

Schutter Diagnostic Lab 2007 Insect Summary

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In 2007, 478 total samples were submitted to Schutter Diagnostic Lab for insect diagnosis with 472 client responses. Of the samples submitted 49% came from homeowners/ home gardeners 8% were from County Extension Agents and educators and 3% were from growers and farmers. Sample submission was highest during June, July and August as it has been in 2005 and 2006. (Figure 1) Number of samples decreased 15% from 2006 to 2007 with 74 less samples but was up from 10% compared to 2005. (Figure 2)

Figure 1. Number of insect diagnostic samples received by the Schutter Diagnostic Lab in 2007 by month.

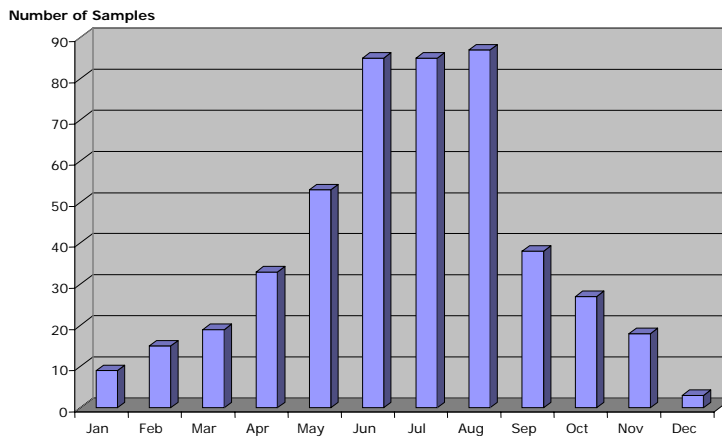
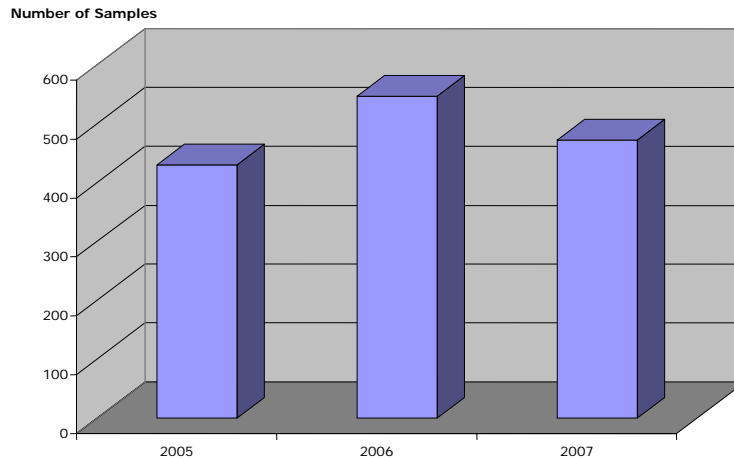


Figure 2. Number of insect diagnostic samples received by the Schutter Diagnostic Lab in 2005, 2006 and 2007.



Most samples (74.79%) that were submitted were for insect identification and 8.90 were for spider identification. 11.65 % of samples submitted needed disease identification.

- Sample source from extension noncommercial 270 (57.20%)
- Sample source from Non-extension noncommercial 107 (22.67%) (?)

Diagnosis Method

For diagnostic samples, 344 samples were submitted with a physical sample and 128 were submitted with an image only.

PDIS Submittal Method

At this time it is estimated that considerable savings in time and are realized by County offices (if training and imaging equipment already exists) submitting digital images instead of physical specimens. Future results of training surveys and submittal reports comparing more accurately the advantages of either method are planned. Thirty-two county agencies submitted samples using digital images at least one time and 11 county agencies only submitted physical samples for diagnosis. The types of pests diagnosed varied widely for both submittal methods indicating that either method should not inhibit diagnosis.

Insects Submitted

See appendix A

Other Activities

Will Lanier, Insect Diagnostician also fills the role of MSU GPDN Technical Support. In addition to development, reporting and support for NPND and GPDN surveys ([NPND Diagnostician Survey 08](#), [MSU Survey of PDIS Users 2007](#), [MSU Diagnostic Survey for 2005](#), [AgAlert User Survey – 2005](#)) the technical support duties include assisting the Adobe Connect Workshop sessions and participating in the almost monthly Web based PDIS Change Management committee meetings. The PDIS Change Management committee is made up of PDIS users from each region of the NPND. Will also attends annual NPND regional and national training opportunities.

