

**Memo**

NH Natural Heritage Bureau  
NHB DataCheck Results Letter

Please note: portions of this document are confidential.  
Maps and NHB record pages are confidential and should be redacted from public documents.

**To:** Wayne W. Presby, President  
Mount Washington Railway Company (“Cog Railway”)  
3168 Base Station Road  
Mt. Washington, NH 03589

**From:** NHB Review, NH Natural Heritage Bureau

**Date:** 5/3/2022 (valid until 05/03/2023)

**Re:** Review by NH Natural Heritage Bureau

**Permits:** MUNICIPAL POR - Sargents Purchase

**NHB ID:** NHB22-1571      Town: Sargents Purchase      Location: Mt. Washington summit  
**Description:** Install new transfer switch along existing railroad track.  
Install 2 new 500' long railroad tracks and platforms to run parallel with existing track.  
Install concrete footings to support platforms.  
Construct walkway potentially with steps along east side of tracks.  
Access and staging area included.

**cc:** NHFG Review

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

**Comments**    **NHB: Please coordinate with NHB State Lands Ecologist Pete Bowman regarding rare plant surveys and impact avoidance. This project is within the sensitive Alpine Zone and NHB has many rare plant records in the vicinity of the project.**  
**F&G: Please continue coordination with NHFG to avoid impacts to endangered, threatened, and species of special concern.**

<b>Invertebrate Species</b>	<b>State<sup>1</sup></b>	<b>Federal</b>	<b>Notes</b>
White Mountain Arctic ( <i>Oeneis melissa semidea</i> )	T	--	Contact the NH Fish & Game Dept (see below).
White Mountain Fritillary ( <i>Boloria titania montinus</i> )	E	--	Contact the NH Fish & Game Dept (see below).

<b>Natural Community</b>	<b>State<sup>1</sup></b>	<b>Federal</b>	<b>Notes</b>
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Alpine tundra system -- -- Threats to this system include recreational impacts, climate change and other human impacts.

Plant species	State <sup>1</sup>	Federal	Notes
alpine bearberry ( <i>Arctous alpina</i> )	E	--	
alpine bistort ( <i>Bistorta vivipara</i> )	E	--	
alpine bitter-cress ( <i>Cardamine bellidifolia</i> var. <i>bellidifolia</i> )	E	--	
alpine Kentucky blue grass ( <i>Poa pratensis</i> ssp. <i>alpigena</i> )	E	--	
alpine sweet Grass ( <i>Anthoxanthum monticola</i> ssp. <i>monticola</i> )*	T	--	
alpine-azalea ( <i>Kalmia procumbens</i> )	T	--	
alpine-brook saxifrage ( <i>Saxifraga rivularis</i> ssp. <i>rivularis</i> )	E	--	
American alpine speedwell ( <i>Veronica wormskjoldii</i> var. <i>wormskjoldii</i> )	E	--	
arctic hair grass ( <i>Vahlodea atropurpurea</i> )	E	--	
bearberry willow ( <i>Salix uva-ursi</i> )	T	--	
Bigelow's sedge ( <i>Carex bigelowii</i> ssp. <i>bigelowii</i> )	T	--	Threats to this species include habitat alteration, trampling and other human-induced impacts.
Boott's rattlesnake-root ( <i>Nabalus boottii</i> )	E	--	
Canadian single-spike sedge ( <i>Carex scirpoidea</i> ssp. <i>scirpoidea</i> )	T	--	
capitate sedge ( <i>Carex arctogena</i> )	E	--	Threats to this system include recreational impacts, climate change and other human impacts.
diapensia ( <i>Diapensia lapponica</i> ssp. <i>lapponica</i> )	T	--	
dwarf birch ( <i>Betula minor</i> )*	T	--	
dwarf blueberry ( <i>Vaccinium cespitosum</i> )	T	--	Primary threat is trampling or use of herbicides.
glandular birch ( <i>Betula glandulosa</i> )	T	--	
hair-like sedge ( <i>Carex capillaris</i> ssp. <i>fuscidula</i> )	E	--	

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Hornemann's willow-herb ( <i>Epilobium hornemannii</i> ssp. <i>hornemannii</i> )	T	--	
Lapland rosebay ( <i>Rhododendron lapponicum</i> )	T	--	
moss campion ( <i>Silene acaulis</i> )*	E	--	Threats to this species include habitat manipulation, trampling, and other human induced impacts.
moss-plant ( <i>Harrimanella hypnoides</i> )	E	--	
mountain Timothy ( <i>Phleum alpinum</i> ssp. <i>alpinum</i> )	E	--	
mountain-sorrel ( <i>Oxyria digyna</i> )	E	--	
northern blueberry ( <i>Vaccinium boreale</i> )	T	--	
northern marsh violet ( <i>Viola palustris</i> var. <i>palustris</i> )	T	--	
northern painted-cup ( <i>Castilleja septentrionalis</i> )	E	--	Largest threat to this species is trampling by hikers and climate change.
northern wood rush ( <i>Luzula confusa</i> )	E	--	
Oakes' eyebright ( <i>Euphrasia oakesii</i> )*	E	--	
proliferous fescue ( <i>Festuca prolifera</i> )	E	--	
purple mountain-heath ( <i>Phyllodoce caerulea</i> )	T	--	
Sitka ground-cedar ( <i>Diphysastrum sitchense</i> )*	E	--	
snow-bed willow ( <i>Salix herbacea</i> )	E	--	
spiked wood rush ( <i>Luzula spicata</i> )	E	--	Threats to this species are primarily trampling caused by recreational use.
squashberry ( <i>Viburnum edule</i> )*	T	--	
tea-leaved willow ( <i>Salix planifolia</i> ssp. <i>planifolia</i> )	T	--	
wavy blue grass ( <i>Poa laxa</i> ssp. <i>fernaldiana</i> )*	E	--	Threats to this species include habitat alteration and trampling.
White Mountain avens ( <i>Geum peckii</i> )	T	--	In alpine areas, sensitive to trampling by visitors. Potentially threatened by nutrient inputs near overnight huts along hiking trails and campgrounds. Also occurs along rivers and streambanks, where changes in water level or to riverside habitat could threaten plants.
Williams' Eyebright ( <i>Euphrasia williamsii</i> )	E	--	
<b>Vertebrate species</b>	<b>State<sup>1</sup></b>	<b>Federal</b>	<b>Notes</b>
American Pipit ( <i>Anthus rubescens</i> )	SC	--	Contact the NH Fish & Game Dept (see below).

# Memo

## NH Natural Heritage Bureau NHB DataCheck Results Letter

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<sup>1</sup>Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (\*) indicates that the most recent report for that occurrence was more than 20 years ago.

*For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section below.*

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Disclaimer: A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

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### **IMPORTANT: NHFG Consultation**

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

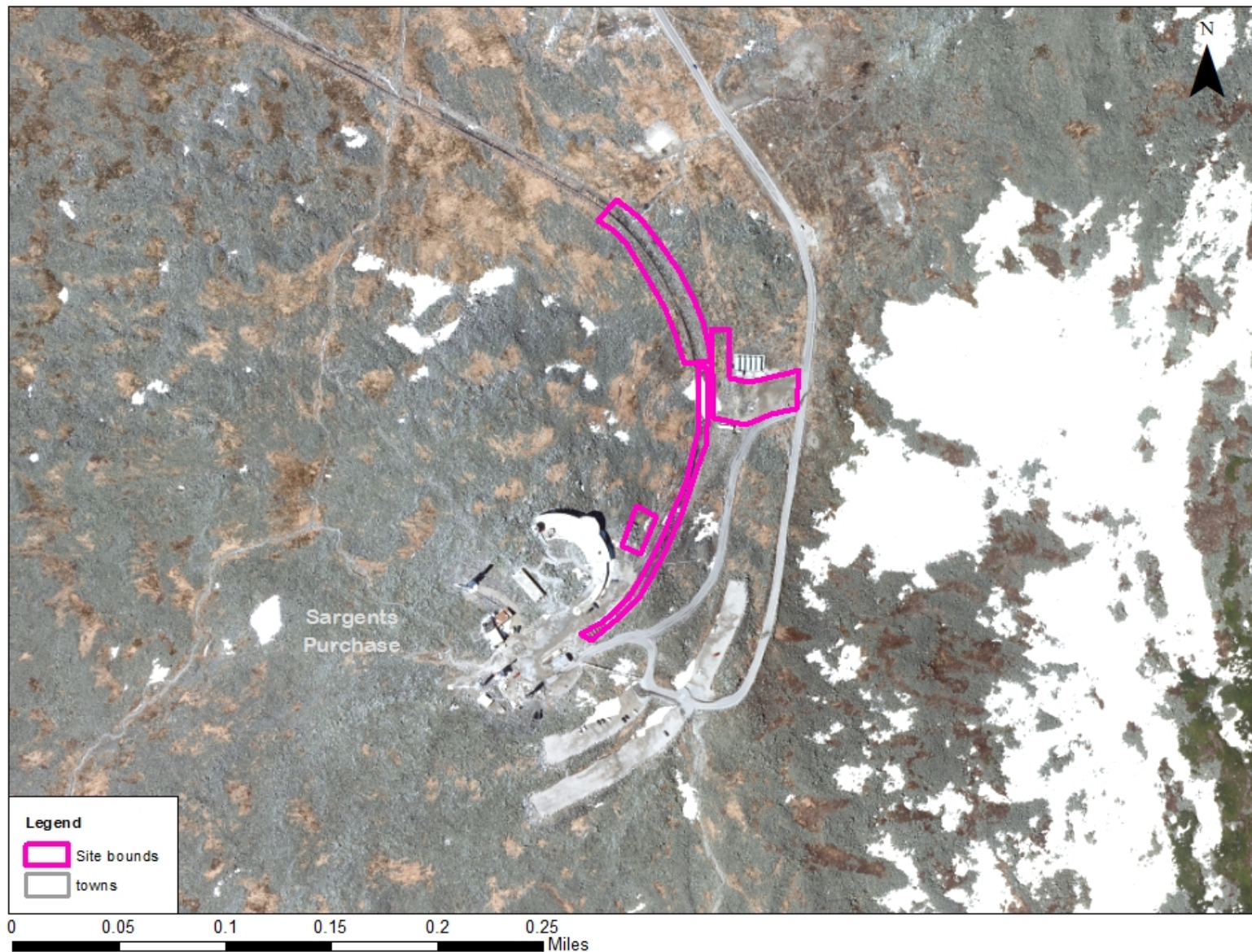
If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://wildlife.state.nh.us/wildlife/environmental-review.html>. All requests for consultation and submittals should be sent via email to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov) or can be sent by mail, and **must include the NHB Datacheck results letter number and "Fis 1004 consultation request" in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where a additional coordination with NH Fish and Game is requested, please email: Kim Tuttle [kim.tuttle@wildlife.nh.gov](mailto:kim.tuttle@wildlife.nh.gov) with a copy to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov), and include the NHB Datacheck results letter number and "review request" in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

**CONFIDENTIAL – NH Dept. of Environmental Services review**

**NHB22-1571**

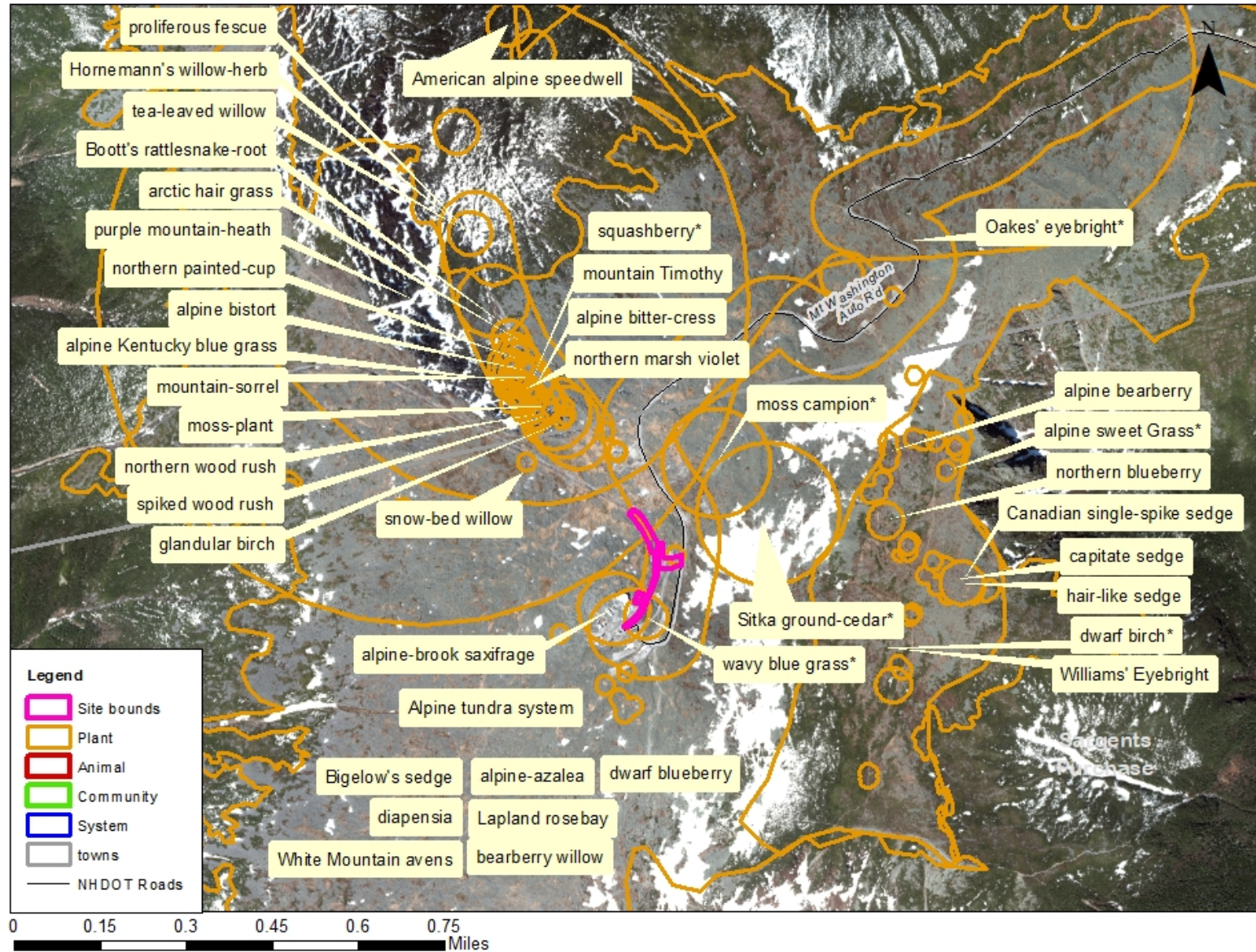


**CONFIDENTIAL – NH Dept. of Environmental Services review**

**WILDLIFE MAP  
REDACTED**



NHB22-1473



## New Hampshire Natural Heritage Bureau - Animal Record

### White Mountain Arctic (*Oeneis melissa semidea*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Imperiled due to rarity or vulnerability  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: This (Alpine Garden) is the type site for this subspecies.

