

Meadow knapweed, *Centaurea x moncktonii*

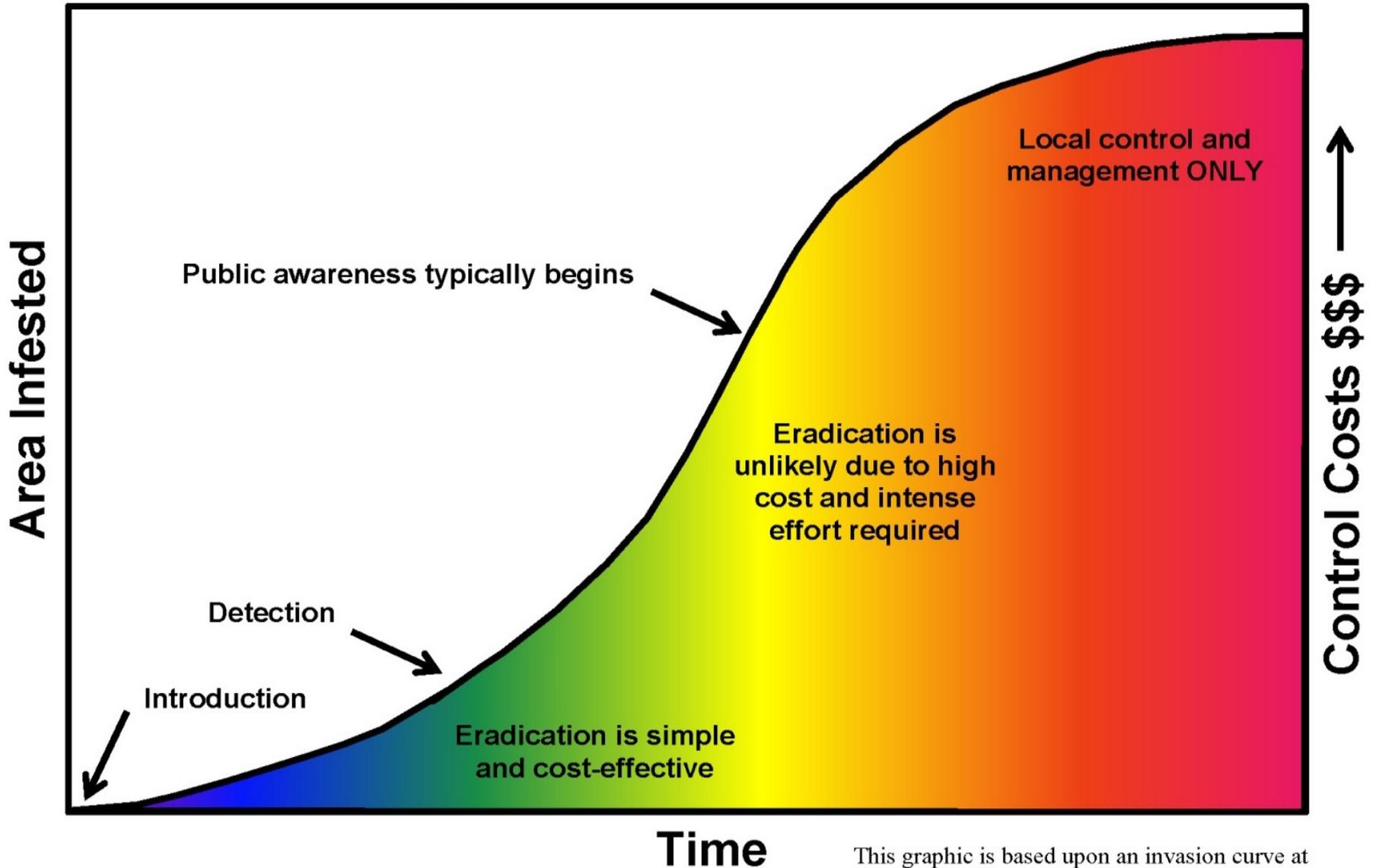


Invasive Plant Early Detection The Noxious Weed Eradicate List

Monika Chandler, Minnesota Department of Agriculture

Invasion Curve

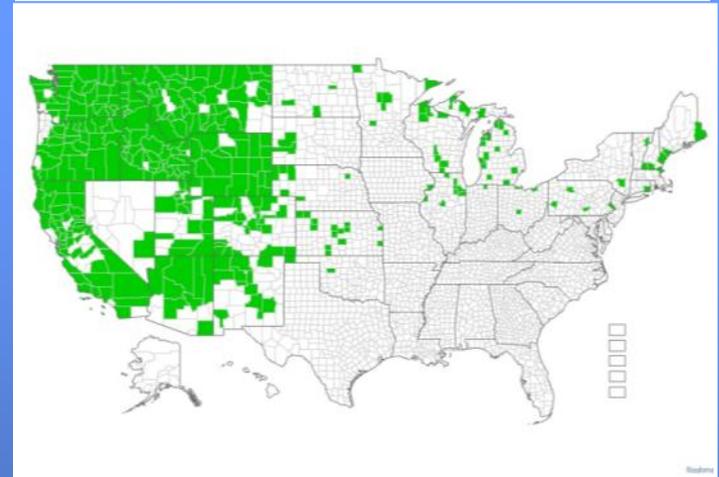
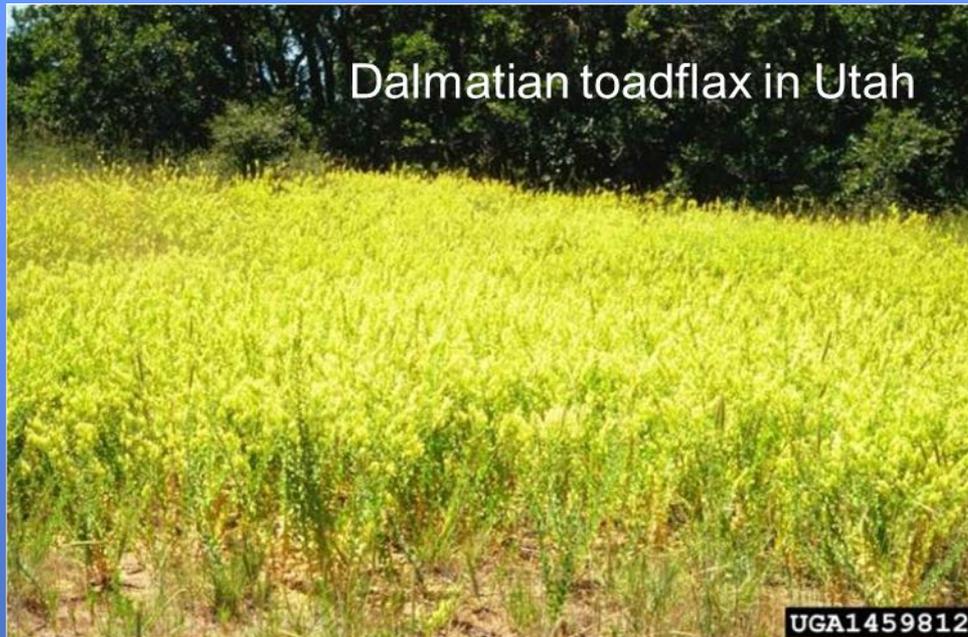
Environmental damage and control costs increase as invasions spread



This graphic is based upon an invasion curve at <http://blogs.oregonstate.edu/h2onc/2009/08/20/ccedin/>

Eradicate List Species

- High invasive potential
- Limited distribution
- Eradication possible



EDDMapS. 2012. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/>; last accessed June 15, 2012.

