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Fungal Plate Photography

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Bark Beetle Mycobiome Research Coordination Network Bark

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Abstract

This protocol describes how to photograph fungal plates.

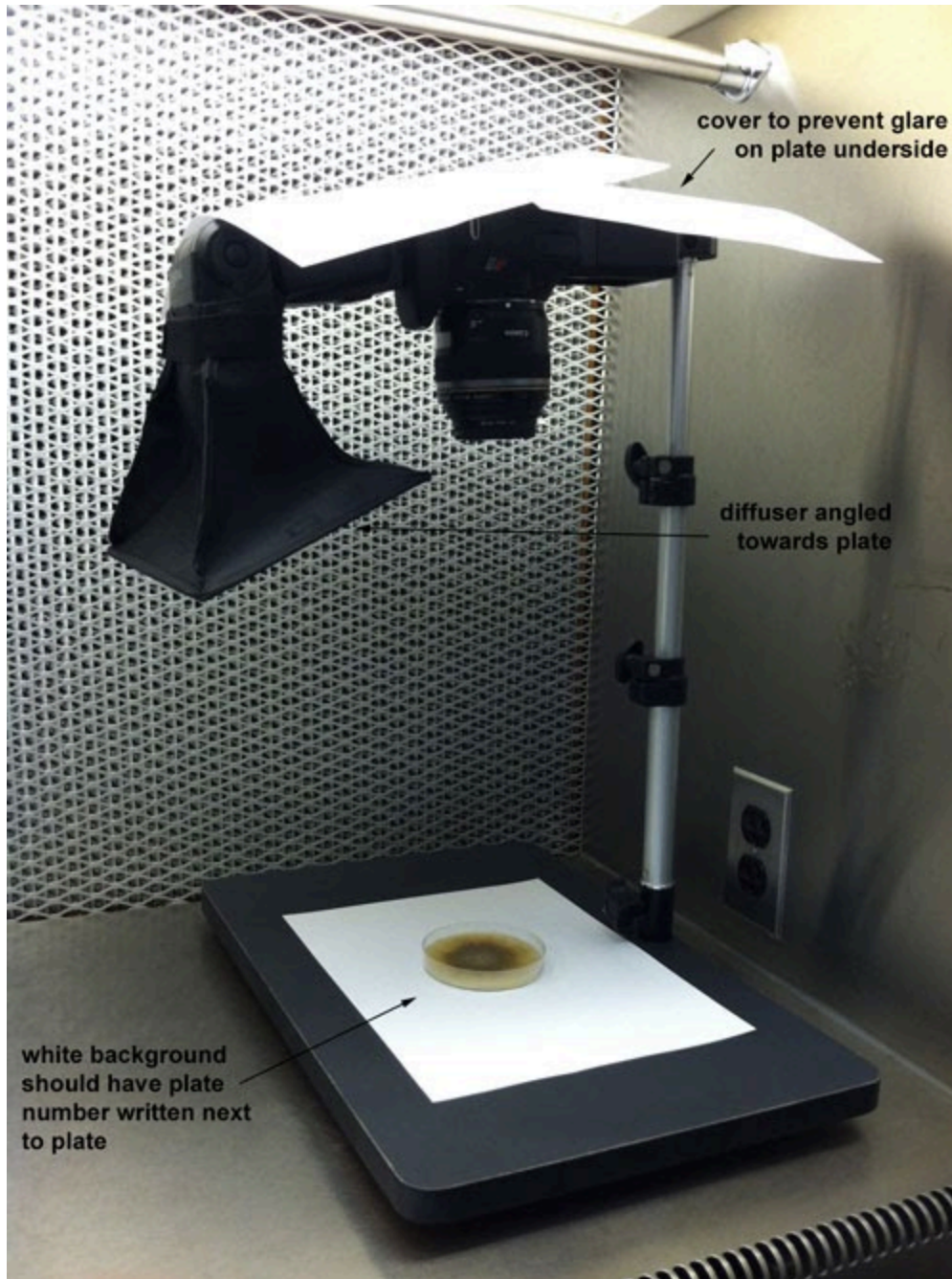
This protocol is part of the Bark Beetle Mycobiome (BBM) Research Coordination Network. For more information on the BBM international network: Hulcr J, Barnes I, De Beer ZW, Duong TA, Gazis R, Johnson AJ, Jusino MA, Kasson MT, Li Y, Lynch S, Mayers C, Musvuugwa T, Roets F, Selmann KC, Six D, Vanderpool D, & Villari C. 2020. Bark beetle mycobiome: collaboratively defined research priorities on a widespread insect-fungus symbiosis. Symbiosis 81: 101–113 <https://doi.org/10.1007/s13199-020-00686-9>.

Troubleshooting

1. Download Canon EOS Utility to your computer:

<https://www.usa.canon.com/internet/portal/us/home/support/self-help-center/eos-utility> (Listed as "EOS Digital Solution Disk Software")

2. Ensure photo setup is as pictured (in the flow hood in Adam's office on the 2nd floor):



1. Hook your computer up to the camera to enable live shooting and direct photo downloads.

2. Turn on the hood blower and wipe down all surfaces with 70% ethanol.

3. Set the camera dial to M (Manual) and adjust to the following settings:

Manual focus

Large resolution (use Raw for poster photos)

Shutter 1/100

F9.0

ISO 400

Spot metering

Flash white balance setting

WB Shift: B5 G2

As it appears on the EOS Utility:



1. Set a plate open-side-up underneath the camera and manually focus the camera to the top of the agar.
2. Add a piece of paper displaying the underlying plate number in the photo.
3. Proceed taking photographs of the top and bottom of each plate. Settings do not need to be altered between plates/photographs.



4. Save photographs to our lab drive (Forest Entomology:\Plate photos) and name them according to plate number (eg: "plate number XXXX.jpg")
5. Keep the plate at 4-10° C until ready for discard. Plates should be discarded into an autoclave bag.
**Note on batteries for flash: Only use Panasonic eneloop batteries. All batteries should be equally charged. Disconnect batteries after use. Battery charger is in camera drawer in Hulcr lab.