




Mountain P A S S A G E S


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OUR MISSION

The Appalachian Mountain Club is the nation's oldest outdoor recreation and conservation organization, and promotes the protection, enjoyment, and understanding of the mountains, forests, waters and trails of the Appalachian region. AMC has more than 100,000 members, 16,000 volunteers, 450 full-time and seasonal staff. The New Hampshire Chapter is the second largest of the 12 Chapters within the Club.

VOLUME 46, NUMBER 5
WINTER 2020

Notes from the Chair

BY: RICK SILVERBERG

December 2019 to December 2020
Thinking back to a year ago, things seemed so different. Our days were filled with so many activities:

- Trips to lesser known trails;
- Winter school weekend training programs and a winter hiking series;
- River running, rescue, pool rolling;
- Top rope safety management;
- Backcountry telli skiing instruction;
- Trail maintenance;
- Bike expeditions and packing for overnights;
- Conservation education;
- Planning for a new Chapter webpage;
- Preliminary plans for the hundredth anniversary celebration of the Chapter; and

- 20 and 30 somethings gatherings, camping and special new members' socials. Then everything went silent. We were locked down. Everything stopped! What happens when a group that was always outdoors in perpetual motion is hit with messages that say keep your social distance; stay at home; you're under lockdown? Discussion starts about alternative activity. How about online meetings? Requests come in to purchase a Zoom account for the Chapter. Zoom account activated, increased work on the new website, active discussions about how to use Chapter reserves and the agreement to fund work at the Rumney rocks. Representatives from the Chapter participated in development of AMC guidance for activity under Covid-19 protocols.

NOTES FROM THE CHAIR, TO PAGE 2 

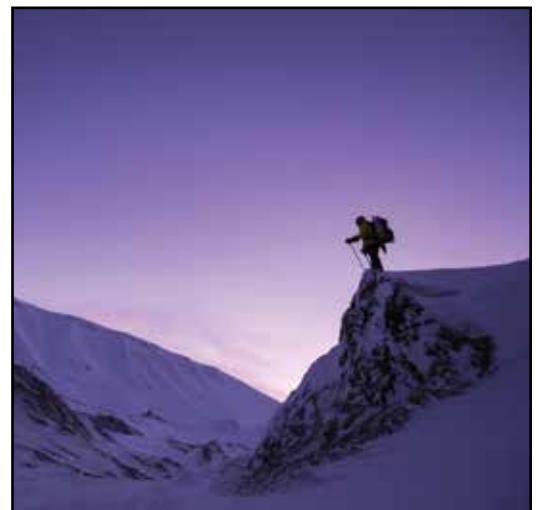


If You Hike in Winter, Make Sure You Are Prepared

BY: BOB MCLAUGHLIN

This summer witnessed an influx of new hikers as people sought activities that got them outdoors and enabled them to take the precautions required by the Covid-19 pandemic. Some of these hikers returned after years away from the sport, and others were novices. Many observers expect this trend will continue

WINTER HIKING, TO PAGE 4 



NOTES FROM THE CHAIR, FROM PAGE 1

Equipped with new Covid-19 protocols, some leaders began to explore leading trips with very small groups maintaining social distancing of more than 6 feet on the trail and wearing masks in parking lot. Still, there were no overnight accommodations, no group cooking and no carpooling.

As we progressed into spring, people began to hike locally exploring land previously overlooked, such as local conservation land, town forests, school forests, Society for Protection of New Hampshire Forest preserves, and other public lands, while avoiding the busy trail-heads in the White Mountains.

People began to report on what worked for trips under Covid-19 protocols: complicated but in some cases doable for hiking, biking, paddling, and conservation education. We also learned what did not work and shared the lessons learned.

Since in person gatherings were not possible, all meetings switched to Zoom. Through learning by doing, several individuals in the Chapter are well on their way to mastering the many features Zoom provides. Finding a simple Zoom account for the Chapter was insufficient, we eventually expanded it to the Pro version so we can have up to 10 hosts.

So, we were ready when all training went virtual toward the end of September 2020. We even successfully ran the Chapter's first virtual Annual Meeting completely on line.

Plans have been developed for this year's Winter Hiking series and Leadership Training to be done with virtual sessions and field days under Covid-19 hike protocols.

All committee meetings are being held on Zoom.

2020 also saw some administrative challenges as our Vice Chair was forced to withdraw from nomination as the next Chair due to medical issues. A special study committee was formed to review possible ways to deal with the situation. Ultimately a By-Laws Committee was formed and suggested several changes to the Chapter's By-Laws, including one that would provide the flexibility to allow an additional term for a term limited position, such as a Chair of the Chapter, in an emergency when a qualified and willing candidate for the position could not be identified.

The By-Law revisions were proposed to the Executive Committee and approved. They were then forwarded to the Nominating Committee and the Annual Meeting Committee and ultimately publicized to the membership. The revised By-Laws were adopted by a vote of the members at the Annual Meeting.