Detailed Description: 2012: Bigelow Lawn: 22 adults. Cow Pasture: 58 adults. Gulf Tanks: 88 adults. All adults were captured, marked, and released. 2011: Bigelow Lawn: 63 adults. Cow Pasture: 54 adults. Gulf Tanks: 59 adults. All adults were captured, marked, and released. 2003: 7 age and sex unknown. 2002: 20 age and sex unknown. 1990: Observed. 1987: Approx. 1/2 dozen seen.

General Area: 2011: Suitable habitat dominated by Bigelow's sedge (*Carex bigelowii*). Plants in bloom in the lawns included mountain sandplant (*Minuartia groenlandica*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine-azalea (*Kalmia procumbens*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), and Lapland rosebay (*Rhododendron lapponicum*). 2002: Terrestrial: alpine/ subalpine (Obs\_id 804, 801, 805, 806, 807, 809, 803, 802).

General Comments: 1990: See site survey form for precise locations. Fly dates: 27 June to 22 July. Caterpillar host is *Carex rigida* (Bigelow's sedge). Flies less than 1/2 meter off of ground.

Management

Comments: --

#### Location

Survey Site Name: Mt. Washington  
Managed By: White Mountain National Forest

County: Coos

Town(s): Sargents Purchase

Size: 444.4 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2002: Lakes of the Clouds Trail (Obs\_id 804). Off auto road to Mt. Washington in Cow Pasture (Obs\_id 801). Lakes of the Clouds around and over Monroe (Obs\_id 805). Camel Trail (Obs\_id 806). Camel Trail (Obs\_id 807). From Clay loop up Gulfside Trail to Great Gulf Trail, to tank near Nelson Crag Trail, then up to summit (Obs\_id 809). Lakes of the Clouds Trail (Obs\_id 803). Summit to Lakes of the Clouds Trail, mostly off trail (Obs\_id 802). 1990: Alpine Garden. Also, elsewhere below summit - all one large EO.

#### Dates documented

First reported: 1987-06-18

Last reported: 2012-07-14

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.



## New Hampshire Natural Heritage Bureau - Animal Record

### White Mountain Fritillary (*Boloria titania montinus*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Critically imperiled due to rarity or vulnerability  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).  
Comments on Rank: Seen in small numbers, fairly rare.

Detailed Description: 2019: 212, 46 female, 47 male, and 119 unknown, between 7/25 and 8/27. 2013: 101 age and sex unknown, between 7/25 and 8/25. 2012: 155 age and sex unknown, between 7/12 and 8/22. 2008: 39 age and sex unknown, between 7/29 and 8/28. 2003: 59 age and sex unknown, between 8/13 and 8/15. 2002: 8+ age and sex unknown. 1987: 2 seen, dozens estimated. Flies late July and August.

General Area: 2003, 2002: Terrestrial: alpine / subalpine. 1987: Alpine meadows and ravines.

General Comments: 1987: Date questionable. Too early.

Management: --

Comments:

#### Location

Survey Site Name: Huntington Ravine  
Managed By: White Mountain National Forest

County: Coos

Town(s): Sargents Purchase

Size: 206.9 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2003: Area 972: Up road from pull-off to Wamsutta Trail, down trail to cut-off for Winter Road, and down Winter Road. Area 978: Gulfside Trail. Area 975: Gulfside Trail, Mt Clay loop, Gulfside to east side of Mt. Jefferson. Area 973: Gulfside trail, Mt Clay loop, Gulfside to east side of Mt. Jefferson. Area 971: Alpine Garden Trail. Area 974: Gulfside Trail, Mt Clay loop, Gulfside to east side of Mt. Jefferson. Area 977: Gulfside Trail, Mt. Clay loop, Gulfside to east side of Mt. Jefferson. Lat/long: 44 1809, -71 1848. Area 976: Gulfside Trail, Mt. Clay loop, Gulfside to east side of Mt. Jefferson. Lat/long: 44 1743, -71 1901. 2002: Area 970: Cragway Spring. 1987: Huntington Ravine.

#### Dates documented

First reported: 1987-06-18

Last reported: 2019-08-27

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# New Hampshire Natural Heritage Bureau - System Record

## Alpine tundra system

<b>Legal Status</b>	<b>Conservation Status</b>
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Imperiled due to rarity or vulnerability

<b>Description at this Location</b>	
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank:	Most diverse, best example of an alpine community in the state. Probably the best global example of this community.
Detailed Description:	2006: Observed and photographed at summit, Alpine Garden, and Nelson Crag ridge. 2003: Observed. [Alpine Garden portion]: 2001: Various forms of this system observed throughout the Alpine Garden. 1990: Strong affinities with arctic communities. 62% species restricted to alpine or tundra communities. Dominants include <i>Carex bigelowii</i> (Bigelow's sedge), <i>Juncus trifidus</i> (highland rush), <i>Scirpus cespitosus</i> (tussock bulrush), <i>Vaccinium</i> spp., <i>Diapensia lapponica</i> (diapensia), <i>Minuartia groenlandica</i> (glabra) (smooth sandwort), and <i>Potentilla tridentata</i> (three-toothed cinquefoil).
General Area:	2006: System is alternately bordered below by <b>alpine ravine/snowbank system</b> or a ring of krummholz in one of two primary adjacent systems: <b>subalpine heath - krummholz/rocky bald system</b> or <b>high-elevation spruce - fir forest system</b> . [Alpine Garden portion]: 2001: Borders the more barren summit cone of Mt. Washington to the west, and the steep cliffs of Huntington and Tuckerman Ravines to the south and east. Bounded by Chandlers Ridge to the north. Community descends somewhat into the Raymond Cataract drainage to the southeast. 1990: Found above treeline where extreme physical environment is typical. Vegetation is characterized by low mat forming shrubs, cushion plants, low sedges, grasses, & bryophytes
General Comments:	[Alpine Garden portion]: 1990: Very diverse community. Spectacular display of flowers in early June. <i>Prenanthes boottii</i> (Boott's rattlesnake-root) and <i>Geum peckii</i> (mountain avens) endemic to northeast.
Management Comments:	[Alpine Garden portion]: 2001: Managed as a Research Natural Area by the WMNF.

<b>Location</b>	
Survey Site Name:	Presidential Range
Managed By:	White Mountain National Forest
County:	Coos
Town(s):	Thompson & Meserve
Size:	3743.6 acres
	Elevation:
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	[Alpine Garden portion]: Large bench on east side of Mt. Washington, bounded on north by the Huntington Ravine Trail & on south by the Lion Head Trail. Although the Alpine Garden is the best example of this system, it extends in varying degrees of quality from Mt. Eisenhower to Mt. Madison, a linear distance of 7 to 8 miles.

<b>Dates documented</b>	
First reported:	1971-PRE
Last reported:	2006-06-15

## New Hampshire Natural Heritage Bureau - Plant Record

### alpine bearberry (*Arctous alpina*)

#### Legal Status

Federal: Not listed  
 State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
 State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
 Comments on Rank: Large number of plants in pristine habitat.

Detailed Description: 2018: Thousands of stems from approximately 17 individual patches. 11 patches had fruit, but fruiting rates are low relative to the total number of stems. 2016: More than 1,000 mature stems with normal vigor. In patches. Less than 1% in fruit. 2011: More than 1,000 stems (leaf whorls), 1% with mature fruit. Widespread in two distinct patches (30 x 25 ft. and 20 x 20 ft.).

General Area: 2018: Plants generally occur on drier, convex, rocky knolls. Associated species similar to 2011. 2011: Alpine lawn. Associated species include diapensia (*Diapensia lapponica*), dwarf bilberry (*Vaccinium cespitosum*), alpine bilberry (*Vaccinium uliginosum*), tussock bulrush (*Trichophorum cespitosum*), highland rush (*Juncus trifidus*), Cutler's goldenrod (*Solidago leiocarpa*), and black crowberry (*Empetrum nigrum*).

General Comments: 2011: Largest population the WMNF botanist knows of in the alpine zone of the White Mountains.

Management: --

Comments:

#### Location

Survey Site Name: Alpine Garden, above Huntington Ravine  
 Managed By: White Mountain National Forest

County: Coos

Town(s): Sargents Purchase

Size: 3.1 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2018: On the Mt. Washington Auto Road, park at the upper pullout in the Cow Pasture, at the trailhead for the Huntington Ravine Trail. Descend to Alpine Garden Trail and head south across the Garden. At the 13th cairn, veer off trail upslope, south of the spring. First patch is just above the spring area. Other patches are scattered along the toe slope where the headwall transitions down into the flats of the Garden, usually on locally drier areas of soils and rock debris. 2011: Alpine Garden, up close to the base of the headwall [steep slope] and just above the first rise in the floor of the Alpine Garden when walking from the Huntington Ravine Trail toward Tuckeman Ravine (44.27422N, 71.29374W).

#### Dates documented

First reported: 2011-07-19

Last reported: 2018-08-27

## New Hampshire Natural Heritage Bureau - Plant Record

### alpine bistort (*Bistorta vivipara*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).  
Comments on Rank: 1994: Good to marginal quality. Representative, but few in number. Excellent condition and defensibility. Good to marginal viability, small colony. Probably more to be found.

Detailed Description: 2017: Area 2: 15 stems in 6 clumps, all in fruit. 2013: Area 2: 40 stems, 80% mature fruit, most dispersing seeds. 2002: Area 2: Several patches encountered along trail. 1994: 5 indistinct clumps in 2 sq m area with 20-20 fruiting stems. Another 3 clumps found upslope, and more even further upslope.

General Area: 2017: Alpine herbaceous snowbank/rill. Species composition similar to previous surveys. Associated species not previously reported include alpine blueberry (*Vaccinium uliginosum*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), bearberry willow (*Salix uva-ursi*), mountain sandplant (*Minuartia groenlandica*), and large-leaved goldenrod (*Solidago macrophylla*). 2013: Dominant plants: three-toothed-cinquefoil (*Sibbaldiopsis tridentata*). Associated species: White Mountain ams (*Geum peckii*), snow-bed willow (*Salix herbacea*), rattlesnake-root (*Nabalus* sp.), sweet grass (*Anthoxanthum* cf. *monticola*), mountain-sorrel (*Oxyria digyna*), and sphagnum. 2002: Nearby plants include: *Nabalus boottii* (Boott's rattlesnake root), *Luzula spicata* (spiked woodrush), *Cardamine bellidifolia* (alpine bitter cress), *Castilleja septentrionalis* (pale painted cup), and *Poa laxa* ssp. *feraldiana* (wavy bluegrass). 1994: Growing on sphagnum mat on boulder. Associated species include *Calamagrostis canadensis* (bluejoint), *Luzula spicata* (spiked woodrush), *Campanula rotundifolia* (harebell), *Agrostis mertensii* (boreal bentgrass), *Poa laxa* ssp. *feraldiana* (wavy bluegrass), *Carex* cf. *lenticularis* (shore sedge), *Betula cordifolia* (heartleaf birch), and *Sphagnum* spp. (moss).

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Great Gulf Trail  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Thompson & Meserve  
Size: 10.0 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Great Gulf Trail. 2017: Go to the junction of the Great Gulf Trail and Gulfside Trail just north of the Mt. Washington summit. Descend about 500 vertical feet to the location, along an herbaceous rill west of and above the trail. 2013: Area 1: 15 meters due west of huge block on east side of the Great Gulf Trail, toward the bottom of the long steep pitch at the head of the valley on the west side of the stream. Area 2: Along the Great Gulf Trail approximately 0.5 miles down from the summit of Mt. Washington.

#### Dates documented

First reported: 1994-08-10 Last reported: 2017-08-01





## New Hampshire Natural Heritage Bureau - Plant Record

### alpine bitter-cress (*Cardamine bellidifolia* var. *bellidifolia*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2019: Area 1: Searched for but not found. 2018: Area 2a: Total estimated population of 510 plants, with 88 reproductive individuals. Patches vary from 11 to around 300 plants. A high proportion of some patches was composed of tiny seedlings, perhaps as much as 80% of the total population. 2017: Area 1: Searched for but not found. Area 2: No notable changes from previous year, except fewer seed pods. 2016: Area 1: Searched for but not found. Area 2: 51-100 plants, 70% in leaf, 30% seeds dispersing. 50% normal vigor, 25% each feeble and vigorous. Seeds collected. 2013: Area 2: 51-100 plants counted, 65% in leaf, 30% immature fruit, 5% seed dispersing. 2002: Area 1: 50-100 plants counted. Area 2: Over 200 plants counted. 1907: Specimen collected. 1895: Specimen collected.

General Area: 2018: Area 2a: Plants generally occur in crevices on seeping slabs, under rocks and in sparsely vegetated, mossy areas, often on very steep terrain and often with alpine-brook saxifrage (*Saxifraga rivularis*). 2016: Area 2: In saturated moss, just out of flowing water. Also in various wet places. 2013: Alpine slope with dominant / characteristic species: dwarf birch (*Betula minor*), snow-bed willow (*Salix herbacea*), White Mountain avens (*Geum peckii*), mountain-sorrel (*Oxyria digyna*), and highland rush (*Juncus trifidus*). Associated plant species (immediate vicinity): moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bistort (*Bistorta vivipara*), spiked woodrush (*Luzula spicata*), bluejoint (*Calamagrostis canadensis*), mountain Timothy (*Phleum alpinum*), alpine blueberry (*Vaccinium uliginosum*), dwarf birch (*Betula minor*). 2002: **Alpine tundra system.** Nearby plants include in Area 2 include: *Nabalus boottii* (Boott's rattlesnake root), *Luzula spicata* (spiked woodrush), *Persicaria vivipara* (viviparous knotweed), *Oxyria digyna* (mountain sorrel), *Salix herbacea* (dwarf willow), and *Salix planifolia* (tea-leaved willow).

General Comments: 2019: Area 1: Not found despite fairly thorough search of the Heritage mapped area and beyond. No particularly suitable habitat was seen. The Cow Pasture has no rills or flowing water to speak of (at least at midseason) and most of the area is rather dry Alpine Heath Rush Meadow with patches of barren fellfield. There is a somewhat moister mossy meadow area that extends north from a culvert off the Auto Rd ù this is the site of the extensive *Silene acaulis* population and might harbor some Cardamine, but does not appear to be typical habitat for the species and is impossible to search without stepping on vegetation quite a bit.

Management Comments: --

#### Location

Survey Site Name: Cow Pasture  
Managed By:

County: Coos  
Town(s): Thompson & Meserve  
Size: 8.0 acres  
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2018: Area 2a: Plants are located in multiple rills on the Great Gulf headwall. Descend the Great Gulf Trail for about 200-300' below the rim. Most plants are along rills that more or less parallel the

trail 8-25 meters west of it. Area 1 is located in the "cow pasture" area along the Mt. Washington Auto Road. Area 2 occurs at the same elevation across the contour to the Great Gulf Trail. (316012, 4905066 zone 19 NAD83)

**Dates documented**

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First reported: 1895

Last reported: 2018-08-23

## New Hampshire Natural Heritage Bureau - Plant Record

alpine Kentucky blue grass (*Poa pratensis ssp. alpigena*)**Legal Status**

Federal: Not listed  
 State: Listed Endangered

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
 State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
 Comments on Rank: --

Detailed Description: 2020: Headwall: 300-500 fruiting culms observed. Entire population not surveyed. May be much larger. Septic Field: Thousands of fruiting culms. Plants are perhaps densest and most lush near the base of the septic field and along the bootleg trail, suggesting likely influence of septic seepage nutrients.