To facilitate specimen submittals from MSU Extension county offices and other submitters Will has developed a PDIS User/First Detector conference call training exercise and supporting training videos offering insight into the technical structure and practical operation of PDIS. During this training Users who are mostly County agents are directed via a conference call to submit a specimen in their office environment. This allows browser tuning and note taking to reflect the real situation and not a lab situation. Most often office support staff participates and offer a “two heads are better than one” training situation.

The Schutter Diagnostic lab continues to be a leader in the GPDN in Training and Education, and the development of educational workshops. Will Lanier co-chairs the National Teaching and Education committee for the NPND (Amanda Hodges, UoF, co-chairs) and is also a member of the NPND Entomology committee. Activities have included the development of new training workshops and providing input and beta-testing for new online materials for training first detectors of plant pest outbreaks.

The MSU GPDN technical position and the KSU GPDN programming group developed an online Agricultural news and information service, AgAlerts. MSU was the first to deploy AgAlerts as a service providing Agencies, Producers, Certified Crop Advisors, County Agents, and Agribusiness's with up to date pest information. Included are responses to individual questions, contributions and observations from Specialists, Agents and consultants from around the state. Timely, pertinent information from regional sources is often included.

Subscribers, by managing their profile at www.gpdn.org can choose what geographic areas they receive information about. Then, by noting the one sentence summary they receive in a short email, the user can decide to read the AgAlert immediately, at a later date or not at all. AgAlerts are archived, citable and searchable to ease future reference.

Unsubscribed persons can view AgAlerts at www.GPDN.org, but do not receive the email summaries. In summary AgAlerts are designed to provide a tool for subscribers and authors to manage a stream of timely information providing tips on when and what to be looking for with cropland management practices.

2004 – 45 AgAlerts submitted by 4 authors, @ 120 users.

2005 – 41 AgAlerts submitted by 5 authors, @ 170 users.

2006 – 47 AgAlerts submitted by 5 authors, @ 200 users. The Montana Department of Ag begins to use AgAlerts to disseminate Pesticide registration and related information.

2007 – 39 AgAlerts by 6 authors, @ 290 users. AgAlert Fax initiated.

Additional Insect Extension Activities

Appendix 1 Number of insect diagnostic samples and diagnosis/ID by host habitat for 2007

	Confirmed	Not Detected	Suspected	Inconclusive
Pentatomidae: Brochymena sp. ()	0	0	1	0
nothing ()	1	0	0	0
Alfalfa (Medicago sativa) 1				
Miscellaneous Debris (Identification Analysis)	1	0	0	0
All Crops (general) 3				
Blister Beetles (Family Meloidae)	1	0	0	0
Crane Flies (Family Tipulidae)	0	0	1	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Almond; Flowering (Prunus glandulosa) 1				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
American Cranberry bush (Viburnum trilobum) 1				
Eriophyid Gall Mite (Eriophyes sp./spp.)	1	0	0	0
Apple (Malus spp.) 1				
Pear Sawfly (Caliroa cerasi)	1	0	0	0
Apple (ornamental) () 1				
Scale Insects (Order homoptera)	1	0	0	0
Apricot (Prunus armeniaca) 1				
Curculionid Weevil (Rhyncholus sp./spp.)	0	0	1	0
Ash (Fraxinus sp./spp.) 4				
Brown Soft Scale (Coccus hesperidum)	0	0	1	0
Cottony Ash Psyllid (Psyllopsis discrepans)	1	0	0	0
Forest Tent Caterpillar (Malacosoma disstria)	1	0	0	0
Plant Bugs (Family Miridae)	1	0	0	0
Asparagus (Asparagus officinalis) 1				
Spotted Asparagus Beetle (Crioceris duodecimpunctata)	0	0	1	0
Aspen (forest) (Populus grandidentata and tremuloides) 1				
Cottonwood Leaf Beetle (Chrysomela scripta)	1	0	0	0
Aspen-birch Mixture (Populus-betula spp.) 1				
Aphis Aphids (Aphis sp./spp.)	1	0	0	0

Asters (*Aster* spp. hybrids) 1

Crane Flies (Family Tipulidae)	0	0	1	0
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Barley (*Hordeum* sp.) 2

Cereal Leaf Beetle (Clb) (<i>Oulema melanopus</i>)	1	0	0	0
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Environmental Stress; Problem (Abiotic disorder)	0	0	1	0
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Barley (*Hordeum vulgare*) 2

