*
Impatiens biflora : *Impatiens capensis*
Impatiens fulva : *Impatiens capensis*
Impatiens noli-tangere ssp. *biflora* : *Impatiens capensis*
Impatiens nortonii : *Impatiens capensis*
Iodanthus hesperioides : *Iodanthus pinnatifidus*
Ipomoea barbigera : *Ipomoea hederacea*
Ipomoea desertorum : *Ipomoea hederacea*
Ipomoea hederacea var. *integriuscula* : *Ipomoea hederacea*
Ipomoea hirsutula : *Ipomoea hederacea*
Ipomoea hirsutula : *Ipomoea purpurea*
Ipomoea purpurea var. *diversifolia* : *Ipomoea purpurea*
Iris shrevei : *Iris virginica* var. *shrevei*
Iris versicolor var. *blandescens* : *Iris virginica* var. *shrevei*
Iris versicolor var. *shrevei* : *Iris virginica* var. *shrevei*
Iris virginica : *Iris virginica* var. *shrevei*
Isnardia palustris : *Ludwigia palustris*
Isoetes braunii : *Isoetes tenella*
Isoetes echinospora : *Isoetes tenella*
Isoetes echinospora ssp. *asiatica* : *Isoetes tenella*
Isoetes echinospora ssp. *muricata* : *Isoetes tenella*
Isoetes echinospora var. *asiatica* : *Isoetes tenella*
Isoetes echinospora var. *braunii* : *Isoetes tenella*
Isoetes echinospora var. *hesperia* : *Isoetes tenella*
Isoetes echinospora var. *muricata* : *Isoetes tenella*
Isoetes echinospora var. *robusta* : *Isoetes tenella*
Isoetes echinospora var. *savilei* : *Isoetes tenella*
Isoetes hieroglyphica : *Isoetes lacustris*
Isoetes macrospora : *Isoetes lacustris*
Isoetes muricata : *Isoetes tenella*
Isoetes muricata var. *braunii* : *Isoetes tenella*
Isoetes muricata var. *hesperia* : *Isoetes tenella*
Isoetes setacea : *Isoetes tenella*
Isoetes setacea ssp. *muricata* : *Isoetes tenella*
Isopyrum bibernatum : *Enemion bibernatum*
Juncoides parviflorum : *Luzula parviflora*
Juncoides saltuense : *Luzula acuminata* var. *acuminata*
Juncus alpinoarticulatus ssp. *americanus* : *Juncus alpinoarticulatus*
Juncus alpinoarticulatus ssp. *fuscescens* : *Juncus alpinoarticulatus*
Juncus alpinoarticulatus ssp. *nodosulus* : *Juncus alpinoarticulatus*
Juncus alpinus : *Juncus alpinoarticulatus*
Juncus alpinus ssp. *nodosulus* : *Juncus alpinoarticulatus*
Juncus alpinus var. *fuscescens* : *Juncus alpinoarticulatus*
Juncus alpinus var. *rariflorus* : *Juncus alpinoarticulatus*
Juncus alpinus var. *uniceps* : *Juncus alpinoarticulatus*
Juncus arcticus ssp. *littoralis* : *Juncus balticus* var. *littoralis*
Juncus arcticus var. *balticus* : *Juncus balticus* var. *littoralis*
Juncus arcticus var. *littoralis* : *Juncus balticus* var. *littoralis*
Juncus articulatus var. *obtusatus* : *Juncus articulatus*
Juncus balticus : *Juncus balticus* var. *littoralis*
Juncus bufonius : *Juncus bufonius* var. *bufonius*
Juncus canadensis var. *euroauster* : *Juncus canadensis*
Juncus canadensis var. *sparsiflorus* : *Juncus canadensis*
Juncus conglomeratus : *Juncus effusus*
Juncus effusus ssp. *solutus* : *Juncus effusus*
Juncus effusus var. *brunneus* : *Juncus effusus*
Juncus effusus var. *caeruleomontanus* : *Juncus effusus*
Juncus effusus var. *compactus* : *Juncus effusus*
Juncus effusus var. *conglomeratus* : *Juncus effusus*
Juncus effusus var. *costulatus* : *Juncus effusus*
Juncus effusus var. *decipiens* : *Juncus effusus*
Juncus effusus var. *effusus* : *Juncus effusus*
Juncus effusus var. *exiguus* : *Juncus effusus*
Juncus effusus var. *gracilis* : *Juncus effusus*
Juncus effusus var. *pacificus* : *Juncus effusus*
Juncus effusus var. *pylaei* : *Juncus effusus*
Juncus effusus var. *solutus* : *Juncus effusus*
Juncus effusus var. *subglomeratus* : *Juncus effusus*
Juncus gerardii : *Juncus gerardii* var. *gerardii*
Juncus greenei var. *vaseyi* : *Juncus vaseyi*
Juncus griscomii : *Juncus effusus*
Juncus interior : *Juncus interior* var. *interior*
Juncus longistylis : *Juncus longistylis* var. *longistylis*
Juncus macer : *Juncus tenuis*
Juncus marginatus var. *setosus* : *Juncus marginatus*
Juncus melanocarpus : *Luzula parviflora*
Juncus nodosus : *Juncus nodosus* var. *nodosus*
Juncus parviflorus : *Luzula parviflora*
Juncus pelocarpus var. *sabulonensis* : *Juncus pelocarpus*
Juncus pylaei : *Juncus effusus*
Juncus richardsonianus : *Juncus alpinoarticulatus*
Juncus setosus : *Juncus marginatus*
Juncus stygius : *Juncus stygius* ssp. *americanus*
Juncus stygius var. *americana* : *Juncus stygius* ssp. *americanus*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Juncus stygius var. americanus : Juncus stygius ssp. americanus
Juncus tenuis var. anthelatus : Juncus tenuis
Juncus tenuis var. dudleyi : Juncus dudleyi
Juncus tenuis var. multicornis : Juncus tenuis
Juncus tenuis var. uniflorus : Juncus dudleyi
Juncus tenuis var. uniflorus : Juncus interior var. interior
Juncus tenuis var. williamsii : Juncus tenuis
Juniperus horizontalis hudsonica : Juniperus horizontalis
Juniperus horizontalis var. douglasii : Juniperus horizontalis
Juniperus horizontalis var. variegata : Juniperus horizontalis
Juniperus hudsonica : Juniperus horizontalis
Juniperus prostrata : Juniperus horizontalis
Juniperus repens : Juniperus horizontalis
Juniperus virginiana : Juniperus virginiana var. virginiana
Juniperus virginiana ssp. crebra : Juniperus virginiana var. virginiana
Juniperus virginiana var. crebra : Juniperus virginiana var. virginiana
Juniperus virginiana var. prostrata : Juniperus horizontalis
Kalmia polifolia var. rosmarinifolia : Kalmia polifolia
Kneiffia perennis : Oenothera perennis
Kneiffia pumila : Oenothera perennis
Kobresia elachycarpa : Carex sterilis
Kochia alata : Kochia scoparia
Kochia atriplicifolia : Cycloloma atriplicifolium
Kochia scoparia var. culta : Kochia scoparia
Kochia scoparia var. pubescens : Kochia scoparia
Kochia scoparia var. subvillosa : Kochia scoparia
Kochia scoparia var. trichophila : Kochia scoparia
Kochia sieversiana : Kochia scoparia
Kochia trichophila : Kochia scoparia
Koellia virginiana : Pycnanthemum virginianum
Krigia biflora : Krigia biflora var. biflora
Krigia biflora ssp. biflora : Krigia biflora var. biflora
Krigia biflora ssp. glandulifera : Krigia biflora var. biflora
Lacinaria pycnostachya : Liatris pycnostachya var. pycnostachya
Lactuca canadensis var. canadensis : Lactuca canadensis
Lactuca canadensis var. integrifolia : Lactuca canadensis
Lactuca canadensis var. latifolia : Lactuca canadensis
Lactuca canadensis var. longifolia : Lactuca canadensis
Lactuca canadensis var. obovata : Lactuca canadensis
Lactuca canadensis var. typica : Lactuca canadensis
Lactuca floridana var. floridana : Lactuca floridana
Lactuca floridana var. villosa : Lactuca floridana
Lactuca oblongifolia : Lactuca tatarica var. pulchella
Lactuca pulchella : Lactuca tatarica var. pulchella
Lactuca sagittifolia : Lactuca canadensis
Lactuca scariola : Lactuca serriola
Lactuca spicata : Lactuca biennis
Lactuca spicata var. integrifolia : Lactuca biennis
Lactuca steelei : Lactuca canadensis
Lactuca tatarica : Lactuca tatarica var. pulchella
Lactuca tatarica ssp. pulchella : Lactuca tatarica var. pulchella
Lactuca tatarica var. heterophylla : Lactuca tatarica var. pulchella
Lactuca villosa : Lactuca floridana
Lappula virginiana : Hackelia virginiana
Larix alaskensis : Larix laricina
Larix laricina var. alaskensis : Larix laricina
Lasallea ericoides : Symphytrichum ericoides
Lasallea falcata : Symphytrichum falcatum var. commutatum
Lasallea novae-angliae : Symphytrichum novae-angliae
Lathyrus japonicus : Lathyrus japonicus var. maritimus
Lathyrus japonicus ssp. maritimus : Lathyrus japonicus var. maritimus
Lathyrus japonicus var. glaber : Lathyrus japonicus var. maritimus
Lathyrus maritimus : Lathyrus japonicus var. maritimus
Lathyrus maritimus var. glaber : Lathyrus japonicus var. maritimus
Lathyrus myrtifolius : Lathyrus palustris
Lathyrus oreophilus : Lathyrus venosus
Lathyrus palustris ssp. pilosus : Lathyrus palustris
Lathyrus palustris var. linearifolius : Lathyrus palustris
Lathyrus palustris var. macranthus : Lathyrus palustris
Lathyrus palustris var. meridionalis : Lathyrus palustris
Lathyrus palustris var. myrtifolius : Lathyrus palustris
Lathyrus palustris var. palustris : Lathyrus palustris
Lathyrus palustris var. pilosus : Lathyrus palustris
Lathyrus palustris var. retusus : Lathyrus palustris
Lathyrus venosus ssp. arkansanus : Lathyrus venosus
Lathyrus venosus var. arkansanus : Lathyrus venosus
Lathyrus venosus var. intonsus : Lathyrus venosus
Lathyrus venosus var. meridionalis : Lathyrus venosus
Lecticula resupinata : Utricularia resupinata
Ledum palustre ssp. groenlandicum : Ledum groenlandicum
Ledum palustre var. latifolium : Ledum groenlandicum
Leersia virginica var. ovata : Leersia virginica
Legousia perfoliata : Triodanis perfoliata var. perfoliata
Lemma cyclostasa : Lemma minor
Lemma minima : Lemma minor
Lemma minor var. obscura : Lemma obscura
Lemma perpusilla var. trinervis : Lemma perpusilla
Leontodon latiloba : Taraxacum officinale



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Leontodon taraxacum : Taraxacum officinale
Lepadena marginata : Euphorbia marginata
Lepidanthus suaveolens : Matricaria discoidea
Lepidium densiflorum var. densiflorum : Lepidium densiflorum
Lepidium densiflorum var. elongatum : Lepidium densiflorum
Lepidium densiflorum var. macrocarpum : Lepidium densiflorum
Lepidium densiflorum var. pubecarpum : Lepidium densiflorum
Lepidium densiflorum var. ramosum : Lepidium densiflorum
Lepidium densiflorum var. typicum : Lepidium densiflorum
Lepidium elongatum : Lepidium densiflorum
Lepidium neglectum : Lepidium densiflorum
Lepidium pubecarpum : Lepidium densiflorum
Lepidium ramosum : Lepidium densiflorum
Lepidium texanum : Lepidium densiflorum
Lepidium virginicum : Lepidium virginicum var. virginicum
Lepidium virginicum var. typicum : Lepidium virginicum var. virginicum
Lepidotheca suaveolens : Matricaria discoidea
Lepidotis inundata : Lycopodiella inundata
Leptandra virginica : Veronicastrum virginicum
Leptilon canadense : Conyzza canadensis var. canadensis
Lespedeza bicknellii : Lespedeza capitata
Lespedeza capitata var. stenophylla : Lespedeza capitata
Lespedeza capitata var. velutina : Lespedeza capitata
Lespedeza capitata var. vulgaris : Lespedeza capitata
Leucocoma alpina : Trichophorum alpinum
Liatris bebbiana : Liatris pycnostachya var. pycnostachya
Liatris pycnostachya : Liatris pycnostachya var. pycnostachya
Lilium andinum : Lilium philadelphicum var. andinum
Lilium canadense ssp. michiganense : Lilium michiganense
Lilium canadense var. umbelliferum : Lilium michiganense
Lilium michiganense var. uniflorum : Lilium michiganense
Lilium montanum : Lilium philadelphicum var. andinum
Lilium philadelphicum : Lilium philadelphicum var. andinum
Lilium philadelphicum var. montanum : Lilium philadelphicum var. andinum
Lilium umbellatum : Lilium philadelphicum var. andinum
Limnobotrya lacustris : Ribes lacustre
Limnorchis dilatata : Platanthera dilatata var. dilatata
Limnorchis hyperborea : Platanthera hyperborea
Limnorchis viridiflora : Platanthera hyperborea
Limodorum tuberosum : Calopogon tuberosus var. tuberosus
Lindernia anagallidea : Lindernia dubia
Lindernia dubia var. anagallidea : Lindernia dubia
Lindernia dubia var. dubia : Lindernia dubia
Lindernia dubia var. inundata : Lindernia dubia
Lindernia dubia var. major : Lindernia dubia
Lindernia dubia var. riparia : Lindernia dubia
Lindernia dubia var. typica : Lindernia dubia
Lindernia procumbens : Lindernia dubia
Lindernia pyxidaria : Lindernia dubia
Linnaea americana : Linnaea borealis ssp. americana
Linnaea borealis : Linnaea borealis ssp. americana
Linnaea borealis var. americana : Linnaea borealis ssp. americana
Linnaea borealis var. longiflora : Linnaea borealis ssp. americana
Lippia lanceolata : Phyla lanceolata
Lippia lanceolata var. recognita : Phyla lanceolata
Listera cordata : Listera cordata var. cordata
Littorella americana : Littorella uniflora
Littorella uniflora var. americana : Littorella uniflora
Lobelia bracteata : Lobelia spicata
Lobelia cardinalis ssp. graminea : Lobelia cardinalis
Lobelia cardinalis var. graminea : Lobelia cardinalis
Lobelia cardinalis var. meridionalis : Lobelia cardinalis
Lobelia cardinalis var. multiflora : Lobelia cardinalis
Lobelia cardinalis var. phyllostachya : Lobelia cardinalis
Lobelia cardinalis var. propinqua : Lobelia cardinalis
Lobelia cardinalis var. pseudosplendens : Lobelia cardinalis
Lobelia fulgens : Lobelia cardinalis
Lobelia hirtella : Lobelia spicata
Lobelia kalmii var. strictiflora : Lobelia kalmii
Lobelia leptostachys : Lobelia spicata
Lobelia siphilitica : Lobelia siphilitica var. ludoviciana
Lobelia siphilitica var. siphilitica : Lobelia siphilitica var. ludoviciana
Lobelia spicata var. campanulata : Lobelia spicata
Lobelia spicata var. hirtella : Lobelia spicata
Lobelia spicata var. leptostachys : Lobelia spicata
Lobelia spicata var. originalis : Lobelia spicata
Lobelia spicata var. parviflora : Lobelia spicata
Lobelia spicata var. scaposa : Lobelia spicata
Lobelia spicata var. spicata : Lobelia spicata
Lobelia splendens : Lobelia cardinalis
Lobelia strictiflora : Lobelia kalmii
Lolium multiflorum : Lolium perenne
Lolium multiflorum var. diminutum : Lolium perenne
Lolium multiflorum var. muticum : Lolium perenne
Lolium multiflorum var. ramosum : Lolium perenne
Lolium perenne ssp. multiflorum : Lolium perenne
Lolium perenne ssp. perenne : Lolium perenne
Lolium perenne var. aristatum : Lolium perenne



Lolium perenne var. cristatum : Lolium perenne
Lolium perenne var. multiflorum : Lolium perenne
Lonicera caerulea var. villosa : Lonicera villosa
Lonicera dioica var. dasygyna : Lonicera dioica
Lonicera dioica var. dioica : Lonicera dioica
Lonicera dioica var. glaucescens : Lonicera dioica
Lonicera dioica var. orientalis : Lonicera dioica
Lonicera glaucescens : Lonicera dioica
Lonicera glaucescens var. dasygyna : Lonicera dioica
Lonicera hirsuta var. interior : Lonicera hirsuta
Lonicera hirsuta var. schindleri : Lonicera hirsuta
Lonicera oblongifolia var. altissima : Lonicera oblongifolia
Lonicera villosa var. calvescens : Lonicera villosa
Lonicera villosa var. fulleri : Lonicera villosa
Lonicera villosa var. solonis : Lonicera villosa
Lonicera villosa var. tonsa : Lonicera villosa
Lonicera villosa var. villosa : Lonicera villosa
Lophotocarpus californicus : Sagittaria calycina var. calycina
Lophotocarpus calycinus : Sagittaria calycina var. calycina
Lophotocarpus depauperatus : Sagittaria calycina var. calycina
Lotus corniculatus var. arvensis : Lotus corniculatus
Ludwigia palustris var. americana : Ludwigia palustris
Ludwigia palustris var. nana : Ludwigia palustris
Ludwigia palustris var. pacifica : Ludwigia palustris
Luzula acuminata : Luzula acuminata var. acuminata
Luzula carolinae var. saltuensis : Luzula acuminata var. acuminata
Luzula hyperborea : Juncus articulatus
Luzula melanocarpa : Luzula parviflora
Luzula multiflora : Luzula multiflora ssp. multiflora
Luzula parviflora ssp. melanocarpa : Luzula parviflora
Luzula parviflora var. melanocarpa : Luzula parviflora
Luzula pilosa : Luzula acuminata var. acuminata
Luzula pilosa var. saltuensis : Luzula acuminata var. acuminata
Luzula saltuensis : Luzula acuminata var. acuminata
Lychnis saponaria : Saponaria officinalis
Lycopodiella inundata : Lycopodiella inundata
Lycopodium anceps : Lycopodium complanatum
Lycopodium annotinum ssp. alpestre : Lycopodium annotinum
Lycopodium annotinum ssp. pungens : Lycopodium annotinum
Lycopodium annotinum var. acrifolium : Lycopodium annotinum
Lycopodium annotinum var. alpestre : Lycopodium annotinum
Lycopodium annotinum var. pungens : Lycopodium annotinum
Lycopodium clavatum var. laurentianum : Lycopodium clavatum
Lycopodium clavatum var. subremotum : Lycopodium clavatum

Lycopodium clavatum var. *tristachyum* : *Lycopodium clavatum*
Lycopodium complanatum ssp. *anceps* : *Lycopodium complanatum*
Lycopodium complanatum var. *canadense* : *Lycopodium complanatum*
Lycopodium dubium : *Lycopodium annotinum*
Lycopodium inundatum : *Lycopodiella inundata*
Lycopodium lucidulum : *Huperzia lucidula*
Lycopodium lucidulum var. *porophilum* : *Huperzia porophila*
Lycopodium obscurum var. *dendroideum* : *Lycopodium dendroideum*
Lycopodium obscurum var. *hybridum* : *Lycopodium dendroideum*
Lycopodium obscurum var. *isophyllum* : *Lycopodium obscurum*
Lycopodium porophilum : *Huperzia porophila*
Lycopodium reflexum : *Huperzia lucidula*
Lycopodium selago : *Huperzia selago* var. *selago*
Lycopodium selago ssp. *patens* : *Huperzia porophila*
Lycopodium selago var. *patens* : *Huperzia porophila*
Lycopodium selago var. *porophilum* : *Huperzia porophila*
Lycopus americanus var. *longii* : *Lycopus americanus*
Lycopus americanus var. *scabrifolius* : *Lycopus americanus*
Lycopus lucidus : *Lycopus asper*
Lycopus lucidus ssp. *americanus* : *Lycopus asper*
Lycopus lucidus var. *americanus* : *Lycopus asper*
Lycopus sinuatus : *Lycopus americanus*
Lycopus virginicus var. *pauciflorus* : *Lycopus uniflorus*
Lysias hookeriana : *Platanthera hookeri*
Lysias orbiculata : *Platanthera orbiculata*
Lysiella obtusata : *Platanthera obtusata*
Lysimachia ciliata var. *validula* : *Lysimachia hybrida*
Lysimachia lanceolata ssp. *hybrida* : *Lysimachia hybrida*
Lysimachia lanceolata var. *hybrida* : *Lysimachia hybrida*
Lysimachia longifolia : *Lysimachia quadriflora*
Lysimachia terrestris var. *ovata* : *Lysimachia terrestris*
Lythrum alatum : *Lythrum alatum* var. *alatum*
Lythrum dacotanum : *Lythrum alatum* var. *alatum*
Lythrum salicaria var. *gracilior* : *Lythrum salicaria*
Lythrum salicaria var. *tomentosum* : *Lythrum salicaria*
Lythrum salicaria var. *vulgare* : *Lythrum salicaria*
Macrorhynchus glaucus var. *laciniatus* : *Agoseris glauca* var. *glaucha*
Macuillamia rotundifolia : *Bacopa rotundifolia*
Maianthemum canadense var. *canadense* : *Maianthemum canadense*
Maianthemum canadense var. *interius* : *Maianthemum canadense*
Maianthemum canadense var. *pubescens* : *Maianthemum canadense*
Maianthemum racemosum : *Maianthemum racemosum* ssp. *racemosum*
Malachium aquaticum : *Myosoton aquaticum*
Malaxis monophylla var. *brachypoda* : *Malaxis brachypoda*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Malaxis monophyllos ssp. *brachypoda* : *Malaxis brachypoda*
Malaxis monophyllos var. *brachypoda* : *Malaxis brachypoda*
Mariscus filiculmis : *Cyperus lupulinus*
Mariscus huarmensis : *Cyperus odoratus*
Mariscus mariscoides : *Cladium mariscoides*
Mariscus schweinitzii : *Cyperus schweinitzii*
Marsilea fournieri : *Marsilea vestita* ssp. *vestita*
Marsilea minuta : *Marsilea vestita* ssp. *vestita*
Marsilea mucronata : *Marsilea vestita* ssp. *vestita*
Marsilea uncinata : *Marsilea vestita* ssp. *vestita*
Marsilea vestita : *Marsilea vestita* ssp. *vestita*
Marsilea vestita var. *mucronata* : *Marsilea vestita* ssp. *vestita*
Maruta cotula : *Anthemis cotula*
Matricaria maritima : *Tripleurospermum maritima* ssp. *maritima*
Matricaria matricarioides : *Matricaria discoidea*
Matricaria suaveolens : *Matricaria discoidea*
Matteuccia pensylvanica : *Matteuccia struthiopteris*
Matteuccia struthiopteris var. *pensylvanica* : *Matteuccia struthiopteris*
Matteuccia struthiopteris var. *pubescens* : *Matteuccia struthiopteris*
Medicago lupulina var. *cupaniana* : *Medicago lupulina*
Medicago lupulina var. *glandulosa* : *Medicago lupulina*
Megalodonta beckii : *Megalodonta beckii* var. *beckii*
Meibomia canadensis : *Desmodium canadense*
Melampyrum latifolium : *Melampyrum lineare* var. *lineare*
Melampyrum lineare : *Melampyrum lineare* var. *lineare*
Melampyrum lineare var. *americanum* : *Melampyrum lineare* var. *lineare*
Melampyrum lineare var. *latifolium* : *Melampyrum lineare* var. *lineare*
Melica purpurascens : *Schizachne purpurascens*
Melilotus albus : *Melilotus officinalis*
Melilotus albus var. *annuus* : *Melilotus officinalis*
Mentha aquatica var. *crispa* : *Mentha X piperita*
Mentha arvensis : *Mentha arvensis*
Mentha arvensis ssp. *borealis* : *Mentha arvensis*
Mentha arvensis ssp. *haplocalyx* : *Mentha arvensis*
Mentha arvensis var. *canadensis* : *Mentha arvensis*
Mentha arvensis var. *glabrata* : *Mentha arvensis*
Mentha arvensis var. *lanata* : *Mentha arvensis*
Mentha arvensis var. *sativa* : *Mentha arvensis*
Mentha arvensis var. *villosa* : *Mentha arvensis*
Mentha canadensis : *Mentha arvensis*
Mentha cordifolia : *Mentha spicata*
Mentha crispa : *Mentha X piperita*
Mentha dumetorum : *Mentha X piperita*
Mentha gentilis : *Mentha arvensis*