General Area: 2020: Headwall: *Alpine herbaceous snowbank/rill* with associated species snow-bed willow (*Salix herbacea*), White Mountain avens (*Geum peckii*), large-leaved goldenrod (*Solidago macrophylla*), Boott's rattlesnake-root (*Nabalus boottii*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), mountain-sorrel (*Oxyria digyna*), arctic hair grass (*Vahlodea atropurpurea*), mountain Timothy (*Phleum alpinum*), small-flowered wood rush (*Luzula parviflora ssp. melanocarpa*), and many others. Septic Field: Site is bordered by road and septic infrastructure, and experiences seepage, probably nutrient-enriched, from the septic field. The dominant natural community is *Bigelow's sedge meadow* with associated species Bigelow's sedge (*Carex bigelowii*), bluejoint (*Calamagrostis canadensis*), a lpine-brook saxifrage (*Saxifraga rivularis*), mountain sandplant (*Minuartia groenlandica*), and northern bentgrass (*Agrostis mertensii*).

General Comments: --  
 Management: --  
 Comments:

**Location**

Survey Site Name: Great Gulf  
 Managed By:

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 1.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2020: Septic Field: On the Auto Road, park at the large rough pullout on the west side of the road uphill of the 6,000 foot sign. Descend west from the pullout into the wet Bigelow sedge lawn area extending downslope from the rocky mounds of the old septic field. The species is widespread and abundant throughout the wet sedge lawn, which is traversed by a bootleg cutoff trail connecting the junction of the Great Gulf Trail and Gulfside Trail. Headwall: From the junction of the Great Gulf and Gulfside Trails, descend into the gulf. Plants are scattered along the rills near the trail and to the west, starting an estimated 400-600 feet below the rim and continuing down and west for an unknown distance.

**Dates documented**

First reported: 2020-09-03 Last reported: 2020-09-03





## New Hampshire Natural Heritage Bureau - Plant Record

### alpine sweet Grass (*Anthoxanthum monticola ssp. monticola*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Apparently secure but with cause for concern  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2001: 4% cover in a 5x5 meter plot. 1990: No details. 1876: Specimen collected.  
General Area: 2001: Herbaceous snowbank meadow. No active seepage, but organic soils still moist. Associated species include *Geum peckii* (mountain avens), *Carex bigelowii* (Bigelow's sedge), *Salix planifolia* (tea-leaved willow), *Solidago macrophylla* (large-leaved goldenrod), *Polygonum viviparum* (viviparous knotweed), and *Castilleja septentrionalis* (pale painted-cup).

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Alpine Garden  
Managed By:

County: Coos  
Town(s): Sargents Purchase  
Size: .4 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Alpine Garden. From the Cow Pasture parking area along the Mt. Washington Auto Road, hike ca. 0.2 miles down the Huntington Ravine Trail. From the junction with the Alpine Garden Trail, go ca. 0.2 miles south, then go east towards the edge of Huntington Ravine.

#### Dates documented

First reported: 1876 Last reported: 2001-07-06

## New Hampshire Natural Heritage Bureau - Plant Record

### alpine-azalea (*Kalmia procumbens*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2018: Alpine Garden: Scattered fairly abundantly throughout the Alpine Garden. Total population is thousands of plants, most frequently occurring on drier, rockier microsites, often amid *Diapensia* cushions. 2016: Mount Monroe - Crawford Path: Very dense. Difficult to count individuals. Plants covering about 10% of 2 m<sup>2</sup>. 10-20% immature fruit. Normal to feeble vigor. 2014: Boott Spur: 15 clumps observed in 6 areas, totaling about 3m<sup>2</sup>. 2007: Mt. Madison: Several widely scattered flowering patches observed. 2005: Edmonds Col: Several patches in bloom, ca. 1-2 square meters. Many patches visible from the trail. 2005: Mt. Adams: Gray Knob Trail, dominant species or patches in four locations. A few blooms, but past peak. Along Star Lake Trail, patches in six locations. 2005: Mt. Madison: Flowering patch, about 0.5-0.75 square meter. 2005: Peabody Spring: Gulfside Trail near Peabody Spring. Scattered patches in a 2 x 3 ft. area (maybe 15% cover). A dozen or so seedpods (or buds?). 2005: Star Lake: A few flowering patches, 1-2 square feet total. 2001: Boott Spur: Several clumps observed in flower. 1997: Lakes of the Clouds and Monroe Flats: Observed. 1997: Mt. Adams: Along the Gulfside Trail above Jefferson Ravine. Plants occur intermittently from Storm Lake to the main population at Peabody Springs. No details. 1997: Mt. Clay: Observed on ledge to east of Clay Loop Trail, below and north of summit. 1997: Mt. Jefferson: Dingmaul Rock: Observed. No details. 1996: Alpine Garden: Plants observed while fruiting. 1990: Alpine Garden: Widespread and common. 1990: Bigelow Lawn: Common and widespread along Tuckerman Crossover Trail from Lakes hut to Tuckerman Junction; occurs along trail sides. 1990: Lakes of the Clouds and Monroe Flats: No details. 1990: Mt. Washington: Crawford Path between summit of Mt. Washington and Lakes of the Clouds. No details. 1990: Mt. Adams: Numerous individuals scattered at several stations. 1990: Mt. Clay: Seen at two sites. 1990: Mt. Eisenhower: Abundant near summit along path. 1990: Mt. Jefferson: Dingmaul Rock: No details recorded. 1934, 1902, 1901, 1900, 1899, 1898, 1895: Alpine Garden: Specimens collected. 1901: Bigelow Lawn. 1895: Crawford Path between the summit of Mt. Washington and Lakes of the Clouds: Specimen collected. 1895, 1890, 1858, 1856: Summit of Mt. Washington: Specimens collected. 1893, 1891: Mt. Monroe. 1891: Mt. Franklin.

General Area: 2016: Mt. Monroe - Crawford Path: Associated species: *Diapensia lapponica*, dwarf birch (*Betula minor*), Labrador-tea (*Rhododendron groenlandicum*), and sedge (*Carex* sp.). Dominant species: *Diapensia lapponica*, Labrador-tea (*Rhododendron groenlandicum*), alpine blueberry (*Vaccinium uliginosum*), and dwarf birch (*Betula minor*). 2014: Boott Spur: Alpine sedge-rush-heath vegetation, with *Diapensia lapponica*, Lapland rosebay (*Rhododendron lapponicum*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), wavy hair grass (*Deschampsia flexuosa*), Labrador-tea (*Rhododendron groenlandicum*), highland rush (*Juncus trifidus*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), and alpine blueberry (*Vaccinium uliginosum*). 2007: Alpine tundra system.

General Comments: 2016: This record is a compilation of all reports from the Presidential Range. Details on specific observations, including GPS points, are available from the NH Natural Heritage Bureau.

Management Comments: 2016: Mount Monroe - Crawford Path: Continue to keep hikers on the path. 1990: Subjected to hiker traffic in many areas.

#### Location

Survey Site Name: Presidential Range  
 Managed By: White Mountain National Forest

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 3743.6 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2018: Alpine Garden: On the Mt. Washington Auto Road, park at the upper pullout in the Cow Pasture at the trailhead for the Huntington Ravine Trail. Descend to Alpine Garden Trail and head south across the Garden. Plants are found scattered fairly abundantly throughout the Alpine Garden. 2016: ~ 25 feet off Crawford Path above Lakes Hut, on the other side of the trail just opposite the seep. (N 44.25733 W 71.31902) 2014: Drive to Pinkham Notch and hike up Glen Boulder Trail. First population found at 4,186 feet (2 ft<sup>2</sup>), then at 4,849 feet (6 ft<sup>2</sup>). Largest population at 5,088 ft (11 ft<sup>2</sup>), very close to junction with Davis Path. Hike down Boott Spur trail from Boott Spur to 4,881 feet, 4,810 feet and 4,626 feet where there are 3 small populations (2, 1 and 5 ft<sup>2</sup>). Plants are next to or in trail. Presidential Range.

#### **Dates documented**

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First reported:	1856	Last reported:	2018-08-27
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## New Hampshire Natural Heritage Bureau - Plant Record

**alpine-brook saxifrage (*Saxifraga rivularis* ssp. *rivularis*)****Legal Status**

Federal: Not listed  
State: Listed Endangered

**Conservation Status**

Global: Not ranked (need more information)  
State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2019: 32 plants in 6 locations around buildings in disturbed summit area. 2018: Great Gulf: Total estimated population of 275 plants, with 225 reproductive. Plants generally occur in crevices on seeping slabs and under rocks in sparsely vegetated, mossy areas. 2017: Area 4: 5+ plants in <1 square ft. Area 5: two fist size patches with many plants. Area 8: At least two dozen patches (possibly many more) scattered in and around alpine meadows. 2016: Area 2: A few patches of plants in <2 square meter area. Area 3: 5 plants. 2015: Area 1: Includes two plants by pipe (0.5 square ft. area) and at least two other clusters of plants just north of path. Area 6: Minimum of 1-5 plants with Taraxacum; Area 7: Minimum of 1-5 plants. 2007: Summit: ca. 1,000 plants (clumps up to about the size of a pencil eraser). 2005: Summit: 15 clusters, scattered over ca. 50 square meters at edge of staff parking lot. 101-1,000 plants of normal vigor estimated. 75% in leaf, 15% in bud, and 10% in flower (6/10). Large, healthy, flowering colony at Goofer Point (6/9). 2002: Great Gulf: Total of 500+ plants estimated within three clumps. 1986: Occasional to locally frequent. 1980: Several plants. 1977: Abundant. 1969: Fairly large colony, some plants in flower. 1930, 1928, 1927: Specimens collected.

General Area: 2019: Anthropogenically disturbed area around the summit. Mostly rock/gravel, with a few associated vascular plants: spiked wood rush (*Luzula spicata*), wavy blue grass (*Poa laxa* ssp. *fernaldiana*), boreal stitchwort (*Stellaria borealis*), Bigelow's sedge (*Carex bigelowii*), and northern bentgrass (*Agrostis mertensii*). 2018: Great Gulf: **alpine herbaceous snowbank/rill** with associated species alpine bitter-cress (*Cardamine bellidifolia*), northern marsh violet (*Viola palustris*), boreal stitchwort (*Stellaria borealis*), White Mountain a vens (*Geum peckii*), proliferous fescue (*Festuca prolifera*), northern painted-cup (*Castilleja septentrionalis*), and Hornemann's willow-herb (*Epilobium hornemannii*), among many others. 2017: Areas 4, 5, and 8 are in sedge meadow habitat near rocks and boulders. Area 8 associated species include Bigelow's sedge (*Carex bigelowii*), spiked wood rush (*Luzula spicata*), Cutler's goldenrod (*Solidago leiocarpa*), boreal stitchwort (*Stellaria borealis*), and alpine blueberry (*Vaccinium uliginosum*). 2016: Area 2 is in sedge meadow habitat near rocks and boulders. Area 3 is in disturbed area below parking lot. 2015: Area 1 is in disturbed wet area among rocks in path, as well as sedge meadow habitat near rocks and boulders. 2007, 2005: Summit: No associated natural community; only gravel and asphalt found. 2002: Great Gulf: Other nearby plants include: *Castilleja septentrionalis* (pale painted cup), *Oxyria digyna* (mountain sorrel), and *Phleum alpinum* (alpine timothy). 1986: Summit: In protection of boulders. 1980: Summit: Moist soil/cinders below water tank and a long railroad tracks. 1977: Summit: Building foundation. 1969: Summit: Seepage area on side of building, possibly with some sewer effluent from the building?

General Comments: 2007: Searched other areas of the summit without success. 2005: Only searched area between the Tip-Top House and old summit building. Didn't search beyond this general area, so possible that there are other locations.

Management Comments: 2017: Many of the colonies have dandelions nearby or growing immediately adjacent to individual plants. Dig crews (for USFS/DNCR dandelion removal efforts) were able to avoid direct damage to Saxifraga with careful dandelion removal. 2007: Summit: Foot traffic may help maintain suitable conditions. At Lakes Hut population, routing traffic away from the plants has seemingly caused a decline in the population. 2005: Summit: Area receives high levels of foot traffic. Plant is isolated to areas that are not accessible to trampling (cracks and overhanging rocks). Otherwise trampling could be an issue.

**Location**

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Survey Site Name: Great Gulf Trail

Managed By:

County: Coos

Town(s): Sargents Purchase

Size: 16.1 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Mt. Washington, Summit and Great Gulf headwall. 2019: Multiple locations around Sherman-Adams Building, Tip Top House, and the Old Stage Coach building. 2017: Area 4: Under rock, ~100 ft. south of Crawford Path, 5+ plants. Area 5: Southwest of and below the end of lowest parking lot. Area 8: Leave lower parking lot and walk down Tuckerman Ravine Trail approximately 175 meters. Then, head due west for approximately 60-70 meters to alpine meadows. Plants occur around edges of meadows in crevices between rocks. Some plants also found in interiors of meadows, associated with rock outcrops. 2016: Area 2: Turf near boulders with Taraxacum just above Great Gulf. Area 3: By metal scrap, under rocks, 10 ft. below lower lot. 2015: Area 1: Near base of bootleg path just below park lot before the meadow, by drainage pipe; also just north of path near base of slope near edges of rocks within 15-20 ft. or so of path. Area 6: East of wheel tracks and tanks, and N of gravel parking lot (near intersection of these features). Area 7: Base of ledge far side of walkway from entrance to Sherman Adams building on west side. 2007: Summit: On rock pile between observation deck and Tip-Top house, and around foundation of Tip-Top house. Under just about every overhanging rock and nook or cranny. 2005: Summit: Between Tip-Top House and summit building in areas protected from trampling (cracks and overhanging rocks). Edge of staff parking lot, and Goofers Point just beyond where the Crawford Path turns downhill near a drainage that appears to come from near the base of the old (torn down) observatory building. 2002: Great Gulf: Great Gulf Trail below where it drops over the rim. Small wet area off to the left. Also downhill along a stream coming in from the left (in descent). 1986: Summit: Elevation 6000-6200 ft., in view of summit house. 1980: Summit: Directly below water tank at summit, adjacent to Cog Railroad tracks. 1977: Summit: About foundations of Tip-Top House. 1969: Summit: Summit on north side of visitors' building in seepage area. 1930: Summit: Water tank at summit. 1928: Summit: Near summit house. 1927: Summit: Fifty feet from summit water-tank.

**Dates documented**

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First reported: 18??

