

APPENDIX 3
PROPOSED CHANGES TO THE
GREEN MOUNTAIN NATIONAL FOREST
LAND & RESOURCE MANAGEMENT PLAN
in
APPENDIX E
&
WILDLIFE & FISH STANDARDS & GUIDELINES

APPENDIX E: ENDANGERED, THREATENED, PROPOSED, AND SENSITIVE SPECIES; OTHER SPECIES OF CONCERN

INTRODUCTION

This Appendix outlines information regarding the Forest Service and GMNF programs related to federally listed endangered, threatened, and proposed species; as well as Regional Forester's Sensitive Species, and Forest Species of Concern. Such information is summarized from applicable laws, departmental regulations, and agency directives, as well as public comment. It is presented here to aid understanding of where these various protected species classifications and lists come from, and what the requirements and opportunities are for the public and GMNF in developing them.

GMNF goals for management of these species are found in Chapter IV (page 4.05). Management objectives, standards, and guidelines can be found in the Wildlife and Fish Standards and Guidelines section of Chapter IV (pages 4.34 – 4.3x). Resource protection objectives for these species can be found in Chapter IV (page 4.10), while monitoring objectives can be found in Appendix C.

Lists of federally endangered, threatened, and proposed species, Regional Forester's Sensitive Species, and Forest Species of Concern are derived from many sources. These sources include, but are not limited to:

- Federally listed, proposed, and candidate species as documented in the Federal Register;
- The State of Vermont list of Endangered and Threatened Species, and Watch List species;
- Vermont Nongame and Natural Heritage Program;
- Vermont Institute of Natural Sciences;
- Richard DeGraaf's Forest Habitat Series for Mammals, Birds and Amphibians;
- Local knowledge of plant and animal distribution;
- "New England's Rare, Threatened and Endangered Plants" by Garrett E. Crow;
- "Potential Habitats for the Rare Plants of the Green Mountain National Forest" by Jerry Jenkins;
- "The Flora of New England", and "The Flora of Vermont", by Frank Conkling Seymour;
- Vermont Botanical and Bird Clubs Checklist of the Vascular Plants of Vermont;
- "Flora Conservanda", compiled by the New England Plant Conservation Program;
- The Nature Conservancy;
- State of Vermont Agency of Natural Resources

The GMNF will maintain a list of these protected species, which will be updated periodically whenever new designations are made by the Regional Forester, the U.S. Fish and Wildlife Service, or the GMNF. The protected species list will be available at the GMNF and Regional Office websites, GMNF offices, and will be included in our annual monitoring report.

Management indicator species have been selected to represent all major habitats and special habitat features (DEIS Table 3.2). The species have been selected for their dependence on a habitat or special feature and our ability to monitor them. The success or failure of our management activities to provide for all vertebrates will be gauged by the effects of activities on the indicator species. Monitoring objectives for these species are set in Appendix C of the Forest Plan.

Vegetative composition objectives are set in the Forest Plan (pages 4.28-4.30) to help us provide the proper mixture of forest types and ages. The age class distribution will depend on management and species. Dispersion of age and type will be achieved by applying composition objectives to opportunity areas.

Implementation of the Plan will not jeopardize any species and has been designed to enhance all vertebrate populations (See Vegetative Composition Objectives for the GMNF, Villanueva, 1983).

The Standards and Guidelines in the Forest Plan along with vegetative composition objectives were developed to provide and protect the habitat needs of all vertebrates occurring on the Forest. The vegetative types and special habitat features such as cavity trees, riparian areas, and cliffs needed to support endangered, threatened, proposed, and sensitive species, as well as species of concern, have been considered.

FEDERAL ENDANGERED, THREATENED, AND PROPOSED SPECIES

The purposes of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) are to protect ecosystems on which endangered and threatened species depend, provide for conservation of endangered and threatened species, and "...develop and maintain conservation programs...to better [safeguard]...the Nation's heritage in fish, wildlife and plants."

As a federal agency, the Forest Service has defined responsibilities in supporting recovery objectives for federally listed endangered, threatened, and proposed species.

Designation of these species is undertaken by the U.S. Fish and Wildlife Service, and updates to the list of federally endangered, threatened, and proposed species are published periodically in the Federal Register. The Forest will maintain a list of those species that are known or historic within the proclamation boundary of the GMNF. The list will be published annually in the Forest Monitoring and Evaluation Report, and will be available to the public at our website as well as at each GMNF office.

