

# Plant Diagnostics Practice

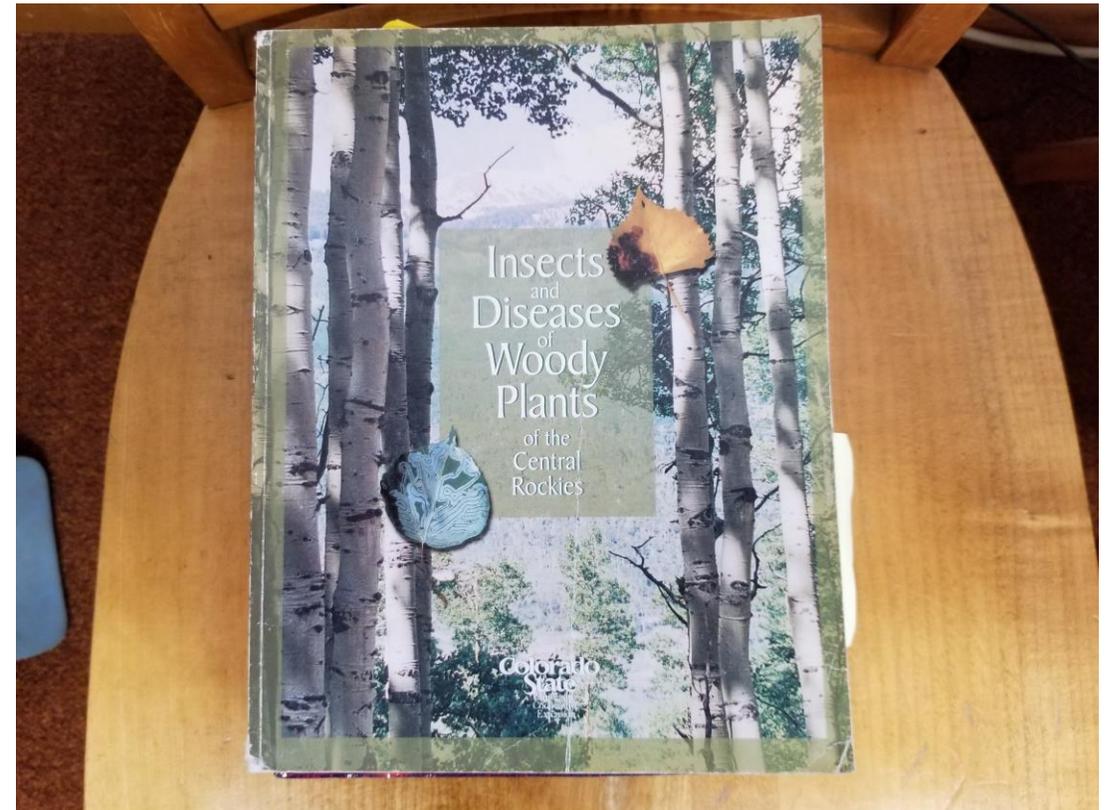
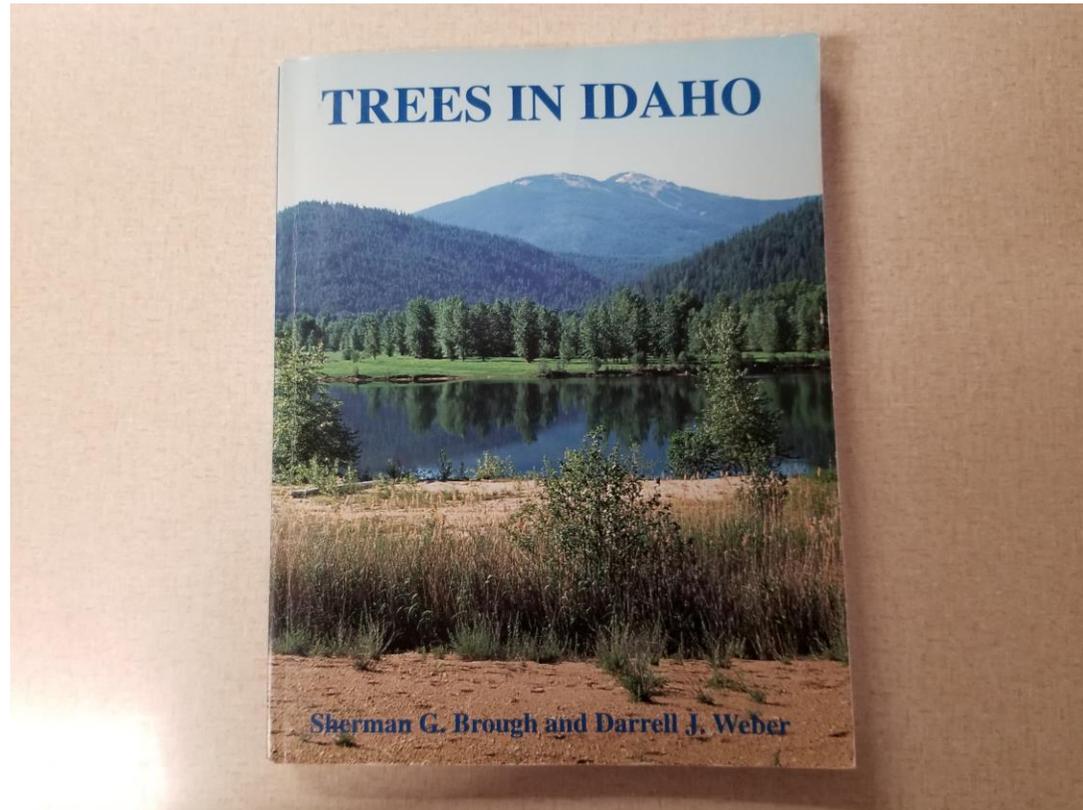
Mary Busch, Nez Perce County Horticultural Associate

