

To: Summit Stewardship Program Partners, Supporters, and Friends
From: Kayla White & Seth Jones
Date: 10/28/2021

2021 Summit Steward End of Season Report

In our **32nd** year, the Adirondack High Peaks Summit Stewardship Program has adapted and continued to protect the alpine ecosystem and expand our outreach through new avenues. With changing state and federal guidelines and an increased understanding of the pandemic, we were able to safely hire a full crew of five summit stewards and one Photopoint Monitoring Field Tech. Exciting new changes



Ben Brosseau

this year include revamping our photopoint monitoring methodology and facilitating fire tower stewardship on Hurricane Mountain to increase our educational outreach.

Summit stewards **educated 28,514 hikers** this year, making our total contacts since the start of the program **613,998**. Hiker contact numbers decreased significantly, not because of limited staff or coverage, but because of a decrease in visitors to the High Peaks. In July and August, the average number of daily hiker contacts between 2020 and 2021 on Algonquin dropped from 87 to 55 and the average on Marcy decreased from 111 to 72. That means there was approximately 35 less hikers a day on average on Marcy and Algonquin than last year. Algonquin average contacts haven't been that low since 2004 and Marcy hasn't been that low since 2008. We can contribute part of this decrease due to the Canadian border being closed. Another potential factor is the weather. We'll have to wait and see if this year is an anomaly (much like last year) and if we are seeing similar trends in other areas in the Northeast. Regardless, we continue to look for ways to better educate the public on resource protection and hiker preparedness, increase our understanding of the alpine ecosystem, and provide better quality trail maintenance.

Our accomplishments were made possible through the continuous support of our partners, donors, sponsors, and people like you. A huge thank you goes to the [Adirondack 46ers](#), who gave their first installment of \$25,000 as part of a [three-year commitment](#) to the program. [The Waterman Fund](#) graciously awarded the Adirondack Mountain Club funds to cover one summit steward position for the program and three weeks of trail work on Boundary and Iroquois for the Professional Trail Crew. The Summit Stewardship Program and Trails Program also received a grant from the [Helen and Ritter Shumway Foundation Grant](#) through Bank of America. ADK also received funding from the [FEMC's Ecosystem Monitoring Fund](#) for our Photopoint

Monitoring Project. These funds will be used to cover equipment costs like a new camera and for analysis work done by New York Natural Heritage Program.

Last year, the family of Dr. Norton Miller created an endowment for the program called the [Dr. Norton G. Miller Memorial Fund](#). This means the Summit Stewardship Program now has three endowments, the other two being the [#507 Fund for the Summit Stewardship Program](#) and the Will Cummer Gear Fund. Another big thank you goes to our friends at [The Mountaineer](#) for their continued support of the program with donations from [Vasque](#), [Darn Tough](#) and [Patagonia](#). The Summit Stewardship Program was supported with funding from the [NYS Park and Trail Partnership Grants](#) and New York's [Environmental Protection Fund](#). Park and Trail Partnership Grants are administered by Parks & Trails New York, in partnership with the NYS Office of Parks, Recreation and Historic Preservation. ADK also receives funding through its New York State contract through the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation (DEC). Many ADK chapters have also donated to the program including the Mohican Chapter, North Jersey Ramapo Chapter, Hurricane Chapter, and others.

We had a crew of five full-time summit stewards, one Photopoint Monitoring Field Tech, three fall stewards and 29 volunteers who continue to fight for the protection of our public lands and tiny alpine plants. I'm proud to be a part of such a devoted group of unwavering alpine educators. There are always new people to educate and to enlist in the cause of alpine stewardship!

State of the Summit Stewardship Program:

Every year, I include in this report a list of projects that I'd like to work on in the upcoming year and spend some time reflecting upon the past season's accomplishments.

Below you can see the 2021 project list in *italics*.

❑ Coronavirus Protocols

Last year taught us how to adapt to a pandemic and we've continued to do so as state and federal guidelines have changed. We feel confident in our safety protocols and therefore have been able to hire a full crew of stewards. Since we operate in an outdoor setting, we were at a lower risk to contract the virus. We made safety protocols for our staff which included separate housing, cleaning schedules, and social distancing on summits. Stewards' first aid kits contained N-95 masks, hand sanitizer and extra gloves. Shared gear was kept at a minimum and everyone got their own tent.

