

Identification equipment

Using this key requires pinned bee specimens and a dissecting microscope and light source. Identification is much easier with a microscope with a high-powered zoom, and with high-powered LED-style light sources. If using a microscope with low-powered zoom, and low-powered lights, you may be frustrated by the difficulty of seeing some characters clearly. However, many such characters are immediately clearer when using a better quality microscope and/or higher powered lights. In some cases, such as body sculpturing and foveae, diffused light can help too. A simple method for diffusing light is to construct a tube of tracing paper, or baking paper, and place this around your specimen while shining the lights onto it.



A simply constructed tube of tracing paper, used to diffuse light from the light sources

Bee collecting

Pinned, dried specimens are the easiest to identify under a microscope. There are many tips online for drying and pinning bees that have been collected using wet techniques. This key relies heavily on mouthparts for family-level identifications. Mouthparts are often hidden under the head when the bee dies. In fresh specimens, immediately after pinning, carefully manipulate the mouthparts so that they become visible (do not try this with dry specimens, however, as they are brittle and parts can break). Some bee researchers choose to kill netted specimens in ethyl acetate killing tubes, as this chemical causes bees to extend their mouthparts as they die.

Photos by Tobias Smith