

Schutter Diagnostic Lab: 2016 Plant Identification Summary

Introduction: The Schutter Diagnostic Laboratory (SDL) at Montana State University (MSU) is provided through MSU Extension. Services of the SDL include identification of weeds and other plants, mushrooms, plant diseases, insects, insect damage, and abiotic problems. We also provide science-based integrated pest management recommendations. We receive samples from MSU Extension agents, weed district coordinators, homeowners, farmers, ranchers, consultants, and others interested in plant issues.

Plant Identification Activities: In 2016 we processed 400 physical specimens and 160 email or text photos for plant identification. Clients submitted plants with a variety of questions including whether a plant might be noxious or invasive, toxic, or high quality forage. Forty eight percent of specimens were exotic plants, representing 160 unique species. Commonly submitted exotic species were roving bellflower (*Campanula rapunculoides*), common blue mustard (*Chorispora tenella*), and cheatgrass (*Bromus tectorum*). Native plants accounted for 32% of specimens, representing 121 unique species. The most common native species submitted were dotted blazing star (*Liatriis punctata*) and chokecherry (*Prunus virginiana*).



Cutleaf teasel (*Dipsacus laciniatus*)

Photo credit: John Doyle

Species	County	Priority
Bohemian knotweed	Silver Bow, Toole (first reports)	1B
Canada thistle	Broadwater, Cascade	2B
Dalmatian toadflax	Lewis and Clark, Ravalli	2B
Eurasian watermilfoil	Gallatin	2A
Field bindweed	Beaverhead, Yellowstone	2B
Hoary alyssum	Gallatin, Sweetgrass	2B
Houndstongue	Cascade, Phillips, Ravalli	2B
Purple loosestrife	Valley (first report)	1B
Rush skeletonweed	Beaverhead (first report)	1B
Russian knapweed	Judith Basin, Ravalli	2B
Spotted knapweed	Gallatin	2B

Noxious Weed Identification: Twenty-one specimens of Montana state-listed noxious weeds were submitted representing 11 unique species (Table, left). Several species submitted for identification were priority 1B species, meaning they have limited distribution in Montana and early detection of these species is important. These species included Bohemian knotweed (*Polygonum x bohemicum*), purple loosestrife (*Lythrum salicaria*), and rush skeletonweed (*Chondrilla juncea*). To our knowledge four of the reports for Priority 1B species were first reports for a county (Table, left). We also received specimens suspected of being high priority noxious weeds that were not. For example, three specimens suspected to be common reed (*Phragmites australis* spp. *Australis*) were submitted and all of these samples were identified as the native subspecies (*P. australis* spp. *Americanus*).

Other Notable Samples: One specimen submitted in 2016 was a new species for Montana. This species was cutleaf teasel (*Dipsacus laciniatus*: photo, top right), which is listed as a noxious weed in Colorado, Iowa, Missouri, and Oregon. We confirmed the first report of greater knapweed (*Centaurea scabiosa*: photo, right) in Cascade County.

Additional Information: If you have a plant you would like help identifying, you can 1) take the plant to your county or reservation Extension agent (for Montana residents) or, 2) submit a sample to SDL for identification. This is a free service for Montana residents, and out-of-state clients will be charged a fee. You can find contact information, submission instructions, fee information, and forms online at www.diagnostics.montana.edu.



Photo credit: Josh Wagoner

Weed Post Puzzle: Test your knowledge of the Schutter Diagnostic Lab

IOFLUGYEHQAATGRHI

SDL clients sometimes send in samples for identification because they wonder if the plant in question is this

CGRASTSAEH

Which invasive annual grass was one of the top submissions for plant identification in 2016?

TSPFELEUPESOIRORL

Which Montana noxious weed was reported for the first time in Valley County in 2016?

EYCRCKOHRHE

Clients of SDL were curious about this native shrub in 2016

SAAUNTIISCLDCUPAS

What species was reported for the first time in Montana in 2016?

BT1YIPRRIO

This class of Montana noxious weeds has limited presence in the state and management priorities include eradication where feasible

RCANSBAAUITSOEAE

This was a new knapweed for Cascade County in 2016

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:

http://www.msuinvasiveplants.org/monthly_weed_post.html