Under the revised By-Laws, I am the first chair in many years to serve for three consecutive one-year terms. The new Vice Chair, Valerio Viti, was appointed in May and he agreed to be mentored intensely during the 2020/2021 year. Valerio promised he would be willing to accept the nomination as Chair in the fall of 2021 after only one year in the role of Vice Chair.



Rick Silverberg

We are going into the new year planning for our 100th anniversary as the NH Chapter. If you're interested in helping with the planning for the 100th Anniversary activities please contact Rick Silverberg by email at synergyc@aol.com or by phone at (603) 455-9119.

We are also planning Covid-19 approved outings and virtual training and meetings, including some combined virtual/field training. Watch for online listings as these programs are announced.

Stay tuned. The Chapter will continue moving forward and you won't want to miss the adventure!

MOUNTAIN PASSAGES

Volume 46, No. 5
Winter 2020

Mountain Passages is published four times a year by the New Hampshire Chapter of the Appalachian Mountain Club.

Submissions. Members may submit articles or photos (hi-res jpegs) to newsletter@amcnh.org. Articles may be edited at the discretion of the editor to meet space and style requirements. Publication is on a space-available basis. While Mountain Passages does not pay for submissions; a byline or photo credit is given. Contact Mountain Passages for reprint permission.

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Human Impacts on the Environment

BY JOHN WILLIAMS

Global warming is on our minds. We love the natural world we live in, and it is changing. The warming is starting to have impacts which we can see and feel. More changes are predicted. But climate change caused by greenhouse gasses is not the only challenge facing our planet.

Articles have appeared in *Mountain Passages* addressing climate change and protecting the environment. Most recently, the Spring 2020 issue featured *We Must Take Action Regarding Climate Change* by Paul Hopkins and the March-April 2019 contained an article by Janis & Arianna Stokes, *Waste Not* on how to evaluate and reduce our household waste stream. Both of these articles were intended to raise awareness, understanding and promote earth friendly behaviors.

This article is intended to do the same by reviewing some of the major environmental challenges we and the planet face in 2021 and the future.

Global Warming and Greenhouse Gases

A great deal of emphasis is placed on carbon compound emissions as the cause of environmental change. Environmental change occurs continuously as explained by Paul Hopkins in his article, but recent human impacts have greatly accelerated the changes to ecosystems. Anyone who has had the experience of seeing the toe of a glacier knows the glaciers are melting at a much faster rate than they have in the recent past. In the northeast, the summers have been warmer, and the winters milder. Further south, hurricanes and tropical storms are becoming more frequent and intense. Rising temperatures will affect ecosystems in the oceans and on land as average temperatures rise.

We are familiar with the big targets in the effort to reduce adding excess carbon dioxide and other greenhouse gases into the atmosphere. The biggest sources are power plants, transportation (automobiles, trucks, busses, and aircraft), agriculture and live-stock, our homes, and industry. Just think about the thousands of

trucks making deliveries to stores and to our homes which swarm about like global warming busy bees. How does our lifestyle contribute to this?

Modern products and luxuries which seem necessary today all contribute to the excess generation of carbon dioxide, the primary greenhouse gas. Generation of other greenhouse gasses in excess are also largely attributed to human activity. Essentially, everything which involves the use of a powered device contributes excess carbon dioxide to earth's atmosphere. Automobiles, both gas and electric, lawn mowers and leaf blowers, cordless drills, hair dryers and irons, toasters, gas grills, and air conditioners, heating systems and portable heaters, and even computers and cell phones contribute to emissions of greenhouse gasses which cause global warming.

Essentially every electric device operated by consumers indirectly adds carbon emissions to the atmosphere, due to the use of electricity produced by burning fossil fuels, such as oil, gas, or coal, or wood.

Even burning bio-mass (forestry wood & wood product waste) generates carbon emissions. This includes your campfire and backyard wood fire pit.

Yes, even "green" energy alternatives, such as solar panels and wind turbines, contribute to global warming because of the energy consumption during their manufac-

ture, transport and installation.

