

## Schutter Diagnostic Lab: 2018 Plant Identification Activities

**Introduction:** The Schutter Diagnostic Laboratory (SDL) at Montana State University (MSU) is a service provided through MSU Extension. The SDL safeguards Montana agriculture, landscapes and public spaces from plant pests by offering identification services, management advice, and education (Fig. 1). The mission of the SDL also includes early detection of new and invasive pests that may pose a risk to Montana and to the U.S. We receive samples from MSU Extension agents, weed district coordinators, homeowners, farmers, ranchers, consultants, and others interested in plant issues. In 2018, the SDL conducted 3,223 plant, plant disease, insect, mushroom, and abiotic diagnoses in 52 Montana counties and three additional states.

**Plant Identification Activities:** In 2018, the SDL processed 345 physical specimens for plant identification, and about 300 electronic samples (i.e. photos in emails, texts, and through our sample submission app). Clients submitted plants with a variety of questions including whether a plant might be noxious or invasive, toxic, or what its forage value may be. Fifty percent of these samples were exotic plants. The most commonly submitted exotic species were roving bellflower (*Campanula rapunculoides*, 8), cutleaf vipergrass (*Scorzonera laciniata*, 6), and ventenata (*Ventenata dubia*, 5). Thirty two percent of physical samples were native plants. The most common native species were Douglas’s knotweed (*Polygonum douglasii*, 4) and western aster (*Symphotrichum ascendens*, 4).



Figure 1. When we aren't working in the lab, we also help with workshops like this one held in Missoula. (photo credit Sarah Eilers)



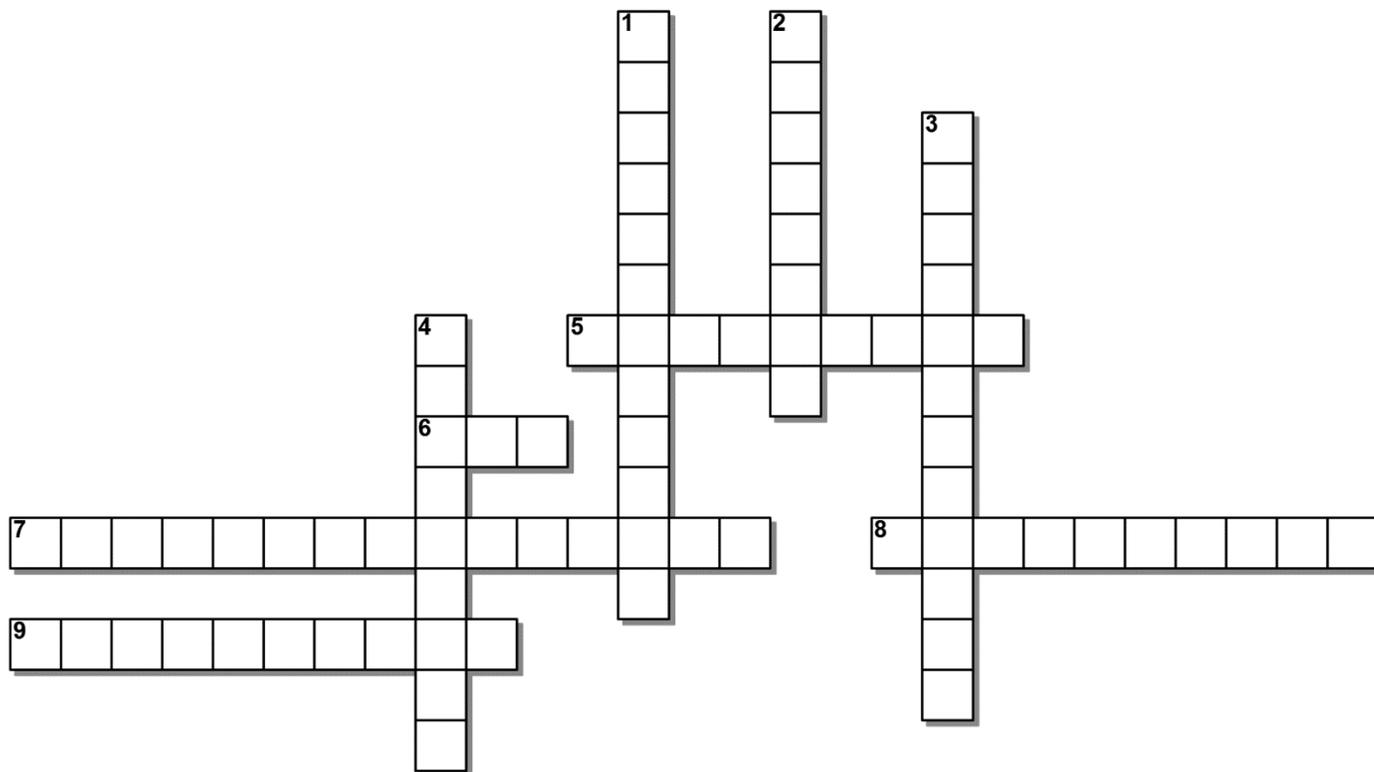
Figure 2. Ventenata, an exotic invasive grass, was one of the most common submissions to the SDL in 2018. (photo credit Stacy Davis).

Our services provide an essential resource for first detectors of high priority pests. For example, we identified several samples of the emerging invasive annual grass ventenata in 2018 (Fig. 2), including a first report for one Montana county. We also provided trainings and workshops that included information about identification of this pest.

**Other Notable Samples:** Accurate plant identification is critical in assessing plant toxicity, and we assisted clients with poisonous plant issues in 2018. For example, this year we processed several samples of berries that clients had used to make jam without first knowing the identity of the berries. In some cases the berries used were toxic, and we advised clients not to consume the jam.

**Get in Touch with the SDL:** 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. You can find more information online at [www.diagnostics.montana.edu](http://www.diagnostics.montana.edu). We recently launched a smartphone app called the “Plant Sample Submission App” for an additional way to receive samples. Instructions on how to download and use the APP can be found at [http://www.diagnostics.montana.edu/sample\\_submission\\_app.html](http://www.diagnostics.montana.edu/sample_submission_app.html). You can also connect with us on Facebook at <https://www.facebook.com/SchutterDiagnosticLab/>

**Weed Post Puzzle: Test your knowledge of Schutter Diagnostic Lab 2018 Activities**



**Across:**

- 5 Exotic, invasive grass popular at SDL in 2018
- 6 New tool for submitting samples to SDL
- 7 Common native species submitted to SDL in 2018 (2 words)
- 8 Mostly commonly submitted exotic species in 2018
- 9 Customer of SDL

**Down:**

- 1 Be careful what you spread on your toast in case it was made with these (2 words)
- 2 The S in SDL
- 3 Just one of the other diagnostic services, besides plant identification, offered by SDL (2 words)
- 4 It's not only about diagnoses at SDL, but also offerings of these

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

[http://msuextension.org/invasiveplants/monthly\\_weed\\_post.html](http://msuextension.org/invasiveplants/monthly_weed_post.html)

