

APPENDIX C

INVASIVE SPECIES

Table 1: Non-native, invasive plant species at Midewin National Tallgrass Prairie that threaten restoration, management or health and safety

Scientific name Common Name	Abundance at Midewin	Comments
<i>Acer platanoides</i> Norway Maple	Present (planted) around former house sites and abandoned buildings. Seedlings and saplings from these plantings are present at two localities on MNTP.	Invades mesic woodlands and forests; potential to change structure and increase understory shade during growing season.
<i>Agropyron (Elytrigia) repens</i> Quack Grass	Locally common, especially on poorer soils.	Invasive and competitive into seed production beds. Not a problem in pastures or other grasslands, but has invasive potential in dolomite prairies
<i>Agrostis alba</i> Redtop	Common, especially on moister soils.	Currently planted on site to expand grassland bird habitat and renovate pastures. May be invasive in prairie remnants and restoration, but can be controlled through prescribed burns.
<i>Ailanthus altissima</i> Tree-of-Heaven	Occasional; small stands at abandoned house sites.	May be invasive in dry dolomite prairie.
<i>Alliaria petiolata</i> Garlic Mustard	Locally abundant in native forests and woodlands along Prairie and Jackson creeks; also in successional thickets along these streams and Grant Creek.	Competes with native herbaceous understory in native woodland, forest, and savanna communities. Excludes or outcompetes most native understory herbs.
<i>Allium vineale</i> Field Garlic	Present only in dolomite prairie at NW boundary of MNTP.	Appears to be invading and spreading in dolomite prairie.
<i>Arctium minus</i> Common Burdock	Locally common throughout MNTP, especially in shaded ground in pastures or at abandoned house sites.	Large persistent herb that effectively shades out any competition. Difficult to eradicate and replace with desirable species.
<i>Asparagus officinalis</i> Wild Asparagus	Present in prairie remnants, roadsides, and other grasslands.	Very persistent, may become common in some prairie remnants despite management with fire.
<i>Berberis thunbergii</i> Japanese Barberry	Uncommon in forests, woodlands, and thickets.	Bird-dispersed shrub now increasing in northern Illinois forests and woodlands.
<i>Bromus inermis</i> Smooth (Hungarian) Brome Grass	Nearly ubiquitous in grasslands throughout MNTP.	Import cover in grassland bird habitat. May be difficult to control in native restoration.
<i>Bromus</i> spp. Winter-annual Brome Grasses	Locally common; includes <i>B. tectorum</i> , Cheatgrass, and other species (<i>B. japonicus</i> , <i>B. racemosus</i>).	Appears to occupy microhabitats and displace native annuals and biennials in dolomite prairie.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Carduus acanthoides</i> Plumeless Thistle	Very local in disturbed soil; uncommon but fairly widespread in pastures and other grasslands on MNTP.	May be aggressive in early stages of prairie restoration; large stands reduce suitability of grassland habitats for certain bird species.
<i>Carduus nutans</i> Musk Thistle, Nodding Thistle	Uncommon but scattered in pastures, grasslands, abandoned fields, and early stages of prairie restoration.	Illinois Noxious Weed. A potential pest in pastures and grasslands.
<i>Catalpa speciosa</i> Northern Catalpa	Not native in Will County (native from east Central Illinois south). Planted trees persist at abandoned house sites, and produce seedlings.	Not a severe problem, but will need to be removed as fragmentation of grassland bird habitat is reduced.
<i>Centaurea maculosa</i> Spotted Knapweed	Locally common on dry soils, especially along abandoned railroad lines and roadsides, but also in some pastures..	Invader of dry prairie habitats and pastures; also invades dolomite prairie on adjacent state land and has displaced native vegetation.
<i>Cirsium arvense</i> Canada Thistle, Field Thistle	Common in roadsides, pastures, grasslands, wetlands, and degraded prairie habitats (including some dolomite prairie). May be increasing on site.	Serious problem in seed production beds and fields. Aggressive in early stages of prairie and grassland restoration. Increasing in native wetland habitats.
<i>Cirsium vulgare</i> Bull thistle	Locally common in pastures.	Unnoticed when present in seed production beds, pastures, or early stages of prairie restoration.
