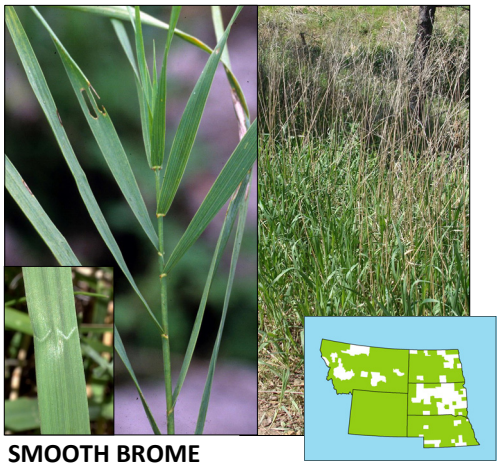
KEEP A LOOK OUT!

for *COMMON* INVASIVE PLANTS in the Northern Great Plains

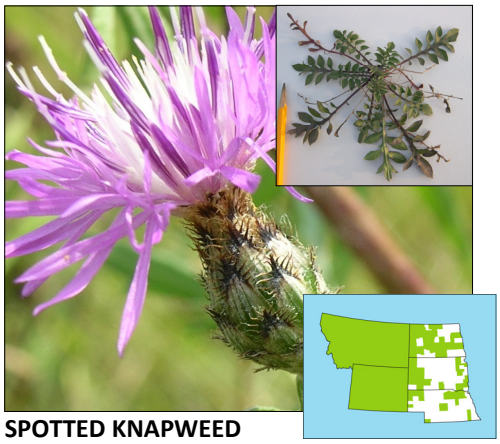
The maps show current reported distribution in the Northern Great Plains. ☐ Not reported ■ Present