The Eradicate List

Recorded in Minnesota

1. Oriental bittersweet
2. Brown knapweed
3. Meadow knapweed
4. Black swallow-wort
5. Grecian foxglove
6. Cutleaf teasel
7. Japanese hops
8. Dalmatian toadflax

Not recorded in Minnesota

9. Yellow starthistle
10. Common teasel
11. Giant hogweed

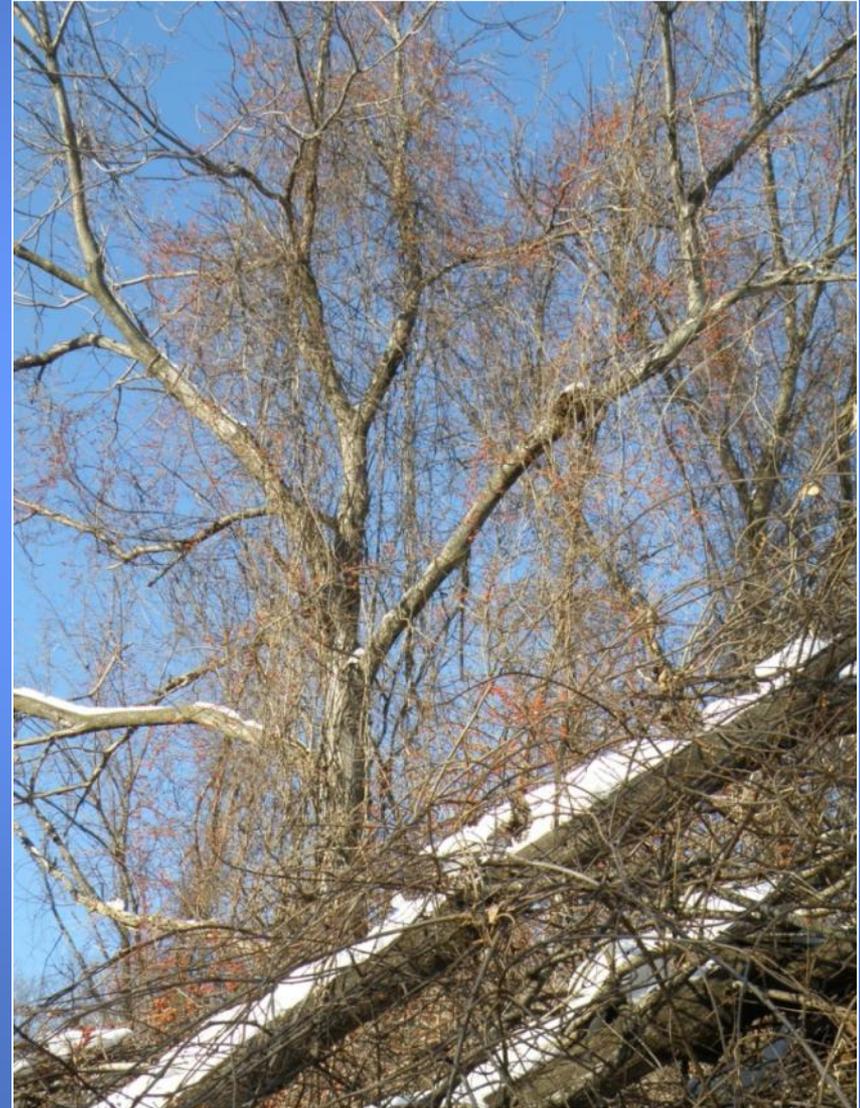


Oriental Bittersweet
Celastrus orbiculatus

Oriental bittersweet

Celastrus orbiculatus

- Woody vine that climbs trees and structures
- Thrives in a wide range of habitats, light levels, and soil types
- Grows to 66' in length
- Introduced as an ornamental