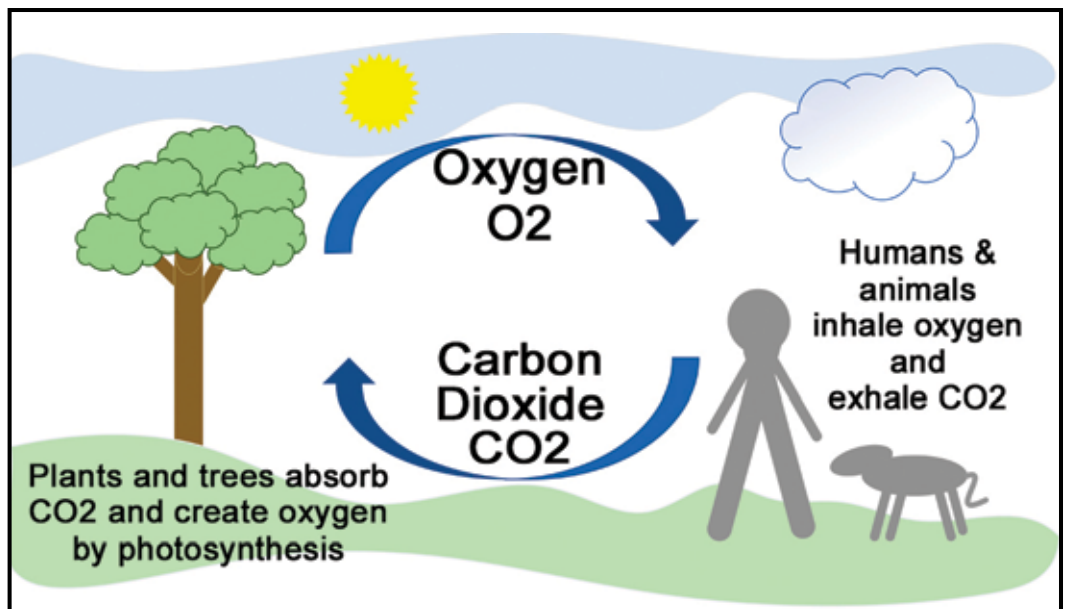
Most of our energy depends on fire, and fire consumes oxygen from the air and releases carbon dioxide.

Over the years, many of us were introduced to the biological cycle of oxygen and carbon dioxide. Except for anaerobes living in small niches that are free of oxygen, life depends on oxygen. We take the oxygen in the air for granted. We inhale oxygen and exhale carbon dioxide. Plants, such as algae, grass and trees are critical to the other side of this cycle, they absorb carbon dioxide and use it to produce their biomass and oxygen. While plants also use oxygen, they produce more than they need and release it to the atmosphere.

In an undisturbed environment, the cycle is in balance, and the amount of carbon dioxide produced is roughly equal to the amount consumed. However, humans have upset the process by extracting fossil fuels, which are primarily the remains of ancient plants, and burning these fuels for energy or even worse for disposal, leading to steady increases in the levels of carbon dioxide.

This imbalance and the continuing rise in carbon dioxide levels in the atmosphere is driving global warming and climate change.

HUMAN IMPACTS ON THE ENVIRONMENT, TO PAGE 6 



Plants take up carbon dioxide and produce oxygen while all aerobic organisms take up oxygen and release carbon dioxide.

WINTER HIKING, FROM PAGE 1

into the winter and expect that hikers who have only ventured into the backcountry in the warmer months may try hiking in the winter. Among other things, the winter climbing lists and grid challenges and social media posts encourage new hikers to explore the high country in the winter months.

While this can be good, it can also be dangerous. Hikers who are comfortable hiking in the warmer months, may be out of their depth in the winter. Hikers who were challenged by summer hiking will be at greater risk in the winter. While you may be able to get by with some discomfort on summer hike if you select inappropriate footwear or clothing or fail to pack everything you need, in winter these same mistakes could prove deadly.

The moral of the story is while you should always be prepared when you venture into the backcountry, the need to be prepared in winter is much more critical.

This issue of *Mountain Passages* contains valuable articles on layering clothing and selecting the correct boots for winter hiking. In this article we try to tie it all together and discuss the other issues you must consider.

In addition to the tips in this issue, we recommend that you seek out and master available training materials regarding winter hiking. The NH Chapter has traditionally held Winter Hiking programs which were great, but these have been limited by the Covid-19 situation. The Chapter has moved to online training that partially fills

the need, but the current situation puts greater demands on each of us individually to assure we have mastered the necessary skills and are ready for the increased demand of backcountry travel in the winter.

General Tips for Winter Hiking

Wear proper gear and attire, including sturdy, comfortable boots. Check out the recommendations in the two articles in this issue of *Mountain Passages*. However, it is worth repeating that winter hiking demands moisture-wicking synthetic fabrics that keep your skin dry and help regulate your body temperature. This is important advice in both cold and warm weather, but is particularly important in lower temperatures! Avoid cotton; it holds moisture and actually will make you colder.

While footwear is also important in warmer months, in the winter its importance is multiplied. Wet feet are cold feet, cold feet are more than uncomfortable, they are hazardous. Winter boots are different than summer boots. Look for boots that are insulated, waterproof, sturdy, and comfortable. Check out the recommendations in Larry Yetter's detailed article, *Winter Hiking--Getting Started with the Right Boots*.

But getting the right boots is not the end of your shopping list. You need traction devices, such as microspikes and crampons, for icy and packed snow conditions, and snowshoes for deep snow. Never plan to bare boot on snowy trails. If you do, you will likely post-hole which is tiring and dangerous for you and dangerous for others who follow you on the trail. Also, consider using trekking poles to improve balance,

and reduce leg fatigue and joint pain.

Finally, days are short in the winter and it is important to keep track of the time. A watch or other time-keeping device is essential. You cannot rely on your cell phone, because its battery may die quickly in the cold. Also, make sure you pay attention to the time and do not hesitate to turn back if conditions require it.