Mentha glabrior : *Mentha arvensis*
Mentha longifolia : *Mentha spicata*
Mentha penardii : *Mentha arvensis*
Mentha viridis : *Mentha spicata*
Menyanthes trifoliata var. *minor* : *Menyanthes trifoliata*
Mertensia palmeri : *Mertensia paniculata* var. *paniculata*
Mertensia paniculata : *Mertensia paniculata* var. *paniculata*
Mertensia pilosa : *Mertensia paniculata* var. *paniculata*
Mesadenia tuberosa : *Arnoglossum plantagineum*
Mespileus arborea : *Amelanchier arborea* var. *arborea*
Micrampelis lobata : *Echinocystis lobata*
Micranthes pensylvanica : *Saxifraga pensylvanica*
Micranthes virginensis : *Saxifraga virginensis* var. *virginensis*
Microstylis unifolia : *Malaxis unifolia*
Milium effusum : *Milium effusum* var. *cisatlanticum*
Mimosa illinoensis : *Desmanthus illinoensis*
Mimulus geyeri : *Mimulus glabratus* var. *jamesii*
Mimulus glabratus : *Mimulus glabratus* var. *jamesii*
Mimulus glabratus var. *fremontii* : *Mimulus glabratus* var. *jamesii*
Mimulus inamoenus : *Mimulus glabratus* var. *jamesii*
Mimulus jamesii : *Mimulus glabratus* var. *jamesii*
Mimulus jamesii var. *fremontii* : *Mimulus glabratus* var. *jamesii*
Mimulus minthodes : *Mimulus ringens* var. *ringens*
Mimulus pallidus : *Mimulus ringens* var. *ringens*
Mimulus reniformis : *Mimulus glabratus* var. *jamesii*
Mimulus ringens : *Mimulus ringens* var. *ringens*
Mimulus ringens var. *congesta* : *Mimulus ringens* var. *ringens*
Mimulus ringens var. *minthodes* : *Mimulus ringens* var. *ringens*
Mitella oppositifolia : *Mitella diphylla*
Moldavica parviflora : *Dracocephalum parviflorum*
Mollugo berteriana : *Mollugo verticillata*
Monarda fistulosa : *Monarda fistulosa* ssp. *fistulosa*
Moneses uniflora ssp. *reticulata* : *Moneses uniflora*
Moneses uniflora var. *reticulata* : *Moneses uniflora*
Monilistus monilifera : *Populus deltoides* ssp. *monilifera*
Monotropa brittonii : *Monotropa uniflora*
Morus alba var. *tatarica* : *Morus alba*
Morus rubra : *Morus rubra* var. *rubra*
Morus tatarica : *Morus alba*
Muhlenbergia ambigua : *Muhlenbergia mexicana*
Muhlenbergia commutata : *Muhlenbergia frondosa*
Muhlenbergia foliosa : *Muhlenbergia mexicana*
Muhlenbergia foliosa ssp. *ambigua* : *Muhlenbergia mexicana*
Muhlenbergia foliosa ssp. *setiglumis* : *Muhlenbergia mexicana*



Muhlenbergia glomerata var. *cinnoides* : *Muhlenbergia glomerata*
Muhlenbergia mexicana var. *filiformis* : *Muhlenbergia mexicana*
Muhlenbergia palustris : *Muhlenbergia schreberi*
Muhlenbergia racemosa var. *cinnoides* : *Muhlenbergia glomerata*
Muhlenbergia schreberi var. *palustris* : *Muhlenbergia schreberi*
Muhlenbergia squarrosa : *Muhlenbergia richardsonis*
Muhlenbergia sylvatica var. *robusta* : *Muhlenbergia sylvatica*
Muhlenbergia umbrosa : *Muhlenbergia sylvatica*
Muhlenbergia uniflora var. *terrae-novae* : *Muhlenbergia uniflora*
Mulgedium floridanum : *Lactuca floridana*
Mulgedium spicatum : *Lactuca biennis*
Mulgedium spicatum var. *integrifolium* : *Lactuca biennis*
Mulgedium villosum : *Lactuca floridana*
Muricauda dracontium : *Arisaema dracontium*
Myagrum sativum : *Camelina sativa*
Myosotis palustris : *Myosotis scorpioides*
Myosotis scorpioides var. *arvensis* : *Myosotis arvensis*
Myosotis virginiana : *Hackelia virginiana*
Myosotis virginica : *Myosotis verna*
Myosurus clavicaulis : *Myosurus minimus*
Myosurus lepturus : *Myosurus minimus*
Myosurus minimus ssp. *apus* : *Myosurus minimus*
Myosurus minimus ssp. *major* : *Myosurus minimus*
Myosurus minimus var. *apus* : *Myosurus minimus*
Myosurus minimus var. *clavicaulis* : *Myosurus minimus*
Myosurus minimus var. *filiformis* : *Myosurus minimus*
Myosurus minimus var. *interior* : *Myosurus minimus*
Myosurus minimus var. *lepturus* : *Myosurus minimus*
Myosurus minimus var. *major* : *Myosurus minimus*
Myrica gale var. *subarctica* : *Myrica gale*
Myrica gale var. *subglabra* : *Myrica gale*
Myrica gale var. *tomentosa* : *Myrica gale*
Myriophyllum alterniflorum var. *americanum* : *Myriophyllum alterniflorum*
Myriophyllum exalbescens : *Myriophyllum sibiricum*
Myriophyllum exalbescens var. *magdalense* : *Myriophyllum sibiricum*
Myriophyllum magdalense : *Myriophyllum sibiricum*
Myriophyllum spicatum ssp. *exalbescens* : *Myriophyllum sibiricum*
Myriophyllum spicatum ssp. *squamosum* : *Myriophyllum sibiricum*
Myriophyllum spicatum var. *capillaceum* : *Myriophyllum sibiricum*
Myriophyllum spicatum var. *exalbescens* : *Myriophyllum sibiricum*
Myriophyllum spicatum var. *squamosum* : *Myriophyllum sibiricum*
Myriophyllum verticillatum var. *intermedium* : *Myriophyllum verticillatum*
Myriophyllum verticillatum var. *pectinatum* : *Myriophyllum verticillatum*
Myriophyllum verticillatum var. *pinnatifidum* : *Myriophyllum verticillatum*

Nabalus albus : *Prenanthes alba*
Nabalus crepidineus : *Prenanthes crepidinea*
Nabalus racemosus : *Prenanthes racemosa*
Najas caespitosa : *Najas flexilis*
Najas flexilis ssp. *caespitosa* : *Najas flexilis*
Najas flexilis var. *congesta* : *Najas flexilis*
Najas flexilis var. *robusta* : *Najas flexilis*
Najas gracilis : *Najas marina*
Najas guadalupensis ssp. *floridana* : *Najas guadalupensis*
Najas guadalupensis ssp. *guadalupensis* : *Najas guadalupensis*
Najas guadalupensis ssp. *muenscheri* : *Najas guadalupensis*
Najas guadalupensis ssp. *olivacea* : *Najas guadalupensis*
Najas guadalupensis var. *floridana* : *Najas guadalupensis*
Najas guadalupensis var. *muenscheri* : *Najas guadalupensis*
Najas guadalupensis var. *olivacea* : *Najas guadalupensis*
Najas indica var. *gracillima* : *Najas gracillima*
Najas major : *Najas marina*
Najas major var. *angustifolia* : *Najas marina*
Najas marina var. *recurvata* : *Najas marina*
Najas muenscheri : *Najas guadalupensis*
Najas olivacea : *Najas guadalupensis*
Nardosmia arctica : *Petasites frigidus* var. *palmatus*
Narthecium glutinosum : *Tofieldia glutinosa* ssp. *glutinosa*
Narthecium pusillum : *Tofieldia pusilla*
Nasturtium armoracia : *Armoracia rusticana*
Nasturtium austriacum : *Rorippa austriaca*
Nasturtium microphyllum : *Rorippa microphylla*
Nasturtium nasturtium-aquaticum : *Rorippa nasturtium-aquaticum*
Nasturtium officinale : *Rorippa nasturtium-aquaticum*
Nasturtium officinale var. *microphyllum* : *Rorippa microphylla*
Nasturtium officinale var. *siifolium* : *Rorippa nasturtium-aquaticum*
Nasturtium sessiliflorum : *Rorippa sessiliflora*
Nasturtium sinuatum : *Rorippa sinuata*
Naumburgia thrysiflora : *Lysimachia thrysiflora*
Negundo aceroides : *Acer negundo*
Negundo aceroides ssp. *interius* : *Acer negundo*
Negundo aceroides ssp. *violaceum* : *Acer negundo*
Negundo californica : *Acer negundo*
Negundo californicum : *Acer negundo*
Negundo interius : *Acer negundo*
Negundo mexicanum : *Acer negundo*
Nelumbium luteum : *Nelumbo lutea*
Nelumbo pentapetala : *Nelumbo lutea*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Nemexia herbacea : *Smilax herbacea*
Nepeta hederacea : *Glechoma hederacea*
Norta altissima : *Sisymbrium altissimum*
Nuphar advena var. *fraterna* : *Nuphar lutea* ssp. *variegata*
Nuphar lutea : *Nuphar lutea* ssp. *pumila*
Nuphar lutea : *Nuphar lutea* ssp. *rubrodisca*
Nuphar lutea : *Nuphar lutea* ssp. *variegata*
Nuphar luteum ssp. *variegatum* : *Nuphar lutea* ssp. *variegata*
Nuphar microphylla : *Nuphar lutea* ssp. *pumila*
Nuphar pumila : *Nuphar lutea* ssp. *pumila*
Nuphar rubrodisca : *Nuphar lutea* ssp. *rubrodisca*
Nuphar variegata : *Nuphar lutea* ssp. *variegata*
Nuphar x rubrodisca : *Nuphar lutea* ssp. *rubrodisca*
Nyctelea nyctelea : *Ellisia nyctelea*
Nymphaea fraterna : *Nuphar lutea* ssp. *variegata*
Nymphaea minor : *Nymphaea odorata*
Nymphaea odorata ssp. *odorata* : *Nymphaea odorata*
Nymphaea odorata ssp. *tuberosa* : *Nymphaea odorata*
Nymphaea odorata var. *gigantea* : *Nymphaea odorata*
Nymphaea odorata var. *godfreyi* : *Nymphaea odorata*
Nymphaea odorata var. *maxima* : *Nymphaea odorata*
Nymphaea odorata var. *minor* : *Nymphaea odorata*
Nymphaea odorata var. *rosea* : *Nymphaea odorata*
Nymphaea odorata var. *stenopetala* : *Nymphaea odorata*
Nymphaea odorata var. *villosa* : *Nymphaea odorata*
Nymphaea rubrodisca : *Nuphar lutea* ssp. *rubrodisca*
Nymphaea tetragona ssp. *leibergii* : *Nymphaea leibergii*
Nymphaea tetragona var. *leibergii* : *Nymphaea leibergii*
Nymphaea tuberosa : *Nymphaea odorata*
Nymphozanthus rubrodiscus : *Nuphar lutea* ssp. *rubrodisca*
Oakesiella sessilifolia : *Uvularia sessilifolia*
Oenothera albinervis : *Oenothera villosa*
Oenothera biennis ssp. *caeciarum* : *Oenothera biennis*
Oenothera biennis ssp. *centralis* : *Oenothera biennis*
Oenothera biennis var. *canescens* : *Oenothera villosa*
Oenothera biennis var. *pycnocarpa* : *Oenothera biennis*
Oenothera biennis var. *strigosa* : *Oenothera villosa*
Oenothera canovirens : *Oenothera villosa*
Oenothera cheradophila : *Oenothera villosa*
Oenothera cruciata : *Oenothera parviflora*
Oenothera cruciata var. *sabulonensis* : *Oenothera parviflora*
Oenothera cymatilis : *Oenothera parviflora*
Oenothera depressa : *Oenothera villosa*
Oenothera depressa ssp. *strigosa* : *Oenothera villosa*

Oenothera heterophylla var. *rhombipetala* : *Oenothera rhombipetala*
Oenothera muricata : *Oenothera biennis*
Oenothera perennis var. *rectipilis* : *Oenothera perennis*
Oenothera perennis var. *typica* : *Oenothera perennis*
Oenothera procera : *Oenothera villosa*
Oenothera pycnocarpa : *Oenothera biennis*
Oenothera rubricapitata : *Oenothera parviflora*
Oenothera rydbergii : *Oenothera villosa*
Oenothera strigosa : *Oenothera villosa*
Oenothera strigosa ssp. *canovirens* : *Oenothera villosa*
Oenothera strigosa ssp. *cheradophila* : *Oenothera villosa*
Oenothera villosa ssp. *canovirens* : *Oenothera villosa*
Oenothera villosa ssp. *cheradophila* : *Oenothera villosa*
Oenothera villosa ssp. *strigosa* : *Oenothera villosa*
Oenothera villosa ssp. *villosa* : *Oenothera villosa*
Oenothera villosa var. *strigosa* : *Oenothera villosa*
Oligoneuron canescens : *Oligoneuron rigidum* var. *humile*
Oligoneuron corymbosum var. *humile* : *Oligoneuron rigidum* var. *humile*
Oligoneuron grandiflorum : *Oligoneuron rigidum* var. *humile*
Oligoneuron rigidum : *Oligoneuron rigidum* var. *humile*
Oligoneuron rigidum var. *rigidum* : *Oligoneuron rigidum* var. *humile*
Onoclea struthiopteris : *Matteuccia struthiopteris*
Onoclea struthiopteris var. *pensylvanica* : *Matteuccia struthiopteris*
Ophioglossum vulgatum : *Ophioglossum pusillum*
Ophioglossum vulgatum var. *alaskanum* : *Ophioglossum pusillum*
Ophioglossum vulgatum var. *pseudopodum* : *Ophioglossum pusillum*
Ophrys auriculata : *Listera auriculata*
Ophrys convallarioides : *Listera convallarioides*
Ophrys cordata : *Listera cordata* var. *cordata*
Opulaster alabamensis : *Physocarpus opulifolius*
Opulaster australis : *Physocarpus opulifolius*
Opulaster intermedius : *Physocarpus opulifolius*
Opulaster opulifolius : *Physocarpus opulifolius*
Opulaster stellatus : *Physocarpus opulifolius*
Orchis rotundifolia : *Amerorchis rotundifolia*
Orchis rotundifolia var. *lineata* : *Amerorchis rotundifolia*
Ornithogalum hirsutum : *Hypoxis hirsuta*
Orobis myrtifolius : *Lathyrus palustris*
Orthilia secunda ssp. *obtusata* : *Orthilia secunda*
Orthilia secunda var. *obtusata* : *Orthilia secunda*
Oryzopsis hymenoides : *Achnatherum hymenoides*
Osmorhiza aristata var. *brevistylis* : *Osmorhiza claytonii*
Osmorhiza aristata var. *longistylis* : *Osmorhiza longistylis*
Osmorhiza longistylis var. *brachycoma* : *Osmorhiza longistylis*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Osmorrhiza longistylis var. imbarbata : Osmorrhiza longistylis
Osmorrhiza longistylis var. villicaulis : Osmorrhiza longistylis
Osmunda cinnamomea : Osmunda cinnamomea var. cinnamomea
Osmunda cinnamomea var. frondosa : Osmunda cinnamomea var. cinnamomea
Osmunda regalis : Osmunda regalis var. spectabilis
Ostrya virginiana : Ostrya virginiana var. virginiana
Ostrya virginiana var. Iasias : Ostrya virginiana var. virginiana
Oxalis acetosella : Oxalis montana
Oxalis acetosella ssp. montana : Oxalis montana
Oxalis acetosella var. rhodantha : Oxalis montana
Oxalis brittoniae : Oxalis stricta
Oxalis bushii : Oxalis stricta
Oxalis coloradensis : Oxalis stricta
Oxalis corniculata var. dillenii : Oxalis stricta
Oxalis cymosa : Oxalis stricta
Oxalis dillenii : Oxalis stricta
Oxalis dillenii ssp. filipes : Oxalis stricta
Oxalis dillenii var. radicans : Oxalis stricta
Oxalis europaea : Oxalis stricta
Oxalis europaea var. bushii : Oxalis stricta
Oxalis europaea var. rufa : Oxalis stricta
Oxalis filipes : Oxalis stricta
Oxalis florida : Oxalis stricta
Oxalis florida ssp. prostrata : Oxalis stricta
Oxalis florida var. filipes : Oxalis stricta
Oxalis fontana : Oxalis stricta
Oxalis fontana var. bushii : Oxalis stricta
Oxalis interior : Oxalis stricta
Oxalis prostrata : Oxalis stricta
Oxalis rufa : Oxalis stricta
Oxalis rupestris : Oxalis stricta
Oxalis stricta var. decumbens : Oxalis stricta
Oxalis stricta var. piletocarpa : Oxalis stricta
Oxalis stricta var. rufa : Oxalis stricta
Oxalis stricta var. villicaulis : Oxalis stricta
Oxycoccus hagerupii : Vaccinium oxycoccus
Oxycoccus intermedius : Vaccinium oxycoccus
Oxycoccus macrocarpus : Vaccinium macrocarpon
Oxycoccus microcarpos : Vaccinium oxycoccus
Oxycoccus ovalifolius : Vaccinium oxycoccus
Oxycoccus oxyccocos : Vaccinium oxycoccus
Oxycoccus oxyccocos : Vaccinium oxycoccus
Oxycoccus palustris : Vaccinium oxycoccus
Oxycoccus palustris ssp. microphyllus : Vaccinium oxycoccus

Oxycoccus palustris var. intermedius : Vaccinium oxycoccus
Oxycoccus palustris var. ovalifolius : Vaccinium oxycoccus
Oxycoccus quadripetalus : Vaccinium oxycoccus
Oxycoccus quadripetalus var. microphyllus : Vaccinium oxycoccus
Oxypolis longifolia : Oxypolis rigidior
Oxypolis rigidior var. ambigua : Oxypolis rigidior
Oxypolis rigidior var. longifolia : Oxypolis rigidior
Oxypolis turgida : Oxypolis rigidior
Oxytropis involuta : Oxytropis lambertii var. lambertii
Oxytropis lambertii : Oxytropis lambertii var. lambertii
Packera pseudaura : Packera pseudaura var. semicordata
Padus nana : Prunus virginiana var. virginiana
Padus virginiana : Prunus virginiana var. virginiana
Panicaria borealis : Glyceria borealis
Panicaria canadensis : Glyceria canadensis
Panicaria grandis : Glyceria grandis var. grandis
Panicaria nervata : Glyceria striata
Panicaria pallida : Torreyochloa pallida
Panicaria striata : Glyceria striata
Panicum acuminatum : Dichanthelium acuminatum
Panicum acuminatum var. columbianum : Dichanthelium sabulorum
Panicum acuminatum var. fasciculatum : Dichanthelium acuminatum
Panicum acuminatum var. implicatum : Dichanthelium acuminatum
Panicum acuminatum var. lindheimeri : Dichanthelium acuminatum
Panicum acuminatum var. thurowii : Dichanthelium acuminatum
Panicum addisonii : Dichanthelium ovale var. addisonii
Panicum alabamense : Dichanthelium ovale var. addisonii
Panicum americanum : Pennisetum glaucum
Panicum auburne : Dichanthelium acuminatum
Panicum barbipulvinatum : Panicum capillare
Panicum bennieri : Dichanthelium acuminatum
Panicum bicknellii : Dichanthelium boreale
Panicum bicknellii var. bushii : Dichanthelium boreale
Panicum boreale : Dichanthelium boreale
Panicum boreale var. michiganense : Dichanthelium boreale
Panicum brodiei : Dichanthelium acuminatum
Panicum bushii : Dichanthelium boreale
Panicum calliphylum : Dichanthelium boreale
Panicum capillare ssp. barbipulvinatum : Panicum capillare
Panicum capillare var. agreste : Panicum capillare
Panicum capillare var. barbipulvinatum : Panicum capillare
Panicum capillare var. brevifolium : Panicum capillare
Panicum capillare var. occidentale : Panicum capillare
Panicum capillare var. sylvaticum : Panicum philadelphicum



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Panicum chrysopsidifolium : *Dichanthelium acuminatum*
Panicum columbianum : *Dichanthelium sabulorum*
Panicum columbianum var. *commonsianum* : *Dichanthelium ovale* var. *addisonii*
Panicum columbianum var. *oricola* : *Dichanthelium sabulorum*
Panicum columbianum var. *siccum* : *Dichanthelium sabulorum*
Panicum columbianum var. *thinum* : *Dichanthelium sabulorum*
Panicum commonsianum : *Dichanthelium ovale* var. *addisonii*
Panicum commonsianum var. *addisonii* : *Dichanthelium ovale* var. *addisonii*
Panicum commonsianum var. *addisonii* : *Dichanthelium ovale* var. *addisonii*
Panicum commonsianum var. *euchlamydeum* : *Dichanthelium sabulorum*
Panicum crus-galli : *Echinochloa crus-galli*
Panicum curtifolium : *Dichanthelium acuminatum*
Panicum dichotomiflorum : *Panicum dichotomiflorum* var. *dichotomiflorum*
Panicum dichotomiflorum var. *geniculatum* : *Panicum dichotomiflorum* var. *dichotomiflorum*
Panicum euchlamydeum : *Dichanthelium sabulorum*
Panicum ferventica : *Dichanthelium acuminatum*
Panicum ferventica var. *papillosum* : *Dichanthelium acuminatum*
Panicum ferventica var. *sericeum* : *Dichanthelium acuminatum*
Panicum glaucum : *Pennisetum glaucum*
Panicum glutinoscabrum : *Dichanthelium acuminatum*
Panicum helleri : *Dichanthelium oligosanthes*
Panicum heterophyllum : *Dichanthelium sabulorum*
Panicum heterophyllum var. *thinum* : *Dichanthelium sabulorum*
Panicum huachucae : *Dichanthelium acuminatum*
Panicum huachucae var. *fasciculatum* : *Dichanthelium acuminatum*
Panicum implicatum : *Dichanthelium acuminatum*
Panicum ischaemum : *Digitaria ischaemum*
Panicum italicum : *Setaria italica*
Panicum lancearium : *Dichanthelium sabulorum*
Panicum lancearium var. *patulum* : *Dichanthelium sabulorum*
Panicum languidum : *Dichanthelium acuminatum*
Panicum lanuginosum : *Dichanthelium acuminatum*
Panicum lanuginosum var. *fasciculatum* : *Dichanthelium acuminatum*
Panicum lanuginosum var. *huachucae* : *Dichanthelium acuminatum*
Panicum lanuginosum var. *implicatum* : *Dichanthelium acuminatum*
Panicum lanuginosum var. *lindheimeri* : *Dichanthelium acuminatum*
Panicum lanuginosum var. *septentrionale* : *Dichanthelium acuminatum*
Panicum lanuginosum var. *siccum* : *Dichanthelium sabulorum*
Panicum lanuginosum var. *tennesseense* : *Dichanthelium acuminatum*
Panicum lassenianum : *Dichanthelium acuminatum*
Panicum latifolium : *Dichanthelium latifolium*
Panicum leibergii : *Dichanthelium leibergii*
Panicum leibergii var. *baldwinii* : *Dichanthelium leibergii*