SMOOTH BROME

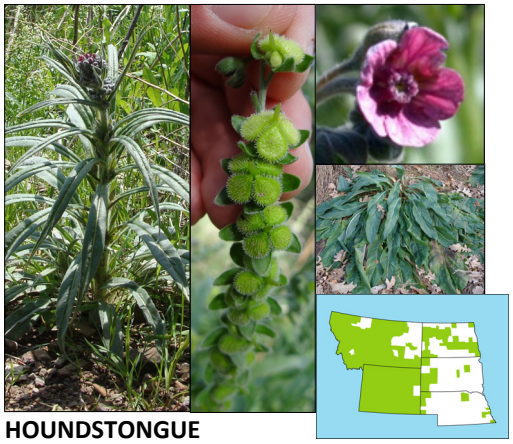
ANNUAL BROME GRASSES

MUSK THISTLE

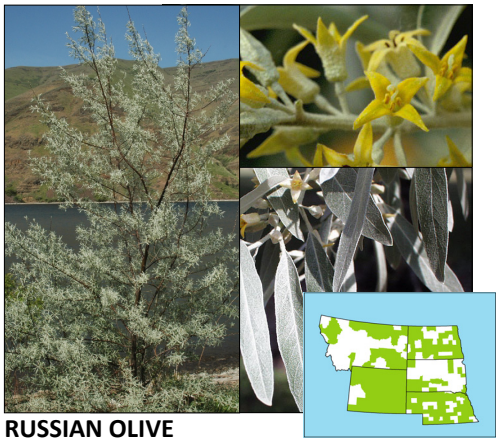


SPOTTED KNAPWEED

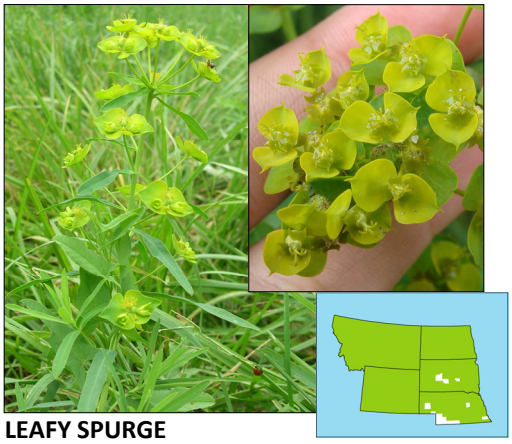
CANADA THISTLE



HOUNDSTONGUE



RUSSIAN OLIVE



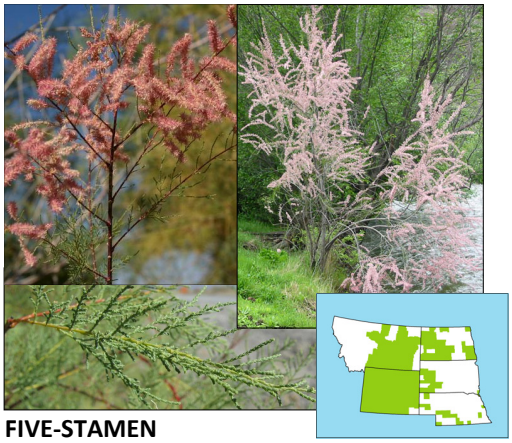
LEAFY SPURGE

PURPLE LOOSESTRIFE

MIPN.org

Midwest Invasive Plant Network

Map distribution data obtained from EDDMaps.org, the National Park Service, the Rocky Mountain Herbarium (http://www.rmh.uwyo.edu), and the South Dakota Dept of Agriculture (https://sdda.sd.gov). **To report new infestations of these and other invasive species, go to EDDMaps.org/mrwc/.**



FIVE-STAMEN TAMARISK & SALT CEDAR

NATIONAL PARK SERVICE

See reverse side for species descriptions.

Common **INVASIVE PLANTS** in the Northern Great Plains

SMOOTH BROME (*Bromus inermis*)
Perennial, long-lived, rhizomatous **grass** reaches 2.5-3.5' tall. Fibrous root system. Erect, circular **stems** are dull green, hairless or nearly hairless with closed sheaths. Numerous basal and stem **leaves**, alternate, flat, hairless, up to 10" long and 0.66" across, have a prominent "W" constriction at midpoint. Greyish blue on the upper side and green on the lower side. **Inflorescence** is an open, terminal cluster, 2.5-7" long, consisting of whorling branchlets. Branchlets may divide into secondary branchlets, and contain 0.75-1.25" long flowered **spikelets**. Spikelets have 6-11 florets, are pale green, purple, or red-tinged when in bloom, then turn tan. Sometimes called Hungarian brome. Threatens pasturelands, prairies, and rangelands.

ANNUAL BROME GRASSES
Japanese brome (*Bromus japonicus*): Annual **grass**, grows 8-30" tall. Sheaths and **leaves** covered in long, soft, straight, grey hairs. Flat leaves 3-8" long, 0.1-0.2" wide. Flowers form in open, drooping, terminal clusters, 3-8" long, with 3-5 branchlets. **Spikelets** flattened, often hairy, 0.6-1" long, about 0.2" wide, with 6-13 florets. Awns (hair-like extensions from spikelets) 0.25-0.75" long, often bent or twisted at maturity. Threatens pastureland, prairies, and rangelands.

Cheatgrass (*Bromus tectorum*): Annual **grass**, grows 4-24" tall. Light green **leaves** are long, flat, narrow, grow up to 8" long, and are covered with soft hairs. Closed sheaths also have soft hairs. Dense, soft, drooping, possibly purple **panicles** (branched clusters) are 2-6" long. Panicles usually 1-sided, with 0.5-2" branchlets that contain 4-8 spikelets. The small **spikelets** have 3-6 florets and equal-sized barbed awns (hair-like extensions). Threatens woodlands, pastureland, prairies, rangelands, and sagebrush steppe.

MUSK THISTLE (*Carduus nutans*)
Biennial **herb**, grows 1-7' tall on a multi-branched drooping stem. Overwinters as rosette in first year and blooms in second year. Dark green **leaves** have a light green midrib and grey margins; are alternate, coarsely lobed, and have a smooth, waxy surface and prominent spine at tip of each lobe. Rosette leaves grow to 12" long. 1-3" **flower heads** are nodding, disk-shaped, and contain hundreds of tiny individual purple flowers. Seeds yellowish-brown with bristly, white hairs at one end. Threatens grasslands, meadows, and prairies.

SPOTTED KNAPWEED (*Centaurea stoebe*)
Short-lived, perennial **herb**. First-year plants form low-growing rosettes. Flowering **stems**, formed in second year, leafy, 1-2' tall with wiry, hoary branches. **Leaves** grayish and hairy, deeply cut with narrow lobes. Rosette leaves grow up to 6" long; stem leaves alternate, become smaller and more linear higher up the stem. **Flowers** thistle-like, pink to purple. Flower base covered by stiff bracts tipped with black, fringed hairs. Threatens savannas, grasslands, sand dunes, and prairies.

