
AVA L.
8Z

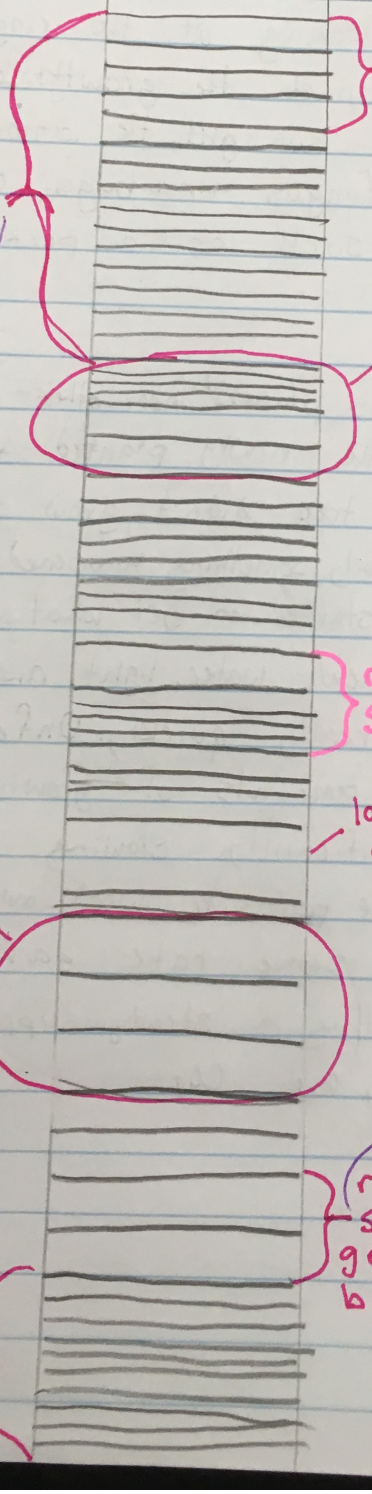
Name: Ava L.
Location: Boston
Species: Cedar
collection date: 8/6/17
Lat+Long: 42.201483 -71.114361
Age: 70 years

Photo of core:

Drawing of core:

Observations and notes:

Key
- original
- observations
- inferances



9/14

9/19

Dendrochronology HW

a.) Trees are made up of many layers. The bark, cambium, sapwood, heartwood and the anual rings. Each year a new ring is added to the tree which means you can tell a lot about a tree and its history just by looking at the rings. Some things that might impact the growth of rings are the amount of sunlight, the amount of water, air polution, fungus or bugs, and invironmental changes such as a parking lot being built nearby.

Summary

b.) The tree was planted near other larger and older trees that took all the newly planted tree's CO_2, sunlight, and water. The tree didn't grow so well during that time, but eventualy something happened to the other trees, and the tree started to get what it needed to grow. With all the new water, light, and CO_2 the tree started to grow really quickly. Unfortunalty after a few years of large amounts of growing, a parasite invaded the area significantly slowing the growth of the tree. After the parasite went away the tree started growing about the same rate each year because it's been getting a steady supply of water, light, nutrients, and CO_2.

Story

9/27

Hillside pond photo log

Album Title:

Time	Location	What/why
9:40	A	showing tree leaves
9:44	A	moss on botom of tree
9:45	A	plants on ground
10:01	A	water run-off made ground soft and mucky
12:20	A	mushroom on ground

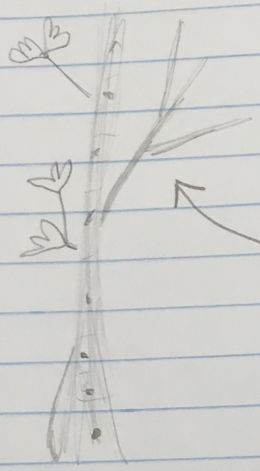
Location Coordinates:

A - 42°13'8"N 71°5'6"W , Slope 7°

9/28

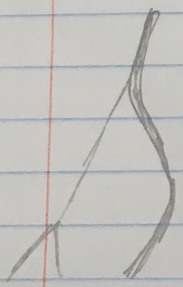
Bio diversity

Number of trees: 3
Number of other plants: 4

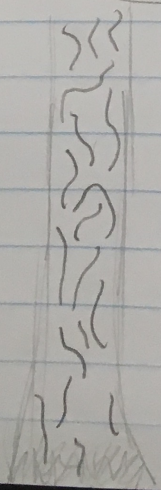


grey bark with dents and bumps on the tree, green leaves with 4 points, 15-20 ft tall