Panicum lindheimeri : *Dichanthelium acuminatum*
Panicum lindheimeri var. *fasciculatum* : *Dichanthelium acuminatum*
Panicum lithophilum : *Panicum philadelphicum*
Panicum macrocarpon : *Dichanthelium oligosanthes*
Panicum mundum : *Dichanthelium ovale* var. *addisonii*
Panicum nashianum : *Dichanthelium sabulorum*
Panicum nashianum var. *patulum* : *Dichanthelium sabulorum*
Panicum occidentale : *Dichanthelium acuminatum*
Panicum oligosanthes : *Dichanthelium oligosanthes*
Panicum oligosanthes var. *helleri* : *Dichanthelium oligosanthes*
Panicum oligosanthes var. *scribnerianum* : *Dichanthelium oligosanthes*
Panicum onslowense : *Dichanthelium sabulorum*
Panicum oricola : *Dichanthelium sabulorum*
Panicum ovale var. *addisonii* : *Dichanthelium ovale* var. *addisonii*
Panicum owenae : *Dichanthelium ovale* var. *addisonii*
Panicum pacificum : *Dichanthelium acuminatum*
Panicum patentifolium : *Dichanthelium sabulorum*
Panicum patulum : *Dichanthelium sabulorum*
Panicum philadelphicum var. *tuckermanii* : *Panicum philadelphicum*
Panicum portoricense : *Dichanthelium sabulorum*
Panicum portoricense var. *nashianum* : *Dichanthelium sabulorum*
Panicum sabulorum var. *patulum* : *Dichanthelium sabulorum*
Panicum sabulorum var. *thinum* : *Dichanthelium sabulorum*
Panicum sanguinale : *Digitaria sanguinalis*
Panicum scoparium : *Dichanthelium oligosanthes*
Panicum scoparium var. *leibergii* : *Dichanthelium leibergii*
Panicum scribnerianum : *Dichanthelium oligosanthes*
Panicum scribnerianum var. *leibergii* : *Dichanthelium leibergii*
Panicum subvillosum : *Dichanthelium acuminatum*
Panicum tennesseense : *Dichanthelium acuminatum*
Panicum thermale : *Dichanthelium acuminatum*
Panicum thruowii : *Dichanthelium acuminatum*
Panicum tsugetorum : *Dichanthelium sabulorum*
Panicum tuckermanii : *Panicum philadelphicum*
Panicum unciphyllum var. *thinum* : *Dichanthelium sabulorum*
Panicum verticillatum : *Setaria verticillata*
Panicum virgatum : *Panicum virgatum* var. *virgatum*
Panicum virgatum var. *cubense* : *Panicum virgatum* var. *virgatum*
Panicum virgatum var. *obtusum* : *Panicum virgatum* var. *virgatum*
Panicum walteri : *Echinochloa walteri*
Panicum webberianum : *Dichanthelium sabulorum*
Panicum wilmingtonense : *Dichanthelium ovale* var. *addisonii*
Parietaria obtusa : *Parietaria pensylvanica*
Parietaria occidentalis : *Parietaria pensylvanica*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Parietaria pensylvanica var. *obtusa* : *Parietaria pensylvanica*
Parnassia americana : *Parnassia glauca*
Parnassia montanensis : *Parnassia palustris*
Parnassia multiseta : *Parnassia palustris*
Parnassia palustris ssp. *neogaea* : *Parnassia palustris*
Parnassia palustris var. *montanensis* : *Parnassia palustris*
Parnassia palustris var. *neogaea* : *Parnassia palustris*
Parnassia palustris var. *palustris* : *Parnassia palustris*
Parnassia palustris var. *parviflora* : *Parnassia palustris*
Parnassia palustris var. *tenuis* : *Parnassia palustris*
Parnassia parviflora : *Parnassia palustris*
Parthenocissus quinquefolia : *Parthenocissus quinquefolia*
Parthenocissus vitacea : *Parthenocissus vitacea*
Parthenocissus hirsuta : *Parthenocissus quinquefolia*
Parthenocissus inserta : *Parthenocissus quinquefolia*
Parthenocissus quinquefolia var. *hirsuta* : *Parthenocissus quinquefolia*
Parthenocissus quinquefolia var. *murorum* : *Parthenocissus quinquefolia*
Parthenocissus quinquefolia var. *saintpaulii* : *Parthenocissus quinquefolia*
Paspalum bushii : *Paspalum setaceum*
Paspalum ciliatifolium : *Paspalum setaceum*
Paspalum ciliatifolium var. *muehlenbergii* : *Paspalum setaceum*
Paspalum ciliatifolium var. *stramineum* : *Paspalum setaceum*
Paspalum debile : *Paspalum setaceum*
Paspalum longepedunculatum : *Paspalum setaceum*
Paspalum muehlenbergii : *Paspalum setaceum*
Paspalum propinquum : *Paspalum setaceum*
Paspalum psammophilum : *Paspalum setaceum*
Paspalum pubescens : *Paspalum setaceum*
Paspalum rigidifolium : *Paspalum setaceum*
Paspalum separatum : *Paspalum setaceum*
Paspalum setaceum var. *calvescens* : *Paspalum setaceum*
Paspalum setaceum var. *ciliatifolium* : *Paspalum setaceum*
Paspalum setaceum var. *longepedunculatum* : *Paspalum setaceum*
Paspalum setaceum var. *muehlenbergii* : *Paspalum setaceum*
Paspalum setaceum var. *psammophilum* : *Paspalum setaceum*
Paspalum setaceum var. *rigidifolium* : *Paspalum setaceum*
Paspalum setaceum var. *stramineum* : *Paspalum setaceum*
Paspalum setaceum var. *supinum* : *Paspalum setaceum*
Paspalum setaceum var. *vilosissimum* : *Paspalum setaceum*
Paspalum stramineum : *Paspalum setaceum*
Paspalum supinum : *Paspalum setaceum*
Pedicularis auriculata : *Pedicularis lanceolata*
Pedicularis canadensis : *Pedicularis canadensis* ssp. *canadensis*
Pedicularis canadensis var. *dobbssii* : *Pedicularis canadensis* ssp. *canadensis*

Pedicularis gladiata : *Pedicularis canadensis* ssp. *canadensis*
Pedicularis pallida : *Pedicularis lanceolata*
Pedicularis virginica : *Pedicularis lanceolata*
Peltandra tharpii : *Peltandra virginica*
Pennisetum americanum : *Pennisetum glaucum*
Pennisetum typhoides : *Pennisetum glaucum*
Penstemon laevigatus ssp. *digitalis* : *Penstemon digitalis*
Penstemon laevigatus var. *angulatus* : *Penstemon digitalis*
Pentaphylloides floribunda : *Dasiphora floribunda*
Pentaphylloides fruticosa : *Dasiphora floribunda*
Peplis diandra : *Didiplis diandra*
Perarium ophioides : *Goodyera repens*
Perarium pubescens : *Goodyera pubescens*
Perarium tesselatum : *Goodyera tesselata*
Perilla arguta : *Perilla frutescens* var. *frutescens*
Perilla frutescens : *Perilla frutescens* var. *frutescens*
Perilla ocyoides : *Perilla frutescens* var. *frutescens*
Persicaria amphibia : *Polygonum amphibium*
Persicaria amphibia var. *emersa* : *Polygonum amphibium*
Persicaria amphibia var. *stipulacea* : *Polygonum amphibium*
Persicaria bicornis : *Polygonum pensylvanicum*
Persicaria careyi : *Polygonum careyi*
Persicaria coccinea : *Polygonum amphibium*
Persicaria hydropiper : *Polygonum hydropiper*
Persicaria hydropiperoides : *Polygonum hydropiperoides*
Persicaria hydropiperoides var. *breviciliata* : *Polygonum hydropiperoides*
Persicaria hydropiperoides var. *euronotora* : *Polygonum hydropiperoides*
Persicaria hydropiperoides var. *opelousana* : *Polygonum hydropiperoides*
Persicaria incarnata : *Polygonum lapathifolium*
Persicaria lapathifolia : *Polygonum lapathifolium*
Persicaria longistyla : *Polygonum pensylvanicum*
Persicaria maculata : *Polygonum persicaria*
Persicaria mesochora : *Polygonum amphibium*
Persicaria mississippiensis : *Polygonum pensylvanicum*
Persicaria muehlenbergii : *Polygonum amphibium*
Persicaria nebrascensis : *Polygonum amphibium*
Persicaria opelousana : *Polygonum hydropiperoides*
Persicaria paludicola : *Polygonum hydropiperoides*
Persicaria pensylvanica : *Polygonum pensylvanicum*
Persicaria pensylvanica var. *dura* : *Polygonum pensylvanicum*
Persicaria persicaria : *Polygonum persicaria*
Persicaria persicarioides : *Polygonum hydropiperoides*
Persicaria punctata : *Polygonum punctatum*
Persicaria punctata var. *eciliata* : *Polygonum punctatum*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Persicaria punctata var. leptostachya : Polygonum punctatum
Persicaria ruderalis : Polygonum persicaria
Persicaria ruderalis var. vulgaris : Polygonum persicaria
Persicaria tomentosa : Polygonum lapathifolium
Persicaria virginiana : Polygonum virginianum
Persicaria vulgaris : Polygonum persicaria
Petasites arcticus : Petasites frigidus var. palmatus
Petasites dentatus : Petasites sagittatus
Petasites frigidus : Petasites frigidus var. palmatus
Petasites frigidus ssp. arcticus : Petasites frigidus var. palmatus
Petasites frigidus ssp. nivalis : Petasites frigidus var. palmatus
Petasites frigidus ssp. palmatus : Petasites frigidus var. palmatus
Petasites frigidus var. nivalis : Petasites frigidus var. palmatus
Petasites hookerianus : Petasites frigidus var. palmatus
Petasites hyperboreus : Petasites frigidus var. palmatus
Petasites nivalis : Petasites frigidus var. palmatus
Petasites palmatus : Petasites frigidus var. palmatus
Petasites palmatus var. frigidus : Petasites frigidus var. palmatus
Petasites speciosus : Petasites frigidus var. palmatus
Petasites warrenii : Petasites frigidus var. palmatus
Phaca neglecta : Astragalus neglectus
Phalaris arundinacea var. picta : Phalaris arundinacea
Phalaris oryzoides : Leersia oryzoides
Phalaroides arundinacea : Phalaris arundinacea
Phalaroides arundinacea var. picta : Phalaris arundinacea
Pharbitis barbigera : Ipomoea hederacea
Pharbitis hederacea : Ipomoea hederacea
Pharbitis purpurea : Ipomoea purpurea
Phegopteris dryopteris : Gymnocarpium dryopteris
Phegopteris robertiana : Gymnocarpium robertianum
Philotria angustifolia : Elodea nuttallii
Philotria canadensis : Elodea canadensis
Philotria linearis : Elodea canadensis
Philotria minor : Elodea nuttallii
Philotria nuttallii : Elodea nuttallii
Philotria occidentalis : Elodea nuttallii
Phleum nodosum : Phleum pratense
Phleum pratense ssp. nodosum : Phleum pratense
Phleum pratense var. nodosum : Phleum pratense
Phlox divaricata : Phlox divaricata ssp. laphamii
Phlox divaricata var. laphamii : Phlox divaricata ssp. laphamii
Phlox maculata : Phlox maculata ssp. maculata
Phlox maculata var. odorata : Phlox maculata ssp. maculata
Phlox pilosa : Phlox pilosa ssp. fulgida

Phlox pilosa var. fulgida : Phlox pilosa ssp. fulgida
Phragmites australis var. berlandieri : Phragmites australis
Phragmites communis : Phragmites australis
Phragmites communis ssp. berlandieri : Phragmites australis
Phragmites communis var. berlandieri : Phragmites australis
Phragmites phragmites : Phragmites australis
Phyla lanceolata var. recognita : Phyla lanceolata
Physocarpus intermedius : Physocarpus opulifolius
Physocarpus opulifolius var. intermedius : Physocarpus opulifolius
Physocarpus opulifolius var. opulifolius : Physocarpus opulifolius
Physostegia denticulata : Physostegia virginiana ssp. virginiana
Physostegia formosior : Physostegia virginiana ssp. virginiana
Physostegia praemorsa : Physostegia virginiana ssp. virginiana
Physostegia serotina : Physostegia virginiana ssp. virginiana
Physostegia speciosa : Physostegia virginiana ssp. virginiana
Physostegia virginiana : Physostegia virginiana ssp. virginiana
Physostegia virginiana ssp. praemorsa : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. arenaria : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. elongata : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. formosior : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. granulosa : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. reducta : Physostegia virginiana ssp. virginiana
Physostegia virginiana var. speciosa : Physostegia virginiana ssp. virginiana
Picea albertiana : Picea glauca
Picea canadensis : Picea glauca
Picea canadensis glauca : Picea glauca
Picea glauca var. albertiana : Picea glauca
Picea glauca var. densata : Picea glauca
Picea glauca var. porsildii : Picea glauca
Picea nigra : Picea mariana
Pilea opaca : Pilea fontana
Pilea pumila : Pilea pumila var. pumila
Pinguicula vulgaris var. americana : Pinguicula vulgaris
Pinus balsamea : Abies balsamea
Pinus canadensis : Tsuga canadensis
Pinus chiapensis : Pinus strobus
Pinus divaricata : Pinus banksiana
Pinus glauca : Picea glauca
Pinus laricina : Larix laricina
Pinus strobus chiapensis : Pinus strobus
Pisum maritimum : Lathyrus japonicus var. maritimus
Pisum maritimum var. glabrum : Lathyrus japonicus var. maritimus
Plagiobothrys cognatus : Plagiobothrys scouleri
Plagiobothrys cusickii : Plagiobothrys scouleri



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Plagiobothrys granulatus : Plagiobothrys scouleri
Plagiobothrys hispidulus : Plagiobothrys scouleri
Plagiobothrys nelsonii : Plagiobothrys scouleri
Plagiobothrys reticulatus var. rossianorum : Plagiobothrys scouleri
Plagiobothrys scopulorum : Plagiobothrys scouleri
Plagiobothrys scouleri ssp. penicillatus : Plagiobothrys scouleri
Plagiobothrys scouleri var. cusickii : Plagiobothrys scouleri
Plagiobothrys scouleri var. hispidulus : Plagiobothrys scouleri
Plagiobothrys scouleri var. penicillatus : Plagiobothrys scouleri
Plagiobothrys scouleri var. scouleri : Plagiobothrys scouleri
Plantago altissima : Plantago lanceolata
Plantago asiatica : Plantago major
Plantago elongata : Plantago elongata ssp. elongata
Plantago halophila : Plantago major
Plantago lanceolata var. sphaerostachya : Plantago lanceolata
Plantago major ssp. intermedia : Plantago major
Plantago major var. asiatica : Plantago major
Plantago major var. intermedia : Plantago major
Plantago major var. pachyphylla : Plantago major
Plantago major var. pilgeri : Plantago major
Plantago major var. scopulorum : Plantago major
Plantago rugelii : Plantago rugelii var. rugelii
Plantago shastensis : Plantago eriopoda
Plantago virginica var. viridescens : Plantago virginica
Platanthera convallariifolia : Platanthera hyperborea
Platanthera dilatata : Platanthera dilatata var. dilatata
Platanthera dilatata var. angustifolia : Platanthera dilatata var. dilatata
Platanthera flava : Platanthera flava var. herbiola
Platanthera gracilis : Platanthera hyperborea
Platanthera huronensis : Platanthera hyperborea
Platanthera hyperborea var. gracilis : Platanthera hyperborea
Platanthera hyperborea var. huronensis : Platanthera hyperborea
Platanthera hyperborea var. hyperborea : Platanthera hyperborea
Platanthera hyperborea var. minor : Platanthera hyperborea
Platanthera hyperborea var. viridiflora : Platanthera hyperborea
Platanthera lacera var. terrae-novae : Platanthera lacera
Platanthera obtusata ssp. oligantha : Platanthera obtusata
Pleuropteris cuspidatus : Polygonum cuspidatum
Pleuropteris zuccarini : Polygonum cuspidatum
Pneumonanthe andrewsii : Gentiana andrewsii
Poa agassizensis : Poa pratensis ssp. pratensis
Poa angustifolia : Poa pratensis ssp. pratensis
Poa annua var. aquatica : Poa annua
Poa annua var. reptans : Poa annua

Poa cilianensis : Eragrostis cilioides
Poa crocata : Poa palustris
Poa distans : Puccinellia distans ssp. distans
Poa eyerdamii : Poa palustris
Poa glaucifolia : Poa arida
Poa hypnoides : Eragrostis hypnoides
Poa interior : Poa nemoralis
Poa nemoralis ssp. interior : Poa nemoralis
Poa nemoralis ssp. nemoralis : Poa nemoralis
Poa nemoralis var. interior : Poa nemoralis
Poa pectinacea : Eragrostis pectinacea var. pectinacea
Poa pilosa : Eragrostis pilosa
Poa pratensis : Poa pratensis ssp. pratensis
Poa pratensis ssp. agassizensis : Poa pratensis ssp. pratensis
Poa pratensis ssp. angustifolia : Poa pratensis ssp. pratensis
Poa pratensis var. angustifolia : Poa pratensis ssp. pratensis
Poa pratensis var. domestica : Poa pratensis ssp. pratensis
Poa pratensis var. gelida : Poa pratensis ssp. pratensis
Poa pratensis var. iantha : Poa pratensis ssp. pratensis
Poa pratensis var. pratensis : Poa pratensis ssp. pratensis
Poa pseudopratensis : Poa arida
Poa triflora : Poa palustris
Pogonia ophioglossoides var. brachypogon : Pogonia ophioglossoides
Polemonium occidentale : Polemonium occidentale ssp. lacustre
Polemonium occidentale var. lacustre : Polemonium occidentale ssp. lacustre
Polemonium reptans : Polemonium reptans var. reptans
Polygala aboriginum : Polygala polygama
Polygala cruciata : Polygala cruciata var. aquilonia
Polygala polygama var. obtusata : Polygala polygama
Polygala polygama var. ramulosa : Polygala polygama
Polygala senega var. latifolia : Polygala senega
Polygala viridescent : Polygala sanguinea
Polygonatum biflorum : Polygonatum biflorum var. commutatum
Polygonatum canaliculatum : Polygonatum biflorum var. commutatum
Polygonatum commutatum : Polygonatum biflorum var. commutatum
Polygonum acre : Polygonum punctatum
Polygonum allocarpum : Polygonum ramosissimum
Polygonum amphibium ssp. laevimarginatum : Polygonum amphibium
Polygonum amphibium var. coccineum : Polygonum amphibium
Polygonum amphibium var. emersum : Polygonum amphibium
Polygonum amphibium var. hartwrightii : Polygonum amphibium
Polygonum amphibium var. stipulaceum : Polygonum amphibium
Polygonum arifolium var. lentiforme : Polygonum arifolium
Polygonum arifolium var. pubescens : Polygonum arifolium



Polygonum atlanticum : *Polygonum ramosissimum*
Polygonum autumnale : *Polygonum ramosissimum*
Polygonum aviculare var. *erectum* : *Polygonum erectum*
Polygonum aviculare var. *vegetum* : *Polygonum aviculare*
Polygonum bicorne : *Polygonum pensylvanicum*
Polygonum buxiforme var. *montanum* : *Polygonum douglasii* ssp. *douglasii*
Polygonum coccineum : *Polygonum amphibium*
Polygonum coccineum var. *pratincola* : *Polygonum amphibium*
Polygonum coccineum var. *rigidulum* : *Polygonum amphibium*
Polygonum coccineum var. *terrestre* : *Polygonum amphibium*
Polygonum convolvulus : *Polygonum convolvulus* var. *convolvulus*
Polygonum cristatum : *Polygonum scandens*
Polygonum cuspidatum var. *compactum* : *Polygonum cuspidatum*
Polygonum douglasii : *Polygonum douglasii* ssp. *douglasii*
Polygonum douglasii var. *latifolium* : *Polygonum douglasii* ssp. *douglasii*
Polygonum dubium : *Polygonum persicaria*
Polygonum dumetorum : *Polygonum scandens*
Polygonum dumetorum var. *scandens* : *Polygonum scandens*
Polygonum emaciatum : *Polygonum douglasii* ssp. *douglasii*
Polygonum erectum ssp. *achoreum* : *Polygonum achoreum*
Polygonum exsertum : *Polygonum ramosissimum*
Polygonum fluitans : *Polygonum amphibium*
Polygonum fugax : *Polygonum viviparum*
Polygonum fusiforme : *Polygonum persicaria*
Polygonum hartwrightii : *Polygonum amphibium*
Polygonum heterophyllum : *Polygonum aviculare*
Polygonum hydropiper var. *projectum* : *Polygonum hydropiper*
Polygonum hydropiperoides : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *adenocalyx* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *asperifolium* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *breviciliatum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *bushianum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *digitatum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *euronotorum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *opelousanum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *psilostachyum* : *Polygonum hydropiperoides*
Polygonum hydropiperoides var. *strigosum* : *Polygonum hydropiperoides*
Polygonum incanum : *Polygonum lapathifolium*
Polygonum incarnatum : *Polygonum lapathifolium*
Polygonum interius : *Polygonum ramosissimum*
Polygonum inundatum : *Polygonum amphibium*
Polygonum lapathifolium ssp. *pallidum* : *Polygonum lapathifolium*
Polygonum lapathifolium var. *incanum* : *Polygonum lapathifolium*
Polygonum lapathifolium var. *lapathifolium* : *Polygonum lapathifolium*

