



## Green Mountain National Forest Plan Revision Team Contact Information



For Plan Revision announcements, past public meeting handouts, minutes, and slideshows, and Plan Revision documents, please visit our webpage!!

[http://www.fs.fed.us/r9/gmfl/nepa\\_planning/plan\\_revision.htm](http://www.fs.fed.us/r9/gmfl/nepa_planning/plan_revision.htm)

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The mission of the Green Mountain National Forest is to sustain, protect and enhance the forest ecosystem. Employees, with the aid of the public, understand that their greatest asset is the land, their greatest strength is the work force, and they will strive to gain public understanding, trust, and confidence in all that they do through demonstration and education.

# **SPECIES VIABILITY EVALUATION**

## **Frequently Asked Questions**

White Mountain and Green Mountain National Forests

### ***What is a species viability evaluation?***

It is a qualitative process for gathering information on species for which viability may be a concern now or during the next 10-20 years. The process includes identifying at-risk species, compiling literature and unpublished information on those species, gathering expert opinion, and using that information to develop and analyze Forest Plan revision alternatives. Earlier in Forest Plan revision, this process was known as a population viability assessment or PVA. This name has been changed to alleviate confusion with the scientific, quantitative population viability analysis, which is also known as a PVA, which we are not planning to undertake.

### ***What does viability mean?***

According to the Committee of Scientists' Report (1999), a viable species is one consisting of self-sustaining and interacting populations that are well-distributed throughout the species' range. Self-sustaining populations are those that are sufficiently abundant and have sufficient diversity to display the array of life history strategies and forms to provide for their long-term persistence and adaptability over time. The definition of the term well-distributed can vary based on current, historic, and potential population and habitat conditions. Maintaining viability is a means of ensuring, as much as possible, that a species will not go extinct in the foreseeable future. ***What is an acceptable level of assurance of viability?***

Because species and their environments are dynamic, there is not a single population size above which a species is viable and below which it will become extinct. Viability is best expressed as a level of risk of extinction. The acceptable level of risk must be determined through the revision process.

### ***What types of species are included in the SVE?***

The 1982 and 2000 planning regulations both require that viability be maintained for native and desired non-native species. Native species are species indigenous to the planning area. Desired non-native species are those species that are not indigenous to an area but are valued for their social, cultural or economic value. The White Mountain and Green Mountain National Forests included vertebrate and invertebrate wildlife and vascular plants in the process.

### ***How were species chosen for the SVE?***

First, existing lists or other compilations of potentially rare species in New England were reviewed. From these, two large lists (one for animals, one for plants) of species that might be at-risk were developed. Information on the range, status, known locations, habitat needs, and threats of each species was gathered. Based on this information, some species were identified for definite inclusion in the SVE, while others were proposed to drop from further consideration. Experts at Maine Inland Fisheries and Wildlife, New Hampshire Fish and Game, and the Vermont Fish and Wildlife Department reviewed the animal list, while experts at the Maine Natural Areas Program, New Hampshire Natural Heritage Inventory, Vermont Non-game and Natural Heritage Program, and New England Wildflower Society reviewed the plant list. These

people provided additional information on many species, identified species likely to occur on the White Mountain or Green Mountain NF for which they have viability concerns, and recommended additional contacts for species about which they had little information. Additional experts, including academicians and consultants, were consulted as needed to gather enough location and status information on each species to allow for an initial determination on whether a viability concern exists or may develop in the next 10-20 years. A determination on inclusion in the SVE process was made for each species on each Forest, based on the information gathered.

The reasons for including many species in the viability evaluation are:

- Species is federally listed as endangered or threatened and identified by the U.S. Fish and Wildlife Service as a species to be address by the White Mountain or Green Mountain NF
- Species is listed as a Regional Forester's sensitive species for the White Mountain or Green Mountain NF
- Species is state listed as endangered or threatened and known or likely to occur on the White Mountain or Green Mountain NF in the state in which is it listed
- Species has a state Heritage ranking of S1 or S2 and is known or likely to occur on the White Mountain or Green Mountain NF in the state with that ranking

The reasons for excluding many species from the viability evaluation are:

- Species range does not include the White Mountain or Green Mountain NF
- Species' habitat does not occur on the White Mountain or Green Mountain NF
- State Heritage ranking of S4 or S5 (apparently secure or secure) in New Hampshire and Maine for the White Mountain National Forest and Vermont for the Green Mountain National Forest, unless other information indicates substantial near-term future risk
- Species considered extirpated from New Hampshire and Maine for the White Mountain National Forest and Vermont for the Green Mountain National Forest

Not all of these reasons are absolute, nor do they address all species. The decision to include or exclude many species from the viability evaluation was based on best judgment, given available information, of the status of the species and whether it is likely to occur on the White Mountain or Green Mountain National Forests. Some species are naturally rare, but have stable populations; most of these were not included. Other species may occur near one or the other Forest, but are not likely to occur on Forest due to limited habitat or range limitations; these species were not included. Migratory species that only use the Forest(s) during the winter were usually not included. Some species that are currently considered common but are experiencing dramatic declines were included due to concern for their viability in the next 10-20 years.