❑ Endowments for the Program

Last year, the [Dr. Norton G. Miller Memorial Fund](#) was created to support the work of the Summit Stewardship Program and ADK's science and science outreach efforts. The fund was established by the family of Dr. Miller to honor his lifelong love of natural history and his esteemed career in botany research, particularly in the Adirondacks. Dr. Norton Miller was a native of New York State and took numerous trips to the Adirondacks to collect specimens. His

research interests included plant systematics and floristics, especially of bryophytes and seed plants; quaternary paleobotany and paleoecology and the tertiary and quaternary history of the bryophyta. The Miller family has previously contributed funding for alpine research and we are thankful for the creation of this endowment. You can donate to the Dr. Norton G. Miller Memorial Fund [here](#).

The [#507 Fund for the Summit Stewardship Program](#) was established to provide a perpetual source of income to help the Summit Stewardship Program. Its goal is to reach \$1 million. While the fund just reached a new milestone by exceeding the \$200,000 mark, the endowment doesn't fully cover one summit steward position at this time. In 2016 the fund made its first yearly distribution of \$1,900. Four years later, thanks to your continuous support, the 2021 grant from the #507 Fund was over \$6,000! You can donate to the fund [here](#).

The Will Cummer Gear Fund was established in 2016 in honor of Will Cummer to provide gear support for summit stewards. Thanks to this Fund, we were able to buy additional gear items like water filters and radio equipment.

□ *Photopoint Monitoring Research*



Ben Brosseau

Photopoint Monitoring Field Tech Audrey Fatone in action!

Scheduled for 2020, our Photopoint Monitoring project was pushed into 2021 so that we had the staff necessary to complete the project.

Beginning in 1999, photopoint monitoring was utilized as a long-term monitoring tool to better quantify the interplay among hiker trampling, vegetation growth and persistence, and hiker education and outreach by utilizing repeat photography to examine vegetation change

over time. This year we decided to revamp the project by not only resampling, analyzing, and archiving our 59 established photopoints, but reevaluate and update the design of the monitoring project to improve the sampling strategy and statistical rigor. We are looking to add approximately 100 new photopoints at newly damaged areas on some peaks with existing photopoints and new summits that historically haven't had photopoints. We've incorporated a scale measurement in photopoints and have introduced the line transect method to give us more quantitative data. Overall, our goal is to continue building a photo monitoring system that is straightforward to maintain, provides accessible data to address our questions, and is easily transferrable to other locations and partner organizations. We were not able to complete the project this year so we will be continuing this work into 2022.

❑ *Publishing on the third round of alpine population sampling*

In 2018-2019 we completed our third round of alpine population sampling, thanks to the work of botany stewards Yuuka McPherson, Connor Moore, and Ryan Nerp. Tim Howard from the [New York Natural Heritage Program](#) has analyzed the data and published the findings in the *Northeastern Naturalist*. The paper focuses on the results of population monitoring of 20 target species in 2006-2007, 2013, and 2018-2019 in 15 alpine areas. Ten of the species we were searching for were found in at least 5% of the plots, with deer's hair sedge (60%) and mountain firmoss (42%) most frequent. Of these 10 species, 5 showed increases in density over time and 3 had no significant change in density. The 5 species showing increases also had densities positively correlated with metrics of current or former physical disturbance, such as exposure to western slopes and proximity to hiking trails. This suggests that many of the rare alpine plants are maintaining population levels and that environmental heterogeneity and hiker education in the alpine zone may be contributing to this pattern. One fascinating find was that four species: alpine sweetgrass, alpine goldenrod, black crowberry, and bearberry willow all had higher abundance in plots closer to hiking trails! You can find the paper [here](#).

❑ *Fire Tower Stewarding on Hurricane Mountain*



Ben Brosseau

Fire Tower Stewarding on Hurricane Mountain

We've also partnered with Friends of Hurricane Mountain to manage the Hurricane Fire Tower Stewardship Program. While we are up there to educate about the cultural history of the fire tower, our real focus is to help prepare hikers by teaching them Leave No Trace outdoor skills and ethics. Hurricane Mountain is a great peak to introduce hikers to the high peaks region. This expansion has been an exciting opportunity for our staff and volunteers to try something a little different. We've even

found and done additional documentation on rare plants up there: purple crowberry, mountain firmoss and Rand's goldenrod!

