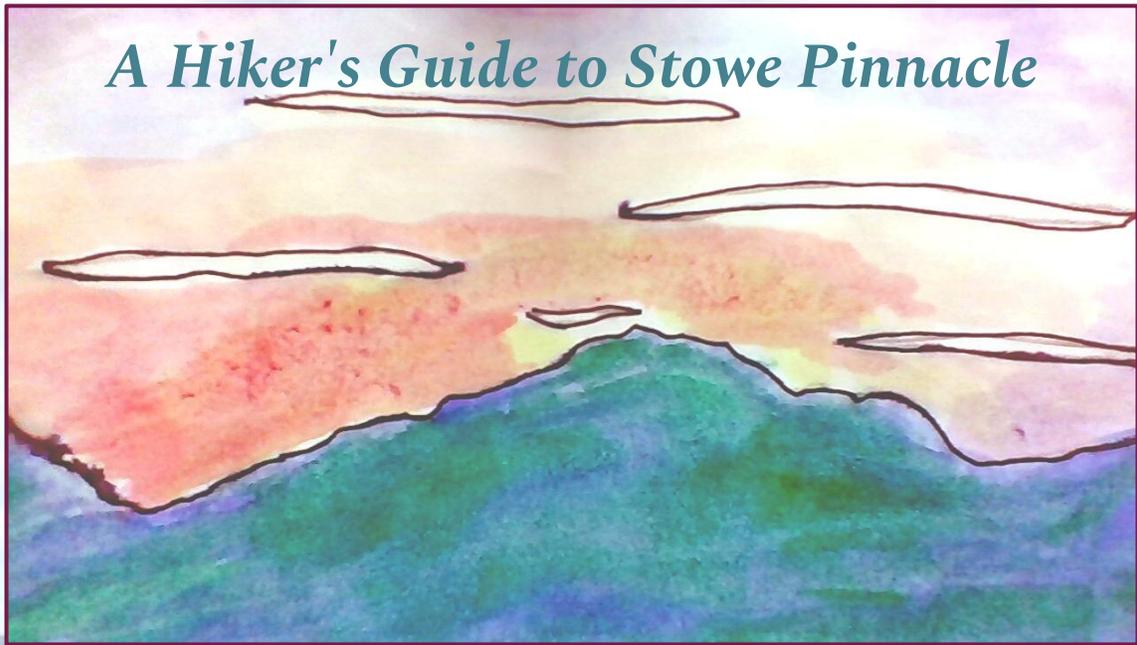


A Hiker's Guide to Stowe Pinnacle



*A compilation of scientific data,
mapping, land use, history, and nature
arts.*

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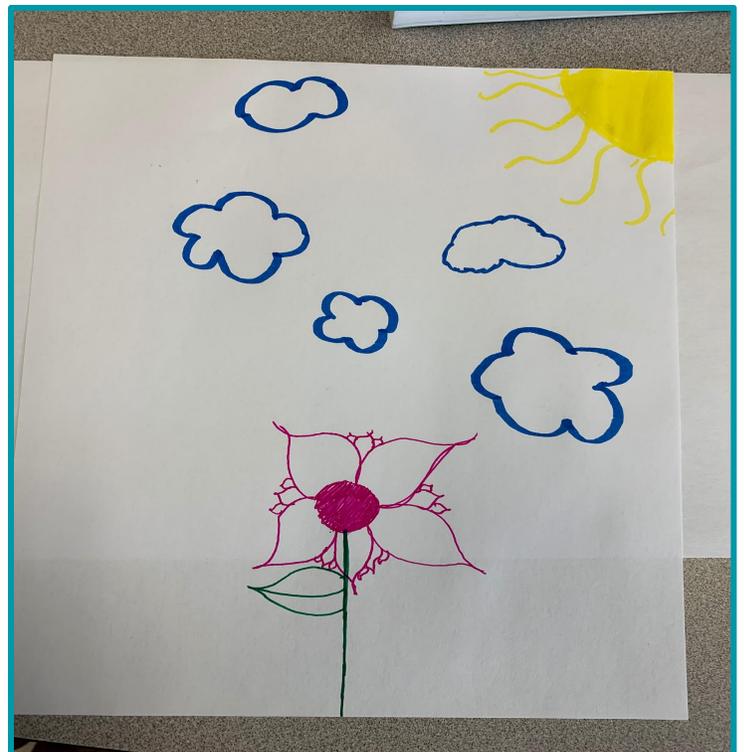
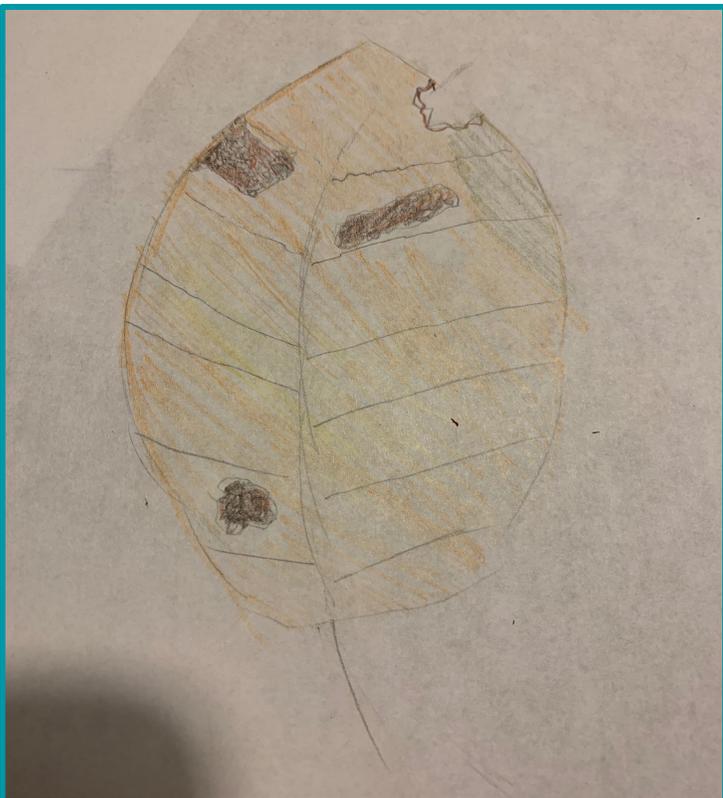
Lucas
Colton
Sophia

100 word memoir about Stowe Pinnacle hike

By: Gracie

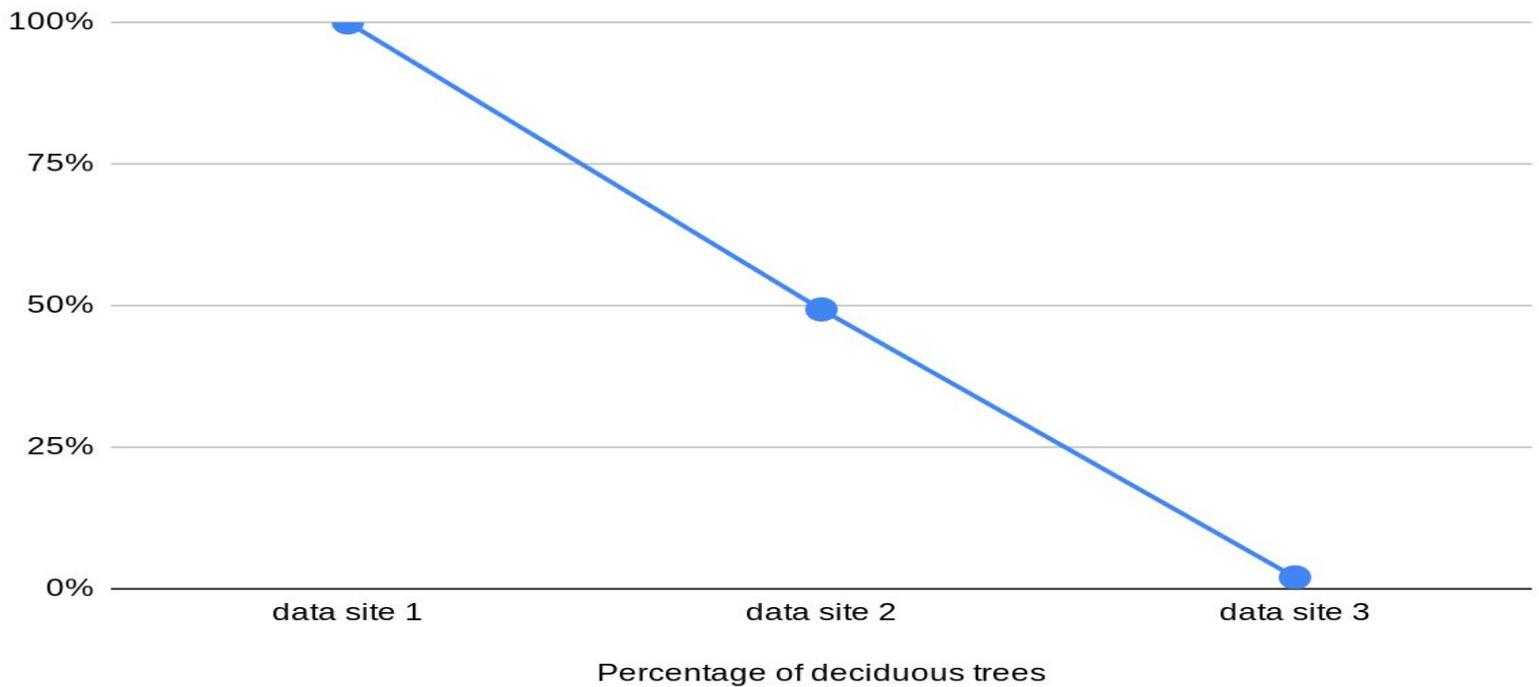
We got off the bus. I hear the teachers, “Hey! Listen up! We need to go over the rules!” I sat there not paying any attention, staring into the woods. We walk across the boards on the ground, not knowing if they were old enough to break. As I walk ahead, I see boards that have rotted. Beautiful flowers everywhere that I want to sniff. Later on up the mountain a beautiful dog goes past us with fur white as snow. Abbey and I walk by a dog going to see the rest of the sight, it was so beautiful and awesome.