Polygonum lapathifolium var. *nodosum* : *Polygonum lapathifolium*
Polygonum lapathifolium var. *ovatum* : *Polygonum lapathifolium*
Polygonum lapathifolium var. *prostratum* : *Polygonum lapathifolium*
Polygonum lapathifolium var. *salicifolium* : *Polygonum lapathifolium*
Polygonum longistylum : *Polygonum pensylvanicum*
Polygonum longistylum var. *omissum* : *Polygonum pensylvanicum*
Polygonum macounii : *Polygonum viviparum*
Polygonum mexicanum : *Polygonum pensylvanicum*
Polygonum minus : *Polygonum persicaria*
Polygonum minus var. *subcontinuum* : *Polygonum persicaria*
Polygonum mississippiense : *Polygonum pensylvanicum*
Polygonum mississippiense var. *interius* : *Polygonum pensylvanicum*
Polygonum monspeliacense : *Polygonum aviculare*
Polygonum montanum : *Polygonum douglasii* ssp. *douglasii*
Polygonum muehlenbergii : *Polygonum amphibium*
Polygonum muehlenbergii var. *terrestre* : *Polygonum amphibium*
Polygonum natans : *Polygonum amphibium*
Polygonum nodosum : *Polygonum lapathifolium*
Polygonum oneillii : *Polygonum lapathifolium*
Polygonum opelousanum : *Polygonum hydropiperoides*
Polygonum opelousanum var. *adenocalyx* : *Polygonum hydropiperoides*
Polygonum pensylvanicum ssp. *oneillii* : *Polygonum lapathifolium*
Polygonum pensylvanicum var. *durum* : *Polygonum pensylvanicum*
Polygonum pensylvanicum var. *eglandulosum* : *Polygonum pensylvanicum*
Polygonum pensylvanicum var. *genuinum* : *Polygonum pensylvanicum*
Polygonum pensylvanicum var. *laevigatum* : *Polygonum pensylvanicum*
Polygonum pensylvanicum var. *rosiflorum* : *Polygonum pensylvanicum*
Polygonum persicaria var. *angustifolium* : *Polygonum persicaria*
Polygonum persicaria var. *ruderale* : *Polygonum persicaria*
Polygonum persicarioides : *Polygonum hydropiperoides*
Polygonum prolificum : *Polygonum ramosissimum*
Polygonum punctatum var. *aquatile* : *Polygonum punctatum*
Polygonum punctatum var. *confertiflorum* : *Polygonum punctatum*
Polygonum punctatum var. *ellipticum* : *Polygonum punctatum*
Polygonum punctatum var. *leptostachyum* : *Polygonum punctatum*
Polygonum punctatum var. *parviflorum* : *Polygonum punctatum*
Polygonum punctatum var. *parvum* : *Polygonum punctatum*
Polygonum punctatum var. *punctatum* : *Polygonum punctatum*
Polygonum puritanorum : *Polygonum persicaria*
Polygonum ramosissimum var. *prolificum* : *Polygonum ramosissimum*
Polygonum ramosissimum var. *ramosissimum* : *Polygonum ramosissimum*
Polygonum sagittatum var. *gracilentum* : *Polygonum sagittatum*
Polygonum scabrum : *Polygonum lapathifolium*
Polygonum scandens var. *cristatum* : *Polygonum scandens*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Polygonum scandens var. *dumetorum* : *Polygonum scandens*
Polygonum scandens var. *scandens* : *Polygonum scandens*
Polygonum tomentosum : *Polygonum lapathifolium*
Polygonum triangulum : *Polygonum ramosissimum*
Polygonum virginianum var. *glaberrimum* : *Polygonum virginianum*
Polygonum viviparum var. *alpinum* : *Polygonum viviparum*
Polygonum viviparum var. *macounii* : *Polygonum viviparum*
Polygonum zucarinii : *Polygonum cuspidatum*
Pontederia cordata var. *angustifolia* : *Pontederia cordata*
Pontederia cordata var. *lanceolata* : *Pontederia cordata*
Pontederia cordata var. *lancifolia* : *Pontederia cordata*
Pontederia lanceolata : *Pontederia cordata*
Pontederia limosa : *Heteranthera limosa*
Populus angulata : *Populus deltoides* ssp. *monilifera*
Populus angulata var. *missouriensis* : *Populus deltoides* ssp. *monilifera*
Populus aurea : *Populus tremuloides*
Populus balsamifera : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *candicans* : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *fernaldiana* : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *lanceolata* : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *michauxii* : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *missouriensis* : *Populus deltoides* ssp. *monilifera*
Populus balsamifera var. *pilosa* : *Populus deltoides* ssp. *monilifera*
Populus balsamifera var. *subcordata* : *Populus balsamifera* ssp. *balsamifera*
Populus balsamifera var. *virginiana* : *Populus deltoides* ssp. *monilifera*
Populus besseyana : *Populus deltoides* ssp. *monilifera*
Populus canadensis var. *virginiana* : *Populus deltoides* ssp. *monilifera*
Populus candicans : *Populus balsamifera* ssp. *balsamifera*
Populus cercidiphylla : *Populus tremuloides*
Populus deltoides : *Populus deltoides* ssp. *monilifera*
Populus deltoides ssp. *deltoides* : *Populus deltoides* ssp. *monilifera*
Populus deltoides ssp. *monilifera* : *Populus deltoides* ssp. *monilifera*
Populus deltoides var. *angulata* : *Populus deltoides* ssp. *monilifera*
Populus deltoides var. *missouriensis* : *Populus deltoides* ssp. *monilifera*
Populus deltoides var. *occidentalis* : *Populus deltoides* ssp. *monilifera*
Populus deltoides var. *pilosa* : *Populus deltoides* ssp. *monilifera*
Populus deltoides var. *virginiana* : *Populus deltoides* ssp. *monilifera*
Populus grandidentata var. *angustata* : *Populus grandidentata*
Populus grandidentata var. *meridionalis* : *Populus grandidentata*
Populus grandidentata var. *subcordata* : *Populus grandidentata*
Populus michauxii : *Populus balsamifera* ssp. *balsamifera*
Populus monilifera : *Populus deltoides* ssp. *monilifera*
Populus nigra var. *virginiana* : *Populus deltoides* ssp. *monilifera*
Populus occidentalis : *Populus deltoides* ssp. *monilifera*

Populus palmeri : *Populus deltoides* ssp. *monilifera*
Populus sargentii : *Populus deltoides* ssp. *monilifera*
Populus sargentii var. *texana* : *Populus deltoides* ssp. *monilifera*
Populus tacamahaca : *Populus balsamifera* ssp. *balsamifera*
Populus tacamahaca var. *candicans* : *Populus balsamifera* ssp. *balsamifera*
Populus tacamahaca var. *lanceolata* : *Populus balsamifera* ssp. *balsamifera*
Populus tacamahaca var. *michauxii* : *Populus balsamifera* ssp. *balsamifera*
Populus tacanahaca var. *candicans* : *Populus balsamifera* ssp. *balsamifera*
Populus tacanahaca var. *lanceolata* : *Populus balsamifera* ssp. *balsamifera*
Populus tacanahaca var. *michauxii* : *Populus balsamifera* ssp. *balsamifera*
Populus texana : *Populus deltoides* ssp. *monilifera*
Populus tremula ssp. *tremuloides* : *Populus tremuloides*
Populus tremuloides var. *aurea* : *Populus tremuloides*
Populus tremuloides var. *cercidiphylla* : *Populus tremuloides*
Populus tremuloides var. *intermedia* : *Populus tremuloides*
Populus tremuloides var. *magnifica* : *Populus tremuloides*
Populus tremuloides var. *rhomboidea* : *Populus tremuloides*
Populus tremuloides var. *vancouveriana* : *Populus tremuloides*
Populus vancouveriana : *Populus tremuloides*
Populus virginiana : *Populus deltoides* ssp. *monilifera*
Populus virginiana var. *pilosa* : *Populus deltoides* ssp. *monilifera*
Populus X polygonifolia : *Populus tremuloides*
Portulaca neglecta : *Portulaca oleracea*
Portulaca oleracea ssp. *granulatostellulata* : *Portulaca oleracea*
Portulaca oleracea ssp. *impoluta* : *Portulaca oleracea*
Portulaca oleracea ssp. *nicaruensis* : *Portulaca oleracea*
Portulaca oleracea ssp. *nitida* : *Portulaca oleracea*
Portulaca oleracea ssp. *papillatostellulata* : *Portulaca oleracea*
Portulaca oleracea ssp. *stellata* : *Portulaca oleracea*
Portulaca retusa : *Portulaca oleracea*
Potamogeton alpinus ssp. *tenuifolius* : *Potamogeton alpinus*
Potamogeton alpinus var. *subellipticus* : *Potamogeton alpinus*
Potamogeton alpinus var. *tenuifolius* : *Potamogeton alpinus*
Potamogeton americanus : *Potamogeton nodosus*
Potamogeton angustifolius : *Potamogeton illinoensis*
Potamogeton berchtoldii : *Potamogeton pusillus*
Potamogeton berchtoldii var. *acuminatus* : *Potamogeton pusillus*
Potamogeton berchtoldii var. *colpopodus* : *Potamogeton pusillus*
Potamogeton berchtoldii var. *lacunatus* : *Potamogeton pusillus*
Potamogeton berchtoldii var. *mucronatus* : *Potamogeton pusillus*
Potamogeton berchtoldii var. *polyphyllus* : *Potamogeton pusillus*
Potamogeton berchtoldii var. *tenuissimus* : *Potamogeton pusillus*
Potamogeton capillaceus : *Potamogeton diversifolius*
Potamogeton capillaceus var. *atripes* : *Potamogeton diversifolius*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Potamogeton compressus : Potamogeton zosteriformis
Potamogeton curtissii : Potamogeton foliosus ssp. foliosus
Potamogeton dimorphus : Potamogeton spirillus
Potamogeton diversifolius var. multidenticulatus : Potamogeton diversifolius
Potamogeton diversifolius var. trichophyllus : Potamogeton bicupulatus
Potamogeton epihydrus ssp. nuttallii : Potamogeton epihydrus
Potamogeton epihydrus var. nuttallii : Potamogeton epihydrus
Potamogeton epihydrus var. ramosus : Potamogeton epihydrus
Potamogeton filiformis : Stuckenia filiformis
Potamogeton filiformis var. alpinus : Stuckenia filiformis
Potamogeton filiformis var. borealis : Stuckenia filiformis
Potamogeton filiformis var. macounii : Stuckenia filiformis
Potamogeton filiformis var. occidentalis : Stuckenia filiformis
Potamogeton fluitans : Potamogeton nodosus
Potamogeton foliosus : Potamogeton foliosus ssp. foliosus
Potamogeton foliosus var. genuinus : Potamogeton foliosus ssp. foliosus
Potamogeton foliosus var. macellus : Potamogeton foliosus ssp. foliosus
Potamogeton gemmiparus : Potamogeton pusillus
Potamogeton gramineus var. graminifolius : Potamogeton gramineus
Potamogeton gramineus var. maximus : Potamogeton gramineus
Potamogeton gramineus var. myriophyllus : Potamogeton gramineus
Potamogeton gramineus var. typicus : Potamogeton gramineus
Potamogeton heterophyllus : Potamogeton illinoensis
Potamogeton interior : Stuckenia filiformis
Potamogeton interruptus : Stuckenia vaginatus
Potamogeton lateralis : Potamogeton vaseyi
Potamogeton longiligulatus : Potamogeton strictifolius
Potamogeton lucens : Potamogeton illinoensis
Potamogeton panormitanus : Potamogeton pusillus
Potamogeton panormitanus var. major : Potamogeton pusillus
Potamogeton panormitanus var. minor : Potamogeton pusillus
Potamogeton pectinatus : Stuckenia pectinatus
Potamogeton perfoliatus ssp. richardsonii : Potamogeton richardsonii
Potamogeton perfoliatus var. richardsonii : Potamogeton richardsonii
Potamogeton praelongus var. angustifolius : Potamogeton praelongus
Potamogeton pusillus ssp. gemmiparus : Potamogeton pusillus
Potamogeton pusillus ssp. pusillus : Potamogeton pusillus
Potamogeton pusillus ssp. tenuissimus : Potamogeton pusillus
Potamogeton pusillus var. gemmiparus : Potamogeton pusillus
Potamogeton pusillus var. minor : Potamogeton pusillus
Potamogeton pusillus var. mucronatus : Potamogeton pusillus
Potamogeton pusillus var. rutiloides : Potamogeton strictifolius
Potamogeton pusillus var. tenuissimus : Potamogeton pusillus
Potamogeton rutilus : Potamogeton strictifolius

Potamogeton strictifolius var. rutiloides : Potamogeton strictifolius
Potamogeton strictifolius var. typicus : Potamogeton strictifolius
Potamogeton vaginatus : Stuckenia vaginatus
Potamogeton zosteriformis ssp. zosteriformis : Potamogeton zosteriformis
Potentilla angustata : Potentilla gracilis
Potentilla anserina : Argentina anserina
Potentilla anserina var. concolor : Argentina anserina
Potentilla anserina var. sericea : Argentina anserina
Potentilla anserina var. yukonensis : Argentina anserina
Potentilla argentea : Potentilla argentea var. argentea
Potentilla arguta : Potentilla arguta ssp. arguta
Potentilla blaskeana : Potentilla gracilis
Potentilla blaskeana var. permollis : Potentilla gracilis
Potentilla brunnescens : Potentilla gracilis
Potentilla egedii ssp. yukonensis : Argentina anserina
Potentilla etomentosa : Potentilla gracilis
Potentilla etomentosa var. hallii : Potentilla gracilis
Potentilla fastigiata : Potentilla gracilis
Potentilla flabelliformis : Potentilla gracilis
Potentilla floribunda : Dasiphora floribunda
Potentilla fruticosa : Dasiphora floribunda
Potentilla fruticosa ssp. floribunda : Dasiphora floribunda
Potentilla fruticosa var. fruticosa : Dasiphora floribunda
Potentilla fruticosa var. tenuifolia : Dasiphora floribunda
Potentilla glomerata : Potentilla gracilis
Potentilla gracilis ssp. nuttallii : Potentilla gracilis
Potentilla gracilis var. blaskeana : Potentilla gracilis
Potentilla gracilis var. brunnescens : Potentilla gracilis
Potentilla gracilis var. fastigiata : Potentilla gracilis
Potentilla gracilis var. flabelliformis : Potentilla gracilis
Potentilla gracilis var. glabra : Potentilla gracilis
Potentilla gracilis var. gracilis : Potentilla gracilis
Potentilla gracilis var. nuttallii : Potentilla gracilis
Potentilla gracilis var. permollis : Potentilla gracilis
Potentilla gracilis var. rigida : Potentilla gracilis
Potentilla indiges : Potentilla gracilis
Potentilla jucunda : Potentilla gracilis
Potentilla leucocarpa : Potentilla rivalis
Potentilla longipedunculata : Potentilla gracilis
Potentilla macropetala : Potentilla gracilis
Potentilla millegrana : Potentilla rivalis
Potentilla monspeliensis : Potentilla norvegica ssp. monspeliensis
Potentilla nicolletii : Potentilla paradoxa
Potentilla norvegica : Potentilla norvegica ssp. monspeliensis

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Potentilla norvegica ssp. *hirsuta* : *Potentilla norvegica* ssp. *monspeliensis*
Potentilla norvegica var. *hirsuta* : *Potentilla norvegica* ssp. *monspeliensis*
Potentilla norvegica var. *labradorica* : *Potentilla norvegica* ssp. *monspeliensis*
Potentilla nuttallii : *Potentilla gracilis*
Potentilla palustris : *Comarum palustre*
Potentilla palustris var. *palustris* : *Comarum palustre*
Potentilla palustris var. *parvifolia* : *Comarum palustre*
Potentilla palustris var. *villosa* : *Comarum palustre*
Potentilla pentandra : *Potentilla rivalis*
Potentilla permollis : *Potentilla gracilis*
Potentilla rectiformis : *Potentilla gracilis*
Potentilla rivalis var. *millegrana* : *Potentilla rivalis*
Potentilla rivalis var. *pentandra* : *Potentilla rivalis*
Potentilla rivalis var. *rivalis* : *Potentilla rivalis*
Potentilla simplex var. *argyrisma* : *Potentilla simplex*
Potentilla simplex var. *calvescens* : *Potentilla simplex*
Potentilla simplex var. *simplex* : *Potentilla simplex*
Potentilla simplex var. *typica* : *Potentilla simplex*
Potentilla supina ssp. *paradoxa* : *Potentilla paradoxa*
Potentilla viridescens : *Potentilla gracilis*
Potentilla yukonensis : *Argentina anserina*
Prenanthes alba alba : *Prenanthes alba*
Prenanthes alba pallida : *Prenanthes alba*
Prenanthes racemosa ssp. *multiflora* : *Prenanthes racemosa*
Prenanthes racemosa ssp. *racemosa* : *Prenanthes racemosa*
Prenanthes racemosa var. *multiflora* : *Prenanthes racemosa*
Primula intercedens : *Primula mistassinica*
Primula mistassinica var. *intercedens* : *Primula mistassinica*
Primula mistassinica var. *noveboracensis* : *Primula mistassinica*
Prunella vulgaris : *Prunella vulgaris* ssp. *lanceolata*
Prunella vulgaris : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *atropurpurea* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *calvescens* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *elongata* : *Prunella vulgaris* ssp. *lanceolata*
Prunella vulgaris var. *hispida* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *lanceolata* : *Prunella vulgaris* ssp. *lanceolata*
Prunella vulgaris var. *minor* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *nana* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *parviflora* : *Prunella vulgaris* ssp. *vulgaris*
Prunella vulgaris var. *rouleauiana* : *Prunella vulgaris* ssp. *vulgaris*
Prunus americana var. *nigra* : *Prunus nigra*
Prunus pensylvanica : *Prunus pensylvanica* var. *pensylvanica*
Prunus serotina : *Prunus serotina* var. *serotina*
Prunus virginiana : *Prunus virginiana* var. *virginiana*

Psedera quinquefolia : *Parthenocissus quinquefolia*
Psedera quinquefolia var. *murorum* : *Parthenocissus quinquefolia*
Psilocheinia runcinata : *Crepis runcinata* ssp. *runcinata*
Ptelea trifoliata : *Ptelea trifoliata* ssp. *trifoliata*
Pteretis nodulosa : *Matteuccia struthiopteris*
Pteretis pensylvanica : *Matteuccia struthiopteris*
Pteridium aquilinum : *Pteridium aquilinum* var. *latiusculum*
Pteridium latiusculum : *Pteridium aquilinum* var. *latiusculum*
Pteris aquilina : *Pteridium aquilinum* var. *latiusculum*
Puccinellia arioides : *Puccinellia nuttalliana*
Puccinellia cusickii : *Puccinellia nuttalliana*
Puccinellia distans : *Puccinellia distans* ssp. *distans*
Puccinellia distans var. *tenuis* : *Puccinellia distans* ssp. *distans*
Puccinellia fernaldii : *Torreya chloa pallida*
Puccinellia pallida : *Torreya chloa pallida*
Puccinellia pauciflora : *Torreya chloa pallida*
Puccinellia pauciflora var. *holmii* : *Torreya chloa pallida*
Puccinellia pauciflora var. *microtheca* : *Torreya chloa pallida*
Puccinellia retroflexa : *Puccinellia distans* ssp. *distans*
Puccinellia suksdorffii : *Puccinellia distans* ssp. *distans*
Pycreus rivularis : *Cyperus bipartitus*
Pyrola asarifolia : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola asarifolia ssp. *americana* : *Pyrola americana*
Pyrola asarifolia var. *incarnata* : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola asarifolia var. *ovata* : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola asarifolia var. *purpurea* : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola californica : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola chlorantha var. *convoluta* : *Pyrola chlorantha*
Pyrola chlorantha var. *paucifolia* : *Pyrola chlorantha*
Pyrola chlorantha var. *revoluta* : *Pyrola chlorantha*
Pyrola convoluta : *Pyrola chlorantha*
Pyrola elata : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola minor var. *parviflora* : *Pyrola minor*
Pyrola obovata : *Pyrola americana*
Pyrola oxypetala : *Pyrola chlorantha*
Pyrola rotundifolia : *Pyrola americana*
Pyrola rotundifolia ssp. *americana* : *Pyrola americana*
Pyrola rotundifolia ssp. *asarifolia* : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola rotundifolia var. *americana* : *Pyrola americana*
Pyrola secunda : *Orthilia secunda*
Pyrola secunda ssp. *obtusata* : *Orthilia secunda*
Pyrola secunda var. *obtusata* : *Orthilia secunda*
Pyrola secunda var. *secunda* : *Orthilia secunda*
Pyrola uliginosa : *Pyrola asarifolia* ssp. *asarifolia*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Pyrola uliginosa var. *gracilis* : *Pyrola asarifolia* ssp. *asarifolia*
Pyrola uniflora : *Moneses uniflora*
Pyrola virens : *Pyrola chlorantha*
Pyrola virens var. *convoluta* : *Pyrola chlorantha*
Pyrola virens var. *saximontana* : *Pyrola chlorantha*
Pyrus americana : *Sorbus americana*
Pyrus arbutifolia var. *nigra* : *Photinia melanocarpa*
Pyrus melanocarpa : *Photinia melanocarpa*
Pyrus microcarpa : *Sorbus americana*
Quercus alba var. *subcaerulea* : *Quercus alba*
Quercus alba var. *subflavea* : *Quercus alba*
Quercus borealis : *Quercus rubra*
Quercus borealis var. *maxima* : *Quercus rubra*
Quercus macrocarpa : *Quercus macrocarpa* var. *macrocarpa*
Quercus macrocarpa var. *oliviformis* : *Quercus macrocarpa* var. *macrocarpa*
Quercus mandanensis : *Quercus macrocarpa* var. *macrocarpa*
Quercus maxima : *Quercus rubra*
Quercus rubra var. *ambigua* : *Quercus rubra*
Quercus rubra var. *borealis* : *Quercus rubra*
Quercus rubra var. *rubra* : *Quercus rubra*
Radicula armoracia : *Armoracia rusticana*
Radicula hispida : *Rorippa palustris*
Radicula palustris : *Rorippa palustris*
Radicula sessiliflora : *Rorippa sessiliflora*
Radicula sinuata : *Rorippa sinuata*
Radicula sylvestris : *Rorippa sylvestris*
Raimannia laciniata : *Oenothera laciniata*
Raimannia rhombipetala : *Oenothera rhombipetala*
Ramischia elatior : *Orthilia secunda*
Ramischia secunda : *Orthilia secunda*
Ranunculus abortivus ssp. *acrolasius* : *Ranunculus abortivus*
Ranunculus abortivus var. *abortivus* : *Ranunculus abortivus*
Ranunculus abortivus var. *acrolasius* : *Ranunculus abortivus*
Ranunculus abortivus var. *eucyclus* : *Ranunculus abortivus*
Ranunculus abortivus var. *indivisus* : *Ranunculus abortivus*
Ranunculus abortivus var. *typicus* : *Ranunculus abortivus*
Ranunculus acris : *Ranunculus acris* var. *acris*
Ranunculus acris ssp. *strigulosus* : *Ranunculus acris* var. *acris*
Ranunculus acris var. *latiseptus* : *Ranunculus acris* var. *acris*
Ranunculus acris var. *stevenii* : *Ranunculus acris* var. *acris*
Ranunculus acris var. *typicus* : *Ranunculus acris* var. *acris*
Ranunculus acris var. *villosum* : *Ranunculus acris* var. *acris*
Ranunculus amphibius : *Ranunculus longirostris*
Ranunculus aquatilis var. *calvescens* : *Ranunculus trichophyllus* var. *trichophyllus*