<i>Cornus drummondii</i> Rough-leaved Dogwood	Planted on site for wildlife benefits; MNTP is probably just beyond the NE margin of the natural range.	Potential invader of prairie habitats.
<i>Coronilla varia</i> Crownvetch	Locally common on MNTP, primarily in roadsides.	Invades prairie communities in Illinois; serious problem in dolomite prairie and other dry and mesic prairie habitats.
<i>Cotoneaster multiflora</i> Many-flowered Cotoneaster	Rare escape in NE Illinois; at one site on MNTP.	Potential invader of grasslands, forests, and woodlands.
<i>Dipsacus laciniatus</i> Cut-leaved Teasel	Locally common at a few localities on MNTP, mostly in roadsides.	A rapidly increasing and spreading plant throughout the Midwest. Invades grassland and native prairie habitats, often forming dense, monotypic stands.
<i>Dipsacus sylvestris</i> Common Teasel	Common in grasslands, prairie remnants, wetlands, and roadsides at MNTP.	Perhaps not as serious a pest as <i>D. laciniatus</i> , but does form dense stands under certain conditions.
<i>Echinops sphaerocephalus</i> Blue Globe Thistle	Present at one locality on MNTP; immediately adjacent to one of the few mesic prairie remnants on site.	Elsewhere in Will County has been found (large numbers) in roadsides, grasslands, and prairie remnants.
<i>Elaeagnus umbellata</i> Autumn-olive	Common, often abundant in roadsides, prairie remnants, and other grasslands.	Aggressive invader of grasslands and prairie remnants; threatens grassland bird habitat on MNTP.
<i>Eriochloa villosa</i> Chinese Cup-grass	Locally abundant in abandoned crop fields.	May become a problem in early stages of prairie/wetland restoration.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Euonymus alatus</i> Winged Euonymus, "Burning-bush"	A few plants persist at one abandoned house site. Common ornamental shrub in Will County, so likely to appear elsewhere on site.	High potential to invade mesic savannas, woodlands, and forests, displacing native shrubs and herbaceous understory species.
<i>Euphorbia esula</i> Leafy Spurge	Present at two localities at Midewin.	This species is a major invader of pastures, grasslands, hayfields, and native prairie in the north-central USA.
<i>Festuca arundinacea</i> , <i>F. pratensis</i> Tall Fescue, Meadow Fescue	Locally common on MNTP.	Important pasture grass, but can be invasive in some prairie habitats.
<i>Glechoma hederacea</i> Ground-ivy	Locally common in shaded areas. both in native forests and disturbed woodlands.	Probably not a serious threat to native woodland flora, at least compared with garlic mustard..
<i>Hemerocallis fulva</i> Orange Daylily	Locally common near abandoned housesites.	May persist and spread vegetatively in prairie remnants and restorations.
<i>Hypericum perforatum</i> European St. John's-wort	Locally common in roadsides and grasslands, also in dolomite prairie.	Potentially poisonous to livestock; does invade seed production beds. Invades dolomite prairie, including microhabitat occupied by <i>Dalea foliosa</i> (Federal Endangered).
<i>Leonurus cardiaca</i> Motherwort	Locally common in shaded ground, especially in pastures.	Potential problem in woodlands.
<i>Leonurus marrubiastrum</i> Lion's-tail	Locally common in regions of MNTP where dolomite is at or near the surface.	May become a problem in dolomite prairie habitats.
<i>Ligustrum vulgare</i> Common Privet	Locally common in thickets.	May be a problem in woodlands or grasslands, although not as serious as <i>Lonicera</i> spp.
<i>Lonicera x bella</i> Showy Honeysuckle	Present in roadsides, thickets and old fields, but not as common as <i>L. maackii</i> .	Invades forests, woodlands, savanna, and grasslands.
<i>Lonicera maackii</i> Amur Honeysuckle	Locally abundant in woodlands and forests; invades open land. Large plantings done before FS presence still present on site.	Serious threat to all natural vegetation and restoration. Can survive in dense shade, and often changes vegetation structure and recruitment patterns among forest species.
<i>Lonicera x muendeniense</i> Muenden Honeysuckle	Present, but rare.	Invades forests, woodlands, savanna, and grasslands.
