

Megalopae Measurements: Photo Technique

Goal: Take two photographs of the same 30 megalopae so that they can be measured using computer software

Materials:



- 1. Black felt
- Clear tray with stick on measuring tape
- Extra measuring tape roll (to replace what's in the tray when necessary)

Instructions:

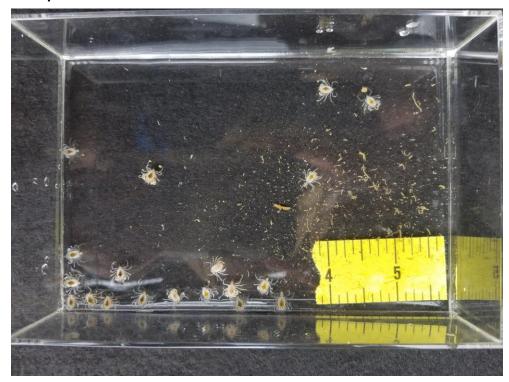
- 1. Place the black felt onto a flat surface and place the tray on top of it
- 2. Place 30 megalopae (or as many as you caught that day if less than 30) into the clear tray
- 3. Ensure there is only enough water to cover the megalopae (this prevents them from swimming to different distances from the camera)
- 4. Within the Measurement section of Device Magic, **take two photos** of the whole tray of megalopae (two photos of the same megalopae increases the odds that we can measure all of them)
- 5. Check that the photos are clear, not too blurry, and that there is as little glare as possible reflecting off the tray (see example below)
- 6. Return the megalopae to the water as soon as you are done to minimize stress

Important guidance for taking the photo:

- Get as close as you can to the tray with the camera while ensuring the whole tray is in the frame and that the megalopae are in focus
- Avoid oblique angles: Ensure that the camera (phone/tablet) is level with the tray and directly above it (see images below for more info)
- If you are with someone else, ask them to check your angle from the side to ensure that it is level with the tray
- It helps to take the photo in the shade or with someone else shading the sun to prevent glare
- Try to move the megalopae away from the measuring tape so they are on the black background



Example:



- Entire tray within frame
- Megalopae as in focus as possible
- No megalopae on the tape
- Camera was level with the tray
- Glare reduced as much as possible

Avoid oblique angles





Image on the left is from directly above, image on the right is oblique, and measurements will be off.