Biology

- Reproduces by seed, rhizome and stolon
- Male and female plants
- Fruit production on female plants
- Seed dispersal is vectored by birds and other wildlife that eat the fruit containing seed
- Short-term seed viability









Meadow Knapweed

Centaurea x moncktonii



Meadow Knapweed

- Short-lived perennial
- Prefers sunny, cool and moist areas
- Reproduces by seed and root fragments



Meadow Knapweed



Distinguishing Meadow and Spotted Knapweeds



Meadow

Spotted



Meadow

Spotted



Meadow Knapweed, MnDOT



Brown Knapweed, MDA



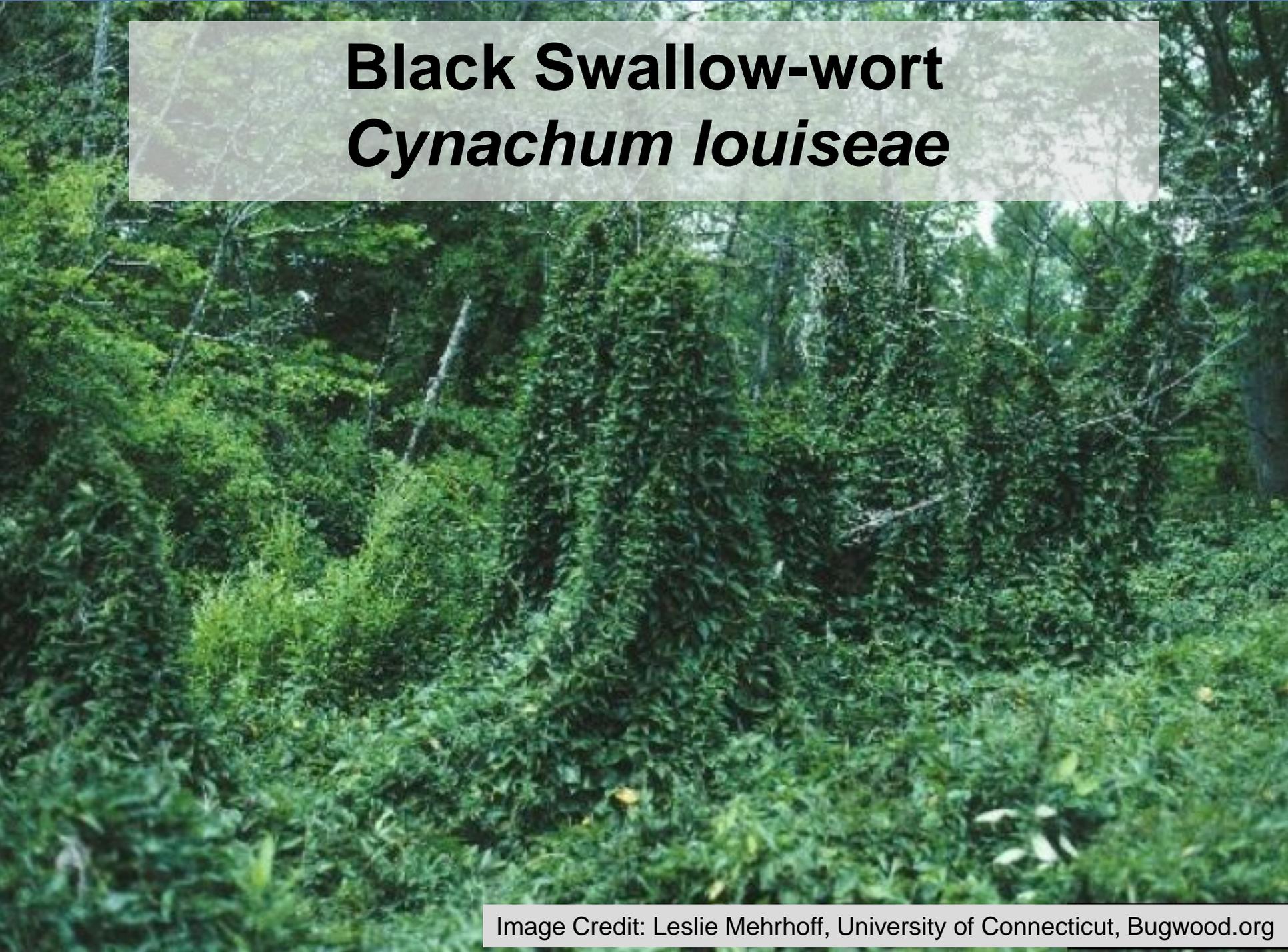
Spotted Knapweed, MDA





Do Not Mow

- Mowing does not prevent flowering and seed production.
- Flowering occurs on a short stem.
- Mowing is one way to spread meadow knapweed.

A photograph showing a dense thicket of Black Swallow-wort (Cynachum louiseae) in a forest. The plants are tall, green, and have a bushy appearance. The background consists of various trees and foliage, creating a lush, green environment. The text is overlaid on a semi-transparent white box at the top of the image.

