

working for clean rivers



Native and Exotic Thistles of the Willamette Valley



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

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January 22, 2014

Is there a difference?

- Impacts
- \$ (economics)?
- What about aesthetics?
- *C. arvensis* 'Too common. A vile weed' Nelson (1915)



VS.



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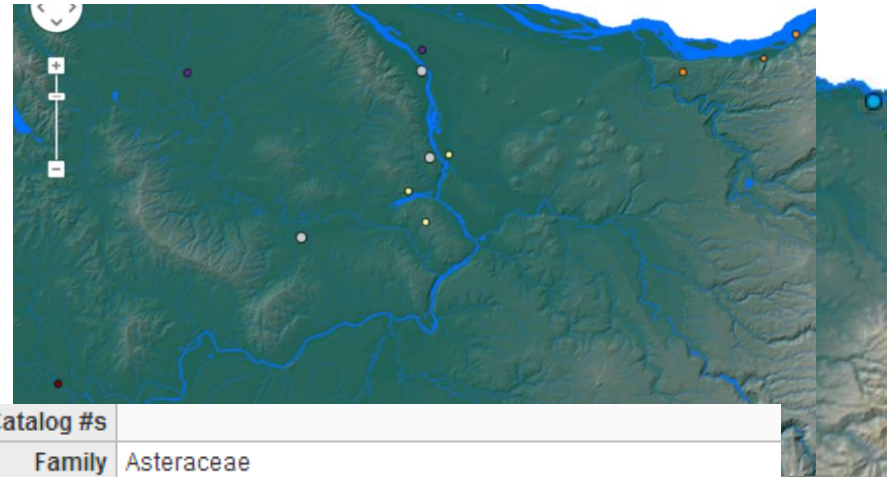
Is there a difference?

- Expendable?
- Invasion facilitated by decreasing biotic resistance



Thistles* (Asteraceae)

- ~20 exotic spp; 7 OR; 6 WV; We'll focus on 5...
- ~100 native spp (all *Cirsium*); 14 OR; 5-6 WV. We'll focus on 4...
- Ours never very common? [or popular?]
- Many threats (herbicides, errant biocontrol, etc.)



Other Catalog #s	
Family	Asteraceae
Accepted Name	<i>Cirsium remotifolium</i> (Hook.) DC. var. <i>remotifolium</i>
Annotation History (in chronological order)	<i>Cirsium remotifolium</i> (Hook.) deCandolle var. <i>remotifolium</i> . 1. <i>Cirsium remotifolium</i> (Hook.) DC.
Type Notes	
Collector	Carl C. Behring
Collector #	10
Other Collectors	
Date Collected	Jul 23, 1928
Country	U.S.A.
State or Province	Washington
County	Clark
Locality	[locality and coordinates withheld; status in Washington: SN
Elevation	
Coordinates	.
Habitat	
Notes	Poisoned: Mercuric Chloride.



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- Ours never very common? [or popular?]
- Many threats (herbicides, errant biocontrol, etc.)
- What do we do when we manage for “thistles”?



*True thistles

Some differences...

- Besides the obvious...
- The “RoT” for thistles are not *great*:
 - Stems w/ sharp spines or “wings”*?
 - “Rhizomatous”?
 - Dioecious?
 - Infl. bracts leathery and broadly triangular*?
 - Infl. bracts sticky*?
 - Infl. bracts jagged*?



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Exotic Thistles

- Bull (*Cirsium vulgare*)
biannual



Exotic Thistles

- Canada (*Cirsium arvense*) perennial



Exotic Thistles



Cirsium arvense (exotic)
Canada thistle, creeping thistle
Benton Co.; Woods Creek Road, 3.2 mi. southwest of junction with Highway 20, west of Philomath; 44.54705° N -123.46897° W
July 19, 2008 OFP confirmed
© 2008 Gerald D. Carr courtesy of Oregon Flora Project

Exotic Thistles

- Italian (*Carduus pycnocephalus*)
- Slenderflower (*Carduus tenuiflorus*) annuals