Last reported: 2019-08-20

## New Hampshire Natural Heritage Bureau - Plant Record

### American alpine speedwell (*Veronica wormskjoldii* var. *wormskjoldii*)

Legal Status	Conservation Status
Federal: Not listed	Global: Apparently secure but with cause for concern
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location	
Conservation Rank:	Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank:	Good viability and excellent defensibility, but poor quality and condition.
Detailed Description:	2016: Area 3: 45 plants observed, 80% with reproductive material. 2002: Area 2: One plant counted. 1995: Area 1: 2 very small groups with some flowers, probably more present, could find when in flower. 1994: Area 1: Location 1: 4 clumps in 1 sq m. Location 2: 1 to 2 sq m mat of very vigorous plants with 200 fruiting stems in 1.5 sq m area. 1978: Storks and Crow 1971: Storks specimen #191, ACC.#63137 at NH. 1964-Pease. A Flora of Northern New England notes the following specimens; 1909: M4532. 1894: Fuller. 1893: Williams. 1885: Observed; no further details.
General Area:	2016: Area 3: <b>Alpine herbaceous snowbank/rill</b> with associated species including bluejoint ( <i>Calamagrostis canadensis</i> ), wavy hair grass ( <i>Deschampsia flexuosa</i> ), Cutler's goldenrod ( <i>Solidago leiocarpa</i> ), American false hellebore ( <i>Veratrum viride</i> ), White Mountain avens ( <i>Geum peckii</i> ), snow-bed willow ( <i>Salix herbacea</i> ), wavy blue grass ( <i>Poa laxa</i> ssp. <i>fernaldiana</i> ), and mountain-sorrel ( <i>Oxyria digyna</i> ). 2002: Great Gulf Trail along stream. Other nearby plants include: <i>Saxifraga rivularis</i> (alpine brook saxifrage), <i>Oxyria digyna</i> (mountain sorrel), and <i>Phleum alpinum</i> (alpine timothy). 1995: Growing in sphagnum mat on boulders in high gradient streambed. Moist, grassy gully.
General Comments:	2002: Stream area not thoroughly surveyed, could be more plants upstream.
Management	--
Comments:	

Location	
Survey Site Name:	Great Gulf
Managed By:	
County:	Coos
Town(s):	Thompson & Meserve
Size:	3.8 acres
Elevation:	
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	2016: Area 3: Go down Great Gulf Trail on headwall. Below the stream/waterfall, west of the stream, is a slightly flatter area with moderate amount of flowing water. 2002: Area 1: 2 locations on floor of headwall basin. One patch a short distance up west branch tributary (where Great Gulf Trail crosses north of Spaulding Lake, and another patch at 100-200 M at 120 degrees true from south end of Spaulding Lake along stream to left of Great Gulf Trail. Area 2: Approximately 0.5 miles from the summit of Mt. Washington, on the steep headwall of Great Gulf, in a stream just off the trail.

Dates documented	
First reported:	1885
Last reported:	2016-08-24

## New Hampshire Natural Heritage Bureau - Plant Record

### arctic hair grass (*Vahlodea atropurpurea*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Not ranked (need more information)

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2019: More than 200 individual plants were counted with an estimated 300+ culms, all plants in fruit. The plants tended to cluster along the wetter parts of lush rills in mossy beds with sparser tall herbs.

General Area: 2019: *Alpine herbaceous snowbank/rill* with associated species White Mountain a vens (*Geum peckii*), large-leaved goldenrod (*Solidago macrophylla*), mountain-sorrel (*Oxyria digyna*), northern painted-cup (*Castilleja septentrionalis*), alpine-brook saxifrage (*Saxifraga rivularis*), proliferous fescue (*Festuca prolifera*), alpine bitter-cress (*Cardamine bellidifolia*), northern marsh violet (*Viola palustris*), wavy blue grass (*Poa laxa* ssp. *fernaldiana*), Hornemann's willow-herb (*Epilobium hornemannii*), and Boott's rattlesnake-root (*Nabalus boottii*), as well as many others.

General Comments: --

Management: 2019: *Taraxacum* should be controlled to prevent spread.

Comments:

#### Location

Survey Site Name: Great Gulf Trail

Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 5.0 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2019: Plants are widespread along multiple, perhaps most, rills on the Great Gulf headwall. Descend the Great Gulf Trail for about 100-500 feet below the rim. Plants are along rills that more or less parallel the trail 8-80 meters west of it and scattered across at least 400 feet of elevation.

#### Dates documented

First reported: 2019-08-05

Last reported: 2019-08-28

## New Hampshire Natural Heritage Bureau - Plant Record

### bearberry willow (*Salix uva-ursi*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2007: Mt. Madison: photographed a large patch in flower. 2001: Alpine Garden: Found in several locations, in flower. 1997: Mt. J.Q. Adams, Gulfside Trail: no details. 1990: Alpine Garden: Isolated and widespread. Growth vigorous, plants with young fruits. 1990: Mt. Madison: No details. 1990: Mt. J.Q. Adams: no details. 1990: Mt. Eisenhower summit: abundant. 1990: Lakes of the Clouds: no details. 1990: Head of King Ravine Trail: no details. 1990: Bigelow Lawn, Tuckerman Crossover Trail: a few plants. 1971: Spaulding Spring at Edmands Col, 4900 ft.: specimen collected 1971: Mt. Jefferson, 5000 ft.: specimen collected 1971: Edmands Col, 5000 ft., protected areas around rocks and crevices: specimen collected 1970: Mt. Washington, 4000-5500 ft.: scattered, very low shrubs (6 in.). 1951: Alpine Garden: specimen collected. 1935: Madison Huts: specimen collected. 1935: Mt. Adams, Knife Edge: specimen collected. 1932: Mt. Washington, alpine summit: specimen collected. 1928: Ad alpe Mount Washington: specimen collected. 1922: Alpine Garden: specimen collected. 1921: Lakes of the Clouds: specimen collected. 1921: Alpine Garden: specimen collected. 1919: Alpine Garden: specimen collected. 1909: Lawn above headwall of Huntington Ravine. very abundant. 1907: Spur Path; just above timber line: specimen collected. 1907: Mt. Madison, Parapet: specimen collected. 1907: Alpine Garden: specimen collected. 1907: Cone of Madison: specimen collected. 1904: Mt. Washington Carriage Road: specimen collected. 1901: Mt. Washington, Crawford Trail: common in open, rocky places. 1898: Mt. Washington, 5800 ft.: specimen collected. 1898: Alpine Garden: specimen collected. 1898: Mt. Washington, Cow Pasture: specimen collected. 1895: Mt. Washington, summit: specimen collected. 1894: Boott's Spur: specimen collected. 1894: Alpine Garden: specimen collected. 1886: Mt. Adams above treeline: specimen collected. 1886: Lake of the Clouds: specimen collected. 1884: Mt. Washington, above Half-way House: specimen collected. 1883: Lake of the Clouds: specimen collected. 1881: Mt. Franklin: specimen collected. 1881: Mt. Franklin: specimen collected. 1876: Mt. Washington: specimen collected. 1871: Mt. Washington, Fabyan Path: specimen collected. No Date: Near Crawford Path, below Bigelow Lawn: specimen collected. No Date: In alpinis Montium Alborum, White Mountains: specimen collected.

General Area: 2007: Alpine tundra system.

General Comments: --

Management: --

Comments:

#### Location

Survey Site Name: Presidential Range  
Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 3743.6 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Presidential Range.

**Dates documented**

First reported: 1871

Last reported: 2007-06-10

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## New Hampshire Natural Heritage Bureau - Plant Record

### Bigelow's sedge (*Carex bigelowii ssp. bigelowii*)

**Legal Status**

Federal: Not listed  
State: Listed Threatened

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2007: Mt. Madison: observed flowering. 2001: Alpine Garden: found in varying concentrations at several locations. 1996: Alpine Garden: no details. 1990: Alpine Garden: widespread and very abundant, with vigorous growth and abundant flowering. 1990: Bigelow Lawn: widespread, many plants flowering, some with maturing fruits; plants vigorous, normal growth. 1990: Mt. Washington - Crawford Path: no details. 1990: Star Lake: a dominant plant. 1990: Mt. Jefferson - Monticello Lawn: abundant throughout lawn. 1990: Mt. Adams: no details. 1990: Head of King Ravine: specimen collected. 1990: Mt. Eisenhower: widespread, abundant, and vigorous. 1990: Lakes of the Clouds & Monroe Flats: dominant in herb layer. 1964: Alpine Garden: most common plant in alpine lawns. 1936: Mt. Washington summit: specimen collected. 1933: Gulf of Slides: specimen collected. 1910: Mt. Washington summit: specimen collected. 1903, 1902, 1901: Mt. Washington Auto Road: specimen collected. 1901: Mt. Madison: specimen collected. 1901: Lakes of the Clouds & Monroe Flats: specimen collected. 1901: Summit House: specimen collected. 1901: Alpine Garden: specimen collected. 1895: Summit House: specimen collected. 1887: Great Gulf, edge of: specimen collected. 1884: Mt. Washington Auto Road: specimen collected. 1884: Mt. Washington summit: specimen collected. 1887: Alpine Garden: specimen collected. 1882, 1878, 1853: Summit House: specimen collected. 2007: Alpine tundra system.

General Area: --  
General Comments: --  
Management: --  
Comments:

**Location**

Survey Site Name: Presidential Range  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Thompson & Meserve  
Size: 3743.6 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Presidential Range.

**Dates documented**

First reported: 1853 Last reported: 2007-06-10

## New Hampshire Natural Heritage Bureau - Plant Record

### Boott's rattlesnake-root (*Nabalus boottii*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Imperiled due to rarity or vulnerability  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: Good quality, excellent condition, viability, and defensibility.

Detailed Description: 2020: More than 200 fruiting stems, plus thousands of non-fruiting leaf ramets observed, but the full extent of the population was not determined. 2013: 51-100 plants, 70% mature fruit. 2002: Patches observed in five areas. 1994: ca. 50-100 plants observed, 70% in flower, 30% immature fruit. Becomes common above blocks. 1898: Specimen of Eggleston at MO. 1874: Specimen of Morong at MO.

General Area: 2020: Trail has ongoing erosion from hiking, but no other significant human disturbance. Associated species similar to 2013 and 1994. 2013: Alpine slope: Associated plant species (immediate vicinity): Sphagnum, moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bitter-cress (*Cardamine bellidifolia*), mountain-sorrel (*Oxyria digyna*), alpine bistort (*Bistorta vivipara*), bluejoint (*Calamagrostis canadensis*), mountain Timothy (*Phleum alpinum*), alpine blueberry (*Vaccinium uliginosum*), and dwarf birch (*Betula minor*). Dominant / characteristic species: dwarf birch (*Betula minor*), snow-bed willow (*Salix herbacea*), alpine blueberry (*Vaccinium uliginosum*), White Mountain avens (*Geum peckii*), graminoids. 1994: Alpine streamside community. Associated plant species include: *Polygonum viviparum* (viviparous knotweed), *Oxyria digyna* (mountain sorrel), *Geum peckii* (mountain avens), *Luzula spicata* (spiked woodrush), *Minuartia* [*Arenaria*] *groenlandica* [var. *groenlandica*] (mountain sandwort), *Epilobium hornemannii* (Hornemann's willow-herb), *Cinna latifolia* (drooping woodreed), *Agrostis borealis* (boreal bent-grass), *Poa fernaldiana* (wavy bluegrass), and *Solidago macrophylla* (large-leaved goldenrod).

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Thompson & Meserve  
Size: 40.2 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2020: On the Mt. Washington Auto Road, park at the large rough pullout on the west side of the road just uphill of the 6,000 foot Marker sign. Take the bootleg cutoff trail west to the junction of the Gulfside and Great Gulf Trails and descend into the gulf. Plants start about 200-300 feet below the upper rim of the gulf and are scattered widely in the moist snowbank and rill-side areas across the gulf headwall and extending down for over 800 feet of elevation, with some increasing abundance going down. 2013: About 700 feet down the Great Gulf Trail scattered throughout the area on knobs. 2002: From Glen House proceed north on Rte. 16 ca. 1.5 mile to Great Gulf trailhead just off the road. Site is in a major ravine on the north side of Mt. Washington. Five areas. 1994: Alpine streamside paralleled by trail on slope at head of gulf. On boulder, west side of stream, 15 meters west of huge block; and above along stream. 1898: Great Gulf headwall. 1874: Alpine region.



**Dates documented**

First reported: 1874

Last reported: 2020-09-03

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## New Hampshire Natural Heritage Bureau - Plant Record

### Canadian single-spike sedge (*Carex scirpoidea* ssp. *scirpoidea*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: Large population in pristine habitat.

Detailed Description: 2011: More than 1,000 plants with immature fruit. Widespread within a [525 square meter] area. 1990: Locally abundant. A few hundred plants, most in flower, both male and female present. Specimen collected. 1977: Little detail about sites. Specimen collected. 1950, 1926, 1920, 1917, 1907, 1901, 1895, 1894, 1876, 1872, 1865, 1827: Specimen collected.

General Area: 2011: Area 2: Alpine lawn. Associated species include diapensia (*Diapensia lapponica*), dwarf bilberry (*Vaccinium cespitosum*), alpine bilberry (*Vaccinium uliginosum*), tussock bulrush (*Trichophorum cespitosum*), highland rush (*Juncus trifidus*), Cutler's goldenrod (*Solidago leiocarpa*), black crowberry (*Empetrum nigrum*), and viviparous knotweed (*Bistorta vivipara*). 1990: Area 1: Moist area (50x40 feet) in moss with highland rush (*Juncus trifidus*), bearberry willow (*Salix uva-ursi*), rattlesnake-root (*Prenanthes* sp.), diapensia (*Diapensia lapponica*), and goldenrod (*Solidago* sp.). The Alpine Garden occupies a moderately sloped bench on the eastern flank of Mt. Washington under the summit cone. It extends ca. 1 mile at ca. 5,550 feet [in elevation]. Several plant community types can be found here, including the late-emerging snowbank community.

General Comments: 1990: One of the best populations in the state.

Management: --

Comments:

#### Location

Survey Site Name: Alpine Garden  
Managed By:

County: Coos

Town(s): Sargents Purchase

Size: 2.9 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2011: Area 2: Located just to the south of the high ground on the floor of the Alpine Garden (44.27187N, 71.29349W). 1990: Area 1: Alpine Garden. Found along stream; East side of Alpine Garden Trail.

#### Dates documented

First reported: 1827

Last reported: 2011-07-19

## New Hampshire Natural Heritage Bureau - Plant Record

**capitate sedge (*Carex arctogena*)****Legal Status**

Federal: Not listed  
State: Listed Endangered

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2018: Total population is 144 plants across four primary areas, with an estimated 700 fruiting culms. 2003: Area 2: Species found, but no count was made. 1990: Area 2: Small, localized population; numerous plants located 50 ft. down slope from trail near stream. Area 1: Scattered individuals on trail towards Huntington Ravine. Specimen collected. 1978: Fairly large population occupying a small area, verified by I.M. Stork. 1967: Specimens collected. 1950: Specimens collected.