"The term '**endangered species**' means any species which is in danger of extinction throughout all or a significant portion of its range..." (ESA)

"The term '**threatened species**' means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (ESA)

A "**proposed species**" is a species for which a proposed rule for listing as federal endangered or threatened species has been published in the Federal Register.

“**Candidate species**” are those that have been published in the Federal Register on a list of species that “...are being reviewed for possible addition to the List of Endangered or Threatened Species.”

Populations of federal threatened, endangered, and proposed species will receive individualized attention. Management activities that might affect federally listed species would occur only in consultation with the U.S. Fish and Wildlife Service.

As species are proposed for federal listing and final rules are published, those that occur within the proclamation boundary of the GMNF will be treated according to guidelines from the U.S. Fish and Wildlife Service.

REGIONAL FORESTER’S SENSITIVE SPECIES

Regional Forester’s Sensitive Species (RFSS) are “those plant and animal species identified by the Regional Forester for which population viability is a concern, as evidenced by (a) significant current or predicted downward trends in population numbers or density, or (b) significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution.” (FSM 2670).

As a national forest within the Eastern Region, the GMNF has defined responsibilities in support of the viability of these sensitive species (FSM 2670).

Designation of these species is undertaken by the Eastern Region of the Forest Service, and updates to the list of Regional Forester’s Sensitive Species are published periodically by the Regional Forester. The Forest will maintain a list of those species that are known or historic within the proclamation boundary of the GMNF. The list will be published annually in the Forest Monitoring and Evaluation Report, and will be available to the public at our website as well as at each GMNF office.

Populations of Regional Forester’s Sensitive Species will receive management attention, as defined in Chapter IV of the LRMP. Management activities that might affect such species may occur only after Biological Evaluations have determined that such activities would not lead to loss of viability or a trend towards federal listing.

As species are evaluated for and designated as sensitive species, those that occur within the proclamation boundary of the GMNF will be treated according to guidelines in FSM 2670 and Chapter IV of the LRMP.

FOREST SPECIES OF CONCERN

Species of Concern are known or likely to occur on the Forest. The list of these species was derived from many sources. These sources provide information that helps to identify many species that do not qualify as sensitive but still are of concern to the public and managers of the GMNF and need to be recognized. This led to the development of a list of species known as “Species of Concern”.

Species of Concern will receive management attention as defined in Chapter IV of the LRMP. Information on plants and animals is constantly changing with increased interest and study. The GMNF

will continue to work with the State of Vermont and other partners to keep up with this dynamic body of knowledge.

Chapter IV. Forest Management Direction

E. General Standards and Guidelines

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D. ENDANGERED, THREATENED AND PROPOSED SPECIES

1. Endangered, threatened and proposed species include only those listed under the authority of the Endangered Species Act (see Appendix E).
2. The GMNF will maintain a list of these protected species, which will be updated periodically whenever new designations are made by the U.S. Fish and Wildlife Service (see Appendix E). The protected species list will be available at the GMNF and Regional Office websites, GMNF offices, and will be included in our annual monitoring report.
3. As species are proposed for federal listing and final rules are published, those that occur within the proclamation boundary of the GMNF will be treated according to guidelines from the U.S. Fish and Wildlife Service.
4. The Forest will carry out National Forest responsibilities in the recovery plans for federally endangered or threatened species. Essential habitat for federally listed endangered, threatened or proposed species will be protected and/or managed as identified.
5. Indiana Bat
 - a. Hibernacula
 - Determine an area of influence for an occupied Indiana bat hibernaculum that is on or adjacent to lands managed by the GMNF. The area of influence will be an approximate five-mile radius centered on the hibernaculum unless it is determined, based on best science available, that a larger radius is necessary.
 - In cooperation with the FWS and the Vermont Department of Fish & Wildlife, develop a management strategy on or before February 16 of 2002 that will minimize impacts on Indiana bats occurring on lands managed by the GMNF within the area of influence for all occupied Indiana bat hibernacula on or adjacent to the GMNF.
 - Consider occupied Indiana bat hibernacula as smoke-sensitive areas when planning for prescribed burns to be conducted from October to May. If hibernacula are in the vicinity of the area proposed for burning, wind direction, speed, mixing height, and transport winds will be considered to minimize drifting in or near occupied hibernacula.
 - Newly located bat hibernaculum will be assessed for potential threats to bats utilizing respective sites. Each hibernaculum will have its own, specifically designed management plan developed and implemented to insure continued bat use and protection.