Modifications to the Ten Essentials for Winter Hiking

In past issues of *Mountain Passages* we have reviewed the Ten Essentials when you hike. For example, see the article *Take the Time to Check What's In Your Pack* in the Summer 2020 issue and *What's In Your Pack—The Ten Essentials Revisited* in the May/June 2018 issue. Both issues, as well as issues back to 2015, are available at www.amcnh/newsletter/archive/.

The Ten Essentials described in those articles still apply, but winter hiking demands some modifications. With regard to the Ten Essentials, winter does require some additional equipment while it eliminates the need for others.

NAVIGATION

Winter is the time when familiarity with a map and compass skills are most important. Trail signs and markings may be obscured or even below the surface of the snow, and winter is not the time to get off course or worse. Always carry a compass and a map with appropriate scale. Don't think about relying on the "Compass App" in your cell phone; at best they are of dubious utility, at worst, the phone's battery has died.

If you want to carry a GPS system as well, that is great. However, it is not a substitute for a map and compass. The screen of even the best GPS is tiny compared to a good map. Also, as with any electronic device, a GPS is only as good as its batteries. Unless it is a rechargeable model, always carry extra batteries. If it is rechargeable, expect it will die before you finish anything more than a short winter hike.

INSULATION

As described in detail in Christina Cozens' article *Layering for Cold Weather Hikes*, base layers, insulation layers and one or more waterproof/windproof jackets of different temperature ratings are essential. In addition, insulating hats, gloves and socks should always be carried. Carrying extras is never a bad idea.



You don't have to climb to the top of the mountain for views in the winter. Photo by: Bob McLaughlin.

WINTER HIKING, FROM PAGE 4

Also, you need to carry or wear a balaclava that covers your entire face except the area around your eyes. Other head coverings can suffice in milder conditions, but you will want the full protection in the extremes. You will also need goggles which when combined with the balaclava will completely protect your face.

LIGHT

Sunset comes early in the winter. Having headlamps and flashlights and extra batteries can make the difference between an inconvenience and a disaster if you are caught on the trail after dark

FIRST AID/REPAIR KIT/FIRE

For these three Essentials, what you have in your pack in the summer should be adequate for winter hiking. However, you might want to add chemical heat sources to your pack and make sure that you have fire-starting materials that will work in conditions when the ground is snow covered and the available fuel is saturated.

NUTRITION

You will burn through calories even faster on a winter hike. Pack high protein and high calorie items and plenty of them. Also, remember that your food may freeze in your pack. You may want to break food into small pieces before you leave so that you can pop them into your mouth to melt. You can also pack the food in the center of pack to try to avoid freezing. But, like everything else in winter hiking, plan for the worst and be pleasantly surprised rather than sorely disappointed.

HYDRATION

While you should sweat less hiking in the winter, the consequences of dehydration are worse in the cold. So, make sure you carry enough water. Another major problem you can face in winter is water freezing in your pack. If you use water bottles, fill them with hot water and pack them in the center of your pack. Packing the bottles upside down can help avoid the bottle becoming blocked by ice. If you use a water pack, insulate the tubing and pack the bladder in the center of pack to avoid freezing. Another trick is to put electrolytes or sugar drink mix in the water at home to provide some antifreeze for the water in your pack.

SUN and INSECT PROTECTION

This is the one Essential that you can cut back for winter hiking. It is most unlikely you will ever need insect repellent or a bug net on a winter hike. But, sun is still



Some views are actually improved by winter conditions. Photo by: Bob McLaughlin.

a major factor and may actually be worse in the winter. Ever hear of snow blindness? So, make sure you pack your sunglasses and sunscreen. Again, sunscreen can freeze or at least solidify, and you should protect it in the pack.

EMERGENCY SHELTER

An unplanned night in the woods in the warmer months is unpleasant. An unplanned night in the woods in winter may be your last if you are unprepared. While it may seem like overkill, carrying a tent, a sleeping bag and a tarp could save your life. There are lighter alternatives which may be adequate including mylar tube tents, sleeping bags and space blankets. Whatever you choose, you should be confident you can survive a night in the winter woods if necessary. Anyone can become disoriented, or misjudge time, or become injured.

Final Tips for Winter Hiking

These points are important for any hike at any time of the year, but take on greater importance in the winter.

- Plan where you're going, and plan when you expect to return.
- Research and check trail conditions before hiking.
- Check the weather forecast and current conditions on the day of your trip. Also, check the weather forecast for the night of your trip and the next day so you can be prepared for an unexpected night in

the woods.