April 21, 2020

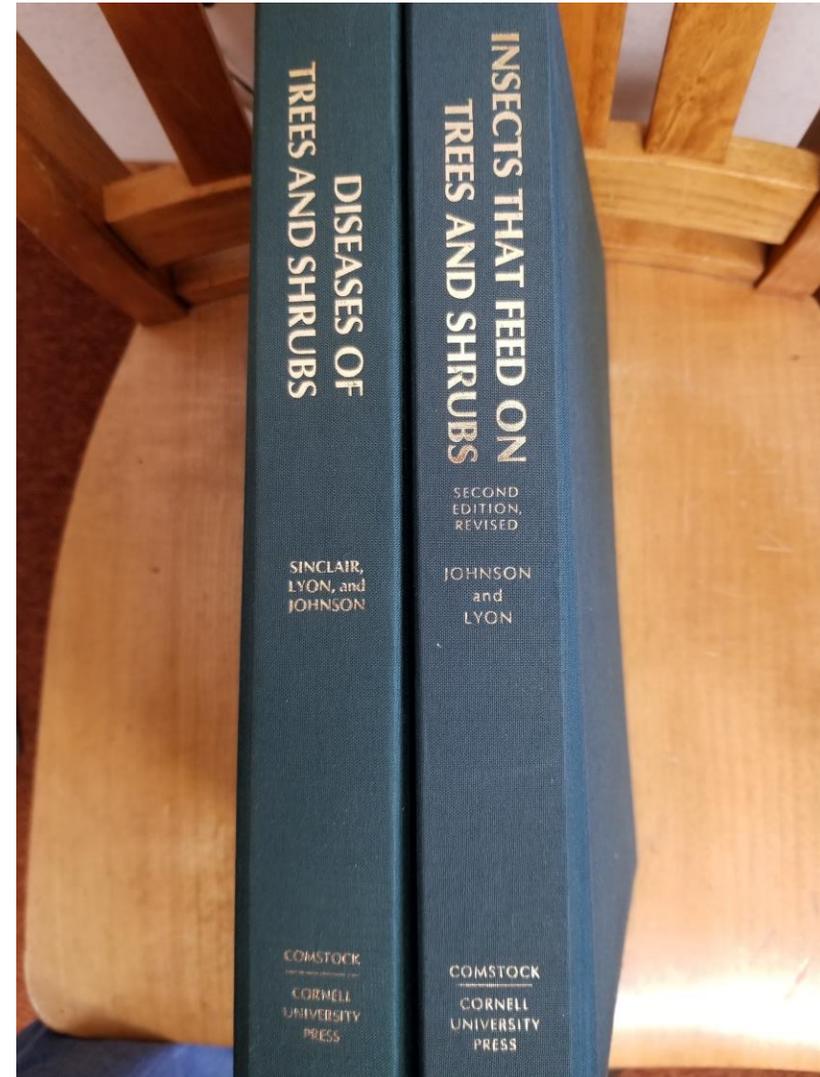
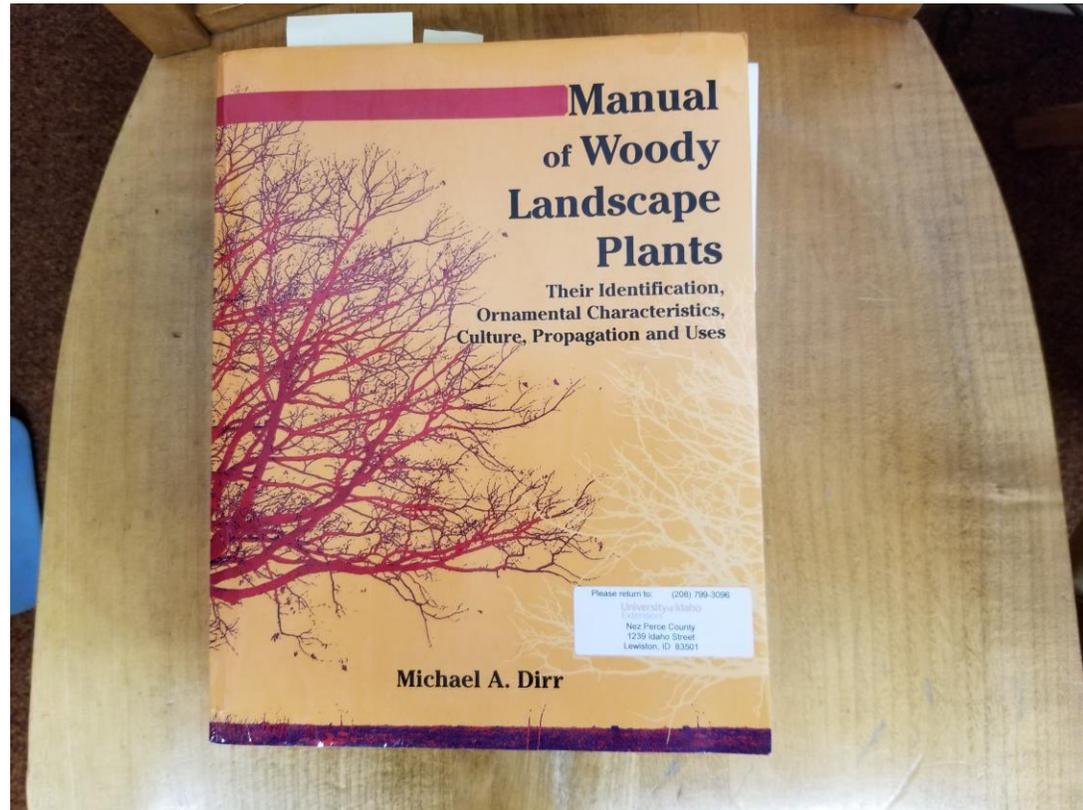
## **Resources Used by Nez Perce County Plant Diagnostic Clinic**

- Idaho Landscapes & Gardens
- WSU Hortsense
- Online PNW Extension publications
- PNW Insect, Weed and Plant Disease Management Handbooks
- The Ortho Problem Solver
- Weeds of the West
- Sustainable Gardening, The Oregon, Washington MG Handbook
- Insects & Diseases of Woody Plants
- Trees of Idaho
- Manual of Woody Landscape Plants
- Diseases of Trees & Shrubs
- Insects that Feed on Trees & Shrubs

# Resource Books



# Resource Books



At least three clear images needed to diagnose:

- \*Tree overall in the landscape
- \*The problem on the tree
- \*Close up (one or more)



# Rocky Mtn. Juniper



# Rocky Mtn. Juniper





University of Idaho  
Extension

Information for Diagnosing Tree Problems in Idaho

County: Nez Perce County Extension Educator: Kathie Tiff+ Date: 4/1/2020

Owner: John Longshot Phone: 208-799-3076

Address: 17188 Nez Perce Rd, Lewiston Email: yougotit@gmail.com

Plant name/variety: Rocky Mtn. Juniper Plant height: 15'-20' Age: 18 yrs

Plant location:  street  windbreak/screen  yard  woodland/forest  park  other

Type of water:  city  well  LOID

Type of irrigation:  surface  sprinkler  none Irrigation schedule: wet soil 6"-8" deep as needed through growing season