MAPLE

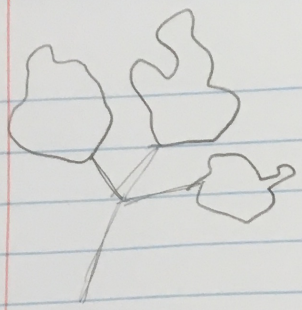


like the first tree, but dead; about 3-4 ft tall



brown bark, moss at the bottom, small green leaves, about 35 ft tall

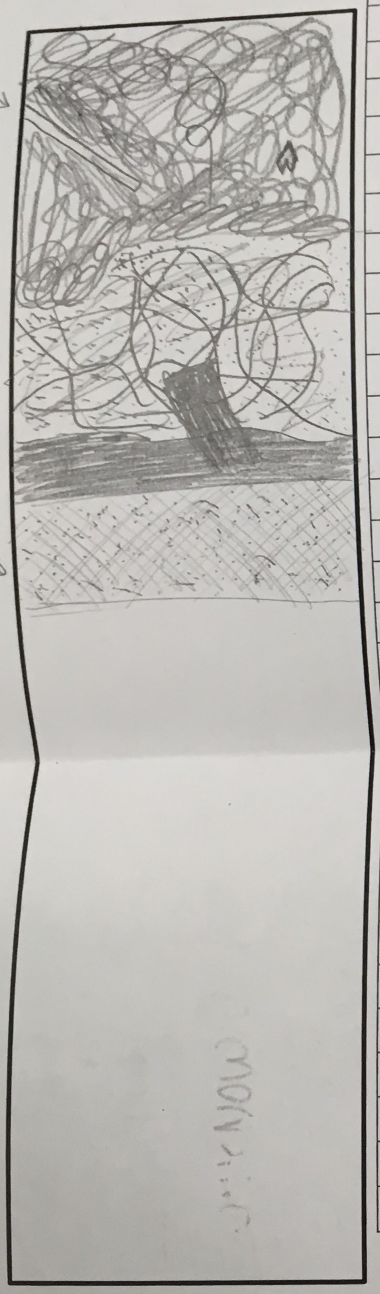
OAK



small stem, large, wavy leaves; about 3 inches tall; 4-5 in our quadrat

UNKNOWN

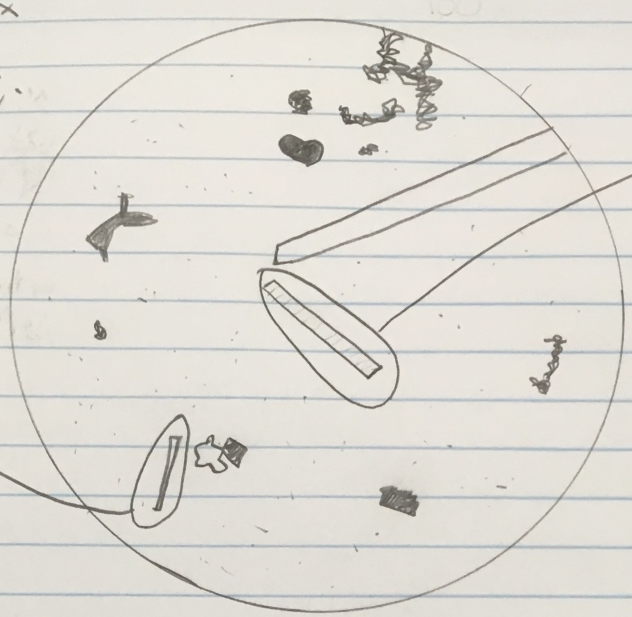
Date: 9/28/17	Name: Ava L.	Latitude: 42° 13' 8" N	Longitude: 71° 2' 11" W
Sample Location: Hillside Pond			
Core Length: 15 cm			