Black Swallow-wort
Cynachum louiseae

Image Credit: Leslie Mehrhoff, University of Connecticut, Bugwood.org

Black Swallow-wort



Black Swallow-wort

- Perennial herbaceous vine
- Grows in a wide range of habitats
- Milkweed family
- Threat to monarch butterflies



Grecian Foxglove
Digitalis lanata

Grecian Foxglove

- Herbaceous perennial that reproduces by seed
- All parts of Grecian foxglove are toxic to humans, livestock and wildlife.





Greecian Foxglove

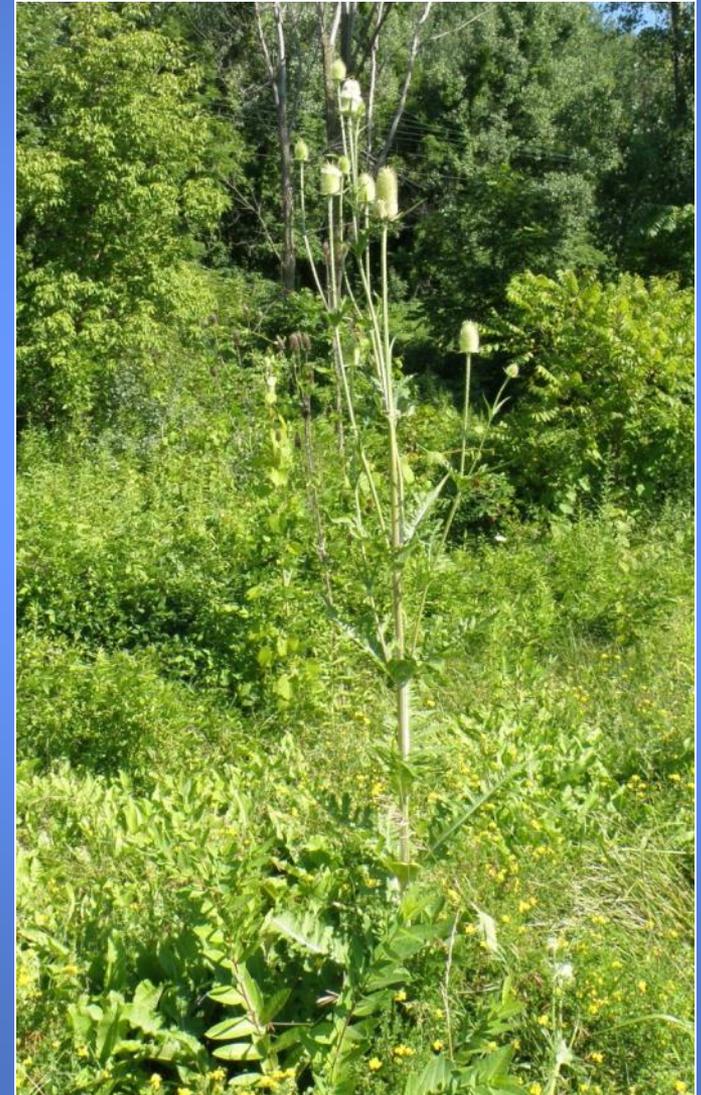


Cutleaf Teasel
Dipsacus laciniatus



Cutleaf Teasel

- Primarily biennial – dies after flowering
- Reproduces by seed
- Grows in sunny areas



Cutleaf Teasel



Japanese Hops
Humulus japonicus

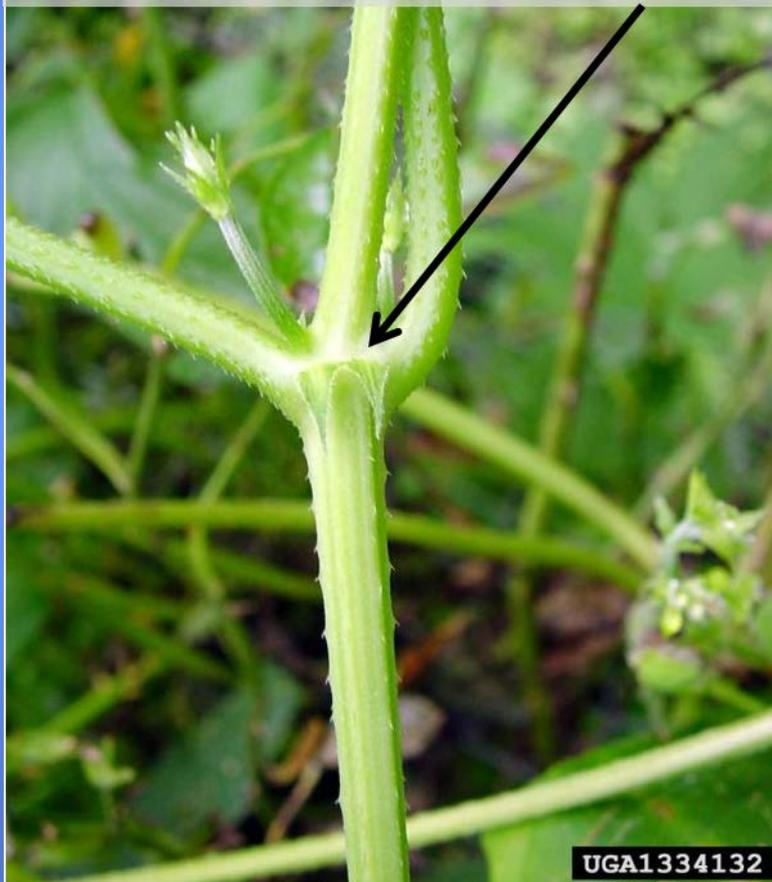
Japanese Hops

- Annual vine that grows so rapidly it smothers other vegetation
- Reproduces by seed
- Grows in sunny, often riparian areas
- Beer is not made from Japanese hops