<i>Lonicera tatarica</i> Tartarian Honeysuckle	Present in roadsides, prairie remnants, thickets, woodlands, and old fields, but not as common as <i>L. maackii</i> .	Invades forests, woodlands, savanna, and grasslands, including dolomite prairie..
<i>Lotus corniculata</i> Bird's-foot Trefoil	Locally common in roadsides and pastures.	May become a problem in dry prairie and dolomite prairie habitats.
<i>Lysmachia nummularia</i> Moneywort	Locally common in moist soils.	May persist in seeps and fens.
<i>Lythrum salicaria</i> Purple Loosestrife	Very rare on MNTP.	Serious invader of wetlands (including wet prairie) throughout the Midwest.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Maclura pomifera</i> Osage-orange	Originally planted as living fence; now widespread in grasslands, pastures, and floodplain forests.	Invades open grasslands. Management complicated because of use by RFSS (loggerhead shrike)
<i>Malus prunifolia</i> Plum-leaved Crab Apple	Planted as ornamental; occasional escape on MNTP.	Potential invader of grasslands and woodlands.
<i>Malus pumila</i> Domestic Apple	Scattered orchard trees and their offspring present throughout site.	Not a serious invader, but may need removal from grassland bird habitat and prairie remnants.
<i>Malus sieboldii</i> Japanese Crab Apple	Planted as ornamental; occasional escape on MNTP.	Potential invader of grasslands and woodlands.
<i>Melilotus alba</i> White Sweet Clover	Common throughout site in roadsides, old fields, prairie remnants, and on abandoned railroad beds.	Can be a serious problem in prairie remnants and restorations.
<i>Melilotus officinalis</i> Yellow sweet Clover	Locally common throughout site in roadsides, old fields, prairie remnants, and on abandoned railroad beds.	Can be a serious problem in prairie remnants and restorations; perhaps a threat to dolomite prairie habitats.
<i>Morus alba</i> White Mulberry	Common in woodlands, thickets, floodplains, fencerows, and grasslands.	Fast-growing, prolific tree that invades native vegetation.
<i>Pastinaca sativa</i> Wild Parsnip	Locally common in grasslands, roadsides, and prairie remnants.	Does invade prairie remnants and restorations; poses a minor health hazard (dermatitis) to public, staff, and volunteers.
<i>Phalaris arundinacea</i> Reed Canary Grass	Locally abundant in moist grasslands, wetlands, and along ditches.	Serious invader of natural wetlands, displacing native flora. Actively invading wet dolomite prairies on site.
<i>Phragmites australis</i> Common Reed	Locally common in wetlands. Although some Midwestern populations appear native, most appear to be non-native strains (as on MNTP).	Invades native wetlands, including marshes, wet prairies, dolomite prairies, and sedge meadows, replacing native flora with monotypic stands.
<i>Poa compressa</i> Canada Bluegrass	Locally common in dry pastures, grasslands, and prairie remnants.	Has invaded dry and mesic dolomite prairie habitats on site; appears to have replaced many native species.
<i>Poa pratensis</i> Kentucky Bluegrass	Common in grasslands, pastures, old fields, roadsides, and prairie remnants.	Local problem in some prairie remnants. However, important component of pasture habitats for certain grassland birds.
<i>Populus alba</i> White Poplar	Persists at abandoned house sites, where it forms large thickets.	May persist and spread into prairie remnants and restorations.
<i>Rhamnus cathartica</i> European Buckthorn	Uncommon and relatively on MNTP, but increasing; locally abundant elsewhere in Will County.	Already present in dolomite prairies and woodlands on site; likely to invade other vegetation.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Robinia pseudoacacia</i> Black Locust	A few planted stands present on MNTP; some clonal spread. Native to eastern North America, but not in northern or central Illinois.	Can be persistent and difficult to eradicate from native vegetation (upland prairie and woodlands).
<i>Rosa eglanteria (rubiginosa)</i> Sweetbrier Rose	Uncommon in pastures.	Probably not a serious problem; appears to be controlled by browsing (deer and livestock)
<i>Rosa multiflora</i> Multiflora Rose	Common in pastures, grassland, and old fields.	Not declining, despite presence of rose rosette disease. Increasing in some grasslands, reducing suitability for certain grassland birds.