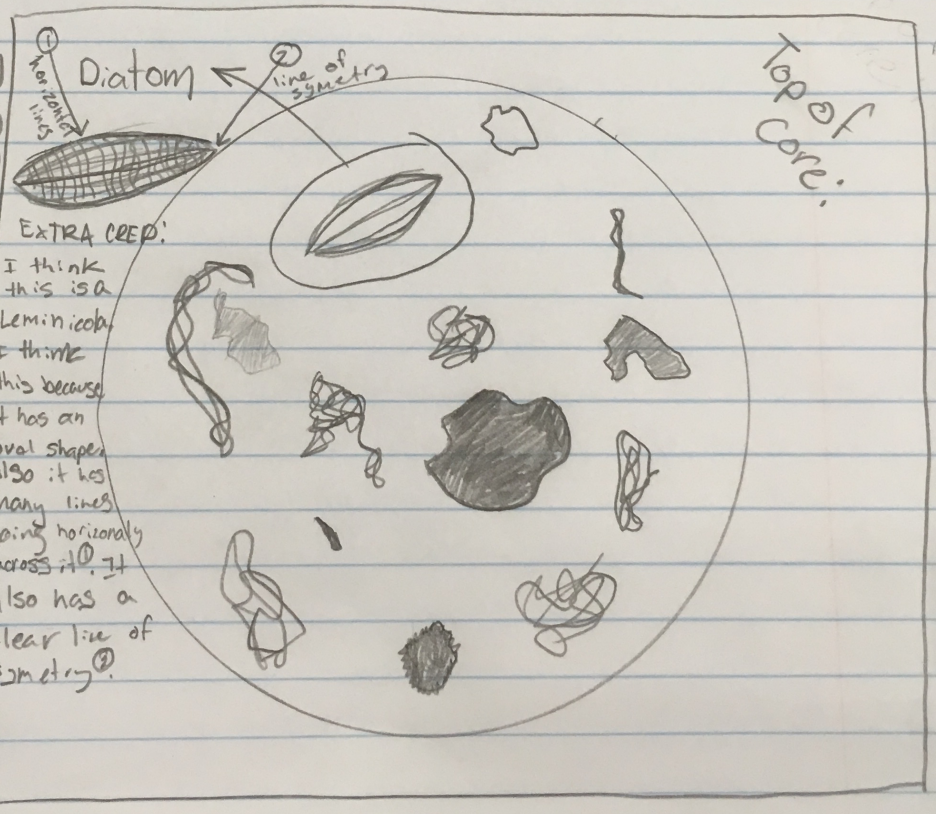
cm	Color	Texture	Observations
1	very dark brown 10YR 2/2	slightly sandy, but soft	some organic matter, but not much
2			
3			
4			
5			
6			
7	similar to layer one 10R 2.5/1	smushy, small rocks, a little greasy	larger grains, no organic matter
8			
9			
10			
11			
12	↓ ↓	wood	It's wood in stick
13	Almost black 7.5YR 2.5/1	very sandy	similar to layer 3, but sandier
14			
15			

Bottom of core:

100x



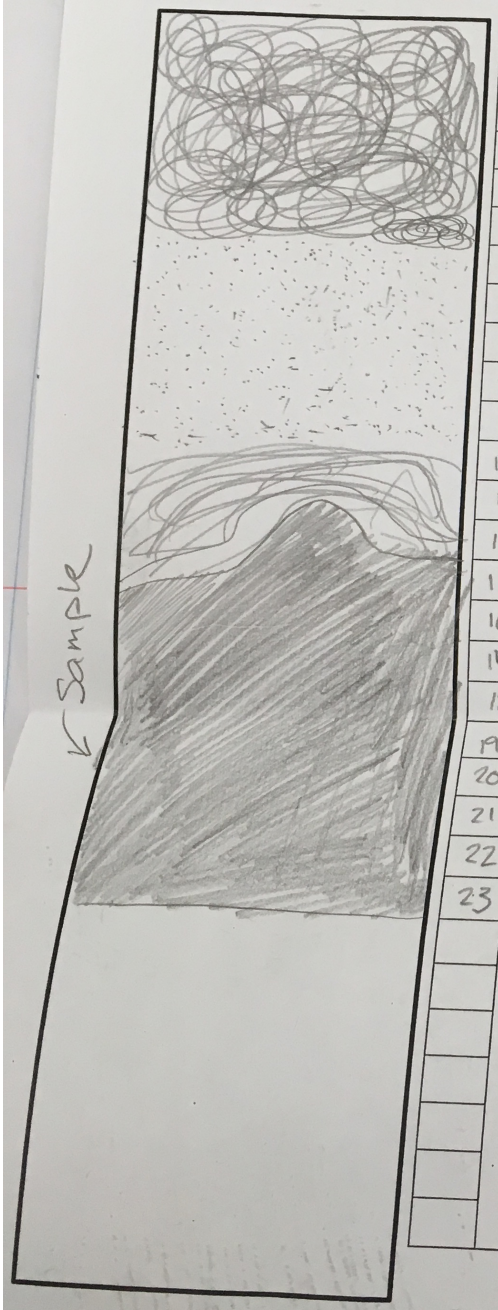
This is from the other core



EXTRA CREP:

I think this is a Leminicola. I think this because it has an oval shape. Also it has many lines going horizonally across it. It also has a clear line of symetry.