Japanese Hops

Downward pointing bracts are an identifying characteristic



Credit: Chris Evans, River to River CWMA,
Bugwood.org



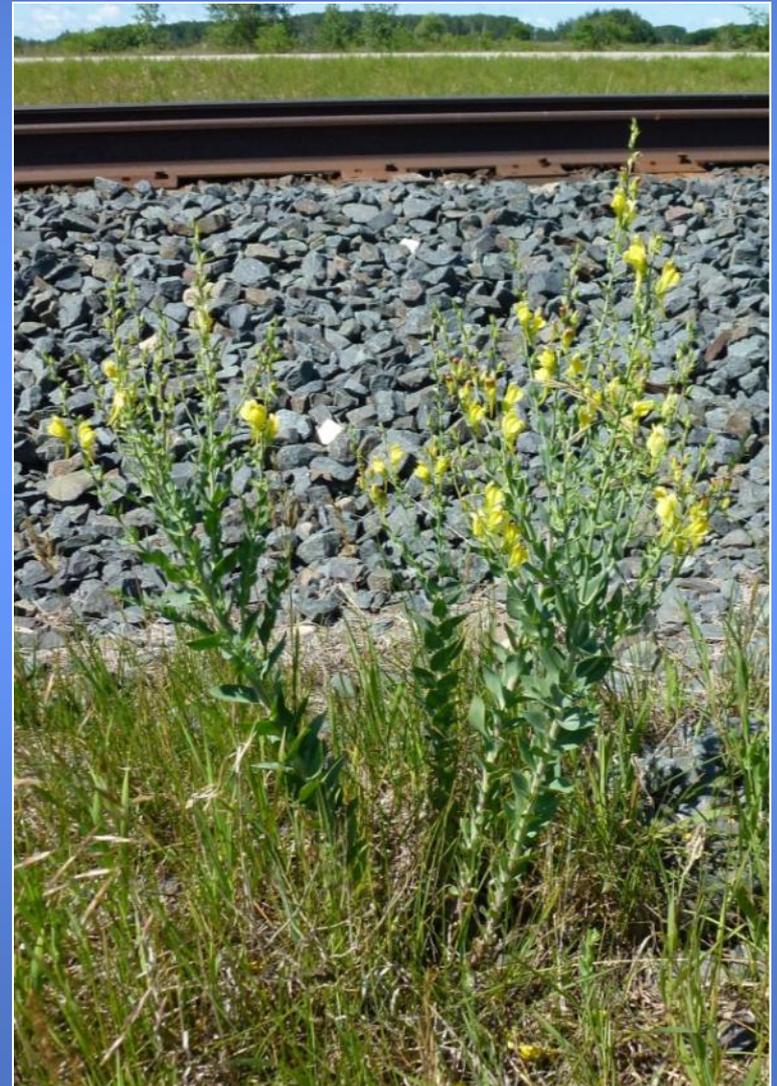
Credit: Leslie J. Mehrhoff, University of Connecticut,
Bugwood.org

Dalmatian Toadflax
Linaria dalmatica



Dalmatian Toadflax

- Short-lived perennial
- Tolerates a wide range of habitats but prefers sunny, dry areas
- Colonizes areas quickly with sprouting from lateral roots and seed production



Dalmatian Toadflax



Yellow toadflax (left) has narrow leaves compared to Dalmatian (right)

Sprouting after herbicide treatment browned stems –
it is difficult to kill Dalmatian toadflax