Furthermore, taking on the Hurricane Fire Tower Stewardship Program has been an amazing outreach opportunity. Hurricane Mountain has been recommended by the DEC as an alternative hike to the high peaks, it is a family-friendly mountain and is part of the Lake Placid 9er and ADK Fire Tower Challenge. For some hikers, Hurricane is a stepping stone to the high peaks and we're there to educate them accordingly. We educated **3391 hikers** on Hurricane which contributed 12% of our total contact numbers for the year.

Personnel and Scheduling



2021 Crew: L to R top: Abi Charlebois, Kai Scarangella, Bridey Ryan, Liam Ebner, Audrey Fatone, and Maddie Conway

The 2021 summit stewards are all new staff this year but are no strangers to the Adirondacks. I am extensively proud of them and the alpine plants are lucky to have them!

Audrey Fatone— Audrey is a familiar face at ADK. She was a Summer Naturalist in 2019 and has volunteered with the Summit Stewardship Program in the past. Audrey just graduated from SUNY ESF with a major in Environmental Biology and a Minor in Environmental Writing and Rhetoric. Audrey loves running and protecting wild lands.

Kai Scarangella—Kai volunteered with the program in the fall of 2018 through the Hamilton Adirondack Program. Kai recently graduated from Hamilton College with a major in Environmental Studies. Kai loves photography and research which made her a huge asset with photopoint monitoring. She is cheerful and hard-working no matter the weather conditions.

Abi Charlebois—This is Abi's first year as paid staff but isn't new to the program. Abi was a volunteer steward last year and is very familiar with the Adirondacks. She is currently a student at Paul Smith's College and enjoys the paleo ecology classes she's taking there. Abi loves running for the sheer joy of it and is a strong advocate for the mountains she calls home.

Liam Ebner—This is Liam's first year being involved with ADK. He is currently majoring in Mechanical Engineering at Rensselaer Polytechnic Institute. Liam enjoys ultimate frisbee, climbing, and nature photography. He enjoys connecting people to the outdoors and the natural history of the Adirondacks.

Bridey Ryan—Bridey is also new to the program but not to the Adirondacks; she has been coming up to the area since she was a kid. She currently majors in Cultural Studies at McGill University and previously worked in bird conservation in New Zealand. Bridey loves engaging with hikers on the summits especially with kids.

Maddie Conway—Maddie is also new to the program but not the Adirondacks. She is a 46er and has hiked throughout the Northeast and out west. She graduated from University of Massachusetts with a major in Anthropology. She enjoys engaging with novice hikers and introducing them to Leave No Trace outdoor skills and ethics.

Cam Dunn—This is Cam's fourth year as a steward, joining us for the fall season. They grew up in the Adirondacks in Lake George. Cam graduated from the University of New Hampshire, majoring in Wildlife and Conservation Biology in 2018. Since then, they have led backpacking trips in West Virginia, taught English in Spain, studied abroad in New Zealand, worked in Cornell's maple research forest, and hiked 200 miles through the Arizona desert. Cam enjoys paddling and writing.



Rose Michael
2021 Fall Crew (front to back): Rose Michael, Cam Dunn, and Audrey Fatone

Rose Michael—This is Rose's first year as a steward and they also joined us for the fall. Rose and Cam were both co-leads for the Northwest Youth Corps this summer leading LGBTQ+ youth on conservation projects in the backcountry. Rose has worked as a leader on many other youth conservation teams in Colorado, Oregon, and California. Rose likes rock climbing, reading, and enjoying seasonal festivities. They enjoy bringing people into the outdoors and making it accessible to everyone.

Seth Jones—Seth started his career here at ADK as a summit steward in 2008, which he did for three years. After spending a year running Johns Brook Lodge, he became part of ADK's Education Department. Seth is currently ADK's Education Director.

Kayla White—I'm ADK's Stewardship Manager. It's my eighth year with the Summit Stewardship Program and my tenth year at ADK. I'm so excited to be on this journey with such an amazing group of people!