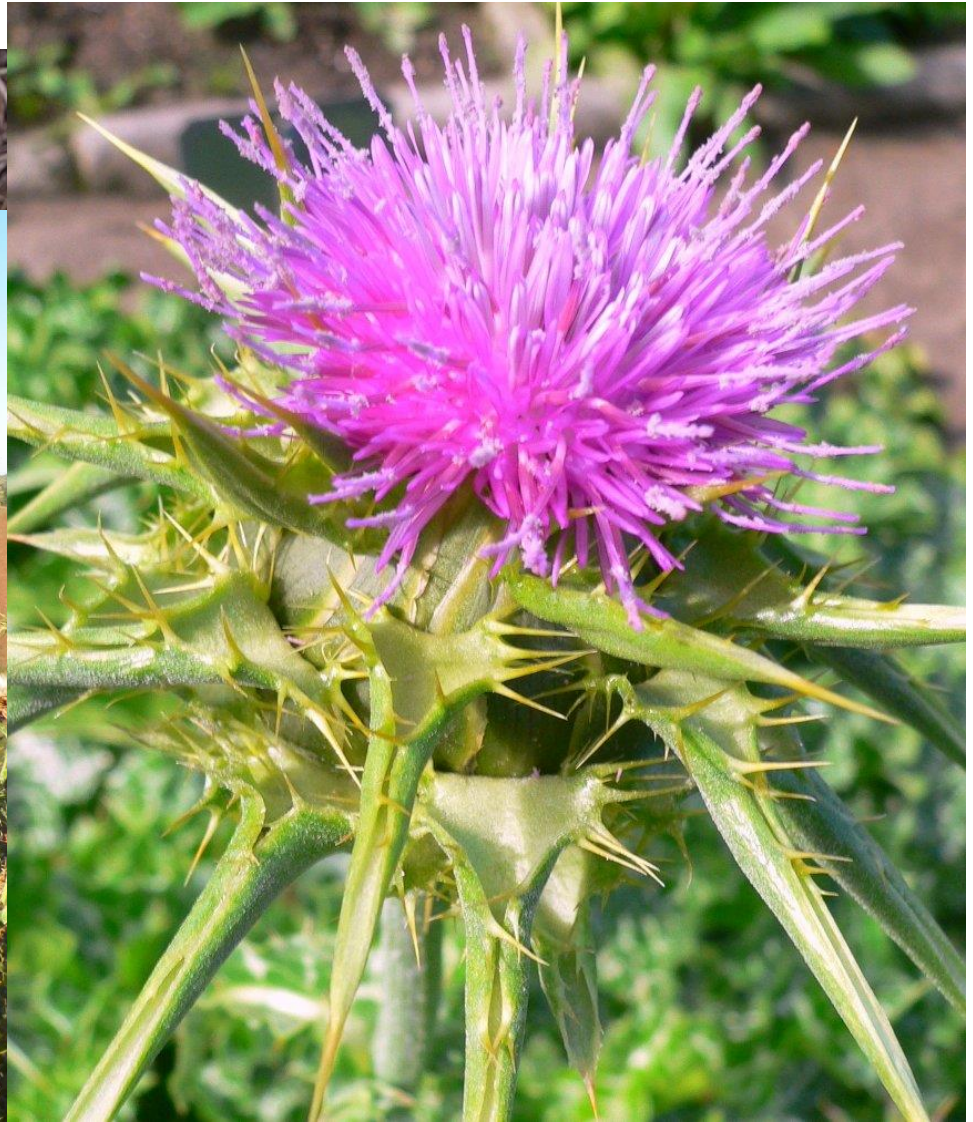


Carduus pycnocephalus (exotic)
spade-headed thistle
Legah, T23S R03E S25
El Newhouse July 4, 2006 CFP confirmed
Newhouse courtesy of Oregon Flora Project



Exotic Thistles

- Blessed milk (*Silybum marianum*) ann/bi



Native Thistles (and things to look for)

- Short-style
(*Cirsium brevistylum*)
perennial
- Probably our
most
“common”



Native Thistles (and things to look for)