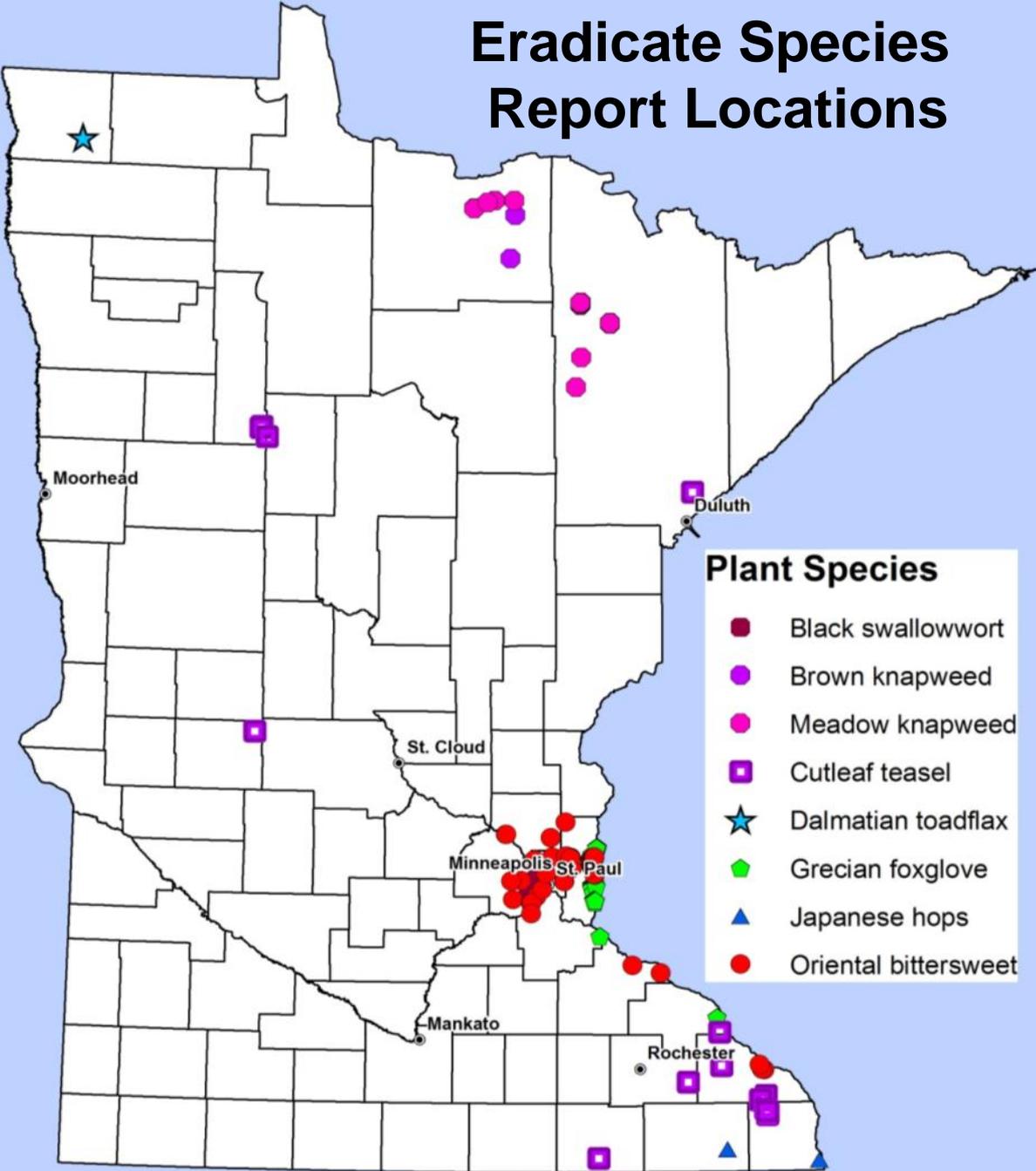


Eradication in Progress

- Coordinated effort to contain and eliminate Dalmatian toadflax
 - The Nature Conservancy
 - MnDOT, DNR and MDA
 - Kittson County
 - Private Landowners