This American Beech tree leaf can be found on Stowe Pinnacle trails



This is a representation of the beautiful wildflowers that you can find on Stowe Pinnacle

Data found on percent deciduous trees



Who was C.C. Putnam?

By Audrey

Christopher Columbus Jr aka C.C. Putnam owned lots of land in the early 20th century located in Stowe, Vermont. He used this land to provide for his lumber mills. Unfortunately in 1903 there was a very large fire which caused most of his land to burn down. Putnam could not wait for his land to grow back.. He couldn't provide enough lumber for his mills anymore so, in 1912 he sold his mills to *Vermont Lumber Company*. Christopher Columbus Putnam could no longer contribute to his mills but he did donate 1400 acres of land to the state of Vermont. The land he owned would later be known as *Putnam State Forest* which includes many Vermont mountains one of which is Stowe Pinnacle. Not many people know his story but Putnam State forest will always be his legacy.

NATURE WRITING

I was just lying there and I heard something coming, I started squirming away. I felt as slow as a slug. Oh no! Giants with shovels were coming right for me! They started digging, but they were coming closer and closer. The big hole was right next to me, then they stopped, I was sure it wasn't for long...

They started once again and just kept going like machines, down, and down. I was losing my grip and started falling down, down, down. A giant picked me up with a shovel and threw me up and out of the hole...

When I landed I fell right asleep from such a big impact. I woke up 2 hours later. When I woke up I saw even more giants with shovels and realized I was a little brown and crunchy like chips. I tried to move but it was so hard and I was so stiff, just like boards.



MY REFLECTION OF THE HIKE

I was not very excited for the hike, but as we hiked I started to enjoy it, making jokes with friends enjoying the view, and I even learned a few facts about deciduous trees. One of the facts that I learned was that deciduous trees prefer less acidic soil.

HAIKUS

Apples, red and green
And, especially yellow
Oh, all the colors

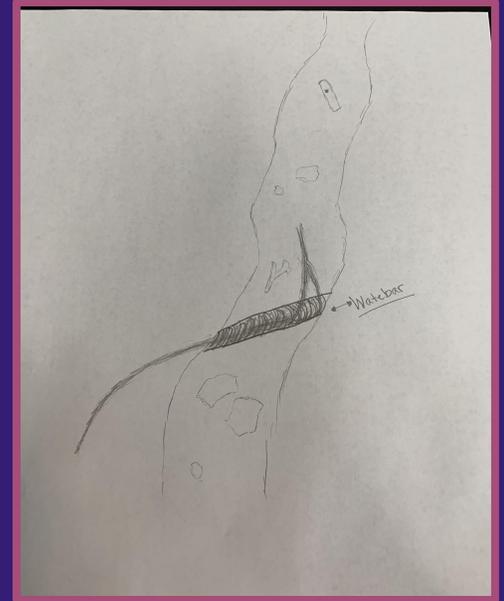
The leaves, trees, and grass
Oh, it looks so beautiful
Just taste the fresh air

Waterbars

Waterbars and Leave No Trace

by: Aiden

- Water Bars are used for water drainage so the trails don't erode and the trails stay in a good condition.
- Waterbars are usually built out of fallen trees and goes across the trail diagonally to drain the water off of the trail and into the woods. They are also made by digging a trench again diagonally downhill into the woods.
- A less efficient way to stop water from eroding trails is to dig a hole and put a rock over it and the water will drain under the rock and not ruin the trails.



Leave No Trace

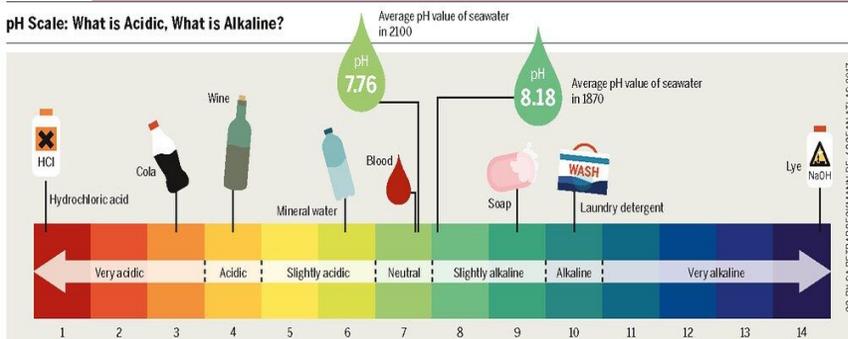
A reason why you don't want to leave any trace is because there are endangered species that we don't want to harm them but also just to keep the area/mountain clean

pH

By Habib

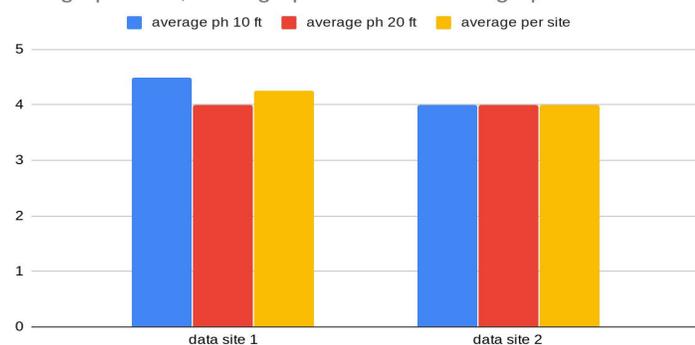
I tested Ph at the different elevations. On the mountain, for Site one and two , I measured ten feet off the trail and dug a little then took two spoons full of dirt and then went twenty feet and repeated. So I did that for site one and two. Once I got back to the school I put ten millimeters of water for each tube for each sample of soil, then I put an indicator tablet in each one. Next, I put in the samples for each tube then turned them up and down 10 times each . Next, I let it sit for one minute and then looked at the colors and compared them to the color of the color card. As for our results for site one ten ft it was a 4.5 and twenty ft site one it was 4. As for site two the average for ten feet was 4 and twenty feet was also 4

pH Scale: What is Acidic, What is Alkaline?



The difference may seem small, but the decline in the pH value from 1870 to 2100 would mean a 170 percent increase in acidity. Much smaller changes already pose problems for many sea creatures.

average ph 10 ft, average ph 20 ft and average per site

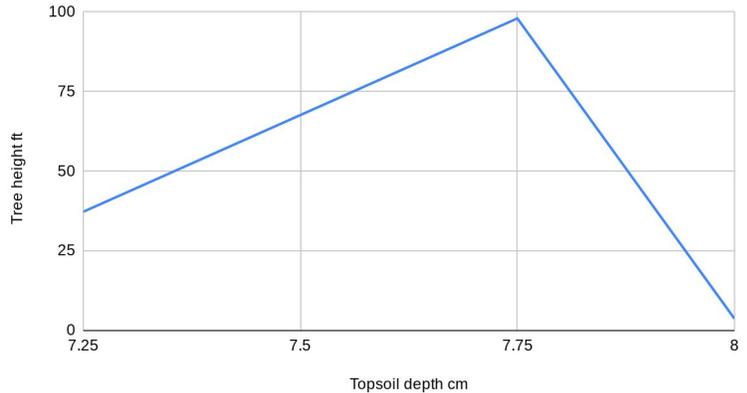


How does depth of topsoil affect tree height?

By Madison B.

This is a graph of the tree height and depth of topsoil on Stowe Pinnacle. We collected this data to see if the depth of topsoil affected the height of trees. In conclusion the depth of topsoil does affect tree height.

The effect of depth of topsoil on tree height



Geocaching

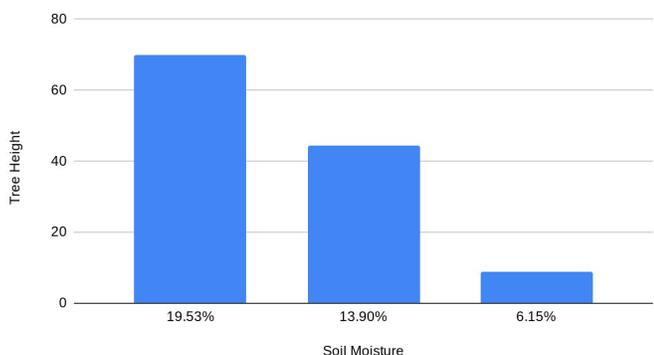
By Madison B.