- Know what time the sun sets and plan your hike to return before dark. Keep track of time and remember it will take you at least as long to return to your starting point as it did to get to where you are going.
- Let someone know where you are going and when you expect to get out. If there is a trail register, sign in and include the time. When you get out, note that you are out in the trail register and let the person you told of your plans know that you are out safely. Some people also leave their plans on the dashboard of their cars, but this has its advantages and disadvantages. It is another way to make sure someone knows where you are, but it could allow the bad guys to know how long you will be gone.
- Stay with your party; don't split up and don't take different trails.
- Carry out any wastes and dispose of them properly. It is particularly important to follow the Leave No Trace principles when winter hiking.

Winter hiking can be a great experience, but it requires more complete preparation.

Be adventurous, but be safe!

HUMAN IMPACTS ON THE ENVIRONMENT, FROM PAGE 3

Extinction of Species

During the last 50 years great improvements have been made in North America and Europe to clean up rivers, lakes and oceans, and the air. But while there have improvements, the impact of human population around the world continues to cause adverse impacts to wildlife species and eco-systems which will be very difficult or impossible to reverse. Some species have become extinct, and many more are predicted to become extinct in the next 50 years by the United Nations.

One million species are at risk of extinction, a UN report warned in May, 2019. This dire prediction is based on human impact on the planet which has occurred and is predicted in the future. The report indicates greater than 500,000 terrestrial species are facing insufficient habitat for long term survival. While climate change is a major contributor to this species die-off, other factors play a significant role, including the overpopulation of humans, and encroachment on and ultimate elimination of species habitat. For many iconic species, such as elephants and rhinos, as well as less well-known species, poaching is frequently a significant threat.

Green Planet, Fewer Trees

Our planet is often portrayed as green for the land and blue for the oceans. Satellite photos show that the land is actually divided between green and brown. We know that the green on the surface is green because of the presence of plants that are essential to our survival.

Why is it that man is constantly clearing the forest from the land thereby removing the green? Why can't we stop Brazil from clearing the Amazon? Why don't we stop the clearing of forests in North America, including New Hampshire? These trees are essential to our long-term survival.

I saw acres of trees being cleared in New Hampshire in 2020 to construct a solar farm. Hmmm, does that help, or does it hurt? Trees cleanse the air and absorb the carbon molecules and produce essential oxygen. But that is not all that trees, plants, and grasses do for us every day. Trees cool our environment. Trees and other plants provide natural air conditioning by evaporative cooling. Native trees and vegetation provide great environmental benefits. When trees are removed for land development, the negative impacts which add to global warming are increased. We like and value trees. So, rather than harvesting them, why don't we save the trees, plant trees, and even hug the trees? While some harvesting of trees is inevitable and

may even be beneficial, we should think twice before we clear land to build another shopping mall or commercial facility.

This is not a new problem. Western Europe and Eastern North America were once covered by dense forests. But with the advance of man, these forests were cut down for fuel and building materials as well as to open land for agriculture. However, just because the problem is long standing doesn't mean it isn't a problem today!

Land development

As the world population grows, native swaths of land are developed and permanently modified, reducing wildlife habitat and harming the carbon dioxide to oxygen cycle, and reducing nature's ways of keeping the earth cool.

In September 2020, an excellent environmental documentary was televised on NHPBS. The program, *The Merrimack: River at Risk* was created by the Society for the Protection of New Hampshire Forests and described how land development in New Hampshire threatens the future of the Merrimack River. This program is still available for viewing on the Forest Society's website (<https://forestsociety.org/project/merrimack-river-risk>).

HUMAN IMPACTS ON THE ENVIRONMENT, TO PAGE 7



Ice is melting throughout the world.

YEAR	1804	1927	1959	1974	1987	1999	2011	2020
Human (Billions) World Wide	1	2	3	4	5	6	7	8
American Bison (Millions) North America	60	0.001	0.08	0.18	0.28	0.36	0.43	0.5

As human population expanded, the population of bison plummeted partially recovering only recently.

HUMAN IMPACTS ON THE ENVIRONMENT, FROM PAGE 6

Clearing of forest and farm land in New Hampshire destroys the buffer which provides cleansing for both water and air. Development of land, converting open land to pavement and buildings adds to permanent environmental damage. Land development increases flood levels due to increased runoff, increases pollution in waterways, damages the carbon reducing benefits of native trees and plants, and permanently reduces the natural air cooling that undeveloped land provides.

In contrast to a grassland or forest, pavement gets hot in the summer; it absorbs solar radiation, heats up and then radiates heat into our environment for hours. Have you walked barefoot or in light shoes across a black parking lot on a hot summer day and felt the heat on your soles? Roof tops and buildings also absorb solar radiation and heat our local environment. Multiply each home, business and street by many millions and we people and all of our paved areas and buildings are heating the environment beyond its ability to self-cool to previous temperatures.

Even without the heat trapping effect of increased CO₂ levels in our atmosphere, temperatures would be rising.

Population Growth

When one considers the environmental issues which we face, we recognize that the vast majority of the problems are caused by human impact on our earth. The world's population has increased dramatically during the last 200 years, and most of the negative environmental impacts are multiplied by the population.