### ***What information will be used to evaluate viability for these species?***

Current literature on species has been compiled and reviewed. Information gathered during these literature reviews indicated that some species on the initial list were not truly at-risk, while others were determined to be less likely to occur on the Forest(s). Next, scientists and others with expertise and local knowledge of the species were asked to participate on panels to gather unpublished data and other information to supplement the literature review findings, and to provide their expert opinion on the viability status of each species. Again, after this review some species were determined to be less likely to occur on the Forests, or were determined to not be truly at risk. A working list of species to be considered in Forest Plan revision was generated

from this review. As additional new information on these and other species is obtained by the Forests, adjustments will continue to be made as needed. Information compiled during this part of the analysis will be summarized in 2-4 page documents for each species for use during plan revision and project analysis. In addition to literature review forms and summaries, we have compiled through this process an extensive library of information on these species, as well as contacts with leading experts. All of this information will be available for our use in the analysis of management options during plan revision.

### ***What are viability outcomes?***

Viability outcomes were developed for this process by reviewing similar analyses within the Forest Service and elsewhere. Outcomes are qualitative assessments of the risk each species faces to remain viable. Five outcomes were defined, and experts were asked to assign an outcome to each species for the species' range, and for each Forest where the species was a concern. Outcomes were assigned for both current conditions and potential future conditions over the next 20 years. These outcomes were critical in helping to determine whether species would continue to be tracked as species of viability concern during plan revision.

#### Outcomes

**Outcome A** - populations are essentially as healthy as ever

**Outcome B** - habitat and/or populations reduced some but still doing well

**Outcome C** - habitat and/or populations reduced quite a bit, minimally viable

**Outcome D and E** - major reductions that mean the species is not viable

### ***How will viability information be incorporated into Forest Plan revision?***

Information gathered will be used to develop conservation approaches to address identified risk factors. These approaches will include management options, where feasible, to eliminate or mitigate viability risks. Management options will be included wherever possible in alternatives during the alternative development phase. Through development of multiple alternatives, each including a variety of management options for at-risk species and habitats, the range of opportunities for conserving at-risk species will be evaluated. Species experts will also be consulted during this analysis to help evaluate viability outcomes for these species.

**GMNF SPECIES OF VIABILITY CONCERN (SVE LIST) FOR PLAN REVISION  
WORKING DRAFT**

8/11//03

Introduction: The following list of species was developed during a species viability evaluation (SVE) prepared for the Green Mountain National Forest (GMNF) for Forest Plan Revision. This list began as a list of any species that was indicated to be of concern or potential concern on the Forest. Through preparation of literature reviews for the species, and analysis by experts in the distribution and habitat needs of these species in Vermont and northern New England, the following list of 82 plant and 27 animal species was developed. This list includes 62 plants and 16 animals that are currently or will soon be on the Regional Forester's Sensitive Species (RFSS) list due to viability concerns, and 20 plants and 11 animals that are of current or potential viability concern for Plan Revision. The SVE process led to the removal of 5 plants and 10 animals from the RFSS list, and the addition of 1 plant to this list. The SVE list should be considered draft, as the SVE process will not be complete until the end of Forest Plan Revision.