Geocaches are all over the world. They are coordinates for mobile devices. A geocaching looks like a little container. They are trinkets in the container. While hiking Stowe Pinnacle we found a geocache.



How does soil moisture affect tree height?

Tree Height vs. Soil Moisture



While we were on the trail we stopped at points and collected data. While collecting the data I did soil moisture.

This is a graph to show the data that me and my group collected on Stowe Pinnacle

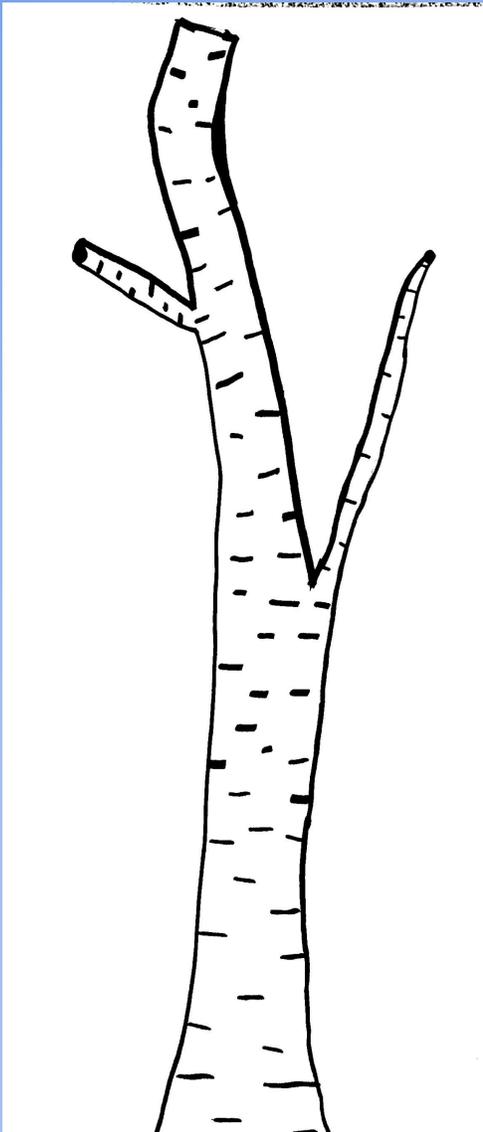
At data site 1 the percent was 19.53%
At data site 2 the percent was 13.9%
And at data site 3 it was 6.15%

The numbers get lower because the soil decreases in elevation.

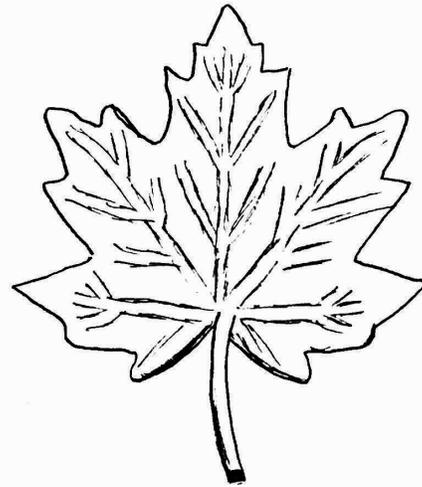
Summary of Article

By: Zach

After reading the article "Fragile Flowers The Ecology of Vermont's Alpine Summit" by Susan Shea, modified by Daizy Scarzello, I learned about plants and how they survive in the alpine zone. Some plants, such as Labor tea, grow hair on the bottom of their leaves to protect its stoma. Also the leaf opens with gases. The flowers often form buds by the end of summer, so they will be able to bloom in the spring.



Birch Tree Sketch by Maddi S.



Maple Leaf sketch by Zach



How Does Soil Temperature Affect DBH?

By: William

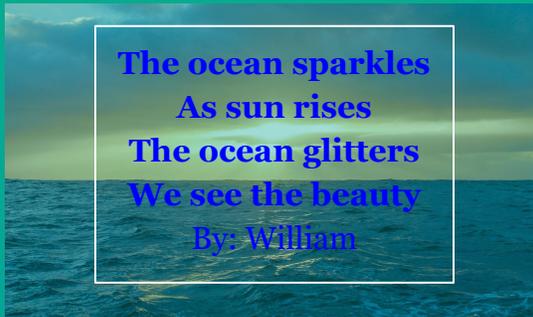


Someone taking the DBH of a tree.

What is DBH and how to find it?

DBH stands for Diameter at Breast Height . You may wonder what this is . Well DBH is the the Diameter of a tree at breast height. Breast height is 4'6". To find the DBH you will take a measuring tape and put it around the tree. First get to the highest elevation that the tree sits on and then measure breast height. 4'6" and then take the measuring tape and measure the diameter of the tree. All of this will be shown in the demonstration.

Claims	Evidence
I think that the soil temp data is unreliable.	I think this because I think that Data site 3s data is unreliable. I think this because as the elevation increases the soil gets colder according to google. If google is right then the Soil Temperature group is unreliable because the temp goes down and then it gets hotter. The soil temp data is also unreliable because the data was taken in the shade until the summit which makes the data unreliable.
I think that as the elevation increases the soil temperature Decreases and then that makes the DBH Decrease.	A reason that I can say that is as the elevation increases the Soil temperature decreases and their for the DBH Decreases. A way that I can prove this is that at Data site 3 the soil temp 11.77 (C) and the DBH there was 5.86 (CM) At data site 1 the soil temperature was 10.7 (C) and a DBH of 16.12.(CM) . That is not a big difference, but it is still a difference. Now I can say DBH is affected by soil temperature.
A claim about Data Site 2 is I think it's unreliable is as you get to higher elevation the soil temperature gets hotter and the DBH will become smaller.	A way that I can support my data is that if you look at data site one and data site 3 there is a Difference of 1.7 degrees Celsius and the difference of Data Site 1 DBH in data site three DBH is 10.26. Their is a big difference of elevation and as you go up in elevation then you go down in Oxygen and in all of the things that trees need to survive,



https://assets.theoceancleanup.com/app/uploads/2019/05/sunset_ocean-1920x1279.jpg

Reliability Check:

I think that's the soil temperature data site to data is unreliable . I think this because I think that Data site 3s data is unreliable. I think this because as the elevation increases the soil gets colder according to google. If google is right then the Soil Temperature group is unreliable because the temp goes down and then it gets hotter. The soil temp data is also unreliable because the data was taken in the shade until the summit which makes the data unreliable. I know that the DBH data is right because the only factors you need are trees and a measuring tape. It does not depend on the temp for it to be unreliable.

Conclusion:

In this investigation we were trying to find out how Soil Temp affects DBH. My hypothesis was, "I think that the soil temperature will affect the DBH big time. I think that when the is warmer the trees will be bigger. I think when the trees are smaller the soil is wetter. I think this because I read the piece introduction. Sources Grace, Audrey and Madison." I have found out the data doesn't support my Hypothesis. For example I thought that as the soil warmed up the trees DBH would be bigger, but it was the total opposite. The data shown as the elevation increases the soil temperature increases and the DBH decreases. Another example is that at Data Site 1 the soil temp was 10.7 (C) and the Average DBH was 16.12(CM) and at Data Site 3 the soil temp was 11.77(C) and the Average DBH was 5.86 (C). Even with the soil temp difference of 1.7 (C) degrees celsius their is a difference DBH of 10.26.(CM) I think the answer of my testable Question " How does soil temp affect Dbh?" is that Soil temp affects DBH.

