

2011 Plant Identification Summary

Diagnostic Staff:

Hilary Parkinson-Current Plant Identification Diagnostician and Research Associate

Melissa Medley-Former Plant Identification Diagnostician-served until late August, 2011

Extension Specialists:

Dr. Fabian Menalled-Small grain crops; Dr. Jane Mangold-Rangeland

In 2011, 440 samples were submitted to the Schutter Diagnostic Lab for plant identification. This is an 8% decrease compared to the 482 plants submitted in 2010. Eleven samples were from Idaho, two from New Mexico and the remainder from Montana. Sample submissions were highest in July-September, peaking in August with 101 plants total (

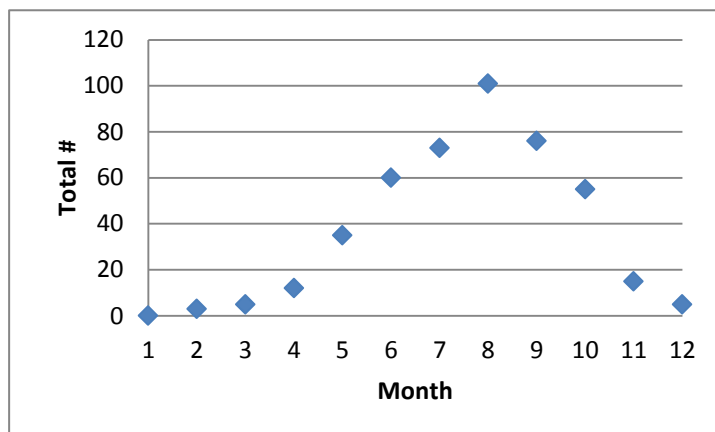


Figure 1). Of the 440 plant specimens submitted for identification, 122 were new or had never been submitted to Schutter Diagnostic Lab before.

Figure 1. Plants submitted per month for identification in 2011.

Forty-five Montana counties submitted samples for plant identification. The highest submissions were

Gallatin	97	Jefferson	8	Garfield	4	Powder River	1
Flathead	44	Madison	8	McCone	4	Prairie	1
Lewis And Clark	26	Valley	8	Yellowstone	4	Wheatland	1
Wibaux	21	Daniels	7	Carbon	3	Big Horn	0
Park	18	Lake	7	Hill	3	Carter	0
Sweet Grass	14	Chouteau	6	Liberty	3	Deer Lodge	0
Stillwater	13	Missoula	6	Phillips	3	Golden Valley	0
Glacier	12	Teton	6	Rosebud	3	Granite	0
Pondera	11	Cascade	5	Sanders	3	Judith Basin	0
Beaverhead	10	Meagher	5	Toole	3	Mineral	0
Lincoln	10	Silver Bow	5	Fallon	2	Petroleum	0
Powell	10	Blaine	4	Musselshell	2	Richland	0
Fergus	9	Custer	4	Roosevelt	2	Sheridan	0
Ravalli	9	Dawson	4	Broadwater	1	Treasure	0

from Gallatin, Flathead, Lewis and Clark, Wibaux, and Park Counties (

). Eleven counties did not submit a sample in 2011.

Table 1. Plant identification samples submitted per county in 2011.

Gallatin	97	Jefferson	8	Garfield	4	Powder River	1
Flathead	44	Madison	8	Mccone	4	Prairie	1
Lewis And Clark	26	Valley	8	Yellowstone	4	Wheatland	1
Wibaux	21	Daniels	7	Carbon	3	Big Horn	0
Park	18	Lake	7	Hill	3	Carter	0
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In addition to the plant identification submissions, 45 samples were examined for herbicide injury. Nineteen different counties submitted samples, with the most samples from Gallatin (7), Lewis and Clark (5) and Ravalli (5). Of the 45 total, 25 were injury symptoms consistent with damage from plant growth regulator herbicides.

Thirteen species on the Montana Noxious Weed List were submitted in 2011 (Table 2). Six samples were new county records: curlyleaf pondweed in Choteau County, perennial pepperweed in Valley County, yellowflag iris in Madison County, common tansy in Sweetgrass County, houndstongue in Daniels County, and saltcedar in Flathead County (planted as an ornamental and since removed). The last species in Table 2, white bryony, is not state-listed in Montana, but is of concern based on its toxicity to humans and resemblance to edible grapes. Prior to submitting the sample for identification, homeowners had planned to make jelly from it, which may have been fatal. Since 2005, it is has been reported 11 times from three counties: Gallatin (8), Park (2), Sweetgrass (1).

Table 2. Noxious weed-list species submitted in 2011. Highlights indicate a first record for the county.

	Plant	County (total)	Status
1	Bohemian knotweed	Flathead (1)	Priority 1B
2	Japanese knotweed	Gallatin (2)	Priority 1B
3	Curly Leaf pondweed	Choteau (1)	Priority 1B
4	Hoary alyssum	Gallatin (1)	Priority 2A
5	Perennial pepperweed	Valley (1)	Priority 2A
6	Tall buttercup	Gallatin (1)	Priority 2A
7	Tansy ragwort	Flathead (1)	Priority 2A
8	Yellowflag iris	Madison (1)	Priority 2A
9	Canada thistle	Gallatin (2)	Priority 2B
10	Common Tansy	Sweetgrass (1)	Priority 2B
11	Houndstongue	Daniels (1) Park (1)	Priority 2B
12	Oxeye daisy	Gallatin (1)	Priority 2B
13	Saltcedar	Flathead (1)	Priority 2B
14	Cheatgrass*	Sanders (1)	Priority 3
15	White bryony**	Park (1)	Not listed in MT**
*Regulated to prevent intentional spread or sale, not state-listed			
**Listed in Idaho, and included here due to toxicity to humans			

Table 3. Aquatic plant samples from 2005-2011.

Aquatic sample submission increased more than four-fold in 2011 compared to previous years (Table 3). We attribute this to an increasing awareness of aquatic invasive plants as well as state-wide efforts to monitor water bodies for aquatic species. Of the state-listed invasive aquatic species, curlyleaf pondweed (*Potamogeton crispus*) and Eurasian watermilfoil (*Myriophyllum spicatum*), only one sample was confirmed as curlyleaf pondweed. Eleven submissions were native species that resembled curlyleaf pondweed such as coontail (*Elodea canadensis*), and 9 were native species that resembled Eurasian watermilfoil such as shortspike watermilfoil (*Myriophyllum sibiricum*).

Year	Aquatic Samples
2005	2
2006	2
2007	13
2008	8
2009	11
2010	17
2011	80

Table 4. Plant submissions by source.

Sample Source	Total
Extension commercial	53
Extension non-commercial	191
Non-extension commercial	54
Non-extension non-commercial	142

Among the four types of submission sources (Table 4), the most common type was extension non-commercial, which accounted for 43% of all samples. Whether commercial or non-commercial, the majority of samples submitted to the lab were sent by extension agents (55%). Commercial samples, whether from extension or non-extension, accounted for 25% of the total.

Client type was not filled out consistently in the database with twenty three percent of client types being left blank. Of those for which data was available, 19% were submitted by homeowners/gardeners, 15% by agents/educators, 13% by growers/farmers and 10% by individuals. Efforts will be made to fill this out consistently in 2012.