Butterflies; Moths; Caterpillars (Order lepidoptera)	0	0	1	0
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Haanchen Barley Mealybug (<i>Trionymus haancheni</i>)	1	0	0	0
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Beans; Peas; dolichos (*Dolichos* spp.) 1

Onion Thrips (<i>Thrips tabaci</i>)	0	0	1	0
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Big Sagebrush (*Seriphidium tridentatum*) 1

Brush-footed Butterfly (<i>Limenitis</i> sp./spp.)	1	0	0	0
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Birch (*Betula* sp./spp.) 1

Ladybird Beetles (Family Coccinellidae)	1	0	0	0
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Black Cottonwood; w. balsam p. (*Populus trichocarpa*) 6

Cottonwood Catkin Gall Mite (<i>Eriophyes neoessigi</i>)	1	0	0	0
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Cottonwood Leaf Beetle (<i>Chrysomela scripta</i>)	3	0	0	0
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Poplar Borer (<i>Saperda calcarata</i>)	0	0	1	0
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Poplar Vagabond Aphid (<i>Mordvilkoja vagabunda</i>)	1	0	0	0
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Blue Spruce (*Picea pungens*) 1

Pine Webworm (<i>Tetralopa robustella</i>)	0	0	1	0
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Boxelder (*Acer negundo*) 1

Green Currantworm (<i>Pristiphora rufipes</i>)	0	0	1	0
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Carrot (*Daucus carota sativus*) 1

Strawberry Root Weevil (<i>Otiorhynchus ovatus</i>)	1	0	0	0
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Cherry (*Prunus* spp.) 2

Eriophyid Gall Mite (<i>Eriophyes</i> sp./spp.)	1	0	0	0
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Scale Insects (Order homoptera)	1	0	0	0
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Choke Cherry (*Prunus virginiana*) 7

Chokecherry Gall Midge (<i>Contarinia virginianae</i>)	1	0	0	0
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Contarinia Gall Midge (<i>Contarinia</i> sp./spp.)	1	0	0	0
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European Pear Sawfly (<i>Hoplocampa brevis</i>)	2	0	0	0
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Io Moth (<i>Automeris io</i>)	1	0	0	0
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Lecanium Scales (<i>Lecanium</i> sp./spp.)	1	0	0	0
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Tent Caterpillar (<i>Malacosoma fragilis</i>)	1	0	0	0
Chokeberry (<i>Aronia spp.</i>) 5				
Cecropia Moth (<i>Hyalophora cecropia</i>)	1	0	0	0
Chokecherry Gall Midge (<i>Contarinia virginianae</i>)	1	0	0	0
Lace Bugs (Family Tingidae)	1	0	0	0
Peach Twig Borer (Ptb) (<i>Anarsia lineatella</i>)	0	0	1	0
Tent Caterpillar (<i>Malacosoma fragilis</i>)	1	0	0	0
Columbine (<i>Aquilegia spp.</i>) 1				
Plant Bugs (Family Miridae)	0	0	1	0
Commercial Building (habitat) 2				
Springtails (Order collembola)	1	0	0	0
Western Conifer Seed Bug (<i>Leptoglossus occidentalis</i>)	1	0	0	0
Common Apple (<i>Malus sylvestris</i>) 4				
Anthomyiid Flies (Family Anthomyiidae)	1	0	0	0
Codling Moth (Cm) (<i>Cydia pomonella</i>)	0	0	1	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
San Jose Scale (Sjs) (<i>Quadraspidiotus perniciosus</i>)	1	0	0	0
Common Burdock (<i>Arctium minus</i>) 1				
Vegetable Leafminer (<i>Liriomyza sativae</i>)	1	0	0	0
Corn (<i>Zea mays</i>) 3				
Bumble Flower Beetle (<i>Euphoria indus</i>)	1	0	0	0
Flies (Order diptera)	0	0	1	0
Western Corn Rootworm (<i>Diabrotica virgifera</i>)	0	0	1	0
Cotoneaster (<i>Cotoneaster spp.</i>) 4				
European Pear Sawfly (<i>Hoplocampa brevis</i>)	1	0	0	0
Oystershell Scale (<i>Lepidosaphes ulmi</i>)	2	0	0	0
Scale Insects (Order homoptera)	1	0	0	0
Crabapple (<i>Malus spp.</i>) 1				
Codling Moth (Cm) (<i>Cydia pomonella</i>)	0	0	1	0
Crabapple; Paradise apple (<i>Malus pumila</i>) 2				
Codling Moth (Cm) (<i>Cydia pomonella</i>)	1	0	0	0
European Pear Sawfly (<i>Hoplocampa brevis</i>)	1	0	0	0
Cranberry (<i>Vaccinium spp.</i>) 1				
Eriophyid Mites (Family Eriophyidae)	1	0	0	0