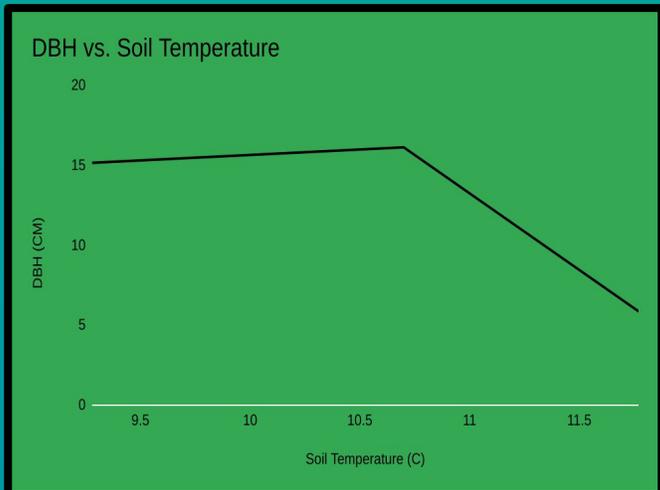




Photo provided by
https://live.staticflickr.com/2506/3778671257_3e2b

TRAIL WORK AND ITS IMPACT BY CALISTER

WHEN SOMEONE SAYS TRAIL CREW THE FIRST THING YOU THINK OF IS PROBABLY A CHILDREN'S SHOW, BUT A TRAIL CREW IS ACTUALLY A REAL THING YOU PROBABLY KNOW THAT THOUGH, BUT YOU PROBABLY DON'T KNOW HOW THEY GREATLY AFFECT YOUR HIKING EXPERIENCE. A TRAIL CREW USUALLY CONSISTS OF TEN PEOPLE WHO LIVE IN A CAMP FOR ANYWHERE FROM A WEEK TO A MONTH. DURING THIS TIME THEY ESTABLISH AND TAKE CARE OF A TRAIL. SUCH AS THE ONE ON STOWE PINNACLE. AS YOU HIKE THE PINNACLE YOU MAY NOTICE THE MANY STEPS MADE OUT OF NATURALLY OCCURRING STONES, THEY DIDN'T JUST FORM LIKE THAT. THEY WERE MOVED THERE, HOW? YOU MAY ASK. THEY MAY HAVE BEEN PULLED OUT THE GROUND BY A TOOL CALLED A BAR, A BAR IS A 4-5 FOOT LONG METAL ROD THAT IS JAMMED UNDER THE ROCK AND USED AS LEVERAGE TO PICK IT UP. BUT WHAT ABOUT THE CUT STONES? YOU ASK WELL, ODDS ARE THAT A TRAIL CREW AFTER REMOVING THE ROCKS FROM THE GROUND CUT THEM USING A PICKAXE. AT THE BOTTOM OF THIS PARAGRAPH ONE CAN BE SEEN WITH A FLAT AXE SHAPED SIDE AND A SHARP SPIKE SHAPED SIDE AS WELL, FOR HACKING AND CUTTING. NOW YOU KNOW ALL ABOUT TRAIL WORKERS AND WHAT THEY DO. MAYBE SOMEDAY YOU'LL DECIDE TO SIGN UP AS ONE, IF YOU DO GOODLUCK, AND HAPPY TRAILS.



Photo provided by
<https://upload.wikimedia.org/wikipedia/commons/d/d3/Pickaxe.jpg>

WINTER BRINGS THE CLOSING

BY OLIVIA

It was warm, I wasn't too moist yet i wasn't too dry. My texture was as perfect as biting into a freshly picked apple, so juicy yet so crisp it crackles on contact with your teeth.

MY LIFE WAS PERFECT

One warm day i was drained from playing with the wind and the bees. I knowing of what would come after decided to take a what i thought would be a quick nap.

I realized it had been a bit so I decided to get up. I opened my eyes and in return I got darkness. All around me was as black as an abyss. I recall instantly freaking out out but then something amazing happened! I could see actually see but what i saw confused me! I saw white? "Huh i don't understand!" I remember thinking. I suddenly felt cold and something in my mind started to glow! I remembered that this had happened before! I asked the other flowers what had happened after it was over the last time it happened. They told me "that was just winter, don't worry your a perennial it will be ok."

Hike

Brencath in and breathe out
My mind whispers as i hike
In out in out in.

Trails

The clang of metal
The shining light of the sun
Now the work is done.

Not Alone On The Trail

By: Alyssa

I climb up the tree and lay on a branch. I start to doze off to take a nap when suddenly I hear voices; a lot of them. I look to see what this is because this seems kind of odd. Whatever these huge objects are, they're coming closer so I try to get out of sight. Soon they are right underneath me and I see like 50 people! This is a rare occasion. I have never seen this many people on the trail before. They stop right underneath me. I freeze. They walk into the woods and I wonder what they're doing. I see them pull out some tools and get to work. What are they doing, I think to myself. After about 15 minutes they are finally gone, and I can go to sleep.

Photosynthesis

Sun and oxygen
Plants and trees help us to
breathe
Photosynthesis

By: Alyssa

The Mouse

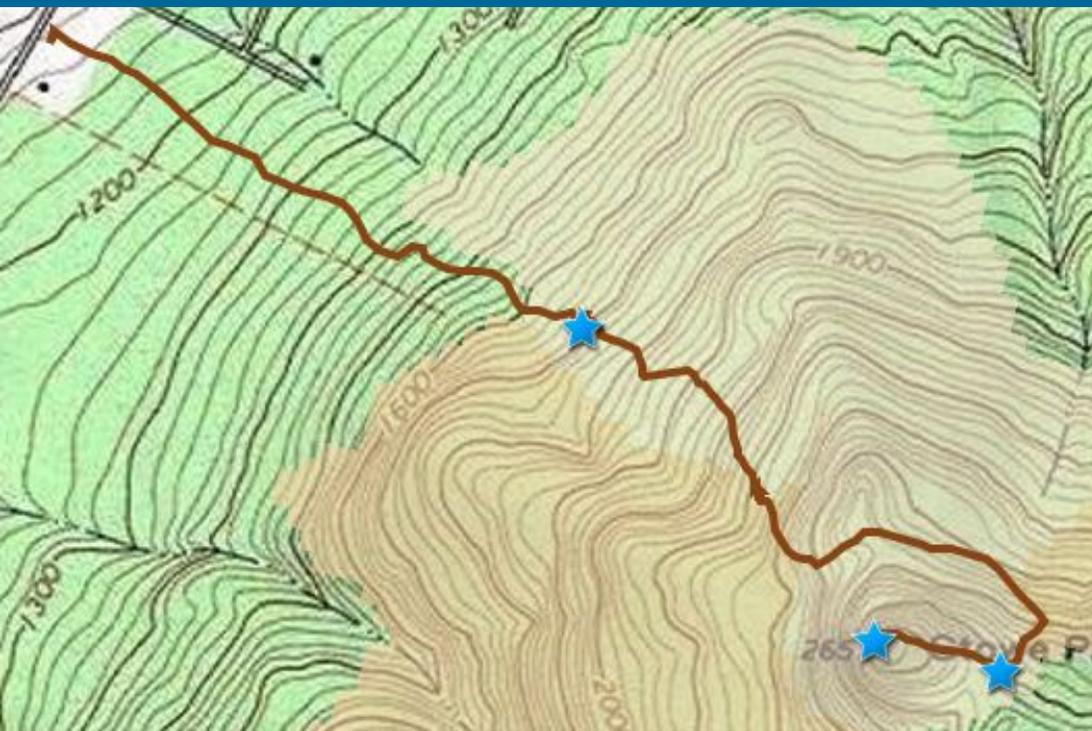
Sitting by the pond
Peaceful like a soaring bird
The mouse runs away

By: Lucy

Nature's Beauty

Trees , birds and branches
They're beautiful in nature
They have healthy growth

By: Hannah



Data collection site



Route

By: Lucy

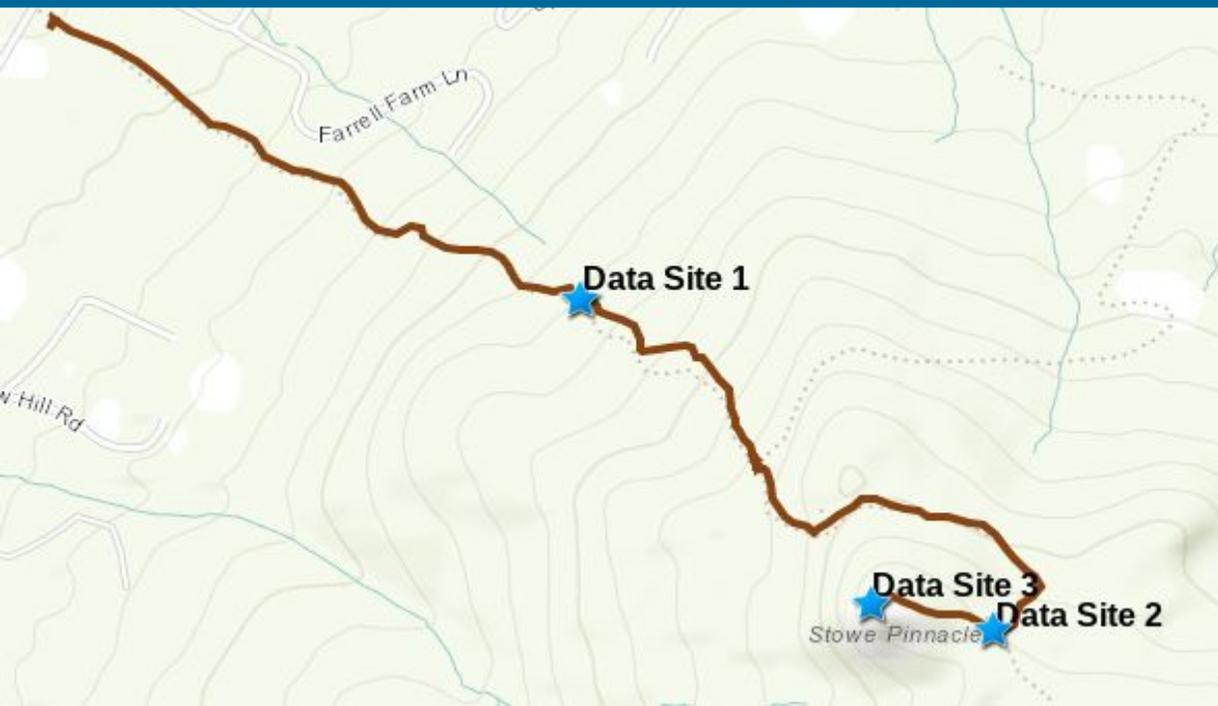
Soil temperature

By: Hannah

Data site:	Trial 1	Trial 2	Trial 3	Trial 4	Average
Data site 1	10.8 c	9.5 c			10.15
Data site 2	9.5 c	9.8 c	8.8 c	8.7 c	9.2
Data site 3	10.4 c	10.5 c			10.45

When we hiked Stowe Pinnacle Mountain we took data samples. This table shows the data from the soil temperatures at three different elevations.

