Madison Mycological Society Community Science Guidelines for Photographing and Documenting Fungi

Photography

Taking high-quality photos of undisturbed specimens in the field can provide useful information that might otherwise be lost or difficult to convey. You can learn a lot about fungi by making sure to take good photographs.
***See morphology guide for more information!**

Image Category 1: Unaltered, *in situ* (growing naturally, on site) + scale bar

- Start by taking a picture of the fungal specimen more or less unaltered (with little "posing" of the fruiting body and "gardening" of the surroundings). Include a ruler (or another standard-sized item) for a scale bar along the margin of the photo so it can be cropped out if needed. If you don't have something to use as a scale, don't sweat it! Photos without are also useful.

Image Category 2: Altered as needed + scale bar

- Take a second photo with any obvious distractors to the image removed, but only groom as needed. Images that maintain a relatively natural look tend to encompass more useful field characteristics than those completely altered. Include scale bar as you did in Image 1 (see above).

Image Category 3: Top of fruiting body + scale bar

- Although fungi come in many forms, many macrofungi produce fruiting bodies with distinct caps or upper surfaces. Take at least one image (if not multiple) to capture the overall appearance of the "top" of the fruiting body as well as additional frames to highlight unique features, such as texture, pattern, etc. Including the scale bar as possible is useful.

Image Category 4: Underside of fruiting body + scale bar

- Just as above, the underside of fungal fruiting bodies are variable – in fact, likely even more so than the top. And many of these characters are important for identification and lost with drying; therefore, capturing them with images is crucial.

- Take at least one image (if not multiple) to capture the overall appearance of the "underside" of the fruiting body and establish whether there are gills, pores, or neither. Include additional frames to highlight unique features, such as pore shape, gill serrations, etc.
    - **Gill attachment** to the stalk (or lack thereof) is often critical to proper identification. This may require slicing a fruiting body longitudinally (or top to bottom) to be able to image. See if you can figure out which attachment style is present using the morphology guide and construct an image making that obvious.
- Depending on the shape of the specimen, the underside (or base of the stalk) may have characteristics regarding substrate attachment. Photograph any notable characteristics present. (Unsure if they're notable? Photograph them just in case!)

Image Category 5: Side of fruiting body + scale bar (if applicable)

- For fungi with height to them, such as cap/stalk fruiting bodies, an image from the side with the scale bar included can be useful. For thicker polypores (~1cm or more), consider making a cross section (or cut from back to front) to get a side view of the series of pore tubes. As always, including a scale bar as possible is preferred.

Notes:

- Taking multiple shots/angles for each image category described above might be useful – particularly given that image quality can be hard to judge in the field. Redundant images can always be deleted later but important field photos are hard/impossible to reproduce later!
- Avoid moving the specimen to a different substrate than where it was found (such as from soil to the top of a log), even if it improves image quality. This has the potential to be misleading.
- As you save the images somewhere more permanent, such as on your computer, consider including information such as the date and area collected and your initials

Field Notes

Collected and/or photographed specimens have limited scientific value without detailed and complete field notes. Therefore, put your mycological and observational skills to use and record what you notice!

***See morphology guide for more information!**

Try to take note of the following items:

- Date
- Location
- Substrate
- Surrounding habitat

    - Describe in your own words the overall, general habitat as well as more localized features and species present that may be important.
    - *Example: Growing in shady area under limestone outcrop on north-facing slope in mixed deciduous forest. Growing near red oak, elm, and ash trees as well as various moss species.*
- Growth habit
- Odor
- Species (feel free to take a stab at a field determination ID! What do you have to lose…? ☺)

Additional information to note:

- *Form group
- *Cap morphology
    - Cap shape
    - Cap texture
    - Gill attachment
    - Gill spacing
- *Stalk morphology
    - Annulus (or stalk ring) details
    - Substrate-attachment details, underground features
- Surrounding tree species
- Broad-scale location within your site

Notes:

- Don't assume you will remember details once you get home. Do yourself a favor and jot them down while *in situ*!