Croton (Croton spp.) 1				
Mealybugs (Family Pseudococcidae)	1	0	0	0
Currant; Gooseberry (Ribes spp.) 1				
Leafhoppers (Family Cicadellidae)	1	0	0	0
Daylily (Hemerocallis spp. hybrids) 1				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Domestic Apple (Malus domestica) 4				
Eriophyid Rust Mite (Eriophyes sp./spp.)	1	0	0	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Powdery Mildew (Acrosporium tingitaninum)	0	0	1	0
Sawflies (Superfamily tenthredinoidea)	1	0	0	0
Eastern Cottonwood (neckl.p) (Populus deltoides) 1				
Unknown (General)	0	0	0	1
Elm (Ulmus spp.) 7				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Cimbicid Sawflies (Family Cimbicidae)	1	0	0	0
Elm Leaf Beetle (Xanthogaleruca (pyrrhalta))	0	0	2	0
Eriosoma Aphids (Eriosoma)	1	0	0	0
European Pear Sawfly (Hoplocampa brevis)	1	0	0	0
Not Pathogen; Saprophyte (Secondary Agents; Saprophytes; Unspecif.)	1	0	0	0
Elm (ornamental) (Ulmus spp. ornamental) 1				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Epimedium (Epimedium spp.) 1				
Grasshoppers (Family Acrididae)	1	0	0	0
Gardenia (Gardenia spp. hybrids) 1				
Skippers (Family Hesperidae)	0	0	1	0
Grain (General category) 3				
Cereal Leaf Beetle (Clb) (Oulema melanopus)	1	0	0	0
Solpugid Scorpion (Therobates cameronensis)	1	0	0	0
Yellow Mealworm (Tenebrio molitor)	1	0	0	0
Green Ash (Fraxinus pennsylvanica lanceolata) 3				
Andrenid Bee (Perdita sp./spp.)	1	0	0	0
Clearwing Borers (Family Sesiidae)	0	0	1	0

Leaf Cutting Bee (<i>Megachile centuncularis</i>)	0	0	1	0
Hackberry (<i>Celtis</i> sp.) 1				
Hackberry Nipplegall Maker (<i>Pachypsylla celtidismamma</i>)	1	0	0	0
Hollyhock (<i>Alcea rosea</i>) 2				
June Beetles (Family Scarabaeidae)	1	0	0	0
Leaf Beetles (Family Chrysomelidae)	0	0	1	0
Home and garden (habitat) 18				
Black Carpet Beetle (<i>Attagenus unicolor</i>)	1	0	0	0
Bombus spp. ()	1	0	0	0
Carpet Beetles (Family Dermestidae)	1	0	0	0
Checkered Beetles (Family Cleridae)	1	0	0	0
Comb-footed Spider (<i>Tidarren</i> sp./spp.)	0	0	1	0
Funnel-Weavers; Funnel-Web Spiders (Family Agelenidae Spiders)	2	0	0	0
Hobo Spider (<i>Tegenaria agrestis</i>)	1	0	0	0
Larder Beetle (<i>Dermestes lardarius</i>)	1	0	0	0
Pillbugs; Sowbugs (Crustacea malacostraca)	1	0	0	0
Sphecid Wasp (<i>Sphex</i> sp./spp.)	1	0	0	0
Spider Mites (Family Tetranychidae)	1	0	0	0
Spiders (Order araneae)	1	0	0	0
Sunspiders; Wind Scorpions (Family Solpugidae;)	1	0	0	0
Sweat Bees (Family Halictidae)	0	0	0	1
Thief Ant (<i>Solenopsis molesta</i>)	0	0	1	0
Webbing Clothes Moth (<i>Tineola bisselliella</i>)	0	0	1	0
Wolf Spiders (Family Lycosidae)	1	0	0	0
Honey Bee and products (<i>Apis mellifera</i>) 1				
Miscellaneous Debris (Identification Analysis)	0	0	0	1
Honeysuckle (<i>Lonicera</i> sp./spp.) 1				
Blister Beetles (Family Meloidae)	1	0	0	0
Hops (<i>Humulus lupulus</i>) 1				
Thistle; Spiney Plumeless (<i>Carduus acanthoides</i>)	0	0	1	0
Household (Domestic dwellings) 185				
Ants (Family Formicidae)	3	0	0	0
Aphidlions (Green Lacewings) (Family Chrysopidae)	1	0	0	0