- Short-style
(*Cirsium brevistylum*)
perennial
- Probably our most
“common”
- Unbranched
growth
- Tall



Native Thistles (and things to look for)

- Indian/edible
(*Cirsium edule*)
biannual
- Branched w/
naked stems
- Fuzzy



Native Thistles (and things to look for)

- Indian/edible (*Cirsium edule*)
biannual
- Branched w/
naked stems
- Fuzzy
- Bracts firm and
needle shaped



Cirsium edule var. *edule* (native)
Indian Thistle, edible thistle
Lane Co., Highway 36 at junction with Horton Road, east of Blachly, 44.19226° N -123.51847° W
July 9, 2009 OFP confirmed
© 2009 Gerald D. Clair, courtesy of Oregon Flora Project



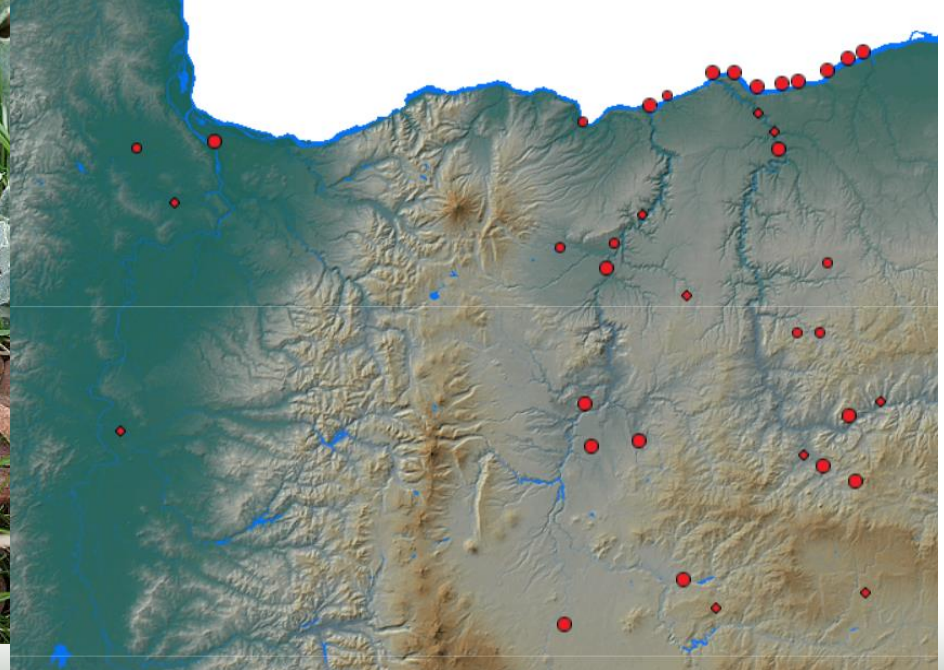
Native Thistles

- Few leaved and mountain
(*Cirsium remotifolium* var. *remotifolium* and var. *odontolepis*)
perennial



Native Thistles

- Wavy leaved
(*Cirsium undulatum*)
perennial
- Likely
extirpated



Management

- Distribution map for spp. or survey for native spp.
- Understanding life histories (annual, phenologies, etc.)
- **Review tools available**
- What *were* those goals again?
- Biocontrol can be a *great* tool w/ *correct* agents
DON'T USE ***Rhinocyllus conicus*** and ***Larinus planus***!
- Herbicides
 - Quick, high success @ density reduction
 - Containment during bc establishment
 - Who is ID'ing???
- Biocontrol
 - Economical
 - very selective
- Grazing
 - Long-term
 - Can be used w/ other methods
 - Can make things much worse
- Mechanical
 - Not compatible w/ many bc agents
 - Continuous
 - Tilling bad for *C. arvensis*



Dominic Maze

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- Next time: Why are we spraying out our native *Clematis*?
- Check out the CoP 5 year report:
<http://www.portlandoregon.gov/bes/article/478465>
- Pictures:
 - Gerry Carr
 - Nate Miller
 - Toby Query
 - WildUtah.com
 - Myself