Ranunculus aquatilis var. *capillaceus* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus aquatilis var. *diffusus* : *Ranunculus longirostris*
Ranunculus aquatilis var. *diffusus* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus aquatilis var. *harrisii* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus aquatilis var. *lalondei* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus aquatilis var. *longirostris* : *Ranunculus longirostris*
Ranunculus aquatilis var. *porteri* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus aquatilis var. *subrigidus* : *Ranunculus longirostris*
Ranunculus aquatilis var. *trichophyllus* : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus boreanus : *Ranunculus acris* var. *acris*
Ranunculus caricetorum : *Ranunculus hispidus*
Ranunculus carolinianus : *Ranunculus hispidus*
Ranunculus carolinianus var. *villicaulis* : *Ranunculus hispidus*
Ranunculus circinatus : *Ranunculus longirostris*
Ranunculus circinatus var. *subrigidus* : *Ranunculus longirostris*
Ranunculus cymbalaria ssp. *saximontanus* : *Ranunculus cymbalaria*
Ranunculus cymbalaria var. *alpinus* : *Ranunculus cymbalaria*
Ranunculus cymbalaria var. *saximontanus* : *Ranunculus cymbalaria*
Ranunculus cymbalaria var. *typicus* : *Ranunculus cymbalaria*
Ranunculus delphinifolius : *Ranunculus flabellaris*
Ranunculus fascicularis var. *apricus* : *Ranunculus fascicularis*
Ranunculus fascicularis var. *typicus* : *Ranunculus fascicularis*
Ranunculus filiformis : *Ranunculus flammula*
Ranunculus filiformis var. *ovalis* : *Ranunculus flammula*
Ranunculus flaccidus : *Ranunculus trichophyllus* var. *trichophyllus*
Ranunculus flammula var. *filiformis* : *Ranunculus flammula*
Ranunculus flammula var. *flammula* : *Ranunculus flammula*
Ranunculus flammula var. *genuinus* : *Ranunculus flammula*
Ranunculus flammula var. *ovalis* : *Ranunculus flammula*
Ranunculus flammula var. *reptans* : *Ranunculus flammula*
Ranunculus flammula var. *samolifolius* : *Ranunculus flammula*
Ranunculus gmelini : *Ranunculus gmelini*
Ranunculus gmelinii ssp. *purshii* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *hookeri* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *limosus* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *prolificus* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *purshii* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *terrestris* : *Ranunculus gmelinii*
Ranunculus gmelinii var. *typicus* : *Ranunculus gmelinii*
Ranunculus hispidus var. *caricetorum* : *Ranunculus hispidus*
Ranunculus hispidus var. *eurylobus* : *Ranunculus hispidus*
Ranunculus hispidus var. *falsus* : *Ranunculus hispidus*
Ranunculus hispidus var. *greenmanii* : *Ranunculus hispidus*
Ranunculus hispidus var. *hispidus* : *Ranunculus hispidus*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Ranunculus hispidus var. marilandicus : Ranunculus hispidus
Ranunculus hispidus var. nitidus : Ranunculus hispidus
Ranunculus hispidus var. typicus : Ranunculus hispidus
Ranunculus hyperboreus var. tuquetelianus : Ranunculus gmelinii
Ranunculus limosus : Ranunculus gmelinii
Ranunculus macounii var. oreganus : Ranunculus macounii
Ranunculus nitidus : Ranunculus hispidus
Ranunculus palmatus : Ranunculus hispidus
Ranunculus purshii : Ranunculus gmelinii
Ranunculus recurvatus : Ranunculus recurvatus var. recurvatus
Ranunculus recurvatus var. adpressipilis : Ranunculus recurvatus var. recurvatus
Ranunculus recurvatus var. typicus : Ranunculus recurvatus var. recurvatus
Ranunculus repens : Ranunculus repens
Ranunculus repens var. degeneratus : Ranunculus repens
Ranunculus repens var. erectus : Ranunculus repens
Ranunculus repens var. glabratus : Ranunculus repens
Ranunculus repens var. linearilobus : Ranunculus repens
Ranunculus repens var. pleniflorus : Ranunculus repens
Ranunculus repens var. typicus : Ranunculus repens
Ranunculus repens var. villosus : Ranunculus repens
Ranunculus reptans : Ranunculus flammula
Ranunculus reptans var. filiformis : Ranunculus flammula
Ranunculus reptans var. intermedius : Ranunculus flammula
Ranunculus reptans var. ovalis : Ranunculus flammula
Ranunculus sceleratus scleratus : Ranunculus sceleratus
Ranunculus sceleratus ssp. multifidus : Ranunculus sceleratus
Ranunculus sceleratus var. multifidus : Ranunculus sceleratus
Ranunculus sceleratus var. sceleratus : Ranunculus sceleratus
Ranunculus sceleratus var. typicus : Ranunculus sceleratus
Ranunculus septentrionalis : Ranunculus hispidus
Ranunculus septentrionalis var. caricetorum : Ranunculus hispidus
Ranunculus septentrionalis var. nitidus : Ranunculus hispidus
Ranunculus septentrionalis var. pterocarpus : Ranunculus hispidus
Ranunculus siciformis : Ranunculus hispidus
Ranunculus subrigidus : Ranunculus longirostris
Ranunculus trichophyllus : Ranunculus trichophyllus var. trichophyllus
Ranunculus trichophyllus var. calvescens : Ranunculus trichophyllus var. trichophyllus
Ranunculus trichophyllus var. typicus : Ranunculus trichophyllus var. trichophyllus
Ranunculus usneoides : Ranunculus longirostris
Razoumofskya pusilla : Arceuthobium pusillum
Reynoutria convolvulus : Polygonum convolvulus var. convolvulus
Reynoutria japonica : Polygonum cuspidatum
Reynoutria scandens : Polygonum scandens
Reynoutria scandens var. cristata : Polygonum scandens

Reynoutria scandens var. dumetorum : Polygonum scandens
Rhamnus frangula : Frangula alnus
Rhamnus frangula var. angustifolia : Frangula alnus
Rhododendron groenlandicum : Ledum groenlandicum
Rhus radicans : Toxicodendron radicans ssp. negundo
Rhus radicans var. littoralis : Toxicodendron radicans ssp. negundo
Rhus radicans var. malacothrichocarpa : Toxicodendron radicans ssp. negundo
Rhus radicans var. negundo : Toxicodendron radicans ssp. negundo
Rhus radicans var. rydbergii : Toxicodendron rydbergii
Rhus radicans var. vulgaris : Toxicodendron rydbergii
Rhus toxicodendron var. vulgaris : Toxicodendron rydbergii
Rhus vernix : Toxicodendron vernix
Rhynchospora capillacea var. leviseta : Rhynchospora capillacea
Rhynchospora luquillensis : Rhynchospora alba
Rhynchospora smallii : Rhynchospora capillacea
Ribes aureum : Ribes aureum var. villosum
Ribes hirtellum var. calcicola : Ribes hirtellum
Ribes hirtellum var. hirtellum : Ribes hirtellum
Ribes hirtellum var. saxosum : Ribes hirtellum
Ribes hudsonianum : Ribes hudsonianum var. hudsonianum
Ribes lacustre var. parvulum : Ribes lacustre
Ribes odoratum : Ribes aureum var. villosum
Ribes oxyacanthoides var. calcicola : Ribes hirtellum
Ribes oxyacanthoides var. hirtellum : Ribes hirtellum
Ribes oxyacanthoides var. saxosum : Ribes hirtellum
Ribes oxyacanthoides var. lacustre : Ribes lacustre
Ribes prostratum : Ribes glandulosum
Ribes resinosum : Ribes glandulosum
Ribes rubrum var. alaskanum : Ribes triste
Ribes rubrum var. propinquum : Ribes triste
Ribes triste var. albinervium : Ribes triste
Robinia pseudoacacia var. rectissima : Robinia pseudoacacia
Roegneria pauciflora : Elymus trachycaulis
Roegneria trachycaula : Elymus trachycaulis
Rorippa armoracia : Armoracia rusticana
Rorippa hispida : Rorippa palustris
Rorippa hispida var. glabrata : Rorippa palustris
Rorippa islandica : Rorippa palustris
Rorippa islandica ssp. fernaldiana : Rorippa palustris
Rorippa islandica var. fernaldiana : Rorippa palustris
Rorippa islandica var. glabra : Rorippa palustris
Rorippa islandica var. glabrata : Rorippa palustris
Rorippa islandica var. hispida : Rorippa palustris
Rorippa islandica var. microcarpa : Rorippa palustris



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Rorippa islandica var. occidentalis : Rorippa palustris
Rorippa nasturtium-aquaticum var. longisiliqua : Rorippa microphylla
Rorippa palustris ssp. fernaldiana : Rorippa palustris
Rorippa palustris ssp. glabra : Rorippa palustris
Rorippa palustris ssp. hispida : Rorippa palustris
Rorippa palustris ssp. occidentalis : Rorippa palustris
Rorippa palustris ssp. palustris : Rorippa palustris
Rorippa palustris var. cernua : Rorippa palustris
Rorippa palustris var. clavata : Rorippa palustris
Rorippa palustris var. dictyota : Rorippa palustris
Rorippa palustris var. elongata : Rorippa palustris
Rorippa palustris var. glabra : Rorippa palustris
Rorippa palustris var. glabrata : Rorippa palustris
Rorippa palustris var. hispida : Rorippa palustris
Rorippa palustris var. occidentalis : Rorippa palustris
Rorippa palustris var. palustris : Rorippa palustris
Rorippa palustris var. reptabunda : Rorippa palustris
Rorippa palustris var. williamsii : Rorippa palustris
Rosa adenosepala : Rosa woodsii var. woodsii
Rosa blanda var. blanda : Rosa blanda
Rosa blanda var. carphohispida : Rosa blanda
Rosa blanda var. glabra : Rosa blanda
Rosa blanda var. glandulosa : Rosa blanda
Rosa blanda var. hispida : Rosa blanda
Rosa cathayensis : Rosa multiflora
Rosa fendleri : Rosa woodsii var. woodsii
Rosa hypoleuca : Rosa woodsii var. woodsii
Rosa johannensis : Rosa blanda
Rosa macounii : Rosa woodsii var. woodsii
Rosa neomexicana : Rosa woodsii var. woodsii
Rosa rousseauorum : Rosa blanda
Rosa standleyi : Rosa woodsii var. woodsii
Rosa subblanda : Rosa blanda
Rosa terrens : Rosa woodsii var. woodsii
Rosa williamsii : Rosa blanda
Rosa woodsii : Rosa woodsii var. woodsii
Rosa woodsii var. adenosepala : Rosa woodsii var. woodsii
Rosa woodsii var. fendleri : Rosa woodsii var. woodsii
Rosa woodsii var. hypoleuca : Rosa woodsii var. woodsii
Rosa woodsii var. macounii : Rosa woodsii var. woodsii
Rotala catholica : Rotala ramosior
Rotala dentifera : Rotala ramosior
Rotala ramosior var. interior : Rotala ramosior
Rotala ramosior var. typica : Rotala ramosior

Rubacer parviflorus : Rubus parviflorus var. parviflorus
Rubus acaulis : Rubus arcticus ssp. acaulis
Rubus allegheniensis : Rubus allegheniensis var. allegheniensis
Rubus allegheniensis var. plausus : Rubus allegheniensis var. allegheniensis
Rubus allegheniensis var. populifolius : Rubus allegheniensis var. allegheniensis
Rubus arcticus : Rubus arcticus ssp. acaulis
Rubus arcticus var. acaulis : Rubus arcticus ssp. acaulis
Rubus attractus : Rubus allegheniensis var. allegheniensis
Rubus auroralis : Rubus allegheniensis var. allegheniensis
Rubus beatus : Rubus setosus
Rubus benneri : Rubus semisetosus
Rubus carolinianus : Rubus idaeus ssp. strigosus
Rubus condignus : Rubus setosus
Rubus discretus : Rubus setosus
Rubus fissidens : Rubus allegheniensis var. allegheniensis
Rubus greeneanus : Rubus idaeus ssp. strigosus
Rubus groutianus : Rubus setosus
Rubus hispидus var. suberectus : Rubus setosus
Rubus idaeus : Rubus idaeus ssp. strigosus
Rubus idaeus ssp. idaeus : Rubus idaeus ssp. strigosus
Rubus idaeus ssp. melanolasius : Rubus idaeus ssp. strigosus
Rubus idaeus ssp. sachalinensis : Rubus idaeus ssp. strigosus
Rubus idaeus var. aculeatissimus : Rubus idaeus ssp. strigosus
Rubus idaeus var. canadensis : Rubus idaeus ssp. strigosus
Rubus idaeus var. caudatus : Rubus idaeus ssp. strigosus
Rubus idaeus var. egglestonii : Rubus idaeus ssp. strigosus
Rubus idaeus var. euclylus : Rubus idaeus ssp. strigosus
Rubus idaeus var. gracilipes : Rubus idaeus ssp. strigosus
Rubus idaeus var. heterolasius : Rubus idaeus ssp. strigosus
Rubus idaeus var. melanolasius : Rubus idaeus ssp. strigosus
Rubus idaeus var. melanotrichys : Rubus idaeus ssp. strigosus
Rubus idaeus var. peramoenus : Rubus idaeus ssp. strigosus
Rubus idaeus var. strigosus : Rubus idaeus ssp. strigosus
Rubus junior : Rubus setosus
Rubus longissimus : Rubus allegheniensis var. allegheniensis
Rubus melanolasius : Rubus idaeus ssp. strigosus
Rubus neglectus : Rubus idaeus ssp. strigosus
Rubus nigricans : Rubus setosus
Rubus nigro'baccus : Rubus allegheniensis var. allegheniensis
Rubus nuperus : Rubus allegheniensis var. allegheniensis
Rubus parviflorus : Rubus parviflorus var. parviflorus
Rubus parviflorus var. bifarius : Rubus parviflorus var. parviflorus
Rubus parviflorus var. grandiflorus : Rubus parviflorus var. parviflorus
Rubus parviflorus var. heteradenius : Rubus parviflorus var. parviflorus

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Rubus parviflorus var. hypomalacus : Rubus parviflorus var. parviflorus
Rubus parviflorus var. parvifolius : Rubus parviflorus var. parviflorus
Rubus pennus : Rubus allegheniensis var. allegheniensis
Rubus pubescens : Rubus pubescens var. pubescens
Rubus rappii : Rubus allegheniensis var. allegheniensis
Rubus ribes : Rubus setosus
Rubus separ : Rubus allegheniensis var. allegheniensis
Rubus significans : Rubus setosus
Rubus strigosus : Rubus idaeus ssp. strigosus
Rubus strigosus var. acalyphaceus : Rubus idaeus ssp. strigosus
Rubus strigosus var. arizonicus : Rubus idaeus ssp. strigosus
Rubus strigosus var. canadensis : Rubus idaeus ssp. strigosus
Rubus strigosus var. strigosus : Rubus idaeus ssp. strigosus
Rubus tectorum : Rubus setosus
Rubus triflorus : Rubus pubescens var. pubescens
Rubus uodus : Rubus setosus
Rudbeckia amplexens : Rudbeckia hirta var. pulcherrima
Rudbeckia brittonii : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. brittonii : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. corymbifera : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. hirta : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. lanceolata : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. monticola : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. sericea : Rudbeckia hirta var. pulcherrima
Rudbeckia hirta var. serotina : Rudbeckia hirta var. pulcherrima
Rudbeckia laciniata : Rudbeckia laciniata var. laciniata
Rudbeckia laciniata var. hortensis : Rudbeckia laciniata var. laciniata
Rudbeckia longipes : Rudbeckia hirta var. pulcherrima
Rudbeckia monticola : Rudbeckia hirta var. pulcherrima
Rudbeckia sericea : Rudbeckia hirta var. pulcherrima
Rudbeckia serotina : Rudbeckia hirta var. pulcherrima
Rudbeckia serotina var. corymbifera : Rudbeckia hirta var. pulcherrima
Rudbeckia serotina var. lanceolata : Rudbeckia hirta var. pulcherrima
Rudbeckia serotina var. sericea : Rudbeckia hirta var. pulcherrima
Rudbeckia triloba : Rudbeckia triloba var. triloba
Rufacer rubrum : Acer rubrum var. rubrum
Rulac negundo : Acer negundo
Rulac texana : Acer negundo
Rumex acetosella ssp. angiocarpus : Rumex acetosella
Rumex acetosella var. pyrenaeus : Rumex acetosella
Rumex acetosella var. tenuifolius : Rumex acetosella
Rumex angiocarpus : Rumex acetosella
Rumex britannica : Rumex orbiculatus
Rumex britanicus : Rumex altissimus
Rumex crispus : Rumex crispus ssp. crispus
Rumex domesticus : Rumex longifolius
Rumex ellipticus : Rumex altissimus
Rumex fascicularis : Rumex verticillatus
Rumex floridanus : Rumex verticillatus
Rumex fueginus : Rumex maritimus
Rumex maritimus ssp. fueginus : Rumex maritimus
Rumex maritimus var. atrix : Rumex maritimus
Rumex maritimus var. fueginus : Rumex maritimus
Rumex maritimus var. persicarioides : Rumex maritimus
Rumex mexicanus : Rumex salicifolius var. mexicanus
Rumex mexicanus var. angustifolius : Rumex salicifolius var. mexicanus
Rumex mexicanus var. subarcticus : Rumex salicifolius var. mexicanus
Rumex obtusifolius obtusifolius : Rumex obtusifolius
Rumex obtusifolius ssp. agrestis : Rumex obtusifolius
Rumex obtusifolius ssp. sylvestris : Rumex obtusifolius
Rumex obtusifolius var. sylvestris : Rumex obtusifolius
Rumex orbiculatus var. borealis : Rumex orbiculatus
Rumex orbiculatus var. orbiculatus : Rumex orbiculatus
Rumex persicarioides : Rumex maritimus
Rumex quadrangulivalvis : Rumex salicifolius var. mexicanus
Rumex salicifolius : Rumex salicifolius var. mexicanus
Rumex salicifolius ssp. triangulivalvis : Rumex salicifolius var. mexicanus
Rumex salicifolius var. triangulivalvis : Rumex salicifolius var. mexicanus
Rumex subarcticus : Rumex salicifolius var. mexicanus
Rumex tenuifolius : Rumex acetosella
Rumex triangulivalvis : Rumex salicifolius var. mexicanus
Rumex triangulivalvis var. oreolapathum : Rumex salicifolius var. mexicanus
Ruppia cirrhosa ssp. occidentalis : Ruppia cirrhosa
Ruppia maritima var. occidentalis : Ruppia cirrhosa
Ruppia maritima var. spiralis : Ruppia cirrhosa
Ruppia occidentalis : Ruppia cirrhosa
Ruppia spiralis : Ruppia cirrhosa
Sabina horizontalis : Juniperus horizontalis
Sabina prostrata : Juniperus horizontalis
Sabina virginiana : Juniperus virginiana var. virginiana
Saccharodendron saccharum : Acer saccharum var. saccharum
Sagina nodosa : Sagina nodosa ssp. borealis
Sagina nodosa var. borealis : Sagina nodosa ssp. borealis
Sagina procumbens var. compacta : Sagina procumbens
Sagittaria virginica : Bartonia virginica
Sagittaria arifolia : Sagittaria cuneata
Sagittaria calycina : Sagittaria calycina var. calycina



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Sagittaria chinensis : Sagittaria latifolia
Sagittaria engelmanniana ssp. brevirostra : Sagittaria brevirostra
Sagittaria engelmanniana ssp. longirostra : Sagittaria latifolia
Sagittaria esculenta : Sagittaria latifolia
Sagittaria graminea var. cristata : Sagittaria cristata
Sagittaria latifolia var. latifolia : Sagittaria latifolia
Sagittaria latifolia var. obtusa : Sagittaria latifolia
Sagittaria latifolia var. pubescens : Sagittaria latifolia
Sagittaria longirostra : Sagittaria latifolia
Sagittaria montevidensis ssp. calycina : Sagittaria calycina var. calycina
Sagittaria obtusa : Sagittaria latifolia
Sagittaria ornithorrhyncha : Sagittaria latifolia
Sagittaria planipes : Sagittaria latifolia
Sagittaria pubescens : Sagittaria latifolia
Sagittaria variabilis var. obtusa : Sagittaria latifolia
Sagittaria viscosa : Sagittaria latifolia
Salicornia europaea ssp. rubra : Salicornia rubra
Salicornia europaea var. prona : Salicornia rubra
Salix acutidens : Salix eriocephala
Salix adenophylla : Salix eriocephala
Salix alba ssp. caerulea : Salix alba
Salix alba ssp. vitellina : Salix alba
Salix alba var. caerulea : Salix alba
Salix alba var. calva : Salix alba
Salix alba var. vitellina : Salix alba
Salix alpina : Salix humilis
Salix ambigua : Salix nigra
Salix amygdaloidea var. wrightii : Salix amygdaloidea
Salix ancorifera : Salix discolor
Salix angustata : Salix eriocephala
Salix arguta var. alpigena : Salix serissima
Salix arguta var. hirtisquama : Salix lucida ssp. lucida
Salix arguta var. pallescens : Salix serissima
Salix balsamifera : Salix pyrifolia
Salix balsamifera var. alpestris : Salix pyrifolia
Salix balsamifera var. lanceolata : Salix pyrifolia
Salix balsamifera var. vegeta : Salix pyrifolia
Salix barclayi var. pseudomonticola : Salix pseudomonticola
Salix bebbiana var. capreifolia : Salix bebbiana
Salix bebbiana var. depilis : Salix bebbiana
Salix bebbiana var. luxurians : Salix bebbiana
Salix bebbiana var. perrostrata : Salix bebbiana
Salix bebbiana var. projecta : Salix bebbiana
Salix candida var. denudata : Salix candida

Salix candida var. tomentosa : Salix candida
Salix candidula : Salix candida
Salix chlorophylla : Salix planifolia
Salix chlorophylla var. monica : Salix planifolia
Salix chlorophylla var. nelsonii : Salix planifolia
Salix chlorophylla var. pellita : Salix pellita
Salix chlorophylla var. pychnocarpa : Salix planifolia
Salix coactilis : Salix sericea
Salix conformis : Salix discolor
Salix conifera : Salix humilis
Salix cordata : Salix eriocephala
Salix cordata ssp. rigida : Salix eriocephala
Salix cordata var. abrasa : Salix eriocephala
Salix cordata var. angustata : Salix eriocephala
Salix cordata var. balsamifera : Salix pyrifolia
Salix cordata var. missouriensis : Salix eriocephala
Salix cordata var. rigida : Salix eriocephala
Salix cordata var. rigida : Salix eriocephala
Salix cordata var. vestita : Salix eriocephala
Salix crassa : Salix discolor
Salix denudata : Salix nigra
Salix depressa ssp. rostrata : Salix bebbiana
Salix discolor var. eriocephala : Salix eriocephala
Salix discolor var. overi : Salix discolor
Salix discolor var. prinooides : Salix discolor
Salix discolor var. rigidior : Salix discolor
Salix dubia : Salix nigra
Salix exigua ssp. interior : Salix interior
Salix exigua var. exterior : Salix interior
Salix exigua var. pedicellata : Salix interior
Salix falcata : Salix nigra
Salix flavovirens : Salix nigra
Salix fluvialis var. sericans : Salix interior
Salix fuscata : Salix discolor
Salix fuscescens var. hebecarpa : Salix pedicellaris
Salix gracilis : Salix petiolaris
Salix gracilis var. rosmarinoides : Salix petiolaris
Salix gracilis var. textoris : Salix petiolaris
Salix grisea : Salix sericea
Salix hebecarpa : Salix pedicellaris
Salix humilis var. angustifolia : Salix humilis
Salix humilis var. grandifolia : Salix humilis
Salix humilis var. humilis : Salix humilis

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Salix humilis var. hyporhysa : Salix humilis
Salix humilis var. keweenawensis : Salix humilis
Salix humilis var. microphylla : Salix humilis
Salix humilis var. rigidiuscula : Salix humilis
Salix humilis var. tristis : Salix humilis
Salix interior var. exterior : Salix interior
Salix interior var. pedicellata : Salix interior
Salix interior var. wheeleri : Salix interior
Salix ligustrina : Salix nigra
Salix lividia var. occidentalis : Salix bebbiana
Salix lividia var. rostrata : Salix bebbiana
Salix longifolia : Salix interior
Salix longifolia var. interior : Salix interior
Salix longifolia var. pedicellata : Salix interior
Salix longifolia var. sericans : Salix interior
Salix longifolia var. wheeleri : Salix interior
Salix longirostris : Salix humilis
Salix lucida : Salix lucida ssp. lucida
Salix lucida var. angustifolia : Salix lucida ssp. lucida
Salix lucida var. intonsa : Salix lucida ssp. lucida
Salix lucida var. latifolia : Salix lucida ssp. lucida
Salix lucida var. ovatifolia : Salix lucida ssp. lucida
Salix lucida var. serissima : Salix serissima
Salix ludoviciana : Salix nigra
Salix missouriensis : Salix eriocephala
Salix monica : Salix planifolia
Salix muehlenbergiana : Salix humilis
Salix muehlenbergiana var. angustifolia : Salix humilis
Salix muehlenbergiana var. grandifolia : Salix humilis
Salix myricoides var. angustata : Salix eriocephala
Salix myricoides var. cordata : Salix eriocephala
Salix myricoides var. rigida : Salix eriocephala
Salix myrtilloides var. hypoglauca : Salix pedicellaris
Salix myrtilloides var. pedicellaris : Salix pedicellaris
Salix nelsonii : Salix planifolia
Salix neoforgesii : Salix petiolaris
Salix nigra var. altissima : Salix nigra
Salix nigra var. amygdaloidea : Salix amygdaloidea
Salix nigra var. brevifolia : Salix nigra
Salix nigra var. brevijulis : Salix nigra
Salix nigra var. falcata : Salix nigra
Salix nigra var. lindheimeri : Salix nigra
Salix nigra var. longifolia : Salix nigra
Salix nigra var. marginata : Salix nigra