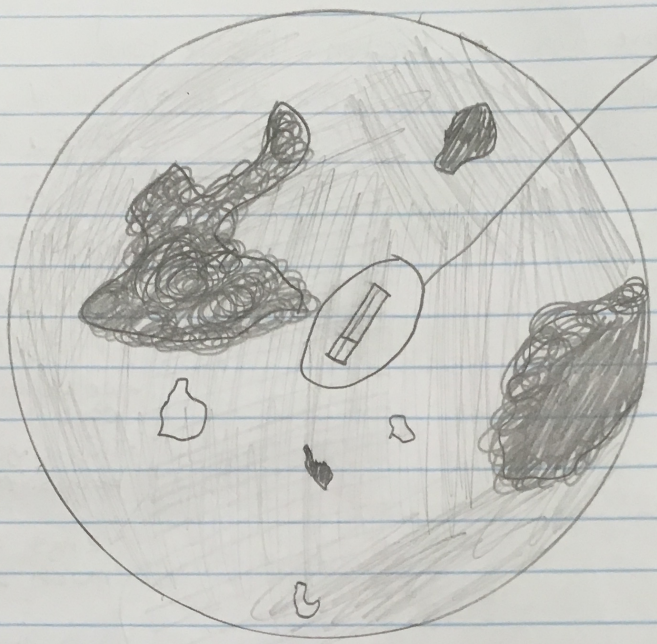
Date: 9/28/17	Name: Ava L.	
Sample Location: Hillside pond	Latitude: 42° 13' 8"N	Longitude: 71° 5' 11" W
Core Length: 23 cm		



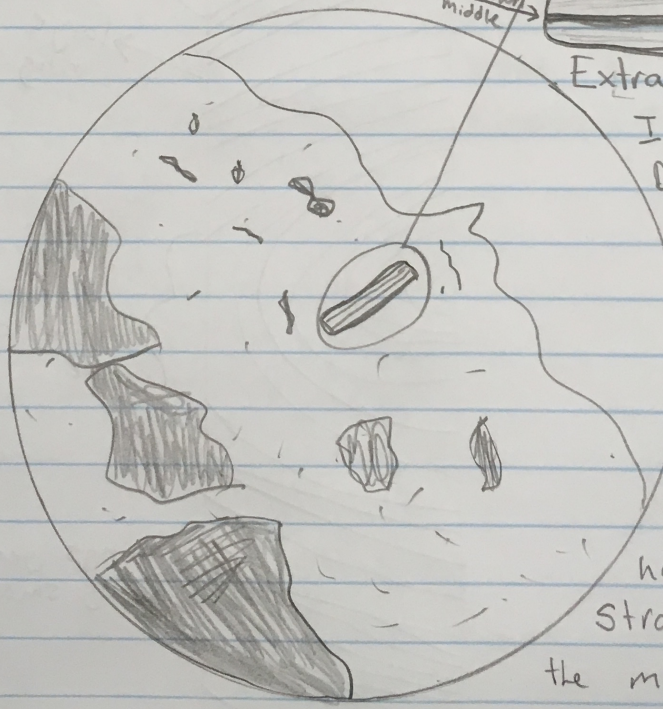
cm	Color	Texture	Observations
1	7.5YR 2.5/2	Peat, organic material, soft	Alot of organic material, very soft, visiable plants
2			
3			
4			
5			
6			
7	7.5YR 4/1	Fine grained sand	some lighter colored grains
8			
9			
10			
11			
12	7.5 YR 4/1	Tight packed dirt	Similar to 2nd layer, but less sand
13			
14			
15	7.5 YR 2.5/1	Dirt with a little sand	very tightly packed
16			
17			
18			
19			
20			
21			
22			
23			

Bottom of core:

100x



This is from the other core



Top of core:

Extra Credit:

I think this Diatom is a Sellaphora. My evidence for this is it's a square shape, but has rounded edges① Also, it has a line② straight down the middle like the picture online. In addition it's symetrical like it is described online.

