**Finger A16 Specimens to re-examine**

**L. Strickland notes**

**10/24/2022**

**D4 38-39 cm** - Broadleaf - curled and delicate. One vial with sample.  LES - Broadleaf fragment not a large enough fragment for me to id. further.  There were not other samples taken from this interval or near it.

This is a broadleaf fragment but it’s not possible for me to tell if it’s terrestrial, aquatic, or wetland. It has a net-like venation pattern (reticulate) and no margin is visible. Terrestrial leaves typically have thicker cuticle than aquatic leaves, so when I see a decent sized leaf fragment preserved I would tend to guess it is terrestrial.



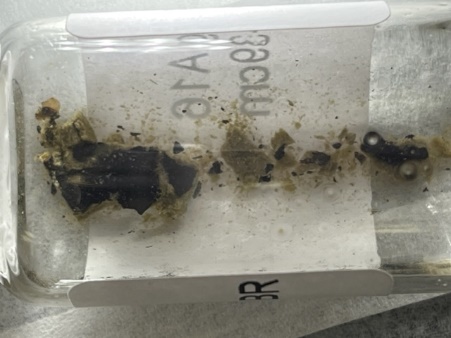


Photo 1: large broadleaf fragment.  Photo 2: full sample.

**D4 62 cm** - Broadleaf - curled and delicate. Two vials, one for examination, one for dating.  LES - vial for dating has broadleaf fragments. The leaf material in the sample was pretty torn up and there were other organics mixed in with the leaf fragments. The leaf fragments had a net-like venation pattern but I’m not able to tell if they are terrestrial, aquatic, or wetland.

Photo 1: vial for dating, broadleaf fragments zoomed out as much as possible.   If the age is too old on this one, it’s possible the leaf material is aquatic or there is aquatic plant matter mixed into this samples. Did you and Brand try to separate out the leaf fragments?



Photos 2, 3, 4: Vial for examination has 2 Betula sp. seeds, 1 woody twig fragment, broadleaf fragments encased in sediment, 1 Chara oogonium.

Photo 2: 2 Betula sp. seeds and a broadleaf fragment.  Photo 3: broadleaf fragments and Chara oogonia.  Photo 4: woody twig fragment.



You could date the wood and the Betula from this interval which should provide a more terrestrial signal.

Looks like another sample from this interval was sent for dating in 2021. Sample contained 2 broadleaf fragments, 1 charcoal fragment, 1 woody fragment. What was the age on this sample?



**D4 98 cm** - I observed a freeze-dried sample in vial 2 of 2 and slotted this info into the Finger Lake spreadsheet in 2021, I observed 4 tiny wood fragments, red dot on vial lid label says 2 of 2. Vial 1 of 2 was sent for dating in 7/2018 and I don't have any record of what you sent or any photos.  It's hard to say what is in the vial from your photo, maybe wood? What did your radiocarbon submission sheet say? There is also a sample right next to this one at 98-99cm with 3 bark/woody fragments.



If the older leaf fragments are from aquatic plants there are many possibilities for what they could be. Most dicots have net-like venation, monocots like grasses don’t, and there are lots of aquatics with thread-like and slender leaves with more parallel style venation like sedges and rushes. It’s tough to say what plant these are from if they are aquatic. I’m also not very familiar with what type of broad-leaved aquatic plants are found in Alaskan lakes but I imagine there are lots of possibilities. Submerged aquatic plants would be most affected by the reservoir effect, but what about emergent aquatics?