By: Hannah



Route

By: Lucy

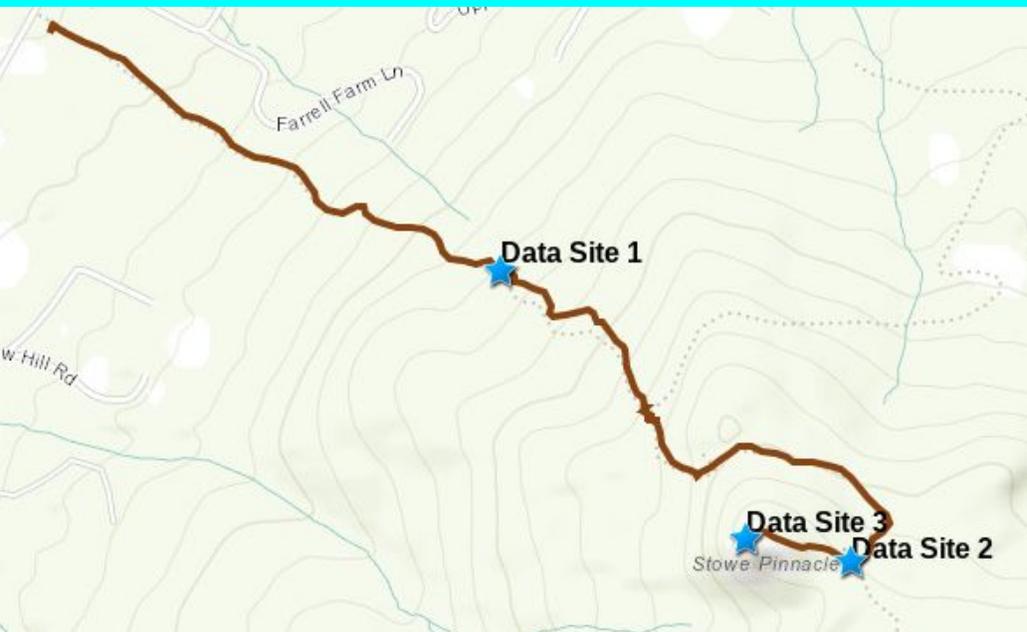
A Guide To Stowe Pinnacle By: Clara, Zephyr, and Aliza

PLEASE MAKE SURE TO STAY ON THE TRAIL!!!

Make sure to trust the trail, and please try not to leave it and go off course. If you leave the trail you are in danger of getting lost, and it's bad for the wild life and plantation around the trail.



Nature Sketch-By
Aliza



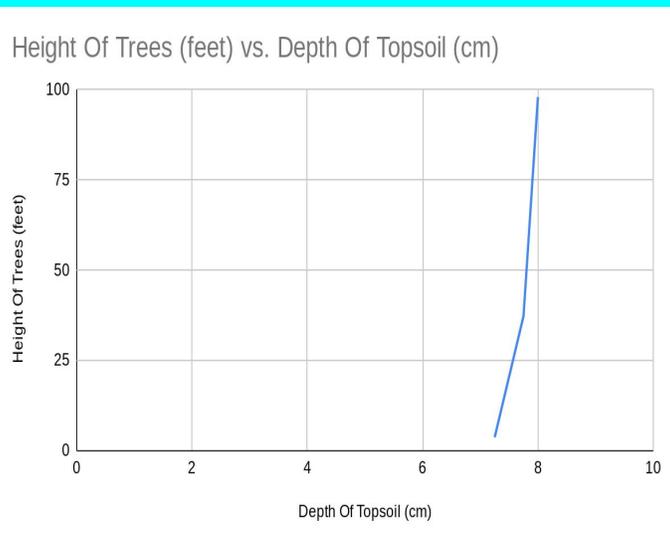
This is a map of Stowe Pinnacle, the stars are the waypoints and where we took our tests. We had three different tests/trials at each data point. Each trial was at a different elevation. We took three different trials at each data site, There was three data sites

**Closer speeding fast
I inched closer to death
Closer every day**
Haiku By Zephyr

Haiku By Clara-
Leaves Changing colors
Red, yellow, orange and brown
Then fall off the tree

Tree Height

In this investigation, I was trying to find out the average tree height depending on the average depth of topsoil at different elevations on Stowe Pinnacle. I predicted that the deeper the topsoil, the taller the trees would be. I thought this because in a diagram I saw most of the roots of the tree were in the topsoil. So, the deeper the topsoil, the more space for the roots to grow. Then that will make the tree healthier and taller. The data collected partially supports this. It supports it at Data Site 1 and 2, and it would at Data Site 3, but the data was wrong. For example, at Data Site 1 the topsoil was 7.75 cm deep and the tree height was 98 feet. Whereas, at Data Site 2, the depth of topsoil was 7.25 cm deep and the tree height was 37.33 feet tall. In addition, at Data Site 3, the depth of topsoil was 8 cm deep. However, that is not correct. The topsoil should have been the least deep here. Therefore, if the data at Data Site 3 was correct then my hypothesis would be correct, but this data only partially supports my hypothesis.

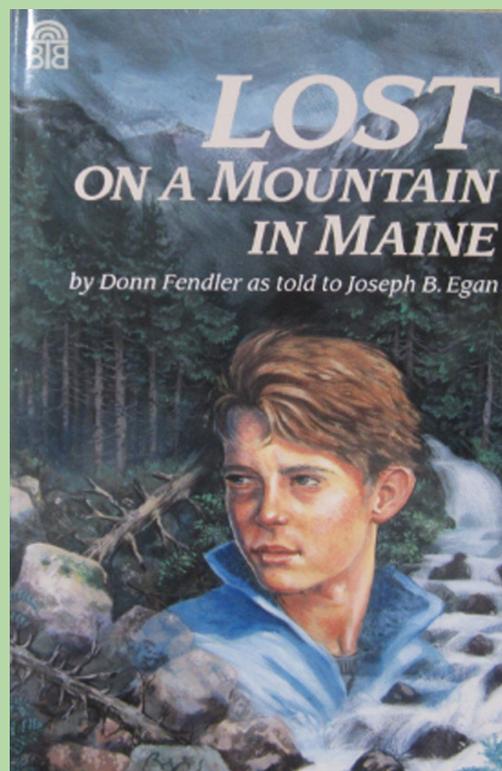
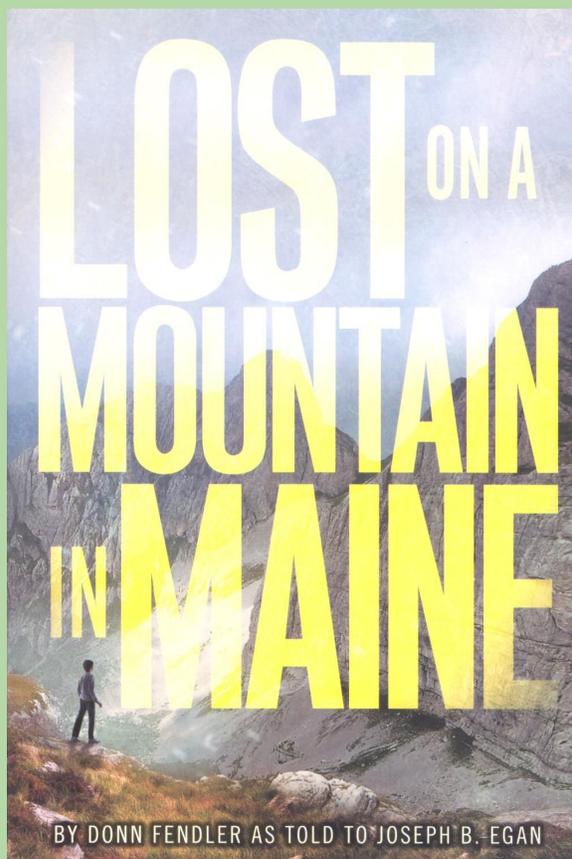


Claims	Evidence
The data for depth of topsoil on Data Site 3, is not reliable and is incorrect.	I know this for a few reasons. One is which I asked the depth of topsoil group about it and they said that the data is not correct and not reliable. Also, the depth should have gone down. Data Site 1 to 2 the top of depth soil went down too. It says that the depth of topsoil is 8 cm deep but on Data Site 2 it is 7.25 cm deep. The depth should have decreased not increased.
The higher in elevation you go, the shorter the trees get.	I know this because according to the data collected, at data site 1 the average height of trees was 98 feet. Then, at Data Site 2, the average height of trees was 37.33 feet. Whereas, at Data Site 3, the average height of trees was 3.75. At each data site the average height of trees decreased.
The deeper the topsoil the taller the trees are.	In Data Site 1, the top soil was 7.75 cm and the average tree height was 98 feet. Whereas, in Data Site 2, the average depth of topsoil was 7.25 cm and the average tree height was 37.33 feet. However, it says that in Data Site 3, the average depth of topsoil was 8 cm and the average tree height was 3.37 feet. That data of topsoil is an outlier and is incorrect. The depth should have gone down.

