



OREGON BEE ATLAS

Do I need a microscope? When should I buy it? What kind of microscope should I buy?

Do I need a microscope?

Ultimately, you will need a microscope when working with native bees. But perhaps not immediately, as you may be in the process of deciding whether or not melittology is for you. Atlas members do have access to microscopes at a few select locations around the state, like Corvallis (OSU), Portland (PCC Rock Creek) and Grants Pass (Josephine County Extension). At these locations there are frequently open microscope days, allowing you to use the microscopes in these locations.

When do I need a microscope?

We'd recommend waiting until you have collected at least 100 bees. Until that point, you should focus your effort on collecting bees and figuring out if melittology is for you. Most people don't work on identifying their bees until the fall, so that gives you enough time to figure out whether you have caught the 'bug'.

What kind of microscope should I buy?

Microscopes can be expensive. The microscopes you use in the lab sessions at OSU are over \$1,500 each. These are dissecting microscopes (i.e., not the kind of microscopes that you use to look through microscope slide mounted material – compound microscopes) and they have a continuous zoom magnification feature, that allows you to readily zoom in on a feature without losing site of your bee.

But you don't need to spend a lot of money these days, as there are some excellent quality scopes for under \$300. Namely, there is ONE quality scope below \$300. It's produced by [AmScope and it features continuous zoom from 7-45 times](#). It also has cool features you might use later, namely a trinocular for mounting a camera. There are many other options that can be added such as 20x eye pieces, and an eye piece with a reticle that allows for measurements.

Next, you'll need some lighting. AmScope does offer the LED Ring Light, that fits directly under the objective (the black cone on the bottom of the microscope). You can also use cheap desktop gooseneck (i.e., you can adjust the neck to focus light on the bees) LED lights. IKEA sells these for about \$20 each. Other inexpensive ring lights and LED lamps can be found on Amazon, and it's nice to have a warm LED lamp to offset the cool tones of a ring light.

We recommend getting an actual dissecting scope over some of the USB Magnifiers that plug into your computer. A good jeweler's loop might seem like an alternative, but to get a quality loop means shelling out \$50 or so, so best to just save up a little more and get a real microscope that will last you for years.