General Area: 2018: **Moist alpine herb - heath meadow** with associated species including scirpus-like sedge (*Carex scirpoidea*), tufted clubsedge (*Trichophorum cespitosum*), Scotch bellflower (*Campanula rotundifolia*), hair-like sedge (*Carex capillaris* ssp. *fuscidula*), White Mountain avens (*Geum peckii*), Bigelow's sedge (*Carex bigelowii*), alpine bistort (*Bistorta vivipara*), alpine blueberry (*Vaccinium uliginosum*), bearberry willow (*Salix uva-ursi*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), Cutler's goldenrod (*Solidago leiocarpa*), and Lapland rosebay (*Rhododendron lapponicum*). 2003: Area 2: Growing in the immediate area: *Luzula spicata*, *Scirpus caespitosus*, *Carex bigelowii*, and *Polygonum viviparum*. (Date?): Area 1: Moist peat meadow near Huntington Ravine.

General Comments: 2003: No count was made of the species because the surveyor did not know it was a rare plant at the time it was observed.

Management Comments: 1990: Small, localized population vulnerable to any large scale disturbance. Plants are far enough off the trail so that hikers are not a threat.

**Location**

Survey Site Name: Alpine Garden  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Sargents Purchase  
Size: 7.5 acres  
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Alpine Garden. 2018: On Mt. Washington Auto Road, park at the upper pullout in the Cow Pasture at the trailhead for the Huntington Ravine Trail. Descend to Alpine Garden Trail and head south across the Garden. Plants are found in four general areas of the Garden, possibly still more widespread. 1990: Area 1: Trail near Huntington Ravine. Area 2: On the Alpine Garden Trail, come to a wet area on the trail where a stream comes down from above.

**Dates documented**

First reported: 1858  
Last reported: 2018-09-12

## New Hampshire Natural Heritage Bureau - Plant Record

### **diapensia (*Diapensia lapponica ssp. lapponica*)**

#### **Legal Status**

Federal: Not listed  
State: Listed Threatened

#### **Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### **Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2009: Mt. Washington, Davis Path south of Boott Spur: thousands of clumps observed. 2007: Star Lake: abundant, in flower. 2007: Mt. Madison: thousands of clumps and patches observed. Widespread. 2004: Mt. Eisenhower: dominant species. 2003: Mt. Eisenhower: thousands of clumps observed along several miles of trail, most past flowering but some still in flower. 2003: Mt. Washington Auto Road: over 1,000 plants counted, 50% in flower. 2003: King Ra vine, crest of Great Gully Trail: hundreds of clumps, most past flowering but some still in flower. 2001: Alpine Garden: scattered in patches and clumps. 2001: Mt. Madison: hundreds of clumps and patches. 2001: King Ra vine: large, frequent clumps. Some still with flowers, others with dessicated flower remains. 2001: Mt. Washington Auto Road: over 1,000 plants counted with immature fruit and seed dispersal. 2001: Boott Spur: thousands of flowering clumps and patches scattered throughout the alpine zone. 2000: Mt. Jefferson - Castellated Ridge: Observed in patches and clumps along the crest of the ridge. 2000: Mt. Adams: observed and photographed. 1997: Lakes of the Clouds & Monroe Flats: no details. 1997: Star Lake: no details. 1997: Mt. Adams: no details. 1996: Alpine Garden: plants in fruit. 1990: Alpine Garden: widespread and abundant. 1990: Star Lake: occasional. 1990: Mt. Eisenhower: abundant. 1990: King Ra vine: no details. 1990: Mt. Adams: all ridges and slopes excluding major ravines. 1990: Lakes of the Clouds & Monroe Flats: no details. 1990: Bigelows La wn: widespread, many plants flowering, some with maturing fruits; plants vigorous, normal growth. 1990: Mt. Washington - Cra wford Path: no details. 1986: Alpine Garden: abundant. 1978: Mt. Washington Auto Road: abundant. 1977: Alpine Garden: abundant. 1977: Lakes of the Clouds & Monroe Flats: cushion-forming in exposed areas. 1974: Mt. Monroe: specimen collected. 1972: Alpine Garden: specimen collected. 1930: Mt. Washington: specimen collected. 1923: Mt. Washington Auto Road: specimen collected. 1910: Summit House: specimen collected. 1907: Mt. Madison: specimens collected. 1907: Mt. Adams - Spur Trail: specimen collected. 1901: Mt. Monroe: specimen collected. 1898: Mt. Washington Auto Road: no details. 1897: Lakes of the Clouds & Monroe Flats: specimen collected. 1896: Boott Spur: no details. 1896: Summit House: no details. 1894: Boott Spur: no details. 1882: Mt. Washington: specimen collected. 1890: Alpine Garden: specimen collected. 1889: Mt. Madison: specimen collected. 1888: Lakes of the Clouds & Monroe Flats: specimen collected. 1885: Mt. Eisenhower: no details ("Mt. Pleasant"). 1884: Mt. Madison: specimen collected. 1884: Summit House: no details. 1882: Mt. Washington: specimen collected. 1882: Summit House: no details. 1856: Mt. Washington Auto Road: specimen collected. 1853: Summit House: no details.

General Area: 2009: **Alpine tundra system.**

General Comments: --

Management Comments: 1990: Need to educate hikers to stop them from trampling and picking plants.

#### **Location**

Survey Site Name: Presidential Range  
Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 3743.6 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Occurs throughout the Presidential Range, especially in the more barren, windswept areas.

**Dates documented**

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First reported: 1853

Last reported: 2009-09-06

**New Hampshire Natural Heritage Bureau - Plant Record**

**dwarf birch (*Betula minor*)**

**Legal Status**

Federal: Not listed  
 State: Listed Threatened

**Conservation Status**

Global: Apparently secure but with cause for concern  
 State: Imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
 Comments on Rank: --

Detailed Description: 2001: Several patches, one with ca. 50% cover in a 5 x 6 m area. 1990: Observed, no details. 1926, 1902, 1901, 1893: Specimen collected.

General Area: 2001: Moderately sloping bench in the alpine zone, immediately below *Abies balsamea* (balsam fir) krummholz. With *Vaccinium uliginosum* (alpine bilberry) and *Salix planifolia* (tea-leaved willow).

General Comments: --  
 Management: --  
 Comments:

**Location**

Survey Site Name: Alpine Garden  
 Managed By: White Mountain National Forest

County: Coos  
 Town(s): Sargents Purchase  
 Size: 132.2 acres  
 Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: Alpine Garden. 2001: About halfway along the Alpine Garden Trail, east of the trail and ca. 8 m south of a perennial rill that forms the headwaters of Raymond Cataract. 1990: Along Alpine Garden Trail, [ca. 1,100 ft. north of the Lion Head Trail junction].

**Dates documented**

First reported: 1893-07-10  
 Last reported: 2001-07-06

## New Hampshire Natural Heritage Bureau - Plant Record

### dwarf blueberry (*Vaccinium cespitosum*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2007-1990: No details. Reported in lists of characteristic or associated species. 1983-1858: Specimens collected.

General Area: 2007-1858: Alpine and subalpine habitats.

General Comments: --

Management: --

Comments:

#### Location

Survey Site Name: Presidential Range

Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 3743.6 acres

Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 2007, 2002: Oakes Gulf. 2002: Great Gulf, Lakes of the Clouds and Monroe Flats, Tuckerman Ravine. 1997: Mt. J.Q. Adams. 1994: Great Gulf. 1990: Mt. Clay, Mt. Eisenhower, Mt. Jefferson - Dingmaul Rock, Mt. Jefferson - Edmands Col. 1983: Mt. Washington ca. 0.25 mile from summit along Crawford Path 6,000 ft. elevation. 1978: Great Gulf, King Ravine Trail at Thunderstorm Junction, Lakes of the Clouds by stream behind AMC hut. 1977: Tuckerman Ravine - small ledge beneath headwall cliffs; head of Tuckerman Ravine at junction of Alpine Garden and Tuckerman Ravine trails. 1971: Mt. Washington, west side around 6,100 ft. elevation. 1970: Mt. Washington, 4,800 ft. elevation. 1967: Mt. Washington, snowbank community 0.4 mile from summit. 1949: Mt. Washington, cone above treeline. 1936: North part of Alpine Garden. 1909: King Ravine, Six Husbands Trail. 1907: Mt. J.Q. Adams. 1905: Tuckerman Ravine. 1902: Summit House. 1898, 1908, 1909: Tuckerman Ravine. 1898: Cape Horn. 1896: Mt. Adams. 1890, 1893, 1894, 1895, 1926, 1949: Alpine Garden. 1888: Carriage Road. 1885, 1895: Mt. Monroe. 1884: Lakes of the Clouds, Mt. Clay east side of summit of second peak, Mt. Monroe, Tuckerman Ravine. 1880: Lakes of the Clouds. 1876: Mt. Washington. 1862: White Mountains. 1858, 1862, 1876, 1881, 1884, 1890: Mt. Washington. No Date: White Mountains.

#### Dates documented

First reported: 1891-09-18

Last reported: 2007-06-28

### New Hampshire Natural Heritage Bureau - Plant Record

#### **glandular birch (*Betula glandulosa*)**

**Legal Status****Conservation Status**

Federal: Not listed  
State: Listed Threatened

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2017: Searched for but not found. 2003: 51-100 plants counted in leaf. 50% feeble, 50% normal. 1978: Storks specimen at NHA (Gray herbarium).

General Area: 2003: Alders, willows, sparse alpine plants. Associated plant species in the immediate vicinity include: *Salix planifolia*, *Salix herbacea*, *Polygonum viviparum*, *Geum peckii*. 1978: Moist grassy ravine leading to Great Gulf.

General Comments: 2017: Coordinates from 2003 report are not in gulf but above Gulfside Trail. Searched upper headwall area. Lots of *Salix herbacea*, but no *B. glandulosa* seen, on or off trail. 2003: *B. glandulosa* is very small and ground-hugging here, so this appears to be a marginal environment for it.

Management Comments: 2003: Some natural erosion may impact occasional plant.

**Location**

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Thompson & Meserve  
Size: 7.7 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Mt. Washington. Mt. Clay, Great Gulf. 2003: Get to summit of Mt. Washington by car, rail, or hiking. Descend Gulfside Trail to Great Gulf Trail junction north of summit. Descend Great Gulf Trail; plants are near the top of the trail in the Great Gulf, high on the headwall.

**Dates documented**

First reported: 1898 Last reported: 2003-09-07



## New Hampshire Natural Heritage Bureau - Plant Record

### hair-like sedge (*Carex capillaris* ssp. *fuscidula*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Not ranked (need more information)  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).  
Comments on Rank: Good overall occurrence.

Detailed Description: 2018: Total population is several hundred plants, probably 300 or more, with over 1,200 fruiting culms, all in fruit. 2003: 250-500 plants found with fruit dehiscing. 2001: Estimated 500-1,000 individuals. 1996: 10 genets, mature, 10% in mature fruit, 90% seed dispersing. 1990: Nothing found. 1977: Herbarium specimens at NEBC, HNH, NHA, GH, VT. Scattered and rare. 1974, 1967, 1966, 1961, 1952: Specimen collected. 1950: Very scarce. 1887, 1879, 1877: Specimen collected. No date: Specimen collected.

General Area: 2018: The plants seem to favor intermediate wetness levels. ie. not the wettest rill areas, but enriched moister meadows adjacent to the wetter, lush zones. **Moist alpine herb - heath meadow** with associated species including scirpus-like sedge (*Carex scirpoidea*), tufted club sedge (*Trichophorum cespitosum*), Scotch bellflower (*Campanula rotundifolia*), capitate sedge (*Carex arctogena*), White Mountain avens (*Geum peckii*), Bigelow's sedge (*Carex bigelowii*), alpine bistort (*Bistorta vivipara*), alpine blueberry (*Vaccinium uliginosum*), bearberry willow (*Salix uva-ursi*), three-toothed cinquefoil (*Sibbaldiopsis tridentata*), Cutler's goldenrod (*Solidago leiocarpa*), and Lapland rosebay (*Rhododendron lapponicum*). 1996: Mesic-wet mesic. 1977: Moist meadow.

General Comments: --  
Management: See 1990 site survey form for precise locations.  
Comments:

#### Location

Survey Site Name: Alpine Garden  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Sargents Purchase  
Size: 6.4 acres  
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2003: From Auto Road, went down Huntington Ravine Trail to the Alpine Garden Trail, and then downhill from Alpine Garden Trail to the top of Pinnacle Gully. 2001: Alpine Garden Trail at the lip of Huntington Ravine. 1977: Near first brook that crosses Alpine Garden Trail, heading north from Tuckerman's Ravine. 1961: 5400', along a brook.

#### Dates documented

First reported: 1877  
Last reported: 2018-08-27

## New Hampshire Natural Heritage Bureau - Plant Record

### Hornemann's willow-herb (*Epilobium hornemannii* ssp. *hornemannii*)

#### Legal Status

Federal: Not listed  
 State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
 State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
 Comments on Rank: Rank is for the entire population along 2+ km of the West Branch and its tributaries (mapped at 3 sites).

Detailed Description: 2013: 51-100 plants. 30% in flower, 5% in fruit, 5% seed dispersing. 1994: Becomes common in an alpine streamside community at headwall and a long tributary stream in subalpine east of Spaulding Lake. 100-1000 genets in greater than 1 hectare population area. Plenty of fruits and flowers (50% in flower, 50% fruit).

General Area: 2013: See 1994. 1994: Moss and thin organic mat on bedrock or boulder. Associated plant species: *Ribes lacustris*, *Sphagnum*, *Chrysosplenium americanum*, *Cinna latifolia*, *Streptopus amplexifolius*, *Viola* sp., *Calamagrostis canadensis*, *Aster puniceus*, *Luzula parviflora*, *Alnus crispa*, *Veronica wormskjoldii*, *Agrostis borealis*, *Solidago macrophyllus*, and whole host of alpine species, e.g. *Arnica*, *Polygonum*, *Viviparum*, *Oxyria*, *Poa fernaldiana*, *Geum peckii*, etc.

General Comments: --

Management: --

Comments:

#### Location

Survey Site Name: Great Gulf  
 Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 3.3 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2013: About 700 ft down the Great Gulf trail along a stream on the left side of the trail but not right adjacent to main route. 1994: Along headwall stream paralleling the Great Gulf trail (trailhead is off Rte. 16).