Salix nigra var. wrightii : Salix amygdaloidea
Salix obovata : Salix pellita
Salix occidentalis : Salix humilis
Salix pedicellaris var. hypoglauca : Salix pedicellaris
Salix pedicellaris var. pedicellaris : Salix pedicellaris
Salix pedicellaris var. tenuescens : Salix pedicellaris
Salix pennata : Salix planifolia
Salix pensylvanica : Salix sericea
Salix pentandra var. lucida : Salix lucida ssp. lucida
Salix perrostrata : Salix bebbiana
Salix petiolaris var. angustifolia : Salix petiolaris
Salix petiolaris var. gracilis : Salix petiolaris
Salix petiolaris var. grisea : Salix sericea
Salix petiolaris var. rosmarinoides : Salix petiolaris
Salix petiolaris var. sericea : Salix sericea
Salix petiolaris var. subsericea : Salix petiolaris
Salix phylicifolia ssp. planifolia : Salix planifolia
Salix phylicifolia var. monica : Salix planifolia
Salix phylicifolia var. pennata : Salix planifolia
Salix planifolia var. monica : Salix planifolia
Salix planifolia var. nelsonii : Salix planifolia
Salix planifolia var. pennata : Salix planifolia
Salix prionoides : Salix discolor
Salix purshiana : Salix nigra
Salix pychnocarpa : Salix planifolia
Salix pyrifolia var. lanceolata : Salix pyrifolia
Salix recurvata : Salix humilis
Salix rigida : Salix eriocephala
Salix rigida var. angustata : Salix eriocephala
Salix rigida var. vestita : Salix eriocephala
Salix rostrata : Salix bebbiana
Salix rostrata var. capreifolia : Salix bebbiana
Salix rostrata var. luxurians : Salix bebbiana
Salix rostrata var. perrostrata : Salix bebbiana
Salix rostrata var. projecta : Salix bebbiana
Salix rubra : Salix interior
Salix sensitiva : Salix discolor
Salix sericea var. subsericea : Salix petiolaris
Salix seriocarpa : Salix pellita
Salix sitchensis var. pellita : Salix pellita
Salix squamata : Salix discolor
Salix starkeana ssp. bebbiana : Salix bebbiana
Salix torreyana : Salix eriocephala
Salix tristis : Salix humilis

Salix tristis var. glabrata : Salix humilis	Sarracenia purpurea : Sarracenia purpurea ssp. purpurea
Salix tristis var. longifolia : Salix humilis	Sarracenia purpurea ssp. gibbosa : Sarracenia purpurea ssp. purpurea
Salix tristis var. microphylla : Salix humilis	Sarracenia purpurea ssp. heterophylla : Sarracenia purpurea ssp. purpurea
Salix tristis var. momadelphia : Salix humilis	Sarracenia purpurea var. ripicola : Sarracenia purpurea ssp. purpurea
Salix vagans var. occidentalis : Salix bebbiana	Sarracenia purpurea var. stolonifera : Sarracenia purpurea ssp. purpurea
Salix vagans var. rostrata : Salix bebbiana	Sarracenia purpurea var. terrae-novae : Sarracenia purpurea ssp. purpurea
Salix vitellina : Salix alba	Saxifraga aizoon : Saxifraga paniculata ssp. neogaea
Salix wheeleri : Salix interior	Saxifraga aizoon ssp. neogaea : Saxifraga paniculata ssp. neogaea
Salix wrightii : Salix amygdaloides	Saxifraga aizoon var. neogaea : Saxifraga paniculata ssp. neogaea
Salix X subsericea : Salix petiolaris	Saxifraga cernua var. exilioides : Saxifraga cernua
Salsola australis : Salsola tragus	Saxifraga forbesii : Saxifraga pensylvanica
Salsola iberica : Salsola tragus	Saxifraga paniculata : Saxifraga paniculata ssp. neogaea
Salsola kali ssp. ruthenica : Salsola tragus	Saxifraga pensylvanica pensylvanica : Saxifraga pensylvanica
Salsola kali ssp. tenuifolia : Salsola tragus	Saxifraga pensylvanica ssp. interior : Saxifraga pensylvanica
Salsola kali ssp. tragus : Salsola tragus	Saxifraga pensylvanica ssp. tenuirostrata : Saxifraga pensylvanica
Salsola pestifer : Salsola tragus	Saxifraga pensylvanica var. forbesii : Saxifraga pensylvanica
Salsola ruthenica : Salsola tragus	Saxifraga pensylvanica var. purpuripetala : Saxifraga pensylvanica
Sambucus callicarpa : Sambucus racemosa var. racemosa	Saxifraga virginiensis : Saxifraga virginensis var. virginensis
Sambucus canadensis : Sambucus nigra ssp. canadensis	Scheuchzeria americana : Scheuchzeria palustris ssp. americana
Sambucus canadensis var. laciniata : Sambucus nigra ssp. canadensis	Scheuchzeria palustris : Scheuchzeria palustris ssp. americana
Sambucus canadensis var. submollis : Sambucus nigra ssp. canadensis	Scheuchzeria palustris var. americana : Scheuchzeria palustris ssp. americana
Sambucus cerulea var. mexicana : Sambucus nigra ssp. canadensis	Schizachne purpurascens var. pubescens : Schizachne purpurascens
Sambucus mexicana : Sambucus nigra ssp. canadensis	Schizachne stricta : Schizachne purpurascens
Sambucus microbotrys : Sambucus racemosa var. racemosa	Schizachyrium prae maturum : Schizachyrium scoparium var. scoparium
Sambucus nigra : Sambucus nigra ssp. canadensis	Schizachyrium scoparium : Schizachyrium scoparium var. scoparium
Sambucus orbiculata : Sambucus nigra ssp. canadensis	Schizachyrium scoparium ssp. neomexicanum : Schizachyrium scoparium var. scoparium
Sambucus pubens : Sambucus racemosa var. racemosa	Schizachyrium scoparium var. frequens : Schizachyrium scoparium var. scoparium
Sambucus pubens var. arborescens : Sambucus racemosa var. racemosa	Schizachyrium scoparium var. neomexicanum : Schizachyrium scoparium var. scoparium
Sambucus racemosa : Sambucus racemosa var. racemosa	Schizachyrium scoparium var. polycladum : Schizachyrium scoparium var. scoparium
Sambucus racemosa ssp. pubens : Sambucus racemosa var. racemosa	Schoberia occidentalis : Suaeda calceoliformis
Sambucus racemosa var. arborescens : Sambucus racemosa var. racemosa	Schoenoplectus acutus : Schoenoplectus acutus var. acutus
Sambucus racemosa var. leucocarpa : Sambucus racemosa var. racemosa	Schoenoplectus juncoides ssp. purshianus : Schoenoplectus purshianus
Sambucus racemosa var. microbotrys : Sambucus racemosa var. racemosa	Schoenoplectus lacustris ssp. acutus : Schoenoplectus acutus var. acutus
Sambucus racemosa var. pubens : Sambucus racemosa var. racemosa	Schoenoplectus lacustris ssp. creber : Schoenoplectus tabernaemontani
Sambucus simpsonii : Sambucus nigra ssp. canadensis	Schoenoplectus lacustris ssp. tabernaemontani : Schoenoplectus tabernaemontani
Sanguinaria canadensis var. rotundifolia : Sanguinaria canadensis	Schoenoplectus lacustris ssp. validus : Schoenoplectus tabernaemontani
Sanicula canadensis var. canadensis : Sanicula canadensis	Schoenoplectus pungens var. badius : Schoenoplectus pungens
Sanicula canadensis var. floridana : Sanicula canadensis	Schoenoplectus pungens var. longispicatus : Schoenoplectus pungens
Sanicula canadensis var. grandis : Sanicula canadensis	Schoenoplectus pungens var. pungens : Schoenoplectus pungens
Sanicula canadensis var. typica : Sanicula canadensis	Schoenoplectus validus : Schoenoplectus tabernaemontani
Sanicula floridana : Sanicula canadensis	Schoenoplectus validus ssp. creber : Schoenoplectus tabernaemontani
Sanicula gregaria : Sanicula odorata	Schoenoplectus validus ssp. luxurians : Schoenoplectus tabernaemontani
Santolina suaveolens : Matricaria discoidea	Scirpus acutus : Schoenoplectus acutus var. acutus
Sarracenia heterophylla : Sarracenia purpurea ssp. purpurea	



Scirpus americanus : *Schoenoplectus pungens*
Scirpus americanus var. *longispicatus* : *Schoenoplectus pungens*
Scirpus americanus var. *monophyllus* : *Schoenoplectus pungens*
Scirpus americanus var. *polyphyllus* : *Schoenoplectus pungens*
Scirpus atrovirens var. *georgianus* : *Scirpus georgianus*
Scirpus atrovirens var. *pallidus* : *Scirpus pallidus*
Scirpus autumnalis : *Fimbristylis autumnalis*
Scirpus caespitosus : *Trichophorum caespitostum*
Scirpus caespitosus var. *austriacus* : *Trichophorum caespitostum*
Scirpus caespitosus var. *callosus* : *Trichophorum caespitostum*
Scirpus caespitosus var. *delicatulus* : *Trichophorum caespitostum*
Scirpus capillaris : *Bulbostylis capillaris* ssp. *capillaris*
Scirpus cespitosus : *Trichophorum caespitostum*
Scirpus cespitosus var. *austriacus* : *Trichophorum caespitostum*
Scirpus cespitosus var. *callosus* : *Trichophorum caespitostum*
Scirpus cespitosus var. *delicatulus* : *Trichophorum caespitostum*
Scirpus clintonii : *Trichophorum clintonii*
Scirpus cyperinus var. *brachypodus* : *Scirpus atrocinctus*
Scirpus cyperinus var. *condensatus* : *Scirpus cyperinus*
Scirpus cyperinus var. *eriophorum* : *Scirpus cyperinus*
Scirpus cyperinus var. *laxus* : *Scirpus cyperinus*
Scirpus cyperinus var. *pedicellatus* : *Scirpus pedicellatus*
Scirpus cyperinus var. *pelius* : *Scirpus cyperinus*
Scirpus cyperinus var. *rubricosus* : *Scirpus cyperinus*
Scirpus debilis : *Schoenoplectus purshianus*
Scirpus eriophorum : *Scirpus cyperinus*
Scirpus fernaldii : *Schoenoplectus maritimus*
Scirpus fluviatilis : *Schoenoplectus fluviatilis*
Scirpus fontinalis : *Scirpus pendulus*
Scirpus glaucus : *Eleocharis erythropoda*
Scirpus heterochaetus : *Schoenoplectus heterochaetus*
Scirpus hotarui : *Schoenoplectus purshianus*
Scirpus hudsonianus : *Trichophorum alpinum*
Scirpus juncoides var. *digynus* : *Schoenoplectus purshianus*
Scirpus juncoides var. *williamsii* : *Schoenoplectus purshianus*
Scirpus lacustris : *Schoenoplectus acutus* var. *acutus*
Scirpus lacustris : *Schoenoplectus heterochaetus*
Scirpus lacustris ssp. *creber* : *Schoenoplectus tabernaemontani*
Scirpus lacustris ssp. *glaucus* : *Schoenoplectus tabernaemontani*
Scirpus lacustris ssp. *tabernaemontani* : *Schoenoplectus tabernaemontani*
Scirpus lacustris ssp. *validus* : *Schoenoplectus tabernaemontani*
Scirpus lacustris var. *tenuiculmis* : *Schoenoplectus heterochaetus*
Scirpus lineatus : *Scirpus pendulus*
Scirpus maritimus : *Schoenoplectus maritimus*

Scirpus maritimus var. *fernaldii* : *Schoenoplectus maritimus*
Scirpus maritimus var. *paludosus* : *Schoenoplectus maritimus*
Scirpus micranthus : *Lipocarpha micrantha*
Scirpus micranthus var. *minor* : *Lipocarpha micrantha*
Scirpus microcarpus var. *longispicatus* : *Scirpus microcarpus*
Scirpus microcarpus var. *rubrotinctus* : *Scirpus microcarpus*
Scirpus monophyllus : *Schoenoplectus pungens*
Scirpus nanus : *Eleocharis quinqueflora*
Scirpus obtusus : *Eleocharis obtusa*
Scirpus ovatus : *Eleocharis ovata*
Scirpus pacificus : *Schoenoplectus maritimus*
Scirpus paludosus : *Schoenoplectus maritimus*
Scirpus paludosus var. *atlanticus* : *Schoenoplectus maritimus*
Scirpus pauciflorus : *Eleocharis quinqueflora*
Scirpus pedicellatus var. *pullus* : *Scirpus pedicellatus*
Scirpus pungens : *Schoenoplectus pungens*
Scirpus pungens ssp. *monophyllus* : *Schoenoplectus pungens*
Scirpus pungens var. *longispicatus* : *Schoenoplectus pungens*
Scirpus pungens var. *polyphyllus* : *Schoenoplectus pungens*
Scirpus purshianus : *Schoenoplectus purshianus*
Scirpus quinqueflorus : *Eleocharis quinqueflora*
Scirpus rostellatus : *Eleocharis rostellata*
Scirpus rubricosus : *Scirpus cyperinus*
Scirpus rubrotinctus : *Scirpus microcarpus*
Scirpus smithii : *Schoenoplectus smithii*
Scirpus smithii var. *levisetus* : *Schoenoplectus smithii*
Scirpus smithii var. *setosus* : *Schoenoplectus smithii*
Scirpus smithii var. *williamsii* : *Schoenoplectus purshianus*
Scirpus subterminalis : *Schoenoplectus subterminalis*
Scirpus tabernaemontani : *Schoenoplectus tabernaemontani*
Scirpus tenuiculmis : *Schoenoplectus heterochaetus*
Scirpus torreyi : *Schoenoplectus torreyi*
Scirpus validus : *Schoenoplectus tabernaemontani*
Scirpus validus var. *creber* : *Schoenoplectus tabernaemontani*
Scirpus wolfii : *Eleocharis wolfii*
Scleria flaccida : *Scleria triglomerata*
Scleria nitida : *Scleria triglomerata*
Scleria tenella : *Scleria verticillata*
Scrophularia pectinata : *Scrophularia lanceolata*
Scutellaria ambigua : *Scutellaria parvula*
Scutellaria australis : *Scutellaria parvula*
Scutellaria cordifolia : *Scutellaria ovata* ssp. *ovata*
Scutellaria epilobiifolia : *Scutellaria galericulata*
Scutellaria galericulata ssp. *pubescens* : *Scutellaria galericulata*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Scutellaria galericulata var. epilobiifolia : Scutellaria galericulata	Senecio pseudoaureus ssp. semicordatus : Packera pseudoaurea var. semicordata
Scutellaria galericulata var. pubescens : Scutellaria galericulata	Senecio pseudoaureus var. semicordatus : Packera pseudoaurea var. semicordata
Scutellaria leonardi : Scutellaria parvula	Senecio pseudotomentosus : Packera plattensis
Scutellaria leonardii : Scutellaria parvula	Senecio semicordatus : Packera pseudoaurea var. semicordata
Scutellaria nervosa var. ambigua : Scutellaria parvula	Senecio tweedyi : Packera paupercula
Scutellaria ovata : Scutellaria ovata ssp. ovata	Serratula arvensis : Cirsium arvense
Scutellaria ovata ssp. calcarea : Scutellaria ovata ssp. ovata	Sesleria dactyloides : Buchloe dactyloides
Scutellaria ovata ssp. mississippiensis : Scutellaria ovata ssp. ovata	Setaria carnei : Setaria verticillata
Scutellaria ovata ssp. pseudovenosa : Scutellaria ovata ssp. ovata	Setaria glauca : Pennisetum glaucum
Scutellaria ovata ssp. versicolor : Scutellaria ovata ssp. ovata	Setaria italica var. metzgeri : Setaria italica
Scutellaria ovata var. calcarea : Scutellaria ovata ssp. ovata	Setaria italica var. stramineofructa : Setaria italica
Scutellaria ovata var. versicolor : Scutellaria ovata ssp. ovata	Setaria lutescens : Pennisetum glaucum
Scutellaria parvula var. australis : Scutellaria parvula	Sicyos lobata : Echinocystis lobata
Scutellaria parvula var. leonardii : Scutellaria parvula	Siella erecta : Berula erecta
Scutellaria parvula var. missouriensis : Scutellaria parvula	Sieversia triflora : Geum triflorum var. triflorum
Scutellaria parvula var. parvula : Scutellaria parvula	Silphium perfoliatum : Silphium perfoliatum var. perfoliatum
Selaginella spinosa : Selaginella selaginoides	Sisymbrium alliaria : Alliaria petiolata
Senecio aureus : Packera aurea	Sisymbrium nasturtium-aquaticum : Rorippa nasturtium-aquaticum
Senecio aureus var. aquilonius : Packera aurea	Sisyrinchium bermudiana : Sisyrinchium angustifolium
Senecio aureus var. gracilis : Packera aurea	Sisyrinchium bermudiana var. crebrum : Sisyrinchium montanum
Senecio aureus var. intercursus : Packera aurea	Sisyrinchium graminoides : Sisyrinchium angustifolium
Senecio aureus var. semicordatus : Packera pseudoaurea var. semicordata	Sisyrinchium heterocarpum : Sisyrinchium montanum
Senecio balsamitae : Packera paupercula	Sisyrinchium intermedium : Sisyrinchium mucronatum
Senecio congestus ssp. tonsus : Senecio congestus	Sisyrinchium montanum ssp. crebrum : Sisyrinchium montanum
Senecio congestus var. palustris : Senecio congestus	Sisyrinchium montanum var. crebrum : Sisyrinchium montanum
Senecio congestus var. tonsus : Senecio congestus	Sisyrinchium montanum var. montanum : Sisyrinchium montanum
Senecio crawfordii : Packera paupercula	Sisyrinchium strictum : Sisyrinchium montanum
Senecio gaspensis : Packera paupercula	Sium cicutifolium : Sium suave
Senecio gaspensis var. firmifolius : Packera paupercula	Sium floridanum : Sium suave
Senecio gracilis : Packera aurea	Sium suave var. floridanum : Sium suave
Senecio hieraciifolia : Erechites hieraciifolia var. hieraciifolia	Smilacina ciliata : Maianthemum racemosum ssp. racemosum
Senecio hieraciifolius : Erechites hieraciifolia var. hieraciifolia	Smilacina flexicaulis : Maianthemum racemosum ssp. racemosum
Senecio indecorus : Packera indecora	Smilacina liliacea : Maianthemum stellatum
Senecio integrerrimus : Senecio integrerrimus var. integrerrimus	Smilacina racemosa : Maianthemum racemosum ssp. racemosum
Senecio palustris : Senecio congestus	Smilacina racemosa var. cylindrica : Maianthemum racemosum ssp. racemosum
Senecio pauciflorus var. fallax : Packera indecora	Smilacina racemosa var. lanceolata : Maianthemum racemosum ssp. racemosum
Senecio pauperculus : Packera paupercula	Smilacina racemosa var. typica : Maianthemum racemosum ssp. racemosum
Senecio pauperculus var. balsamitae : Packera paupercula	Smilacina sessilifolia : Maianthemum stellatum
Senecio pauperculus var. crawfordii : Packera paupercula	Smilacina stellata : Maianthemum stellatum
Senecio pauperculus var. firmifolius : Packera paupercula	Smilacina stellata var. crassa : Maianthemum stellatum
Senecio pauperculus var. neoscoticus : Packera paupercula	Smilacina stellata var. mollis : Maianthemum stellatum
Senecio pauperculus var. praelongus : Packera paupercula	Smilacina stellata var. sessilifolia : Maianthemum stellatum
Senecio pauperculus var. thompsoniensis : Packera paupercula	Smilacina stellata var. sylvatica : Maianthemum stellatum
Senecio plattensis : Packera plattensis	Smilacina trifolia : Maianthemum trifolium



<i>Smilax hispida</i> : <i>Smilax tamnoides</i>	<i>Solidago lateriflora</i> : <i>Symphyotrichum lateriflorum</i>
<i>Smilax hispida</i> var. <i>australis</i> : <i>Smilax tamnoides</i>	<i>Solidago latifolia</i> : <i>Solidago flexicaulis</i>
<i>Smilax hispida</i> var. <i>montana</i> : <i>Smilax tamnoides</i>	<i>Solidago lepida</i> : <i>Solidago canadensis</i>
<i>Smilax tamnoides</i> var. <i>hispida</i> : <i>Smilax tamnoides</i>	<i>Solidago lepida</i> var. <i>elongata</i> : <i>Solidago canadensis</i>
<i>Solanum carolinense</i> : <i>Solanum carolinense</i> var. <i>carolinense</i>	<i>Solidago lepida</i> var. <i>fallax</i> : <i>Solidago canadensis</i>
<i>Solanum dulcamara</i> : <i>Solanum dulcamara</i> var. <i>dulcamara</i>	<i>Solidago lepida</i> var. <i>molina</i> : <i>Solidago canadensis</i>
<i>Solidago altissima</i> : <i>Solidago canadensis</i>	<i>Solidago lunellii</i> : <i>Solidago canadensis</i>
<i>Solidago altissima</i> var. <i>gilvacescens</i> : <i>Solidago canadensis</i>	<i>Solidago media</i> : <i>Euthamia gymnospermoides</i>
<i>Solidago altissima</i> var. <i>pluricephala</i> : <i>Solidago canadensis</i>	<i>Solidago moseleyi</i> : <i>Euthamia gymnospermoides</i>
<i>Solidago altissima</i> var. <i>procera</i> : <i>Solidago canadensis</i>	<i>Solidago neglecta</i> : <i>Solidago uliginosa</i> var. <i>uliginosa</i>
<i>Solidago camporum</i> : <i>Euthamia gymnospermoides</i>	<i>Solidago nuttallii</i> : <i>Euthamia graminifolia</i>
<i>Solidago canadensis</i> ssp. <i>elongata</i> : <i>Solidago canadensis</i>	<i>Solidago parviflora</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>
<i>Solidago canadensis</i> ssp. <i>salebrosa</i> : <i>Solidago canadensis</i>	<i>Solidago perglabra</i> : <i>Euthamia gymnospermoides</i>
<i>Solidago canadensis</i> var. <i>canadensis</i> : <i>Solidago canadensis</i>	<i>Solidago pitcheri</i> : <i>Solidago gigantea</i>
<i>Solidago canadensis</i> var. <i>elongata</i> : <i>Solidago canadensis</i>	<i>Solidago polycephala</i> : <i>Euthamia graminifolia</i>
<i>Solidago canadensis</i> var. <i>gilvacescens</i> : <i>Solidago canadensis</i>	<i>Solidago pruinosa</i> : <i>Solidago canadensis</i>
<i>Solidago canadensis</i> var. <i>hargeri</i> : <i>Solidago canadensis</i>	<i>Solidago riddellii</i> : <i>Oligoneuron riddellii</i>
<i>Solidago canadensis</i> var. <i>lempira</i> : <i>Solidago canadensis</i>	<i>Solidago rigida</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>
<i>Solidago canadensis</i> var. <i>salebrosa</i> : <i>Solidago canadensis</i>	<i>Solidago rigida</i> ssp. <i>humilis</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>
<i>Solidago canadensis</i> var. <i>scabra</i> : <i>Solidago canadensis</i>	<i>Solidago rigida</i> var. <i>humilis</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>
<i>Solidago canadensis</i> var. <i>subserrata</i> : <i>Solidago canadensis</i>	<i>Solidago rigida</i> var. <i>rigida</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>
<i>Solidago canescens</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>	<i>Solidago serotina</i> : <i>Solidago gigantea</i>
<i>Solidago chrysanthemoides</i> : <i>Euthamia gymnospermoides</i>	<i>Solidago serotinoides</i> : <i>Solidago gigantea</i>
<i>Solidago dumetorum</i> : <i>Solidago canadensis</i>	<i>Solidago texensis</i> : <i>Euthamia gymnospermoides</i>
<i>Solidago elongata</i> : <i>Solidago canadensis</i>	<i>Solidago uliginosa</i> : <i>Solidago uliginosa</i> var. <i>uliginosa</i>
<i>Solidago gigantea</i> ssp. <i>serotina</i> : <i>Solidago gigantea</i>	<i>Solidago uliginosa</i> var. <i>neglecta</i> : <i>Solidago uliginosa</i> var. <i>uliginosa</i>
<i>Solidago gigantea</i> var. <i>gigantea</i> : <i>Solidago gigantea</i>	<i>Solidago uniligulata</i> : <i>Solidago uliginosa</i> var. <i>uliginosa</i>
<i>Solidago gigantea</i> var. <i>leiophylla</i> : <i>Solidago gigantea</i>	<i>Solidago X hirtipes</i> : <i>Euthamia graminifolia</i>
<i>Solidago gigantea</i> var. <i>pitcheri</i> : <i>Solidago gigantea</i>	<i>Solidago X leiophallax</i> : <i>Solidago gigantea</i>
<i>Solidago gigantea</i> var. <i>serotina</i> : <i>Solidago gigantea</i>	<i>Sonchus arvensis</i> ssp. <i>arvensis</i> : <i>Sonchus arvensis</i>
<i>Solidago gigantea</i> var. <i>shinnersii</i> : <i>Solidago gigantea</i>	<i>Sonchus arvensis</i> ssp. <i>uliginosus</i> : <i>Sonchus arvensis</i>
<i>Solidago gilvacescens</i> : <i>Solidago canadensis</i>	<i>Sonchus arvensis</i> var. <i>glabrescens</i> : <i>Sonchus arvensis</i>
<i>Solidago graminifolia</i> : <i>Euthamia graminifolia</i>	<i>Sonchus arvensis</i> var. <i>shumovichii</i> : <i>Sonchus arvensis</i>
<i>Solidago graminifolia</i> var. <i>gymnospermoides</i> : <i>Euthamia gymnospermoides</i>	<i>Sonchus tataricus</i> : <i>Lactuca tatarica</i> var. <i>pulchella</i>
<i>Solidago graminifolia</i> var. <i>major</i> : <i>Euthamia graminifolia</i>	<i>Sonchus uliginosus</i> : <i>Sonchus arvensis</i>
<i>Solidago graminifolia</i> var. <i>media</i> : <i>Euthamia gymnospermoides</i>	<i>Sorbus melanocarpa</i> : <i>Photinia melanocarpa</i>
<i>Solidago graminifolia</i> var. <i>nuttallii</i> : <i>Euthamia graminifolia</i>	<i>Sorghastrum avenaceum</i> : <i>Sorghastrum nutans</i>
<i>Solidago graminifolia</i> var. <i>polyccephala</i> : <i>Euthamia graminifolia</i>	<i>Sparganium acuale</i> : <i>Sparganium angustifolium</i>
<i>Solidago grandiflora</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>	<i>Sparganium californicum</i> : <i>Sparganium eurycarpum</i>
<i>Solidago gymnospermoides</i> : <i>Euthamia gymnospermoides</i>	<i>Sparganium chlorocarpum</i> : <i>Sparganium erectum</i> ssp. <i>stoloniferum</i>
<i>Solidago gymnospermoides</i> var. <i>callosa</i> : <i>Euthamia gymnospermoides</i>	<i>Sparganium chlorocarpum</i> var. <i>acuale</i> : <i>Sparganium angustifolium</i>
<i>Solidago hirsutissima</i> : <i>Solidago canadensis</i>	<i>Sparganium emersum</i> : <i>Sparganium angustifolium</i>
<i>Solidago hirtella</i> : <i>Euthamia graminifolia</i>	<i>Sparganium emersum</i> var. <i>angustifolium</i> : <i>Sparganium angustifolium</i>
<i>Solidago jacksonii</i> var. <i>humilis</i> : <i>Oligoneuron rigidum</i> var. <i>humile</i>	<i>Sparganium emersum</i> var. <i>multipedunculatum</i> : <i>Sparganium angustifolium</i>