<i>Salix alba</i> White Willow	Occasional along streams and drainage ditches.	Not a serious management problem, but may need removal from riparian wetlands.
<i>Saponaria officinalis</i> Bouncing-bet	Locally common in roadsides and grasslands.	May be a local problem in dry prairie restorations.
<i>Setaria faberi</i> Giant Foxtail	Locally abundant in disturbed soils. Often abundant in early stages of prairie and grassland restorations.	Not a serious problem, except for seed production beds.
<i>Solanum dulcamara</i> Bittersweet Nightshade	Local in moist thickets.	Not a serious problem at MNTP, but elsewhere does invade fens.
<i>Sonchus arvensis</i> Perennial Sow-thistle	Locally common.	Illinois Noxious Weed. Not a problem in prairie restoration, but control required in seed beds and pastures.
<i>Sorghum halapense</i> Johnson Grass	Local in row crop fields.	Illinois Noxious Weed. Probably will not be problem in prairie restoration, but may require control in row crop fields until conversion by habitat restoration.
<i>Ulmus pumila</i> Siberian Elm	Spreading from plantings at abandoned house sites.	Invades upland grasslands and prairies.
<i>Verbascum thapsus</i> Common Mullein	Locally common in roadsides, pastures, eroding banks, and dolomite prairies.	May be a problem in dry prairie restoration and dolomite prairie remnants.
<i>Viburnum opulus</i> European Highbush-Cranberry	Occasional on MNTP, in thickets.	Potential invader of woodlands and wetlands.
<i>Vinca minor</i> Periwinkle	At MNTP, persists at a few abandoned house sites and cemeteries.	May spread into adjacent woodlands and forests, where it can displace native herbaceous flora.

Table 2: Some native, invasive plant species at Midewin National Tallgrass Prairie that threaten restoration and management of specific habitats or health and safety

Scientific name Common Name	Abundance at Midewin	Comments
<i>Acer negundo</i> Box Elder	Locally common at abandoned house sites, in fencerows, thickets, and riparian areas.	Control required to reduce fragmentation of grassland habitats.
<i>Acer saccharum</i> Sugar Maple	Mesic forests and woodlands; also planted specimens near buildings and at abandoned house sites.	Increasing in forests and woodlands following fire suppression.
<i>Acer saccharinum</i> Silver Maple	Along streams and persisting at abandoned house sites. Also in depressions on uplands and outwash plain.	Removal of dense, monotypic stands required to restore many former open wetlands that were sedge meadows, wet prairies, and marshes.
<i>Ambrosia</i> spp. Ragweeds	Common throughout.	May need control in high public use areas and seed production beds because of potential health problems (allergies).
<i>Andropogon gerardii</i> Big Bluestem	Scattered throughout site, but only common in mesic prairie remnants.	May need to be controlled in early stages of prairie restoration.
<i>Aster pilosus</i> Hairy Aster	Common throughout.	May be a pest in seed production beds.
<i>Celtis occidentalis</i> Eastern Hackberry	Locally common at abandoned house sites, in fencerows, thickets, and riparian areas. Native in bottomland forests, woodlands, and savannas.	Some reduction required to reduce fragmentation of grassland habitats and in the process of restoring open structure to woodlands and savannas.
<i>Conyza canadensis</i> Horseweed	Common in disturbed soils.	Often abundant in early stages of prairie restoration, but a pest in seed production beds.
<i>Cornus racemosa</i> Gray Dogwood	Occasional on well-drained soils of grasslands, roadsides, and prairie remnants; also in open woodlands.	Can be an aggressive and persistent invader of native prairie remnants.
<i>Crataegus</i> spp. Hawthorns	Often abundant in pastures, fencerows, and forests.	Control and/or removal required to reduce fragmentation of grassland bird habitat and restore structure to prairie, woodland, and savanna remnants.
<i>Cuscuta</i> spp. Dodders	Occasional throughout.	Potential pest in seed production beds.
<i>Desmanthus illinoensis</i> Illinois Sensitive Plant	Local and uncommon on outwash plain prairie remnants.	May need to be controlled in early stages of prairie restoration.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Elymus canadensis</i> Canada Wild Rye	Scattered throughout site, but only common in mesic prairie remnants.	May need to be controlled in early stages of prairie restoration.