#### Dates documented

First reported: 1994-08-10

Last reported: 2013-08-27

## New Hampshire Natural Heritage Bureau - Plant Record

### Lapland rosebay (*Rhododendron lapponicum*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2017: Boott Spur: Approximately 400 plants within 30 meters of 1 km stretch of trail. Approximately 70% in bud for next year. Star Lake: Same as 2014. Approximately 75% in fruit. Signs of increased trampling along trail and herd paths around lake. 2014: Boott Spur: 150 plants observed in 20 patches ranging in size from 1 ft<sup>2</sup> to 6 ft<sup>2</sup>, 3 patches of 10 ft<sup>2</sup> and 2 patches of 20 ft<sup>2</sup>. Genets typically covered about 1 ft<sup>2</sup> and were often separated from neighboring plants by a gap. Star Lake: Observed about 64 ft<sup>2</sup> (6 m<sup>2</sup>) of cover over search area; assume 2 genets/ft<sup>2</sup> (20 genets/m<sup>2</sup>). 30-40% in mature fruit. 2007: Mt. Madison, Star Lake: one to several patches in three different areas. 2001: Boott Spur: hundreds of flowering plants observed. Widespread throughout a lpine zone. 2001: Alpine Garden Trail: no details. 1990: Alpine Garden Trail: less than ten plants. 1990: Star Lake: two areas, no details. 1990: Mt. Washington, Crawford Path: no details. 1990: Mt. Eisenhower: a few plants in scattered locations on summit, many with developing seed capsules. 1990: Lakes of the Clouds and Monroe Flats: no details. 1990: Head of King Ravine Trail: specimen collected. 1990: Bigelow Lawn, Tuckerman Crossover Trail: a few plants with other heaths along trail. 1986: Mt. Washington Auto Road, 5100-5700 ft.: rather frequent prostrate shrub. 1984: Alpine Garden: specimens collected. 1956: Mt. Washington, between Lion Head and the Alpine Garden, ca. 5000 ft.: specimen collected. 1921: Alpine Garden: specimen collected. 1919: Alpine Garden: specimen collected. 1910: Knife Edge: specimen collected. 1909: Above headwall of Huntington Ravine: specimen collected. 1907: Mt. Washington, summit: specimen collected. 1903: Mt. Adams, The Parapet: specimen collected. 1901: Alpine Garden: specimen collected. 1901: Mt. Washington, Boott's Spur Trail: specimen collected. 1901: Mt. Madison: specimen collected. 1901: Alpine Garden: specimen collected. 1899: Mt. Washington, Crawford Path: specimen collected. 1898: Mt. Washington, Cow Pasture: specimen collected. 1897: Mt. Washington, 6th mile post: specimen collected. 1897: Mt. Madison: specimen collected. 1896: Lion's Head - Alpine Garden: specimen collected. 1896: Mt. Washington, 6,000 ft.: specimen collected. 1895: Alpine Garden: specimen collected. 1895: Mt. Washington, summit: specimen collected. 1894: Alpine Garden: specimen collected. 1893: Mt. Monroe: specimen collected. 1892: Mt. Madison, near summit: specimen collected. 1891: Bridle Path, Mt. Washington: specimen collected. 1890: Alpine Garden: specimen collected. 1890: Lion's Head, Alpine Garden: specimen collected. 1887: Alpine Garden: specimen collected. 1887: Alpine Garden: specimen collected. 1886: Mt. Madison, near summit: specimen collected. 1886: Mt. Adams, near summit: specimen collected. 1885: Mt. Eisenhower (Mt. Pleasant): specimen collected. 1885: Mt. Eisenhower (Mt. Pleasant): specimen collected. 1884: Head of King Ravine: specimen collected. 1884: Mt. Washington, near Hunter's Monument: specimen collected. 1881: Mt. Franklin: specimen collected. 1880: Mt. Adams: specimen collected. 1879: Alpine Garden: specimen collected. 1879: Mt. Washington, 5,000 ft.: specimen collected. 1876: Mt. Washington, Alpine Lawn: specimen collected. 1842: In alpinis Montium Alborum, White Mountains: specimen collected.

General Area: 2014: Boott Spur: Alpine sedge-rush-heath vegetation, with diapensia (*Diapensia lapponica*), alpine-azalea (*Kalmia procumbens*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), wavy hair grass (*Deschampsia flexuosa*), Labrador-tea (*Rhododendron groenlandicum*), highland rush (*Juncus trifidus*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), and alpine blueberry (*Vaccinium uliginosum*). Star Lake: *Diapensia shrubland*,

with associated species diapensia (*Diapensia lapponica*), alpine blueberry (*Vaccinium uliginosum*), Labrador-tea (*Rhododendron groenlandicum*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), tufted clubsedge (*Trichophorum cespitosum*), tussock cottonsedge (*Eriophorum vaginatum* ssp. *spissum*), and highland rush (*Juncus trifidus*). 2007: **Alpine tundra system.**

General Comments: --

Management 1990: Need to educate hikers to stop them from trampling and picking plants.

Comments:

**Location**

Survey Site Name: Presidential Range

Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 3743.6 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2014: Drive to Pinkham Notch and hike up Glen Boulder Trail. Plants begin at 4922 feet on Glen Boulder Trail (just west of Slide Peak) and continue to Davis Path and to the junction of Davis Path and Boott Spur Trail. The largest concentration is near the junction of the Glen Boulder Trail and Davis Path. Presidential Range.

**Dates documented**

First reported: 1842

Last reported: 2017-09-13



## New Hampshire Natural Heritage Bureau - Plant Record

### moss-plant (*Harrimanella hypnoides*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2013: Area 2 and 3: 101-1000 stems in two patches, 25% mature fruit. 2002: Area 1: One patch covering ca. 1 square meter. á

General Area: 2013: Areas 2 and 3: Dominant/ characteristic species: dwarf birch (*Betula minor*), snow-bred willow (*Salix herbacea*), alpine blueberry (*Vaccinium uliginosum*), highland rush (*Juncus trifidus*), á graminoids, and lichens. Associated plant species (immediate vicinity): Sphagnum, moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bitter-cress (*Cardamine bellidifolia*), mountain-sorrel (*Oxyria digyna*), alpine bistort (*Bistorta vivipara*), spiked wood rush (*Luzula spicata*), highland rush (*Juncus trifidus*), mountain Timothy (*Phleum alpinum*), alpine blueberry (*Vaccinium uliginosum*), and dwarf birch (*Betula minor*). 2002: Area 1: Associated plants include: *Geum peckii* (mountain avens) and *Salix herbacea* (dwarf willow).

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Thompson & Meserve  
Size: .9 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2013: Areas 2 and 3: Between 300 and 800 feet below summit trail on the right side of trail. 2002: Area 1: Great Gulf. Upper rim.

#### Dates documented

First reported: 2002-08-08 Last reported: 2013-08-27

## New Hampshire Natural Heritage Bureau - Plant Record

### mountain Timothy (*Phleum alpinum ssp. alpinum*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Not ranked (need more information)  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2019: Species observed. 2018: Estimated 400 fruiting culms in a swatch roughly 4 meters wide along a 30+ meter section of a very steep rill. 2015: 47 plants in 4 patches, 100% reproducing 2013: 11-50 mature plants with mature fruit. Vigor normal. 2002: Two patches, each with 5 plants.

General Area: 2019: Growing with American alpine speedwell (*Veronica wormskjoldii*) and northern painted-cup (*Castilleja septentrionalis*). Alpine bitter-cress (*Cardamine bellidifolia*) is growing a short distance downstream. 2015: Other plants observed: White Mountain a vens (*Geum peckii*), Scotch bellflower (*Campanula rotundifolia*), highland rush (*Juncus trifidus*), large-leaved goldenrod (*Solidago macrophylla*), and sedges. 2013: Associated plant species (immediate vicinity), moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), spiked wood rush (*Luzula spicata*), alpine blueberry (*Vaccinium uliginosum*), dwarf birch (*Betula minor*), Cutler's goldenrod (*Solidago leiocarpa*), sphagnum moss, and graminoids. 2002: Along section of the Great Gulf trail. Other nearby plants include: *Cardamine bellidifolia* (alpine bitter cress), *Nabalus boottii* (Boott's rattlesnake root), *Poa laxa ssp. fernaldiana* (wavy bluegrass), *Festuca rubra* (red fescue), *Oxyria digyna* (mountain sorrel), *Saxifraga rivularis* (alpine brook saxifrage), and *Persicaria vivipara* (viviparous knotweed).

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Great Gulf  
Managed By:

County: Coos  
Town(s): Thompson & Meserve  
Size: 5.4 acres  
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Great Gulf Trail approximately 0.5 miles from the summit of Mt. Washington. 2015: Drive up the Mt Washington Auto Road past the 7 mile marker. In a few tenths of a mile, there is a dirt parking area on the right. Park there. If you go too far, you will see the Nelson Crag Trail crossing the Auto Road. From the dirt parking area there is a trail (unmarked) that connects to the Gulfside Trail and Great Gulf Trail. Take this trail down to the 1st junction (which is marked) and take a right down the Great Gulf Trail. The *Phleum alpinum* is about 600-700 ft down the trail on the left side in a seepy area full of Mt Sorrel (*Oxyria digyna*). (N 44.27599 W 071.30598)

#### Dates documented

First reported: 2002-08-08  
Last reported: 2019-08-09





## New Hampshire Natural Heritage Bureau - Plant Record

**mountain-sorrel (*Oxyria digyna*)****Legal Status**

Federal: Not listed  
 State: Listed Endangered

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
 State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
 Comments on Rank: 1994: Healthy population in pristine habitat.

Detailed Description: 2019: Area 3: Species observed along stream. 2013: Area 2: 51-100 plants, 40% seed dispersing. 2003: Area 1: Ca. 1,000 plants estimated, most with inflorescences present. 2002: Area 2: Scattered patches observed along stream and trail. 1994: 26 vigorous clumps counted along stream, each with 0-5 fruiting stems. 1978: Small population, locally abundant. 1893-1978: Specimens at NEBC dated; 1900, 1909, 1896, 1893, 1978. 1878: Observed; no further details.

General Area: 2013: Alpine slope: Associated plant species (immediate vicinity): Sphagnum, moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bitter-cress (*Cardamine bellidifolia*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bistort (*Bistorta vivipara*), spiked wood rush (*Luzula spicata*), alpine blueberry (*Vaccinium uliginosum*), and dwarf birch (*Betula minor*). Dominant / characteristic species: dwarf birch (*Betula minor*), snow-bed willow (*Salix herbacea*), northern painted-cup (*Castilleja septentrionalis*), and alpine bitter-cress (*Cardamine bellidifolia*). 2002: Nearby plants include: *Nabalus boottii* (Boott's rattlesnake root), *Luzula spicata* (spiked woodrush), *Cardamine bellidifolia* (alpine bitter cress), *Castilleja septentrionalis* (pale painted cup), and *Poa laxa* ssp. *fernaldiana* (wavy bluegrass). unknown date: Associated with alpine streamside community. Growing in full sun in wet moss on and between boulders along stream. Associated plant species include: mountain avens (*Geum peckii*), bluejoint (*Calamagrostis canadensis*), violet (*Viola* sp.), large-leaved goldenrod (*Solidago macrophylla*), dwarf raspberry (*Rubus pubescens*), and Boott's rattlesnake root (*Nabalus boottii*).

General Comments: Unknown date: The population runs along the Great Gulf Trail. Can be found 750 M up and down the trail. Revisit on August 11-12: Discovered a large meadow (Near Rumney-Rt 25), with a large population of *L. phlaeas* (greater than 100 adults).

Management  
 Comments: --

**Location**

Survey Site Name: Great Gulf  
 Managed By: White Mountain National Forest

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 7.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2013: Area 2: Go about 800 ft down the Great Gulf Trail from the summit trail. Plants are mostly on the left side of the trail near a stream. 2003: Area 1: Mt. Washington. Great Gulf. Gullies running into Great Gulf below ridge of Mt Clay. About 500 ft below the RR at Gulf Tank; fairly close to trail.

**Dates documented**

First reported: 1878 Last reported: 2019-08-09







New Hampshire Natural Heritage Bureau - Plant Record

**northern marsh violet (*Viola palustris* var. *palustris*)**

**Legal Status**

Federal: Not listed  
 State: Listed Threatened

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
 State: Imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
 Comments on Rank: --

Detailed Description: 2019: Thousands of stems. Impossible to determine number of genetic individuals. Estimated 50% in fruit. The plants tended to cluster in wetter parts of lush rills that are often steep to nearly vertical in spots, tucked in mossy beds beneath lush, taller herbs. 2018: Estimated 1,300 stems. 48 capsules seen, but fruits are difficult to find tucked below leaves. 2002: Observed, no details.

General Area: 2019: *Alpine herbaceous snowbank/rill* with associated species White Mountain a vens (*Geum peckii*), large-leaved goldenrod (*Solidago macrophylla*), mountain-sorrel (*Oxyria digyna*), northern painted-cup (*Castilleja septentrionalis*), alpine-brook saxifrage (*Saxifraga rivularis*), proliferous fescue (*Festuca prolifera*), alpine bitter-cress (*Cardamine bellidifolia*), arctic hair grass (*Vahlodea atropurpurea*), wavy blue grass (*Poa laxa* ssp. *fernaldiana*), Hornemann's willow-herb (*Epilobium hornemannii*), and Boott's rattlesnake-root (*Nabalus boottii*), as well as many others. 2002: Associated species: *Oxyria digyna* (mountain sorrel) and *Luzula spicata* (spiked woodrush).

General Comments: --

Management Comments: 2019: *Taraxacum* noted in the western-most rill surveyed. Should be removed to prevent spread.

**Location**

Survey Site Name: Great Gulf  
 Managed By:

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 3.9 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2019: Plants are widespread along multiple--perhaps most--rills on the Great Gulf headwall. Descend the Great Gulf Trail for about 100-500 feet below the rim. Plants are along rills that more or less parallel the trail 8-80 meters west of it and scattered across at least 400 feet of elevation. Likely more widespread as well.

**Dates documented**

First reported: 2002-08-08 Last reported: 2019-08-28

## New Hampshire Natural Heritage Bureau - Plant Record

northern painted-cup (*Castilleja septentrionalis*)**Legal Status**

Federal: Not listed  
State: Listed Endangered

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: Large population, mostly undisturbed area on conservation land.

Detailed Description: 2018: Estimated 900 fruiting stems from 122 plants. Plants were in mature fruit. 2017: 360 plants counted, 90% in flower. 2012: 1,224 plants counted, [some] in flower. Condition excellent. 2002: Over 200 plants counted.

General Area: 2018: Plants in lush rills that are steep to near vertical, with plants tucked in crevices and among patches of talus rubble. Associated species include proliferous fescue (*Festuca prolifera*), White Mountain a vens (*Geum peckii*), large-leaved goldenrod (*Solidago macrophylla*), mountain-sorrel (*Oxyria digyna*), American false hellebore (*Veratrum viride*), alpine-brook saxifrage (*Saxifraga rivularis*), northern marsh violet (*Viola palustris*), alpine bitter-cress (*Cardamine bellidifolia*), Hornemann's willow-herb (*Epilobium hornemannii*), and many others. 2017: **Alpine herbaceous snowbank/rill** community. Dominant species are White Mountain a vens (*Geum peckii*), snow-bed willow (*Salix herbacea*), and three-toothed cinquefoil (*Sibbaldiopsis tridentata*). 2012: Alpine streamside. Associated species include: White Mountain a vens (*Geum peckii*), alpine bitter-cress (*Cardamine bellidifolia*), mountain-sorrel (*Oxyria digyna*), and northern marsh violet (*Viola palustris*) 2002: Along section of the Great Gulf trail associated with stream. Other nearby plants include: *Cardamine bellidifolia* (alpine bitter cress), *Nabalus boottii* (Boott's rattlesnake root), *Salix planifolia* (tea-leaved willow), and *Persicaria vivipara* (viviparous knotweed).

General Comments: --

Management: 2012: Far enough a way from the Great Gulf Trail to not be at risk of trampling.