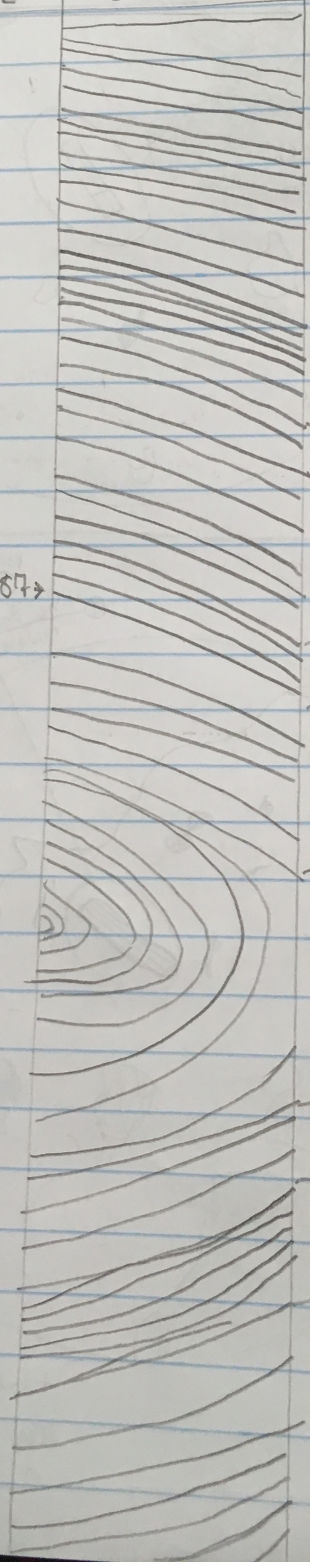
10/10

Tree core Hillside Pond

Name: Ava Location: Hillside Pond species: Oak

Date: 9/28/17 Longitude + Latitude: 42.1314°N 71.514°W Age: 66 years

PHOTO OF CORE	CORE	NOTES + OBSERVATIONS



- Most of the rings are pretty similar sizes with a few exceptions.
- Around the center the rings get big/bigger
- We went past the center of the core
- The rings aren't exactly equal on both sides.