<i>Eupatorium serotinum</i> Late Boneset	Common.	May need to be controlled in early stages of prairie and wetland restoration; also pest in seed production beds.
<i>Fraxinus pennsylvanica</i> Green Ash	Common, sometimes locally abundant in bottomland thickets and woodlands; also in moist old fields and prairie remnants.	Forms dense, often monotypic stands in savanna, moist prairie, and wetland remnants; removal required to restore structure and hydrology.
<i>Gleditsia triacanthos</i> Honey Locust	Sometimes common in pastures and fencerows; native in bottomland forests and woodlands.	Reduction necessary to reduce fragmentation of grassland bird habitat and restore structure to native vegetation remnants.
<i>Helianthus</i> spp. Perennial sunflowers	Some species locally common on site in roadsides and prairie remnants.	May need to be controlled in early stages of prairie restoration.
<i>Juglans nigra</i> Black Walnut	Local at former housesites, fencerows and riparian areas. Native in bottomland forests, woodlands, and savannas.	Some reduction required to reduce fragmentation of grassland habitats and in the process of restoring open structure to woodlands and savannas.
<i>Juniperus virginiana</i> Red Cedar	Occasional in old fields and roadsides; probably not native on MNTP.	Easily controlled.
<i>Panicum virgatum</i> Switch Grass	Scattered throughout site, but only common in mesic prairie remnants. Some roadside populations may be derived from non-local strains.	May need to be controlled in early stages of prairie restoration. Non-local strains should be eradicated.
<i>Populus deltoides</i> Eastern Cottonwood	Locally common in upland depressions and riparian areas. Native in bottomland forests, woodlands, and savannas.	May need to be controlled in early stages of wetland restoration. Some removal required to restore wetland and riparian habitats.
<i>Populus tremuloides</i> Quaking Aspen	Rare and local on MNTP, but can be an aggressive invader of native prairies and wetlands in Will and adjacent counties.	May need to be controlled in early stages of prairie and wetland restoration.
<i>Prunus americana</i> Wild Plum	Locally common in fencerows, thickets, and edges.	Some control required to reduce fragmentation of grassland habitats and in the process of restoring open structure to woodlands and savannas.

Scientific name Common Name	Abundance at Midewin	Comments
<i>Prunus serotina</i> Black Cherry	Locally common at abandoned housesites, in fencerows, thickets, and riparian areas. Native in forests and woodlands.	Some reduction necessary to reduce fragmentation of grassland habitats and in the process of restoring open structure to woodlands and savannas.
<i>Rhus</i> spp. Sumac	Occasional on well-drained soils of grasslands, roadsides, and prairie remnants.	Can be an aggressive and persistent invader of native prairie remnants.
<i>Ribes missouriense</i> Missouri Gooseberry	Often locally abundant in native forests, thickets, and closed-in savannas.	Some reduction is necessary to restore structure to the understory strata of forests, woodlands, and savannas.
<i>Rubus</i> spp. Wild blackberries and raspberries	Often locally common in old fields, native forests, thickets, closed-in savannas, and prairie remnants.	Some reduction may be necessary to restore structure to the understory strata of forests, woodlands, and savannas.
<i>Salix interior</i> Sandbar Willow	Forms dense strands in and along drainage ditches, riparian areas, wet prairies, and other open wetlands.	Control required to restore wet prairie, sedge meadow, and marsh remnants.
<i>Salix</i> spp. Tree Willows	Locally common in upland depressions, and riparian areas.	May need to be controlled in early stages of wetland restoration. Some removal required to restore wetland and riparian habitats.
<i>Solidago canadensis</i> Tall Goldenrod	Common, often locally abundant in old fields, roadsides, pastures, prairie remnants, and other grasslands.	Control may be necessary in early stages of prairie and grassland restoration.
<i>Sorghastrum nutans</i> Indian Grass	Scattered throughout site, but only common in mesic prairie remnants.	May need to be controlled in early stages of prairie restoration.
<i>Symphoricarpos orbiculatus</i> Coralberry	Scattered on MNTP, mostly in brushy pastures, but also in prairie remnants.	Control may be required in dolomite prairie.
<i>Toxicodendron radicans</i> Poison Ivy	Locally common in fencerows and woodlands.	Control may be required in high public use areas.