**Plant Species of Viability Concern on the GMNF – RFSS**

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<i>Agrostis mertensii</i>	<i>Lespedeza hirta</i>
<i>Aureolaria pedicularia</i> var. <i>pedicularia</i>	<i>Muhlenbergia uniflora</i>
<i>Blephilia hirsuta</i>	<i>Myriophyllum farwellii</i>
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	<i>Myriophyllum humile</i>
<i>Cardamine parviflora</i>	<i>Panax quinquefolius</i>
<i>Carex aestivalis</i>	<i>Peltandra virginica</i>
<i>Carex aquatilis</i> var. <i>substricta</i>	<i>Phegopteris hexagonoptera</i>
<i>Carex argyrantha</i>	<i>Plantago (=Littorella) americana</i>
<i>Carex atlantica</i>	<i>Platanthera orbiculata</i>
<i>Carex bigelowii</i>	<i>Polemonium vanbruntiae</i>
<i>Carex foenea</i>	<i>Potamogeton bicupulatus</i>
<i>Carex lenticularis</i>	<i>Potamogeton confervoides</i>
<i>Carex michauxiana</i>	<i>Potamogeton hillii</i>
<i>Carex scirpoidea</i>	<i>Prenanthes trifoliolata</i>
<i>Clematis occidentalis</i> var. <i>occidentalis</i>	<i>Pyrola chlorantha</i>
<i>Collinsonia canadensis</i>	<i>Rhodiola (=Sedum) rosea</i>
<i>Conopholis americana</i>	<i>Ribes triste</i>
<i>Cryptogramma stelleri</i>	<i>Saxifraga paniculata</i> ssp. <i>neogaea</i>
<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	<i>Scheuchzeria palustris</i> ssp. <i>americana</i>
<i>Cypripedium reginae</i>	<i>Selaginella rupestris</i>
<i>Desmodium paniculatum</i>	<i>Sisyrinchium angustifolium</i>
<i>Draba arabisans</i>	<i>Sisyrinchium atlanticum</i>
<i>Dryopteris filix-mas</i>	<i>Solidago squarrosa</i>
<i>Eleocharis intermedia</i>	<i>Sorbus decora</i>
<i>Eupatorium purpureum</i>	<i>Sparganium fluctuans</i>
<i>Galium kamtschaticum</i>	<i>Torreyochloa pallida</i> var. <i>fernaldii</i>
<i>Geum laciniatum</i>	<i>Utricularia geminiscapa</i>
<i>Isoetes tuckermanii</i>	<i>Utricularia resupinata</i>
<i>Isotria verticillata</i>	<i>Uvularia perfoliata</i>
<i>Juglans cinerea</i>	<i>Vaccinium uliginosum</i>
<i>Juncus trifidus</i>	<i>Woodsia glabella</i>

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**Other Plant Species of Viability Concern or Potential Viability Concern on the GMNF**

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<i>Asclepias exaltata</i>	<i>Galium labradoricum</i>
<i>Asplenium ruta-muraria</i>	<i>Hackelia deflexa</i> var. <i>americana</i>
<i>Carex amphibola</i>	<i>Helianthus strumosus</i>
<i>Carex backii</i>	<i>Huperzia appalachiana</i>
<i>Ceratophyllum echinatum</i>	<i>Oligoneuron album</i>
<i>Cynoglossum virginianum</i> var. <i>boreale</i>	<i>Pinus rigida</i>
<i>Cypripedium parviflorum</i> var. <i>makasin</i>	<i>Pyrola minor</i>
<i>Diplazium pycnocarpon</i>	<i>Quercus muehlenbergii</i>
<i>Eleocharis ovata</i>	<i>Solidago patula</i>
<i>Equisetum pratense</i>	<i>Stellaria alsine</i>

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**Animal Species of Viability Concern on the GMNF – Threatened, Endangered, RFSS**

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<i>Jefferson salamander</i>	<i>Eastern small-footed bat</i>
<i>Bicknell's thrush</i>	<i>Indiana bat</i>
<i>American peregrine falcon</i>	<i>Southern pygmy clubtail</i>
<i>Common loon</i>	<i>Forcipate emerald</i>
<i>Bald eagle</i>	<i>Harpoon clubtail</i>
<i>Timber wolf</i>	<i>Wood turtle</i>
<i>Eastern cougar</i>	<i>Brook floater</i>
<i>Canada lynx</i>	<i>Creek heelsplitter</i>

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**Other Animal Species of Viability Concern or Potential Viability Concern on the GMNF**

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<i>Boulder beach tiger beetle</i>	<i>Gray petaltail</i>
<i>Red-headed woodpecker</i>	<i>West Virginia white</i>
<i>Rusty blackbird</i>	<i>Ebony boghaunter</i>
<i>Atlantic salmon</i>	<i>Delicate emerald</i>
<i>Blue-spotted salamander</i>	<i>Black meadowhawk</i>
<i>Four-toed salamander</i>	

## **EXPERT PANELISTS FOR SPECIES VIABILITY EVALUATION GREEN MOUNTAIN NATIONAL FOREST**

### **Plants**

David Barrington, University of Vermont, Burlington, VT  
Bill Brumback, New England Wildflower Society, Framingham, MA  
Charlie Cogbill, consultant, Plainfield, VT  
Garrett Crow, University of New Hampshire, Durham, NH  
MaryBeth Deller, Botanist, Green Mountain National Forest, Rochester, VT  
Brett Engstrom, consultant, Marshfield, VT  
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Bill Nichols, New Hampshire Natural Heritage Inventory, Concord, NH  
Bob Popp, Vermont Nongame and Natural Heritage Program, Barre, VT  
Dan Sperduto, New Hampshire Natural Heritage Inventory, Concord, NH  
Doug Weihrauch, Appalachian Mountain Club, Gorham, NH  
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### **Animals:**

#### **Amphibians and Reptiles**

Jim Andrews, Middlebury College, Middlebury, VT  
Kim Babbitt, University of New Hampshire, Durham, NH  
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#### **Birds**

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#### **Insects (Odonates & Lepidoptera)**

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### Mammals

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