Type of soil:  sand  loam  clay soil pH \_\_\_\_\_

Soil drainage:  excellent  average  poor depth to hardpan: not sure

Chemicals applied, trade name, date, amount:

Fertilizers: crabgrass control + fert. 3/25/20 Insecticides: NA

Fungicides: NA Herbicides: \_\_\_\_\_

How much of the plant is affected? 1 % Date symptoms first observed: 3/25/20

Side of plant affected: (N S E W) E side very little

Description of symptom development and other relevant information. Be as complete as possible. Use back if necessary. round galls on branches and small stems - dark brown tongue-shaped goos emerge from openings in galls in the spring

Do other plants in the area seem to be affected with similar symptoms? If yes, what kind:

No

Have there been problems at this site before? If yes, what? noticed a few of these galls a couple yrs ago and trimmed them out

Have you noticed any unusual weather in the past year? mild winter - lack of moisture

Was the problem site altered in any way (paving, construction, excavation, soil added, etc.) in the past 5 years?

How? NA

Sample provided? yes Photos provided? No

**Instruction for Collecting and Preparing Tree Samples for the  
University of Idaho Extension Plant Clinic**

1. Please fill out and include *Information for Diagnosing Tree Problems in Idaho* form as completely as possible and include with your sample. If a plant is worth inquiring about, it is worth the time to provide pertinent information to assist in the diagnosis.
2. Collect the plant material that is showing the symptoms. If possible, collect several samples which show the progression of symptoms from mild to severe.
3. For seedlings, collect the entire plant, including the root system if possible. Wrap in dry paper towels and place in an unsealed plastic bag. Wrap fruit in newspaper and place in a box.
4. For larger trees, send a 6" to 8" branch cutting, including leaves, flowers, and/or fruit where appropriate. These samples may be placed in a plastic bag which is folded over loosely, but NOT sealed tightly. **DO NOT add moist paper towels** as samples will begin to mold and decompose in transit.
5. Bring samples to UI/Nez Perce County Extension office to be diagnosed and/ or forwarded to University of Idaho for further examination.
6. **Concerning our diagnosis:** Findings reported by this office are based on examination of information and plant material submitted. Not all tree problems are caused by plant pathogens or insect attacks. Other causes (unusual weather patterns, nutrient deficiencies, pesticides) are often difficult to diagnose without an on-site investigation. Some diagnoses require intensive microscopic or biochemical analysis which we do not have the facilities to accomplish.

Juniper (*Juniperus* spp.)-Rust

Crabapple (*Malus* spp.)-Rust

# Images for diagnosing

Not showing overall in the landscape



Too far away







# University of Idaho Plant/Weed Identification Request Form

<http://www.uidaho.edu/weeds>

**Erickson Weed Diagnostic Laboratory**  
 PSES Dept., University of Idaho  
 Moscow, Idaho 83844-2339

Date: *4/13/2020*  
 Phone: 208-885-7831  
 Fax: 208-885-7760

Submitter's Name: <i>Mary Busch</i>		Client's Name: <i>Liz Warren</i>	
Business: <i>UI/Nez Perce County Extension</i>		Business: _____	
Address: <i>1239 Idaho Street</i>		Address: <i>1235 Idaho St.</i>	
City/State/Zip: <i>Lewiston, ID 83501</i>		City/State/Zip: <i>Lewiston, ID 83501</i>	
County: <i>Nez Perce</i>	Phone: <i>208-799-3096</i>	County: <i>Nez Perce</i>	Phone: <i>208-791-0021</i>
Fax: <i>208-799-3054</i>	E-Mail: <i>nezperce@uidaho.edu</i>	Fax: _____	E-Mail: _____

*Lwarren98@gmail.com*

**Required data for Plant Identification**

Weed location (GPS or from county map): Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ or  
 Quarter-Section: \_\_\_\_\_ Section: \_\_\_\_\_ Range: \_\_\_\_\_ Township: \_\_\_\_\_

Approximate directions to or description of the location: *at above address*

Web source for Latitude/Longitude data (<http://terraserfer.homeadvisor.msn.com/address.aspx>). Do address search then click on Available Image (topo map) click on INFO button, Lat/Long will appear on map.