Comments:

**Location**

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 5.5 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2018: Descend the Great Gulf Trail for about 100-400' below the rim. Plants are along rills that more or less parallel the trail 8-60 meters west of it and scattered across at least 300' of elevation. 2012: Drive up Mt Washington Auto Road and park at the old Air Force Test Site on the right, about 0.5 miles before the summit. Take unmarked trail for five minutes from this parking spot to the Great Gulf Trail junction. Descend carefully down the Great Gulf Trail over the steep headwall. Plants are far enough from the trail to not get trampled (44.27628N, 71.30640W). Center of the population appears to be at an elevation of 5,500 feet. 2002: Along the Great Gulf trail approximately 0.50 miles from the summit of Mt. Washington.

**Dates documented**

First reported: 2002-08-08

Last reported: 2018-08-23



## New Hampshire Natural Heritage Bureau - Plant Record

northern wood rush (*Luzula confusa*)**Legal Status**

Federal: Not listed  
 State: Listed Endangered

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
 State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
 Comments on Rank: --

Detailed Description: 2020: Between 17 and 23 plants totaling 102 culms, scattered across 9 discrete clumps. All plants in mature fruit. 2019: Area 1: 1 plant with fruiting stem and 1 vegetative plant. Other points: Between 5 and 18 plants (individual plants growing in clusters difficult to separate) at 5 separate points, with 36 fruiting culms. 1966: Abundant population growing in a limited area. 1953: Specimen collected.

General Area: 2019: *Alpine herbaceous snowbank/rill* with dominant associates are wavy blue grass (*Poa laxa* ssp. *fernaldiana*), highland rush (*Juncus trifidus*), spiked wood rush (*Luzula spicata*). Other species include Bigelow's sedge (*Carex bigelowii*), mountain firmoss (*Huperzia appressa*), mountain sandplant (*Minuartia groenlandica*), alpine bitter-cress (*Cardamine bellidifolia*), and northern bentgrass (*Agrostis mertensii*). Area 1: Near small brook channel. Associated plants include snow-bed willow (*Salix herbacea*), bearberry willow (*Salix uva-ursi*), wavy blue grass (*Poa laxa* ssp. *fernaldiana*), Boott's rattlesnake-root (*Nabalus boottii*), highland rush (*Juncus trifidus*), White Mountain avens (*Geum peckii*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), and large-leaved goldenrod (*Solidago macrophylla*). 1966: Moist meadows. 1953: Dry places.

General Comments: 2019: Deleted old source feature, because point appeared to be at rim of gulf, rather than 100-200 feet below rim, as original directions suggested. Centroid of deleted feature was at [-71.305752 44.275719]. 1966(?): Should be relocated.

Management Comments: 2019: Need to remove *Taraxacum* in rill.

**Location**

Survey Site Name: Great Gulf, Headwall  
 Managed By: White Mountain National Forest

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 3.9 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2019: Plants were found in 5 discrete clumps scattered from about 100-250 meters below the rim of Great Gulf from a single trailside locale west to about 50 or 60 meters west of the trail. 1966: Great Gulf, 100-200 yds below top, west of trail.

**Dates documented**

First reported: 1877 Last reported: 2020-09-03



## New Hampshire Natural Heritage Bureau - Plant Record

### Oakes' eyebright (*Euphrasia oakesii*)

**Legal Status**

Federal: Not listed  
State: Listed Endangered

**Conservation Status**

Global: Not ranked (need more information)  
State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 1907, 1904, 1903, 1902, 1901, 1896, 1890: Specimen collected.

General Area: 1907, 1904, 1896: Carriage road.

General Comments: --

Management: --

Comments:

**Location**

Survey Site Name: Mt. Washington Auto Road

Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 427.2 acres

Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 1907: 5 miles up Mt. Washington Carriage Road. 1904: Mt. Washington Carriage Road at 5th mile post. 1903, 1902, 1901: Cape Horn, Mt. Washington. 1896: Cape Horn, Mt. Washington. Also near five-mile post, carriage road on Mt. Washington. 1890: Summit, old Bridle Path.

**Dates documented**

First reported: 1890-08-07

Last reported: 1907-08-19

New Hampshire Natural Heritage Bureau - Plant Record

**proliferous fescue (*Festuca prolifera*)**

Legal Status	Conservation Status
Federal: Not listed	Global: Apparently secure but with cause for concern
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location
Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2020: Population size similar to 2019. 2019: More than 800 fruiting stems in multiple patches across an area of around 4 acres. 2002: Area 2: Ca. 50 plants. Area 3: Observed, no details. Area 7: 10 plants counted. 1994: Engstrom location: Single plant noted. 1979: Clump of few plants counted.

General Area: 2019: Plants tend to cluster along the wetter parts of lush rills in mossy beds with sparser tall herbs. Associated species include White Mountain avens (*Geum peckii*), large-leaved goldenrod (*Solidago macrophylla*), mountain-sorrel (*Oxyria digyna*), northern painted-cup (*Castilleja septentrionalis*), alpine-brook saxifrage (*Saxifraga rivularis*), arctic hair grass (*Vahlodea atropurpurea*), northern marsh violet (*Viola palustris*), alpine bitter-cress (*Cardamine bellidifolia*), wavy blue grass (*Poa laxa* ssp. *fernaldiana*), Hornemann's willow-herb (*Epilobium hornemannii*), alpine Kentucky blue grass (*Poa pratensis* ssp. *alpigena*), Boott's rattlesnake-root (*Nabalus boottii*), boreal stitchwort (*Stellaria borealis*), American false hellebore (*Veratrum viride*), dwarf raspberrry (*Rubus pubescens*), Scotch bellflower (*Campanula rotundifolia*), American alpine speedwell (*Veronica wormskjoldii*), small-flowered wood rush (*Luzula parviflora* ssp. *melanocarpa*), snow-bed willow (*Salix herbacea*), and spiked wood rush (*Luzula spicata*). 2002: Area 2: Associated plants include *Cardamine bellidifolia* (alpine bitter cress), *Nabalus boottii* (Boott's rattlesnake root), *Persicaria vivipara* (viviparous knotweed), *Poa laxa* ssp. *fernaldiana* (wavy bluegrass), *Phleum alpinum* (alpine timothy), and *Oxyria digyna* (mountain sorrel). Area 3: Associated plants include *Cardamine bellidifolia* (alpine bitter cress), *Oxyria digyna* (mountain sorrel), *Salix herbacea* (dwarf willow), and *Nabalus boottii* (Boott's rattlesnake root). Area 7: associated plants include *Oxyria digyna* (mountain sorrel) and *Nabalus boottii* (Boott's rattlesnake root). 1994: Engstrom location: Growing out of wet moss immediately adjacent stream. Wet, grassy slope of a moist ravine headwall.

General Comments: 1994: Single locality for species in NH.  
 Management: 2019: Need to investigate possibility of controlling *Taraxacum* in rills with *Festuca*.  
 Comments:

Location
Survey Site Name: Great Gulf
Managed By: White Mountain National Forest

County: Coos  
 Town(s): Thompson & Meserve  
 Size: 6.8 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2019: Plants are widespread along multiple rills on the Great Gulf headwall. Descend the Great Gulf Trail. Plants are along rills that more or less parallel the trail 8-80 meters west of it and scattered across elevations 30-170 meters below the rim. 2002: Great Gulf. Engstrom location: Near trail below the summit of Mt. Washington. Immediately adjacent to stream ca. 20m above pass through blocks, on east side of the stream. Areas 2, 3, 7 along trail below top of headwall.

**Dates documented**

First reported: 1979

Last reported: 2020-09-03

## New Hampshire Natural Heritage Bureau - Plant Record

### purple mountain-heath (*Phyllodoce caerulea*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: No rank assigned until a better survey is conducted. Representative habitat, unknown population size.

Detailed Description: 2013: Saw only a few individuals in the indicated gully on the Great Gulf headwall. 1994: Two patches widely separated. 1-10 genets with fruit. Population area 2+ acres.

General Area: 2013: Alpine herbaceous snowbank/rill?: Associated species: heart-leaved paper birch (*Betula cordifolia*), black spruce (*Picea mariana*), balsam fir (*Abies balsamea*), and sedges (*Carex spp.*). 1994: Alpine sedge-heath-rush meadow. Associated plant species: *Polytrichum sp.*, *Deschampsia flexuosa*, *Juncus trifidus*, *Vaccinium uliginosum*, *V. cespitosum*, *Potentilla tridentata*, *Salix herbacea*, and *Geum peckii*.

General Comments: 1994: More detailed survey needed.

Management: --

Comments:

#### Location

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 645.4 acres

Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 2013: Near Gulfside Trail, below edge of Great Gulf headwall near Washington-Clay Col at 5,606 ft elevation. 1994: Great Gulf trailhead off Route 16. West of Great Gulf Trail, south of Spaulding Lake.

#### Dates documented

First reported: 1994-08-10

Last reported: 2013-07-27



## New Hampshire Natural Heritage Bureau - Plant Record

### snow-bed willow (*Salix herbacea*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2008: Westside Trail: clumped in a 1-5 sq. m area. Cog RR: 2 dozen small clumps in an area with light coverage. 2003: Westside Trail: colony is in 3 patches. Some females in flower, some developing into capsules. Normal vigor. 1997: No details. 1990: Westside Trail: A small colony with 7 distinct patches covering ca. 13 sq. ft. 1971, 1922, 1901, 1853: Specimen collected.

General Area: 2008: Westside Trail: associated species include *Vaccinium vitis-idaea* ssp. *minus* (mountain cranberry), *Ledum groenlandicum* (Labrador tea), *Vaccinium* cf. *uliginosum* (alpine bilberry), *Huperzia selago* (northern firmoss), goblet lichen, and *Trichophorum cespitosum* (deer hair sedge [tussock bulrush]). 2003: Westside Trail: colony is in a mossy depression, surrounded by steep alpine fellfield. Bryophytes are dominant, including *Sphagnum* spp. (peat moss). A gurgling spring is beneath the mossy depression. Other dominant/characteristic species include: *Carex bigelowii* (Bigelow's sedge), *Vaccinium vitis-idaea* (mountain cranberry), *Vaccinium uliginosum* (bog bilberry), *Ledum groenlandicum* (Labrador tea), and an unidentified club moss. 1990: Boulder-strewn slope. 1853: Rocky summit.

General Comments: 2003: An underlying spring may be important in providing moisture and organic soil accumulation. Although area is immediately adjacent to trail, there is no obvious human disturbance.

Management  
Comments: --

#### Location

Survey Site Name: Westside Trail and Cog RR  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Sargents Purchase  
Size: .9 acres  
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Mt. Washington, near summit cone. 2005: Westside Trail: a few feet uphill of the trail (44.273133N 71.310800W). Cog RR: about 75 ft. west of the Cog Railroad (44.274267N 71.306467W). 2003: Immediately upslope of Westside Trail, about 1,080 feet south of the Cog Railway. 1990: Any number of approaches, ultimately by Gulfside Trail to Crawford Path. Where a small, probably year-round brooklet crosses the boulder-strewn west slope of Mt. Washington along the Westside Trail. 1971: West side of Mt. Washington near Cog Railroad by rocks (6,200 ft.). 1922, 1901: Near summit of Mt. Washington. 1853: Rocky summit of Mt. Washington.

#### Dates documented

First reported: 1853-07-27  
Last reported: 2008-06-30



## New Hampshire Natural Heritage Bureau - Plant Record

### spiked wood rush (*Luzula spicata*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: Abundant in largely undisturbed area.

Detailed Description: 2013: Area 2: Cow Pasture: Hundreds of plants with mature seed heads scattered throughout both areas. Very prevalent. 2002: Area 1: Patch found. Area 2: Patch found. 1961: Specimen collected. 1960: Specimen collected. 1952: Specimen collected. 1901: Eggleston specimen at MO. 1895: Churchill specimen at MO. 1879: Specimen collected. 1878: Fax on specimen at GH.

General Area: 2013: Alpine slope: Area 2: Associated plant species (immediate vicinity): Sphagnum, moss-plant (*Harrimanella hypnoides*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), alpine bitter-cress (*Cardamine bellidifolia*), mountain-sorrel (*Oxyria digyna*), alpine bistort (*Bistorta vivipara*), bluejoint (*Calamagrostis canadensis*), mountain Timothy (*Phleum alpinum*), alpine blueberry (*Vaccinium uliginosum*), and dwarf birch (*Betula minor*). 2002: Area 1: Associated species include *Oxyria digyna* (mountain sorrel) and *Viola palustris* (alpine marsh violet). Area 2: Associated species include *Nabalus boottii* (Boott's rattlesnake root), *Persicaria vivipara* (viviparous knotweed), *Poa laxa* ssp. *fernaldiana* (wavy bluegrass), *Phleum alpinum* (alpine timothy), *Festuca rubra* (red fescue), and *Oxyria digyna* (mountain sorrel).

General Comments: --

Management: --

Comments:

#### Location

Survey Site Name: Great Gulf  
Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 17.8 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2013: Area 2: Approximately 600 ft. down the Great Gulf Trail from the summit trail. Population scattered throughout the area. (44.276018, -71.306051). Cow Pasture: next to lowest or NE-most parking area. (44.278408, -71.293545). 2002: Mt. Washington. Great Gulf. Area 1: Along Great Gulf Trail. Area 2: Higher up along Great Gulf Trail.

#### Dates documented

First reported: 1878

Last reported: 2013-08-27



## New Hampshire Natural Heritage Bureau - Plant Record

**squashberry (*Viburnum edule*)****Legal Status**

Federal: Not listed  
 State: Listed Threatened

**Conservation Status**

Global: Demonstrably widespread, abundant, and secure  
 State: Not ranked (need more information)

**Description at this Location**

Conservation Rank: Not ranked  
 Comments on Rank: --

Detailed Description: 1960: Specimen collected.

General Area: 1960: Headwall of Great Gulf. *Viburnum edule* forms thickets with currants (*Ribes* spp.) and tea-leaved willow (*Salix planifolia*), bordering krummholz.

General Comments: --

Management: --

Comments:

**Location**

Survey Site Name: Great Gulf  
 Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 1401.2 acres

Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 1960: Great Gulf, headwall.

**Dates documented**

First reported: 1960-08-04

Last reported: 1960-08-04

## New Hampshire Natural Heritage Bureau - Plant Record

### tea-leaved willow (*Salix planifolia* ssp. *planifolia*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: Good to excellent quality. Probably representative but not very abundant. Excellent condition, viability, and defensibility.

Detailed Description: 2002: Area 4: No details. 1994: Areas 1-3: Occasional along headwall stream. A few clumps at each of 5 locations. 1890, 1887, 1886: Specimen collected.

General Area: 2002: Near a stream, mixed in with *Nabalus boottii* (Boott's rattlesnake root), *Cardamine bellidifolia* (alpine bitter cress), and *Castilleja septentrionalis* (pale painted cup). 1994: Alpine streamside community. Associated species are *Calamagrostis canadensis* (bluejoint), *Carex canescens* (silvery sedge), *Alnus viridis* ssp. *crispa* (mountain alder), *Betula cordifolia* (heartleaf birch), *Abies balsamea* (balsam fir), *Veratrum viride* (false hellebore), and *Geum peckii* (mountain avens), and many others. Clumps east of Spaulding Lake are in an open *Calamagrostis canadensis* (bluejoint) meadow.