Eradicate Species Report Locations



Confirmed County Locations

Additional Unconfirmed Reports Exist

- Goodhue
- Metro Area
- Winona

Oriental
bittersweet



- Koochiching
- St. Louis

Brown
knapweed



- Koochiching
- St. Louis

Meadow
knapweed



- Hennepin
- Ramsey

Black
swallow-wort



- Washington

Grecian
foxglove



- Houston
- Mower
- Olmsted
- Ramsey
- Wabasha
- Washington
- Winona

Cutleaf
teasel



- Fillmore
- Houston

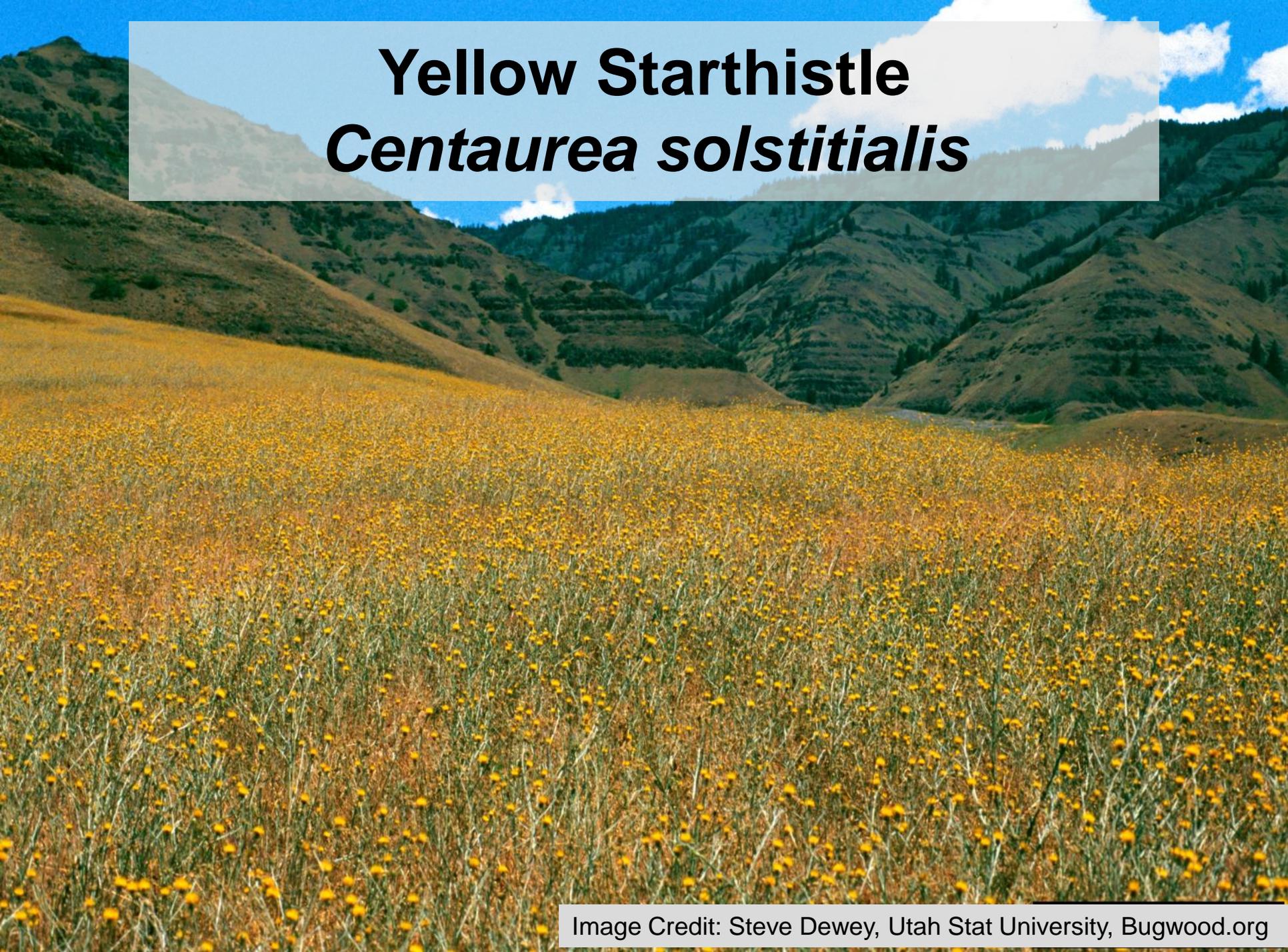
Japanese
hops



- Kittson

Dalmatian
toadflax



A wide-angle photograph of a vast field of yellow starthistle flowers in a mountain valley. The flowers are in full bloom, creating a dense carpet of yellow. The background features rolling hills and mountains under a blue sky with scattered white clouds. The overall scene is bright and natural.

Yellow Starthistle

Centaurea solstitialis

Image Credit: Steve Dewey, Utah Stat University, Bugwood.org

Yellow Starthistle





Common Teasel
Dipsacus fullonum

Image Credit: Steve Dewey, Utah State University, Bugwood.org

Common Teasel





Giant Hogweed
Heracleum mantegazzianum

Giant Hogweed

- Sap + human skin + light = severe burn
- Biennial or perennial that reproduces by seed
- Prefers sunny and moist sites but can grow in partial shade
- Federal and state noxious weed