**In what situation were the plants found**

<input type="checkbox"/> Turf/Lawn	<input type="checkbox"/> Vegetable garden	<input checked="" type="checkbox"/> Flower bed	<input type="checkbox"/> Orchard
<input type="checkbox"/> Field/Crop	<input type="checkbox"/> Pasture	<input type="checkbox"/> Meadow	<input type="checkbox"/> Forest
<input type="checkbox"/> Riparian	<input type="checkbox"/> Aquatic	<input type="checkbox"/> Roadside	<input type="checkbox"/> Other _____

**Plant Information**

<b>Plant size:</b>	<b>Flowers:</b>	<b>Fruits:</b>	<b>Plant age:</b>	<b>Root system:</b>
Height (inches): <i>2-4"</i>	Color: <i>bright green</i>	Color: _____	<input checked="" type="checkbox"/> Annual	<input type="checkbox"/> Taproot
Width (inches): <i>2-4"</i>	Size (inches): _____	Size (inches): _____	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Fibrous
				<input type="checkbox"/> Rhizomes
Plant type: <input type="checkbox"/> Tree <input type="checkbox"/> Shrub <input type="checkbox"/> Vine <input checked="" type="checkbox"/> Herbaceous <input type="checkbox"/> Evergreen				

Unique features (leaves, odor, thorns, etc.): \_\_\_\_\_

**Additional Plant and Site Information**

<b>How many years at Location:</b>	<b>Area infested:</b>	<b>Ground covered:</b>
<input type="checkbox"/> Less than 1 year	<input checked="" type="checkbox"/> A few plants	<input type="checkbox"/> Less than 1%
<input type="checkbox"/> 1 year	<input type="checkbox"/> Less than 1 acre	<input checked="" type="checkbox"/> 1 to 10%
<input checked="" type="checkbox"/> 2 to 5 years	<input type="checkbox"/> 1 to 10 acres	<input type="checkbox"/> 10 to 50%
<input type="checkbox"/> More than 5 years	<input type="checkbox"/> 10 to 100 acres	<input type="checkbox"/> 50 to 100%

If it is causing concern, describe the reason and the problem: *Early, fast growing, grassy weed, heads out early - Weed!*

Information requested other than identification: *methods of control*

Prescription for control depends on a great many factors; more background information may be needed to prescribe a control measure. Inquire of your county agricultural Extension Educator weed specialist or other licensed consultant if control information is requested.

# Annual Bluegrass

*Poa annua*

Family Poaceae

(Grass family)









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Fax: <i>208-799-3054</i>	E-Mail: <i>nezperce@uidaho.edu</i>	Fax: _____	E-Mail: _____

*LWarren98@gmail.com*

### Required data for Plant Identification

Weed location (GPS or from county map): Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ or  
Quarter-Section: \_\_\_\_\_ Section: \_\_\_\_\_ Range: \_\_\_\_\_ Township: \_\_\_\_\_

Approximate directions to or description of the location: *at above address*

Web source for Latitude/Longitude data (<http://terraservert.homeadvisor.msn.com/address.aspx>). Do address search then click on Available Image (topo map) click on INFO button, Lat/Long will appear on map.

### In what situation were the plants found

<input type="checkbox"/> Turf/Lawn	<input type="checkbox"/> Vegetable garden	<input checked="" type="checkbox"/> Flower bed	<input type="checkbox"/> Orchard
<input type="checkbox"/> Field/Crop	<input type="checkbox"/> Pasture	<input type="checkbox"/> Meadow	<input type="checkbox"/> Forest
<input type="checkbox"/> Riparian	<input type="checkbox"/> Aquatic	<input type="checkbox"/> Roadside	<input type="checkbox"/> Other _____

### Plant Information

Plant size:	Flowers:	Fruits:	Plant age:	Root system:
Height (inches): <i>6"-18"</i>	Color: <i>yellow</i>	Color: <i>white hairs</i>	<input checked="" type="checkbox"/> Annual	<input checked="" type="checkbox"/> Taproot
Width (inches): _____	Size (inches): _____	Size (inches): _____	<input type="checkbox"/> Perennial	<input checked="" type="checkbox"/> Fibrous
				<input type="checkbox"/> Rhizomes
Plant type: <input type="checkbox"/> Tree <input type="checkbox"/> Shrub <input checked="" type="checkbox"/> Vine <input checked="" type="checkbox"/> Herbaceous <input type="checkbox"/> Evergreen				

Unique features (leaves, odor, thorns, etc.): *numerous, yellow disk flowers, but no ray flowers, cylindrical heads are 1/4" to 1/2" long with black-tipped bracts around base*