Volunteer Stewards: Our volunteers are a wonderful group of devoted stewards, many of them have been with us for multiple years. They are always willing to fill in and we could not fully staff the peaks or do much needed trail maintenance or research without them. We have **29**

active volunteers in total, who spent **over 100 days** on the summits and spoke to a total of **7792 hikers**.

- Jack Coleman—9th year
- Mary Lamb—9th year
- Lois Dannenberg—6th year
- Ann Fogarty—6th year
- Jen Denny—6th year volunteer, 2 years staff
- Jim Schneider—5th year
- Ryan Nerp—2nd year volunteer, 4 years staff
- Tom Collins—2nd year volunteer, 2 years staff
- Drew Benware—2nd year
- Tony Canike—2nd year
- Sarah Czapranski—2nd year
- Craig Hurlbut—1st year
- Bob George—1st year
- Caitlin Glynn—1st year
- Kevin Douglass—1st year
- Klarisse Torriente—1st year
- Lucas LaBarre—1st year
- Matt Szopa—1st year
- Tanner Burt—1st year
- Tammy Loewy—1st year
- Ryan Andrews—1st year
- Kim Brown—1st year, Hurricane
- Bob Hunter—1st year with ADK, Friends of Hurricane Mountain
- Don Pachner—1st year with ADK, Friends of Hurricane Mountain
- John Gallagher—1st year, Hurricane
- Judy Murphy—1st year, Hurricane
- Beth Drohan —1st year, Hurricane
- Peter Slocum—Friends of Hurricane Mountain
- Mary Jean Bland—Friends of Hurricane Mountain

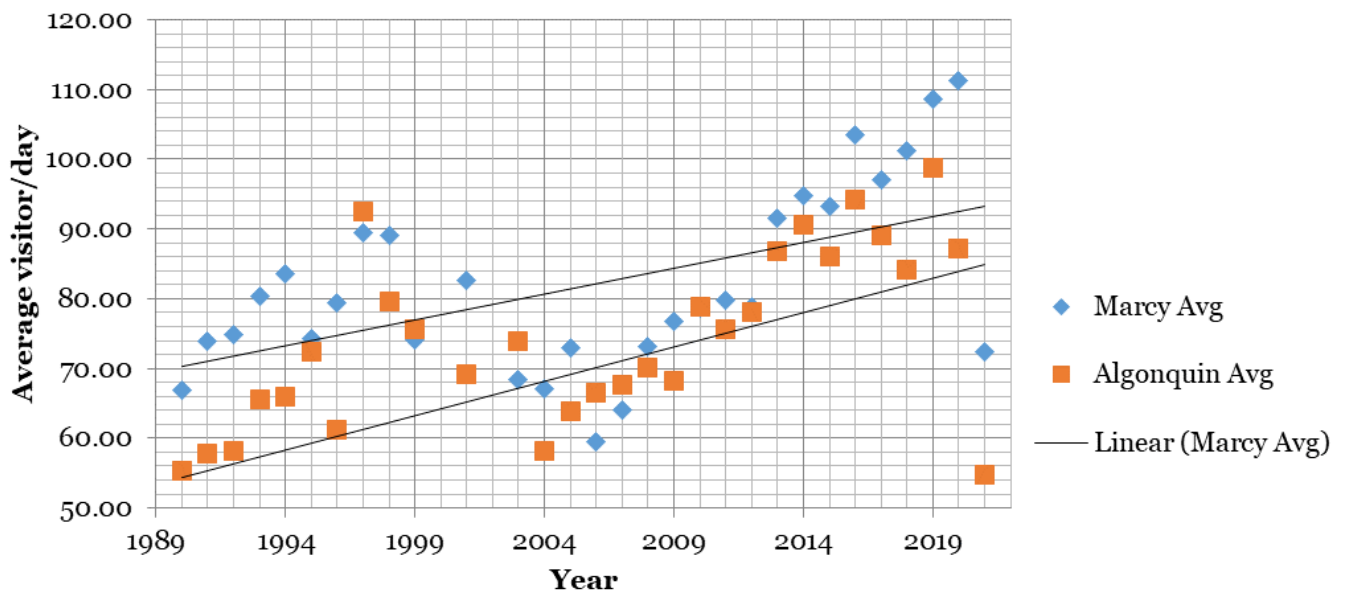
Seth and I held a virtual training for volunteers in May. We sent new and returning volunteers training videos and documents to review and they had to take an online assessment after reviewing the materials. We then did a Zoom meeting to go over coronavirus protocols and answer any lingering questions. We were joined by DEC Forester Tate Connor who gave his presentation on the High Peaks Unit Management Plan and Lieutenant Megan LaPierre and Lieutenant Kevin Burns who went over radio protocol and personal safety training. We will likely use this virtual format in the future.