Report Sightings

Distribution Maps

Species Information

Tools & Training

My EDDMapS

About

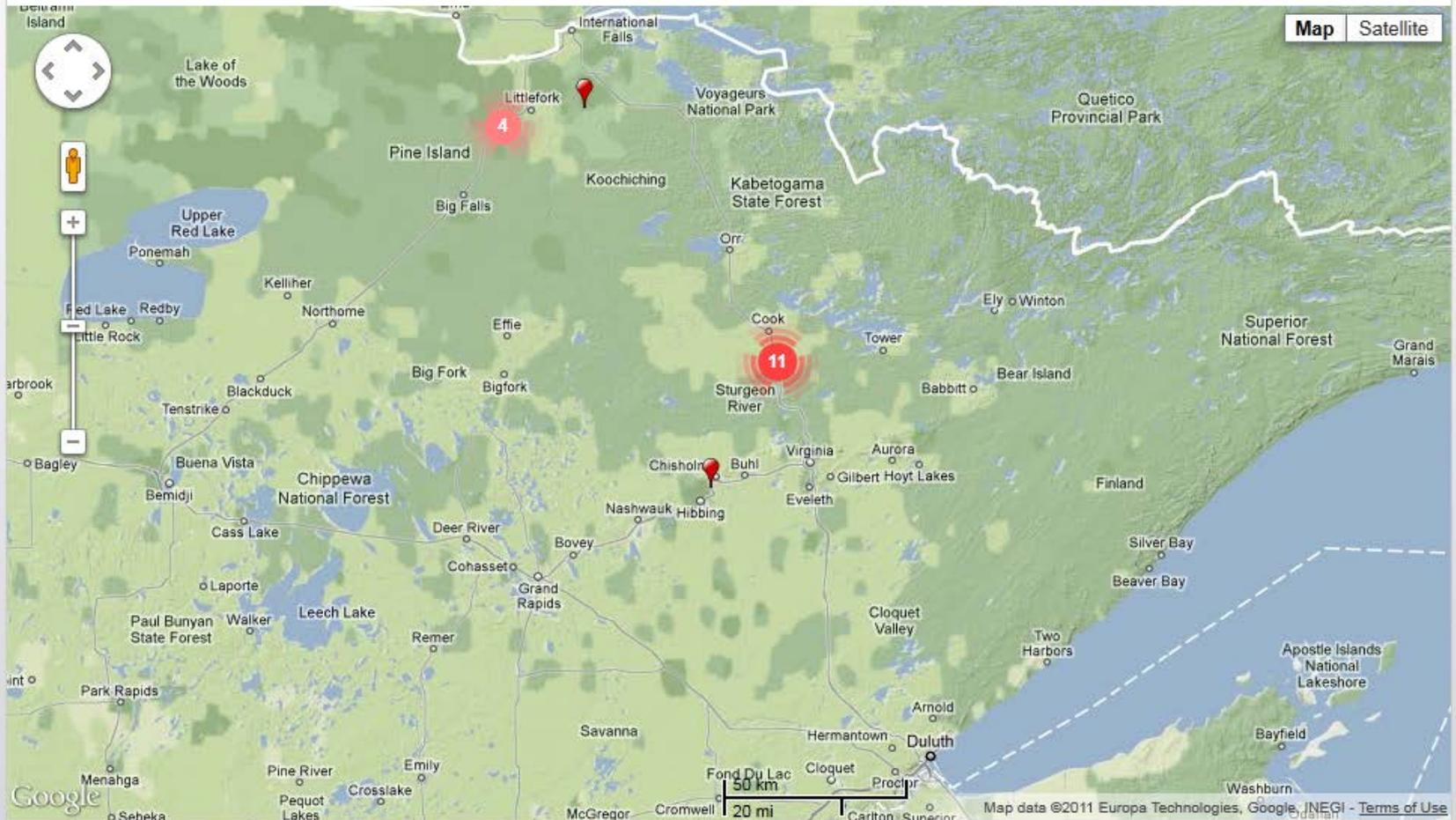
meadow knapweed

Centaurea moncktonii C. E. Britton [*C. jacea* X *C. nigra*]

USDA PLANTS Symbol: CEMO6
Invasive Plant Atlas

Load Time: 1 ms

 [Print](#)  [Excel](#)  [Google Earth](#)



meadow knapweed

USDA PLANTS Symbol: CEMO6
Invasive Plant Atlas

Centaurea x moncktonii C. E. Britton

Distribution Maps: [State](#) / [County](#) / [Southeast](#) / [Points on Google Maps](#)

Record ID:	632871
Location:	St. Louis County, Minnesota
Source:	Monika Chandler, Minnesota Department of Agriculture
Abundance:	Dense Monoculture
Locality:	NE corner of Hwy 53 and Hwy 1
Comments:	Infestation was reported by T. Jacobson (Mn/DOT). T. Jacobson and G. Kuyava had the species identified by several botanists and reported the infestation.
Area Infested:	4 acres
Coordinates:	47.779741, -92.65484
NADatum:	WGS84
Data Type:	Polygon
Site Name:	Angora01
Identified by:	Definitive identification by Dr. Schimpf and Dr. Pomoroy with UMD
Canopy Cover:	High
Herbarium:	Olga Lakela Herbarium at the University of Minnesota, Duluth - Record ID:
Status:	Not Verified
Observation Date	September 6, 2005
Date Entered	January 6, 2010

Impediments to Rapid Response

- Lack of funding
- Lack of staff time for coordination activities
- Lengthy processes and procedures prior to treatment
 - Contracts, notifications, etc.
- Control strategies may be unavailable



Cutleaf teasel, *Dipsacus laciniatus*

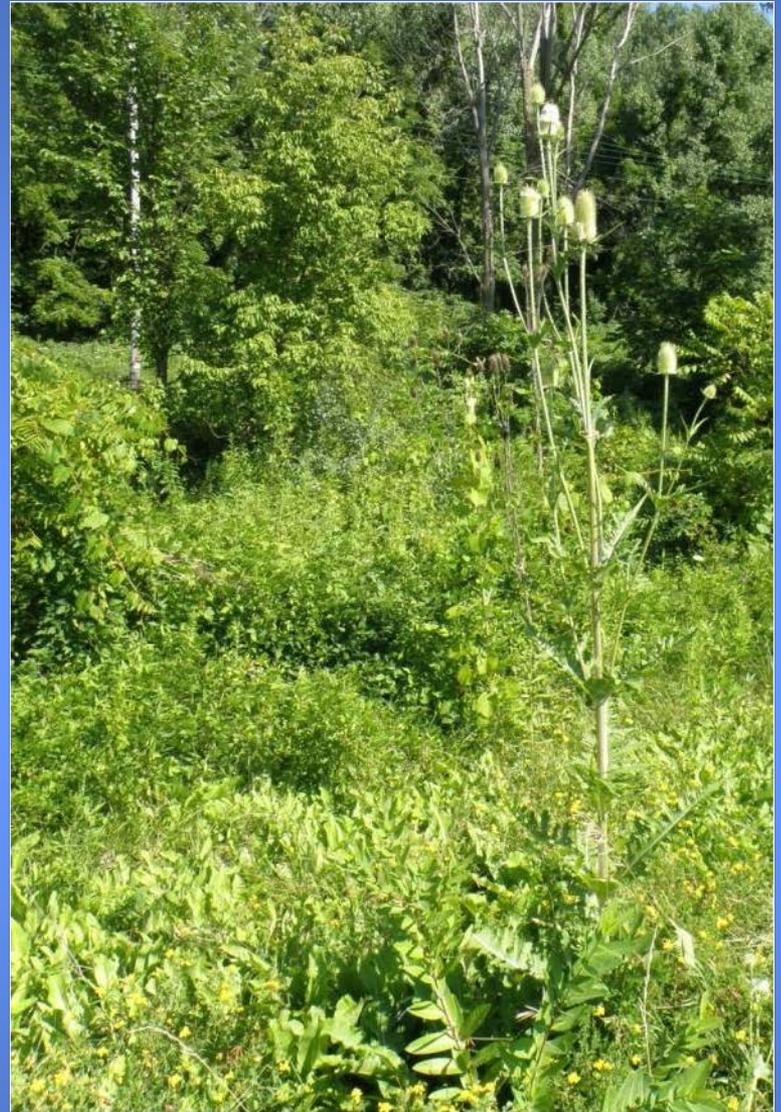


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Cutleaf teasel, *Dipsacus laciniatus*