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Sparganium erectum : *Sparganium erectum* ssp. *stoloniferum*
Sparganium eurycarpum var. *greenei* : *Sparganium eurycarpum*
Sparganium greenei : *Sparganium eurycarpum*
Sparganium lucidum : *Sparganium androcladum*
Sparganium minimum : *Sparganium natans*
Sparganium multipedunculatum : *Sparganium angustifolium*
Sparganium simplex : *Sparganium erectum* ssp. *stoloniferum*
Spartina michauxiana : *Spartina pectinata*
Spartina pectinata var. *suttkie* : *Spartina pectinata*
Spathyema foetida : *Symplocarpus foetidus*
Specularia perfoliata : *Triodanis perfoliata* var. *perfoliata*
Spergularia rubra var. *perennans* : *Spergularia rubra*
Sphenopholis obtusata var. *lobata* : *Sphenopholis obtusata*
Sphenopholis obtusata var. *pubescens* : *Sphenopholis obtusata*
Spiraea alba var. *alba* : *Spiraea alba*
Spiraea alba var. *latifolia* : *Spiraea alba*
Spiraea latifolia : *Spiraea alba*
Spiraea opulifolia : *Physocarpus opulifolius*
Spiraea tomentosa : *Spiraea tomentosa* var. *rosea*
Spiranthes beckii : *Spiranthes lacera*
Spiranthes cernua : *Spiranthes cernua*
Spiranthes cernua var. *incurva* : *Spiranthes cernua*
Spiranthes gracilis : *Spiranthes lacera*
Spiranthes lacera var. *gracilis* : *Spiranthes lacera*
Spiranthes lacera var. *lacera* : *Spiranthes lacera*
Spiranthes stricta : *Spiranthes romanzoffiana*
Spirodela polyrhiza : *Spirodela polyrrhiza*
Spirodela polyrrhiza var. *masonii* : *Spirodela polyrrhiza*
Sporobolus asper : *Muhlenbergia asperifolia*
Sporobolus asperifolius : *Muhlenbergia asperifolia*
Sporobolus cryptandrus ssp. *fuscicola* : *Sporobolus cryptandrus*
Sporobolus cryptandrus var. *fuscicola* : *Sporobolus cryptandrus*
Sporobolus cryptandrus var. *occidentalis* : *Sporobolus cryptandrus*
Sporobolus uniflorus : *Muhlenbergia uniflora*
Stachys glabra : *Stachys tenuifolia*
Stachys hispida : *Stachys tenuifolia*
Stachys palustris ssp. *palustris* : *Stachys palustris*
Stachys palustris var. *elliptica* : *Stachys palustris*
Stachys palustris var. *hispida* : *Stachys tenuifolia*
Stachys palustris var. *macrocalyx* : *Stachys tenuifolia*
Stachys palustris var. *petiolata* : *Stachys palustris*
Stachys palustris var. *segetum* : *Stachys palustris*
Stachys tenuifolia var. *hispida* : *Stachys tenuifolia*
Stachys tenuifolia var. *perlonga* : *Stachys tenuifolia*

Stachys tenuifolia var. *platyphylla* : *Stachys tenuifolia*
Stachys tenuifolia var. *tenuifolia* : *Stachys tenuifolia*
Steironema ciliatum : *Lysimachia ciliata*
Steironema hybridum : *Lysimachia hybrida*
Steironema laevigatum : *Lysimachia hybrida*
Steironema lanceolatum var. *hybridum* : *Lysimachia hybrida*
Steironema pumilum : *Lysimachia ciliata*
Steironema quadriflorum : *Lysimachia quadriflora*
Stellaria apetala : *Stellaria media* ssp. *media*
Stellaria aquatica : *Myosoton aquaticum*
Stellaria atrata : *Stellaria longifolia*
Stellaria dulcis : *Stellaria longipes*
Stellaria edwardsii : *Stellaria longipes*
Stellaria edwardsii var. *arctica* : *Stellaria longipes*
Stellaria hultenii : *Stellaria longipes*
Stellaria laeta : *Stellaria longipes*
Stellaria laeta var. *altocaulis* : *Stellaria longipes*
Stellaria laxmannii : *Stellaria longipes*
Stellaria longifolia var. *atrrata* : *Stellaria longifolia*
Stellaria longifolia var. *laeta* : *Stellaria longipes*
Stellaria longifolia var. *longifolia* : *Stellaria longifolia*
Stellaria longipes ssp. *monantha* : *Stellaria longipes*
Stellaria longipes ssp. *stricta* : *Stellaria longipes*
Stellaria longipes var. *altocaulis* : *Stellaria longipes*
Stellaria longipes var. *edwardsii* : *Stellaria longipes*
Stellaria longipes var. *laeta* : *Stellaria longipes*
Stellaria longipes var. *monantha* : *Stellaria longipes*
Stellaria longipes var. *subvestita* : *Stellaria longipes*
Stellaria media : *Stellaria media* ssp. *media*
Stellaria media var. *procera* : *Stellaria media* ssp. *media*
Stellaria monantha : *Stellaria longipes*
Stellaria monantha ssp. *atlantica* : *Stellaria longipes*
Stellaria monantha var. *altocaulis* : *Stellaria longipes*
Stellaria monantha var. *atlantica* : *Stellaria longipes*
Stellaria palmeri : *Stellaria longipes*
Stellaria stricta : *Stellaria longipes*
Stellaria subvestita : *Stellaria longipes*
Stellaria valida : *Stellaria longipes*
Stenactis annua : *Erigeron annuus*
Stenactis strigosa : *Erigeron strigosus*
Stenophyllus capillaris : *Bulbostylis capillaris* ssp. *capillaris*
Stipa hymenoides : *Achnatherum hymenoides*
Stomoisia cornuta : *Utricularia cornuta*
Streptopus amplexifolius : *Streptopus amplexifolius* var. *amplexifolius*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Streptopus amplexifolius ssp. *americanus* : *Streptopus amplexifolius* var. *amplexifolius*
Streptopus amplexifolius var. *americanus* : *Streptopus amplexifolius* var. *amplexifolius*
Streptopus amplexifolius var. *denticulatus* : *Streptopus amplexifolius* var. *amplexifolius*
Streptopus amplexifolius var. *grandiflorus* : *Streptopus amplexifolius* var. *amplexifolius*
Streptopus lanceolatus : *Streptopus lanceolatus* var. *longipes*
Streptopus roseus ssp. *longipes* : *Streptopus lanceolatus* var. *longipes*
Streptopus roseus var. *longipes* : *Streptopus lanceolatus* var. *longipes*
Strobus strobus : *Pinus strobus*
Strophostyles helvola : *Strophostyles helvula*
Strophostyles helvula var. *missouriensis* : *Strophostyles helvula*
Stuckenia filiformis ssp. *alpinus* : *Stuckenia filiformis*
Stuckenia filiformis ssp. *filiformis* : *Stuckenia filiformis*
Stuckenia filiformis ssp. *occidentalis* : *Stuckenia filiformis*
Stuckenia pectinata : *Stuckenia pectinatus*
Stuckenia vaginata : *Stuckenia vaginatus*
Suaeda americana : *Suaeda calceoliformis*
Suaeda depressa : *Suaeda calceoliformis*
Suaeda depressa var. *erecta* : *Suaeda calceoliformis*
Suaeda maritima var. *americana* : *Suaeda calceoliformis*
Suaeda minutiflora : *Suaeda calceoliformis*
Suaeda occidentalis : *Suaeda calceoliformis*
Subularia aquatica : *Subularia aquatica* var. *americana*
Subularia aquatica ssp. *americana* : *Subularia aquatica* var. *americana*
Swida instolonea : *Cornus sericea* ssp. *sericea*
Swida sericea : *Cornus sericea* ssp. *sericea*
Swida stolonifera : *Cornus sericea* ssp. *sericea*
Symphoricarpos albus : *Symphoricarpos albus* var. *albus*
Symphoricarpos albus var. *pauciflorus* : *Symphoricarpos albus* var. *albus*
Symphoricarpos pauciflorus : *Symphoricarpos albus* var. *albus*
Symphoricarpos racemosus : *Symphoricarpos albus* var. *albus*
Symphyotrichum ericoides var. *ericoides* : *Symphyotrichum ericoides*
Symphyotrichum ericoides var. *pansum* : *Symphyotrichum ericoides*
Symphyotrichum ericoides var. *prostratum* : *Symphyotrichum ericoides*
Symphyotrichum ericoides var. *stricticaule* : *Symphyotrichum ericoides*
Symphyotrichum falcatum : *Symphyotrichum falcatum* var. *commutatum*
Symphyotrichum falcatum var. *falcatum* : *Symphyotrichum falcatum* var. *commutatum*
Symphyotrichum firmum : *Symphyotrichum puniceum*
Symphyotrichum hesperium : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *hesperium* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *hesperium* var. *hesperium* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *lanceolatum* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *lanceolatum* var. *hirsuticaule* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *lanceolatum* var. *interior* : *Symphyotrichum*

lanceolatum
Symphyotrichum lanceolatum ssp. *lanceolatum* var. *lanceolatum* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum ssp. *lanceolatum* var. *latifolium* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *hesperium* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *hirsuticaule* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *interior* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *lanceolatum* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *latifolium* : *Symphyotrichum lanceolatum*
Symphyotrichum lanceolatum var. *latifolium* : *Symphyotrichum lanceolatum*
Symphyotrichum lateriflorum var. *angustifolium* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *flagellare* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *hirsuticaule* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *horizontale* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *lateriflorum* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *spatelliforme* : *Symphyotrichum lateriflorum*
Symphyotrichum lateriflorum var. *tenuipes* : *Symphyotrichum lateriflorum*
Symphyotrichum novi-belgii var. *litoreum* : *Symphyotrichum praecultum* var. *praecultum*
Symphyotrichum ontariense var. *glabratum* : *Symphyotrichum ontariense*
Symphyotrichum pilosum : *Symphyotrichum pilosum* var. *pilosum*
Symphyotrichum pilosum var. *pringlei* : *Symphyotrichum pilosum* var. *pilosum*
Symphyotrichum praecultum : *Symphyotrichum praecultum* var. *praecultum*
Symphyotrichum praecultum var. *texicola* : *Symphyotrichum praecultum* var. *praecultum*
Symphyotrichum puniceum var. *calderi* : *Symphyotrichum puniceum*
Symphyotrichum puniceum var. *puniceum* : *Symphyotrichum puniceum*
Symphyotrichum puniceum var. *scabricaule* : *Symphyotrichum puniceum*
Symphyotrichum simplex : *Symphyotrichum lanceolatum*
Synosma suaveolens : *Hasteola suaveolens*
Syntherisma ischaemum : *Digitaria ischaemum*
Syntherisma sanguinalis : *Digitaria sanguinalis*
Tanacetum suaveolens : *Matricaria discoidea*
Taraxacum ambigens : *Taraxacum officinale*
Taraxacum ambigens var. *flutius* : *Taraxacum officinale*
Taraxacum amphiphron : *Taraxacum officinale*
Taraxacum arctogenum : *Taraxacum officinale*
Taraxacum atroglaucum : *Taraxacum officinale*
Taraxacum brachyceras : *Taraxacum officinale*
Taraxacum campylodes : *Taraxacum officinale*
Taraxacum carthamopsis : *Taraxacum officinale*
Taraxacum ceratophorum : *Taraxacum officinale*
Taraxacum croceum : *Taraxacum officinale*
Taraxacum curvidens : *Taraxacum officinale*
Taraxacum cyclocentrum : *Taraxacum officinale*
Taraxacum dahlstedtii : *Taraxacum officinale*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Taraxacum davidssonii : Taraxacum officinale
Taraxacum devians : Taraxacum officinale
Taraxacum dilutisquamum : Taraxacum officinale
Taraxacum dumetorum : Taraxacum officinale
Taraxacum euryleptum : Taraxacum officinale
Taraxacum firmum : Taraxacum officinale
Taraxacum hyperboreum : Taraxacum officinale
Taraxacum integratum : Taraxacum officinale
Taraxacum islandiciforme : Taraxacum officinale
Taraxacum kok-saghyz : Taraxacum officinale
Taraxacum lacerum : Taraxacum officinale
Taraxacum lapponicum : Taraxacum officinale
Taraxacum latilobum : Taraxacum officinale
Taraxacum latispinulosum : Taraxacum officinale
Taraxacum laurentianum : Taraxacum officinale
Taraxacum longii : Taraxacum officinale
Taraxacum malteanum : Taraxacum officinale
Taraxacum mauroleptum : Taraxacum officinale
Taraxacum mitratum : Taraxacum officinale
Taraxacum multesimum : Taraxacum officinale
Taraxacum naevosum : Taraxacum officinale
Taraxacum officinale ssp. ceratophorum : Taraxacum officinale
Taraxacum officinale ssp. officinale : Taraxacum officinale
Taraxacum officinale ssp. vulgare : Taraxacum officinale
Taraxacum officinale var. palustre : Taraxacum officinale
Taraxacum ovinum : Taraxacum officinale
Taraxacum palustre var. vulgare : Taraxacum officinale
Taraxacum paucisquamosum : Taraxacum officinale
Taraxacum pellianum : Taraxacum officinale
Taraxacum pleniflorum : Taraxacum officinale
Taraxacum pseudonorvegicum : Taraxacum officinale
Taraxacum purpuridens : Taraxacum officinale
Taraxacum retroflexum : Taraxacum officinale
Taraxacum rhodolepis : Taraxacum officinale
Taraxacum torngatense : Taraxacum officinale
Taraxacum trigonolobum : Taraxacum officinale
Taraxacum umbrinum : Taraxacum officinale
Taraxacum undulatum : Taraxacum officinale
Taraxacum vagans : Taraxacum officinale
Taraxacum vulgare : Taraxacum officinale
Taraxacum xanthostigma : Taraxacum officinale
Teloxytus botrys : Chenopodium botrys
Terrellia villosa : Elymus villosus
Teucrium boreale : Teucrium canadense

Teucrium canadense ssp. occidentale : Teucrium canadense
Teucrium canadense ssp. viscidum : Teucrium canadense
Teucrium canadense var. angustatum : Teucrium canadense
Teucrium canadense var. boreale : Teucrium canadense
Teucrium canadense var. canadense : Teucrium canadense
Teucrium canadense var. hypoleucum : Teucrium canadense
Teucrium canadense var. littorale : Teucrium canadense
Teucrium canadense var. nashii : Teucrium canadense
Teucrium canadense var. occidentale : Teucrium canadense
Teucrium canadense var. virginicum : Teucrium canadense
Teucrium littorale : Teucrium canadense
Teucrium nashii : Teucrium canadense
Teucrium occidentale : Teucrium canadense
Teucrium occidentale var. boreale : Teucrium canadense
Thauma natans : Caltha natans
Thalictrum confine : Thalictrum venulosum
Thalictrum confine var. columbianum : Thalictrum venulosum
Thalictrum confine var. greeneanum : Thalictrum venulosum
Thalictrum dasycarpum var. hypoglaucum : Thalictrum dasycarpum
Thalictrum hypoglaucum : Thalictrum dasycarpum
Thalictrum occidentale var. columbianum : Thalictrum venulosum
Thalictrum revolutum var. glandulosior : Thalictrum revolutum
Thalictrum turneri : Thalictrum venulosum
Thalictrum venulosum var. confine : Thalictrum venulosum
Thalictrum venulosum var. fissum : Thalictrum venulosum
Thalictrum venulosum var. lunellii : Thalictrum venulosum
Thalictrum venulosum var. turneri : Thalictrum venulosum
Thelypodium pinnatifidum : Iodanthus pinnatifidus
Thelypteris confluens var. pubescens : Thelypteris palustris var. pubescens
Thelypteris dryopteris : Gymnocarpium dryopteris
Thelypteris hexagonoptera : Phegopteris hexagonoptera
Thelypteris palustris : Thelypteris palustris var. pubescens
Thelypteris palustris var. haleana : Thelypteris palustris var. pubescens
Thlaspi bursa-pastoris : Capsella bursa-pastoris
Thuja occidentalis : Thuja occidentalis
Tiarella cordifolia : Tiarella cordifolia var. cordifolia
Tiarella macrophylla : Tiarella cordifolia var. cordifolia
Tilia americana : Tilia americana var. americana
Tilia americana var. neglecta : Tilia americana var. americana
Tilia glabra : Tilia americana var. americana
Tilia neglecta : Tilia americana var. americana
Tilia palmeri : Tilia americana var. americana
Tilia truncata : Tilia americana var. americana
Tilia venulosa : Tilia americana var. americana



Tillaea angustifolia : *Crassula aquatica*
Tillaea aquatica : *Crassula aquatica*
Tillaea ascendens : *Crassula aquatica*
Tillaeastrum aquaticum : *Crassula aquatica*
Tiniaria convolvulus : *Polygonum convolvulus* var. *convolvulus*
Tiniaria cristata : *Polygonum scandens*
Tiniaria dumetorum : *Polygonum scandens*
Tiniaria scandens : *Polygonum scandens*
Tissa rubra : *Spergularia rubra*
Tithymalus arkansanus : *Euphorbia spathulata*
Tithymalus missouriensis : *Euphorbia spathulata*
Tithymalus obtusatus : *Euphorbia spathulata*
Tithymalus spathulatus : *Euphorbia spathulata*
Tofieldia glutinosa : *Tofieldia glutinosa* ssp. *glutinosa*
Tofieldia palustris : *Tofieldia pusilla*
Tofieldia racemosa var. *glutinosa* : *Tofieldia glutinosa* ssp. *glutinosa*
Torreychloa fernaldii : *Torreychloa pallida*
Torreychloa pallida var. *fernaldii* : *Torreychloa pallida*
Torreychloa pallida var. *pallida* : *Torreychloa pallida*
Torreychloa pallida var. *pauciflora* : *Torreychloa pallida*
Torreychloa pauciflora : *Torreychloa pallida*
Torreychloa pauciflora var. *holmii* : *Torreychloa pallida*
Torreychloa pauciflora var. *microtheca* : *Torreychloa pallida*
Tortipes amplexifolius : *Streptopus amplexifolius* var. *amplexifolius*
Torulinium confertum : *Cyperus odoratus*
Torulinium eggersii : *Cyperus odoratus*
Torulinium odoratum : *Cyperus odoratus*
Tovara virginiana : *Polygonum virginianum*
Tovara virginiana var. *glaberrima* : *Polygonum virginianum*
Tovaria trifolia : *Maianthemum trifolium*
Toxicodendron desertorum : *Toxicodendron rydbergii*
Toxicodendron radicans : *Toxicodendron radicans* ssp. *negundo*
Toxicodendron radicans ssp. *radicans* : *Toxicodendron radicans* ssp. *negundo*
Toxicodendron radicans var. *negundo* : *Toxicodendron radicans* ssp. *negundo*
Toxicodendron radicans var. *rydbergii* : *Toxicodendron rydbergii*
Toxicodendron vulgare : *Toxicodendron radicans* ssp. *negundo*
Tracaulon arifolium : *Polygonum arifolium*
Tracaulon sagittatum : *Polygonum sagittatum*
Tracaulon sagittatum var. *gracilellum* : *Polygonum sagittatum*
Tradescantia canaliculata : *Tradescantia ohiensis*
Tradescantia foliosa : *Tradescantia ohiensis*
Tradescantia incarnata : *Tradescantia ohiensis*
Tradescantia ohiensis var. *foliosa* : *Tradescantia ohiensis*
Tradescantia reflexa : *Tradescantia ohiensis*