Education: Usage and Outreach

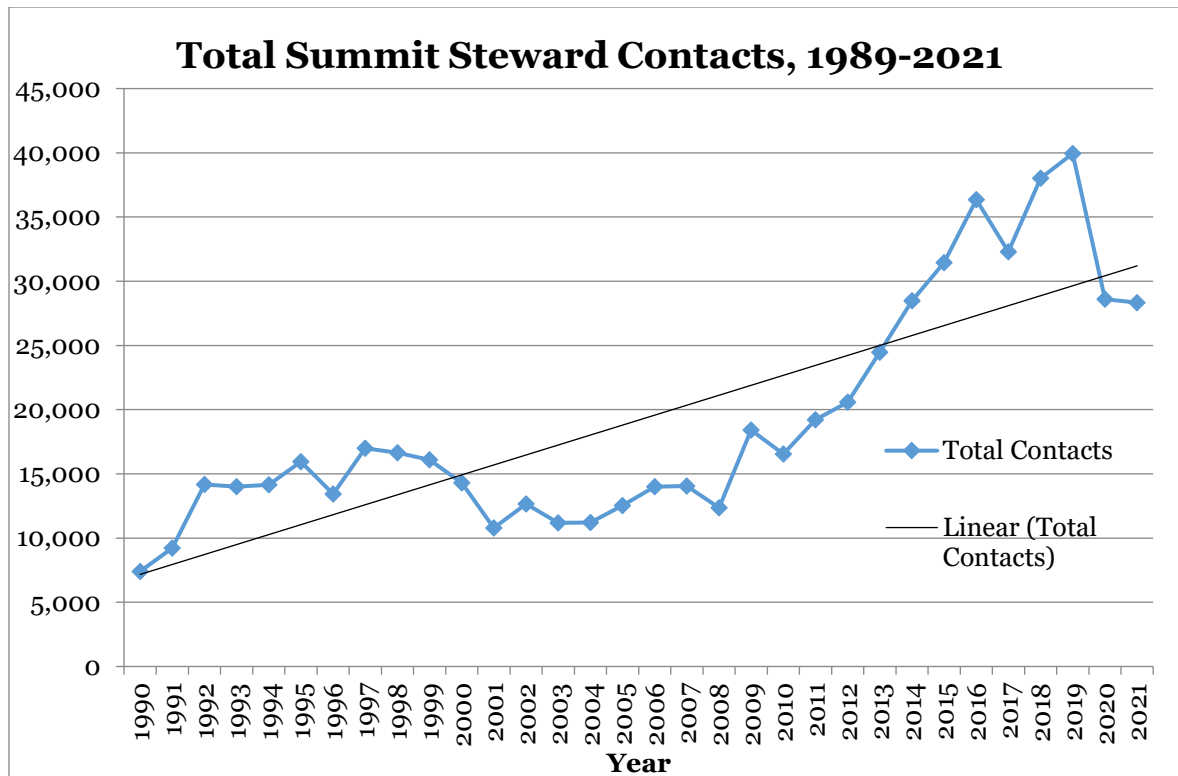
Year	Total Contacts	Days Covered	Average
2021	28,514	428	67
2020	28,605	315	91
2019	39,939	393	102
2018	38,033	349	109
2017	31,625	305	104
2016	36,355	334	109
2015	31,440	344	91
2014	28,488	312	91
2013	23,804	305	78
2012	20,567	269	77
2011	19,211	275	70
2010	15,639	238	66
Total Contacts 1990-2021: 613,998			

As stated previously, our numbers took a drop this year due to several potential factors. Our busiest day was on Cascade with only 370 on the Saturday of Labor Day weekend. Over the summer, Algonquin and Marcy didn't top 200 hikers in a day, and Cascade ranged from 100-250. The fall weekends were busier with Saturdays consistently over 200 for Marcy and over 100 for Algonquin. Cascade ranged from 100-370.