General Comments: --  
Management: --  
Comments:

#### Location

Survey Site Name: Great Gulf

Managed By:

County: Coos

Town(s): Thompson & Meserve

Size: 9.0 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2002: Area 4: Great Gulf Trail at an elevation of ca. 5,380 ft., off the trail on the left side (descending) near a stream coming in from the left. 1994: Areas 1-3: Great Gulf Trail (trailhead just off Rte 16), a long stream going up the headwall and a long tributary stream east of Spaulding Lake. 1890, 1887: Areas 1-4(?): Great Gulf. 1886: Area 1(?): Great Gulf near Spaulding's Lake.

#### Dates documented

First reported: 1886-06-26

Last reported: 2002-08-08

## New Hampshire Natural Heritage Bureau - Plant Record

*wavy blue grass (Poa laxa ssp. fernaldiana)***Legal Status**

Federal: Not listed  
State: Listed Endangered

**Conservation Status**

Global: Rare or uncommon  
State: Critically imperiled due to rarity or vulnerability

**Description at this Location**

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: \*All data is assembled from herbarium samples\* 1957: August 26 - dry soil, cone of Mt. Washington. 1924: August 19 - Summit near tip-top house. 1903: July 24 - Summit. 1897: August 6 - Summit. 1896: Abundant on rocks near summit. 1890: Most abundant grass in thin soil between rocks at the summit. 1877: July 19 - Summit. 1870: Summit. 1820: August 1 - Summit.

General Area: Rocky ground at the summit of Mt. Washington.

General Comments: All references are from herbarium collections.

Management: --

Comments:

**Location**

Survey Site Name: Mt. Washington - Summit

Managed By: Mount Washington State Park

County: Coos

Town(s): Sargents Purchase

Size: 2.8 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Several historical references for Mt. Washington, on and near summit.

**Dates documented**

First reported: 1820

Last reported: 1957

## New Hampshire Natural Heritage Bureau - Plant Record

### White Mountain avens (*Geum peckii*)

#### Legal Status

Federal: Not listed  
State: Listed Threatened

#### Conservation Status

Global: Imperiled due to rarity or vulnerability  
State: Imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: --

Detailed Description: 2019: Star Lake Trail: 200 plants, with approximately 500 flowering stems in four patches between Star Lake and the Madison Springs Hut. Storm Lake: 1,750 stems counted, with 30% in fruit, the rest vegetative. 2018: Alpine Garden: Scattered abundantly throughout the Alpine Garden. Perhaps as many as 10,000 plants, with up to 50% in fruit. 2008: Mt. Eisenhower Edmands Trail: 10 plants, 50% with immature fruit, in a 1-5 sq. m area. 2007: Storm Lake: 120 plants counted over ca. 50x50 m area, 20% in flower, 5% with signs of injury. 2007: Spaulding Spring: flowering in abundance. Population appears very healthy. 2005: Boott Spur, Boott Spur Trail: various scattered sightings. 2004: Mt. Eisenhower, Appalachian Trail/Edmands Path: several plants observed in flower in several locations. 2004: Lakes of the Clouds and Monroe Flats: estimated ca. 10,000 individual plants including some in dense patches. 2003: Lakes of the Clouds and Monroe Flats: no details. 2003: Head of King Ravine Trail: dozens of flowering plants at several locations. 2001: Mt. Washington Auto Road: observed in flower. 2001: Alpine Garden: hundreds of plants at various locations throughout the site. 1999: Lakes of the Clouds and Monroe Flats: estimated 10,000 plants including some in dense patches. 1998: Star Lake: about 100-500 plants scattered loosely in groups ranging from 1-20 plants each. Also another 20-100 individuals in smaller (1-10 plant) groups along Snyder Brook. 1997: Storm Lake: about 2,500 stems and 94 plants in a 25 square-meter area (6/30). 51-100 stems. (7/01). 1997: Mt. Madison: no details. 1997: Mt. Adams: no details. 1997: Lakes of the Clouds and Monroe Flats: no details. 1997: King Ravine: no details. 1996: Alpine Garden: 1001-10000 plants, most with immature fruit. 1990: Alpine Garden: very abundant in wet areas. Many in flower. 1990: Storm Lake: ca. 100 plants in 5 patches. 1990: Mt. Madison: no details. 1990: Mt. Jefferson, Sphinx Dome along Gulfside trail: no details. 1990: Mt. Jefferson - Edmands Col: no details. 1990: Mt. Eisenhower Edmands Path: less than 10 plants, many with developing seed capsules. 1990: Mt. Clay: numerous plants in two areas. 1990: Mt. Adams: 10-50 plants covering ca. 100 square meters, 60 percent in flower. 1990: Lakes of the Clouds and Monroe Flats: A dominant on wet outcrops. 1990: King Ravine: no details. 1990: Bigelow's Lawn: found in several locations throughout. 1985: Lakes of the Clouds and Monroe Flats: Several hundred healthy plants scattered across most every area. 1972, 1971, 1970: Alpine Garden: specimen collected. 1971: Spaulding Spring: specimen collected. 1961: Alpine Garden: specimen collected. 1946: Boott Spur: specimen collected. 1941: Lakes of the Clouds and Monroe Flats: specimen collected. 1928: Mt. Madison, Madison Spring, Mt. Adams: no details. 1927: Lakes of the Clouds and Monroe Flats: specimen collected. 1924: Mt. Washington - Summit: specimen collected. 1923: Mt. Washington Auto Road: specimen collected. 1919: Lakes of the Clouds and Monroe Flats: specimen collected. 1910: Mt. Washington Auto Road: specimen collected. 1909: Mt. Madison: specimen collected. 1909: Mt. Madison: Knife Edge: specimen collected. 1907: Mt. Madison: specimen collected. 1903: Mt. Madison: specimen collected. 1902: Spaulding Spring: specimens collected. 1901: Boott Spur: specimen collected. 1900: Spaulding Spring: specimen collected. 1900: Mt. Washington - Summit: specimen collected. 1899: Lakes of the Clouds and Monroe Flats: specimen collected. 1898: Alpine Garden: specimen collected. 1898: Bigelow's Lawn: specimen collected. 1898: Mt. Madison, Madison Huts: specimen collected. 1895: Alpine Garden: specimen collected. 189

General Area: 2019: Star Lake Trail: Various alpine communities with common species including tufted clubsedge (*Trichophorum cespitosum*), tussock cottonsedge (*Eriophorum vaginatum* ssp.

*spissum*), alpine blueberry (*Vaccinium uliginosum*), Bigelow's sedge (*Carex bigelowii*), mountain cranberry (*Vaccinium vitis-idaea* ssp. *minus*), dia pensia (*Diapensia lapponica*), three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), balsam fir (*Abies balsamea*), black spruce (*Picea mariana*), and various lichens and mosses. 2018: Alpine Garden: Plants most frequently and robustly in wetter microsites and drainages along rills and areas of seasonal subsurface drainage. 2008: Alpine tundra system.

General Comments: 1990: Pollinators observed.

Management --

Comments:

### Location

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Survey Site Name: Presidential Range

Managed By: White Mountain National Forest

County: Coos

Town(s): Thompson & Meserve

Size: 3743.6 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Presidential Range

### Dates documented

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First reported: 1874

Last reported: 2019-08-28

## New Hampshire Natural Heritage Bureau - Plant Record

### Williams' Eyebright (*Euphrasia williamsii*)

#### Legal Status

Federal: Not listed  
State: Listed Endangered

#### Conservation Status

Global: Not ranked (need more information)  
State: Critically imperiled due to rarity or vulnerability

#### Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).  
Comments on Rank: 2003: Relatively few plants documented. 1985: (A): several hundred seen(?).

Detailed Description: 2018: Just under 2,000 plants counted over 3 visits. 2003: 25-50 plants. 1999: Plants observed in full bloom. 1990: Not found. 1985: Several hundred plants. 1980: No details. 1955, 1909, 1901: Specimen collected.

General Area: 2018: A large portion of the population grows in and immediately along the Alpine Garden Trail, directly in the treadway and, more commonly, sprinkled among the scree wall rocks placed to keep hikers on the trail. Associated species include three-toothed-cinquefoil (*Sibbaldiopsis tridentata*), highland rush (*Juncus trifidus*), Cutler's goldenrod (*Solidago leiocarpa*), northern bentgrass (*Agrostis mertensii*), tufted club sedge (*Trichophorum cespitosum*), Bigelow's sedge (*Carex bigelowii*), and alpine blueberry (*Vaccinium uliginosum*). 1980: Thin, rocky soil. Grows in mats of bearberry willow (*Salix uva-ursi*). 1955, 1909: Gravel. 1901: Stony ground and crevices of rocks.

General Comments: 1999: The height of a healthy specimen was measured at 6 cm, with others in the 5 cm range. Flowers are mahogany red. 1985: Found by 13 TNC people on a 3-day field trip.

Management Comments: 2018: Monitor plants along trail for changing impacts from trampling. Currently a low proportion of the plants appear to be harmed.

#### Location

Survey Site Name: Alpine Garden  
Managed By:

County: Coos

Town(s): Sargents Purchase

Size: 132.2 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2018: On Mt. Washington Auto Road, park at the upper pullout in the Cow Pasture at the trailhead for the Huntington Ravine Trail. Descend to the Alpine Garden Trail and head south across the Garden about 670 meters to the 37th cairn south of the previous trail junction. Plants start around this cairn and continue south intermittently, ending about 330 meters north of the junction with the Lion's Head Trail. 2003: Area 2: 20 ft. below a cairn on the Alpine Garden trail, and about 10-20 ft. off to the right (west - uphill). Directly uphill of the plants (44 16 13.8N, 71 17 36.6W) are boulders with a patch of krummholtz. Another small cluster found in open soil right on the uphill edge of the trail about 30 m below the cairn mentioned above and about 15 paces from the next cairn on the trail (44 16 13.4N, 71 17 36.4W). 1999: Area 2 (approximately): Alpine Garden [along Alpine Garden Trail on either side of the stream that bisects the Garden]. 1985: Area 1 and 2: Along both sides of the Alpine Garden trail between Tuckermans Ravine and Huntingtons Ravine. Near a cairn and also on a flat, well below the trail. 1980: Area 2: Along Alpine Garden Trail, Mt. Washington; summit side, both north and south of the stream crossing. 1955: Area 1: Head of Huntington Ravine. 1909: Area 1: Lion's Head. 1901: Area 1: Alpine Garden, Mt. Washington.

#### Dates documented

First reported: 1901-08-05

Last reported: 2018-09-12



## New Hampshire Natural Heritage Bureau - Animal Record

### American Pipit (*Anthus rubescens*)

#### Legal Status

Federal: Not listed  
State: Special Concern

#### Conservation Status

Global: Demonstrably widespread, abundant, and secure  
State: Not ranked (need more information)

#### Description at this Location

Conservation Rank: Not ranked  
Comments on Rank: --

Detailed Description: 2010: Population estimated at 25-35 territories. 2008: 19 individuals and 2 nests observed. 2005-2015: Present in all years. 1998: 9 nests; 25 fledglings. At least 21 adults observed. 30 individuals banded. 1998: 1 adult male, 1 adult female, 2 immature, sex unknowns (Obs\_id 487). 1998: (Obs\_id 478). 1998: (Obs\_id 479). 1998: 1 adult male, 1 adult female, 6 immature, sex unknowns (Obs\_id 480). 1998: 1 adult male, 1 adult female, 4 immature, sex unknowns (Obs\_id 481). 1998: 1 adult male, 1 adult female, 4 immature, sex unknowns (Obs\_id 482). 1998: 1 adult male, 1 adult female, 4 immature, sex unknowns (Obs\_id 483). 1998: 1 adult male, 1 adult female, 6 immature, sex unknowns (Obs\_id 486). 1998: 1 adult male, 1 adult female, 5 immature, sex unknowns (Obs\_id 488). 1998: 1 adult male, 1 adult female, 4 immature, sex unknowns (Obs\_id 484). 1992: 9 pipits documented. 1991: 1 nesting female with 5 eggs observed. 1991: 3 adult male, 3 adult female seen (Obs\_id 1447).

General Area: 1992: Alpine zone - low heath. Terrestrial - Alpine / subalpine (Obs\_id 487, 478, 479, 480, 481, 482, 483, 486, 488, 484, 1447).

General Comments: 1998: 6 eggs present in nest on 7/25/1998; caught and banded after hatching year (AHY) female on 7/27/1998 (Obs\_id 487). 1998: Empty nest used either earlier in 1998 breeding season or in 1997 breeding season (Obs\_id 478). 1998: Caught and banded recently fledged chick from undetermined nest location on 7/15/1998 (Obs\_id 479). 1998: Nest containing 9 eggs on 6/24/1998; banded AHY female on 7/14/1998; banded AHY male on 7/16/1998; banded 6 nestlings on 7/17/1998 (Obs\_id 480). 1998: Banded 4 nestlings on 7/17/1998 (Obs\_id 481). 1998: Banded 4 nestlings on 7/13/1998; collected 1 unhatched egg on 7/13/1998 (Obs\_id 482). 1998: Caught and banded AHY female on 7/28/1998; caught and banded AHY male on 8/5/1998; banded 4 nestlings on 8/4/1998 (Obs\_id 483). 1998: 6 eggs present in nest on 7/23/1998; caught and banded AHY female on 7/23/1998; caught and banded AHY male on 8/4/1998 (Obs\_id 486). 1998: Banded 4 nestlings on 7/27/1998 (Obs\_id 488). 1998: 3 live young near fledging age and 1 recently-dead young on 7/13/1998 (Obs\_id 484). 1991: First documented nesting record for New Hampshire. No other records in NH Bird Records database between 1985 and 1991 (Obs\_id 1447).

Management Comments: --

#### Location

Survey Site Name: Mt. Washington  
Managed By: White Mountain National Forest

County: Coos  
Town(s): Sargents Purchase  
Size: 2134.9 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Alpine areas of Mt. Washington. 1998: Northwest of Ball Crag near Huntington Ravine Trail (Obs\_id 487). 1998: Near Mt Washington summit, west of Alpine Garden area (Obs\_id 478). 1998: Near Mt Washington summit, northeast of Ball Crag near Nelson Crag Trail (Obs\_id 479). 1998: Actually located in Thompson and Meserves Purchase; near Mt Washington Auto Road at Cow Pasture (Obs\_id 480). 1998: Actually located in Thompson and Meserves Purchase; near Mt



Washington summit north of Gulfside Trail (Obs\_id 481). 1998: Actually located in Thompson and Meserves Purchase; near Mt Washington Auto Road in Cow Pasture (Obs\_id 482). 1998: Actually located in Thompson and Meserves Purchase; near Mt Washington summit north of Gulfside Trail (Obs\_id 483). 1998: West of Bigelow Lawn and west of the Crawford Path (Obs\_id 486). 1998: West of Bigelow Lawn and west of Crawford Path (Obs\_id 488). 1998: northwest of Bigelow Lawn and west of the Crawford Path (Obs\_id 484). 1991: Actually in Thompson and Meserves Purchase. General vicinity of "the cow pasture" along Mt. Washington Auto Road, near trailheads for Alpine Garden and Nelson Crag Trails (Obs\_id 1447).

**Dates documented**

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First reported:	1991-06-29	Last reported:	2015
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The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.