Triadenum virginicum ssp. *fraseri* : *Triadenum fraseri*
Triadenum virginicum var. *fraseri* : *Triadenum fraseri*
Triantha glutinosa : *Tofieldia glutinosa* ssp. *glutinosa*
Trichophorum cespitosum : *Trichophorum caespitosum*
Trichophorum palustre var. *calvum* : *Eleocharis erythropoda*
Triclinium odoratum : *Sanicula odorata*
Triclisperma paucifolia : *Polygala paucifolia*
Trientalis americana : *Trientalis borealis* ssp. *borealis*
Trientalis borealis : *Trientalis borealis* ssp. *borealis*
Trifolium elegans : *Trifolium hybridum*
Trifolium hybridum ssp. *elegans* : *Trifolium hybridum*
Trifolium hybridum var. *elegans* : *Trifolium hybridum*
Trifolium hybridum var. *pratense* : *Trifolium hybridum*
Trifolium pratense var. *frigidum* : *Trifolium pratense*
Trifolium pratense var. *sativum* : *Trifolium pratense*
Triglochin concinnum var. *debile* : *Triglochin maritimum*
Triglochin debile : *Triglochin maritimum*
Triglochin elatum : *Triglochin maritimum*
Triglochin maritima : *Triglochin maritimum*
Triglochin maritimum var. *elatum* : *Triglochin maritimum*
Triglochin palustris : *Triglochin palustre*
Trillium cernuum var. *cernuum* : *Trillium cernuum*
Trillium cernuum var. *macranthum* : *Trillium cernuum*
Trillium declinatum : *Trillium flexipes*
Trillium erectum var. *blandum* : *Trillium flexipes*
Trillium erectum var. *declinatum* : *Trillium flexipes*
Trillium gleasonii : *Trillium flexipes*
Trimorpha acris : *Erigeron acris* ssp. *politus*
Trimorpha acris var. *asteroides* : *Erigeron acris* ssp. *politus*
Trimorpha lonchophylla : *Erigeron lonchophyllum*
Triodanis perfoliata : *Triodanis perfoliata* var. *perfoliata*
Tripleurospermum maritima : *Tripleurospermum maritima* ssp. *maritima*
Tripolium angustum : *Symphytum ciliatum*
Trisetum montanum : *Trisetum spicatum*
Trisetum montanum var. *shearri* : *Trisetum spicatum*
Trisetum purpurascens : *Schizachne purpurascens*
Trisetum spicatum *phleoides* : *Trisetum spicatum*
Trisetum spicatum *spicatum* : *Trisetum spicatum*
Trisetum spicatum ssp. *alaskanum* : *Trisetum spicatum*
Trisetum spicatum ssp. *congdonii* : *Trisetum spicatum*
Trisetum spicatum ssp. *majus* : *Trisetum spicatum*
Trisetum spicatum ssp. *molle* : *Trisetum spicatum*
Trisetum spicatum ssp. *montanum* : *Trisetum spicatum*
Trisetum spicatum ssp. *pilosiglume* : *Trisetum spicatum*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Trisetum spicatum var. alaskanum : Trisetum spicatum
Trisetum spicatum var. congdonii : Trisetum spicatum
Trisetum spicatum var. maidenii : Trisetum spicatum
Trisetum spicatum var. majus : Trisetum spicatum
Trisetum spicatum var. molle : Trisetum spicatum
Trisetum spicatum var. pilosiglume : Trisetum spicatum
Trisetum spicatum var. spicatiforme : Trisetum spicatum
Trisetum spicatum var. villosissimum : Trisetum spicatum
Trisetum subspicatum : Trisetum spicatum
Trisetum triflorum : Trisetum spicatum
Trisetum triflorum ssp. molle : Trisetum spicatum
Trisetum villosissimum : Trisetum spicatum
Triticum repens : Elymus repens
Triticum trachycaulum : Elymus trachycaulus
Triticum vaillantianum : Elymus repens
Troximon glaucum : Agoseris glauca var. glauca
Troximon parviflorum : Agoseris glauca var. glauca
Truellum sagittatum : Polygonum sagittatum
Turritis drummondii : Arabis drummondii
Typha angustifolia var. calumetensis : Typha angustifolia
Typha angustifolia var. elongata : Typha angustifolia
Typha glauca : Typha X glauca
Udora verticillata var. minor : Elodea nuttallii
Ulmus americana var. floridana : Ulmus americana
Ulmus floridana : Ulmus americana
Ulmus fulva : Ulmus rubra
Ulmus racemosa : Ulmus thomasii
Unifolium canadense : Maianthemum canadense
Uniola spicata : Distichlis spicata
Urostachys lucidulus : Huperzia lucidula
Urostachys lucidulus var. porophilus : Huperzia porophila
Urostachys porophilus : Huperzia porophila
Urostachys selago : Huperzia selago var. selago
Urtica californica : Urtica dioica ssp. gracilis
Urtica canadensis : Laportea canadensis
Urtica cardiophylla : Urtica dioica ssp. gracilis
Urtica cylindrica : Boehmeria cylindrica
Urtica dioica : Urtica dioica ssp. gracilis
Urtica dioica var. angustifolia : Urtica dioica ssp. gracilis
Urtica dioica var. californica : Urtica dioica ssp. gracilis
Urtica dioica var. gracilis : Urtica dioica ssp. gracilis
Urtica dioica var. lyallii : Urtica dioica ssp. gracilis
Urtica dioica var. procera : Urtica dioica ssp. gracilis
Urtica gracilis : Urtica dioica ssp. gracilis

Urtica lyallii : Urtica dioica ssp. gracilis
Urtica lyallii var. californica : Urtica dioica ssp. gracilis
Urtica major : Urtica dioica ssp. gracilis
Urtica procera : Urtica dioica ssp. gracilis
Urtica pumila : Pilea pumila var. pumila
Urtica serra : Urtica dioica ssp. gracilis
Urtica strigosissima : Urtica dioica ssp. gracilis
Urtica viridis : Urtica dioica ssp. gracilis
Urticastrum divaricatum : Laportea canadensis
Utricularia biflora : Utricularia gibba
Utricularia fibrosa : Utricularia gibba
Utricularia obtusa : Utricularia gibba
Utricularia pumila : Utricularia gibba
Utricularia vulgaris : Utricularia macrorhiza
Utricularia vulgaris ssp. macrorhiza : Utricularia macrorhiza
Utricularia vulgaris var. americana : Utricularia macrorhiza
Uvularia amplexifolia : Streptopus amplexifolius var. amplexifolius
Vaccinium angustifolium var. hypolasium : Vaccinium angustifolium
Vaccinium angustifolium var. laevifolium : Vaccinium angustifolium
Vaccinium angustifolium var. myrtilloides : Vaccinium myrtilloides
Vaccinium angustifolium var. nigrum : Vaccinium angustifolium
Vaccinium arbuscula : Vaccinium caespitosum var. caespitosum
Vaccinium brittonii : Vaccinium angustifolium
Vaccinium caespitosum : Vaccinium caespitosum var. caespitosum
Vaccinium caespitosum var. arbuscula : Vaccinium caespitosum var. caespitosum
Vaccinium canadense : Vaccinium myrtilloides
Vaccinium cespitosum : Vaccinium caespitosum var. caespitosum
Vaccinium cespitosum var. cespitosum : Vaccinium caespitosum var. caespitosum
Vaccinium lamarckii : Vaccinium angustifolium
Vaccinium microcarpos : Vaccinium oxycoccos
Vaccinium mucronatum : Nemopanthus mucronatus
Vaccinium nigrum : Vaccinium angustifolium
Vaccinium occidentale : Vaccinium uliginosum
Vaccinium oxycoccos var. intermedium : Vaccinium oxycoccos
Vaccinium oxycoccos var. microphyllum : Vaccinium oxycoccos
Vaccinium oxycoccos var. ovalifolium : Vaccinium oxycoccos
Vaccinium oxycoccus : Vaccinium oxycoccos
Vaccinium uliginosum ssp. alpinum : Vaccinium uliginosum
Vaccinium uliginosum ssp. gaultherioides : Vaccinium uliginosum
Vaccinium uliginosum ssp. microphyllum : Vaccinium uliginosum
Vaccinium uliginosum ssp. occidentale : Vaccinium uliginosum
Vaccinium uliginosum ssp. pedris : Vaccinium uliginosum
Vaccinium uliginosum ssp. pubescens : Vaccinium uliginosum
Vaccinium uliginosum var. alpinum : Vaccinium uliginosum



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Vaccinium uliginosum var. *occidentale* : *Vaccinium uliginosum*
Vaccinium uliginosum var. *salicinum* : *Vaccinium uliginosum*
Vaccinium vitis-idaea : *Vaccinium vitis-idaea* ssp. *minus*
Vaccinium vitis-idaea var. *minus* : *Vaccinium vitis-idaea* ssp. *minus*
Vaccinium vitis-idaea var. *punctatum* : *Vaccinium vitis-idaea* ssp. *minus*
Vagnera australis : *Maianthemum racemosum* ssp. *racemosum*
Vagnera liliacea : *Maianthemum stellatum*
Vagnera racemosa : *Maianthemum racemosum* ssp. *racemosum*
Vagnera sessilifolia : *Maianthemum stellatum*
Vagnera stellata : *Maianthemum stellatum*
Vagnera trifolia : *Maianthemum trifolium*
Valeriana ciliata : *Valeriana edulis* var. *ciliata*
Valeriana edulis : *Valeriana edulis* var. *ciliata*
Valeriana edulis ssp. *ciliata* : *Valeriana edulis* var. *ciliata*
Validallium tricoccum : *Allium tricoccum*
Vallisneria asiatica : *Vallisneria americana*
Vallisneria neotropicalis : *Vallisneria americana*
Vallisneria spiralis : *Vallisneria americana*
Vallisneria spiralis var. *asiatica* : *Vallisneria americana*
Verbena bracteosa : *Verbena bracteata*
Verbena hastata var. *hastata* : *Verbena hastata*
Verbena hastata var. *scabra* : *Verbena hastata*
Verbena imbricata : *Verbena bracteata*
Verbena urticifolia var. *incarnata* : *Verbena urticifolia*
Verbena urticifolia var. *leiocarpa* : *Verbena urticifolia*
Verbena urticifolia var. *simplex* : *Verbena urticifolia*
Verbena urticifolia var. *urticifolia* : *Verbena urticifolia*
Verbesina alba : *Eclipta prostrata*
Verbesina prostrata : *Eclipta prostrata*
Vernonia fasciculata ssp. *corymbosa* : *Vernonia fasciculata*
Vernonia fasciculata ssp. *fasciculata* : *Vernonia fasciculata*
Vernonia fasciculata var. *corymbosa* : *Vernonia fasciculata*
Veronica anagallis : *Veronica anagallis-aquatica*
Veronica catenata : *Veronica anagallis-aquatica*
Veronica catenata var. *glandulosa* : *Veronica anagallis-aquatica*
Veronica comosa : *Veronica anagallis-aquatica*
Veronica comosa var. *glaberrima* : *Veronica anagallis-aquatica*
Veronica comosa var. *glandulosa* : *Veronica anagallis-aquatica*
Veronica connata : *Veronica anagallis-aquatica*
Veronica connata ssp. *glaberrima* : *Veronica anagallis-aquatica*
Veronica connata var. *glaberrima* : *Veronica anagallis-aquatica*
Veronica connata var. *typica* : *Veronica anagallis-aquatica*
Veronica glandifera : *Veronica anagallis-aquatica*
Veronica humifusa : *Veronica serpyllifolia* ssp. *humifusa*

Veronica micromeria : *Veronica anagallis-aquatica*
Veronica peregrina ssp. *peregrina* : *Veronica peregrina*
Veronica peregrina ssp. *xalapensis* : *Veronica peregrina*
Veronica peregrina var. *typica* : *Veronica peregrina*
Veronica peregrina var. *xalapensis* : *Veronica peregrina*
Veronica salina : *Veronica anagallis-aquatica*
Veronica scutellata var. *scutellata* : *Veronica scutellata*
Veronica scutellata var. *villosa* : *Veronica scutellata*
Veronica serpyllifolia : *Veronica serpyllifolia* ssp. *humifusa*
Veronica serpyllifolia : *Veronica serpyllifolia* ssp. *serpyllifolia*
Veronica serpyllifolia var. *borealis* : *Veronica serpyllifolia* ssp. *humifusa*
Veronica serpyllifolia var. *humifusa* : *Veronica serpyllifolia* ssp. *humifusa*
Veronica serpyllifolia var. *nummularioides* : *Veronica serpyllifolia* ssp. *serpyllifolia*
Veronica sherwoodii : *Veronica peregrina*
Veronica tenella : *Veronica serpyllifolia* ssp. *humifusa*
Veronica virginica : *Veronicastrum virginicum*
Veronica X lackschewitzii : *Veronica anagallis-aquatica*
Veronica xalapensis : *Veronica peregrina*
Veronicastrum serpyllifolium : *Veronica serpyllifolia* ssp. *serpyllifolia*
Veronicastrum serpyllifolium ssp. *humifusum* : *Veronica serpyllifolia* ssp. *humifusa*
Vesiculina purpurea : *Utricularia purpurea*
Viburnum opulus : *Viburnum opulus* var. *americanum*
Viburnum opulus ssp. *trilobum* : *Viburnum opulus* var. *americanum*
Viburnum pauciflorum : *Viburnum edule*
Viburnum trilobum : *Viburnum opulus* var. *americanum*
Viburnum X vetteri : *Viburnum lentago*
Vicia angustifolia : *Vicia sativa*
Vicia angustifolia var. *segetalis* : *Vicia sativa*
Vicia angustifolia var. *uncinata* : *Vicia sativa*
Vicia sativa ssp. *nigra* : *Vicia sativa*
Vicia sativa ssp. *sativa* : *Vicia sativa*
Vicia sativa var. *angustifolia* : *Vicia sativa*
Vicia sativa var. *linearis* : *Vicia sativa*
Vicia sativa var. *nigra* : *Vicia sativa*
Vicia sativa var. *segetalis* : *Vicia sativa*
Viola adunca : *Viola adunca* var. *adunca*
Viola adunca ssp. *ashtonae* : *Viola adunca* var. *adunca*
Viola adunca ssp. *radicosa* : *Viola adunca* var. *adunca*
Viola adunca ssp. *typica* : *Viola adunca* var. *adunca*
Viola adunca ssp. *uncinulata* : *Viola adunca* var. *adunca*
Viola adunca var. *bellidifolia* : *Viola adunca* var. *adunca*
Viola adunca var. *cascadensis* : *Viola adunca* var. *adunca*
Viola adunca var. *minor* : *Viola labradorica*
Viola adunca var. *uncinulata* : *Viola adunca* var. *adunca*

Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Viola aduncooides : *Viola adunca* var. *adunca*
Viola bellidifolia : *Viola adunca* var. *adunca*
Viola blanda var. *blanda* : *Viola blanda*
Viola blanda var. *palustriformis* : *Viola blanda*
Viola cascadensis : *Viola adunca* var. *adunca*
Viola chalcosperma : *Viola affinis*
Viola cucullata var. *microtis* : *Viola cucullata*
Viola emarginata : *Viola sagittata* var. *sagittata*
Viola emarginata var. *acutiloba* : *Viola sagittata* var. *sagittata*
Viola eriocarpon : *Viola pubescens*
Viola eriocarpon var. *leiocarpon* : *Viola pubescens*
Viola floridana : *Viola sororia*
Viola incognita : *Viola blanda*
Viola incognita var. *forbesii* : *Viola blanda*
Viola lanceolata : *Viola lanceolata* ssp. *lanceolata*
Viola langloisii : *Viola affinis*
Viola langloisii var. *pedatiflora* : *Viola affinis*
Viola latuscula : *Viola sororia*
Viola maccabeanus : *Viola nephrophylla*
Viola macloskeyi : *Viola macloskeyi* ssp. *pallens*
Viola macloskeyi var. *pallens* : *Viola macloskeyi* ssp. *pallens*
Viola missouriensis : *Viola affinis*
Viola montanensis : *Viola adunca* var. *adunca*
Viola nephrophylla var. *arizonica* : *Viola nephrophylla*
Viola nephrophylla var. *cognata* : *Viola nephrophylla*
Viola obliqua : *Viola cucullata*
Viola pallens : *Viola macloskeyi* ssp. *pallens*
Viola pallens var. *subreptans* : *Viola macloskeyi* ssp. *pallens*
Viola palmata var. *pedatifida* : *Viola pedatifida*
Viola palmata var. *sororia* : *Viola sororia*
Viola papilionacea : *Viola sororia*
Viola papilionacea var. *priceana* : *Viola sororia*
Viola pensylvanica : *Viola pubescens*
Viola pensylvanica var. *leiocarpon* : *Viola pubescens*
Viola pratincula : *Viola nephrophylla*
Viola priceana : *Viola sororia*
Viola pubescens var. *eriocarpa* : *Viola pubescens*
Viola pubescens var. *eriocarpon* : *Viola pubescens*
Viola pubescens var. *leiocarpon* : *Viola pubescens*
Viola pubescens var. *peckii* : *Viola pubescens*
Viola pubescens var. *pubescens* : *Viola pubescens*
Viola pubescens var. *scabriuscula* : *Viola pubescens*
Viola renifolia var. *brainerdii* : *Viola renifolia*
Viola retusa : *Viola nephrophylla*

Viola rosacea : *Viola affinis*
Viola sagittata : *Viola sagittata* var. *sagittata*
Viola sagittata var. *subsagittata* : *Viola sagittata* var. *sagittata*
Viola septentrionalis : *Viola sororia*
Viola septentrionalis var. *grisea* : *Viola novae-angliae*
Viola sororia ssp. *affinis* : *Viola affinis*
Viola sororia var. *affinis* : *Viola affinis*
Viola sororia var. *missouriensis* : *Viola affinis*
Viola sororia var. *novae-angliae* : *Viola novae-angliae*
Viola subvestita : *Viola adunca* var. *adunca*
Viola X cestrica : *Viola sagittata* var. *sagittata*
Viola X champlainensis : *Viola sororia*
Viola X insessa : *Viola sororia*
Viola X melissifolia : *Viola sororia*
Viola X montivaga : *Viola sororia*
Viola X napae : *Viola sororia*
Viola X subaffinis : *Viola sororia*
Virgulus ericoides : *Sympyotrichum ericoides*
Virgulus falcatus : *Sympyotrichum falcatum* var. *commutatum*
Virgulus novae-angliae : *Sympyotrichum novae-angliae*
Vitis aestivalis : *Vitis aestivalis* var. *bicolor*
Vitis aestivalis var. *argentifolia* : *Vitis aestivalis* var. *bicolor*
Vitis argentifolia : *Vitis aestivalis* var. *bicolor*
Vitis bicolor : *Vitis aestivalis* var. *bicolor*
Vitis inserta : *Parthenocissus quinquefolia*
Vitis leontiana : *Vitis aestivalis* var. *bicolor*
Vitis quinquefolia : *Parthenocissus quinquefolia*
Vitis riparia var. *praecox* : *Vitis riparia*
Vitis riparia var. *riparia* : *Vitis riparia*
Vitis riparia var. *syrticola* : *Vitis riparia*
Vitis vulpina ssp. *riparia* : *Vitis riparia*
Vitis vulpina var. *praecox* : *Vitis riparia*
Vitis vulpina var. *syrticola* : *Vitis riparia*
Vulpia octoflora : *Vulpia octoflora* var. *glaucoides*
Vulpia octoflora var. *octoflora* : *Vulpia octoflora* var. *glaucoides*
Vulpia octoflora var. *tenella* : *Vulpia octoflora* var. *glaucoides*
Wallia cinerea : *Juglans cinerea*
Wallia nigra : *Juglans nigra*
Washingtonia claytonii : *Osmorrhiza claytonii*
Washingtonia longistylis : *Osmorrhiza longistylis*
Weberaster modestus : *Canadanthus modestus*
Wolffia punctata : *Wolffia borealis*
Xanthium acerosum : *Xanthium strumarium*
Xanthium americanum : *Xanthium strumarium*



Floristic Quality Assessment for Minnesota Wetlands-Appendix C: Synonymy

Xanthium californicum : *Xanthium strumarium*
Xanthium californicum var. *rotundifolium* : *Xanthium strumarium*
Xanthium calvum : *Xanthium strumarium*
Xanthium campestre : *Xanthium strumarium*
Xanthium canadense : *Xanthium strumarium*
Xanthium cavanillesii : *Xanthium strumarium*
Xanthium cenchroides : *Xanthium strumarium*
Xanthium chasei : *Xanthium strumarium*
Xanthium chinense : *Xanthium strumarium*
Xanthium commune : *Xanthium strumarium*
Xanthium curvescens : *Xanthium strumarium*
Xanthium cylindraceum : *Xanthium strumarium*
Xanthium echinatum : *Xanthium strumarium*
Xanthium echinellum : *Xanthium strumarium*
Xanthium glanduliferum : *Xanthium strumarium*
Xanthium globosum : *Xanthium strumarium*
Xanthium inflexum : *Xanthium strumarium*
Xanthium italicum : *Xanthium strumarium*
Xanthium macounii : *Xanthium strumarium*
Xanthium macrocarpum var. *glabratum* : *Xanthium strumarium*
Xanthium occidentale : *Xanthium strumarium*
Xanthium oligacanthum : *Xanthium strumarium*
Xanthium orientale : *Xanthium strumarium*
Xanthium oviforme : *Xanthium strumarium*
Xanthium pensylvanicum : *Xanthium strumarium*
Xanthium saccharatum : *Xanthium strumarium*
Xanthium speciosum : *Xanthium strumarium*
Xanthium strumarium ssp. *italicum* : *Xanthium strumarium*
Xanthium strumarium var. *canadense* : *Xanthium strumarium*
Xanthium strumarium var. *glabratum* : *Xanthium strumarium*
Xanthium strumarium var. *oviforme* : *Xanthium strumarium*
Xanthium strumarium var. *pensylvanicum* : *Xanthium strumarium*
Xanthium strumarium var. *strumarium* : *Xanthium strumarium*
Xanthium strumarium var. *wootonii* : *Xanthium strumarium*
Xanthium strumarium var. *wootonii* : *Xanthium strumarium*
Xanthium varians : *Xanthium strumarium*
Xanthium wootonii : *Xanthium strumarium*
Xanthoxalis brittoniae : *Oxalis stricta*
Xanthoxalis bushii : *Oxalis stricta*
Xanthoxalis coloradensis : *Oxalis stricta*
Xanthoxalis cymosa : *Oxalis stricta*
Xanthoxalis dillenii : *Oxalis stricta*
Xanthoxalis dillenii var. *piletocarpa* : *Oxalis stricta*
Xanthoxalis filipes : *Oxalis stricta*

Xanthoxalis florida : *Oxalis stricta*
Xanthoxalis interior : *Oxalis stricta*
Xanthoxalis rufa : *Oxalis stricta*
Xanthoxalis stricta : *Oxalis stricta*
Xanthoxalis stricta var. *piletocarpa* : *Oxalis stricta*
Xylosteon ciliatum : *Lonicera canadensis*
Xyris bulbosa : *Xyris torta*
Xyris flexuosa : *Xyris torta*
Xyris indica : *Xyris torta*
Xyris torta var. *macropoda* : *Xyris torta*
Xyris torta var. *occidentalis* : *Xyris torta*
Zannichellia major : *Zannichellia palustris*
Zannichellia palustris var. *major* : *Zannichellia palustris*
Zannichellia palustris var. *stenophylla* : *Zannichellia palustris*
Zigadenus alpinus : *Zigadenus elegans* ssp. *elegans*
Zigadenus elegans : *Zigadenus elegans* ssp. *elegans*
Zigadenus elegans ssp. *glaucus* : *Zigadenus elegans* ssp. *elegans*
Zigadenus glaucus : *Zigadenus elegans* ssp. *elegans*
Zizania aquatica : *Zizania aquatica* var. *aquatica*
Zizania aquatica ssp. *angustifolia* : *Zizania palustris*
Zizania aquatica var. *angustifolia* : *Zizania palustris*
Zizania aquatica var. *interior* : *Zizania palustris*
Zizania aquatica var. *subbrevis* : *Zizania aquatica* var. *aquatica*
Zizania palustris var. *interior* : *Zizania palustris*
Zizania palustris var. *palustris* : *Zizania palustris*
Zizia aptera var. *occidentalis* : *Zizia aptera*
Zizia cordata : *Zizia aptera*
Zosterella dubia : *Heteranthera dubia*
Zosterella longituba : *Heteranthera dubia*





**Minnesota Pollution
Control Agency**

520 Lafayette Road N
St. Paul, MN 55155-4194
(651) 296-6300
Toll-free/TTY (800) 657-3864