Book Review-Lost on a Mountain in Maine by Donn Fendler (No Spoilers ;)

By: Maryssa

I give this book a three and a half star review. This heartwarming book is a very good example of a superior book of a high quality. I really love how the author put so much detail into this short memoir! I know this is a good book because a good book makes you feel like you are on a journey with the main character. While you read this book you feel like you are lost with the protagonist (Donn) on Mount Katahdin. When you read the book you can feel his emotions, and see the situation he is in. Of course there are some flaws in this book. I personally think that book should have been longer. The book went by so fast, and I felt actually kind of blue (Not like a smurf) when the book was over. I recommend this book to anyone who loves adventures, memoirs, and touching stories. If you are looking for something a little different from modern day books, this book would be a perfect match for you! If you are interested in this book, get up, go to a local library and check out a book or buy it online, then get reading!



Giant leafy trees.
Dew drops on the forest floor.
The crisp smell of sap.

Raining leaves from trees.
Colors of the auburn leaves
Whispers of the wind

Erosion

By: Sammy

What is erosion?

Well, it starts at the top of the mountain. When the rain water falls on the top of the mountain, it runs to the bottom. On the way, it breaks up rock and soil and brings it with it. Erosion can also form from people going a little off trail and breaking a bank, then the rock and soil on the bank falls.

Why is it bad?

Erosion is bad because, when it comes down the trail, it wrecks, or breaks the soil. But the water doesn't care, it keeps on going. Then, when it goes through the trail, it still doesn't care! It wrecks the trail and makes a little stream kind of, where the water runs through the trail and down the mountain.

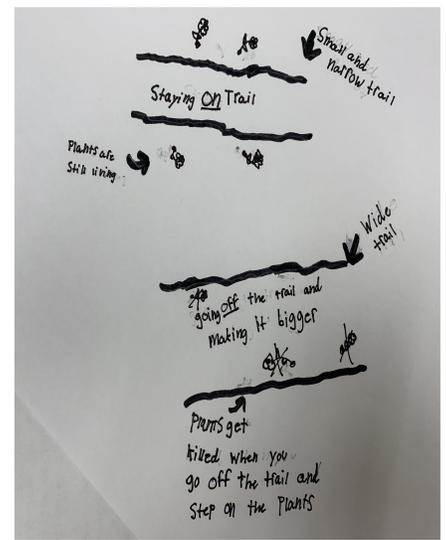
How to prevent it

If you don't want to cause erosion, you should stay on the trail, respect water bars (they keep the water running down and not on the trail), you could add rocks as a barrier to keep the water off the trail, and if there's no water bars where unwanted water is flowing, try to direct it somewhere else.

Soil Moisture

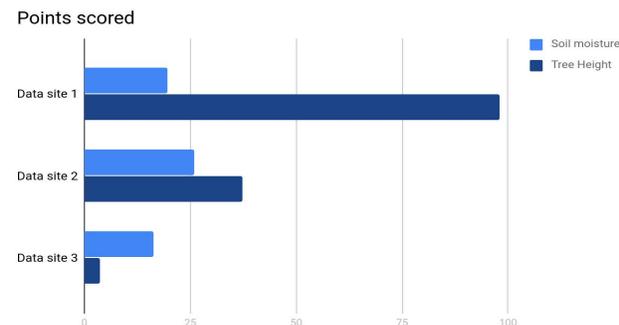
By: Logan

In this investigation I was trying to figure out how soil moisture affects the height of trees. But I found out that as soil moisture decreases tree height decreases. Now let's talk about soil moisture at different elevations of Stowe Pinnacle. In conclusion 1 claim is as the elevation increases soil moisture decreases and tree height decreases. My evidence is that I know this because at the first elevation the soil moisture was 19.66 and the tree height was 98 feet whereas at the summit, the soil moisture is 16.3 and the height of trees is 3.75 feet which is a really big decrease in feet. I think it's a reliable resource because we calculated the data three times at each elevation. So I think it's a reliable resource because we calculated the data three times at each elevation. So I think it can be a reliable resource because we did a precise check on all elevations under the shade.



Reflective prompt

If I had to describe the hike in 3 words I would say it was slow, fun, and rocky. On the hike I hiked with Lucas and Colton. The terrain on the hike had a lot of rocks. But my group was Sammy and Cal and we stopped at 3 different elevations to collect data and we ran into some trees so we went around them. The view from the summit was really cool you could also see some of the other mountains and everything looked so small. When I was up there I felt relaxed and I was sitting on the rocks on the side. My favorite part of the hike was when we got to the top and ate lunch.



What pH is and how it affects living things

By: Greg

pH is a scale of how basic or acidic something is.

pH is based on a scale from 0 to 14, with 0 being the most acidic, 7 being neutral, and 14 being the most basic.

Acids are compounds that release (H⁺) or hydrogen ions when reacting to water, while bases release (OH⁻) or hydroxide

Bases and acids cancel each other out, which means it's important to have a good balance between acids and bases so plants can get the right nutrients. For example nitrogen, phosphorous, potassium, sulphur, calcium, magnesium, and molybdenum, they are important for most plants, and are most available at the pH levels 6.5 through 7.

However some plants and trees such as alpine lichens can survive.

Low pH causes a disturbance of the balance of sodium and chloride ions in the blood of aquatic animals. which can cause respiratory failure and loss of oxygen in the skin. Which is a serious threat to rivers and streams ecosystem.

Remember you do not own the trail do not harm or disrupt the ecosystem, help it.

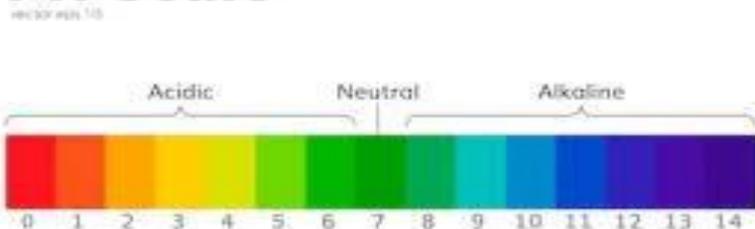
What is Burt Hollow?

By: Sophia

Burt Hollow is the name of a part of the Putnam State Forest, it is named Burt Hollow Block.

According to a Stowe historian, Burt Hollow refers to part of the C & FO Burt land that was in the Brownsville section of Stowe. In the 20th century The Burt family had a steam mill that burned down. The Burt family took equipment from their steam mill village. As part of creating the stream mill in the village of Stowe that was operated from 1893 to about 1963 .By the time the land was transferred to the state Charleston was deceased.

Ph Scale



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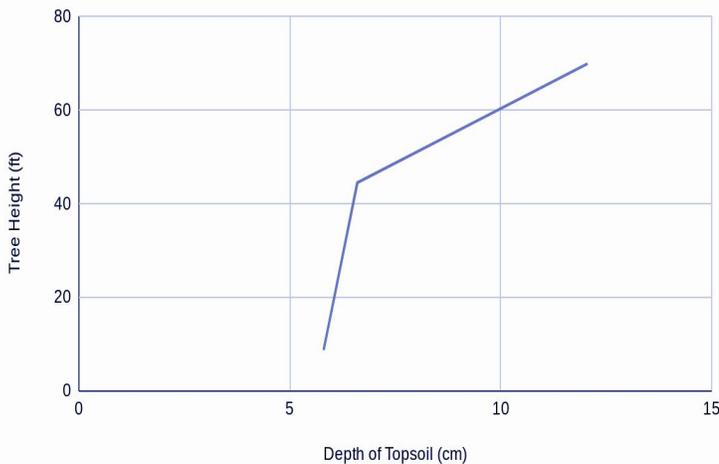


Testable Question: How does depth of topsoil affect the height of trees?

<u>Claims</u>	<u>Evidence</u>
The topsoil depth decreases as elevation increases.	At elevation 1 the topsoil depth was an average of 12.06 cm whereas at elevation 2 the topsoil depth was an average of 5.3 cm. This shows a decrease in topsoil of about 7 cm.
The tree height decreases as elevation increases.	At elevation 1 the average tree height was 70 ft whereas at elevation 2 the average tree height was 44.55 feet. This shows a decrease in the tree height of about 25.45 feet.
As topsoil depth decreases the height of trees decrease.	At elevation 1 the average topsoil depth was 12.06 cm and the average tree height was 70 ft. At elevation 3 the average topsoil depth was 5.3 cm and the average tree height was 8.77 ft. This data shows that as the topsoil decreases the height of trees also decreases.

In this investigation I was trying to find out if the depth of topsoil on Stowe Pinnacle at different elevations impacted tree height. I predicted that the amount of topsoil at the top of the mountain would decrease because it was much rockier. The data we collected supported my prediction. For example, At elevation 1 the topsoil depth was an average of 12.06 cm whereas at elevation 2 the topsoil depth was an average of 5.3 cm. This shows a decrease in topsoil of about 7 cm. In addition, At elevation 1 the average tree height was 70 ft whereas at elevation 2 the average tree height was 44.55 feet. This shows a decrease in the tree height of about 25.45 feet. Therefore, At elevation 1 the average topsoil depth was 12.06 cm and the average tree height was 70 ft. At elevation 3 the average topsoil depth was 5.3 cm and the average tree height was 8.77 ft. This data shows that as the topsoil decreases the height of trees also decreases.