Average Visitor per Day for Marcy & Algonquin in July & August



This graph shows the average number of hikers per day for Marcy and Algonquin in July and August since the program started. This is the closest apples to apples comparison we have to look at the increase in the number of hikers, while partially negating the number of volunteers and staff that has fluctuated over the years.



Our outreach has continued to be limited due to the pandemic but we've been able to do programs virtually for North Branch Nature Center on Winter Alpine Ecology and Humans, Phenology, and Climate Change and Leave No Trace/alpine presentations for ADK's Niagara Chapter, North Jersey Ramapo Chapter and the [ARTC Falconer Lecture Series](#). This year camps, colleges and organizations who bring groups into the High Peaks have started leading trips again but we've waited to give these groups time to get back on their feet after last year. We were able to do an alpine presentation for Frost Valley YMCA and then took them to the MacIntyre Range to do trail maintenance in the alpine zone.

The Poke-O-Moonshine Steward joined our indoor training and our training hike up Cascade with our professional crew. We virtually trained new and returning trailhead stewards for the 46er Trailhead Stewardship Program and I assisted with training ADK's Trailhead Stewardship Program. Creating a virtual training module has opened up possibilities for remote training with other stewardship groups and this year we shared our training module with Keene's Frontcountry Stewards, DEC's Natural Resource Stewards, DEC's Adopt-a-Trailhead (AAT) Program, Catskill's 3500 Club, Azure Mountain's Volunteer Summit Steward Program, and Poke-O-Moonshine Summit Steward Program. We hope to continue to lead the way with stewardship training. Let me know if your stewardship group is interested!

Botany and Research Projects:

This year marks the fourteenth year of our participation in Appalachian Mountain Club's (AMC) Mountain Watch phenology program. We monitor the phenological stages of four species at standardized monitoring areas in line with the National Phenology Network (NPN). AMC uses this data to analyze long term trends in the timing of the different phenological stages, which

could be an indication of the effects of climate change on the alpine ecosystem. AMC has implemented the [Northeast Alpine Flower Watch](#), a citizen science project which asks hikers to use iNaturalist, a phone app, to take pictures of six alpine species in their blooming and fruiting phenophases. Hopefully, this will help create a more robust and complete data set. Feel free to download [iNaturalist](#) and participate!



Fall stewards ready to go with AIM & Photopoint Monitoring equipment

what mammals the camera catches!

Trail Maintenance and Project Days:

With a seasoned crew we've been able to get a lot of work done. Trail maintenance was done on Marcy, Algonquin, Wright, Cascade, Colden, Gothics, Haystack, Boundary, Skylight, Giant, NW Wright, Hurricane and Dix. [The Waterman Fund](#) provided funding for ADK's Professional Trail Crew to work on repairing cairns on Boundary in conjunction with summit stewards and build a ladder on Iroquois to protect fragile and damaged alpine vegetation. We dug two privy holes for the Wright/Algonquin junction and Hopkin's junction on Marcy. We also worked on rebuilding the cairns on Wright that were smaller and closer to treeline. As always, we have been hard at work with regular brushing, scree wall work, cairn repair, and rock packing.

This year summit stewards participated in the [Adirondack Inventory & Monitoring \(AIM\) Camera Trap Network](#) which was launched through the Roosevelt Wild Life Station and Adirondack Ecological Center of the SUNY College of Environmental Science & Forestry. The AIM Camera Trap Network is a cooperative group of university and secondary school faculty and their students, biological field station staff, NGOs, and agency professionals joining together to build and share an unparalleled database of wildlife occurrence and weather data for northern New York State, including the Adirondacks, Tug Hill, and surrounding areas. Due to the scarcity of available data on terrestrial mammals, their survey efforts are focused on using camera traps and a standardized multispecies protocol which has been successful in Vermont and New Hampshire. Summit stewards carried up meter sticks, skunk lure and camera traps to set up stations at higher elevation. We're excited to see