Assassin Bug (<i>Pselliopus barberi</i>)	1	0	0	0
Assassin Bugs (Family Reduviidae)	2	0	0	0
Baldfaced Hornet (<i>Vespula (dolichovespula)</i>)	1	0	0	0
Bark Beetles; Ambrosia Beetles (Family Scolytidae)	1	0	0	0
Black Carpet Beetle (<i>Attagenus unicolor</i>)	1	0	0	0
Black Widow Spider (<i>Latrodectus hesperus</i>)	1	0	0	0
Boxelder Bug (<i>Leptocoris trivittata</i>)	3	0	1	0
Buprestid Bark Beetles (Family Buprestidae)	1	0	0	0
Calliphorid Blow Fly (<i>Phaenicia sp./spp.</i>)	1	0	0	0
Carpenter Ant (<i>Camponotus sp./spp.</i>)	0	0	1	0
Carpet Beetles (Family Dermestidae)	6	0	1	0
Carrion Beetles (Family Silphidae)	1	0	0	0
Centipedes (several genera sp./spp.)	1	0	0	0
Checkered Beetles (Family Cleridae)	1	0	0	0
Cimex Bedbugs (Family Cimicidae)	3	0	1	0
Clover Mite (<i>Bryobia praetiosa</i>)	5	0	0	0
Comb-footed; Tangle Web Spider (Family Therididae)	0	0	2	0
Crab Spiders (Family Thomisidae)	1	0	0	0
Daddy-long-legs (<i>Protolophus niger</i>)	1	0	0	0
Dark Mealworm (<i>Tenebrio obscurus</i>)	0	0	1	0
Dermestid Beetles (Family Dermestidae)	0	0	1	0
Duff Millipede (<i>Polynexus lagurus</i>)	0	0	1	0
Earwigs (Order dermaptera)	1	0	0	0
Elm Leaf Beetle (<i>Xanthogaleruca (pyrrhalta)</i>)	1	0	0	0
Field Ant (<i>Formica neoclara</i>)	0	0	2	0
Flies (Order diptera)	2	0	0	0
Formicid Ant (<i>Formica sp./spp.</i>)	1	0	0	0
Fruit Flies (Diptera; drosophilidae)	1	0	0	0
Fungus Gnat (<i>Sciara sp./spp.</i>)	0	0	1	0
Fungus Gnats (Mycetophilidae fam.)	1	0	0	0
Funnel-Weavers; Funnel-Web Spiders (Family Agelenidae Spiders)	9	0	0	0
German Cockroach (<i>Blattella germanica</i>)	3	0	0	0
Giant Water Bug (Heteroptera; belostomatidae)	1	0	0	0

Grass Bug (<i>Arhyssus</i> sp./spp.)	0	0	1	0
Ground Beetles (Family Carabidae)	2	0	0	0
Hobo Spider (<i>Tegenaria agrestis</i>)	14	0	0	0
Hunting Ground Spiders (Family Gnaphosidae)	1	0	0	0
Ichneumons (Wasps) (Family Ichneumonidae)	2	0	0	0
Indianmeal Moth (Imm) (<i>Plodia interpunctella</i>)	1	0	0	0
Larder Beetle (<i>Dermestes lardarius</i>)	3	0	0	0
Leaf Miner (<i>Caloptilia burgessiella</i>)	0	0	0	1
Leaf Cutting Bee (<i>Megachile centuncularis</i>)	1	0	0	0
Masked Hunter (<i>Reduvius personatus</i>)	1	0	0	0
Millipede (<i>Diploiuulus</i>)	1	0	0	0
Millipedes (Arthropoda; diplopoda)	3	0	0	0
Miscellaneous Debris (Identification Analysis)	18	0	4	2
Mud Dauber Wasps (Subfamily Larrinae)	1	0	0	0
Noctuid Moths (Family Noctuidae)	0	0	1	0
Orb Weaver Spider (<i>Argiope</i> sp./spp.)	1	0	0	0
Orb Weaver Spiders (Family Araneidae)	4	0	0	0
Picturewinged Fly (<i>Euxesta</i> sp./spp.)	1	0	0	0
Picturewinged Fly (<i>Pseudotephritis</i> sp./spp.)	1	0	0	0
Plant Bugs (Family Miridae)	1	0	0	0
Predaceous Diving Beetle (Family Dystiscidae)	1	0	0	0
Psocids (Psocidae; psocoptera)	2	0	0	0
Putnam's Cicada (<i>Platypedia putnami</i>)	1	0	0	0
Red Flour Beetle (<i>Tribolium castaneum</i>)	1	0	0	0
Redheaded Ash Borer (<i>Neoclytus acuminatus</i>)	0	0	1	0
Roundheaded Wood Borers (Lhb) (Family Cerambycidae)	1	0	0	0
Spider Beetles (Family Ptinidae)	1	0	1	0
Spiders (Order araneae)	1	0	0	0
Spotted Pine Sawyer (<i>Monochamus maculosus</i>)	1	0	0	0
Springtail (Family Hypogastrura)	2	0	0	0
Springtails (Order collembola)	2	0	0	0
Stink Bugs (Family Pentatomidae)	2	0	0	0
Strawberry Root Weevil (<i>Otiorhynchus ovatus</i>)	2	0	0	0
Sunspiders; Wind Scorpions (Family Solpugidae;)	2	0	0	0