As the human population continues to grow, global warming and environmental losses will continue to grow unless fundamental changes are made. More people

require more conversion of natural land to farming, housing, and commercial development. Each person creates a "footprint" on the earth. In the modernized regions of the world the footprint is greater than non-developed regions, and has a greater negative impact. However, people in the less developed regions seek to emulate the lifestyle of the more affluent.

Each human footprint includes fractions of the following: paving of streets driveways, and walkways, construction of homes and apartments, use of automobiles and lawn tractors, air conditioners and heating systems, computers, and cell phones, and disposal of one time use metal, plastic and paper products and styrofoam coffee cups. The list can go on and on.

Increasing population also drives necessary increases in infrastructure, such as more trucks carrying food for distribution. While the human population grows at a rate of 1 billion every 10-12 years, wildlife population declines due to habitat loss, creating a great imbalance. For example consider the great loss of the bison population in North America shown in contrast with the world-wide growth of human population.

If somehow the population could remain at the current level, the human impact would generally remain at the current level. With some tweaks and tuning we might actually reduce carbon emissions and lower our individual waste stream or at least prevent further degradation as other populations throughout the world increase their consumption. If there is a moratorium on land development world-wide today, the wildlife habitat loss will be slowed or even stopped.

But, what impact can we as individuals have on either of those scenarios?

Changing Times and Silver Linings

The year 2020 has been a strange one, and created many short-term and possibly long-term changes. It is great that people were encouraged to "get outside" and they did in droves. While long time hikers might be dismayed at the throngs of cars lining the roads at each trailhead, it is great to see so many people getting out to enjoy nature and possibly learning why it is important to protect it. But this increase is putting more pressure on our forest trails and the natural environment.

Another silver lining in the 2020 pandemic is the vast reduction in commuting to and from work every day. This welcome change substantially reduced the carbon dioxide emissions from many autos. If office workers continue to work from home following the pandemic, the reduction in greenhouse gasses will help to achieve some of the desired greenhouse gas reduction objectives. That is a silver lining of the pandemic, but may come at the cost of widening a cultural divide in this country.

The Future of Our Planet

Consider the environmental issues discussed in this article. It is long on problems and short on solutions. If you want to help solve these environmental challenges, look in the mirror and consider the impact created by every one of your actions. Think of the next generations and how the imbalance of nature will change. We all need to consider what small steps and more difficult large steps are needed to preserve our planet. Our challenge is to reduce our impacts and to learn to live with the impacts we cannot change.

Look for an article in the future on small changes we can make to be more earth friendly.



Layering for Cold Weather Hikes

BY: CHRISTINA COZZENS

Layering your clothing in a way that will allow you to regulate your body temperature in multiple conditions could be the difference between life and death in the White Mountains. When deciding what to wear on a hike in cold weather months, it is important to consider that you may encounter low temperatures, wind, and water. Making sure that you have a layering “system” that will allow you to stay warm and dry in a variety of situations is vital.

Material

First, let’s talk about cotton. It’s great for lounging around the house or wearing casually because it allows your body to breathe while wearing it. However, a downside to cotton is that it holds liquid (including sweat) and takes much longer to dry than other fabrics. If someone sweats in a cotton shirt on the climb up, that wetness will still be against their skin on the summit. This will decrease their body temperature rapidly and may cause them to become hypothermic - even with other layers on top. Hypothermia is a serious problem in the summer, but in the winter it can be disastrous; this is where the saying “cotton kills” comes from, and it is very true.

Avoid cotton in all clothing when hiking: tops, pants and even underwear. Instead, stick to wicking, hydrophobic materials like wool or other synthetics (especially with underwear and base layers). One caution: synthetic fabrics can be dangerous if they are exposed to fire and ignite. So, when you are wearing synthetics be very careful around fire.

Layers

While heavy ski-style jackets are warm and waterproof, they don’t allow you to remove or add layers as intricately as you need to regulate a constantly changing body temperature. The key to hiking in cold weather is to keep a pace that keeps you warm but doesn’t make you sweat. If you know that you will sweat on a hike, make sure to bring a warm set of clothes to change into at the summit. It is much better to be bare-skinned on a cold summit for a few minutes than to wear wet clothes for hours.

For bottoms, someone could wear leggings with a soft shell pant as a mid-layer. If it is going to be extremely cold, there are



While it takes more preparation to hike in the winter, what you will find will make it worthwhile. Photo by: Bob McLaughlin.

down pants available. Lastly, rain/wind pants should also be carried in cold months to keep out moisture and drafts.

A hiker can also layer their hand protection with a pair of liner gloves, followed by an insulating mitten, and topped off with a waterproof layer when needed.

Insulation

Insulating yourself from the cold temperatures outside is crucial, and it is always important to bring more than you think you will need. A light quarter-zip synthetic pull over may be great to hike in for someone who runs colder. A medium-weight fleece is a great mid layer, especially for taking a break on the summit. A thick, warm puffy jacket should always be carried in case you need to take longer breaks or stay the night for some reason. Puffy jackets can either be filled with down feathers, synthetic insulation, or a mix of the two. Down tends to be warmer and lighter, while synthetic insulation is much better if it gets wet. Each person must decide what is best for them, but every puffy jacket should be able to keep you warm for several hours in the conditions you are venturing out in.