Tree Height (ft) vs. Depth of Topsoil (cm)



SHORT STORY

By Rowan H

The flower

I am a beautiful flower with velvety petals. I grow next to the trail upon which people walk. One day a little girl bends down and picks me; it hurts a little, but not that much. I am carefully taken away to a home. The little girl fills a vase with water and puts me in it. The girl smells my aromatic scent. She walks away and all is still and quiet. Every day for months I survive and watch the girl get older, but she never forgets me. Then, one day I begin to wilt and die. The girl sees this and puts me in a flower press to preserve me for much longer. I spend so long in the dark alone. Then, the press is lifted off of me and I see the light. I see the girl, but she is much older. She puts me into a machine and I am covered in plastic. I come out of the machine and the girl pokes a hole in the plastic above me and puts a small chain through it and hangs me around her neck. I stay there for a while until the girl who now has white hair gives me to a younger version of her. I am passed from girl to girl for a long time until my chain breaks and I fall into a river and watch the sky as I float away.

HAIKUS

Glorious autumn

A beautiful flower stands
enjoying the lake

Fennec fox

Little baby fox
sitting on a big round stump
waiting quietly

white soft fluffy fur
adorable and so cute
living in the woods

Unyielding giants
Great pines stand against strong gales
Never letting shift

Climate Change, DBH

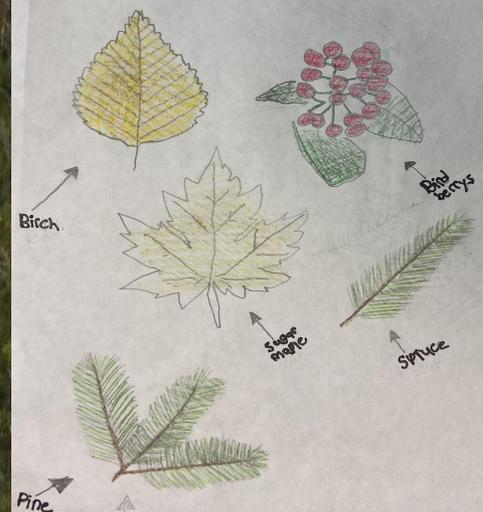
By: Julianna

- Diameter at breast height (DBH) - The DBH changes as the elevation changes. For example, when you are walking up the mountain it gets colder and then the soil gets cold and when the soil gets cold it is not good for the trees so the trees don't grow very well.
- Climate change -The climate changes as elevation rises. So basically when you get closer to the top of the mountain it gets colder because there are no trees blocking the wind no tree to block the wind.

Leaves I saw on the trail



Leaves you might see on your hike.



What is Stewardship?

Stewardship on a trail means leave no trace. For example, when you are on the trail you should not leave trash or left over food on the trail. Also never go off trail.

SHORT STORY

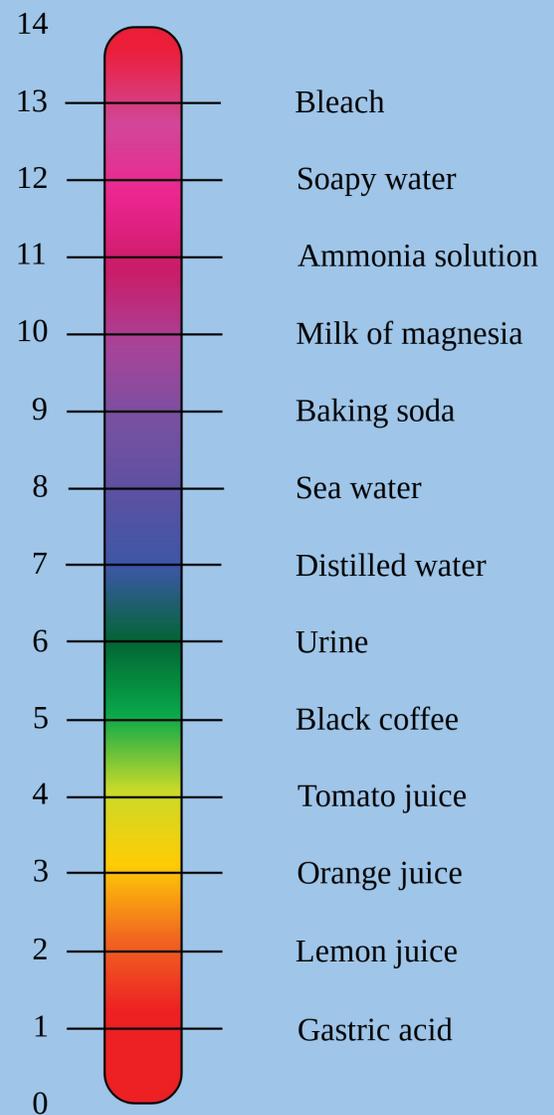
By: Molly

I smell the crisp smell of pancakes as I wake up in my mother's old cottage house. My mother has told me to always get up early, so you can watch the world wake up. From crickets to robins, and the sun. I jumped out of bed, slipped on my cozy reefer, and started outside. It was colder than usual and the grass was as slick as butter. Even the horses were not up. I could hear them softly breathing in the barn. I watched as the goats took a long sloppy drink from the cold river water. I could hear them softly breathing in the barn. As I moved deeper into the woods, I could feel myself come more alive. I could feel myself sinking into the ground like a frog getting ready to migrate. I shivered in the cold, bare breeze. I decided to walk over to a rock by the river. I always sat on that rock in the morning to read my book. Suddenly I tripped into the cold fall water. The cold water made me watery and shimmery. At first, I didn't recognize myself. My face was submerged in water and I couldn't feel my skin. I felt myself slowly slip into the cold spirit of the river.

pH- What is it?

By Anna

pH is a measurement of how acidic or basic a substance is. pH is important to our research on the Stowe Pinnacle so that we can research how the soil affects the growth/health of trees. Lower pH in a substance means that it is more acidic, and higher is more basic. The best pH level for soil is 5.5-7.0 if plants or living organisms are living in the soil. The average pH at the Stowe Pinnacle was 5.5 pH. At the lower elevation, the average pH was 4.25 pH, and at the second elevation, the average was 4 pH. We did take a sample at the summit, but the sample or our reading of the data was inaccurate with a pH of 11.



Source for pH scale

Source for Haiku background

Nature Drawing

By Evelynn



White fluffy soft cloud

Floating in the big blue sky

Forming, change, drifting

By Madi



Hiking the Stowe Pinnacle

by Madi

I was walking off the trail to avoid mud. I was almost back on the trail until just then I slipped on the side of the bank and fell on my right arm. I was lucky my arm was not hurt and was just covered in mud. My elbow caught my fall and the mud erupted! I had a small cut on my hand and I am now left with a scar. I had my hand cleaned. It stung like a bee sting, but it was better than an infected cut. I put a bandaid on my hand and went on with the hike. I was determined to carry on.

Photo Credit: Abigail Brophy



What to avoid and what to visit on the Stowe Pinnacle trail

by Evelyn Tagliaferro

Stowe pinnacle is not a long hike it is only 1.8 miles. Most of the hike is uphill very little of the hike is flat. There are also several sections of rock stairs that go straight up hill. There are a few very nice places to stop for a break such as the meadows. The meadows trail is more gradual. The junction is a nice space for a break there a larger spot to sit and chill. Due to all the uphill and rocks, winter and early spring would not be a good time to hike. Either fall would be the perfect time to hike. In the burt hollow parking lot you have to watch out for the hogweed which can give you a very bad rash. You have to be very careful after it rains because of rocks. You also have to be careful of the bugs such as mosquitoes and bees.

What is sustainability?

By Anna

Sustainability means keeping an area maintained. In the situation of the Stowe Pinnacle trail, sustainability relates to keeping the trail free from trash, and not destroying or disrupting any parts of nature. Another way of describing this is the saying "Leave no Trace," or LNT. Basically, sustainability is the act of keeping up the trail, especially if it is on private land, like the beginning of the Stowe Pinnacle trail.

Photo Credit: Daisy Scarzello



Students completing nature writing at the summit.