Sweat Bees (Family Halictidae)	2	0	0	0
Tentiform Leafminers (Family Gracillariidae)	0	0	1	0
Twospotted Stink Bug (Perillus bioculatus)	1	0	0	0
Velvet Ants (Family Mutillidae)	1	0	0	0
Vespid Wasps (Family Vespidae)	1	0	0	0
Western Conifer Seed Bug (Leptoglossus occidentalis)	4	0	0	0
Western Subterranean Termite (Reticulitermes hesperus)	2	0	1	0
Wolf Spiders (Family Lycosidae)	15	0	0	0
Wood Boring Beetles (Order coleoptera)	1	0	0	0
Wood Wasps (Family Xiphydriidae)	1	0	0	0
Woollybears (Subfamily Arctiinae (In Part))	1	0	0	0
Yellow Jacket (Vespula arenaria)	1	0	0	0
Human Beings; people (Homo sapiens) 11				
American Dog Tick (Dermacentor variabilis)	0	0	1	0
Assassin Bugs (Family Reduviidae)	1	0	0	0
Cimex Bedbugs (Family Cimicidae)	3	0	0	0
Funnel-Weavers; Funnel-Web Spiders (Family Agelenidae Spiders)	0	0	1	0
Head Louse (Pediculus humanus)	1	0	0	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Rocky Mountain Wood Tick (Dermacentor andersoni)	2	0	0	0
Springtails (Order collembola)	1	0	0	0
Insect Id request (general) 1				
Horsehair and Gordian Worms (Phylum nematomorpha)	1	0	0	0
Juniper (Juniperus spp.) 1				
Western Cedar Bark Beetle (Phloeosinus punctatus)	0	0	1	0
Kochia () 1				
Spotted Blister Beetle (Epicauta maculata)	1	0	0	0
Lentil (Lens culinaris) 1				
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Lettuce (Lactuca sativa) 1				
Blister Beetles (Family Meloidae)	1	0	0	0
Lupine (Lupinus spp.) 1				
Grasshoppers (Family Acrididae)	0	0	1	0

Maple (Acer sp./spp.) 4

Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Eriophyid Gall Mite (Eriophyes sp./spp.)	1	0	0	0
Miscellaneous Debris (Identification Analysis)	0	0	0	1
Roundheaded Wood Borers (Lhb) (Family Cerambycidae)	1	0	0	0

Museum (habitat) 7

Assassin Bugs (Family Reduviidae)	1	0	0	0
Dermestid Beetle (Anthrenus sp./spp.)	1	0	0	0
Field Ant (Formica neoclara)	0	0	1	0
Leafblotch Miner (Phyllonorycter fragilella)	0	0	1	0
Lepidopteran Leafminer (Phyllocnistis sp./spp.)	0	0	2	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0

Oak (Quercus spp.) 1

Oak Gall Wasp (Callirhytis batatoides)	1	0	0	0
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Ornamentals; Forest trees; all (general) 2

Forest Tent Caterpillar (Malacosoma disstria)	1	0	0	0
Spider Mite (Tetranychus sp./spp.)	1	0	0	0

Paper Birch (Betula papyrifera) 1

Leafblotch Miner (Phyllonorycter fragilella)	1	0	0	0
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Parsnip (Pastinaca sativa) 1

Carrot Rust Fly (Psila rosae)	1	0	0	0
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Pea Glycine (Glycine tabacina) 2

Palestriped Flea Beetle (Systema blanda)	0	0	1	0
Spider Mites (Family Tetranychidae)	0	0	1	0