	Scree Wall	Brush	Rock Pack	Cairn Rocks Removed	Cairn Repair	Poop Buried
Marcy	1081	791	61	528	11	30
Algonquin	761	322	43	392	9	16
Wright	493	237	49	270	16	1
Cascade	650	75	31	249	4	9
Colden	103	220	60			6
Gothics	9	185				
Haystack	58	40	22	3	2	
Boundary					5	
Giant		347		2	1	2
Dix		30				
Skylight	24	3		13		1
NW Wright	3	75	4			
Hurricane		86				2
Totals	3182 (feet)	2411 (feet)	270 (square feet)	1457 rocks	48 cairns	67 poops

Future recommendations:

Here are a few things that I look forward to doing in the upcoming year:

- Continue to build our virtual training arsenal & share with other stewardship groups
- Add more DEI/J resources/ training to volunteers and paid staff
- Working with DEC to make sure they have the most up-to-date data on alpine stewardship
- Hire a chief steward to assist with volunteer and staff training and help maintain the quality of our program as we grow
- Spending more time team stewarding and assisting with projects throughout the season
- Continue adding new photopoints to the Photopoint Monitoring Project in conjunction with the New York Natural Heritage Program
- Continue to expand and improve the volunteer program and build up volunteer numbers for coverage on Hurricane, Giant (weekends), and Cascade (every day in July & August)
- Continue to build up the Hurricane Fire Tower Stewardship Program and make changes to materials/resources for stewards
- Building group project days to accomplish more high-quality trail maintenance
- Conducting more public outreach programs throughout the year to expand our visibility (and please contact me if you're interested in having a virtual program!)

Thank you!

As always, the Summit Stewardship Program would not be possible without the support and funding of several various organizations and individuals. We'd like to thank the following organizations:

- NYS Department of Environmental Conservation

- ❑ Adirondack Chapter of The Nature Conservancy
- ❑ Adirondack 46ers
- ❑ Will Cummer Gear Fund
- ❑ #507 Fund for the Summit Stewardship Program
- ❑ Dr. Norton G. Miller Memorial Fund
- ❑ ORDA and the Atmospheric Sciences Research Center for access to the summit of Whiteface via the Memorial Highway
- ❑ The Mountaineer
- ❑ Environmental Protection Fund
- ❑ NYS Park and Trail Partnership Grants
- ❑ Vasque
- ❑ Darn Tough
- ❑ Patagonia
- ❑ The Waterman Fund
- ❑ Helen and Ritter Shumway Foundation
- ❑ FEMC's Ecosystem Monitoring Fund
- ❑ New York Natural Heritage Program

And individuals:

Sophie McClelland (TNC), Bill Martin (TNC), Amanda Ely (TNC), Megan LaPierre (DEC), Tate Connor (DEC), Kevin Burns (DEC), Jack Coleman (ADKhighpeaks Foundation), Andrew Miller, Wilson Cummer, Ian Ellbogen, Mary Lamb, Lois Dannenberg, Ann Fogarty, Jen Maguder, Patrick Murphy, Jim Schneider, Ryan Nerp, Tom Collins, Drew Benware, Tony Canike, Sarah Czapranski, Tim Howard (NYNHP), Steve Young (NYNHP), Jason Hill, Sean Robinson (SUNY Oneonta), Paul Casson (ASRC), Rob Daley (DEC), Julia Goren, Vinny McClelland, Charlie Wise and the entire staff of The Mountaineer, Tom Manitta, Bobby Clark, Ben Brosseau, Tyler Socash, Mary Glynn, and Maggie Newell.

It has been such a challenging and rewarding season. I just want to thank all of you for your continued support. I am so proud of the work we did this year. The Adirondack alpine zone is such a unique and beautiful place and it is a privilege to be a part of this stewardship program. The work that we do to protect the alpine plants and the Adirondack Park is essential. I can't imagine a better place to work or more satisfying work to do. Please feel free to contact me at any time for help or with questions, suggestions, or opportunities for the program. Thank you.

Sincerely,

Kayla White
 Stewardship Manager
kaylaw@adk.org
 she/her/hers

&

Seth Jones
 Education Director
seth@adk.org
 he/him/his