### Additional Plant and Site Information

How many years at Location:	Area infested:	Ground covered:
<input type="checkbox"/> Less than 1 year	<input checked="" type="checkbox"/> A few plants	<input type="checkbox"/> Less than 1%
<input type="checkbox"/> 1 year	<input type="checkbox"/> Less than 1 acre	<input checked="" type="checkbox"/> 1 to 10%
<input checked="" type="checkbox"/> 2 to 5 years	<input type="checkbox"/> 1 to 10 acres	<input type="checkbox"/> 10 to 50%
<input type="checkbox"/> More than 5 years	<input type="checkbox"/> 10 to 100 acres	<input type="checkbox"/> 50 to 100%

If it is causing concern, describe the reason and the problem: *Very productive weed getting established in the landscape*

Information requested other than identification: *methods of control*

Prescription for control depends on a great many factors; more background information may be needed to prescribe a control measure. Inquire of your county agricultural Extension Educator weed specialist or other licensed consultant if control information is requested.

# Common Groundsel

*Senecio vulgaris*

Family: Asteraceae







<https://vpm.org/news/articles/1665/cicada-killers-vs-european-hornets>

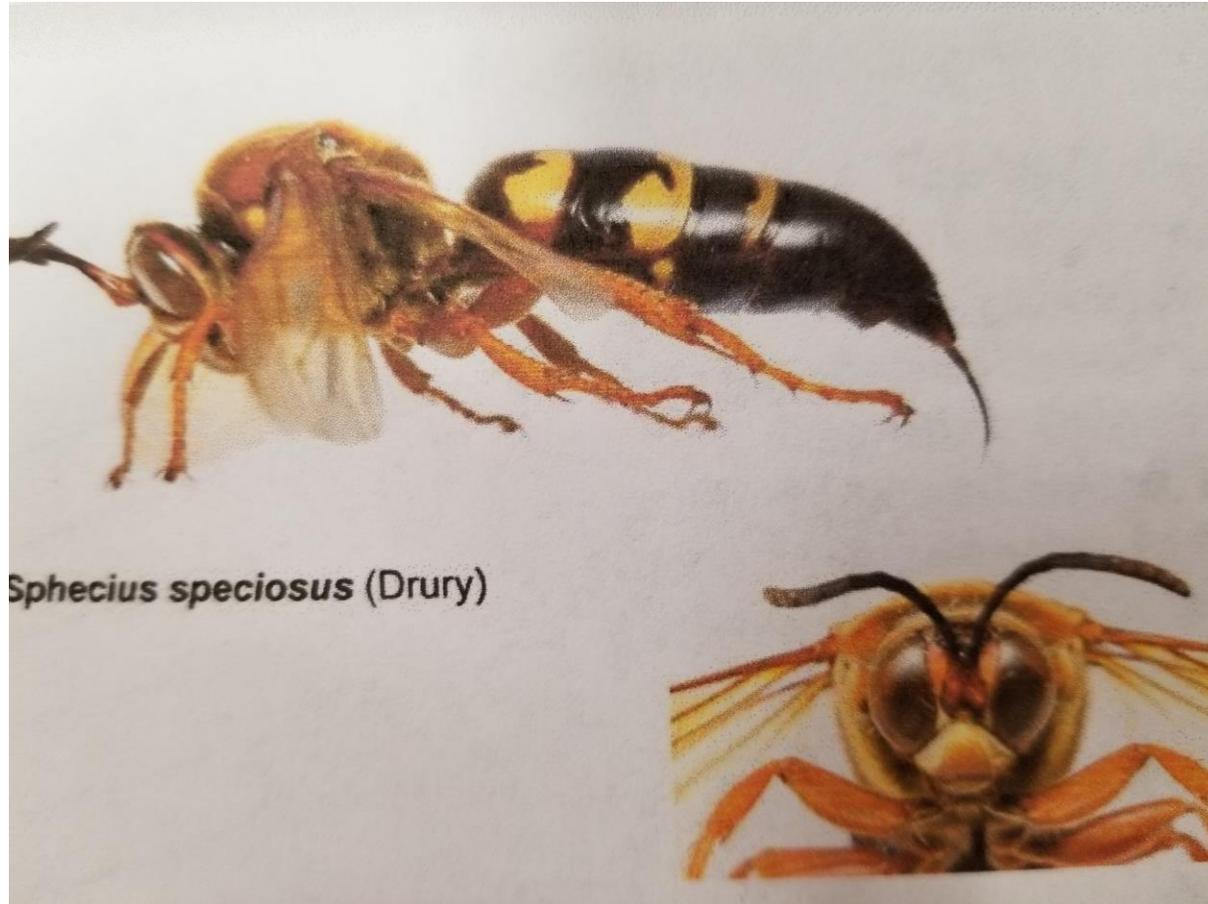




Photo by Matt Bertone, North Carolina State University. Used with permission.