Pea Shrub (pea tree) (Caragana spp.) 1

Blister Beetles (Family Meloidae)	1	0	0	0
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Pear (ornamental) (Pyrus spp.) 1

Blister Mites (Family Eriophyidae)	1	0	0	0
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Pine (Pinus spp.) 5

Birds (Vertebrata; avians)	1	0	0	0
Leafcutting Bees (Family Megachilidae)	0	0	1	0
Pine Needle Scale (Chionaspis pinifoliae)	1	0	0	0
Pitch Mass Borer (Synanthedon pini)	0	0	1	0
Roundheaded Wood Borers (Lhb) (Family Cerambycidae)	0	0	1	0

Plum (Prunus spp.) 1

Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
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Ponderosa Pine (Pinus ponderosa) 4

Bark Beetles; Ambrosia Beetles (Family Scolytidae)	1	0	0	0
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Pine Engraver (Ips pini)	1	0	0	0
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Pine Needle Scale (Chionaspis pinifoliae)	1	0	0	0
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Ponderosa Pine Bark Borer (Canonura princeps)	1	0	0	0
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Ponds; Lakes; impounded waters (habitat) 1

Rat-tailed Maggot (Eristalinus aeneus)	1	0	0	0
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Poplar (Populus sp./spp.) 7

Environmental Stress; Problem (Abiotic disorder)	1	0	0	0
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Flies (Order diptera)	1	0	0	0
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Miscellaneous Debris (Identification Analysis)	1	0	0	0
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Poplar Borer (Saperda calcarata)	1	0	0	0
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Poplar Vagabond Aphid (Mordvilkoja vagabunda)	1	0	0	0
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Tent Caterpillar (Malacosoma fragilis)	0	0	1	0
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Woodpeckers (Family Picidae)	1	0	0	0
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Poplar (hybrids) (Populus spp. hybrids) 1

Environmental Stress; Problem (Abiotic disorder)	0	0	1	0
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Potato (Solanum tuberosum) 4

Flea Beetles (Subfamily Alticinae)	1	0	0	0
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Herbicide Carryover (Abiotic disorder)	1	0	0	0
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Thrips (Thrips sp./spp.)	1	0	0	0
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Unknown Abiotic Disorder (Abiotic disorder)	0	0	1	0
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Potatotree (Solanum erianthum) 1

Environmental Stress; Problem (Abiotic disorder)	1	0	0	0
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Rangeland (Mixed species) 10

Bumblebee (Bombus mixtus)	1	0	0	0
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Carrion Beetles (Family Silphidae)	1	0	0	0
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Leafhoppers (Family Cicadellidae)	1	0	0	0
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Mormon Cricket (Anabrus simplex)	1	0	0	0
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Polyphemus Moth (Antheraea polyphemus)	1	0	1	0
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Springtail (Family Hypogastrura)	1	0	0	0
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Springtails (Order collembola)	1	0	0	0
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Sunspiders; Wind Scorpions (Family Solpugidae;)	1	0	0	0
Swallowtail Butterfly (Papilio sp./spp.)	0	0	1	0
Rape; Canola (Brassica napus var. napus) 1				
Blister Beetles (Family Meloidae)	1	0	0	0
Raspberry (Rubus sp.) 5				
Jumping Spiders (Family Salticidae)	1	0	0	0
Picnic Beetle (Carpophilus and)	1	0	0	0
Raspberry Crown Borer (Pennisetia marginata)	2	0	1	0
Rhubarb (Rheum rhabarbarum) 1				
Rhubarb Curculio (Lixus concavus)	0	0	1	0
Rocky Mountain juniper (Juniperus scopulorum) 1				
June Beetles (Family Scarabaeidae)	1	0	0	0
Rose (Rosa spp.) 11				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Brown Soft Scale (Coccus hesperidum)	1	0	0	0
Chalcidid Wasp (Spilochalcis sp./spp.)	1	0	0	0
Cynipid Gall Wasps (Acraspis sp./spp.)	1	0	0	0
Cynipid Wasp (Sphaeroteris sp./spp.)	1	0	0	0
Diplolepis spp. ()	0	0	1	0
Gall Wasps (Family Cynipidae)	2	0	0	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Mossyrose Gall Wasp (Diplolepis rosae)	1	0	0	0
Thrips (Thrips sp./spp.)	0	0	1	0
Sagebrush Cholla (Opuntia pulchella) 1				
Negro Bug (Thyreocoris sp./spp.)	1	0	0	0
Spider Id request (general) 1				
Harvestmen; Daddylonglegs (Arachnida; phalangiidae)	1	0	0	0
Spruce (Picea spp.) 6				
Spruce Bud Worm (Zeiraphera canadensis)	1	0	0	0
Spruce Budworm (Choristoneura fumiferana)	1	0	1	0
Spruce Spider Mite (Oligonychus ununguis)	0	0	1	0
White Pine Sitka Spruce Weevil (Pissodes strobi)	0	0	1	0
Winter Injury (Abiotic disorder)	0	0	1	0
Stock Tank; stock water supply (general) 1				