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b. Maternity Sites

- If monitoring activities result in the discovery of maternity sites on the GMNF, roost trees used by a maternity colony will be protected by establishing a zone centered on the maternity roost site. The actual area will be determined by a combination of topography, known roost tree locations, proximity to permanent water and a site-specific evaluation of the habitat characteristics associated with the colony. Protective measures shall be established by developing a management strategy, in cooperation with the FWS and the Vermont Department of Fish & Wildlife, immediately upon discovery.

c. Further Consultation

- If the Forest Service determines that activities on a project level are likely to adversely affect the Indiana bat, further consultation will be necessary.
- Formal consultation must be reinitiated if an individual project, or if the annual projected total of proposed projects, will result in exceeding the total of 300 acres annually affected by tree removal or disturbance during the non-hibernation season. However, site-specific projects proposed for the non-hibernation season may be surveyed for Indiana bat according to FWS protocols. If Indiana bats are not detected, it will be assumed that bats may be present in such low numbers that the project is not likely to adversely affect the Indiana bat. In this case, project acres will not be included in the annual allowable treatment of 300 acres.

d. New Information

The Forest Service & Fish & Wildlife Service recognize the limitations on available Indiana bat information. The following procedures will serve to gather new information:

- Habitat use at all sites where Indiana bats are documented on the GMNF should be characterized and quantified at both the local and landscape levels.
- The Forest Service will provide the FWS with compliance reports indicating the project-specific conditions and an effects analysis for all projects that may affect the Indiana bat.
- Information about the number of acres of trees harvested during the non-hibernation season must be monitored on an annual basis and shall be provided to the New England Field Office of the FWS no later than April 1 following the previous year's activities.

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- Care must be taken in handling dead specimens of listed species that are found in the project area to preserve biological material in the best possible condition. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure the evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the FWS to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead, injured, or sick specimen of an endangered or threatened species, prompt notification must be made to the US Fish & Wildlife Service's Essex Junction Division of Law Enforcement, 11 Lincoln Street, Room 105, P.O. Box 649, Essex Junction, Vermont 05453 (telephone: 802-879-1859), or the Region 5 Division of Law Enforcement, 300 Westgate Center Drive, Hadley, Massachusetts 01035-9589 (telephone: 413-253-8343).

- e. Enhancing Knowledge
 - In cooperation with the FWS and the Vermont Department of Fish & Wildlife, develop a plan to assess the number of suitable roost trees and the amount of preferred foraging habitat available to the species. Monitoring efforts should be centered within five miles of all known occupied Indiana bat hibernacula, within $\frac{3}{4}$ miles of any Indiana bat maternity colony or roost tree used by a male Indiana bat, and at selected sites (pre- and post-harvest).

 - Provide training for appropriate GMNF employees on bats (including the Indiana bat) occurring on the GMNF. Training should include bat identification, biology, habitat requirements, and sampling techniques (including instructions on applicability and effectiveness of using mist net surveys vs. Anabat detectors to accurately determine the presence of various bat species). The proper training of GMNF biologists on bat identification and reliable methods for counting roosting bats will enable the Forest Service to monitor the status of the species.

 - Develop an outreach program specifically directed towards northeastern woodland bat species and their conservation needs. The program might include the development of a slide show, interactive display, and presentations or activities suitable for all ages of the public.

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6. Bald Eagle
 - a. The Forest will develop and implement specific management direction for each bald eagle nesting area. Direction will include the following requirements:
 - Prohibit controllable disturbance within approximately 330 feet of each eagle nest, except as necessary to protect the nest or colony.
 - Prohibit significant changes in the landscape within approximately 660 feet of an eagle nest.
7. Eastern Mountain Lion
 - a. The Eastern mountain lion is currently on the Vermont endangered list. The Forest is providing large remote areas in our Wilderness, primitive and semi-primitive areas. This remoteness along with an emphasis on deer wintering area management should be beneficial to the cougar. The Forest's objective for the mountain lion is to verify existence.
8. Canada Lynx
 - a. Canada lynx are dependent on snowshoe hare abundance and remoteness from human activity. If surveys establish that resident lynx populations are present, management plans will be written.