Rings get much smaller

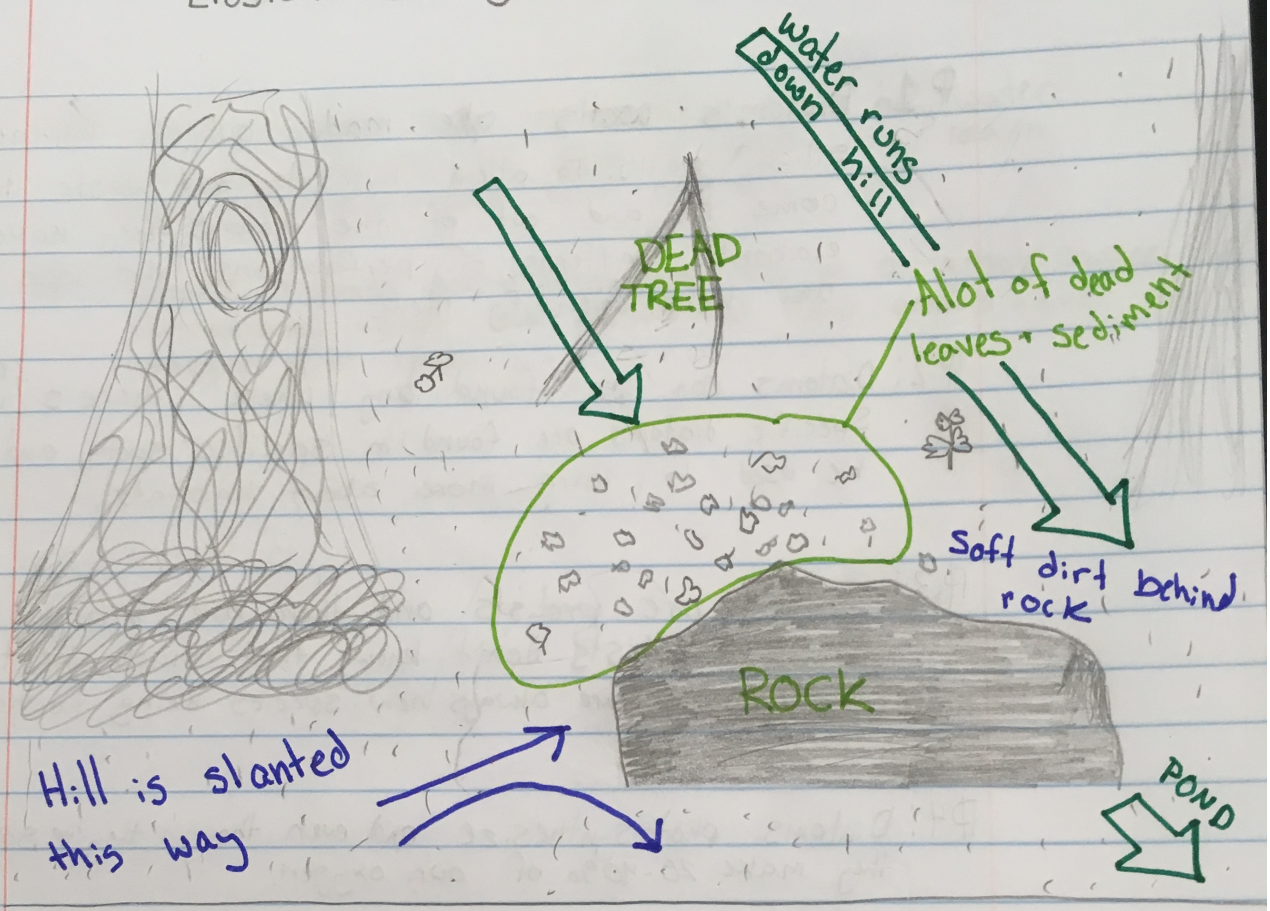
small to large and back to small

large ring

center of tree

Rings get really small

Erosion Drawing + Explaining



Location: Hillside pond Slope: 7°

Coordinates: 42°137 N 71°56 W Elevation: 390 ft

10/11

All about Diatoms

P1: Diatom's walls are made out of impeneterable silica walls. To allow nutrients and waste to come in and out of the diatoms they have elaborate patterns of perferations that look nice and help identify them.

P2: Diatoms can be found any where there's natural water. Specific diatoms are found in specific spots and can be used to learn more about habitats.

P3: Diatoms are protists and there are many different species. Scientists don't know that much about diatoms because there are always new species being found

P4: Diatoms photosynthesize and even though they're so small they make 20-40% of our oxygen.

P5: Diatoms are 2-500 microns large (about the width of a human hair). Scientists use light microscopes and scanning electron microscopes to look at diatoms.

P6: Diatoms live in many different ways with different adaptions to different habitats such as adaptions to help them float. They form chains, zig-zags, and other forms.

P7: Diatoms adapt into different sizes to help them attatch to different objects.

P8: Some diatoms attatch to the surface to hold them in place and take in nutrients.

#9; Specific diatoms live in specific types of water and you can use the type of diatom to learn about enviorments and how they've changed.

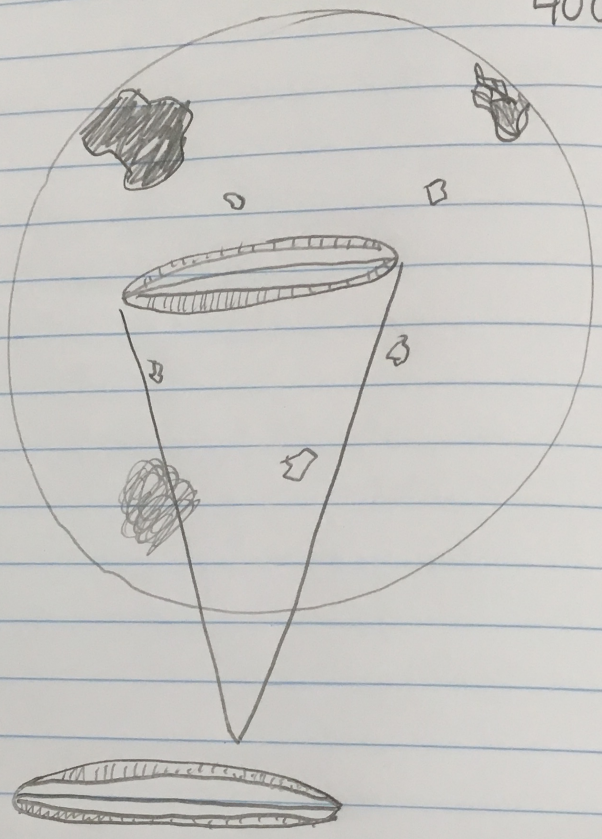
#10; Because diatoms don't decompose they're a great source for learning about the past and how area's have changed over time.

10/11/17

Diatom Drawing

Core # 2, Top:

400 x



we think this is a Pinnularia. We looked at it at 400x and it looked exactly like the picture online. It's the right size, shape, and has the same perferation pattern with a line of symmetry, 2 curved lines next to the line of symmetry, and small little lines from the sides to the line next to the line of symetry.