Rattailed Maggots; Flower Flies (<i>Eristalis</i> sp./spp.)	1	0	0	0
Strawberry (<i>Fragaria</i> spp.) 1				
Flea Beetles (Subfamily Alticinae)	1	0	0	0
Structural Wood (habitat) 1				
Wharf Borer (<i>Nacertes melanura</i>)	1	0	0	0
Sunflower (<i>Helianthus</i> sp.) 1				
Sunflower Headclipper Weevil (<i>Haplorhynchites aenus</i>)	0	0	1	0
Swiss Chard (<i>Beta vulgaris</i> var. <i>cicla</i>) 1				
Blister Beetles (Family Meloidae)	0	0	1	0
Toadflax Dalmatian (<i>Linaria dalmatica</i>) 1				
Noctuid Moths (Family Noctuidae)	0	0	0	1
Tomato (<i>Lycopersicon esculentum</i>) 3				
Cutworms (Family Noctuidae)	0	0	1	0
Flea Beetles (Subfamily Alticinae)	0	0	0	1
Gray Garden Slug (<i>Agriolimax reticulatus</i>)	0	0	1	0
Turfgrass (Turfgrass mixed species) 12				
June Beetles (Family Scarabaeidae)	2	0	0	0
Mourningcloak Butterfly (<i>Nymphalis antiopa</i>)	1	0	0	0
Oil Beetles (Meloe)	1	0	0	0
Sod Webworm (<i>Crambus topiaria</i>)	1	0	0	0
Spider Mites (Family Tetranychidae)	1	0	0	0
Tenlined June Beetle (<i>Polyphylla decemlineata</i>)	1	0	0	0
White Grub; A (June Beetle) (<i>Phyllophaga cincta</i>)	1	0	1	0
White Grubs (Scarab Beetles) (Family Scarabaeidae)	1	1	1	0
Turnip (<i>Brassica rapa</i>) 1				
Flea Beetles (Subfamily Alticinae)	1	0	0	0
Viburnum (<i>Viburnum</i> spp.) 2				
Cottonwood Leaf Beetle (<i>Chrysomela scripta</i>)	0	0	1	0
Eriophyid Gall Mite (<i>Phytoptus</i> sp./spp.)	0	0	1	0
Virginia Creeper (<i>Parthenocissus quinquefolia</i>) 2				
Leafhopper (<i>Erythroneura</i> sp./spp.)	0	0	1	0
Virginia Creeper Leafhopper (<i>Erythroneura ziczac</i>)	0	0	1	0
Water and soil media sample (Water and soil sample) 2				
Horsehair and Gordian Worms (Phylum nematomorpha)	1	0	0	0

Rat-tailed Maggot (<i>Eristalinus aeneus</i>)	1	0	0	0
Wheat (<i>Triticum spp.</i>) 1				
Wheat Stem Maggot (<i>Meromyza americana</i>)	1	0	0	0
Willow (<i>Salix magnifica</i>) 1				
Spider Mite (<i>Tetranychus sp./spp.</i>)	0	0	1	0
Willow (<i>Salix spp.</i>) 10				
Blister Beetles (Family Meloidae)	1	0	0	0
Flea Beetles (Subfamily Alticinae)	1	0	0	0
Miscellaneous Debris (Identification Analysis)	1	0	0	0
Oystershell Scale (<i>Lepidosaphes ulmi</i>)	1	0	0	0
Plant Bugs (Family Miridae)	0	0	1	0
Willow Flea Beetle (<i>Rhynchaenus rufipes</i>)	1	0	0	0
Willow Leaf Beetle (<i>Calligrapha multipunctata</i>)	2	0	0	0
Willow Redgall Sawfly (<i>Pontania promixa</i>)	2	0	0	0
Winter Wheat (<i>Triticum aestivum</i>) 2				
Black Grass Bug (<i>Labops hesperius</i>)	1	0	0	0
Flies (Order diptera)	1	0	0	0