**CICADA KILLERS VS. EUROPEAN HORNETS -**  
**TUESDAY, AUGUST 15, STEVE CLARK - Entomologist**  
Dr. Art Evans and 88.9 WCVE producer Steve Clark discuss the natural history of solitary cicada killers and compare their behavior with that of the social European hornets.



**Adults can be nearly two inches long, have a distinctly light-orange head with prominent black eyes, a black thorax, and a black/yellow striped abdomen.**

# Abdomen and stinger

Asian giant hornets are not usually aggressive, but because of their size and stinger, it's best to avoid them.



# REQUEST FOR INSECT IDENTIFICATION

University of Idaho  
Extension

## CLIENT INFORMATION

Today's date: 4/15/2020

Name	<u>Tom Bigsby</u>	Phone	<u>208-799-3096</u>
Address	<u>1239 Idaho St</u>	Fax	
City	<u>Lewiston</u>	Email	<u>tbiggsby10@gmail.com</u>
State / Zip Code	<u>ID 83501</u>		

## PROBLEM DESCRIPTION:

**tell us as much as you can about the problem so that we can make the best diagnosis**

1. Where did you find the insect? (e.g. yard & garden) commercial crop, inside home)

Housing over the bare soil in my landscape

2. When (month/day/year) did you collect the specimen(s): 7/20/2020

3. About how many insects were there? only one

4. Describe the damage they are causing: Not sure if it was causing any damage or not. Was just wondering if it was a killer bee?

For insect problems on plants, please include the following information

name of plant: \_\_\_\_\_

part of plant injured: \_\_\_\_\_

number of plants injured: \_\_\_\_\_ age of plants: \_\_\_\_\_

5. Have you had this problem before? No  
If YES, when did you first notice the problem?

6. Name any insecticide or pesticide products you have applied for this problem:  
NA

7. Specific site-location where pest was found (eg. 5 mile NE of Boise, ADA County):  
at the above address

DIAGNOSIS & CONTROL ADVICE (for use by University of Idaho personnel)

Specimen forwarded on \_\_\_\_\_ date \_\_\_\_\_ to \_\_\_\_\_ UI Specialist

UI County Extension contact person for diagnosis/recommendation -- return completed form to:

Mary Busch UI/Nez Perce County Extension, 1239 Idaho Street, Lewiston, ID 83501  
UI faculty / staff name address (Nez Perce County)

Insect Identification:

Recommended control measures:

Additional biological information or advice:

Determined by: \_\_\_\_\_ date: \_\_\_\_\_

UI specimen identification #

References used:

- |   |        |     |
|---|--------|-----|
| <i>Field Guide to Structure-Infesting Ants</i>                  | page # | ___ |
| <i>Field Guide to Structure-Infesting Beetles vol. I</i>        |        | ___ |
| <i>Field Guide to Structure-Infesting Beetles vol. II</i>       |        | ___ |
| <i>Field Guide to Urban Spiders</i>                             |        | ___ |
| <i>Insects of Western North America</i> (Essig)                 |        | ___ |
| <i>Insects that Feed on Trees &amp; Shrubs</i> (Johnson & Lyon) |        | ___ |
| <i>Introduction to the Insects</i> (Borror et al.)              |        | ___ |
| <i>Nat. Pest Control Assoc. Field Guide to Structural Pests</i> |        | ___ |
| <i>PNW Insect Control Handbook</i>                              |        | ___ |
| <i>Western Forest Insects</i> (Furniss & Carolin)               |        | ___ |
- other references: \_\_\_\_\_

Client contact information

Client contacted by: \_\_\_\_\_ name

\_\_\_\_\_ initial contact date recommendation delivered via

\_\_\_\_\_ follow-up contact date in person

telephone

mail

\_\_\_\_\_ final recommendation date Fax

Email

# Cicada Killer

*Sphecius convallis* (Ada & Washington County, Idaho)

*Sphecius speciosus* (Idaho Fish & Game-no children found)

*Okanagana luteobasalis* (not found in NP County yet)

Are There any Questions?  
Thank You!