<i>Typha</i> spp. Cattails	Locally common in drainage ditches, wet depressions, and marshes.	May need to be controlled in early stages of wetland restoration.
<i>Ulmus americana</i> (American Elm)	Locally common at abandoned house sites, in fencerows, thickets, and riparian areas. Native in bottomland forests and woodlands.	Some removal required to reduce fragmentation of grassland habitats and in the process of restoring open structure to woodlands and savannas.

Table 3: Non-native, invasive plant species at likely to appear on Midewin National Tallgrass Prairie in the next 5-20 years

Scientific name Common Name	Distribution	Comments
<i>Alnus glutinosa</i> European Black Alder	Planted and naturalized stands present in southern Will County, including private land adjacent to MNTP.	Spreads in riparian areas, forming dense stands.
<i>Celastrus orbiculatus</i> Asiatic Bittersweet	Not present on MNTP, but occurs in Will County and likely to appear in future.	Invasive climbing vine, often strangles or shades out native trees and shrubs.
<i>Dioscorea oppositifolia</i> Chinese Yam	Present in southern Illinois; rapidly expanding throughout Ohio River Valley.	Forms dense tangles over herbaceous and shrubby vegetation.
<i>Euonymus fortunei</i> Purpleleaf Wintercreeper	Local escape from cultivation in Will County.	Invades mesic forests, forming dense stands; displaces native woodland wildflowers.
<i>Euonymus europaeus</i> European Spindle-tree	Local escape from cultivation.	Invades forest understory; dispersed by birds.
<i>Euonymus hamiltonius</i> Asiatic Spindle-tree	Local escape from cultivation, increasing in NE Illinois	Invades savanna, forest, and woodland understory; dispersed by birds.
<i>Heracleum mantegazzianum</i> Giant Hogweed	Spreading rapidly in northeastern USA; has reached Ohio.	Potential invader of woodlands, savannas, seeps, & prairies; causes extreme dermatitis & poisoning.
<i>Hesperis matronalis</i> Dame's Rocket	Present on land immediately adjacent to MNTP.	Potential invader of forest, woodland, and savanna habitats.
<i>Lespedeza cuneata</i> Sericea Lespedeza	Not on MNTP, but one planted stand present on adjacent Army land.	Aggressive invader in prairies, glades, and warm-season pastures south of northern Illinois.
<i>Lonicera japonica</i> Japanese Honeysuckle	Present in Will County; much more common further south.	Aggressive invader of native vegetation.
<i>Microstegium vimineum</i> Nepalese Stilt-grass	Locally abundant in Ohio River Valley; still actively spreading northwards.	Becomes abundant in riparian and bottomland habitats; spreads along streams, roads, and trails.
<i>Miscanthus sacchariflorus</i> Eulalia	Scattered in Will county and Northern Illinois.	Strongly rhizomatous grass, but not yet a problem in prairies or other habitats.
<i>Myriophyllum spicatum</i> Eurasian Water-milfoil	Locally common and increasing in northern Illinois.	Potential habitat on MNTP; limited; may colonize some streams or marshes.
<i>Polygonum perfoliatum</i> Mile-a-minute	Restricted to northerneastern USA, but rapidly expanding.	A vine that smother under-lying vegetation.
<i>Polygonum cuspidatum</i> Japanese Knotweed	Present along streams in northern Will County; likely to spread down watersheds onto MNTP.	Potential invader of riparian habitats.
<i>Prunus padus</i> European Bird Cherry	Ornamental tree, escaping in Will County.	Invades forest understory.
<i>Rhamnus frangula</i> Glossy Buckthorn	Occurs in Will County, including many localities around MNTP; likely to appear within 5-10 years (as of 1999).	In NE Illinois, this species is an aggressive invader of bogs, fens, sedge meadows, and wet prairies.

Scientific name Common Name	Distribution	Comments
<i>Viburnum lanata</i> Wayfaring-tree	Ornamental shrub, escaping in Will County.	Potential invader of woodlands and savannas.
<i>Viburnum recognitum</i> Smooth Arrow-wood	Not yet verified on MNTP, but spreading in NE Illinois. Native south and east of the prairie regions of Illinois and Indiana.	Potential invader of savannas, woodlands, forests, and upland prairies.