

Tree Coring Protocol:

This method is intended for sampling tree phloem for the presence of eDNA.

Materials:

- Boxes of Gloves
- Field Clipboard
- Data sheet + Pen/Paper
- Sharpies
- Bags for garbage
- Increment Hammer
- 100% (200 Proof) Ethanol
- 5 mL tubes filled with 100% ethanol
- Empty 1.5 mL tubes
- Clean tube racks
- Lighter/Torch

Sampling Prep

1. A 10% bleach solution is used to clean the exteriors of our clipboard and all writing utensils. Materials are subsequently wiped down with deionized (DI) water to remove any excess bleach residue.

Sampling Protocol

1. Before sampling, set up your tubes of ethanol and prep your increment hammer for flame sterilization by slightly offsetting the plunger.
2. Sterilize by submerging the nose in ethanol and quickly igniting it with your lighter or torch. Repeat this process 3 times.
 - a. **Be sure that the inside of the nose is being ignited every time as any DNA inside could contaminate your sample. Any ethanol that hasn't burned off could also interfere with downstream molecular assays.**
 - b. Take a core negative by following steps 3 – 4 on a “non-host” tree before and after your sampling efforts.
3. Drive the nose of your increment hammer into the trunk of your tree to obtain your sample.
 - a. **The amount of samples you take per tree is at your discretion. Be sure that the section of the tree sampled contains living tissue.**
4. Push the sample out into a 1.5 mL collection tube. Be sure to close and label your tube.
5. Repeat steps 2 – 4.
6. Samples should be kept at -20°C for long term preservation.

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