As stated above, there are also down pants available. Usually an insulated legging combined with a soft-shell pant will do the trick (with a rain/wind layer in the pack).

Insulation can also be found in the form of hats, gloves, and face protection. It is always a good idea to bring an extra warm hat just in case the original gets wet or sweaty. Wool or synthetic headbands are great to hike in to allow any sweat to escape - just make sure to bring a full hat in case you need it. Insulated gloves and mittens can be found in a puffy (down or synthetic) style or thick wool style. For face protection, a balaclava should be carried to block out cold temperatures and wind. Many people that run warm use thin neck gaiters, but it is important to have a warmer, thicker option to protect your face in the case of longer breaks or emergencies.

Water/Wind Protection

A waterproof jacket and pair of waterproof pants should be carried on all cold weather hikes to protect your insulation layers from any precipitation (rain, snow, sleet, etc). This will also protect your insulation from getting damp from any fog and prevent the wind from whipping through your warm layers. Lastly, make sure that these layers will fit over all of your bulky insulating layers.

Goggles are used to protect your eyes in extreme cases above treeline. The goggles prevent wind (and any debris the wind is carrying) from getting to your eyes, including snow and ice.

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Feet and Boots

Layering for your feet in cold weather is important to prevent your toes from getting frostbite. Many people start with some kind of liner sock to prevent blisters and wick moisture. Next comes an insulating layer - thick wool socks are great! In the White Mountains during winter months, waterproof boots with at least 400 grams on insulation should be worn. Bringing disposable toe warmers are a great option in case your toes get cold from long breaks or emergencies.

Winter gaiters should be used to keep

snow and moisture out of your boots. Gaiters also provide an extra layer of warmth and protection to your lower leg, and are great in preventing tearing of your pants from traction devices that you may be using.

Traveling in Groups

Something to keep in mind when hiking with others in colder months is that some members of the group may need to regulate their body temperature more or less frequently than you. When stopping to add or remove a layer, make sure to do it quickly to prevent the other members of the group from standing around and get-

ting cold. This method should be discussed at the trailhead prior to hiking so that the entire group is aware of each other's requirements for temperature regulation.

Overall

Overall, comfort can be achieved while hiking in the White Mountains during cold months if you dress correctly. Make sure to bring an adequate layering system that allows for many different combinations of layers depending on circumstance. Avoid cotton for layering to keep moisture away, and make sure you have more layers than you think you will need to keep warm and dry.



Hiking or Skiing, there is so much to find in the Whites in the winter. But to enjoy it, you have to be properly clothed.
Photo by: Valerio Viti.



Winter Hiking—Getting Started with the Right Boots

BY: LARRY YETTER

AMC NH Excursions Co Chair
Director - AMC NH Winter Hiking Series
Annually, the NH Chapter has provided a Winter Hiking Series to teach three season hikers how to be safe in the winter. This year, the series was cancelled due to the pandemic and instead we are focusing on providing education through webinars and articles such as this. In this article, we will focus on your boots, socks, and gaiters.


Choosing the correct winter hiking boot is one of the most important decisions

to make for a safe and enjoyable winter hiking experience. It is time to put your trusty 3-season boots aside for something warmer and water-proof. Much of the hiking in the Northeast involves steep, icy terrain both above and below tree-line and your winter hiking boots should be designed to handle these conditions. You will be hiking for 8 to 10 hours in cold temperatures with slush, snow and ice. Winter boots should keep you warm and support traction devices such as micro-spikes, snowshoes and crampons.

The first place to start in your search for your winter boot is to choose your

socks. We recommend a two pair sock system. The first sock is a liner sock which acts as a base layer to wick sweat away from your foot. Liner socks are thin, lightweight wicking socks usually merino wool or a synthetic material. Cotton socks are not appropriate for winter hiking. On top of your liner socks, look for a thick insulating sock that will provide you with warmth and cushioning. Both wool and synthetic blend socks will work.

Once you choose your socks, take them with you to an outdoor retail store such as

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EMS, REI, LL Bean, or Cabelas. Be prepared to spend some time at the store as this will be one of the most important purchases for your winter hiking. Go later in the day as your feet tend to swell during the day.

The recommended winter boots for a beginner winter hiker are leather or leather/plastic boots. Plastic mountaineering boots are also available, but we do not recommend them for winter day hikes in the White Mountains. Plastic mountaineering boots are useful for extended above tree line exposure and particularly for winter backpacking trips.

You will want to be sure the boots are waterproof and insulated. AMC NH Winter Hiking Series recommends 400 grams of insulation for your winter boots or a rating down to -20 degrees F.