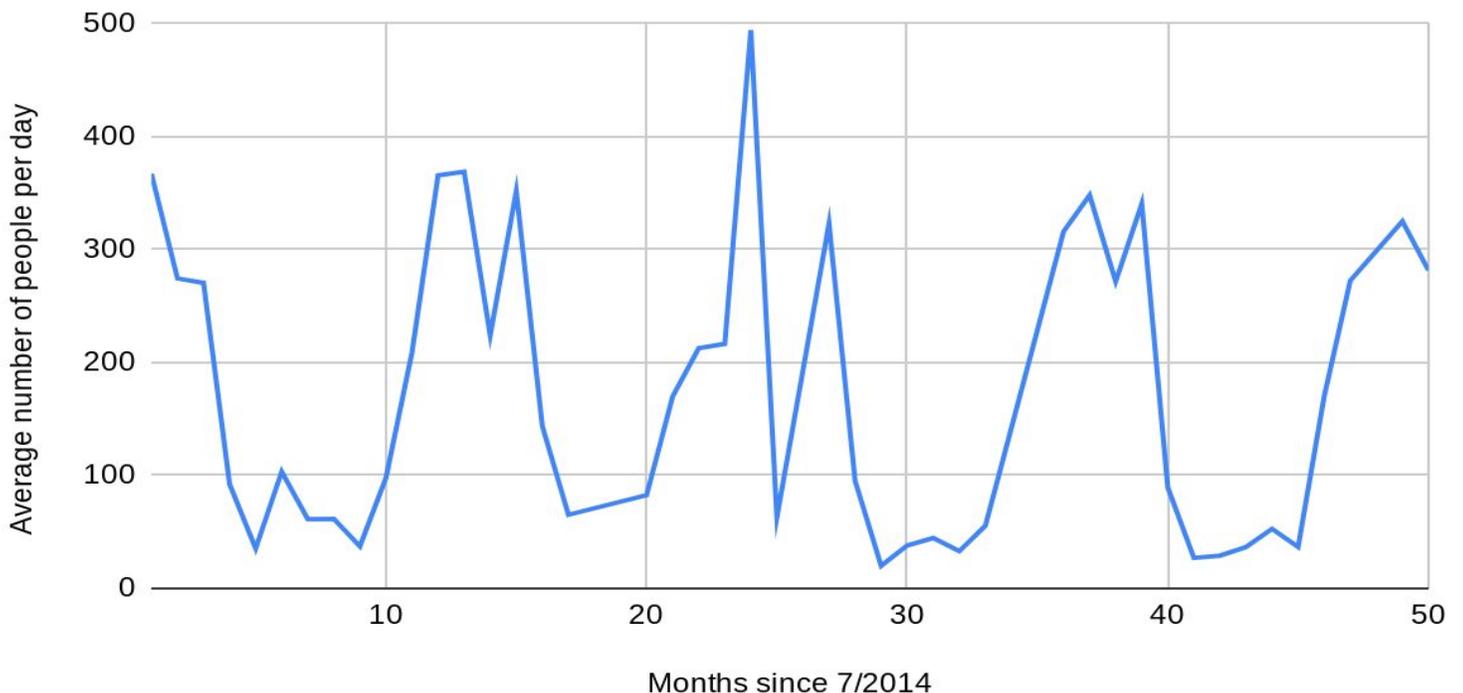
Stowe Pinnacle Censor Data

Noah, Ruby, Caedin

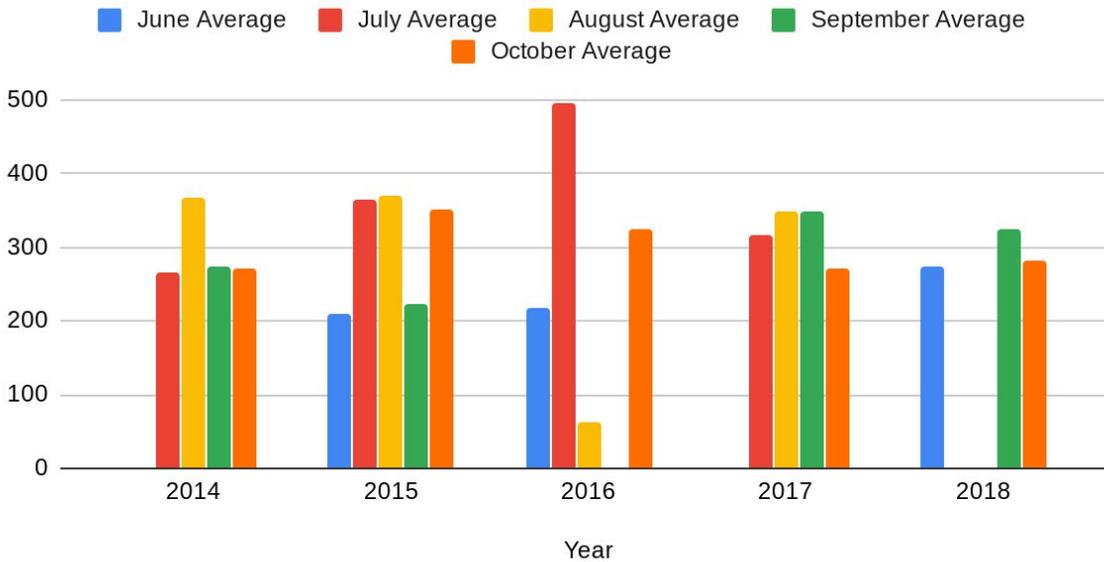
The Stowe Pinnacle trail is walked on a lot in part because it is such a beautiful trail. On this page we're looking at the amount of people that have walked on this particular trail in the about the past four years.

In this graph we're looking at how many average people per day in a particular month have walked on the Stowe Pinnacle trail since 2014. This data was collected with a Trail Counter.

Average number of people per day vs. Months since 7/2014



Average Foot Traffic at Stowe Pinnacle In Vermont's Busiest Seasons



Parking Tips:

At the Stowe Pinnacle there is two very small parking lots. So on these busy days it's hard to find a spot. On these days you should park down the road, go earlier, or carpool.

In the graph above shows the busiest seasons for hiking in Vermont. The busiest months are June, July, August, September and October because of the nice weather in the summer and the nice foliage in the fall.

Haikus

The wind in my face
Leaves falling to the cold ground
water flows softly

Flowing Past The Rocks
Faint Quiet Cold Dazzling
Glistening Fresh Clean

<https://pixabay.com/images/search/forest/>

https://www.flickr.com/photos/o_0/46206526872/

<https://pixabay.com/images/search/forest/>

Depth of topsoil

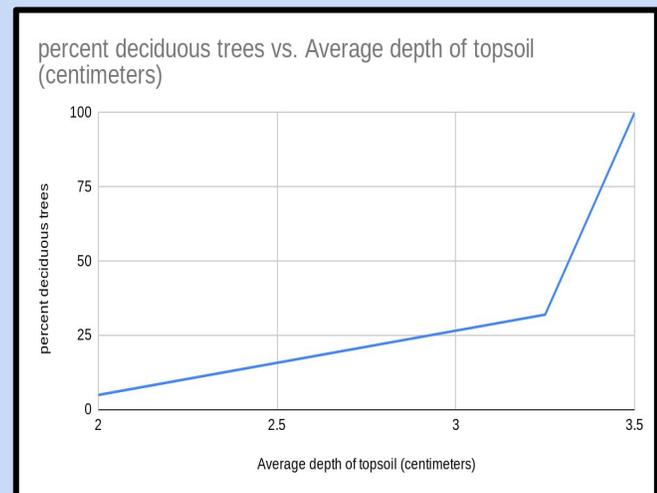
How does the depth of topsoil affect the height of trees?

	Depth of topsoil (cm)	Height of trees (ft)
Average site 1	8.5	98 feet
Average site 2	8	37.33 feet
Average site 3	5	3.75 feet

In my investigation I was trying to find how does the depth of topsoil affects the height of trees. I thought that when the topsoil was deeper the taller the trees would grow and be bigger. I thought this because when the topsoil is deeper there is more room for the tree to grow. The data does support my prediction. As shown on data sight 1 the height of trees is at 98 feet and the depth of topsoil is 8.5cm but on data sight 3 the height decreases to 3.75 ft and the depth of topsoil also decreased. Depth of topsoil decreased to 5 cm. Therefore, as the depth of topsoil decreases the height of trees also decreases.

Percent of deciduous trees

My testable question was How does the depth of topsoil affect the percent of deciduous trees? The data showed that as you get higher in elevation the depth of topsoil gets thinner, and the percent of deciduous trees decreased also. The first data site was 100% deciduous trees, and 8.5 centimeters of topsoil. Then it went 49.32% deciduous, and 8 centimeters of topsoil. At the summit it went all the way down to 2% deciduous, and 5 centimeters of topsoil. These were all the averages of each site.



Trip to UVM Science Cafe

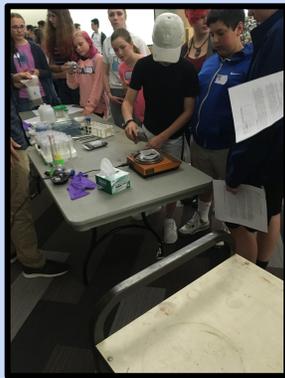
By: Nadia

I went to the UVM Science Cafe Soils workshop. I had a lot of fun and learned lots about soil.

I learned how to tell the different layers of soil from one another by their color. I also learned that clay particles are very fine and sand particles are pretty big. Finally, the presentation, given by Jenny Bower, covered topics about acid rain and climate change.

I had a lot of fun at the different stations. The first station was how to tell the different soil horizons from each other by color. The second station was about pH. And the third station was how to tell the difference between clay and sand.

Overall, it was a really fun experience and I learned a lot about soils.



The Layers of soil

Haiku

The road feels chilly,
Under my feet as I walk,
I hear a dog bark,
There is no one else in sight,
I continue on.