E. REGIONAL FORESTER'S SENSITIVE SPECIES

1. Regional Forester's Sensitive Species are those species known to occur within the Eastern Region that are of viability concern (see Appendix E). Species designated as sensitive for the GMNF are known to occur on the National Forest, or occur within the Proclamation Boundary of the Forest and there is suitable habitat on the Forest.
2. The GMNF will maintain a list of these protected species, which will be updated periodically whenever new designations are made by the Regional Forester (see Appendix E). The protected species list will be available at the GMNF and Regional Office websites, GMNF offices, and will be included in our annual monitoring report.
3. A biological evaluation will be done for each project where a sensitive species may be affected (FSM 2672.4). The evaluation will be done prior to project implementation and will evaluate the effects of proposed management activities on the species. This evaluation will be done in consultation with cooperating agencies and outservice resource specialists as needed.

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4. Management activities that could affect known populations of sensitive species may be implemented only if the action does not result in loss of species viability on the Forest or create significant trends toward federal listing (FSM 2670.32).
5. The taking of a sensitive plant species is limited to scientific, educational, or conservation purposes, and is prohibited without a Forest Service permit (FSM 2673.2).
6. The taking of sensitive animal species requires a permit from the Vermont Department of Fish and Wildlife, and is prohibited without such a permit (FSM 2673.2).
7. Take is defined as: “To harass, harm, pursue, hunt, shoot, wound, trap, or collect, or to attempt to engage in such conduct.” (FSM 2670.5, 20.)

The following species require specific standards and guidelines:

8. Peregrine Falcon - Eyries Management
 - a. 0-660 Foot Buffer Zone
 - No recreation activities, including hiking, skiing, and snowshoeing, will be permitted in the buffer zone between March 15 and September 30 for active nesting sites, and from about June 14 through August 15 for active hacking sites. Such activity may be allowed sooner if it is determined the birds have left a specific date.
 - Prohibit activities that will significantly change or destroy potential peregrine falcon habitat.
 - b. 0-330 Foot Buffer Zone
 - All disturbing land uses will be prohibited except as necessary to protect the site (FSM 2633.4-14).
 - c. 330-660 Foot Buffer Zone
 - Permit only activities that would not make significant changes to the buffer zone.
 - 330-660 feet may not be sufficient in some instances due to landform or vegetative condition. In these situations, the buffer zone distance may be extended on a case-by-case basis.

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- Activities may be allowed within the zone or during these periods if it has been determined on a site-by-site basis that such activity will not disturb the birds.

9. Common Loon

- a. Successful nesting has taken place on several ponds on the GMNF since 1987. Loons do feed at some of our remote ponds, apparently ranging out from Somerset Reservoir.
- b. If a nesting attempt takes place, management plans will be developed site by site. Some actions that could be incorporated into management plans include:
 - Nesting island installation
 - Cordoning off of nesting areas until hatching takes place
 - Informational signing for public cooperation
- c. Until such plans are developed, prohibit disturbing activities around loon nests from March 15 to August 30.

10. Plant Species

- a. We will protect known sites of occurrence for plants on our list and will survey areas where there is a high probability of occurrence. Surveys will be conducted by a botanist prior to activities on sites where the habitat indicates a high potential. Each District will have maps of high probability habitats.
- b. The need for a survey will be identified during the opportunity area planning process or as additional information becomes available.
- c. Information on plants is constantly changing with increased interest and plant study. The GMNF will annually update our plant list with the Vermont Nongame and Natural Heritage Program to keep up with this dynamic body of knowledge.
- d. When sensitive plant populations are found, develop individual site plans on a case-by-case basis to provide specific habitat needs for each rare plant community.
- e. Until specific site plans are developed, manage the area within 100' as follows:
 - Permit only land uses which will not significantly change the site;

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- Build no new roads or trails.
- f. Any potential site will be investigated before any other activity at the site is begun. Potential sites have been identified by Jenkins (1981), and are regularly updated through fieldwork, collaboration with the Vermont Nongame and Natural Heritage Program and other knowledgeable botanists and resource specialists.
- g. Examine known sites of sensitive plants periodically to identify any management actions that may be needed to perpetuate the populations.