You will want to make sure the boots are not too tight and your toes have wiggle room. Try on the boots and walk around the store in the boots for up to 30 minutes. Browse the store looking for other things you need such as gaiters while wearing the boots. Walk up and down inclined surfaces if available in the store. Hopefully you can find a knowledgeable salesperson to help you in this process.

Ask about the return policy as you may want to wear the boots in your home and climb up and down stairs before committing to wearing them in the field. You should also check and ensure that the boots will work with the snowshoe bindings that you will be using.

We are often asked which brands work best. There is never really an answer for this question because everyone's feet are different. A boot that is perfect for me might be a nightmare for you. That said, Cabela's Avalanche boot is a good reasonably priced boot. Vasque, Oboz, Salomon and Keen are all winter boot brands seen on the feet of winter hikers in the White Mountains. An internet search of "best winter hiking boots" will bring up guides and reviews for you to research before your trip to the store.

Now that you have your boots, we highly recommend that you go back to those gaiters you were looking at and find a pair that fits over your boots. Gaiters are waterproof (like Nylon or Gore-Tex) and wrap around your leg from your boot to below your knee, normally with a strap below your boot and Velcro to keep tight on your lower leg.

Gaiters are light, inexpensive, and keep snow from getting into your boots as well as keeping your lower legs dry. If you're

wearing crampons, they'll also protect your pants, as it is easy to accidentally kick yourself with the spikes on a crampon while you're walking and tear a hole in your pants. Gaiters are usually \$60-\$100 and are much easier to replace. If you accidentally submerge your foot in water while on a winter hiking trip, gaiters will also offer a brief few seconds' protection against water in your boot.

So, if you have socks, boots, and gaiters, are you done? Unfortunately, no. Winter hiking is an expensive hobby as the gear required can be costly. You now need to look for traction for your feet like microspikes and snowshoes as well as clothing, gloves, hats, and as potentially a bigger pack and safety gear. It is too much to cover in this one article but look around for education opportunities like webinars, classes and even internet research to help you prepare for winter hiking. Slide packs for the webinars can be found on the Chapter website at <https://amcnh.org/excursions-workshops-courses/winter-hiking-series/>.

Have fun and be safe.

Types of Winter Hiking Boots

Leather or leather/plastic boots



Plastic mountaineering boots



There are many types of winter hiking boots available. All are waterproof and insulated. We recommend you look for leather or leather/plastic boots and pick the boots that are the most comfortable on your feet.



Where In The Whites?

In the Spring Edition of Mountain Passages we introduced a new photo identification contest, Where in the Whites?. We asked readers to guess where the photo was taken and what mountains were in the photo. We promised to print the names of the first respondents with the correct answer.

Last month's photo is reprinted here. It is of Lincoln, Lafayette and Little Haystack as seen from the dam on the end of Lonesome Lake. Maybe it was too easy, but I was taken by the variation on the iconic view that I had not noticed before. We had a correct answer from Matthew Bartolotti.

I suspect this month's photo may be more of a challenge. Again, please identify the mountain in the photo and where it was taken. Be as specific as possible! Take a guess and submit your answers to WitWamcnh@gmail.com.

We look forward to seeing your submissions.

What are the mountains in the photo and where was it taken?
Be as specific as possible!



The "Where in the Whites" photo from the last issue was of Lincoln, Lafayette and Little Haystack taken from the dam at the end of Lonesome Lake. Photo by: Bob McLaughlin.

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'Mountain Passages' is only the beginning...

From hiking to biking, AMC's New Hampshire chapter has it all. Visit our website at amcnh.org and read more about us and our many year-round events.



Chapter Website Update

Have you seen the new chapter website, amcnh.org? Here's what's different:

- We've lost a hyphen! The old website was amc-nh.org. To keep familiarity we decided to have the new name be quite similar to the old name. To ease transition we created a bunch of links and e-mail aliases so that virtually everything which used to work will without change and continue to work in perpetuity. If you've bookmarked amc-nh.org your browser will automatically be transferred to amcnh.org. If you use an e-mail address such as webmaster@amc-nh.org your message will still reach the correct person. A few links from other organizations still go to specific pages within amc-nh.org.
- We're using WordPress. That's given us the opportunity to get a fresh look, and to simplify and standardize some aspects of the website. If you are

familiar with ins and outs of WordPress, please let us know. We could use help with other things we want to do!

- The site contains some material that was never before easily accessible. For example, 19 years of the chapter's annual reports are online. You can see the current Chapter By-Laws, and previous By-Laws back to 2006, as well as the Chapter Standing Rules. The electronic editions of *Mountain Passages* back to 2015 are also posted, but the only link to Mountain Passages is currently on the About Us page. We plan to provide a

more prominent link in the future!

- Not all pages have been migrated to WordPress. Those pages are accessible from the new website, but may link to other pages in the old website.
- We're still working to recreate the links which import future committee activities from outdoors.org.

We have a list of items we know need improvement. Please, take a look and tell us what you'd like to see! And if you can help, please let us know!