CANADA THISTLE (*Cirsium arvense*)
Perennial **herb**, 2-6.5' tall. **Stems** upright, grooved, and branch only near top of plant. **Leaves** alternate, oblong, irregularly lobed, tapering, with spiny, toothed margins, and sessile. Degree of spininess and lobing varies between plants. Numerous, small, purple to pink, terminal, 0.5" long **flower heads** bloom through summer. Small, light brown **seeds** have tan hairs. Creeping **roots** grow up to 10-12' laterally per year. Threatens prairies, savannas, glades, dunes, stream banks, sedge meadows, and forest openings.

HOUNDSTONGUE (*Cynoglossum officinale*)
Biennial or short-lived perennial **herb**. First-year forms as **rosette. Leaves** are 1-12" long and 1-3" wide, oblong, veined, and covered in soft white hairs. Foliage smells like spoiled peanut butter when crushed. Erect, stout 1.5-3' flowering **stem** forms second year. Reddish-purple **flowers** have 5 petals, form in clusters, and give way to 4 prickly **nutlets**, each 0.33" long. **Taproot** is thick, black, and branching. Houndstongue contains alkaloids that are toxic to horses and cattle. Threatens woodlands, forests, rangelands, and pastures.

RUSSIAN OLIVE (*Elaeagnus angustifolia*)
Large shrub or small tree. Grows to 30' tall and has thorny branches. **Leaves** simple, alternate, lance-shaped, with silver scales on both sides. **Flowers** are tube- or bell-shaped, yellow inside and silver outside, fragrant, and borne in leaf axils. **Fruits** are yellow, dry, and olive-like. Threatens open and forested natural areas, and may dry out riparian areas.

LEAFY SPURGE (*Euphorbia esula*)
Perennial **herb** grows 2-3' tall. Milky sap in stems, flowers, and leaves. Bluish-green l**eaves** simple, alternate, narrow with pointed tips, smooth and hairless. **Flowers** on paired, yellowish-green, cup-shaped bracts. Flowers in clusters of 7-10 at top of stem, bloom late spring through midsummer. **Seedpods** attach to center of paired bracts. Threatens prairies, grasslands, savannas, sand dunes, open woodlands, and riparian areas.

PURPLE LOOSESTRIFE (*Lythrum salicaria*)
Perennial **herb** grows 3-7' tall on 4-, 5-, or 6-sided **stems**. Mature plants have 30-50 stems originating from a woody crown. **Leaves** opposite (occasionally alternate), 1-4" long, lance-shaped, downy, with entire margins, and sessile. Purple **flowers** have 5 or 6 petals and are clustered in long spikes. Blooms throughout summer. Seeds borne in small capsules that burst at maturity. Threatens wetlands.

FIVE-STAMEN TAMARISK & SALT CEDAR (*Tamarix chinensis/ T. ramosissima*) Deciduous **small tree or shrub**. Typically grows 12-15' tall in dense thickets. Slender **stems** are smooth, weeping, light red or orange-yellow when young, and become ridged and brown (five-stamen tamarisk) or grey (salt cedar) with age. Narrow, pointed, scale-like **leaves** are gray-green, compound, alternate, and tightly overlap along the stems. Small, pale pink to white **flowers** form in dense plumes, bloom early spring to late fall. Fruits are yellow to pinkish-red (salt cedar) or brown (five-stamen tamarisk) capsules containing numerous tiny seeds. **Seeds** 0.04" long, have a tuft of fine hairs at 1 end. Threatens riparian systems.

For control & management of these species, please visit
http://mipncontroldatabase.wisc.edu & http://www.nps.gov/plants/alien/fact.htm

Photo credits: **Smooth brome**-Rebecca Durham, MPG North, Ohio State Weed Lab Archive, Bugwood, Belinda Lo, NPS; **Annual brome grasses**-Belinda Lo, Chris Evans, IL Wildlife Action Plan, Bugwood, Steve Dewey, USU, Bugwood; **Musk thistle**-Paul Rothrock, Taylor Univ, Peter Dziuk, MN Dept of Ag, Joseph DiTomaso, UC, Bugwood; **Spotted knapweed**-Peter Dziuk, David Eagan, U of WI; **Canada thistle**-Ryan Manuel, NPS, Belinda Lo; **Houndstongue**-Belinda Lo, Ryan Manuel, Mel Harte, Bugwood; **Russian olive**-Chris Evans, John Randall, TNC, Paul Wray, ISU, Bugwood; **Leafy spurge**-Debbie Maurer, Lake Co Forest Preserve District, IL, Belinda Lo; **Purple loosestrife**-Mike Norris, TNC, Katherine Howe, MIPN; **Five-stamen tamarisk & salt cedar**-Leslie Mehroff, UConn, Bugwood, Dan Sharratt, OR Dept of Ag.