F. SPECIES OF CONCERN

1. Species of Concern are those species known or believed to occur on the National Forest with declining or vulnerable populations included on various lists of rare, threatened, or endangered species, but not on the federal threatened or endangered list or the Regional Forester's Sensitive Species list (see Appendix E). Appropriate management standards and guidelines will be followed to reflect that concern for species known to occur on the National Forest.
2. The GMNF will maintain a list of these protected species, which will be updated periodically whenever new information indicates a change in the list is needed (see Appendix E). The protected species list will be available at the GMNF and Regional Office websites, GMNF offices, and will be included in our annual monitoring report.
3. An analysis will be done for each project where a Species of Concern may be affected. This analysis will be done prior to project implementation and will evaluate the effects of the proposed management activities on the species. This analysis will be done in consultation with cooperating agencies and outservice resource specialists as needed.
4. Management guidelines for habitats and reproduction sites will be developed on a species-by-species basis if analysis or monitoring shows that management activities might have a negative impact on these species.

The following species require specific standards and guidelines:

5. Pine Marten
 - a. The Forest will develop a habitat model for pine marten and the Forest will be assessed for reintroduction of the species.

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6. Great Blue Heron Rookeries

a. 0-660 Foot Buffer Zone

- No recreation activities, including hiking, skiing, and snowshoeing, will be permitted in the buffer zone between March 15 and August 1 for active rookeries. Such activity may be allowed sooner if it is determined the birds have left by a specific date.
- Prohibit activities that will significantly change or destroy potential heron rookeries.

b. 0-330 Foot Buffer Zone

- All disturbing land uses will be prohibited except as necessary to protect the site (FSM 2633.4-14).

c. 330-660 Foot Buffer Zone

- Permit only activities that would not make significant changes to the buffer zone.
- 330-660 feet may not be sufficient in some instances due to landform or vegetative condition. In these situations, the buffer zone distance may be extended on a case-by-case basis.
- Activities may be allowed within the zone or during these periods if it has been determined on a site-by-site basis that such activity will not disturb the birds.

7. Osprey Nesting Areas

a. The Forest will develop and implement specific management direction for each osprey nesting area. Direction will include the following requirements:

- Prohibit controllable disturbances within approximately 330 feet of each osprey nest, except as necessary to protect the nest.
- Prohibit significant changes in the landscape within approximately 660 feet of an osprey nest.
- Restrict management activities that result in adverse disturbance to nesting ospreys within approximately 1,320 feet of a nest during the nesting period.

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8. Plant Species

- a. We will protect known sites of occurrence for plants on our list and will survey areas where there is a high probability of occurrence. Surveys will be conducted by a botanist prior to activities on sites where the habitat indicates a high potential. Each District will have maps of high probability habitats.
- b. The need for a survey will be identified during the opportunity area planning process or as additional information becomes available.
- c. Information on plants is constantly changing with increased interest and plant study. The GMNF will annually update our plant list with the Vermont Nongame and Natural Heritage Program to keep up with this dynamic body of knowledge.
- d. When sensitive plant populations are found, develop individual site plans on a case-by-case basis to provide specific habitat needs for each rare plant community.
- e. Until specific site plans are developed, manage the area within 100' as follows:
 - Permit only land uses which will not significantly change the site;
 - Build no new roads or trails.
- f. Any potential site will be investigated before any other activity at the site is begun. Potential sites have been identified by Jenkins (1981), and are regularly updated through fieldwork, collaboration with the Vermont Nongame and Natural Heritage Program and other knowledgeable botanists and resource specialists.

9. Species of concern to us may not presently be known to occur on the National Forest. If these species are encountered, they will be treated as sensitive species until the evaluation process for inclusion into the Regional Forester's Sensitive Species list is complete.

The following species, if encountered, require specific standards and guidelines:

10. Sedge Wren

- a. Sedge wrens may occur in sedge meadows or unflooded beaver meadow areas. They are very rare in Vermont and an unlikely breeder. To insure management activities do not impact this species, no burning of grassy or sedge wetlands will be done from May 15 to August 30.

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11. Timber Rattlesnake

- a. The timber rattlesnake will benefit from the large forested areas with low human impact that the GMNF provides. Although no hibernacula are presently known, if they are discovered they will be protected as follows:
 - Build no new roads or trails
 - Permit only land uses which will not significantly change the site
 - Develop a site-specific management plan to provide long-term protection and enhancement.