

INSECT SPECIMEN COLLECTION GUIDE

How to Submit an Unknown Insect

Taking Photos

- It is always a good idea to take photos first in case something happens to the specimen
- Take multiple photos from different angles and make sure that they are clear
- For both direct sightings and signs, provide a size reference, such as a coin, pencil, or ruler, in at least one photo
- Take high quality photos

Adult Specimen

Collect Your Specimen

- Be gentle, do not crush your specimen(s)
- Send in multiple specimens and different instars or life stages if possible
- Humanely kill your specimen
 - Immediately freeze the specimen overnight
 - If you are **NOT** mailing your specimen and it isn't a butterfly, moth, or bee, you can preserve it in 70% (or higher) ethanol or alcohol and bring it in
 - You can preserve insects in hand sanitizer (70% ethyl alcohol minimum)
 - Do not preserve butterflies, moths, or bees in ethanol or alcohol
- When possible, take and submit photos of the plant the insect was found on
 - Additional photos of the insect and the location where the insect was found are also useful (include GPS coordinates, if available)

Caterpillars and Other Juvenile Insects

Collect Your Specimen

- Be very gentle because soft bodied insects are easily damaged
- Send in multiple specimens if possible
- These specimens can be kept alive with some food (the plant they were feeding on) so it can be reared and positively identified, but they can be killed and preserved also
 - If the specimen is sent alive, be sure that the specimen is well contained to prevent escape and spreading
- Dropping larva (caterpillar, maggot) in boiling water yields a good specimen while humanely killing the specimen
- When possible, take and submit photos of the plant the insect was found on
 - Additional photos of the insect and the location where the insect was found are also useful (include GPS coordinates, if available)

Signs but no Sighting of an Insect

- Signs include things such as: insect holes, evidence of frass (insect excrement), eggs, or damage such as twig girdling
- Provide any information you have about the host organism upon which the sign was found, such as host species, size, location (GPS coordinates if available), condition, abundance
- Take and submit photos of the signs
 - Additional photos of the location where the signs were found are also useful (include GPS coordinates, if available)

Why Submit Signs?

- We often find the evidence of the presence of insects but not the insect itself
- Some insects create distinctive signs that can give scientists a clue as to what type of insect made it and whether further investigation is warranted

Submitting Your Specimen

Packing Your Specimen

- **ALL** potential invasive species **MUST** be double bagged to minimize further spreading
- If submitting specimens of different species, keep the different species separate
- Pack in sturdy containers to prevent damage during transit
 - Provide some padding (tissues or cotton) to the containers to minimize damage
 - Containers must be leak-proof
- Insects must be in a crush-proof box for mailing
- Always include a tag with the date, name of the collector, and collection location – keep this tag with the specimens or as close to them as possible, even though a submission form is being sent too.
- Do **NOT** send in live insects (with the possible exception of caterpillars/larvae), crushed insects, or insects caught on tape or sticky traps
- **NOTE:** It is **ILLEGAL** to mail alcohol as it is a fire hazard

Drop-Off Your Specimen:

- Local Samples can be dropped off at:
 - Washington State University
Plant Pest Diagnostic Clinic
Department of Plant Pathology
345 Johnson Hall,
Pullman, WA 99164
Monday-Friday 8:00 am to 4:30 pm

- o WSU Puyallup Research & Extension Center
Plant & Insect Diagnostic Lab
2606 West Pioneer
Puyallup, WA 98371-4998
Monday through Friday, 9:00 am – 12:00 pm and 1:00 – 3:00 pm
- Contact your local master gardener
 - o Find your county Master Gardener clinic:
<http://mastergardener.wsu.edu/program/county/>
 - o Your local master gardener can provide tips on how to:
 - Collect and send in your specimen
 - Where you should send in or drop off your specimen
 - Information about their local extension office

Mail-In your Specimen

- **NOTE:** It is ILLEGAL to mail alcohol as it is a fire hazard
- Ship specimens early during the week and avoid mailing before or during holidays to minimize decay during transit
- Label package: **Perishable**
- You **MUST** fill out a submission form with your package for the Washington State University:
 - o Pullman: <https://s3.wp.wsu.edu/uploads/sites/2194/2017/06/Commercial-Disease-Pullman-Dec2015.pdf>
 - o Puyallup: <https://s3.wp.wsu.edu/uploads/sites/408/2015/02/c0084.pdf>

Clinic USPS mailing addresses:

Rachel Bomberger
Plant Pest Diagnostic Clinic
Department of Plant Pathology
P.O. Box 646430,
Pullman, WA 99164-6430

E-mail: rachel.bomberger@wsu.edu
Phone: 509-335-3292
Webpage: <https://plantpath.wsu.edu/diagnostics/>

Jenny Glass
WSU Puyallup Plant Clinic
2606 West Pioneer
Puyallup, WA 98371-4998

E-mail: jennyglass@wsu.edu
Phone: 253-445-4582
Webpage: <https://puyallup.wsu.edu/plantclinic/>

Clinic UPS and FedEx address:

Rachel Bomberger
Plant Pest Diagnostic Clinic
Department of Plant Pathology
345 Johnson Hall,
100 Dairy Road,
Pullman, WA 99164